NORTON®

SAINT-GOBAIN




SURFACE SOLUTIONS

# INDUSTRIAL APPLICATIONS

2024

SAINT-GOBAIN

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# **MARKET** SOLUTIONS

Norton delivers innovative solutions across many industries where abrasives are an integral part of manufacture and repair processes. From cutting concrete, to grinding metal, to sanding composite materials, Norton abrasives addresses the needs of many markets, including:



## METAL FABRICATION

At Norton, we offer abrasive solutions for rust, weld, coating and paint removal, surface blending, finishing and polishing with excellent cut rate and life. All Norton products excel in fabrication, welding, maintenance and repair operations, keeping operating cost and downtime to a minimum.



## TOOLING

For precision grinding and sharpening of essential implements such as shank tools, milling tools knives and saw blades, high quality Norton diamond and cBN cups and wheels are the ultimate performance solutions to deal with the most demanding materials.



## STEEL INDUSTRY

Norton abrasives for use in steel conditioning, cutting and grinding sheets, slabs, billets, bars, rounds, rolls, sheets and tubes have been designed to keep your productivity levels high and costs low. All Norton abrasives are manufactured and safety tested in accordance with the most stringent European safety standards, EN12413, ISO and oSa.



## BEARING & GEARS

Norton has a full range of solutions to ensure bearings and gears are produced to the very highest standards. High performance grinding wheels with the latest innovation in bond technology; maximise efficiency and part quality. Norton profile dressers deliver a complete solution for continuous gear generation, profile grinding, bevel gear grinding, power honing.



## TRANSPORT

From grinding and shaping to edge breaking, de-burring and finishing wings and airframes, Norton can be relied upon to deliver the highest performance. On the ground, Norton reduces operational costs and increases quality and throughput in the production of engine and body components for motorcycles, cars, trucks and trains, and for rail and track maintenance. On water, the marine industry relies on our specialist abrasives for bodywork operations.



## MEDICAL

Norton abrasives produce exceptional results, helping to manufacture quality products to the most stringent requirements of the optical, medical and metallurgical industries. Highly engineered abrasive cut-off wheels, abrasive belts, non-woven de-burring / finishing wheels and belts, bonded grinding wheels and diamond and CBN tools are used throughout the production process to produce knee and hip joints, prosthetics and medical instruments.



## ENERGY

Norton offers complete solutions for the manufacture and maintenance of land and offshore wind turbines for OD and ID grinding,
to portable cutting and finishing operations of gears and bearings, blades, vanes, seals and casings.



## BUILDING & CONSTRUCTION

Norton Clipper is a one-stop shop for all cutting, drilling, grinding and sanding jobs within the building and industrial construction markets. We can equip you with the safest and highest performing construction blades, machines and abrasives that not only help to improve your personal comfort and contribute to a greener environment, but improve our habitat.



## WOOD & COMPOSITES

Whether you're a carpenter, joiner, floor liner or furniture manufacturer or restorer, Norton has a complete offering for calibration, tool sharpening and sanding and finishing applications.

NEW

NORTON SAINT-GOBAIN RAZORSTAR®

# INTRODUCING RAZORSTAR®

## FIBRE DISCS AND BELTS FEATURING ENGINEERED SHAPED CERAMIC GRAIN

SEE PAGE 52 FOR FIBRE DISCS
AND PAGE 183 FOR BELTS



- HIGHER CUT RATE
- LONGER LIFE
- COOLER CUT

***SHARPER* THAN EVER**



# YOUR SAFETY IS **OUR PRIORITY**

**ABRASIVE SAFETY STARTS WITH US. YOUR SAFETY IS OUR FIRST PRIORITY SO ALL NORTON PRODUCTS ARE MANUFACTURED IN ACCORDANCE WITH THE MOST RIGOROUS EUROPEAN AND INTERNATIONAL HEALTH, SAFETY AND ENVIRONMENTAL NORMS.**

**FEPA**
As a member of the Federation of European Producers of Abrasives (FEPA), we're always up to date with the latest technical, legal and scientific regulatory frameworks, meaning we're always one step ahead. Together with oSa, FEPA pursues the objective of supporting both the currently attained safety standards and further future developments.

**oSa®**
As a member of the Organisation for the Safety of Abrasives (oSa), we position ourselves amongst quality manufacturers with the highest safety levels and we're proud to carry the trademark. Through a stringent monitoring and audit system year after year, we maintain our reputation as a reliably safe and responsible producer of quality abrasives. We conform to European and International standards, EN12413, EN13236 and EN13743 for bonded, diamond and coated products and ISO 9001, 14001 and OHSAS 18001 for our manufacturing sites. This is not just because it's a legal requirement, it's also because we care. Opt for the oSa® trademark; tested quality products of the highest safety level.

## DIFFERENTIATION IN THE RANGE

We have one of the widest selections of abrasive products to meet every customer requirement. The range is classified into four quality-tiers (good/better/best/Innovation) to help you choose the right product for your specific application.

### *INNOVATION*

Norton's innovative abrasive solutions offer outstanding productivity and versatility.

### GOOD
+++

Our **good** tier products promise great value with great performance you'd expect from Norton, at a competitive price.

### BETTER
++++

Our **better** tier products are the right fit when you can't easily measure the value of a best tier product, but still have higher expectations for performance.

### BEST
+++++

Our **best** tier products are top-of-the-range solutions with an impressive, measurable impact on reduced process cost.



# SUPPORTING SUSTAINABLITY IN THE ABRASIVES INDUSTRY

Mitigating climate change means decarbonizing our economies, and here at Saint-Gobain, the goal is simple: by 2050 we must not emit any more carbon than we absorb. We must be carbon neutral, we must preserve our planets assets such as water and rare earth, and we must limit the waste that we generate.

This commitment is rooted in a history of reducing our environmental impact and it is inseparable from our ambition to provide our customers with solutions to decarbonize and reduce their own environmental footprint. Our net zero ambition is also a concrete expression of our purpose, Making the world a better home!

## SUSTAINABILITY IS AT THE CORE OF WHAT WE DO, WE HAVE CLEAR COMMITMENTS **BUILT AROUND FIVE PILLARS**:

### SUSTAINABILITY AS A DRIVER FOR GROWTH

- Decarbonisation of our customers' applications
- Environmental product declaration / Life Cycle Assessment
- Circular economy, recycling services, eco-innovation

### LIMIT OUR ENVIRONMENTAL IMPACT

- Reduction of energy consumption and $CO_2$ emissions (Scope 1 & 2)
- Water withdrawal and reuse
- Reduction of waste to landfill, and reuse and recycle
- Increased biodiversity and reduced pollution

### TAKE ACTIONS ACROSS THE SUPPLY CHAIN

- Reduction of Scope 3 $CO_2$ value chain emissions
- Decarbonizing our transportation
- Clear shift to greener packaging

### SOLUTIONS WITH END-USERS' SAFETY, HEALTH, COMFORT AND WELLBEING AT HEART

- Customer centricity on safety, health, comfort & wellbeing
- Surface solutions to reduce vibration, noise, dust, VOC & odour,..
- Greener solutions that respect the planet and the people

### ENCOURAGE EMPLOYEE ENGAGEMENT

- Awareness and education programs
- Ambassador networks and employee ideation

To understand more and to see practical examples of the steps that we've taken and targets that we work to, for each of these five pillars, please ask your sales representative or visit: **www.nortonabrasives.com**

# MERCHANDISING SOLUTIONS

We have a complete set of Norton branded displays to help showcase our products in all environments, plus off the shelf point-of-sale graphics that can also be tailored to customer requirements whether that's for cutting, grinding, stock removal, or surface preparation and finishing.




## NORTON DISPLAY SYSTEM

- Your customers can quickly and easily find the best abrasive for their job
- Encourage the sale of other products through cross selling
- Reduce the workload on your sales team, let the display do the selling for you
- Integrated solution with optional corner fitting fits almost any space
- Free standing, space saving option also available
- Optional additional graphic information system tailored to you helps your customers select the right product.

**To find out more about the Display System, contact your Norton representative today.**

## DISPLAY KITS

- The complete kit comes with all components needed to create a full display for any product range.
- Kit contains: Base x1, pegboards x4, header x1, shelf x1, display bar with 5 pins x1, legs x2, pegs x35
- Accessories can be ordered separately if required.

| DISPLAY KIT TYPES | PK QTY | NORTON | CLIPPER |
|---|---|---|---|
| Kit with light (UK plug) | 1 | 410058121 | 410050915 |
| Kit without light | 1 | 410076980 | 410048415 |

## PORTABLE DISPLAY

**FOR CUTTING DISCS & GRINDING WHEELS**

- Kit contains: Unit x1, header x1, pins x22, side panels x2
- H: 1740mm x W: 380mm x D: 580mm

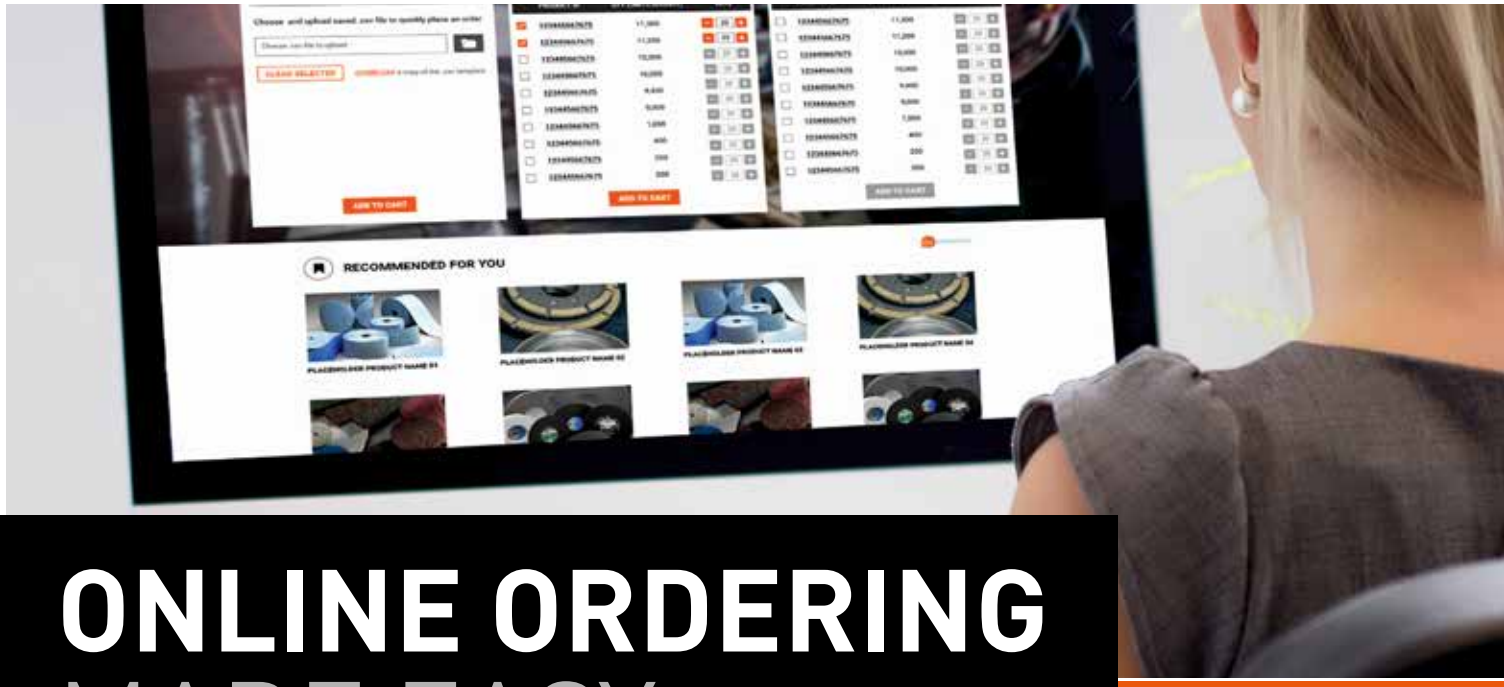
| DESCRIPTION | PK QTY | ART NO. |
|---|---|---|
| Portable stand | 1 | 410090016 |

| ACCESSORIES | PK QTY | NORTON | CLIPPER |
|---|---|---|---|
| Header with light | 1 | MTO | MTO |
| Header without light | 1 | | |
| Shelf | 1 | | |
| Drill motor hooks x2 | 1 | | |
| Euro hooks x35 | 1 | | |
| Core Drill hook | 1 | | |




## POINT-OF-SALE GRAPHICS

Graphic templates can be adapted to suit your requirements. Attaches using magnetic strips so you can easily change the information on display. For information about tailored designs please contact your local sales representative




# ONLINE ORDERING MADE EASY

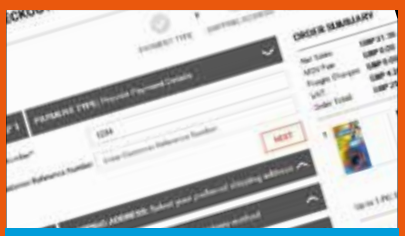
## With MyAbrasives, the ordering process is simple:



Search for your product




Add to basket



Go to checkout

myABRASIVES

## MAKING ORDERING EASIER:

1. Detailed product information and specifications, including images and videos
2. Access to order confirmations, product availability and delivery lead times
3. Available from smartphones, tablets and PCs 24/7
4. Automatically creates a list of most frequently ordered products for ease of future ordering
5. Save favourite lists to make ordering quicker and easier

## REGISTER TODAY

To register call your local customer service team and start using MyAbrasives today.

## MYABRASIVES FEATURES AND SERVICES INCLUDE:

- **Product search:** search by UPC, name, category, EAN number and filter and sort search results,
- **Order history and reordering:** see your past orders across all platforms (EDI, ABx, phone and fax). Invoices, debit/credit notes and shipping status will also be visible in the 'Order History' section
- **Quotes:** request and track quotes directly
- **Saved orders:** save orders for future reference by putting multiple items in your cart and saving. You can also add a note to indicate future order frequency
- **Bulk orders:** upload a CSV file directly into the system rather than having to search for each product individually
- **Recommended for you:** shows related products you may like to order
- **Extra support:** navigate the system with FAQs and how-to videos or contact our dedicated helpline

NORTON
SAINT-GOBAIN

# PASSING OUR **KNOWLEDGE** ONTO YOU




## www.nortonabrasives.com

With over 130 years of practical experience, Norton offers expertise, knowledge, understanding and advice and with the Norton website all of this is just a few clicks away. Whether you're searching for a product, distributor, or looking for tips, either on a computer, phone or portable device, Norton is always by your side to offer support. Filled with articles, user guides brochures and videos, we're always keeping you up to date with the latest news and information.

NORTON SAINT-GOBAIN LIVE

WATCH LEARN EVOLVE

At Norton, we're always looking for new ways to bring you value. Whether that's through our product range or additional services that increase abrasive knowledge and understanding, our aim is to help boost your abrasive sales!

## JOIN US!

Our virtual live seminars, held by our Norton Application Engineer, Paul Gray, aim to enrich your abrasive expertise through a live demonstration of our products and processes, followed by a Q&A session where you can 'Ask The Expert' any questions you have related to the subject.

Visit **Nortonabrasives.com** to find out what's on and join us for the next Live event!





## YouTube

Find us on YouTube: Norton Abrasives EMEA' and click the 'Metal Fabrication' playlist to get answers to real life problems, select the best product for the job, and much more. Hit 'subscribe' to never miss a new release!



## Social Media

Keep up to date with what's happening at Norton via Facebook, Instagram and LinkedIn. Share your creations with us using the hashtag #Nortonabrasives, you might even get featured on one of our pages!











# SERVICE & SUPPORT WITH YOU IN MIND

At Norton, we're not just focused on providing great value products, but on adding value through great service. Our customers are at the heart of what we do, so we offer many support packages designed to add value to everyday processes.

## TEST EXPERT

The 'Test Expert' platform is a digital comparison tool, designed to measure efficiency improvements gained by using Norton abrasives. Our sales teams are always available to perform comparative tests with you at end-user level, quantifying savings and providing real life and real time evidence of the benefits Norton offers. We're always at your side to provide the highest level of satisfaction.

## CLOSER TO YOU

With manufacturing sites located in almost every European country and centrally located distribution centres with a wide shipping network, we offer a local service on a global scale, always close to you. Combine this with highly specialised sales and customer service teams, offering you support, handling enquiries and providing technical knowledge, we're always pushing to drive business together.

## TRAINING

Thanks to many years' practical experience in the field, our application engineering team are able to pass on their knowledge and expertise through 'hands-on' training or virtual sessions designed to educate your teams and enrich their skills to help them work with your customers and find the best abrasive solutions.

Whether you're a newcomer or an experienced player in highly specialized industry, the Norton training service provides specialized and practical knowledge on how to safely use abrasive products and get the maximum performance every time.

Thanks to our dedicated network of engineers, we're able to visit you at your preferred location or alternatively, we have a number of training facilities across Europe where you're welcome to visit.

## NOTES



NORTON®

SAINT-GOBAIN



# CUTTING DISCS & GRINDING WHEELS


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# INTRODUCTION

The Norton range of Cutting Discs and Grinding Wheels for portable and fixed machines provide superior performance in the most stringent working environment. The product range includes state-of-the-art solutions for Cutting-off, Grinding, and Surface Finishing operations on any materials related to industrial fabrication markets. Norton, the industry's most comprehensive Cutting-off and Grinding product line.




## UNDERSTANDING THE PRODUCT

1. Best quality tier
2. Application material
3. Diameter x Thickness x Hole
4. Product specification
5. Maximum peripheral speed
6. Machine cutting or grinding
7. Product code
8. OSA certification
9. EN12413

## PRODUCT SELECTION GUIDE

### CUTTING DISCS FOR ANGLE AND STRAIGHT GRINDERS

Highly recommended ✓



| MATERIALS | NORTON QUANTUM3 | X-TREME PRO | X-TREME | VULCAN | RAIL | STARLINE | 1-2-3 | ALU | MULTI MATERIAL |
|---|---|---|---|---|---|---|---|---|---|
| | INNOVATION | +++++ | +++++ | ++++ | ++++ | +++ | | | |
| Steel / construction steel | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Low alloy | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| High alloy | ✓ | ✓ | ✓ | | | | ✓ | | |
| Thin sheets, plates, profiles | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | ✓ |
| Stainless steel / inox | ✓ | ✓ | ✓ | ✓ | | | ✓ | | ✓ |
| Cast iron | | | | | | | | | |
| Non-ferrous | | | | | | | | ✓ | ✓ |
| Titanium | ✓ | | | | | | | ✓ | ✓ |
| Stone concrete | | | | | | | | | ✓ |
| Tiles / ceramics | | | | | | | | | ✓ |
| Rail hard grade | | | | | ✓ | | | | |
| Rail medium grade | | | | | ✓ | | | | |
| Rail soft grade | | | | | ✓ | | | | |
| Glass ceramics PVC | | | | | | | | | ✓ |

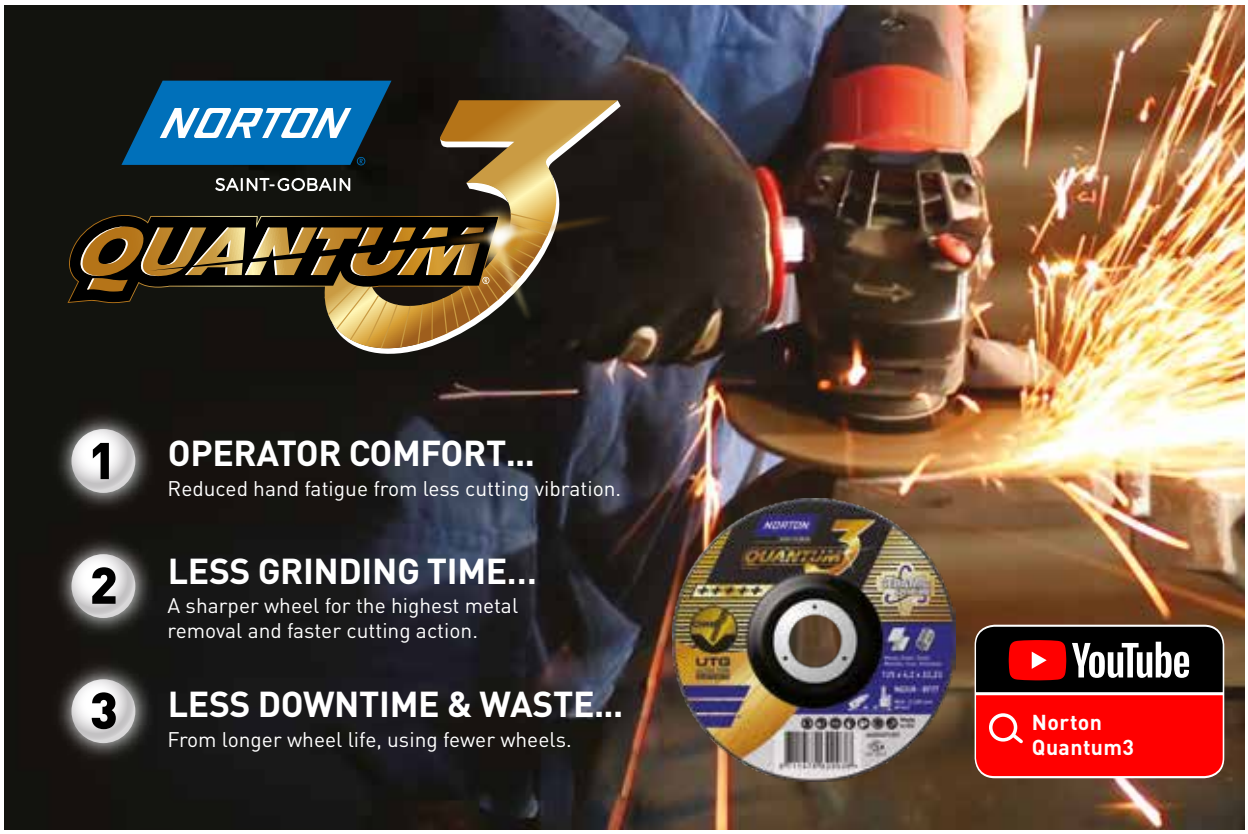
# PRODUCT SELECTION GUIDE

## GRINDING WHEELS FOR ANGLE GRINDERS

Highly recommended ✓



| MATERIALS | NORTON QUANTUM3 | X-TREME | VULCAN | STARLINE | 1-2-3 | ALU | MULTI MATERIAL |
|---|---|---|---|---|---|---|---|
| | INNOVATION | +++++ | ++++ | +++ | | | |
| Steel / construction steel | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Low alloy | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| High alloy | ✓ | ✓ | | | | | |
| Thin sheets, plates, profiles | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Stainless steel / inox | ✓ | ✓ | ✓ | | ✓ | | ✓ |
| Cast iron | | | | | | | |
| Non-ferrous | | | | | | ✓ | ✓ |
| Titanium | ✓ | | ✓ | | | ✓ | ✓ |
| Stone concrete | | | ✓ | | | | ✓ |
| Tiles / ceramics | | | ✓ | | | | ✓ |
| Glass ceramics PVC | | | ✓ | | | | ✓ |





# CUTTING DISCS & GRINDING WHEELS
## FOR METAL FABRICATION & WELDING

The use of abrasives in secondary steel industries is vast; from ship building and production of domestic appliances, automotive and construction components, special profiles, pipes and electrical goods to maintenance and repair of equipment, tools and machines.

## NORTON QUANTUM3 *INNOVATION*

### ULTRA THIN CUTTING DISCS

- Cutting performance taken to a new level in comfort, life and speed
- For precision, speed and the most accurate cut with reduced vibration levels, helping you to cut more comfortably for longer
- 1.3mm thickness is ideal for pipe cutting
- Ceramic grains give this wheel it's unique character. 1.0mm for ultimate speed and comfort. 1.6mm for absolute stability and longest life
- Delivers best in class performance on Steel and Stainless Steel

CERAMIC ADVANTAGE

CORDLESS COMPATIBLE | 90° | METAL INOX

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | |
| TYPE 41 | 115 | 1.0x22.23* | NQ 60 ZZ | 25 | 66253371347 |
| | | 1.3x22.23* | NQ 60 ZZ | 25 | 66253371348 |
| | | 1.6x22.23* | NQ 46 ZZ | 25 | 66253371349 |
| | 125 | 1.0x22.23* | NQ 60 ZZ | 25 | 66253371350 |
| | | 1.3x22.23* | NQ 60 ZZ | 25 | 66253371351 |
| | | 1.6x22.23* | NQ 46 ZZ | 25 | 66253371352 |
| | 180 | 1.6x22.23 | NQ 46 ZZ | 25 | 66253371354 |
| | 230 | 1.9x22.23 | NQ 46 ZZ | 25 | 66253371355 |
| TYPE 42 | 115 | 0.8x22.23 | NQ 60 ZZ | 25 | 66252846642 |
| | 125 | 0.8x22.23 | NQ 60 ZZ | 25 | 66252846643 |



TUBS MADE FROM 100% RECYCLED PLASTIC.

* X-TEND included

X-TEND

**AIRTIGHT PACKAGING**
Stops atmosphere and weather elements eroding product performance

**DESICCANT POUCH**
Holds thousands of tiny pores that absorb and trap moisture in

**X-TEND PERFORMANCE**
is proven to be up to 40% better than standard packaging

# NORTON QUANTUM3 INNOVATION

## CUTTING DISCS

- Greater wheel thickness for a more robust cut
- Ceramic grain provides a fast, sharp cut time and time again
- Incomparable speed in rough cutting applications on black steel
- Ideal for large steel projects, shipyards, steel construction and general engineering

CERAMIC ADVANTAGE

90° METAL INOX



| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| CUTTING DISCS | | | | | | |
| | TYPE 41 | 125 | 2.0x22.23 | NQ 36 Y | 25 | 66252848856 |
| | | 125 | 2.5x22.23 | NQ 24 P | 25 | 66252845954 |
| | | 230 | 2.5x22.23 | NQ 24 P | 25 | 66252846173 |
| | TYPE 42 | 125 | 2.5x22.23 | NQ 24 P | 25 | 66252832258 |
| | | 180 | 2.5x22.23 | NQ 24 P | 25 | 66252845041 |
| | | 230 | 2.5x22.23 | NQ 24 P | 25 | 66252846174 |






## NORTON QUANTUM3 *INNOVATION*

### LIGHT COMFORT GRINDING

LCG
LIGHT COMFORT GRINDING

- Ideal for light grinding on thin walled workpieces
- Combines speed and precision in grinding, deburring and bevelling
- At 3mm thickness, less energy is needed to power up and use the wheel
- Self-sharpening ceramic grain technology for fast material removal resulting in less grinding time

CORDLESS COMPATIBLE | 30° | METAL INOX

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | |
| TYPE 27 | 115 | 3.0x22.23 | NQ 30 S | 10 | 66252846608 |
| | 125 | 3.0x22.23 | NQ 30 S | 10 | 66252846609 |



# NORTON QUANTUM3 INNOVATION

## GRINDING WHEELS

- Self-sharpening ceramic grain technology for high material removal and less grinding time
- More comfortable to use with reduced hand fatigue from less cutting vibration
- Longer wheel life means less downtime and waste, fewer wheels needed
- Offers true savings in grinding processes

YouTube Norton Quantum3

30° METAL INOX



TYPE 27

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | |
| | 115 | 7.0x22.23 | NQ 24 P | 10 | 66253371361 |
| | 125 | 7.0x22.23 | NQ 24 P | 10 | 66253371362 |
| 30° INOX | | | | | |
| | 125 | 7.0x22.23 | NQ 24 N | 10 | 66252839321 |

# NORTON QUANTUM3 INNOVATION

## HIGH FREQUENCY GRINDING WHEELS

- Optimised wheel for use on high frequency machines under high pressure, extra safe in all working conditions
- Self -sharpening ceramic grain technology for high material removal and less grinding time
- More comfortable to use with reduced hand fatigue from less cutting vibration
- Longer wheel life means less downtime and waste, fewer wheels needed

HF 30° METAL INOX





TYPE 27

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | |
| | 180 | 7.0x22.23 | NQ 24 P | 10 | 66253371364 |
| | 230 | 7.0x22.23 | NQ 24 P | 10 | 66253371365 |
| HF 30° INOX | | | | | |
| | 230 | 7.0x22.23 | NQ 24 N | 10 | 66252839322 |

HF OPTIMISED FOR HIGH FREQUENCY ANGLE GRINDERS

High Frequency machines will not reduce in revolutions when grinding pressure is increased. When using high pressure on standard or non-reinforced wheels and machines, the risk of wheel breakage is high. Also, under low pressure, non-reinforced wheels can show cracks due to fatigue within the abrasive running at high revolutions. High Frequency reinforced grinding wheels ensure safe working conditions in all circumstances.

# NORTON QUANTUM3 INNOVATION

## COMBINATION WHEEL

- Fast grinding formula, gets the job done quickly
- Improved grinding control ensures precision and accuracy
- Easy access in hard to grind areas, corners and inside tight grooves
- Smoother feel, reduced fatigue and improved operator comfort
- Boost the amperage on cordless grinders due to light weight / fast cutting
- Ideal for pipe cutting

CERAMIC ADVANTAGE

90° 30° METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **COMBINATION WHEELS** | | | | | | |
|  | TYPE 27  | 115 | 4.2x22.23 | NQ 24 R | 20 | 66253371356 |
| | | 125 | 4.2x22.23 | NQ 24 R | 20 | 66253371357 |
| | | 180 | 4.2x22.23 | NQ 24 R | 20 | 66253371359 |
| | | 230 | 4.2x22.23 | NQ 24 R | 20 | 66253371360 |

# X-TREME PRO HEAVY DUTY +++++

- Longest life reduces overall process cost, with more cuts per disc
- Fast, straight, clean and burr free cutting reduces the need for rework
- Choose Norton X-treme Pro for jobs that require that extra cutting performance

90° CORDLESS COMPATIBLE METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | | |
|  | TYPE 41  | 115 | 1.0x22.23 | ZA60X | 25 | 66252846978 |
| | | 125 | 1.0x22.23 | ZA60X | 25 | 66252846979 |
| | | | 1.6x22.23 | ZA46X | 25 | 66252846980 |
| | | | 2.0x22.23 | ZA36X | 25 | 66252846981 |
| | | 180 | 1.6x22.23 | ZA46X | 25 | 66252846983 |
| | | 230 | 1.9x22.23 | ZA46X | 25 | 66252846984 |

30° METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | | |
| | TYPE 27  | 125 | 4.2x22.23 | A30V | 20 | 66252846985 |
| | | | 7.0x22.23 | A30V | 10 | 66252846986 |
| | | 180 | 4.2x22.23 | A30V | 20 | 66252846988 |
| | | 230 | 7.0x22.23 | A30V | 10 | 66252846990 |

NORTON SAINT-GOBAIN

# X-TREME +++++

- High performance aluminium oxide grain for fast and high material removal
- Superior bond system holds the grain for long wheel life, resulting in less wheel erosion
- Ideal for heavy industrial use on all hard steel types and alloys

90° CORDLESS COMPATIBLE METAL INOX

## CUTTING DISCS



| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 41 | 115 | 1.0x22.23 | A 60 V | 25 | 66252919427 |
| | | 1.6x22.23 | A 46 V | 25 | 66252920339 |
| | | 2.0x22.23 | A 36 V | 25 | 66252920340 |
| | 125 | 1.0x22.23 | A 60 V | 25 | 66252920341 |
| | | 1.3x22.23 | A 60 V | 25 | 66252837992 |
| | | 1.6x22.23 | A 46 V | 25 | 66252920342 |
| | | 2.0x22.23 | A 36 V | 25 | 66252920343 |
| | | 2.5x22.23 | A 36 V | 25 | 66252920350 |
| | 180 | 1.6x22.23 | A 46 V | 25 | 66252920345 |
| | | 2.0x22.23 | A 36 V | 25 | 66252920346 |
| | 230 | 1.9x22.23 | A 36 V | 25 | 66252920348 |
| | | 2.0x22.23 | A 36 W | 25 | 66252920360 |
| | | 2.5x22.23 | A 36 V | 25 | 66252920349 |
| TYPE 42 | 115 | 2.5x22.23 | A 36 V | 25 | 66252921567 |
| | 125 | 2.5x22.23 | A 36 V | 25 | 66252918816 |
| | 230 | 2.5x22.23 | A 36 V | 25 | 66252918818 |

30° METAL INOX

## GRINDING WHEELS



| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 27 | 115 | 7.0x22.23 | A 24 R | 10 | 66252918822 |
| | 125 | 4.0x22.23 | A 24 R | 10 | 66252950672 |
| | | 7.0x22.23 | A 24 R | 10 | 66252918823 |
| | 180 | 7.0x22.23 | A 24 R | 10 | 66252918824 |
| | 230 | 7.0x22.23 | A 24 R | 10 | 66252918825 |

## **CUTTING DISCS & GRINDING WHEELS** FOR METAL FABRICATION & WELDING

# VULCAN ++++

- Great price versus performance ratio
- The general purpose range of cutting discs

90° CORDLESS COMPATIBLE METAL INOX




| TYPE | DIA (mm) | TxB (mm) | SPEC | | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | | |
| TYPE 41 | 115 | 1.0x22.23 | A 60 S | | 25 | 66252925431 |
| | | 1.6x22.23 | A 46 S | | 25 | 66252925432 |
| | | 2.0x22.23 | A 30 S | | 25 | 66252925437 |
| | | 2.5x22.23 | A 30 S | | 25 | 66252925442 |
| | | 3.0x22.23 | A 30 S | | 25 | 66252925447 |
| | 125 | 1.0x22.23 | A 60 S | | 25 | 66252925433 |
| | | 1.6x22.23 | A 46 S | | 25 | 66252925434 |
| | | 2.0x22.23 | A 30 S | | 25 | 66252925438 |
| | | 2.5x22.23 | A 30 S | | 25 | 66252925443 |
| | | 3.0x22.23 | A 30 S | | 25 | 66252925448 |
| | 180 | 1.6x22.23 | A 46 S | | 25 | 66252925435 |
| | | 2.0x22.23 | A 30 S | | 25 | 66252925440 |
| | | 2.5x22.23 | A 30 S | | 25 | 66252925445 |
| | | 3.0x22.23 | A 30 S | | 25 | 66252925449 |
| | 230 | 1.9x22.23 | A 46 S | | 25 | 66252925436 |
| | | 2.0x22.23 | A 30 S | | 25 | 66252925441 |
| | | 2.5x22.23 | A 30 S | | 25 | 66252925446 |
| | | 3.0x22.23 | A 30 S | | 25 | 66252925450 |
| TYPE 42 | 100 | 3.2x22.23 | A 30 S | | 25 | 66252835417* |
| | 115 | 2.5x22.23 | A 30 S | | 25 | 66252925490 |
| | | 3.2x22.23 | A 30 S | | 25 | 66252925494 |
| | 125 | 2.5x22.23 | A 30 S | | 25 | 66252925491 |
| | | 3.2x22.23 | A 30 S | | 25 | 66252925495 |
| | 180 | 2.5x22.23 | A 30 S | | 25 | 66252925492 |
| | | 3.2x22.23 | A 30 S | | 25 | 66252925497 |
| | 230 | 1.9x22.23 | A 46 S | | 25 | 66252849388 |
| | | 2.5x22.23 | A 30 S | ***NEW*** | 25 | 66252925493 |
| | | 3.2x22.23 | A 30 S | | 25 | 66252925498 |

* Made-to-order

# VULCAN FAST CUT ++++

- For use on low and medium power machines
- Hard steel types

METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | | |
|  | TYPE 27  | 180 | 6.4x22.23 | A 30 P | 10 | 66252830805 |
| | | 230 | 6.4x22.23 | A 30 P | 10 | 66252830807 |



# CUTTING DISCS & GRINDING WHEELS FOR METAL FABRICATION & WELDING

## NEW VULCAN COMFORT ADVANTAGE ++++

- Improved comfort in use
- Reduced vibration
- Smoother wheel wear for reduced chipping
- Higher metal removal rates
- Suitable for low power machines
- Lower pressure needed, reduces operator fatigue
- Reduces workpiece burn

30° METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | | |
|  | TYPE 27 | 115 | 6.4x22.23 | A 30 P | 10 | 66252830803 |
| | | 125 | 6.4x22.23 | A 30 P | 10 | 66252830804 |

## VULCAN ++++

- Great price versus performance ratio
- The general purpose range of grinding wheels

30° CORDLESS COMPATIBLE METAL INOX

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | | |
|  | TYPE 27 | 115 | 6.4x22.23 | A 30 S | 10 | 66252925522 |
| | | 125 | 4.0x22.23 | A 30 S | 20 | 66252925519 |
| | | | 6.4x22.23 | A 30 S | 10 | 66252925523 |
| | | | 8.0x22.23 | A 30 S | 10 | 66252925524 |
| | | 180 | 6.4x22.23 | A 30 S | 10 | 66252925526 |
| | | | 8.0x22.23 | A 30 S | 10 | 66252925527 |
| | | 230 | 4.0x22.23 | A 30 S | 20 | 66252925521 |
| | | | 6.4x22.23 | A 30 S | 10 | 66252925529 |

90° STONE

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | | |
|  | TYPE 42 | 115 | 3.2x22.23 | C 30 R | 25 | 66252925500 |
| | | 125 | 3.2x22.23 | C 30 R | 25 | 66252925501 |
| | | 230 | 3.2x22.23 | C 30 R | 25 | 66252925503 |

30° STONE CAST IRON

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | | |
|  | TYPE 27 | 115 | 6.4x22.23 | C 30 R | 10 | 66252925533 |
| | | 125 | 6.4x22.23 | C 30 R | 10 | 66252925534 |
| | | 180 | 6.4x22.23 | C 30 R | 10 | 66252925535 |
| | | 230 | 6.4x22.23 | C 30 R | 10 | 66252925537 |

NORTON SAINT-GOBAIN

# STARLINE +++

- Good material removal and cut rate
- For general trade and general usage

90°

CORDLESS COMPATIBLE

METAL INOX

## CUTTING DISCS - ANGLE GRINDER



| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 41 | 115 | 1.0x22.23 | A 60 R | 25 | 66252837243 |
| | | 1.6x22.23 | A 46 R | 25 | 66252837244 |
| | | 2.5x22.23 | A 30 P | 25 | 66252837249 |
| | 125 | 1.0x22.23 | A 60 R | 25 | 66252837245 |
| | | 1.6x22.23 | A 46 R | 25 | 66252837246 |
| | | 2.5x22.23 | A 30 P | 25 | 66252837250 |
| | 180 | 1.6x22.23 | A 46 R | 25 | 66252837247 |
| | | 2.5x22.23 | A 30 P | 25 | 66252837251 |
| | 230 | 1.9x22.23 | A 46 S | 25 | 66252843278 |
| | | 2.0x22.23 | A 36 R | 25 | 66252837248 |
| | | 2.5x22.23 | A 30 P | 25 | 66252837253 |
| TYPE 42 | 115 | 3.2x22.23 | A 30 P | 25 | 66252837275 |
| | 125 | 3.2x22.23 | A 30 P | 25 | 66252837276 |
| | 180 | 3.0 x 22.23 | A 30 S | 25 | 66252837277 |
| | 230 | 3.2x22.23 | A 30 P | 25 | 66252837278 |

30°

METAL INOX

## GRINDING WHEELS



| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 27 | 115 | 6.4x22.23 | A 24 Q | 10 | 66252837263 |
| | 125 | 6.4x22.23 | A 24 Q | 10 | 66252837264 |
| | 180 | 6.4x22.23 | A 24 Q | 10 | 66252837268 |
| | 230 | 6.4x22.23 | A 24 Q | 10 | 66252837269 |




# MULTI MATERIAL

## LIGHT COMFORT GRINDING

- Ceramic grain removes material quickly on a variety of different materials, one disc replaces many
- At 3mm thick, the lightweight wheel ensures precision and accuracy during grinding
- Easy access to hard to grind areas, corners and tight grooves
- Smoother feel, reduced fatigue and improved operator comfort

CORDLESS COMPATIBLE

30°

ALU METAL INOX
STONE C.TILES PVC

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **GRINDING WHEELS** | | | | | |
| TYPE 27 | 115 | 3.0x22.23 | C 30 S | 10 | 66252846610 |
| | 125 | 3.0x22.23 | C 30 S | 10 | 66252846611 |







# MULTI MATERIAL

## CUTTING

- One wheel for all materials
- The easy choice in general trade
- No lost time due to wheel changing
- Quick, comfortable and versatile

CORDLESS COMPATIBLE

90°

ALU METAL INOX
STONE C.TILES PVC

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | |
| TYPE 41 | 115 | 1.0x22.23 | C 60 T | 25 | 66252833258 |
| | | 1.6x22.23 | C 46 T | 25 | 66252828951 |
| | 125 | 1.0x22.23 | C 60 T | 25 | 66252918924 |
| | | 1.6x22.23 | C 46 T | 25 | 66252828952 |
| | 180 | 1.6x22.23 | C 46 T | 25 | 66252926730 |
| | 230 | 1.9x22.23 | C 46 T | 25 | 66252918925 |






# NORTON ALU

- Specially developed grain and bond system, designed to cut through aluminium and non-ferrous metals without clogging
- Counteracts loading and wheel glazing for fast, easy and free cutting action on all non-ferrous material

CORDLESS COMPATIBLE | 90° | ALU

## CUTTING DISCS




| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 41 | 115 NEW | 1.0x22.23 | A 60 Q | 25 | 66252828236** |
| | | 1.6x22.23 | A 46 Q | 25 | 66252828233 |
| | 125 NEW | 1.0x22.23 | A 60 Q | 25 | 66252828237** |
| | | 1.6x22.23 | A 46 N | 25 | 66252839270 |
| | | 1.6x22.23 | A 46 Q | 25 | 66252828234 |
| | | 2.5x22.23 | A 36 Q | 25 | 66252828227 |
| | 180 | 2.5x22.23 | A 36 Q | 25 | 66252828229 |
| | 230 | 1.9x22.23 | A 46 N | 25 | 66252839271 |
| | | 1.9x22.23 | A 46 Q | 25 | 66252828235 |
| TYPE 42 | 230 | 3.0x22.23 | A 36 Q | 25 | 66252828231 |

30° | ALU

## GRINDING WHEELS




| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| TYPE 27 | 115 NEW | 7.0x22.23 | A 36 Q | 10 | 66252849497* ** |
| | 125 NEW | 7.0x22.23 | A 36 Q | 10 | 66252828228** |
| | 180 | 7.0x22.23 | A 36 Q | 10 | 66252828230 |
| | 230 | 7.0x22.23 | A 36 Q | 10 | 66252828232 |

* Made-to-order
** Up to +30% performance improvement

# 1-2-3

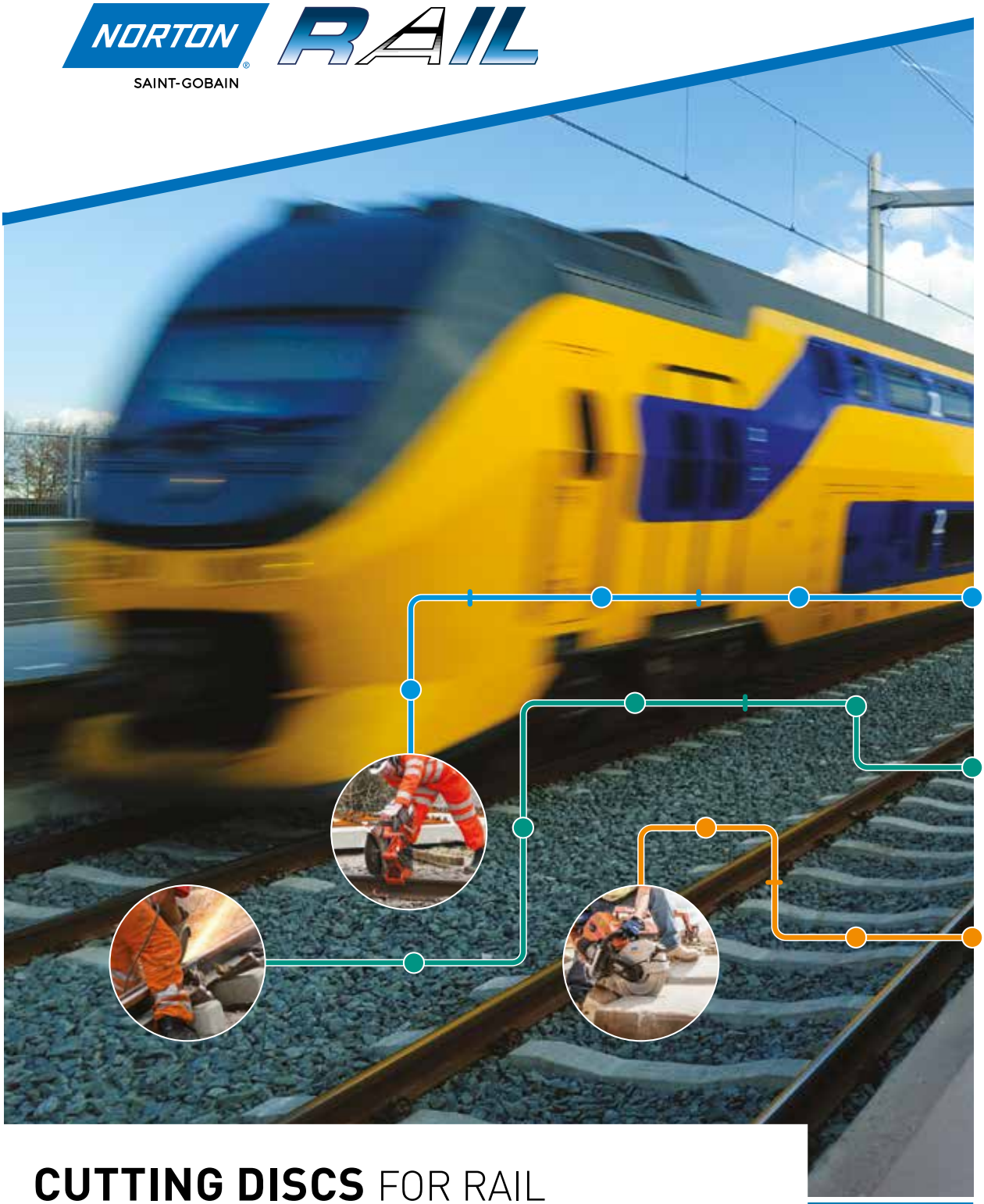
## THE ALL IN ONE SOLUTION

- Cut, grind and finish with one wheel
- Fine grit for a good, uniform finish when used at 15 degrees
- No lost time due to wheel changing
- Three layers of reinforcement for maximum safety in use




| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **COMBINATION WHEELS** | | | | | | |
|  | TYPE 27 | 115 | 2.2x22.23 | A 46 S | 25 | 66252829704 |
| | | 125 | 2.2x22.23 | A 46 S | 25 | 66252921592 |

NORTON SAINT-GOBAIN RAIL



# CUTTING DISCS FOR RAIL

The Norton Rail range provides high performance wheels for demanding operations. Rail cutting requires precision, speed and power and Norton Rail is a complete program of cutting wheels suitable for any rail type (subway, tram, train) and any rail cutting machine with a clamping device (electrical and petrol).

AS RAIL TRACK TECHNOLOGY CONTINUES TO MAKE MAJOR ADVANCES, NORTON IS GENERATING POWERFUL, INNOVATIVE, USER-FRIENDLY SOLUTIONS TO CUT, SHAPE AND GRIND HEAVY DUTY STEELS

## **CUTTING DISCS** FOR RAIL

### TECHNICAL INFORMATION

**BF 41**

#### FLAT CUTTING-OFF WHEELS

Rail cutting-off wheels are available in 300mm for clamped rail cutting machines that operate at 80m/s. For clamped rail cutting machines that operate on 100m/s wheels are available in 350mm and 400mm.

Bore dimensions of the cutting wheel can be adjusted using reduction rings that come with the original machine.

### UNDERSTANDING THE PRODUCT

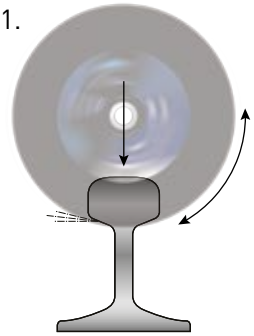
1. Product code
2. Application material
3. Diameter x Thickness x Hole
4. Product specification
5. Maximum peripheral speed
6. Machine cutting
7. Safety pictograms
8. OSA certification
9. EN standard



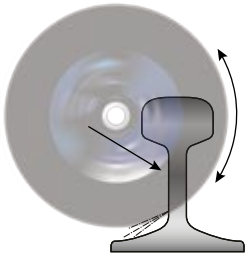

# CUTTING-OFF

Arrange the workpiece so that a uniform section can be cut

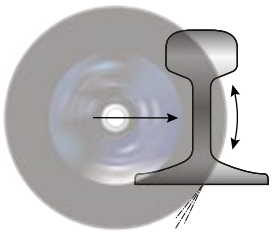
1.



2.



3.



KEY:

Direction of cut

Oscillate the wheel, swing the machine for quickest and cleanest cut



# NORTON QUANTUM3 RAIL

## DESIGNED FOR COMFORT, BUILT TO LAST, AND 'MADE TO BITE.'




## NORTON QUANTUM3 RAIL

INNOVATION

90°

RAIL METAL

- Designed for comfort, built to last and 'made to bite'
- Long product life reduces the number of replacement discs, reducing total abrasive cost
- High speed cutting makes the overall rail repair process more efficient
- The wheel does the work and less vibrations are felt through the machine reducing the risk of white finger

CERAMIC ADVANTAGE

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | |
| TYPE 41 | 356 | 4.0x22.23 | NQ 24 Q | 10 | 66252845405 |
| | | 4.0x25.4 | NQ 24 Q | 10 | 66252845406 |
| | 406 | 4.0x25.4 | NQ 24 Q | 10 | 66252846183 |



**Don't just take our word for it, see what our customers have to say....**

"The Norton Quantum3 really speeds up the cutting process - I can get through 3 cuts per wheel now, maybe even more, instead of struggling to get through one with the wheels I was using before. And it's not just that, it's much easier to use, kind of glides through the rail piece with ease. I'll definitely be switching over to Norton Quantum3"

**INNOVATION BOND TECHNOLOGY** + **COMBINATION OF SHARP PREMIUM ABRASIVE GRAINS** = **FAST CUTTING LONGER LIFE**

## **CUTTING DISCS** FOR RAIL

# RAIL ++++

- For a precise, straight and fast cut on rail, tram and subway track
- Low vibration, consistent performance throughout wheel life
- Hard, medium and soft wheels available
- High quality cut to help generate a perfect weld

90° RAIL METAL

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| CUTTING DISCS | | | | | | |
|  | TYPE 41 | 356 | 4.0x25.4 | ZA 24 Q Zirconia Medium | 10 | 66252830924 |
| | | 406 | 4.0x25.4 | ZA 24 Q Zirconia Medium | 10 | 66252833665 |

# RAIL ++++

90° RAIL METAL

| | TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| CUTTING DISCS | | | | | | |
|  | TYPE 41 | 350 | 4.0x25.4 | A 24 T Hard | 10 | 66252829588 |
| | | | 4.0x25.4 | A 24 P Soft | 10 | 66252828620 |
| | | | 4.0x25.4 | A 24 Q Medium | 10 | 66252833554 |
| | | 400 | 4.0x25.4 | A 24 P Soft | 10 | 66252919130 |





# CUTTING DISCS
## FOR PETROL SAWS

Norton's cutting wheels for petrol saws provide high value and high performance in construction and demolition.

## VULCAN ++++

- General purpose cutting discs for all steel petrol saw applications
- Straight, fast cutting throughout long wheel life

90° METAL

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | |
| TYPE 41 | 300 | 3.5x20.0 | A 30 S | 10 | 66252925457 |
| | | 3.5x22.23 | A 30 S | 10 | 66252925458 |





# CUTTING DISCS
## FOR CHOP SAWS

Norton's cutting wheels for chop saws provide high value and high performance in construction, fabrication, foundry and maintenance industries.

## VULCAN ++++

- Clean and straight cutting on portable chop saws and fixed machines
- Mechanical reinforcement for cutting metal and inox safely

90° METAL INOX

| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **CUTTING DISCS** | | | | | |
| TYPE 41 | 300 | 2.8x25.4 | A 30 S | 10 | 66252925460 |
| | 356 | 3.0x25.4 | A 30 S | 10 | 66252925462 |
| | 400 | 3.2x25.4 | A 30 S | 10 | 66252925464 |
| | | 3.2x32.0 | A 30 S | 10 | 66252925465* |



* Made-to-order



# CUTTING DISCS
## FOR STATIONARY MACHINES

Norton's cutting wheels for stationary machines provide high value and high performance in construction, fabrication and foundry industries.

## VULCAN ++++

- Long wheel life with quick and free cutting
- Cuts without burning, blueing or splintering the metal
- Use under constant power in heavy cut-off applications
- Double, full external mechanical reinforcement for excellent safety and stability

90° STONE CAST IRON



TYPE 41



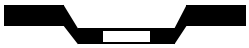
| TYPE | DIA (mm) | TxB (mm) | SPEC | PK QTY | ART NO. |
|---|---|---|---|---|---|
| CUTTING DISCS | | | | | |
| | 400 | 4.5x32.0 | C 30 R | 10 | 66252925484 |
| 90° METAL | | | | | |
| | 300 | 3.0x32.0 | A 30 S | 10 | 66252925466 |
| | | 3.0x32.0* | A 30 S | 10 | 66252925475 |
| | | 3.5x32.0 | A 30 S | 10 | 66252925468 |
| | 356 | 3.5x25.4 | A 30 S | 10 | 66252925469 |
| | | 3.5x32.0 | A 30 S | 10 | 66252925470 |
| | | 3.5x32.0* | A 30 S | 10 | 66252925476 |
| | 400 | 3.5x25.4 | A 30 S | 10 | 66252925477 |
| | | 4.0x25.4 | A 30 S | 10 | 66252925472 |
| | | 4.0x32.0 | A 30 S | 10 | 66252925473 |
| | | 4.0x32.0* | A 30 S | 10 | 66252925478 |
| | | 4.5x32.0 | A 30 S | 10 | 66252925474 |

* Max Operating Speed 100m/s

# TECHNICAL INFORMATION

## SHAPE SPECIFICATION SYSTEM

BF 27



DEPRESSED CENTRE GRINDING WHEELS

Available in diameters 76-230mm for hand-held machines.

Application: grinding

BF 41

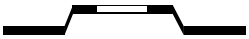


FLAT CUTTING DISCS

Available in diameters 50-400mm for hand-held machines and 250-400mm for stationary machines.

Application: cutting-off

BF 42



DEPRESSED CENTRE CUTTING DISCS

Available in diameters 76-230mm for hand-held machines.

Application: cutting-off

## PERSONAL PROTECTION

Safety goggles, ear defenders, safety gloves, dust masks and, if conditions are severe, additional face protection. Leather aprons and safety shoes must be worn.



Wear a mask (ISO 7010)



Wear protective gloves (ISO 7010)



Wear eye protection (ISO 7010)



Wear ear protection (ISO 7010)



Refer to instruction manual/ booklet (ISO 7010)




Only permitted for grinding at an angle greater than 10°



Only suitable for totally enclosed machines



Do not use if damaged



Do not use for face grinding (ISO 7010)



Do not use for wet grinding (ISO 7010)



Do not use with hand-held grinding machine (ISO 7010)

# METAL RING WITH VALIDITY DATE

V = VALIDITY DATE (PRODUCTION QUARTER + 3 YEAR)




| V01 | V04 | V07 | V10 |
|---|---|---|---|
| 1st quarter | 2nd quarter | 3rd quarter | 4th quarter |

EXAMPLE:

V04/2024 indicates production in the 2nd quarter of 2021 and usage before the 2nd quarter of 2024

# GENERAL PRECAUTIONS

Safety instructions provided by the machine manufacturers must be followed. All guards, covers and hoods must be in place on the machine during grinding, and should not be modified in any way. Abrasives should not be used near inflammable material.



Sparks should be directed away from the face and body, if possible towards the floor. Dust extraction equipment must be used whenever it is available. The instructions for use given by the abrasive manufacturer must be followed e.g. 'Not to be used without a support', or 'Not to be used for wet grinding'. The workpiece must be firmly fixed before grinding starts. Check all abrasives visually before use and make certain that the product is suitable for the application. No modifications should be made to abrasive products after delivery.

When using a portable grinder always switch it off and allow the spindle to stop completely before putting the tool down.

# OPERATING SPEEDS

Norton products are designed and tested for certain applications and operating speeds. Choose a wheel suitable for the application material. Suitable materials are indicated on the wheel label. Before mounting the grinding or cutting disc on the machine, ensure that the operating speed of the machine does not exceed the maximum operating speed as it is marked on the product.

| WHEEL DIAMETER (mm) | SPEED CONVERSION FOLLOWING EN 12413 | |
|---|---|---|
| | MAXIMUM OPERATING SPEED (RPM) for resinoid bonded cutting discs & grinding wheels in handheld and stationary operations | |
| | 80 | 100 |
| 50/51 | 30600 | 38200 |
| 63/65 | 24300 | 30250 |
| 76 | 20150 | 25150 |
| 100/102 | 15300 | 19100 |
| 115 | 13300 | 16650 |
| 125 | 12250 | 15300 |
| 150/152 | 10200 | 12700 |
| 180 | 8500 | 10650 |
| 230 | 6650 | 8350 |
| 300/305 | 5100 | 6400 |
| 350/356 | 4400 | 5500 |
| 400/406 | 3850 | 4800 |

# SAFETY ADVICE

## DOs

| |
|---|
| Always handle and store wheels carefully. Cutting discs should be stacked horizontally and flat, preferably on a steel base plate. Depressed centre wheels should be placed on top of each other or stored in the original packaging |
| Always visually inspect all wheels before mounting for possible damage in transit |
| Always use a safety guard and ensure that it is correctly positioned and securely fitted. It should cover at least one half of the wheel and protect the operator in the unlikely event of a wheel breakage. NON-REINFORCED CUTTING DISCS SHOULD ONLY BE USED ON FIXED MACHINES AND SHOULD BE CORRECTLY GUARDED. |
| Always switch 'OFF' the power at supply source and/or remove the plug from the socket before changing the wheel |
| Always ensure that the spindle speed of the machine does not exceed the operating speed marked on the wheel |
| Always use the correct wheel mounting flanges and ensure that they are undamaged, clean and free from burrs |
| SEE EN 12413 |
| Allow newly mounted wheels to run at operating speed, with the guard in place, for a reasonable time before cutting or grinding |
| Always wear EYE PROTECTION |
| Always wear appropriate safety clothing such as DUST MASK, GLOVES, EAR PROTECTION, OVERALLS AND SAFETY SHOES |
| Always have machine speeds checked regularly, especially after maintenance or repair. Machines fitted with speed control devices (Governors), must be properly maintained at all times |
| Check tension of driving belts, where fitted, on a regular basis. Belts must be kept tight to ensure full power transmission. |
| Always secure the workpiece firmly while it is being cut or ground |
| Put portable machines in suitable cradles, when not being used, to avoid damage to the wheel |
| Always use a portable machine in a comfortable position, where the workpiece is well balanced and the machine is well supported |
| Grind at an angle above 30 degrees to the workpiece with a depressed centre grinding wheel |
| Keep the working area around cutting and grinding operations clear. It is very dangerous if an operator trips and falls with an operating machine in his hands |

## DON'Ts

| |
|---|
| Handle wheels roughly |
| Use non-reinforced cutting discs on portable machines |
| Store wheels in a damp atmosphere or in extreme temperatures |
| Mount a damaged wheel |
| Tighten the mounting nut or locking flange excessively. To do so can distort the flanges |
| Force a wheel onto a machine spindle |
| Use mounting flanges which are incorrect, damaged, dirty or burred |
| Use blotters with depressed centre wheels less than or equal to 406mm (EN 12413) |
| Use a machine which is not in good mechanical condition |
| Use a machine without a wheel guard |
| Use wheels without proper ventilation or dust protection equipment |
| Apply side pressure to cutting discs. You should not bend the wheel |
| Stop the wheel by applying pressure to the periphery or face. Always switch the machine off and allow the wheel to stop revolving |
| Allow the wheel to be trapped or pinched in the cut |
| Apply excessive pressure onto the wheel so that the driving motor slows down |
| Grind on the side of cutting discs or depressed centre wheels below 4,0mm thickness |
| Drop or lower a portable machine by the cable or airline onto the floor. A wheel can be easily cracked, if it is put down hard, by the weight of the machine. This is a common cause of wheel breakage |
| Grind with a depressed centre grinding wheel at an angle below 30 degrees to the workpiece |
| Use a machine in a position where you do not have full control of the machine and you are not well balanced |



NORTON®

SAINT-GOBAIN



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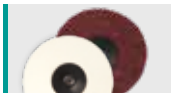

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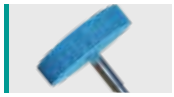
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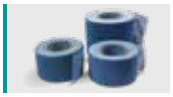

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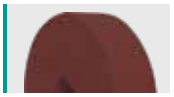

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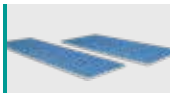

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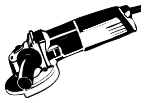

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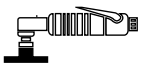
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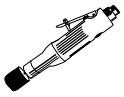
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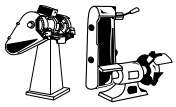

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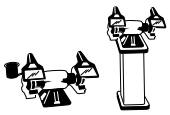

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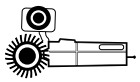
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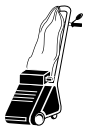
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† To help better describe the abrasive fixing system we have changed the name from 'NorGrip' to 'Self-Grip'.

# INTRODUCTION

The Norton coated abrasive and BearTex product offering encompasses a complete range of belts, discs, rolls, sheets and flap wheels for all your polishing, welding, maintenance and repair operation needs.

This extensive product range includes products designed for all types of application, including heavy stock removal, dimensioning, grinding, deburring, cleaning, blending, polishing and finishing operations.

## UNDERSTANDING THE PRODUCT

| R | 9 | 2 | 9 |
|---|---|---|---|
| BACKING | PRINCIPAL ABRASIVE | COATED | RANDOM |

### BACKING

**A** - Light Paper
**F** - Fibre
**G** - Heavy Paper
**H** - Heavy Paper
**K** - Cloth
**Q** - Various (e.g. Screenback & Film)
**R** - Cloth
**S** - Combination
**T** - Waterproof Paper
**U** - Norax
**W** - Special (Cork)

### PRINCIPAL ABRASIVE

**1** - Aluminium Oxide
**2** - Aluminium Oxide
**3** - Aluminium Oxide
**4** - Silicon Carbide
**6** - Emery
**7** - Flint
**8** - Zirconia Alumina
**9** - SG - Ceramic Aluminium Oxide

### COATED

Odd Number - Open coat
Even number - Closed coat

### RANDOM

Differentiates different products within the same product group

### BACKING TYPES

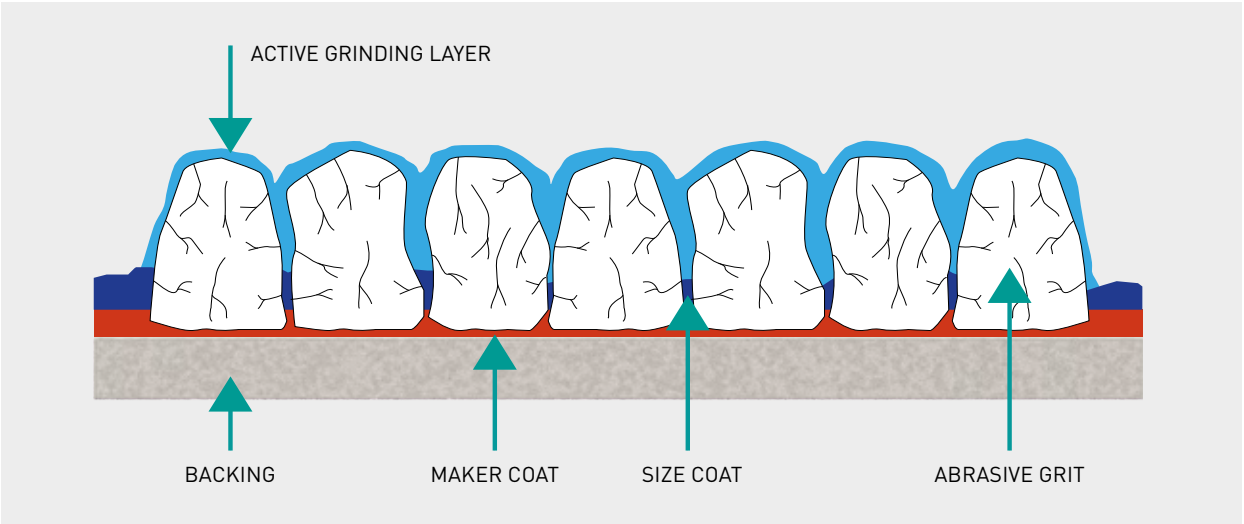
Whether paper, cloth, vulcanised fibre or polyester film, the backing must be smooth enough for uniform adhesive coating, strong enough to withstand grinding pressures and flexible enough to conform to contours if necessary.

### ABRASIVE TYPES

The ideal abrasive grain offers maximum resistance to point wear, yet fractures before serious dulling occurs, thereby satisfying both stock removal and finishing requirements.

### ABRASIVE BONDS

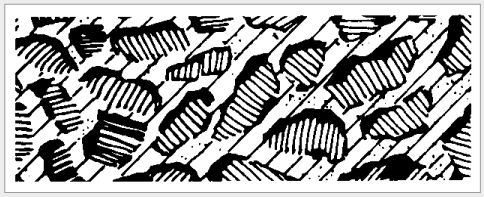
There are two main types of adhesives in use, one based on animal glue, and the more common based on synthetic heat hardenable resins. The adhesive is applied with a minimum of two bonding applications. The first, or maker, coat adheres the abrasive grain to the backing ensuring proper anchoring and orientation. After drying, or curing, the second, or sizer, coat is applied. The sizer adhesive, united with the maker bond, provides final grain anchoring and the proper total adhesive level for the finished product.



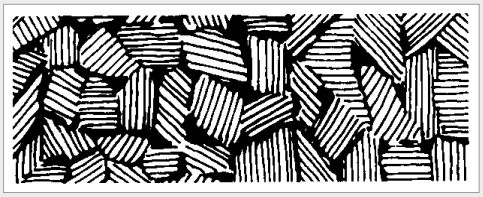
## ABRASIVE GRAIN DISTRIBUTION

There are two types of abrasive grain coverage on the backing:

- Openly spaced distribution where between 30% and 60% of the backing is covered leaving large spaces between each abrasive grain. It is used in operations where the grinding swarf would otherwise 'load' or clog the surface, reducing cutting efficiency and shortening the coated abrasive life
- Closely packed grain distribution is where the grain completely covers the backing. The greater number of abrading points in a given area leads to faster stock removal. It is recommended where loading is not a problem and where smoother surface finishes are desired



OPEN COAT
(1/3 LESS GRAIN THAN CLOSED)



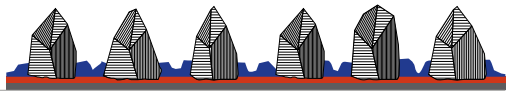
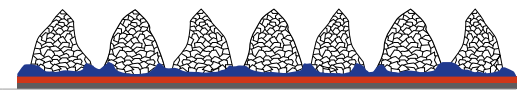
CLOSED COAT

## SPECIAL COATED SURFACE TREATMENT NO-FIL TREATMENT

In order to provide even further resistance to loading, some open coat paper products are given a special surface treatment of zinc stearate after the sizing operation. Such products are ideal for sanding between sealer coats on furniture, sanding after primer coats on automobiles, removing varnish from wood, and numerous other operations where conventional abrasive products fail prematurely due to loading.

Norton's trademark for products utilising this treatment is No-Fil.

# ABRASIVE GRAIN TYPES

| GRAIN TYPE | BOND / TOUGHNESS | STRUCTURE | PROPERTIES / WEAR PROPERTIES |
|---|---|---|---|
| SILICONE CARBIDE (SIC) | Very hard / less tough | Crystalline | Sharp-edged, brittle, highly friable / micro wear  |
| ALUMINIUM OXIDE | Hard / tough | Crystalline, irregular | Wedge-shaped, block grain, even wear  |
| ZIRCONIA ALUMINA | Hard / very tough | Crystalline, even | Wedge-shaped, block, drop formed grit / micro wear, self-sharpening  |
| CERAMIC ALUMINIUM OXIDE | Hard / very tough | Micro crystalline | Sharp-edged, pointed grit / micro wear, self-sharpening  |

# COATED ABRASIVES

## NATURAL ABRASIVES

Emery is a natural composite of corundum and iron oxide. The particles are blocky in shape and tend to cut slowly, thereby producing a polishing action on the material being abraded. Used for general maintenance and polishing of metals and in very fine grits for highly technical polishing, such as preparing metallurgical specimens requiring very close tolerances. Emery products are black in colour.

## SYNTHETIC ABRASIVES

- Aluminium oxide is tough and well adapted to grinding high tensile materials, such as carbon steel, alloy steels, tough bronze and hard woods. Wherever toughness (ability to resist fracturing) is the main consideration, aluminium oxide outperforms all other coated abrasive grains
- Silicon carbide is the hardest and sharpest of the minerals used in coated abrasives. Its hardness and sharpness makes it the ideal abrasive for sanding non-ferrous metals (aluminium, brass, bronze, magnesium, titanium, etc.), rubber, glass, plastics, fibrous woods, enamel and other relatively soft materials. Silicon carbide is superior to any other abrasive in its ability to penetrate and cut faster under light pressure
- Zirconia alumina has a unique self-sharpening characteristic which gives it long life on rugged stock removal operations. Zirconia alumina is well suited for heavy grinding of metals and planing of wood, because the controlled fracturing of the grain continuously produces sharp, new abrading points
- Ceramic aluminium oxide is a long-lasting, tough, dense abrasive due to its microstructure.
  The extremely small micron size particles break off during grinding, producing multiple new cutting edges. As it stays sharp, especially when used in medium and high pressure operations, it cuts at a higher rate than other abrasives. Recommended for use on forged and carbon steels, high nickel and cobalt alloys



# BACKING TYPES

Whether paper, cloth, vulcanised fibre, a combination or polyester film, the backing must be smooth enough for uniform adhesive coating, strong enough to withstand grinding pressures and flexible enough to conform to contours (if necessary). For reasons of economy, the least expensive backing compatible with the job requirements should be selected.

## PAPER

The standard paper weights used in coated abrasives are indicated by a letter code which appears immediately after the grit size on the finished product backing. Briefly stated, the lighter the backing, the greater the degree of flexibility; the heavier the backing, the greater the resistance to tearing.

### A-WEIGHT (70gms)

Light and flexible, A-weight is used primarily for hand finishing operations both wet and dry.
Grits 80 and finer.

### C-WEIGHT (120gms)

Stronger and less flexible than A-weight. This backing is chosen for hand sanding, dry or wet, and for use on small portable power sanders. Intermediate through fine sanding. Grits 60 through 180.

### D-WEIGHT (150gms)

Stronger and less flexible than C-weight. This backing is also chosen for hand sanding and for use on small portable power sanders. Coarse through intermediate sanding. Grits 36 through 80.

### E-WEIGHT (220gms)

Stronger and less flexible than D-weight, this backing is used primarily on roll, belt and disc applications where high resistance to tearing is needed.

### F-WEIGHT (300gms)

The strongest, least flexible paper backing utilised. Used for crankshaft lapping rolls, tannery industry belts and rolls, and NorZon belts only.

## FIBRE

Fibre backings, made of multiple layers of impregnated paper, are very hard and strong, yet provide sufficient flexibility for the intended applications. 0,8mm thick fibre has the greatest strength of any backing used for coated abrasives. This backing is used on resin bonded fibre discs designed for heavy duty portable grinding applications.

## COMBINATION

Combination backing, constructed by laminating light cloth and stiff E-weight paper, is used where resistance to tearing and breaking is a requirement. Primarily utilised on products designed for chipboard/MDF sanding.

## CLOTH

Cloth backings are more durable than paper, offer greater resistance to tearing, and tolerate continual bending and flexing during use. Norton use traditional woven cloth in the manufacture of their coated abrasives. The backing has construction and finishing characteristics designed to make it ideally suited to a specific application. The standard cloth weights used in coated abrasives are indicated by a letter code which appears immediately after the grit size on the finished product backing.

### J-WEIGHT

The lightest and most flexible cloth backing, this backing is used where finish and uniformity of the surface are more important than stock removal. Ideal for finishing, blending and where flexibility and conformity are required, such as contour work or curved surfaces.

### X-WEIGHT

Stronger and relatively stiff when compared to J-weight, this backing is used on products designed for coarse grit stock removal applications through fine grit finishing and polishing. Consistent productivity, relatively good finishes and long product life are characteristics of products made on X-weight backings.

### Y-WEIGHT

Stronger and more resistant to longitudinal splitting than regular drills cloth, Y-weight backing is used on products designed for severe applications, such as narrow belt grinding of hand tools and wide belts sanding of lumber and particleboard dimensioning.

## FILM

Polyester is used as the backing media for Norton's range of precision graded microfinishing products. Film backings can be used wet or dry and have excellent resistance to chemical attack, while being tear resistant and durable.

# INTRODUCTION TO BEARTEX NON-WOVEN PRODUCTS

BearTex consists of a backing in "non-woven" nylon fibres evenly impregnated with abrasive granules through the binding action of synthetic resins. This structure forms a "three-dimensional" abrasive material. Since this product was created as a finishing tool for operations where no material need be removed, it is particularly suitable for buffing-up purposes or to reduce the roughness of a surface: BearTex begins to act when other abrasive tools have terminated their work. In all those situations where a buffing, cleaning or finishing operation is required, the BearTex product is decidedly a must.

## UNDERSTANDING THE NON-WOVEN CAP CODE SYSTEM

| RapidFinish Convolute S/C (Silicon Carbide) FINE | C | 4 | 4 | 15 |
|---|---|---|---|---|

| MARKETING PRODUCT NAME | MARKETING CAP CODE FAMILY | TYPE OF MATERIAL | GRAIN | GRADE | INTERNAL DIFFERENTIATION |
|---|---|---|---|---|---|
| BearTex | Flat Stock | **F** | **0** - No Grain | **0** - No Grit | Consecutive numbers used for internal differentiation |
| Rapid Blend-Unified | Unitised / Unified | **U** | **1** - A/O White | **1** - Extra Coarse | |
| Rapid Strip | Rapid Strip | **R** | **2** - A/O Brown | **2** - Coarse | |
| Rapid Prep-Surface Conditioning | SCM Surface Conditioning Material / Blending | **S** | **4** - S/C | **3** - Med. | |
| Rapid Finish-Convolute | Convolute | **C** | **5** - Garnet | **4** - Fine | |
| Floor pads | Floor Maintenance | **JF** | **7** - Diamond | **5** - Very Fine | |
| | | | **9** - Ceramic | **6** - Ultra Fine | |
| | | | | **7** - Super Fine | |
| | | | | **8** - Micro Fine | |

### USED WET OR DRY, BEARTEX PRODUCTS OFFER THE FOLLOWING ADVANTAGES:

- A predictably consistent, uniform finish
- Minimum smearing and discolouration of the workpiece as heat is dissipated through the open mesh of the product
- Increased productivity through savings in time
- Ability to automate operations
- Reduced operator training
- Less maintenance required
- Greater safety than other methods
- Conformability to irregular surfaces

These advantages make BearTex products an excellent alternative to bristle brushes, set-up wheels, greaseless compounds, and steel wool. Operators quickly learn the techniques of using BearTex products to produce eye catching finishes.

### BEARTEX PRODUCTS CAN BE USED ON A WIDE VARIETY OF SURFACES

- Aluminium
- Chromium
- Tantalum
- Fibreglass
- Brass
- Stainless Steel
- Ceramics
- Wood
- Copper
- Zinc
- Glass
- Plywood
- Nickel
- Titanium
- Plastic

### APPLICATIONS INCLUDE

- Deburring
- Blending
- Defuzzing plywood
- Decorative finishes
- Cleaning
- Polishing
- Dulling laminates
- Scrubbing
- Highlighting
- Imparting satin
- Scouring
- Deflashing plastics
- Removing raised wood fibres



NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# DISCS
## FOR ANGLE GRINDERS


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# COATED ABRASIVE DISCS FOR ANGLE GRINDERS

Norton has a complete range of high-performance flap and fibre discs available in premium performance Norton SG ceramic aluminium oxide, zirconia alumina, silicon carbide, and aluminium oxide abrasives. For everything from heavy-to-medium stock removal, to fine finishing, to light blending and polishing, coated abrasive flap and fibre discs are available in many shapes, abrasive grains, specialty coatings and backing configurations to meet many application needs.

From within our range, you will find the perfect coated disc for every performance/price level, supported by a wide range of Accessories to optimise your choice.

We have provided selection guides and charts to help you find the right product for your needs and don't forget our new Innovations highlighted throughout this powerful range. We also included SPEC Checks to provide you with helpful hints and tips when using the products.

# WHY CHOOSE FLAP DISCS?

Flap discs are versatile abrasive tools that can be used for applications ranging from stock removal to blending.

## FLAP DISCS VS. GRINDING WHEELS

- Faster stock removal
- Smoother finish, no gouging
- Cooler cutting, less glazing
- Lightweight, easier to control
- Less vibration, less operator fatigue
- Reduced noise

## FLAP DISCS VS. FIBER DISCS

- 20X longer life, reduced abrasive cost
- Fewer disc changes, reduced labour cost
- More consistent finish
- No back-up pad required
- Easier storage, no curling
- Reduced loading
- Use flap discs one grit size coarser than fibre discs, except in 40 grit



# NON-WOVEN DISCS FOR ANGLE GRINDERS

Non-woven discs for angle grinders have three components: strong synthetic fibre mesh and quality abrasives, bonded together by a smear-resistant adhesive. Rapid Strip discs have an open web construction that enables aggressive cutting action while maintaining a cool, non-loading surface. Rapid Blend discs have a unitised construction with varying weave – from open to tighter – for deburring and finishing. Rapid Prep discs have a more open weave that excels in surface preparation and cleaning. Each product provides excellent cutting action while improving surface finish.

# WHY CHOOSE NON-WOVEN DEPRESSED CENTRE DISCS?

## NON-WOVEN RIGHT ANGLE DISCS VERSUS FIBRE DISCS, WIRE BRUSHES AND DEPRESSED CENTRE WHEELS

- Deburring, blending and finishing with one product to reduce the number of steps
- Provides a controlled, sustained finish
- Prevents undercutting and gouging
- Provides a cooler grinding action to lessen the chance of warping or discolouration
- Ideal when loading is an issue, on fibreglass, adhesives and soft metals
- For stripping coatings and paint off hard materials like concrete, cement and stone
- Less vibration and quieter for high operator acceptance
- Provides an alternative to wire brushes

# RECOMMENDATION GUIDE FOR NON-WOVEN DISCS ON ANGLE GRINDER

| APPLICATION | HIGHEST PRODUCTIVITY. LOWEST TOTAL COST | EXCELLENT BLEND OF PERFORMANCE & PRICE | CONSISTENT PERFORMANCE. LOW INITIAL PRICE |
|---|---|---|---|
| | +++++ | ++++ | +++ |
| Removing scale and coarse welding marks | Blaze Rapid Strip Ceramic extra coarse | - | Rapid Strip S/C extra coarse |
| Removing coatings, epoxy/glue, paint | | - | |
| Removing rust, oxidation, corrosion and residue | | - | |
| Removing parting lines and seams on fibreglass parts | | - | |
| Removing paint/graffiti from concrete/stone | | - | |
| Removing weld marks and weld splatter | - | Vortex Rapid Blend 5A medium | Rapid Prep A/O coarse |
| Stainless steel deburring and cleaning | - | | Rapid Prep A/O coarse |
| Removing small flashings and parting lines | - | | Rapid Prep A/O coarse |
| Surface preparation before coatings/plating | - | Vortex Rapid Prep A/O medium | Rapid Prep A/O medium |
| Light cleaning | - | Vortex Rapid Prep A/O medium | Rapid Prep A/O medium |
| Cleaning and preparing welds | - | Vortex Rapid Prep A/O fine | Rapid Prep A/O fine |
| Removing blemishes after welding stainless steel | - | Vortex Rapid Prep A/O fine | Rapid Prep A/O fine |
| Blending and finishing all metal parts | - | Vortex Rapid Prep A/O very fine | Rapid Blend NEX 2SF |
| Creating decorative finishes on stainless steel | - | Vortex Rapid Prep A/O very fine | Rapid Blend NEX 2SF |
| Final finishing and polishing | - | Vortex Rapid Prep A/O very fine | Rapid Blend NEX 2SF |
| Final finishing/polishing where high conformability is needed | - | - | Rapid Blend NEX 2SF |





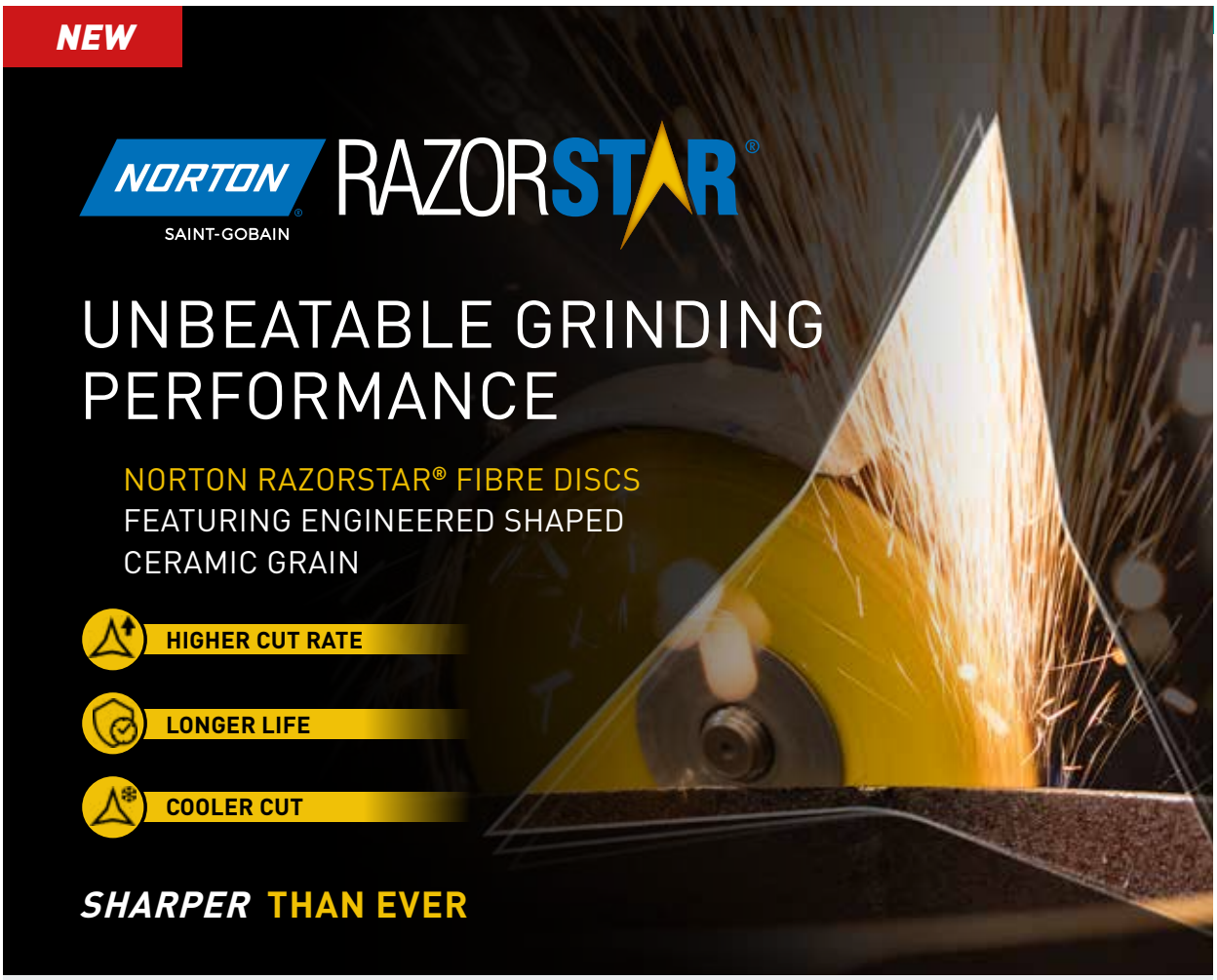
# FIBRE DISCS
## FOR ANGLE GRINDERS

From rapid weld grinding to blending and finishing, Norton has a complete range of high performance fibre discs available in premium performance Norton SG ceramic aluminium oxide, zirconia alumina and aluminium oxide abrasives.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓

| MATERIALS | NEW NORTON RAZORSTAR® | NORTON QUANTUM F996 | NEW BLAZE X F970X | NORZON F827 | METAL F100 |
|---|---|---|---|---|---|
| | INNOVATION | +++++ | +++++ | ++++ | +++ |
| Stainless steel, inox | ✓✓ | ✓✓ | ✓ | | |
| Titanium, inconel & super alloys | ✓✓ | ✓✓ | ✓ | | |
| Carbon, construction & mild steel | ✓✓ | ✓ | ✓✓ | ✓ | ✓ |
| Cast iron | ✓ | ✓ | ✓ | ✓ | ✓ |
| Non-ferrous metal (brass/aluminium) | ✓ | | | ✓ | ✓ |
| Hardwood | | | | ✓ | ✓ |




## NEW NORTON RAZORSTAR® INNOVATION

- A breakthrough innovation of razor-sharp ceramic grain with a tough microstructure cuts faster and removes more material. This is combined with the highest percentage of grains applied to the backing in an upright position for razor-sharp cutting
- The sharp grain and top-size layer combine to significantly reduce heat generation, resulting in less thermal damage of the workpiece
- Unique, patented grain geometry means new, sharp cutting edges are exposed as the grain fractures during grinding providing consistent cut rate and unparalleled disc life



METAL

| SIZE (mm) | GRIT | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|
| 115x22 | 36+ | 13300 | 25 | 66254434179 |
| 125x22 | 36+ | 12000 | 25 | 66254434181 |
| 180x22 | 36+ | 8500 | 25 | 66254434506 |

## NORTON RAZORSTAR® BACK-UP PADS

- The curved ribs keep the pad and abrasive cooler while retaining a level of flexibility across the pad
- For tougher grinding operations
- Conforms ISO 15636
- Compatible with grits 36+ and finer



| SIZE (mm) | THREAD | DENSITY | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 115 | M14 | Rigid | 13300 | 5 | 66254442905 |
| 125 | M14 | Rigid | 12200 | 5 | 66254442902 |
| 180 | M14 | Rigid | 8500 | 5 | 66254442907 |

# NORTON QUANTUM F996 +++++

- Ideal for cool grinding on stainless steel and heat-resistant steels
- Exceptionally high material removal and long life
- Especially suitable for heavy duty applications
- Generates an excellent surface finish

CORDLESS COMPATIBLE

METAL INOX



SPEC CHECK

Grinding on stainless generates a considerable amount of heat; always use a Norton Quantum disc with 'supersize' layer, a grinding aid added to the disc to reduce heat generation and improve cut and finish quality. Typically, a coarse grit disc is used when grinding MIG welds and a finer grit disc is used when grinding TIG welds.

| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115x22 | 36 | 25 | 66623327494 |
| | 50 | 25 | 66623327496 |
| | 60 | 25 | 66623327497 |
| | 80 | 25 | 66623327499 |
| | 120 | 25 | 66623327500 |
| 125x22 | 36 | 25 | 66623327501 |
| | 50 | 25 | 66623327502 |
| | 60 | 25 | 66623327503 |
| | 80 | 25 | 66623327504 |
| | 120 | 25 | 66623327505 |
| 150x22 | 36 | 25 | 66623381328 |
| 180x22 | 36 | 25 | 66623327506 |
| | 50 | 25 | 66623327507 |
| | 60 | 25 | 66623327508 |
| | 80 | 25 | 66623327509 |
| | 120 | 25 | 66623327510 |

## **FIBRE DISCS** FOR ANGLE GRINDERS




# BLAZE X STEEL F970X +++++

## FOR CARBON STEEL

- Ceramic micro-fracturing grain constantly self-sharpens, exposing new sharp edges, for a better cut rate and longer disc life
- Stronger fibre backing provides better face-to-surface grinding, but also resists tearing in heavy-duty applications
- Specially designed for use on carbon steel, indicated on the back of every disc, for easy disc identification.

METAL




| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115x22 | 36 | 25 | 78072718984 |
| | 50 | 25 | 78072718985 |
| | 60 | 25 | 78072718986 |
| | 80 | 25 | 78072718987 |
| 125x22 | 36 | 25 | 78072718988 |
| | 50 | 25 | 78072718989 |
| | 60 | 25 | 78072718990 |
| | 80 | 25 | 78072718991 |
| 180x22 | 36 | 25 | 78072718992 |
| | 50 | 25 | 78072718993 |
| | 60 | 25 | 78072718994 |
| | 80 | 25 | 78072718995 |

SPEC CHECK

Using a supersized disc is not necessary on carbon steel due to less heat generated than that produced on stainless steel. BlazeX F970X is the best choice for carbon steel.

# NORZON F827 ++++

- High stock removal rate for rough grinding and deburring of steel and stainless steel
- High and regular cut rate at medium pressures
- Norzon abrasive with self-sharpening effect
- Excellent price-performance ratio

FERR. & NON FERR.



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115x22 | 24 | 25 | 69957360048 |
| | 36 | 25 | 63642539615 |
| | 50 | 25 | 69957360053 |
| | 60 | 25 | 63642539616 |
| | 80 | 25 | 63642539617 |
| | 120 | 25 | 63642533055 |
| 125x22 | 24 | 25 | 63642539619 |
| | 36 | 25 | 63642536483 |
| | 50 | 25 | 63642539620 |
| | 60 | 25 | 69957360057 |
| | 80 | 25 | 63642539622 |
| | 120 | 25 | 63642533056 |
| 180x22 | 24 | 25 | 63642533062 |
| | 36 | 25 | 63642533063 |
| | 50 | 25 | 63642533064 |
| | 60 | 25 | 63642533065 |
| | 80 | 25 | 63642533066 |
| | 120 | 25 | 63642533068 |

# F100 METAL +++

- Versatile abrasive fibre discs for processing steel and metal alloys
- Increased stock removal rate for rough grinding and deburring
- Tough and versatile aluminium oxide abrasive
- Wide selection of grit sizes and diameters

CORDLESS COMPATIBLE

FERR. & NON FERR.



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115x22 | 16 | 25 | 66623385735 |
| | 24 | 25 | 66623385738 |
| | 36 | 25 | 66623385741 |
| | 40 | 25 | 66623385745 |
| | 50 | 25 | 66623385747 |
| | 60 | 25 | 66623385748 |
| | 80 | 25 | 66623385750 |
| | 100 | 25 | 66623385751 |
| | 120 | 25 | 66623385757 |
| 125x22 | 16 | 25 | 66623385761 |
| | 24 | 25 | 66623385764 |
| | 36 | 25 | 66623385768 |
| | 40 | 25 | 66623385770 |
| 125x22 | 50 | 25 | 66623385773 |
| | 60 | 25 | 66623385775 |
| | 80 | 25 | 66623385776 |
| | 100 | 25 | 66623385778 |
| | 120 | 25 | 66623385779 |

## **FIBRE DISCS** FOR ANGLE GRINDERS

| | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
| | 180x22 | 16 | 25 | 66623385755 |
| | | 24 | 25 | 66623385758 |
| | | 36 | 25 | 66623385760 |
| | | 40 | 25 | 66623385752 |
| | | 50 | 25 | 66623385793 |
| | | 60 | 25 | 66623385749 |
| | | 80 | 25 | 66623385746 |
| | | 100 | 25 | 66623385744 |
| | | 120 | 25 | 66623385739 |

# NYLON FIBREGLASS REINFORCED BACK-UP PADS

- The curved ribs keep the pad and abrasive cooler while retaining a level of flexibility across the pad
- For tougher grinding operations
- Conforms ISO 15636
- Grits 36+ and finer





| SIZE (mm) | THREAD | DENSITY | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 115 | M14 | Rigid | 13300 | 5 | 66623376727 |
| 125 | M14 | Rigid | 12200 | 5 | 66623376821 |
| 180 | M14 | Rigid | 8500 | 5 | 66623376822 |
| | 5/8 | Rigid | 8500 | 5 | 66623377069 |

# NYLON BACK-UP PADS

- For universal use
- Conforms to ISO 15636
- Grits 60+ and finer





| SIZE (mm) | THREAD | DENSITY | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 115 | M14 | Hard | 13300 | 5 | 69957382828 |
| | M14 | Medium | 13300 | 5 | 69957382825 |
| 125 | M14 | Hard | 12200 | 5 | 69957382829 |
| | M14 | Medium | 12200 | 5 | 69957382826 |
| 180 | M14 | Hard | 8500 | 5 | 69957382830 |
| | 5/8 | Medium | 8500 | 5 | 63642588345 |
| | M14 | Medium | 8500 | 5 | 69957382827 |

# FIBRE DISC BACK-UP PAD DENSITY GUIDE

SPEC CHECK







**RIGID** suitable for tough grinding operations and where very high stock removal is required such as chamfering.

**HARD DENSITY** suitable for coarse applications and higher stock removal such as chamfering, welded seam or deburring work.

**MEDIUM DENSITY** suitable for medium/ fine applications such us edge rounding or surface grinding.



# FLAP DISCS
## FOR ANGLE GRINDERS

Norton flap discs are engineered for light stock removal, edge chamfering, deburring, blending and finishing, reducing processing time and lowering total abrasive costs. Flap discs cut faster and provide a better finish than fibre discs while having the added benefit of longer life thanks to the flap construction.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓



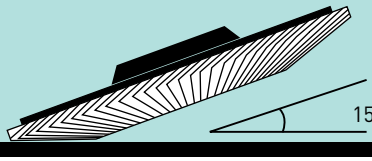
| MATERIALS | NORTON QUANTUM R996 | X-TREME PRO R928 | X-TREME R860 | VULCAN R842 | STARLINE | *NEW* NORTON ALU |
|---|---|---|---|---|---|---|
| | +++++ | +++++ | +++++ | ++++ | +++ | |
| Stainless steel, inox & duplex | ✓✓ | ✓✓ | ✓ | | | |
| Inconel, titanium & super alloys | ✓✓ | ✓✓ | ✓ | ✓ | | |
| Carbon, construction & mild steels | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓ | |
| Cast Iron | | ✓ | ✓✓ | ✓✓ | ✓✓ | |
| Non-ferrous metal (brass/aluminium) | | | | | ✓✓ | ✓✓ |
| Hard & softwood | | | | | ✓✓ | |

## DISC SHAPES

**TYPE 29** CONICAL



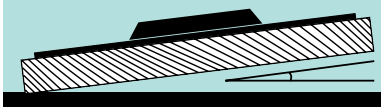
- For both contoured surfaces and edge work
- Angled flaps provide greater contact when removing stock on flat surfaces
- The best choice for fast stock removal




**TYPE 27** FLAT



- For use on flat surfaces
- Best choice for blending and finishing






# *NEW* ALU MESH FLAP DISC

- The mesh structure allows faster material removal without clogging and reduces heat generation during use for better part quality and minimal material loss
- Good stock removal on aluminium alloys
- Also removes old paint, corrosion and strips wood

CORDLESS COMPATIBLE

ALU

| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
|  | 115x22 | 40 | 10 | 78072764486* |
| | | 60 | 10 | 78072764488* |
| | | 80 | 10 | 78072764491* |
| | | 120 | 10 | 78072764492* |
| | 125x22 | 40 | 10 | 78072764493 |
| | | 60 | 10 | 78072764494 |
| | | 80 | 10 | 78072764495 |
| | | 120 | 10 | 78072764496 |

* Made-to-order




# X-TREME PRO R928 +++++

- X-Treme Pro R928 pink high-performance flap discs, with polycotton cloth backing and ceramic grain, provide an improved cut rate and product life compared to both premium zirconium discs and ceramic products in the market, thanks to its high density configuration.
- These discs also feature an additional supersize layer for cooler cutting, reducing heat generation during use for better part quality first and every time.
- X-Treme Pro R928 is ideal for fast grinding when used at medium pressure on stainless steel or harder metals.

METAL INOX

| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
|  | 115x22 | 40 | 10 | 78072723630 |
| | | 60 | 10 | 78072723632 |
| | | 80 | 10 | 78072723633 |
| | | 120 | 10 | 78072723634 |
| | 125x22 | 40 | 10 | 78072723652 |
| | | 60 | 10 | 78072723653 |
| | | 80 | 10 | 78072723654 |
| | | 120 | 10 | 78072723655 |
| | 180x22 | 40 | 10 | 78072723810 |
| | | 80 | 10 | 78072723812 |



For heavy and fast material removal, has long life



Perfect for fast edge chamfering and de-burring



Supersize layer for a cooler cut and reduced heat generation during use, providing better part quality and no burn marks

## **FLAP DISCS** FOR ANGLE GRINDERS

# X-TREME R860 +++++

- 100% sharp Norzon grain for a faster cut from the very beginning
- Tough polyester backing for excellent product life and more material removal with one disc
- Ideal on medium to high pressure applications on carbon steel and hard metals

METAL INOX



SPEC CHECK

Using a supersized disc is not necessary on carbon steel as less heat is generated than on stainless steel. X-Treme R860 is the best choice for carbon steel.

| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
| | 115x22 | 40 | 10 | 78072726071 |
| | | 60 | 10 | 78072726074 |
| | | 80 | 10 | 78072726075 |
| | | 120 | 10 | 78072726043 |
| | 125x22 | 40 | 10 | 78072726076 |
| | | 60 | 10 | 78072726077 |
| | | 80 | 10 | 78072726078 |
| | | 120 | 10 | 78072726045 |
| | 180x22 | 40 | 10 | 78072726080 |
| | | 60 | 10 | 78072726081 |
| | 125x22 | 40 | 10 | 78072726053 |
| | | 60 | 10 | 78072726068 |

# NORTON QUANTUM R996 +++++

- Ideal for cool grinding on stainless steel
- Extremely aggressive ceramic grain for noticeably faster cut rate
- Strong polyester backing for demanding work on edges
- Especially suitable for high pressure applications on high power angle grinders

METAL INOX



| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
| | 115x22 | 40 | 10 | 66254461027 |
| | | 60 | 10 | 66254461029 |
| | | 80 | 10 | 66254461031 |
| | 125x22 | 40 | 10 | 66254445878 |
| | | 60 | 10 | 66254445879 |
| | | 80 | 10 | 66254461033 |

SPEC CHECK

Flap discs with polyester backing will give the best performance when used with high power machines.

# VULCAN R842 ++++

- Versatile product for rough grinding and deburring on steel and stainless steel
- Self-sharpening zirconium abrasive grain
- High and regular cut rate at medium and low pressures

FERR. & NON FERR.

| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
|  | 115x22 | 40 | 10 | 63642502311 |
| | | 60 | 10 | 63642502312 |
| | | 80 | 10 | 63642502313 |
| | | 120 | 10 | 63642502314 |
| | 125x22 | 40 | 10 | 63642502315 |
| | | 60 | 10 | 63642502317 |
| | | 80 | 10 | 63642502318 |
| | | 120 | 10 | 63642502326 |
| | 150x22 | 40 | 10 | 63642502327 |
| | | 60 | 10 | 63642502328 |
| | | 80 | 10 | 63642502329 |
| | 180x22 | 40 | 10 | 63642502341 |
| | | 60 | 10 | 63642502343 |
| | | 80 | 10 | 63642502345 |
| | 115x22 | 40 | 10 | 63642502331 |
| | | 60 | 10 | 63642502332 |
| | 125x22 | 40 | 10 | 63642502335 |
| | | 60 | 10 | 63642502336 |

# STARLINE +++

- Multipurpose flap discs for processing steel, metal alloys or soft materials like wood
- Good stock removal in rough grinding and deburring
- Hard and versatile Zirconia Alumina abrasive
- Best price-performance ratio

CORDLESS COMPATIBLE | FERR. & NON FERR. | WOOD

| FIBRE GLASS BACKED | SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
|  | 115x22 | 40 | 10 | 66254492267 |
| | | 60 | 10 | 66254492268 |
| | | 80 | 10 | 66254492270 |
| | | 120 | 10 | 66254492269 |
| | 125x22 | 40 | 10 | 66254492271 |
| | | 60 | 10 | 66254492272 |
| | | 80 | 10 | 66254492273 |
| | | 120 | 10 | 66254492274 |

SPEC CHECK For an equivalent finish, always use a flap disc one grit size coarser than with a fibre disc



# SEMI-FLEXIBLE DISCS
## FOR ANGLE GRINDERS

Semi-flexible discs are made by coating heavy duty fibre with multiple layers of a special resin bonded abrasive. They are commonly used to clean stone, the hulls of ships and boats, to remove rust from large surfaces and coatings and removing glue or mastic.

## CP FLEX ++++

- Semi flexible black silicon carbide discs for use on marble, granite, concrete, fibreglass and cast irons
- Ideal for use in construction markets for aggressive grinding, levelling and cleaning of surface perfections

METAL STONE



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 125x22 | 16 | 25 | 66261083476 |
| | 24 | 25 | 7660719292 |
| | 36 | 25 | 7660719293 |
| | 60 | 25 | 7660719294 |
| | 80 | 25 | 7660719295 |
| 180x22 | 16 | 25 | 66261083479 |
| | 24 | 25 | 7660719296 |
| | 36 | 25 | 7660719297 |
| | 60 | 25 | 7660719298 |
| | 80 | 25 | 7660719299 |

## NYLON BACK-UP PADS

- For universal use
- Conforms to ISO 15636



| SIZE (mm) | THREAD | DENSITY | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 125 | M14 | Hard | 12200 | 5 | 69957382829 |
| 180 | M14 | Hard | 8500 | 5 | 69957382830 |



# **RAPID STRIP** DEPRESSED CENTRE DISCS FOR ANGLE GRINDERS

Non-woven discs have three components: strong synthetic fibre mesh, quality abrasive, and a smear-resistant adhesive. Rapid Strip discs have an open web construction for aggressive cutting action while maintaining a cool, non-loading surface. The thick, strong synthetic fibres and extra coarse silicon carbide grain make light work of removing rust, weld splatter, scale and other surface contaminants. Use before and after welding for preparing and cleaning the surface.




## BLAZE RAPID STRIP +++++

DPC TYPE 27 & TYPE 29 CONICAL

- Best choice for removal of surface rust and residue, corrosion, light weld splatter, dirt, mill scale and other similar surface contaminants
- Blaze lasts up to twice as long as other ceramic discs thanks to the Norton SG grain
- Leaves a thoroughly cleaned surface that ensures excellent adhesion for subsequent processes such as coating, painting and soldering
- Extremely versatile; stiff enough to withstand aggressive use, soft enough to prevent gouging and rework. Apply pressure to strip or remove coatings; use lighter pressure to finish like a surface finishing disc



| SHAPE | DIAxH (mm) | CAP CODE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|
| | 115x22 | R9101 | 10 | 12000 | 66623303783 |
| | 125x22 | R9101 | 10 | 11000 | 66623303916 |
| | 178x22 | R9101 | 10 | 8000 | 66623303920 |
| | 125x22 | R9101 | 10 | 12000 | 66261118630 |

## RAPID STRIP +++

DPC TYPE 27

- A general purpose disc for removing coatings on a variety of materials
- Nylon fibres, flexible resin technology and extra coarse abrasive grain for aggressive cut and long life
- Effective cleaning, ensuring excellent adhesion in subsequent processes such as coating, painting and soldering
- Will not load on sticky coatings, adhesives, and soft metals, or snag and shed like a fibre disc



| | DIAxH (mm) | CAP CODE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|
| STRIPPA R4104 S | 115x22 | R4104 | 5 | 11000 | 63642585732 |
| | 125x22 | R4104 | 5 | 8500 | 63642585749 |
| RAPID STRIP R4101 H | 115x22 | R4101 | 10 | 12000 | 66261009649 |
| | 125x22 | R4101 | 10 | 12000 | 66261030655 |



# **RAPID BLEND** DEPRESSED CENTRE DISCS FOR ANGLE GRINDERS

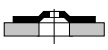
Non-woven discs have three components: strong synthetic fibre mesh, quality abrasive and a smear-resistant adhesive. Rapid Blend discs have a unitized construction with varying weave, from open to tighter, for deburring to finishing applications. Can be used in sequence with fibre and flap discs to blend and impart a good finish in one or two operations.

## BLAZE RAPID BLEND +++++

DPC TYPE 27 (OPEN)

- Blaze ceramic grain for Increased cutting power and life, with ability to remove process steps
- Versatile thin web product with aggressive cutting on small blending applications
- Cuts faster than standard Rapid Blend products, with minimal effect on finish



| SHAPE | DIAxTxH (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
|  | 125x6x22 | U9101 | EXTRA COARSE | 10 | 12000 | 77696067121 |

## **RAPID BLEND** DEPRESSED CENTRE DISCS FOR ANGLE GRINDERS

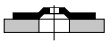
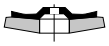
# VORTEX RAPID BLEND ++++

DPC TYPE 27 & TYPE 29 CONICAL

- For light weld bead and weld spatter removal, heavy deburring and finishing applications
- 2 in 1 action: can cut like an 80 grit flap disc and finishes similar to a Rapid Blend (NEX 2SF) disc
- High-performance engineered grain provides aggressive, fast stock removal, reduced cycle times and increased part quality
- Twice the wheel life of conventional unified wheels, with minimal shedding
- Can be used in place of, or in sequence with, fibre and flap discs for improved part quality wide range of sizes and specs for various applications. Undersized backing plate gives longer usable diameter

YouTube
Norton Vortex Rapid Blend



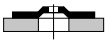
| SHAPE | DIM DIAxTxH (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
|  | 115x12x22 | U2305 | VORTEX 5AM | 10 | 12000 | 66254429268 |
| | 125x12x22 | U2305 | VORTEX 5AM | 10 | 12000 | 66254496323 |
| | 115x12x22 | U2305 | VORTEX 3AM | 10 | 7500 | 66623392701 |
| | 125x12x22 | U2305 | VORTEX 3AM | 10 | 7500 | 66623392718 |
| | 125x6x22 | U2305 | VORTEX 5AM | 10 | 12000 | 77696067103 |
|  | 125x12x22 | U2305 | VORTEX 5AM | 10 | 12000 | 63642531710 |
| | | U2305 | VORTEX 3AM | 10 | 7500 | 63642531717 |

# BEARTEX HIGH STRENGTH DISCS ++++

TYPE 27 DISCS

- Conformable and flexible heavy-duty material for contours and unusual shapes.
- Accesses awkward areas



| SHAPE | DIAxTxB (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
|  | 115x12x22 | F2303 | HSMA | 10 | 12000 | 66261020549 |
| | 125x12x22 | F2303 | HSMA | 10 | 12000 | 78072702394 |

HMSA = High Strength Disc





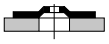
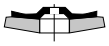
# RAPID BLEND +++

## NEX DPC TYPE 27 & TYPE 29 CONICAL

- A unitised construction with varying weave from open structure for deburring to tighter for finishing
- Fine silicon carbide and flexible density unitised construction for a smooth, controlled blending/finishing application
- Cuts more freely and with less heat than competitor products
- Fast finish achieved with a wide range of products to suit a variety of finish requirements
- Undersized backing plate gives longer usable diameter

YouTube
Norton Rapid Blend



| SHAPE | DIAxTxB (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
|  | 115x12x22 | U4401 | NEX2SF | 10 | 12000 | 66261020546 |
| | | U4401 | NEX3SF | 10 | 12000 | 66254461726 |
| | | U2401 | NEX2AF | 10 | 12000 | 66261020547 |
| | | U2301 | NEX2AM | 10 | 12000 | 66261020548 |
| | 125x12x22 | U4401 | NEX2SF | 10 | 12000 | 66254496320 |
| | | U4401 | NEX3SF | 10 | 12000 | 77696067125 |
| | 125x6x22 | U4401 | NEX2SF | 10 | 12000 | 77696067118 |
|  | 125x12x22 | U4401 | NEX2SF | 10 | 12000 | 63642531722 |
| | | U4401 | NEX3SF | 10 | 12000 | 63642531723 |



# **RAPID PREP** DISCS FOR ANGLE GRINDERS

Non-woven discs have three components: strong synthetic fibre mesh, quality abrasives, and a smear-resistant adhesive. Rapid Prep discs have an open weave that excels in surface preparation and cleaning applications, thanks to a coating system that reduces smearing and resists loading. Each disc combines the cutting speed of a coarse grit with the finish of a fine and so provides the lowest total cost of consumable tooling per workpiece. The thick layer of grain throughout the product extends the life of the disc.

## VORTEX RAPID PREP ++++

SCM SELF-GRIP WITH REMOVABLE 22mm CENTRE HOLE

YouTube
Norton Vortex Rapid Prep

- Vortex grain technology combines the cutting speed of coarse grits with the finish of fine grits
- Durable product for blending, finishing, cleaning, and light deburring
- Most consistent cutting and finishing surface conditioning products on the market
- Clean Bond™ technology - smear free, does not load on aluminium or soft metals
- Achieve a burr-free, paintable finish in fewer steps without damaging the base material



| DIA (mm) | CAP CODE | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|
| 115 | S2103 | Extra coarse | 25 | 66623378971 |
| | S2203 | Coarse | 25 | 66623378974 |
| | S2303 | Medium | 25 | 66623378977 |
| | S2403 | Fine | 25 | 66623333607 |
| | S2503 | Very fine | 25 | 66623378980 |
| 125 | S2103 | Extra coarse | 25 | 66623378972 |
| | S2203 | Coarse | 25 | 66623378975 |
| | S2303 | Medium | 25 | 66623378978 |
| | S2403 | Fine | 25 | 66623333609* |
| | S2503 | Very fine | 25 | 66623378981 |
| 178 | S2103 | Extra coarse | 25 | 66623378973 |
| | S2203 | Coarse | 25 | 66623378976 |
| | S2303 | Medium | 25 | 66623378979 |
| | S2403 | Fine | 25 | 66623334955* |
| | S2503 | Very fine | 25 | 66623334969* |

* Made-to-order

TO ACHIEVE A LINEAR DIRECTIONAL FINISH ON AN ANGLE GRINDER (making it more versatile)
SEE OUR RANGE OF SATINEX QC M14 WHEELS - PAGE 123

# VORTEX RAPID PREP ++++

## SCM FLAP DISCS

- Layers of Surface Conditioning Material (SCM) in a variety of grades for quick blending and finishing
- Longer life and durability with smear free cut and finish with one disc
- Three-dimensional non-woven abrasive fabric layers containing high performance Vortex grain with Clean Bond™ resin technology
- Ideal for cleaning, light deburring and processing TIG welded seams on stainless steel

YouTube
Norton Vortex Rapid Prep

| BLENDING | DIM DIAxT (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
|  | 115x22 | S2203 | Coarse | 10 | 12200 | 66261130726 |
| | | S2303 | Medium | 10 | 12200 | 66261130773 |
| | | S2403 | Fine | 10 | 12200 | 66261130776 |
| | | S2503 | Very fine | 10 | 12200 | 66261130777 |
| | 125x22 | S2203 | Coarse | 10 | 12200 | 66261130779 |
| | | S2303 | Medium | 10 | 12200 | 66261130780 |
| | | S2403 | Fine | 10 | 12200 | 66261130781 |
| | | S2503 | Very fine | 10 | 12200 | 66261130782 |

# RAPID PREP +++

## SCM (A0) SELF-GRIP WITH REMOVABLE 22mm CENTRE HOLE

- Achieve a burr-free, ready to paint finish in fewer steps without damaging the base material
- General purpose product for blending, finishing, cleaning, and light deburring
- Use with self-grip back up pads with locating centre pin



| | DIA (mm) | CAP CODE | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|---|
|  | 115 | S2108 | Extra coarse | 25 | 66623378983 |
| | | S2208 | Coarse | 25 | 66623378984 |
| | | S2308 | Medium | 25 | 66623378987 |
| | | S2408 | Fine | 25 | 66623378990 |
| | | S2508 | Very fine | 25 | 66623379028 |
| | 125 | S2108 | Extra coarse | 25 | 66623378982 |
| | | S2208 | Coarse | 25 | 66623378985 |
| | | S2308 | Medium | 25 | 66623378988 |
| | | S2408 | Fine | 25 | 66623378991 |
| | | S2508 | Very fine | 25 | 66623379029 |

## **RAPID PREP SURFACE BLENDING DISCS** FOR ANGLE GRINDER

# SURFACE BLENDING DISCS +++

FIBRE BACKED



- Fibre backing provides greater durability and life on demanding applications including edge work

| DIA (mm) | CAP CODE | GRADE | TYPE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 115 | S2211 | Coarse FB† | DSB | 20 | 63642557510 |
| 125 | S2211 | Coarse FB† | DSB | 20 | 63642557721* |
| 150 | S2211 | Coarse FB† | DSB | 10 | 63642557727 |

FB† = Fibre backed and with 22mm hole (for a stiffer, higher performing disc)

* Made-to-order

# VORTEX RAPID PREP ++++

SCM FIBRE BACKED 22mm CENTRE HOLE

- For better durability on sharp edge work




| DIAxH (mm) | CAP CODE | GRADE | TYPE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 100x16 | S2103 | Extra coarse | Vortex fibre | 10 | 78072700356 |
| | S2203 | Coarse | Vortex fibre | 10 | 78072700358 |
| | S2303 | Medium | Vortex fibre | 10 | 78072700359 |
| 115x22 | S2103 | Extra coarse | Vortex fibre | 10 | 78072700363 |
| | S2203 | Coarse | Vortex fibre | 10 | 78072700364 |
| | S2303 | Medium | Vortex fibre | 10 | 78072700365 |
| 127x22 | S2103 | Extra coarse | Vortex fibre | 10 | 78072700368 |
| | S2203 | Coarse | Vortex fibre | 10 | 78072700369 |
| | S2303 | Medium | Vortex fibre | 10 | 78072700371 |
| 180x22 | S2103 | Extra coarse | Vortex fibre | 10 | 78072700376 |
| | S2203 | Coarse | Vortex fibre | 10 | 78072700378 |
| | S2303 | Medium | Vortex fibre | 10 | 78072700381 |

# RAPID PREP XHD CERAMIC SCM ++++

SCM FIBRE BACKED 22mm CENTRE HOLE

- For better durability on sharp edge work



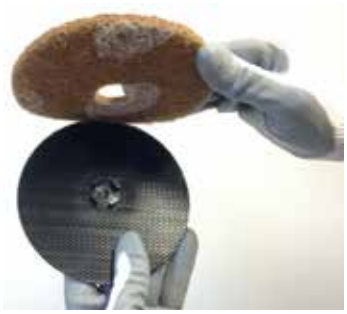
XHD Coarse XHD Medium

| DIAxH (mm) | CAP CODE | GRADE | TYPE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 115x22 | S9244 | Coarse | XHD Fibre back | 10 | 78072700366 |
| | S9344 | Medium | XHD Fibre back | 10 | 78072700367 |
| 127x22 | S9244 | Coarse | XHD Fibre back | 10 | 78072700374 |
| | S9344 | Medium | XHD Fibre back | 10 | 78072700375 |
| 180x22 | S9244 | Coarse | XHD Fibre back | 10 | 78072700382 |
| | S9344 | Medium | XHD Fibre back | 10 | 78072700383 |

FB* = Fibre backed and with 22mm hole (for a stiffer, higher performing disc)

# BACK-UP PADS (SELF-GRIP) WITH LOCATING CENTRE PIN

- Easy location of disc onto centre pin reduces vibration



| DIA (mm) | DENSITY | ATTACHMENT | PK QTY | ART NO. |
|---|---|---|---|---|
| 115 | Medium | M14 | 1 | 77696076935 |
| 125 | Medium | M14 | 1 | 77696076941 |
| 178 | Medium | M14 | 1 | 63642575296 |

# BACK-UP PADS (SELF-GRIP)

| DIA (mm) | DENSITY | ATTACHMENT | PK QTY | ART NO. |
|---|---|---|---|---|
| 115 | Medium | M14 | 1 | 69957382846 |
| | Medium | 5/8 | 1 | 63642595937 |
| 125 | Medium | M14 | 1 | 69957382841 |
| | Medium | 5/8 | 1 | 63642595938 |
| 150 | Medium | M14 | 1 | 69957382843 |
| | Medium | 5/8 | 1 | 63642595939 |
| 178 | Medium | M14 | 1 | 69957382844 |
| | Medium | 5/8 | 1 | 63642595940 |





# POLISHING DISCS
## FOR ANGLE GRINDERS

Final scratch removal and imparting a high-quality shine are often the last stages in a fabrication process and polishing is easy with Norton BearTex and Rapid Polish discs. Whether you're working on aluminium or stainless steel, Norton has a solution for you.

## BEARTEX FLAP DISC +++

- BearTex fleece discs with open mesh construction
- Two types available, plain and interleaved
- Conforms easily to surface contours and shapes
- For use on a number of metals



| DIAxB (mm) | CAP CODE | GRADE | TYPE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
| 115x22 | F2504 | Very fine A | XFLD (Plain) | 10 | 4900 | 66254481898 |
| | F2504 | Very fine A with P120 | XIFD (Mixed) | 10 | 4900 | 66623311000 |

Optimum performance when run at slower speeds on a variable speed power tool.

## RAPID POLISH +++

- Type 29 felt wool polishing pad
- Use with or without polishing compound
- Smooth, scratch free result
- For a professional, mirror shine



| DIAxB (mm) | CAP CODE | GRADE | TYPE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|---|
| 115x22 | F0005 | Felt | XFLD (Plain) | 5 | 8500 | 66254481899 |
| 125x22 | F0005 | Felt | XFLD (Plain) | 5 | 7700 | 63642573692 |

Optimum performance when run at slower speeds on a variable speed power tool.

## INDUSTRIAL POLISHING COMPOUND BLOCKS



| COLOUR | WxLxH (mm) | FINISH | GUIDE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| Brown | 55x160x38 | Pre-polishing | Cleaning very dirty material (alu & non-ferrous) | 1 | 7660739107 |
| Green | 55x160x38 | Gloss | Aluminium & stainless steel | 1 | 7660739108 |
| White | 55x160x38 | Super high gloss | Polishing stainless steel, alu & non-ferrous | 1 | 7660739109 |
| Blue | 55x160x38 | General high gloss | All metals & hard plastics | 1 | 7660739112 |



NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# DISCS
## FOR MINI ANGLE GRINDERS


| | | | |
|---|---|---|---|
| Speedlok discs | 74 | Rapid Blend Speedlok Discs | 84 |
| Mini Flap Discs | 79 | Rapid Prep Speedlok Discs | 86 |
| Non-Woven Speedlok Discs | 82 | Speedlok Buffing & Polishing Discs | 88 |
| Rapid Strip Speedlok Discs | 83 | Mini Right Angle Grinder Tools & Kits | 91 |

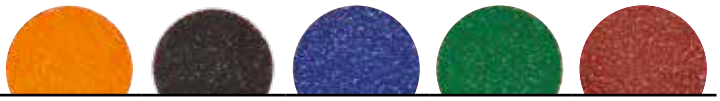


# SPEEDLOK DISCS
## FOR MINI ANGLE GRINDERS

The tool-free fastening system enables quick disc changes to maximise productivity and minimise downtime. Ideal for light to medium pressure grinding, blending and finishing on small or difficult to access areas including tool and mold construction, automotive, aeronautical and aerospace industry and equipment and pressure vessel construction. The Speedlok fastener makes it quick and easy to change. Disc locks securely to back-up pad, no slipping or release caused by heat. The two button attachment systems (TR or TS) ensures the disc is properly centred and vibration free. These discs optimise stock removal, surface finish, thermal load of the workpiece and tool wear. Speedlok discs achieve their best performance at a recommended speed of 15-35m/s.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓



| MATERIALS | BLAZE R980P | RED HEAT R983 | NORZON R860 | NORZON + R801 | METAL ARY/ARX19 |
|---|---|---|---|---|---|
| | +++++ | +++++ | ++++ | ++++ | +++ |
| Stainless steel, inox | ✓✓ | ✓✓ | | ✓ | |
| Titanium, inconel & super alloys | ✓✓ | ✓✓ | | ✓ | |
| Carbon, construction & mild steel | ✓✓ | ✓✓ | ✓✓ | ✓✓ | ✓ |
| Cast iron | ✓ | ✓ | ✓✓ | ✓✓ | ✓ |
| Non-ferrous metal (brass/aluminium) | | | ✓ | | ✓ |
| Hardwood | | | ✓✓ | ✓✓ | ✓ |
| Softwood | | | | | ✓ |
| Composite materials | | | | | ✓ |
| Stone, concrete | | | | | ✓ |
| Glass, plastic | | | | | ✓ |

*Available on request

## QUICK CHANGE DISC ATTACHMENTS & TIPS

SPEC CHECK



**TS ATTACHMENT**
(Type 2 – SL2)
A turn-on/turn-off style fastener.



**TR ATTACHMENT**
(Type 3 – SL3)
Twist on & twist off in 2½ turns.

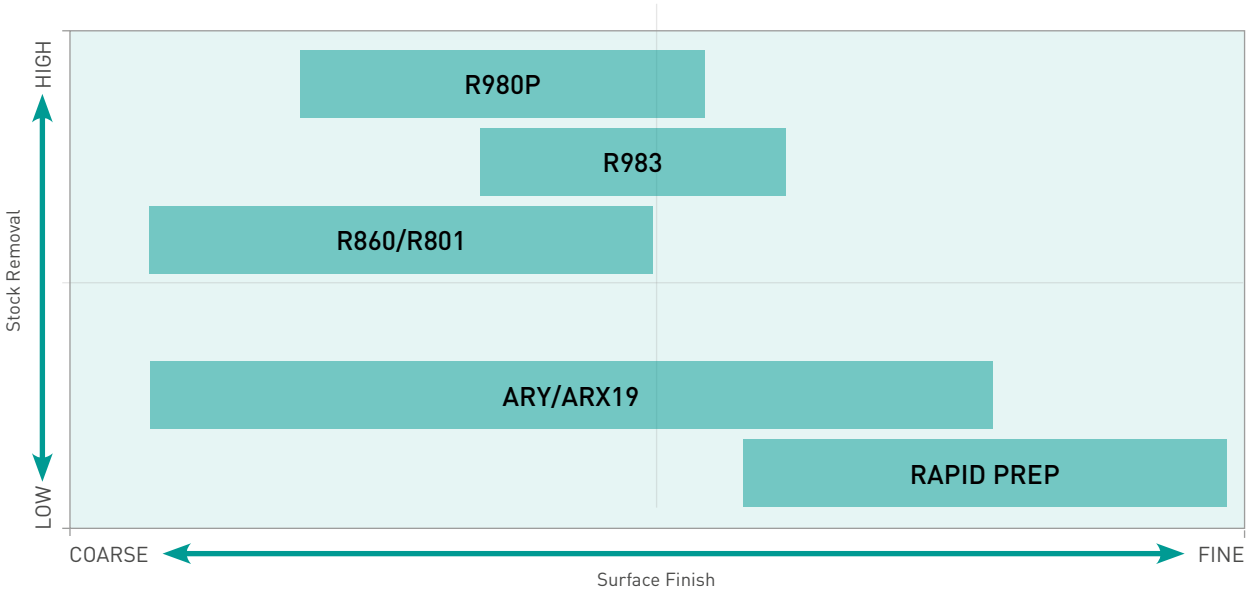


**TIP** Avoid gouging on contours by using a smaller size holder than the diameter of the discs, such as 38mm holder for 50mm.




**TIP** Select a hard back-up pad for more aggressive applications.

# PRODUCT COMPARISON CHART




## BLAZE R980P +++++

- The best choice for part cut and finish on stainless steel, inconel, chromium cobalt, titanium and extremely hard materials
- Aggressive disc removes all defects quickly
- Provides the coolest cut and significantly faster cut rates
- For the greatest durability, longest life, and edge-fray resistance on tough applications and stainless steel



SPEC CHECK

Grinding on stainless generates a considerable amount of heat; always use a Norton Blaze disc with a supersize layer to reduce heat build-up and improve cut quality. Typically, a coarse grit disc is used when grinding MIG welds and a finer grit disc is used when grinding TIG welds.

| | | RECOMMENDED | | METAL INOX | |
|---|---|---|---|---|---|
| SIZE (mm) | GRIT | RPM | PK QTY | TR ATTACHMENT | TS ATTACHMENT |
| 25 | 36 | 11500 - 26800 | 100 | 66261094895 | - - |
| | 60 | 11500 - 26800 | 100 | 66261038811 | - - |
| 38 | 36 | 7600 - 17600 | 50 | 63642597033 | 69957390693 |
| | 50 | 7600 - 17600 | 50 | 63642597034 | 69957390694 |
| | 60 | 7600 - 17600 | 50 | 63642597037 | 69957390695 |
| | 80 | 7600 - 17600 | 50 | 63642597038 | 69957390696 |
| 50 | 36 | 5700 - 13400 | 50 | 63642597039 | 69957390698 |
| | 50 | 5700 - 13400 | 50 | 63642597045 | 69957390699 |
| | 60 | 5700 - 13400 | 50 | 63642597050 | 69957390700 |
| | 80 | 5700 - 13400 | 50 | 63642597052 | 69957390701 |
| | 120 | 5700 - 13400 | 50 | 66261136868 | 66261136986 |
| 75 | 36 | 3800 - 8900 | 50 | 63642597053 | 69957390702 |
| | 50 | 3800 - 8900 | 50 | 63642597057 | 69957390703 |
| | 60 | 3800 - 8900 | 50 | 63642597060 | 69957390704 |
| | 80 | 3800 - 8900 | 50 | 63642597062 | 69957390705 |
| | 120 | 3800 - 8900 | 50 | 66261136980 | - - |

## **SPEEDLOK DISCS** FOR MINI ANGLE GRINDERS

# BLAZE F980 FIBRE

+++++

- The best choice for very tough applications
- Heaviest fibre backing for greater stock removal, longer life and edge-fray resistance

METAL INOX



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 50 | 36 | 5700 - 13400 | 25 | 66261058704 |
| | 50 | 5700 - 13400 | 25 | 66261058705 |
| | 60 | 5700 - 13400 | 25 | 66261058706 |
| 75 | 36 | 3800 - 8900 | 25 | 66261058708 |
| | 50 | 3800 - 8900 | 25 | 66261058709 |
| | 60 | 3800 - 8900 | 25 | 66261058711 |

# RED HEAT R983

+++++

- High performance ceramic discs, laminate free for extra flexibility when working on curves and contours
- For use in medium pressure applications
- New advanced grain formulation and improved backing for excellent cut rate and longer life

METAL INOX



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 50 | 36 | 5700 - 13400 | 50 | 66261151081 |
| | 60 | 5700 - 13400 | 50 | 66261151083 |
| | 80 | 5700 - 13400 | 50 | 66261148410 |
| | 120 | 5700 - 13400 | 50 | 66261151084 |
| 75 | 36 | 3800 - 8900 | 50 | 66261151085 |

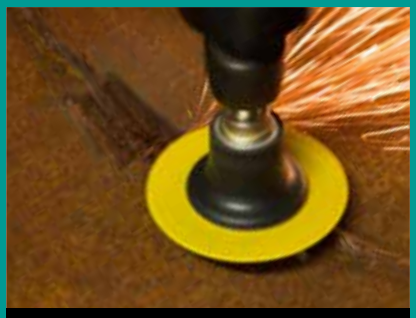
## BENEFITS OF USING A QUICK-CHANGE DISC



For hard-to-reach areas



For curves and corners



For small surface areas

# NORZON R860 ++++

- The better choice for use on hard steels, carbon steel, welds and wood
- Versatile, self-sharpening zirconia alumina plus grain for high stock removal rate on rough grinding and deburring of steel and stainless steel
- Provides aggressive cut and longer life than competitor zirconia alumina discs
- Advanced grain coating results in longer life and faster cut rate



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT | TS ATTACHMENT |
|---|---|---|---|---|---|
| 50 | 36 | 5700 - 13400 | 50 | 63642560882 | 63642549747 |
| | 50 | 5700 - 13400 | 50 | 69957389455 | 69957360306 |
| | 60 | 5700 - 13400 | 50 | 63642556396 | 63642549748 |
| | 80 | 5700 - 13400 | 50 | 63642560884 | 63642549749 |
| | 120 | 5700 - 13400 | 50 | 63642560885 | 66261115917 |
| 75 | 36 | 3800 - 8900 | 50 | 63642560886 | 63642549605 |
| | 50 | 3800 - 8900 | 50 | 69957389465 | 69957360307 |
| | 80 | 3800 - 8900 | 50 | 63642560888 | 69957360313 |
| | 120 | 3800 - 8900 | 50 | 66261137003 | |

# NORZON+ R801 ++++

- For demanding grinding applications, the supersize grinding aid facilitates a cooler cut on stainless steel, titanium and other exotic alloys, improving part quality and finish
- Heavy Y-weight polyester backing provides excellent durability and grain adhesion
- Premium, self-sharpening zirconia alumina plus grain with ensures the disc remains sharper for longer, increasing usage time and driving down overall process cost
- High removal rate when used on stainless steel



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 50 | 36 | 5700 - 13400 | 50 | 63642556405 |
| | 60 | 5700 - 13400 | 50 | 63642556407 |
| | 80 | 5700 - 13400 | 50 | 63642587207 |
| | 120 | 5700 - 13400 | 50 | 63642587208 |
| 75 | 36 | 3800 - 8900 | 50 | 63642587245 |
| | 60 | 3800 - 8900 | 50 | 63642556411 |
| | 120 | 3800 - 8900 | 50 | 63642587248 |

## **SPEEDLOK DISCS** FOR MINI ANGLE GRINDERS

# METAL ARY19 +++

- For hard-to-grind materials that require an economical option
- Aggressive cut and longer life than other aluminium oxide discs
- Good cut rate and improved life on moderately-demanding applications
- Resistant to edge wear and fraying



SPEC CHECK

Our most versatile Speedlok disc. Traditional aluminium oxide discs are a good starting specification for general purpose grinding.

| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT | TS ATTACHMENT |
|---|---|---|---|---|---|
| 38 | 60 | 7600 - 17600 | 50 | | 63642586596 |
| | 80 | 7600 - 17600 | 50 | | 63642586607 |
| | 120 | 7600 - 17600 | 50 | | 63642586608 |
| | 180 | 7600 - 17600 | 50 | | 63642586609 |
| 50 | 36 | 5700 - 13400 | 50 | 63642586683 | 63642586651 |
| | 60 | 5700 - 13400 | 50 | 69957389332 | 63642586656 |
| | 80 | 5700 - 13400 | 50 | 63642586687 | 63642586660 |
| | 120 | 5700 - 13400 | 50 | 63642586689 | 63642586671 |
| | 180 | 5700 - 13400 | 50 | 63642586691 | 63642586675 |
| | 320 | 5700 - 13400 | 50 | 63642586695 | 63642586681 |
| 75 | 60 | 3800 - 8900 | 50 | 63642586731 | 63642586699 |
| | 80 | 3800 - 8900 | 50 | 63642586733 | 63642586705 |
| | 120 | 3800 - 8900 | 50 | 63642586735 | 63642586708 |
| | 180 | 3800 - 8900 | 50 | 63642586738 | |
| | 320 | 3800 - 8900 | 50 | | 63642586718 |

# MADE-TO-ORDER PRODUCT AVAILABILITY

| CAP CODE | GRAIN / GRIT | 24 | 36 | 40 | 50 | 60 | 80 | 100 | 120 | 150 | 180 | 240 | 320 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blaze R980P | Ceramic with supersize | • | • | • | • | • | • | • | • | | | | |
| Red Heat R983 | Ceramic | | • | | • | • | • | | • | | | | |
| Norzon R860 | Zirconia | • | • | | • | • | • | | • | | | | |
| Norzon+ R801 | Zirconia with supersize | | • | • | • | • | • | • | • | | | | |
| R422* | Silicon carbide | | • | • | • | • | • | • | • | • | | | |
| Metal ARY19 | Aluminium oxide | • | • | • | • | • | • | • | • | • | • | • | • |

* Available on request

## MINIMUM ORDER QUANTITY

| SIZE (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 25 | 500 pieces |
| 38 | 500 pieces |

| SIZE (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 50 | 250 pieces |
| 75 | 250 pieces |



# MINI FLAP DISCS
## FOR MINI ANGLE GRINDERS

Ideal for weld dressing on small and difficult to access areas as well as general stock removal, deburring, flashing, blending and finishing. Mini flap discs have long life and minimise downtime by increasing productivity.
The Speedlok fastener makes it quick and easy to change discs by locking securely to the back-up pad, so no slipping or release is caused by heat build-up. The TR button attachment systems ensure the disc is properly centred and vibration free. Best performance is achieved at a recommended speed of 30-40m/s. This optimises stock removal, surface finish, thermal load of the workpiece and tool wear.

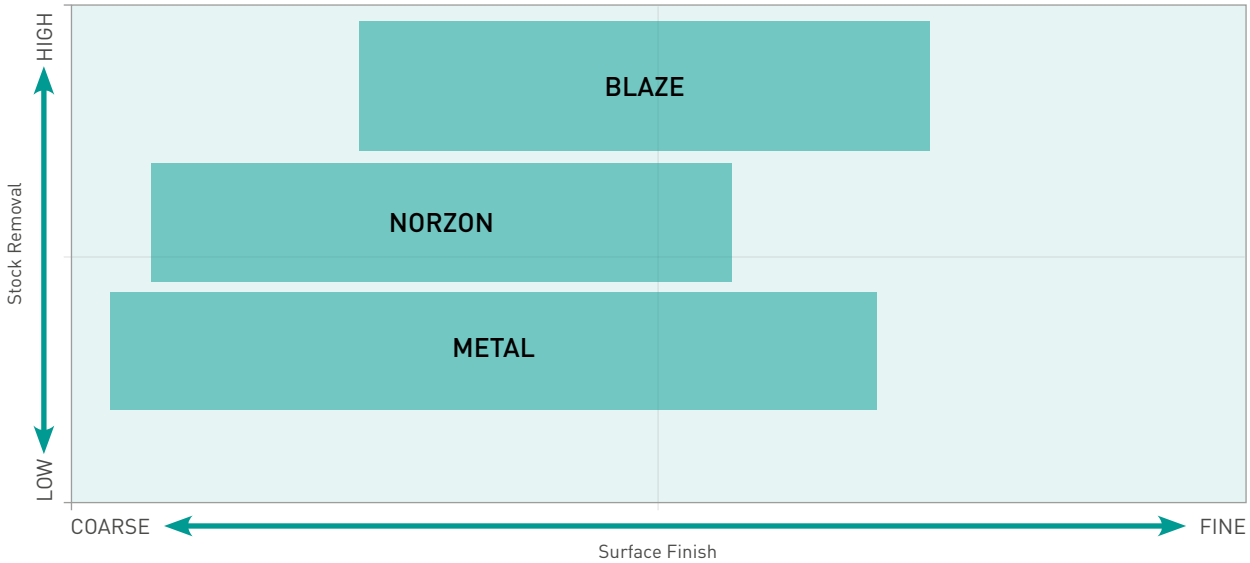
## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓



| | BLAZE | NORZON | METAL |
|---|---|---|---|
| | +++++ | ++++ | +++ |
| Stainless steel, inox & duplex | ✓✓ | ✓ | |
| Inconel, titanium & super alloys | ✓✓ | ✓ | |
| Carbon steel, construction steel & mild steel | ✓✓ | ✓✓ | ✓ |
| Cast iron | ✓ | ✓✓ | ✓ |
| Non-ferrous metal (brass/aluminium) | | ✓✓ | ✓ |
| Hard & softwood | | ✓✓ | ✓ |

## PRODUCT COMPARISON CHART



## **MINI FLAP DISCS** FOR MINI ANGLE GRINDERS

# BLAZE R980P

+++++

- For stainless steel and super alloys
- Provides longer life compared to any mini flap disc when used on stainless, titanium and super alloys
- Extremely aggressive ceramic grain for noticeably faster cut rate
- Supersize layer for a cooler cut and reduced heat generation during use, providing better part quality and no burn marks

CORDLESS COMPATIBLE | METAL INOX



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT | BACK-UP PAD |
|---|---|---|---|---|---|
| 50 | 40 | 11500 - 15000 | 10 | 66261120104 | |
| | 60 | 11500 - 15000 | 10 | 66261120109 | 63642556629 |
| | 80 | 11500 - 15000 | 10 | 66261120110 | |
| 75 | 40 | 7500 - 10000 | 10 | 66261120112 | |
| | 60 | 7500 - 10000 | 10 | 66261120116 | 63642556629 |
| | 80 | 7500 - 10000 | 10 | 66261120117 | |

SPEC CHECK

Grinding on stainless generates a considerable amount of heat; always use a Norton Blaze mini-flap disc with supersize layer (cooling aid) to reduce heat generation and improve cut and finish.

# NORZON R860

++++

- Ideal for carbon steel and welds
- Strong zirconia alumina plus for high stock removal rate on rough grinding and deburring of steel and stainless steel
- Delivers aggressive cut rate and longer life on carbon steel and welds
- Prevents loading on aluminium and other soft materials

FERR. NON FERROUS, INOX



| SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT | BACK-UP PAD |
|---|---|---|---|---|---|
| 50 | 40 | 11500 - 15000 | 10 | 66261180892 | |
| | 60 | 11500 - 15000 | 10 | 66261180893 | 63642556629 |
| | 80 | 11500 - 15000 | 10 | 66261180894 | |
| 75 | 40 | 7500 - 10000 | 10 | 63642527476 | |
| | 60 | 7502 - 10000 | 10 | 66261180904 | 63642556629 |
| | 80 | 7503 - 10000 | 10 | 63642527482 | |



## FLEXI FLAP

Also available in mini flexi-flap disc, which adapts to contours and corners. The flexible cloth and disc construction is ideal for an improved finish and operator comfort during use.

| | | | | | |
|---|---|---|---|---|---|
| 50 | 40 | 11500 - 15000 | 10 | 66261180889 | |
| | 60 | 11500 - 15000 | 10 | 66261180890 | 63642556629 |
| | 80 | 11500 - 15000 | 10 | 66261180891 | |

# METAL R265 +++

- A good choice for aluminium, carbon steel and difficult-to-grind materials that require an economical option
- For aggressive cut and longer life than competitor aluminium oxide discs
- For longer life and faster cut rate on moderately demanding applications

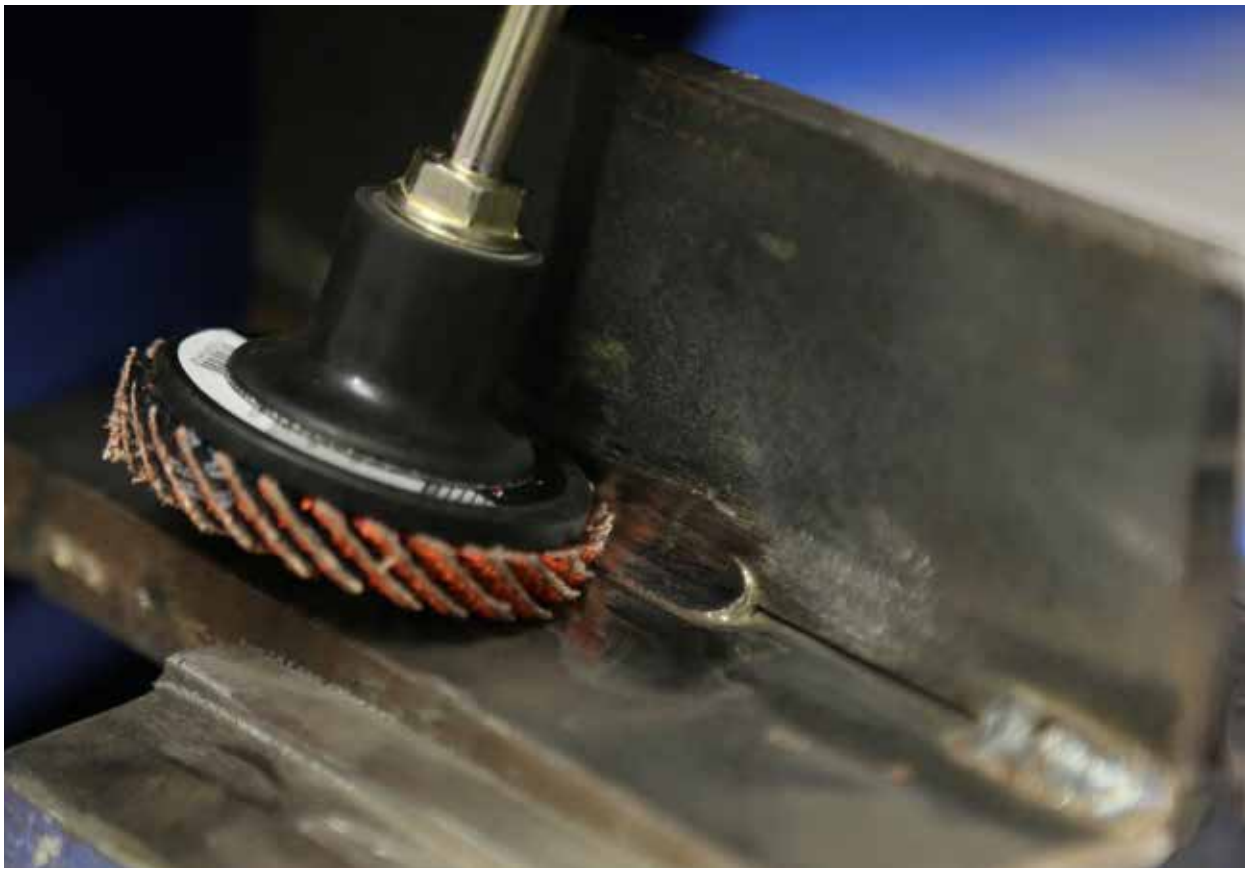
FERR. NON FERROUS

| | SIZE (mm) | GRIT | RECOMMENDED RPM | PK QTY | TR ATTACHMENT | BACK-UP PAD |
|---|---|---|---|---|---|---|
|  | 50 | 40 | 11500 - 15000 | 10 | 78072756610 | 63642556629 |
| | | 60 | 11500 - 15000 | 10 | 78072756612 | |
| | | 80 | 11500 - 15000 | 10 | 78072756613 | |
| | 75 | 40 | 7500 - 10000 | 10 | 78072756616 | |
| | | 60 | 7500 - 10000 | 10 | 78072756617 | |
| | | 80 | 7500 - 10000 | 10 | 78072756618 | |

# MADE-TO-ORDER PRODUCT AVAILABILITY

| CAP CODE | GRAIN / GRIT | 36 | 40 | 50 | 60 | 80 | 120 |
|---|---|---|---|---|---|---|---|
| Blaze R980P | Ceramic with supersize | • | • | • | • | • | |
| Norzon R860 | Zirconia | • | • | | • | • | |
| Metal R265 | Aluminium oxide | • | • | | • | • | • |

• Available





# NON-WOVEN SPEEDLOK DISCS
## FOR MINI ANGLE GRINDERS

Norton non-woven Speedlok quick-change discs are a combination of strong synthetic mesh and quality abrasives, bonded together by a smear-resistant adhesive. The open construction of the non-woven material enables aggressive cutting action and improved surface finish while maintaining its non-loading properties.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓







| | RAPID STRIP | VORTEX RAPID BLEND | VORTEX RAPID PREP | RAPID PREP | RAPID BLEND NEX |
|---|---|---|---|---|---|
| | +++++ | ++++ | ++++ | +++ | +++ |
| Scale | ✓✓ | | | | |
| Stock removal | ✓✓ | ✓ | | | |
| Heavy deburring | ✓ | ✓✓ | | | |
| Light deburring | | ✓✓ | ✓ | | |
| Light finishing | | | ✓✓ | ✓ | ✓✓ |
| Blending | | | ✓✓ | ✓ | ✓ |
| Finishing | | | ✓ | ✓✓ | ✓✓ |

MOST AGGRESSIVE
LEAST CONFORMABLE

LEAST AGGRESSIVE
MOST CONFORMABLE



# **RAPID STRIP** SPEEDLOK DISCS FOR MINI ANGLE GRINDERS



An open web construction for an aggressive cut without loading. The thick, strong synthetic fibres and extra coarse silicon carbide grain make light work of removing rust, weld spatter and scale. Use before and after welding for preparing and cleaning the surface.

## BLAZE RAPID STRIP +++++

- Ideal for removing coatings on a variety of surfaces
- With ceramic alumina grain, disc lasts twice as long than competitor
- Cleans surface thoroughly for excellent adhesion of coatings, painting and soldering
- Withstands aggressive use whilst preventing gouging



| DIA (mm) | CAP CODE | GRADE | MAX. RPM | PK QTY | TR ATTACHMENT | TR+ ATTACHMENT |
|---|---|---|---|---|---|---|
| 50 | R9101 | X Coarse SG | 20000 | 25 | 66623303912 | - |
| 75 | R9101 | X Coarse SG | 15000 | 25 | 66261096557 | - |
| 100 | R9101 | X Coarse SG | 8000 | 5 | - | 66623303921 |

Use with TR+ Holder

## RAPID STRIP +++

- General purpose, for removing coatings
- Cleans surface thoroughly for excellent adhesion of coatings, painting and soldering
- Extra-coarse abrasive grain for aggressive performance
- Anti-loading even on sticky coatings, adhesives, and soft metals



| DIA (mm) | CAP CODE | GRADE | MAX. RPM | PK QTY | TR RAPID STRIP | TR STRIPPA |
|---|---|---|---|---|---|---|
| 50 | R4101 | X Coarse S | 20000 | 10 | 63642588173 | - |
| | R4104 | X Coarse S | 20000 | 10 | - | 63642556605 |
| 75 | R4101 | X Coarse S | 15000 | 10 | 63642588175 | - |
| | R4104 | X Coarse S | 15000 | 10 | - | 63642556624 |

| Use with TR+ Holder | | | | | TR+ RAPID STRIP |
|---|---|---|---|---|---|
| 100 | R4101 | X Coarse SG | 8000 | 5 | 63642585751 |



# RAPID BLEND SPEEDLOK DISCS
## FOR MINI ANGLE GRINDERS

From material removal to final smear free finish with just one disc! With their uniquely compact design, Rapid Blend discs are ideal for quick deburring, edge breaking, blending, cleaning and polishing. Can be used in sequence with fibre discs and flap discs when removing surface defects, conditioning grindlines and general light stock removal.

## VORTEX RAPID BLEND OPEN STRUCTURE ++++

- Soft and open density of nylon fibre impregnated with patented grain technology and advanced resin system prevents loading, even on aluminium
- Special resin chemistry resists shedding when used on sharp edges, making it ideal for deburring, no smearing
- Longer life than other surface blending discs (up to 8x) means fewer disc changes for less down time and increased productivity



| DIAxT (mm) | CAP CODE | GRADE | MAX. RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|---|
| 25x6 | U2311 | Medium | 35100 | 100 | 66254497806 |
| 38x6 | U2311 | Medium | 30100 | 80 | 66254497807 |
| 50x6 | U2311 | Medium | 22000 | 25 | 66254497067 |
| 75x6 | U2311 | Medium | 18000 | 25 | 66254497068 |

# VORTEX RAPID BLEND CLOSED STRUCTURE ++++

- Closely closed structure of grain and bond provides fast stock removal, reduced cycle time and excellent part quality
- Thick nylon web holds the grain in place to provide the most consistent performance for the whole life of the disc
- Special curing process ensures the disc will not break down in heavy deburring applications
- Discs maintain form holding for use on all surfaces, shapes and contours



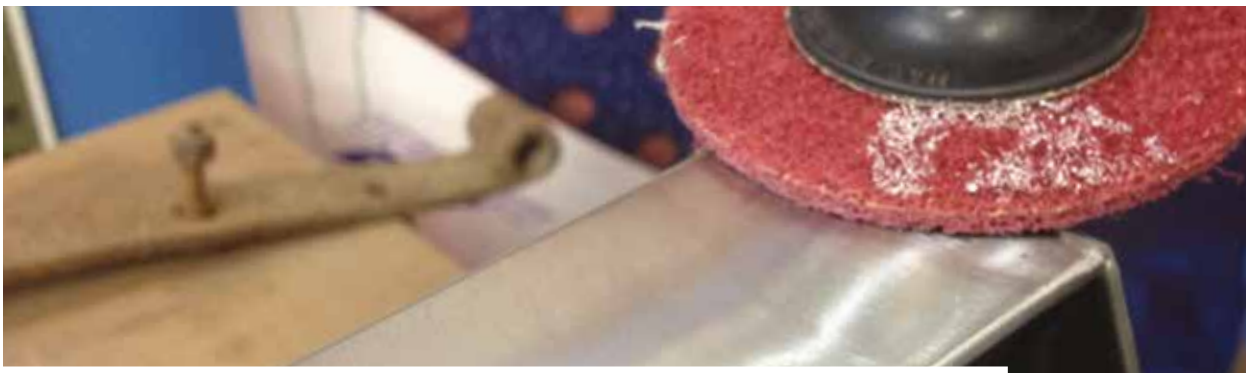
| DIAxT (mm) | CAP CODE | GRADE | MAX. RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|---|
| 50x6 | U2305 | 3AM | 22000 | 60 | 66254428237 |
| | U2305 | 5AM | 22000 | 60 | 66254413660 |
| | U2305 | 7AM | 22000 | 60 | 66254433510 |
| 75x3 | U2305 | 5AM | 18000 | 40 | 66261093556 |
| | U2305 | 7AM | 18000 | 40 | 66261090909 |
| 75x6 | U2305 | 3AM | 18000 | 40 | 66254428238 |
| | U2305 | 5AM | 18000 | 40 | 66254413661 |
| | U2305 | 7AM | 18000 | 40 | 66254406395 |

# RAPID BLEND NEX +++

- Strong mesh, abrasive and smear resistant adhesive provides aggressive cut and good surface finish without loading
- Abrasive is distributed through the entire disc (top, bottom and sides) so all three faces can be used
- Versatile, comfortable and easy to use without risk of change to workpiece geometry
- Excellent for light deburring of flashing and threads, blending alloys, polishing and finishing. Can be preformed. Holds shape
- Bright finish on stainless steel with improved 2SF and 3SF specification



| DIA (mm) | CAP CODE | GRADE | MAX. RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|---|
| 50 | U2301 | 2 A Medium | 22000 | 10 | 63642585684 |
| | U2301 | 6 A Medium | 22000 | 10 | 63642585725 |
| | U4401 | 2 S Fine | 22000 | 10 | 63642585677 |
| | U4401 | 3 S Fine | 22000 | 10 | 66254473613 |
| | U2401 | 4 A Fine | 22000 | 10 | 63642585679 |
| 75 | U2301 | 2 A Medium | 18000 | 10 | 63642585697 |
| | U2301 | 6 A Medium | 18000 | 10 | 63642585726 |
| | U4401 | 2 S Fine | 15000 | 10 | 63642585691 |
| | U4401 | 3 S Fine | 15000 | 10 | 66254473614 |
| | U2401 | 4 A Fine | 15000 | 10 | 63642585695 |



# **RAPID PREP** SPEEDLOK DISCS FOR MINI ANGLE GRINDERS

Non-woven discs have three components: strong synthetic fibre mesh, quality abrasives, and a smear-resistant adhesive. Rapid Prep discs have an open weave that excels in surface preparation and cleaning applications, thanks to a coating system that reduces smearing and resists loading. Each disc combines the cutting speed of a coarse grit with the finish of a fine and so provides the lowest total cost of consumable tooling per workpiece. The thick layer of grain throughout the product extends the life of the disc.

## VORTEX RAPID PREP SCM ++++

- For cleaning and conditioning, gain higher material removal, longer life and consistent, smear-free finishes, even on high nickel content alloys
- Vortex aluminium oxide abrasive grain and coating method combine maximum cutting speed with the consistent finish of finer grades to reduce process times by 50% by combining multiple grit sequences into one step
- Material removal level is maintained throughout disc life, reducing the need for rework and reducing total consumable cost
- The Clean Bond™ resin system ensures surfaces stay smear-free and prevents loading
- Small size for hard-to-reach areas!



| DIA (mm) | CAP CODE | GRADE | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 25 | S2203 | ACRS | 50 | 78072750699 |
| | S2303 | AMED | 50 | 78072750700 |
| | S2503 | AVF | 50 | 78072750701 |
| 50 | S2103 | Extra coarse | 50 | 66623378336 |
| | S2203 | Coarse | 50 | 66623378340 |
| | S2303 | Medium | 50 | 66623378342 |
| | S2403 | Fine | 50 | 66623378345 |
| | S2503 | Very fine | 50 | 66623378347 |
| 75 | S2103 | Extra coarse | 25 | 66623378337 |
| | S2203 | Coarse | 25 | 66623378341 |
| | S2303 | Medium | 25 | 66623378343 |
| | S2403 | Fine | 25 | 66623378346 |
| | S2503 | Very fine | 25 | 66623378348 |

Other smaller sizes e.g., 19, 25 and 38mm available on a fast MTO basis

# RAPID PREP A/O SCM +++

- For general purpose cleaning and conditioning, gain high material removal, long life and consistent, smear-free finishes, even on high nickel content alloys
- The layer of grain throughout the product extends life as the grain does not sit on top of fibres
- Flexible backing enables the disc to conform to contours
- The Clean Bond™ resin system ensures surfaces stay smear-free, even on alloys with high nickel content, aluminium and soft metals, loading is prevented



| DIA (mm) | CAP CODE | GRADE | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 50 | S2108 | Extra coarse | 50 | 66623378355 |
| | S2208 | Coarse | 50 | 66623378359 |
| | S2308 | Medium | 50 | 66623378363 |
| | S2408 | Fine | 50 | 66623378366 |
| | S2508 | Very fine | 50 | 66623378372 |
| 75 | S2108 | Extra coarse | 25 | 66623378356 |
| | S2208 | Coarse | 25 | 66623378360 |
| | S2308 | Medium | 25 | 66623378364 |
| | S2408 | Fine | 25 | 66623378382 |
| | S2508 | Very fine | 25 | 66623378373 |

Other smaller sizes e.g., 19, 25 and 38mm available on a fast MTO basis



# SPEEDLOK BUFFING & POLISHING DISCS FOR MINI ANGLE GRINDERS

Final scratch removal and imparting a high-quality shine are often the last stages in a fabrication process and polishing is easy with Norton BearTex buffing discs and Rapid Polish discs. Whether you're working on aluminium or stainless steel, in intricate or hard-to-reach areas Norton has a solution for you.

## HIGH STRENGTH BUFFING DISC +++

- Tough, yet conformable, resists tearing on burrs and sharp edges
- Follows contours and awkward profiles easily.
- Premium aluminium oxide grain for aggressive blending and cleaning without smearing
- Ideal for rust/oxide or coating removal, pipe ID and OD polishing, casting cleaning, highlighting (antiquing), contaminant removal, removal of handling marks, gasket removal, cleaning and blending of surface imperfections, prepping prior to soldering, removal of filling materials, cleaning angles and odd shapes
- Will not stretch or shed



| DIA (mm) | CAP CODE | GRADE | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 50 | F2303 | Medium A | 50 | 63642585924 |
| | F2506 | Very Fine A | 50 | 08834163987 |
| 75 | F2303 | Medium A | 50 | 08834164065 |
| | F2506 | Very Fine A | 50 | 63642585932 |

## RAPID POLISH +++

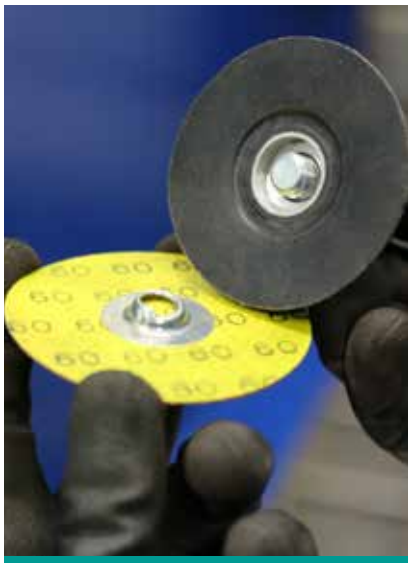
- Polishing is the final stage in the process, to achieve a glossy, high shine finish
- Use on all metals including stainless steel and aluminium
- Removes fine scratches
- Impart a high-quality mirror shine



| DIA (mm) | GRADE | PK QTY | TR ATTACHMENT |
|---|---|---|---|
| 50 | Medium A | 50 | 63642587165 |
| 75 | Medium A | 50 | 63642587167 |



TR ATTACHMENT



TS ATTACHMENT



TR+ ATTACHMENT

Norton quick change pads are premium backup pads designed for use with Speedlok discs. With different attachment types available and densities, we have the solution to fit your quick change disc.



| Material Application | Machine | Process |
|---|---|---|
| All materials | Mini angle grinder and Die Grinder | Grinding and finishing for small areas with challenging tool access |

# RUBBER BACK-UP PADS FOR MINI ANGLE GRINDER

6mm SPINDLE

- Balanced to ensure operator comfort
- Resilient rubber pad for longer life
- Hardened shaft for strength
- Metal thread for secure disc connection
- Improved packaging with euro slot for easier display
- Separated shaft to mount for flatter packaging and easier display

| SIZE (mm) | DENSITY | MAX. RPM | PK QTY | TR ATTACHMENT | TS ATTACHMENT |
|---|---|---|---|---|---|
| 25 | Medium | 38100 | 1 | 63642556628 | 7660718963 |
| 38 | Medium | 25100 | 1 | 63642556629 | 7660707032 |
| 50 | Medium | 19000 | 1 | 7660717817 | 63642501157 |
| | Hard | 19000 | 1 | 63642586931 | 63642586926 |
| 75 | Medium | 12800 | 1 | 63642556631 | 7660707384 |
| | Hard | 12800 | 1 | 66254401460 | 63642586932 |

# PLASTIC BACK-UP PADS FOR MINI ANGLE GRINDER

TR+ ATTACHMENT (TR+ - SL4)

- Plastic back-up pad with 6mm spindle for 100mm Speedlok TR+ discs



| SIZE (mm) | DENSITY | MAX. RPM | PK QTY | TR+ ATTACHMENT |
|---|---|---|---|---|
| 100 | Hard | 15000 | 1 | 63642586196 |

SPEC CHECK

**Medium density** suitable for medium/fine applications such as edge rounding or surface grinding.
**Hard density** suitable for coarse applications and higher stock removal such us chamfering, welded seam or deburring work.

# BACK-UP PADS FOR ANGLE GRINDERS

TR ATTACHMENT (TYPE 3-SL3)



- Back-up pad with M14 thread

| SIZE (mm) | DENSITY | MAX. RPM | PK QTY | TR ATTACHMENT |
|---|---|---|---|---|
| 75 | Medium | 11200 | 1 | 63642587305 |
| | Hard | 11200 | 1 | 63642557133 |

CORDLESS COMPATIBLE

# ANGLE GRINDER ADAPTOR



- Adapts the standard quick change back-up pad for use on an angle grinder
- Suitable for use with rubber back-up pads
- Female M14, male thread 1/4 - 20 UNC

| TYPE | DENSITY | MAX. RPM | PK QTY | ART NO. |
|---|---|---|---|---|
| M14 Adaptor | Metal | 12000 | 1 | 63642587997 |

CORDLESS COMPATIBLE

To use a standard rubber back-up pad on an angle grinder, unscrew the 6mm shaft and insert the adaptor M14 - 1/4"

# HOW TO USE A MINI DISC ADAPTOR ON AN ANGLE GRINDER

SPEC CHECK




Remove the metallic spindle and screw the adaptor to use the rubber back-up directly on the angle grinder.




Adapt your 3/8"- 24 or 5/8"-11 right angle grinder to a Type II or Type III back-up pad.




# MINI RIGHT ANGLE GRINDER
## GRINDING TOOLS AND KITS

Norton offers mini tools for grinding and sanding to make life easier in detailed, hard-to-reach applications. Use with Norton Speedlok discs for surface preparation and defect removal on curves, contours and tight areas.

YouTube
Norton Pneumatic Die Grinder

## MINI RIGHT ANGLE GRINDER +++

50mm (2") MAX RPM 22.000 (0,45 HP)

- Designed for use with the quick-change back-up pad and Speedlok and mini flap discs
- Use with 38mm and 50mm quick change sanding discs and spindle mounted sanding specialties only. The accessories must have a rated speed greater than the speed marked on the tool



| EXHAUST DIRECTION | THROTTLE TYPE | HORSEPOWER | AIR CONSUMPTION (L/MIN) | COLLET CHUNK | TOOL WEIGHT | ART NO. |
|---|---|---|---|---|---|---|
| Rear | Level | 0,45 | 85 | 6mm | 0,74 kg | 66261177765 |

SPEC CHECK

Air tools require regular lubrication throughout the life of the tool. The air motor and bearing use compressed air to power the tool. Because moisture in compressed air will rust the air motor, it must be lubricated daily.
An inline oiling device is recommended.
Before using the machine add 1-2 drops of oil in the machine air inlet.

This in an UNGUARDED tool and should NEVER be used with cut-off discs or other bonded abrasive grinding wheels. Never use any product that has a MAX RPM rating less that the RPM marked on the tool.

# NORTON MINI RIGHT ANGLE GRINDER **STARTER KIT**

COMPATIBLE WITH 50mm (2") DISCS
MAX RPM 22.000 (0,45 HP)

- An assortment of 45 abrasive Speedlok discs, of the most popular grades for stripping, deburring and surface blending, and the new Norton mini right angle die grinder



| KIT CONTENTS | ITEM ART NO. | PK QTY | KIT ART NO. |
|---|---|---|---|
| 50mm (2") NORTON MINI RIGHT ANGLE DIE GRINDER: MAX RPM 22.000 (0,45 HP) | 66261177765 | 1 | 69957300298 |
| NORTON TOOL BAG SIZE: 56x31x45cm | - | 1 | |
| Blaze Rapid Strip speedlok disc 50mm R9101 AOXC SL3 | 66623303912 | 10 | |
| Blaze Fibre speedlok disc 50mm C36 SL3 | 66261058704 | 25 | |
| Rapid Prep speedlok discs 50mm Medium SL3 | 66623378342 | 10 | |
| Rubber back-up pad 50x6 SL3 | 63642586931 | 1 | |

# NORTON MINI RIGHT ANGLE GRINDER & SPEEDLOK DISCS **PROFESSIONAL KIT**

COMPATIBLE WITH 50mm (2") DISCS
MAX RPM 22.000 (0,45 HP)

- A complete assortment of our product Speedlok disc range complete with mini angle grinder
- Includes samples of the most popular abrasive Speedlok discs for all application stages from cleaning, deburring, blending up to surface preparation



| KIT CONTENTS | ITEM ART NO. | PK QTY | KIT ART NO. |
|---|---|---|---|
| 50mm (2") NORTON MINI RIGHT ANGLE DIE GRINDER: MAX RPM 22.000 (0,45 HP) | 66261177765 | 1 | 69957300300 |
| NORTON TOOL BAG SIZE: 56x31x45cm | - | 1 | |
| Blaze Rapid Strip speedlok disc 50mm R9101 AOXC SL3 | 66623303912 | 5 | |
| Blaze Fibre speedlok disc 50mm C36 SL3 | 66261058704 | 5 | |
| Blaze speedlok disc 50mm C50 SL3 | 63642597045 | 5 | |
| Blaze speedlok disc 50mm C80 SL3 | 63642597052 | 5 | |
| Blaze speedlok mini flap disc 50mm C40 SL3 | 66261120104 | 5 | |
| Rapid Prep speedlok discs 50mm Medium SL3 | 66623378342 | 5 | |
| Rapid Prep speedlok discs 50mm VFine SL3 | 66623378347 | 5 | |
| Rapid Blend speedlok disc 50 Fine SL3 | 63642585677 | 5 | |
| Rubber back-up pad 38x6 SL3 | 63642556629 | 1 | |
| Rubber back-up pad 50x6 SL3 | 63642586931 | 1 | |



NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# DISCS
## FOR ORBITAL MACHINE


| | | | |
|---|---|---|---|
| Norton MeshPower Discs | 94 | Screenback Discs | 105 |
| Self-Grip & BearTex Discs | 96 | Plain Discs | 106 |
| | | BearTex Floor Pads | 108 |




# NORTON MESHPOWER DISCS

An alternative to traditional perforated paper discs, Norton MeshPower is a multifunctional abrasive, designed with thousands of holes, created by the unique mesh matrix structure.
This hole structure allows dust extraction in any application.

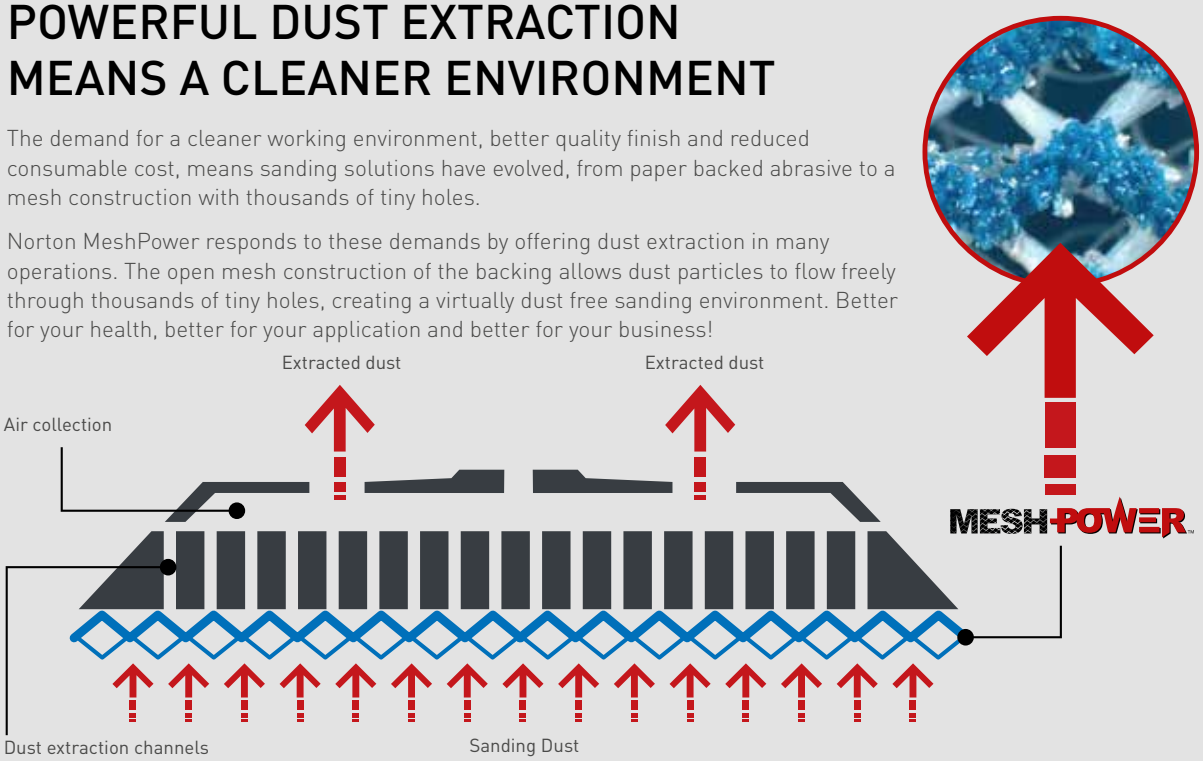
- Mesh backing enables excellent dust extraction, for a cleaner working environment and less clean up time
- No-fil® technology prevents clogging for longer product life
- Can be used wet or dry
- Self-grip backing for a quick and easy disc change
- Can be used on many materials, flat and contoured surfaces, by hand or machine
- No defined hole pattern for fast, easy alignment with the back-up pad
- Easy to identify product type by grain colour

YouTube
Norton MeshPower

## POWERFUL DUST EXTRACTION MEANS A CLEANER ENVIRONMENT

The demand for a cleaner working environment, better quality finish and reduced consumable cost, means sanding solutions have evolved, from paper backed abrasive to a mesh construction with thousands of tiny holes.

Norton MeshPower responds to these demands by offering dust extraction in many operations. The open mesh construction of the backing allows dust particles to flow freely through thousands of tiny holes, creating a virtually dust free sanding environment. Better for your health, better for your application and better for your business!




## CERAMIC ADVANTAGE

Ceramic grain provides the ultimate material removal, best productivity, longest life and finest finish.

# MESHPOWER DISCS CERAMIC +++++



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 150 | 60 NEW | 50 | 78072712627 |
| | 80 | 50 | 69957325723 |
| | 120 | 50 | 69957325730 |
| | 180 | 50 | 69957325731 |
| | 240 | 50 | 69957325732 |
| | 320 | 50 | 69957325733 |
| | 400 | 50 | 69957325736 |
| 203 | 60 NEW | 50 | 78072712626 |
| | 80 | 50 | 69957326072 |
| | 120 | 50 | 69957326073 |
| | 180 | 50 | 69957326075 |
| | 240 | 50 | 69957326076 |
| | 320 | 50 | 69957326077 |

# MESHPOWER DISCS ALUMINIUM OXIDE +++++



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 150 | 80 | 50 | 69957326274 |
| | 120 | 50 | 69957326275 |
| | 180 | 50 | 69957326276 |
| | 240 | 50 | 69957326277 |
| | 320 | 50 | 69957326278 |
| | 400 | 50 | 69957326279 |
| 225 | 80 | 25 | 78072703555 |
| | 120 | 25 | 78072703556 |
| | 180 | 25 | 78072703557 |
| | 240 | 25 | 78072703558 |

# PAD SAVER

| SIZE (mm) | TYPE / GRADE | PK QTY | ART NO. |
|---|---|---|---|
| 150 | Multi-Air | 1 | 69957328425 |
| | 14+1 holes | 1 | 69957328430 |



# SELF-GRIP & BEARTEX DISCS

Self-Grip discs have a quick release backing that allows fast and easy disc changing, increasing performance by minimising downtime. Made with premium abrasive grains for excellent cutting action providing a very homogenous and high quality finish. Depending on the grit size, Norton self-grip discs are ideal for preparing primed and painted surfaces, stripping primer, varnish and paint, sanding plastic and fibreglass, light weld blending and deburring, and sanding bare wood.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Suitable ○



| MATERIALS | APPLICATIONS | NORTON BLAZE A995 Multi-Air® | NORTON PRO PLUS A975 | BLUE FIRE NORZON H835F | NORTON PRO A275 | H231 | NORTON PRO FILM Q275 | H425* |
|---|---|---|---|---|---|---|---|---|
| | | INNOVATION | +++++ | +++++ | ++++ | ++++ | ++++ | ++++ |
| Metal | Coarse sanding | ✓✓ | | ✓✓ | | ✓ | | |
| | Finishing | ✓✓ | | ✓✓ | | ✓ | | |
| Hardwood | Coarse sanding | ✓✓ | | ✓✓ | ○ | ✓ | | ✓ |
| | Finishing | ✓ | ✓✓ | ✓ | ✓ | ✓✓ | ✓ | ✓ |
| Softwood | Coarse sanding | ✓ | | ✓ | ✓ | ✓✓ | | ✓ |
| | Finishing | ✓ | ✓✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Filler | Aluminium / metal | ✓ | ✓ | ✓✓ | ✓ | | ✓ | |
| | Polyester | ✓ | ✓✓ | ✓ | | | | |
| Varnish / paint / primer | Coarse sanding | ✓✓ | | ✓ | ✓✓ | ✓ | | |
| | Finishing | ✓✓ | ✓✓ | ✓ | ✓ | ○ | ✓ | |
| Composites / coatings | Epoxy | ✓✓ | ✓✓ | ✓✓ | | ✓ | | |
| | Acrylic | ✓✓ | ✓✓ | | ✓ | | | |
| | Fibre glass | ✓✓ | | ✓✓ | | ✓ | | |
| | Finishing | ✓ | ✓✓ | | ✓ | | ✓ | |
| Plaster | Coarse sanding | | | | | ✓ | | ○ |
| | Finishing | | | | ✓✓ | ○ | | |
| Stone & glass | Coarse sanding | | | | | ○ | | ✓✓ |
| | Finishing | | | | | ○ | | ✓✓ |

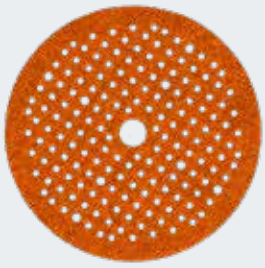
*Available as MTO only




## BLAZE A995 MULTI-AIR

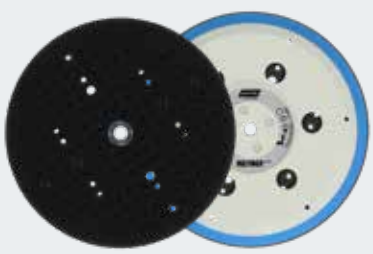
INNOVATION

- Ultra-premium ceramic aluminium oxide grain boosts performance with extremely sharp edges and removes over 30% more material with considerably less dust
- An all-new exclusive backing design provides extraordinary strength with tear resistance well beyond any flexible paper in the market
- Unique Norton Multi-Air® hole configuration provides a consistent cut throughout the product's life and maximum dust extraction for a cleaner work environment and less potential for contamination in the shop
- Norton No-Fil® water-based stearate coating ensures you get the superior finish you need without user fatigue, rework and endless consumption of discs through changeovers



| DIAxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 150 | 40 | 50 | 78072756399 |
| | 60 | 50 | 78072756400 |
| | 80 | 50 | 78072756402 |
| | 120 | 50 | 78072756403 |
| | 150 | 50 | 78072756404 |
| | 180 | 50 | 78072756405 |
| | 220 | 50 | 78072756406 |
| | 320 | 50 | 78072756407 |
| | 400 | 50 | 78072756408 |

## NORTON MULTI-AIR BACK-UP PADS



| DIA (mm) | DENSITY | PK QTY | ART NO. |
|---|---|---|---|
| 150 | Hard | 1 | 07660719198 |
| | Medium | 1 | 63642585872 |

## SELF-GRIP & BEARTEX DISCS

# NORTON PRO PLUS A975

- Norton SG ceramic grain blended with premium heat-treated aluminium oxide abrasive for higher and faster cut rate with uniform scratch pattern
- Fibre reinforced latex paper is flexible yet tear resistant
- No-Fil® treatment reduces clogging during use and extends the life of the disc
- Also available with soft-touch foam backing

NON FERR. PAINT/VARN. & HARD WOOD



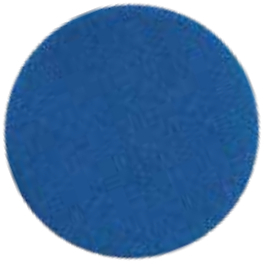
| DIAxH (mm) | GRIT | PK QTY | BOX QTY | ART NO. |
|---|---|---|---|---|
| 150 | 80 | 100 | 400 | 63642523303 |
| | 120 | 100 | 400 | 63642524766 |
| | 150 | 100 | 400 | 63642557521 |
| | 180 | 100 | 400 | 63642591994 |
| | 240 | 100 | 400 | 63642591990 |
| 150 15 holes | 80 | 100 | 400 | 66254477881 |
| | 120 | 100 | 400 | 66254477879 |
| | 150 | 100 | 400 | 66254477882 |
| | 180 | 100 | 400 | 66254477883 |
| | 220 | 100 | 400 | 66254477884 |
| | 240 | 100 | 400 | 66254477885 |
| | 280 | 100 | 400 | 66254477886 |
| | 320 | 100 | 400 | 66254477887 |
| | 400 | 100 | 400 | 66254477888 |
| | 500 | 100 | 400 | 66254476601 |
| | 600 | 100 | 400 | 63642532659 |
| | 800 | 100 | 400 | 66254479091 |

See the Norton Automotive Aftermarket catalogue for the extended range of A975 Multi-Air self-grip and Multi-Air Soft Touch discs

# BLUE FIRE NORZON H835 +++++

- Latest Norzon grain design with self-sharpening grain for great cut rate and extended product life
- Prevents premature clogging due to open grain distribution
- The best option for coarse sanding and finishing on hard materials
- High strength paper backing with excellent tear resistance and reduced curling and edge chipping

FERR. & NON FERR. | PAINT/VARN. & HARD WOOD



| DIAxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 150 | 40 | 50 | 69957390933 |
| | 60 | 50 | 69957390940 |
| | 80 | 50 | 69957391248 |
| | 120 | 100 | 69957391249 |
| 150 | 40 | 50 | 66254444904 |
| | 60 | 50 | 66254444905 |
| | 80 | 50 | 66254444908 |
| 15 holes | 120 | 100 | 66254444909 |

See the Norton Automotive Aftermarket catalogue for the extended range of H835 Multi-Air® self-grip discs



## SELF-GRIP & BEARTEX DISCS

# NORTON PRO A275 ++++

- Heat treated aluminium oxide abrasive for faster cut rate and consistent scratch pattern for consistently good surface finish
- Can be used universally on different surfaces
- No-Fil® coating prevents premature clogging for a longer lasting disc
- Fibre reinforced latex paper is flexible yet tear resistant

NON FERR. | PAINT/VARN, HARD & SOFT WOOD



| DIAxH (mm) | GRIT | PK QTY | BOX QTY | ART NO. |
|---|---|---|---|---|
| 76 | 80 | 50 | 100 | 63642585133 |
| | 120 | 50 | 100 | 63642585145 |
| | 150 | 50 | 100 | 63642585148 |
| | 180 | 50 | 100 | 63642585150 |
| | 220 | 50 | 100 | 63642585153 |
| | 240 | 50 | 100 | 63642585156 |
| | 320 | 50 | 100 | 63642569699 |
| | 400 | 50 | 100 | 63642585169 |
| | 500 | 50 | 100 | 69957391303 |
| | 800 | 50 | 100 | 63642585172 |
| 150 | 80 | 100 | 100 | 63642585184 |
| | 100 | 100 | 100 | 63642585186 |
| | 120 | 100 | 100 | 63642569701 |
| | 150 | 100 | 100 | 63642569702 |
| | 180 | 100 | 100 | 63642585190 |
| | 220 | 100 | 100 | 63642585194 |
| | 240 | 100 | 100 | 63642585197 |
| | 280 | 100 | 100 | 63642585199 |
| | 320 | 100 | 100 | 63642569704 |
| | 400 | 100 | 100 | 63642585214 |
| | 500 | 100 | 100 | 63642585217 |
| | 600 | 100 | 100 | 63642585220 |
| | 800 | 100 | 100 | 63642585223 |
| 150 15 holes | 80 | 100 | 400 | 66254405540 |
| | 100 | 100 | 400 | 66254405542 |
| | 120 | 100 | 400 | 66254405528 |
| | 150 | 100 | 400 | 66254405530 |
| | 180 | 100 | 400 | 66254405546 |
| | 220 | 100 | 400 | 66254405548 |
| | 240 | 100 | 400 | 66254405549 |
| | 280 | 100 | 400 | 66254405550 |
| | 320 | 100 | 400 | 66254405539 |
| | 360 | 100 | 400 | 66254405551 |
| | 400 | 100 | 400 | 66254405552 |
| | 500 | 100 | 400 | 66254405553 |
| | 600 | 100 | 400 | 66254405554 |
| | 800 | 100 | 400 | 66254405555 |

# H231 ++++

- Aluminium oxide abrasive for roughing, intermediate sanding and finishing of solid wood on floor and furniture applications
- Semi-open / open coat (depending on grit size) reduces clogging on the disc for longer life
- Finer grits are ideal for polishing metal, plastic and leather, smoothing filler and sanding primer, within vehicle repair markets
- Anti-static properties of the disc enable excellent surface quality

FERR. & NON FERR. | HARD WOOD



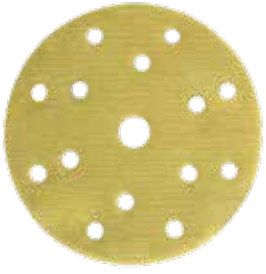


| DIAxH (mm) | GRIT | PK QTY | BOX QTY | ART NO. |
|---|---|---|---|---|
| 125 8 holes | 36 | 100 | 50 | 66261176734 |
| | 60 | 100 | 100 | 63642516174 |
| | 80 | 100 | 100 | 63642516175 |
| | 120 | 100 | 100 | 63642516176 |
| | 180 | 100 | 100 | 63642537389 |
| | 240 | 100 | 100 | 69957360184 |
| | 320 | 100 | 100 | 63642537390 |
| 150 | 36 | 100 | 50 | 63642551458 |
| | 40 | 100 | 100 | 63642531875 |
| | 50 | 100 | 100 | 69957360119 |
| | 60 | 100 | 100 | 63642519158 |
| | 80 | 100 | 100 | 63642546787 |
| | 100 | 100 | 100 | 63642531872 |
| | 120 | 100 | 100 | 63642531871 |
| | 150 | 100 | 100 | 69957360170 |
| | 180 | 100 | 100 | 63642536755 |
| | 240 | 100 | 100 | 63642546797 |

# NORTON PRO FILM Q275 ++++

- Heat-treated aluminium oxide grain for fast material removal and excellent performance on paint, varnish and fillers
- Flexible film backing is resistant to tearing and provides a consistent scratch pattern which reduces rework
- No-Fil® layer on the abrasive prevents dust build-up during sanding for significantly longer disc life
- Self-grip system for quick and easy disc changing, reducing process time

PAINT/VARN. HARD & SOFT WOOD



| DIAxH (mm) | GRIT | PK QTY | BOX QTY | ART NO. |
|---|---|---|---|---|
| 150 15 holes | 80 | 100 | 400 | 77696085879 |
| | 120 | 100 | 400 | 77696088028 |
| | 150 | 100 | 400 | 77696088145 |
| | 180 | 100 | 400 | 77696088146 |
| | 220 | 100 | 400 | 77696088147 |
| | 240 | 100 | 400 | 77696088149 |
| | 320 | 100 | 400 | 77696088150 |
| | 400 | 100 | 400 | 77696088151 |
| | 500 | 100 | 400 | 77696088152 |
| | 600 | 100 | 400 | 77696088153 |
| | 800 | 100 | 400 | 77696088154 |
| | 1000 | 100 | 400 | 77696088155 |
| | 1200 | 100 | 400 | 77696088156 |
| | 1500 | 100 | 400 | 77696088388 |

## SELF-GRIP & BEARTEX DISCS

# BEARTEX +++

- Three-dimensional disc that conforms to work surface and provides a uniform finish
- Non-loading and ideal for finishing solid surface materials
- Gentle action that easily removes burrs without affecting the dimension of the workpiece
- In Self Grip and Plain backing



| DIAxH (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 150<br>7 holes | **BEARTEX SELF-GRIP DUST HOLE DISCS** | | | |
| | F2560 | Very fine A | 10 | 69957383151 |
| | F4802 | Ultra fine S | 10 | 69957383158 |
| | F2801 | Micro fine A | 10 | 69957383162* |
| 150 | **BEARTEX SELF-GRIP PLAIN DISCS** | | | |
| | F2560 | Very fine A | 10 | 63642574240 |
| | F4660 | Ultra fine S | 10 | 63642581769 |
| | **BEARTEX PLAIN DISCS (WITHOUT SELF-GRIP)** | | | |
| | F2560 | Very fine A | 10 | 63642557497 |
| | F4807 | Ultra fine S | 10 | 63642557498 |

# NEW BEARTEX ++++

| | | | | |
|---|---|---|---|---|
| 150 | **BEARTEX SELF-GRIP PLAIN DISCS** | | | |
| | F2316 | Medium A<br>Heavy duty | 20 | 66261121312 |

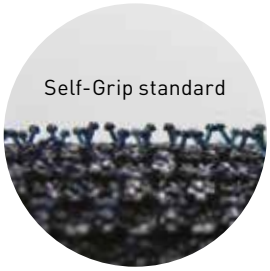
# SELF-GRIP BACK-UP PADS

# PRODUCT SELECTION GUIDE BACK-UP PADS

| APPLICATION | DENSITY |
|---|---|
| Heavy duty sanding, best for flattening surfaces or dimensioning | **HARD**<br>Blue Rubber |
| Scuffing, shaping, sanding and finishing<br>For use on filler, primer, paint, clear coat, wood, plaster, composites and metal | **MEDIUM**<br>Black Rubber |
| Final sanding, to obtain the best finishes | **SOFT**<br>Orange Foam / Rubber |

| MACHINE | ATTACHMENT TYPE |
|---|---|
| Electrical angle grinder | M14 |
| Electrical and pneumatic grinders (US tools) | 5/8 |
| Festo orbital sander | M8 |
| Other orbital sanders | 5/16 |

Packed in clear individual display box including: safety recommendations, product information, mounting instructions, versatile attachment system (Festool M8 and standard 5/16) and allen wrench.

| | DIM DIAxH (mm) | THREAD | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|
|  Self-Grip standard | 76  No holes | 5/16" | Medium | 6 | 63642567810* |
| | 125  8 holes | 5/16" | Medium | 3 | 69957350739 |
| | 125  No holes | M14 | Medium | 3 | 69957350744 |
| | 150  No holes | 5/16 & M8 | Medium | 1 | 66623338436 |
| | 150  No holes | M14 | Medium | 3 | 63642567812 |
| | 150  15 holes | 5/16 & M8 | Hard | 1 | 66623338451 |
| | | | Medium | 1 | 66623338450 |
| | | | Soft | 1 | 66623338452 |

*The 76mm back-up pad is a universal attachment system for both Self-Grip and self-adhesive discs. It provides the maximum flexibility and optimal finishing results. The Self-Grip DUO combines an innovative design of gripping structures in the shape of flat-top mushrooms which provides a highly uniform finish while allowing both self-adhesive and Self-Grip discs to be used on this unique system

# FOAM INTERFACE BACK-UP PADS SELF-GRIP





| DIA (mm) | PK QTY | ART NO. |
|---|---|---|
| 76  | 10 | 69957394589 |
| 150  | 10 | 07660719360 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter

SPEC CHECK

Specially designed to give optimum results with very fine grit abrasives, the Norton foam interface easily conforms to contours. The interfaces are specifically developed for finishing operations to reduce risk of scratching the workpiece. Use the foam interface between the Norton self-grip back-up pad and the self-grip abrasive disc.



## SELF-GRIP & BEARTEX DISCS

# HOLE PATTERNS FOR DISCS AVAILABLE AS MADE-TO-ORDER

Other sizes and hole patterns available on request

115mm



ø115mm
with no holes

125mm



ø125mm
with no holes

125mm



ø125mm with 8 holes
ø10 mm on hole circle ø90 mm
+ 1 centre hole ø10 mm

150mm



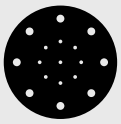
ø150mm with 6 holes
ø10 mm on hole circle ø80 mm
+ 1 centre hole ø17 mm

ø150mm



ø150 mm 8 holes ø10 mm
on hole circle ø120 mm
+ 1 centre hole ø17 mm

ø150mm



ø150mm
with 17 holes

ø150mm



ø150mm with 180 holes
+ 1 centre hole ø18 mm

ø203mm



ø203 mm 8 holes
ø12 mm

ø225mm



ø225 mm 10 holes
ø12 mm on hole circle ø105 mm

# MADE-TO-ORDER PRODUCT AVAILABILITY

FOR SELF-GRIP DISCS

| PRODUCT / GRIT | 36 | 40 | 60 | 80 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 | 500 | 600 | 800 | 1000 | 1200 | 1500 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Norton Pro Plus A975 | | | | • | • | • | • | • | • | • | • | • | • | • | • | | | |
| Blue Fire Norzon H835F | | • | • | • | • | | • | | | | | | | | | | | |
| Norton Pro A275 | | | | • | • | • | • | • | • | • | • | • | • | • | • | | | |
| H231 | • | • | • | • | • | • | • | | • | | • | | | | | | | |
| Norton Pro Film Q275 | | | | • | • | • | • | • | • | | • | • | • | • | • | • | • | • |
| H425* | • | • | • | • | • | | | • | | | • | • | | • | • | | | |

* Available only as MTO

## MINIMUM ORDER QUANTITY

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| Up to 50mm | 4000 pieces |
| 51 up to 90mm | 2500 pieces |
| 91 up to 125mm | 2000 pieces |
| 126 up to 200mm | 1000 pieces |
| 201 up to 420mm | 200 pieces |
| Over 421mm | 25 pieces |

Norton offers a variety of discs, including the Multi-Air family, featuring Norton Cyclonic, the latest generation of discs for all applications from sanding to polishing.

For more information, see the Norton Automotive Catalogue, or contact your local sales representative.



# SCREENBACK DISCS
## FOR WALL & CEILING SANDING

Norton offers a complete solution of screenback discs to suit the most common applications including ceiling and wooden floor sanding.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓




| MATERIALS | APPLICATIONS | Q43N | Q421 |
|---|---|---|---|
| | | +++ | +++ |
| Wall and ceiling sanding | Surface preparation | ✓✓ | ✓ |
| Wood floor sanding | Surface preparation | ✓ | ✓✓ |
| | Between coats | ✓ | ✓✓ |

## Q43N +++

- Sharp silicon carbide grain for aggressive and fast cut
- Open mesh structure for reduced clogging and longer life
- Ideal for wall and ceiling surface preparation.
- Open self-grip backing can be used on machines with dust extraction to reduce dust generation when sanding plaster

PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIAxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 225 | 60 | 25 | 66623332303 |
| | 80 | 25 | 66623332310 |
| | 100 | 25 | 66623332311 |
| | 120 | 25 | 66623332313 |
| | 150 | 25 | 66623332318 |
| | 220 | 25 | 66623332322 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter

## Q421 +++

- Silicon carbide abrasive for aggressive and fast cut
- Open-mesh backing to reduce clogging and loading
- Designed for wood floor sanding
- Can be used for wet or dry applications

PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIAxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 406 | 60 | 10 | 66261120519 |
| | 80 | 10 | 63642536521 |
| | 100 | 10 | 66261120517 |
| | 120 | 10 | 66261120516 |
| | 150 | 10 | 63642536524 |
| | 180 | 10 | 63642515105 |
| | 220 | 10 | 63642552254 |



# PLAIN DISCS
## FOR FLOOR SANDING

Norton offers a range of plain sanding discs to suit all the most commonly encountered applications.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓




| MATERIAL / APPLICATIONS | | H425 | H231 |
|---|---|---|---|
| | | ++++ | ++++ |
| Wood (floor sanding)<br>Stone | Surface preparation | ✓ | ✓✓ |
| | Coarse sanding | ✓✓ | |
| | Finishing | ✓✓ | |

## H425 ++++

- Sharp silicon carbide abrasive grain for aggressive and high cut rate
- For dry applications only
- Strong E-weight paper ideal for use on stone surfaces

STONE HARD & SOFT WOOD



| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 150x12 | 36 | 50 | 63642546553 |
| | 40 | 100 | 69957360199 |
| | 50 | 100 | 63642546525 |
| | 60 | 100 | 63642546527 |
| | 80 | 100 | 63642546529 |
| | 100 | 100 | 69957360218 |

# H231 ++++

- High performance aluminium oxide abrasive with anti-static properties for longer life and excellent surface quality
- Semi-open / open coat (depending on grit size) to improve resistance to clogging
- Ideal for roughing, intermediate sanding and finishing of solid wood on floor



FERR. & NON FERR. | PAINT/VARN, HARD & SOFT WOOD

| SIZE (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 350x40 | 40 | 10 | 63642540076 |
| | 50 | 10 | 63642540078 |
| | 60 | 10 | 63642540079 |
| | 80 | 10 | 63642540080 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, H = Hole

**SPEC CHECK**

To remove swirl marks left from edging, consider sanding the edges with an orbital sander. For best results and to avoid halos, use the same grit on the orbital sander as you previously used on the edger. The super sharp ceramic alumina grain will easily remove edger marks and produce a scratch free finish. See section selfgrip discs for further information about range.

## MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT / GRIT | 24 | 36 | 40 | 60 | 80 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 | 600 | 800 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H425 | • | • | • | • | • | • | | | • | • | • | • | • | • | • | |
| H231 | | • | • | • | • | • | • | • | • | • | • | • | • | | | |

Hole patterns for discs available as MTO, other sizes and hole patterns available on request • Available

ø 115mm with 22,23mm slotted hole
ø 125mm with 22,23mm slotted hole

### MINIMUM ORDER QUANTITY

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| Up to 125mm | 2000 pieces |
| 126 up to 200mm | 1000 pieces |
| 201 up to 420mm | 200 pieces |
| Over 421mm | 25 pieces |

AVAILABLE ON REQUEST
**DOUBLE SIDED ABRASIVE DISCS**
Available on request a full range of 100% silicon carbide abrasive coated discs with abrasive on both sides for twice the life, quick switch, no PSA contamination, increased tear resistance. Contact your local sales representative.



# BEARTEX FLOOR PADS
## FOR FLOOR SANDING MACHINES

BearTex offers a wide range of floor pads from stripping right through to mirror gloss finishing. For general scrubbing and cleaning applications BearTex offers two pads that will remove surface dirt and grime to get the floor back in shape before recoating or buffing.

## BEARTEX FLOOR PADS



| DIA (mm) | CAP CODE | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|
| **STANDARD FLOOR PADS 25mm THICK** | | | | |
| 406 | JF175 | White Super Gloss | 5 | 63642585892 |
| | JF176 | Red Buffer | 5 | 63642585890 |
| | JF177 | Beige / White | 5 | 63642585873 |
| | JF178 | Black Super Strip | 5 | 63642585841 |
| | JF180 | Green Super Scrub | 5 | 63642585877 |
| | JF181 | Blue Super Clean | 5 | 63642585868 |
| All standard floor pads come with an 89mm removable centrepiece | | | | |
| **THIN LINE FLOOR PADS 15mm THICK** | | | | |
| 406 | JU014 | Black | 10 | 63642585895 |
| | JF068 | Green | 10 | 63642585899 |
| | JF040 | Beige | 10 | 63642585903 |
| | JF175 | White | 10 | 63642585904 |

## PRODUCT SELECTION

| | |
|---|---|
| Black Super Strip | A thick pad that is aggressive, durable, and consistent, for wet stripping applications |
| Green Super Scrub | A heavy duty wet scrubbing pad that will remove the toughest scuff marks in heavily soiled traffic areas |
| Blue Super Clean | For general duty scrubbing or heavy spray cleaning jobs |
| Beige / White | For buffing and polishing, good for light traffic areas |
| Red Buffer | Generally used where a high gloss finish is desired when dry or spray buffing. It can also be used for light cleaning applications |
| White Super Gloss | A non-abrasive polishing/buffing pad, used dry or with a fine mist to yield a mirror gloss shine |

## PRODUCT SELECTION GUIDE

| MATERIALS / APPLICATIONS | HIGHLY RECOMMENDED | RECOMMENDED | SUITABLE |
|---|---|---|---|
| Wood - floor sanding | JF178 | JF181 | JF177 |



NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# WHEELS


Flap wheels 110
Pneumatic Die Grinder Tools & Kits 118
Rapid Finish Convolute wheels 128
Rapid Strip wheels 134
Rapid Blend unitised wheels 136
Small unitised wheels / Mounted points 138
High strength discs 139



# **FLAP WHEELS** WITH SPINDLE

Flap wheels conform to intricate shapes and contours. Designed to deliver a consistent finish with a uniform rate of cut, they wear away evenly and without residue, continually exposing fresh abrasives.

Wheels are designed with a 3 or 6mm steel shank which runs through the wheel creating better balance, a reduction of chatter, and reduced operator fatigue. They also permit quick changes on air tools when using other abrasive products.

Flap wheels with shaft achieve their best performance at a recommended speed of 15-25m/s. Optimising stock removal, surface finish, thermal load of the workpiece and toll wear.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓





| MATERIALS | NORTON QUANTUM | NORZON R822 | METAL R207Plus |
|---|---|---|---|
| | +++++ | ++++ | +++ |
| Stainless steel, inox & duplex | ✓✓ | ✓ | |
| Inconel, titanium & super alloys | ✓✓ | ✓ | |
| Carbon steel, construction steel & mild steel | ✓✓ | ✓✓ | ✓✓ |
| Cast iron | ✓ | ✓✓ | ✓✓ |
| Non-ferrous metal (brass /aluminium) | | | ✓✓ |
| Hard & soft wood | | ✓✓ | ✓ |
| Composite materials | | | ✓ |
| Stone, concrete | | | ✓ |
| Glass, plastic | | | ✓ |

* Made-to-order

# NORTON QUANTUM +++++

## HIGH PERFORMANCE

- The best choice for use on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- Aggressive cut removes defects quickly and effectively
- Additional supersize layer minimises heat build-up on the workpiece for a cooler cut and longer life
- Ceramic aluminium oxide grain for greatest durability, longest life on tough applications and stainless steel

METAL INOX



SPEC CHECK

Grinding on stainless generates a considerable amount of heat; using a Norton Pink flap wheel improves cut, finish and reduces heat generation and workpiece burn.

| DIM DIAxWxS (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) |
|---|---|---|---|---|
| 30x15x6 | 40 | 10 | 66261154243 | 9500 - 15900 |
| | 60 | 10 | 66261154300 | |
| | 80 | 10 | 66261154301 | |
| 40x20x6 | 40 | 10 | 66261154302 | 7100 - 12000 |
| | 60 | 10 | 66261154305 | |
| | 80 | 10 | 66261154306 | |
| 60x30x6 | 40 | 10 | 66261154315 | 4800 - 7900 |
| | 60 | 10 | 66261154316 | |
| | 80 | 10 | 66261154318 | |
| | 120 | 10 | 66261154320 | |
| 80x50x6 | 40 | 10 | 66261154340 | 3600 - 6000 |
| | 60 | 10 | 66261154341 | |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width, S = Spindle

## **FLAP WHEELS** WITH SPINDLE

# NORZON R822 ++++

- Self-sharpening zirconia alumina grain for use on stainless steel and resistant alloys
- Ideal for grinding, shaping, blending, edge breaking and weld removal
- Aggressive cutting action means a faster finish per part, maximising throughput
- Achieves a good linear finish thanks to load resistance for a regular cut rate

METAL INOX | HARD & SOFT WOOD



SPEC CHECK

Reducing the working pressure and the peripheral speeds of the abrasive wheels results in reduced heat generation on the workpiece and the tool, eliminating burn marks and improving finish.

| DIM DIAxWxS (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | |
|---|---|---|---|---|---|
| 30x20x6 | 40 | 10 | 66261033325 | 9500 -15900 | |
| | 60 | 10 | 66261139984 | | |
| | 80 | 10 | 66261139986 | | |
| 40x20x6 | 40 | 10 | 69957300004 | 7100 - 12000 | |
| | 60 | 10 | 69957300006 | | |
| | 80 | 10 | 69957300007 | | |
| 60x30x6 | 40 | 10 | 63642539952 | 4800 - 7900 | |
| | 60 | 10 | 63642536547 | | |
| | 80 | 10 | 63642539953 | | |
| 80x30x6 | 40 | 10 | 63642539954 | 3600 - 6000 | |
| | 60 | 10 | 63642539955 | | |
| | 80 | 10 | 63642536548 | | |

Formerly X-Treme R822

# METAL R207Plus +++

- Excellent cut rate even at low-pressure when used for finishing operations
- A universal product which achieves a good finish on steel and stainless steel
- New generation of premium aluminium oxide grain provides an aggressive cut yet long product life
- Conforms to the workpiece thanks to the flexible cotton backing

FERR. & NON FERR.



| DIM DIAxWxS (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | |
|---|---|---|---|---|---|
| 6mm SHAFT | | | | | |
| 20x10x6 | 40 | 10 | 77696007699 | 14300 - 23900 | |
| | 60 | 10 | 66261193703 | | |
| | 80 | 10 | 66623329045 | | |
| | 120 | 10 | 66261137904 | | |
| 25x20x6 | 40 | 10 | 66261100608 | 11500 - 19000 | |
| | 60 | 10 | 66261106190 | | |
| | 80 | 10 | 77696086608 | | |
| | 120 | 10 | 66261137918 | | |
| 30x10x6 | 40 | 10 | 66261138103 | 9500 - 15900 | |
| | 60 | 10 | 63642545207 | | |
| | 80 | 10 | 63642537371 | | |
| | 120 | 10 | 63642552728 | | |

† +25% performance upgrade

## 6mm SHAFT



| | | | | |
|---|---|---|---|---|
| 30x15x6 | 40 | 10 | 66261056890 | 9500 - 15900 |
| | 60 | 10 | 63642513148 | |
| | 80 | 10 | 63642561466 | |
| | 120 | 10 | 63642551593 | |
| 30x30x6 | 40 | 10 | 66261138108 | 9500 - 15900 |
| | 60 | 10 | 66254410858 | |
| | 80 | 10 | 66261063210 | |
| 40x15x6 | 40 | 10 | 63642539937 | 7100 - 12000 |
| | 60 | 10 | 63642533099 | |
| | 80 | 10 | 63642533098 | |
| | 120 | 10 | 63642533094 | |
| 40x20x6 | 40 | 10 | 63642539938 | 7100 - 12000 |
| | 60 | 10 | 63642546771 | |
| | 80 | 10 | 63642546768 | |
| | 120 | 10 | 63642546760 | |
| 50x20x6 | 40 | 10 | 63642546774 | 5700 - 9500 |
| | 60 | 10 | 63642531870 | |
| | 80 | 10 | 63642533097 | |
| | 120 | 10 | 63642546759 | |
| 50x30x6 | 40 | 10 | 63642539943 | 5700 - 9500 |
| | 60 | 10 | 63642534251 | |
| | 80 | 10 | 63642561879 | |
| | 120 | 10 | 63642531863 | |
| 60x15x6 | 40 | 10 | 63642546773 | 4800 - 7900 |
| | 60 | 10 | 69957360901 | |
| | 80 | 10 | 63642546767 | |
| | 120 | 10 | 63642546758 | |
| 60x20x6 | 40 | 10 | 63642536738 | 4800 - 7900 |
| | 60 | 10 | 63642531869 | |
| | 80 | 10 | 63642531866 | |
| | 120 | 10 | 63642531862 | |
| 60x30x6 | 40 | 10 | 63642536737 | 7100 - 12000 |
| | 60 | 10 | 63642531868 | |
| | 80 | 10 | 63642531865 | |
| | 120 | 10 | 63642531861 | |
| | 240 | 10 | 63642546694 | |
| | 320 | 10 | 63642546727 | |
| 80x30x6 | 40 | 10 | 69957360911 | 5700 - 9500 |
| | 60 | 10 | 63642531867 | |
| | 80 | 10 | 63642533096 | |
| | 120 | 10 | 63642534250 | |
| 80x50x6 | 40 | 10 | 69957360914 | 5700 - 9500 |
| | 60 | 10 | 63642559718 | |
| | 80 | 10 | 69957360916 | |
| | 120 | 10 | 69957360917 | |

+25% PERFORMANCE UPGRADE

† +25% performance upgrade

## **FLAP WHEELS** WITH SPINDLE

SPEC CHECK

To prevent unnecessary tool wear, use a coarser grit size instead of increasing contact pressure. For a finer surface finish, increase the cutting speed. Using the same grit size, the finish will be rougher on softer materials.



# MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT / GRIT | 36 | 40 | 60 | 80 | 120 | 150 | 180 | 240 | 320 |
|---|---|---|---|---|---|---|---|---|---|
| NORTON QUANTUM R928 | | • | • | • | • | | | | |
| NORZON R822 | • | • | • | • | • | • | | | |
| R427 | • | • | • | • | • | • | • | • | |
| METAL R207 | | • | • | • | • | • | • | • | • |

## MINIMUM ORDER QUANTITY

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 20 | 250 pieces |
| 25 | 250 pieces |
| 30 | 250 pieces |
| 40 | 250 pieces |
| 50 | 250 pieces |
| 60 | 250 pieces |
| 80 | 250 pieces |



# BEARTEX SPINDLE MOUNTED FLAP WHEELS

Non-woven surface finishing flap wheels are an ideal choice for a variety of blending and finishing applications common in the metal fabrication, welding and polishing industries. Flap wheels conform to intricate shapes and contours. Designed to deliver a consistent finish with a uniform rate of cut, they wear away continually, exposing fresh abrasives.

There are two types of non-woven flap wheels: those made with only non-woven flaps, where finishing is the primary application, and interleaved wheels, made with coated abrasive and non-woven flaps. The interleaved wheels are less conformable but more rigid for higher stock removal and must always be run in the direction indicated by the arrow on the product label.

## FLAP WHEEL TYPES

Mounted on a 6mm diameter spindle, for use on straight line die grinders for removal of oxidation, paint, corrosion and generating grain finishes.

### BEARTEX NON-WOVEN FLAP WHEELS

- Non-woven only abrasive flaps
- Ideal for finishing large and awkward components
- Can be used for metals, wood, composite and plastics
- Less aggressive than conventional coated abrasive flap wheels



### BEARTEX INTERLEAVED FLAP WHEELS

- BearTex non-woven abrasive interleaved with coated abrasive
- Soft yet aggressive, creating a "firmer" wheel that provides a higher rate of cut
- The ratio of coated abrasive to non-woven flaps can be altered to suit particular applications
- Ideal for deburring and grain finishing on stainless steel



## **BEARTEX SPINDLE MOUNTED** FLAP WHEELS

# APPLICATION GUIDE

| | COARSE (GRINDING) | | | | | | FINE (FINISHING) |
|---|---|---|---|---|---|---|---|
| COATED GRIT | 40 | 60 | 80 | 120 | 180 | 240 | 320 |
| NON-WOVEN GRADE | COARSE | | MEDIUM | | FINE | VERY FINE | |
| Preparing metal for painting | | ● | ● | | | | |
| Blending out medium machine marks | | ● | ● | | | | |
| Blending metal surfaces | | | ● | ● | | | |
| Applying light scratch pattern | | | ● | ● | ● | | |
| Fine blending and cleaning | | | | ● | ● | ● | |
| Metal finishing and polishing | | | | | | ● | ● |
| | COATED / INTERLEAF FLAP WHEELS | | | | | NON-WOVEN FLAP WHEEL | |

# BEARTEX FLAP WHEELS HEAVY DUTY ++++

- Durable, heavy duty wheel for blending and finishing with up to twice as long life
- Enhanced Clean Bond™ resin coverage for consistent uniform surface finish, with no smearing
- Premium aluminium oxide grain for improved cut rate



FERR. & NON FERR.



| DIM DIAxWxS (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 60x30x6 | Medium A | F2316 | 10 | 66261117932 |
| 80x40x6 | Medium A | F2316 | 10 | 66261117934 |
| 100x50x6 | Medium A | F2316 | 10 | 66261117936 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width, S = Spindle

# BEARTEX FLAP WHEELS +++

- Provides a gentle cushioning action for use on contoured and shaped surfaces
- Consistent and uniform finish with no risk of gouging
- Vibration free for a consistent finish without smearing or component discolouration



FERR. & NON FERR.



| DIM DIAxWxS (mm) | GRADE | INTERLEAVED GRIT | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 30x20x6 | Medium A | - | F2300 | 10 | 66261032155 |
| | Fine A | - | F2401 | 10 | 66261032160 |
| 40x20x6 | Medium A | - | F2300 | 10 | 66261032156 |
| | Fine A | - | F2401 | 10 | 66261032161 |
| | Very Fine A | - | F2501 | 10 | 66261032165 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width, S = Spindle

| DIM DIAxWxS (mm) | GRADE | INTERLEAVED GRIT | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 60x30x6 | Fine A Interleaved | 60 | F2401 | 10 | 63642549639 |
| | Fine A Interleaved | 100 | F2401 | 10 | 63642549640 |
| | Fine A Interleaved | 150 | F2401 | 10 | 63642549641 |
| | Coarse | - | F2202 | 10 | 66261032167 |
| | Medium A | - | F2300 | 10 | 66261032157 |
| | Medium S | - | F4300 | 10 | 66261053048 |
| | Fine A | - | F2401 | 10 | 63642549650 |
| | Fine S | - | F4401 | 10 | 63642515902 |
| | Very Fine A | - | F2501 | 10 | 63642515905 |
| 80x50x6 | Fine A Interleaved | 60 | F2401 | 10 | 7660705179 |
| | Fine A Interleaved | 100 | F2401 | 10 | 63642515544 |
| | Fine A Interleaved | 150 | F2401 | 10 | 63642515545 |
| | Coarse | - | F2202 | 10 | 63642586113 |
| | Medium S | - | F4300 | 10 | 66261053053 |
| | Fine A | - | F2401 | 10 | 63642515583 |
| | Fine S | - | F4401 | 10 | 63642515614 |
| | Very Fine A | - | F2501 | 10 | 63642515628 |
| 100x50x6 | Fine A Interleaved | 60 | F2401 | 10 | 63642515907 |
| | Fine A Interleaved | 100 | F2401 | 10 | 63642515908 |
| | Fine A Interleaved | 150 | F2401 | 10 | 63642515909 |
| | Fine A | - | F2401 | 10 | 63642515903 |
| | Fine S | - | F4401 | 10 | 63642515904 |
| | Very Fine A | - | F2501 | 10 | 63642515906 |

Other specifications are available made-to-order. Please contact your local sales or customer service representative for more information.

# BEARTEX FLAP WHEELS TR+ MOUNTED ++++

- Where a quick change facility in a continuous operation is beneficial



FERR. & NON FERR.



| DIM DIAxWxS (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 60x30xTR | Medium A | F2316 | 10 | 66261124072 |

**Dimensions Key:** DIM = Dimensions, DIA/D = Diameter, W = Width, S = Spindle

Use with TR+ holder for quick change capability.
Also available in interleaved and TR+ in large and small diameter wheels.

# BACK-UP PADS TR+ ATTACHMENT (TR+ – SL4)

TR+



| TYPE | DENSITY | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|
| Plastic back-up pad with 6mm spindle | Hard | 15000 | 1 | 63642586196 |



For 100mm Speedlok TR+ discs




# PNEUMATIC DIE GRINDER
## GRINDING TOOLS AND KITS

Our new Norton pneumatic die grinder quickly and comfortably accomplishes many portable applications without changing machines – including jobs for abrasive specialties (cartridge and spiral rolls...), small diameter flap wheels, mounted points, and carbide burrs.
Equip your new die grinder with the complete line of Norton die-grinding abrasive products and it will run longer, at peak efficiency.

## PNEUMATIC DIE GRINDER +++

WITH 6MM COLLET, MAX RPM 25000 (0,9 HP)

- Extremely versatile and productivity-enhancing; includes a 6mm collet to accommodate numerous abrasive products: specialties (including cartridge and spiral rolls, spirabands, cones), mounted flap wheels, mounted points, and carbide burrs
- Achieve better tool handling, along with reduced fatigue, from the ergonomic and streamlined non-slip grip
- Their small size also enhances control and finishes while their light weight provides additional control, less vibration for operator comfort, and the ability to get into small parts
- Double-bearing spindle generates superb concentricity, reducing vibrations and allowing longer use, while producing finer finishes



| COLLET DIAMETER (mm) | HORSEPOWER | TOOL WEIGHT | AIR CONSUMPTION (l/min) | RECOMMENDED OPERATING PRESSURE: | ART NO. |
|---|---|---|---|---|---|
| 6 | 0.9 | 0.65 kg | 85 | 6.2 bar | 69957341008 |

SPEC CHECK

Air tools require regular lubrication throughout the life of the tool. The air motor and bearing use compressed air to power the tool. Because moisture in compressed air will rust the air motor, it must be lubricated daily.
An inline oiling device is recommended.
Before using the machine add 1-2 drops of oil in the machine air inlet.

This in an UNGUARDED tool and should NEVER be used with cut-off discs. Never use any product that has a MAX RPM rating less that the RPM marked on the tool.

# NORTON PNEUMATIC DIE GRINDER **PROFESSIONAL KIT**

**GRINDING TOOLS AND KITS**

Our new Norton pneumatic die grinder quickly and comfortably accomplishes many portable applications without changing machines – including jobs for abrasive specialties (cartridge and spiral rolls...), small diameter flap wheels, mounted points, and carbide burrs. Equip your new die grinder with the complete line of Norton die-grinding abrasive products and it will run longer, at peak efficiency.



## PNEUMATIC DIE GRINDER +++

COMPATIBLE WITH 6MM SHAFTS TOOLS,
MAX RPM 25000 (0,9 HP)

- A complete assortment of our premium specialties (including cartridge, spirabands, cones), mounted flap wheels, mounted points, and carbide burrs, complete with pneumatic die grinder machine

| KIT CONTENTS | ITEM ART NO. | PK QTY | KIT ART NO. |
|---|---|---|---|
| Norton pneumatic Die Grinder (6mm) 25000 RPM | 69957341008 | 1 | |
| Norton professional tool bag: 38x23x28cm | 78072710141 | 1 | |
| Norton Metal Carbide Burr Shape A12,7x25mm CUT D 6OL70 | 66261146497 | 1 | |
| Norton Metal Carbide Burr Shape F12,7x25mm CUT D 6OL70 | 66261146540 | 1 | |
| Mounted Point Shape A21 25x25mm 3NQ P80 O VS | 61463688956 | 10 | |
| Mounted Point Shape A38 25x25mm 86A P60 O VS | 66253054946 | 10 | |
| Norton Quantum Flap wheel 30x15x6mm P60 | 66261154300 | 10 | |
| Norton Metal Flap wheel 30x15x6mm P120 | 63642551593 | 10 | |
| BearTex Flap Wheel 30x20x6mm AOME | 66261032155 | 5 | 69957366029 |
| Small Unitised Wheels 25x25x6mm Fine | 66261014883 | 10 | |
| 6mm Threaded Mandrel for Unitised wheel | 66261077832 | 1 | |
| Blaze Spiraband 15x30mm P60 | 66623331569 | 10 | |
| Rubber Expanding Mandrel for Spirabands 15x30x6 | 7660705182 | 1 | |
| Norzon Abrasive Cone 20x15x63mm P50 | 66261176657 | 10 | |
| Rubber Expanding Mandrel for Cones 20x14x63 150x30x6mm | 7660740439 | 1 | |
| Blaze Cartridge roll 6x38x3mm C80 | 66261128986 | 25 | |
| Steel Mandrel for Cartridge Rolls 3x25x6mm | 63642556791 | 1 | |



# FLAP WHEELS
## WITH INTERNAL M14 THREAD

Norton flap wheels with internal M14 thread are ideal for sanding contours and uneven surfaces, while delivering a uniform cut rate for a consistent finish when blending, deburring, and finishing in metal fabrication and welding industries. Flap wheels conform to intricate shapes and contours and are easy to operate; no adjustments, dressing or preparation is required before or during the operation.

Norton flap wheels are more forgiving than other abrasives, reducing the risk of flattening, gouging or surface deformation, meaning fewer rejected parts, and better long term productivity.

## NORTON QUANTUM HIGH PERFORMANCE +++++

- Excellent results on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- Aggressive cut removes defects quickly and effectively
- Additional supersize layer minimises heat build-up on the workpiece for a cooler cut and longer life
- Ceramic aluminium oxide grain provides the longest life even in tough applications

METAL INOX



| DIM DIAxWxTH (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) |
|---|---|---|---|---|
| 125x20 M14 | 60 | 5 | 69957307356 | 6700 - 8300 |
| | 80 | 5 | 69957307359 | |

# METAL R207Plus +++

- A universal wheel for use on steel and stainless steel, can also be used for paint removal and on plastic or wood
- Excellent cut rate in low-pressure finishing operations, leaves a very good finish
- The new generation of premium aluminium oxide grain provides an aggressive cut yet long product life
- Quick and easy to mount on an angle grinder

FERR. & NON FERR.




| DIM DIAxWxTH (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) |
|---|---|---|---|---|
| 125x20 M14 | 40 | 5 | 66261121426 | 6700 - 8300 |
| | 60 | 5 | 66261121427 | |
| | 80 | 5 | 66261121428 | |
| | 120 | 5 | 66261121429 | |
| | 180 | 5 | 66261121432 | |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width, TH = Thread

Formerly BDX R207Plus

+25% PERFORMANCE UPGRADE † +25% performance upgrade

**SPEC CHECK**

To prevent unnecessary tool wear, use a coarser grit size instead of increasing contact pressure. For a finer surface finish, increase the cutting speed. Using the same grit size, the finish will be rougher on softer materials.







# BEARTEX WHEELS
## FOR SATINEX MACHINES

BearTex Satinex wheels provide a cushioned abrasive action which not only works well on flat areas, but is also ideal for use in finishing operations on uneven surfaces. These versatile wheels are used on portable machines.

## BEARTEX +++

- For use on portable, variable speed machines
- Wide range of different grades
- For applications from rust removal to a satin finish
- Flap wheel construction ensures a perfect linear finish for repair and touch-up jobs



## APPLICATION GUIDE

| INDUSTRY | APPLICATION | PRODUCTS |
|---|---|---|
| Stainless steel fabricators | Grain finishing on sheets, removing imperfections | Satinex non-woven Medium A |
| Architectural hardware | Finishing brass aluminium and steel, satin finishing | Satinex non-woven fine and very fine for bright linear finishes |
| Metal working | Cleaning and removing scales, oxide and rust | Satinex RapidStrip |
| Food processing | Weld blending, satin finishing with extended life | Satinex polyurethane |

# SATINEX QUICK MOUNTING/CHANGING M14

- With M14 threaded attachment
- Use easily on a variable speed right angle grinder for greater convenience to achieve linear finish
- Use below in a simple 2 or 3 step solution to remove marks then finish



FERR. & INOX

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Blending / removing scratches and marks | 110x50xM14 | F2200 | Coarse A +80 | 5700 | 2 | 78072761576 |
| Blending / fine grainings | | F2200 | Coarse A | 5700 | 2 | 78072761571 |
| Final finishing | | F2400 | Fine A | 5700 | 2 | 78072761579 |
| Blending / removing scratches and marks | 110x100xM14 | F2200 | Coarse A +80 | 5700 | 1 | 78072761577 |
| Blending / fine grainings | | F2200 | Coarse A | 5700 | 1 | 78072761574 |
| Final finishing | | F2400 | Fine A | 5700 | 1 | 78072761581 |

# STEEL TAPE

- For masking or protecting the surface when joint mitering

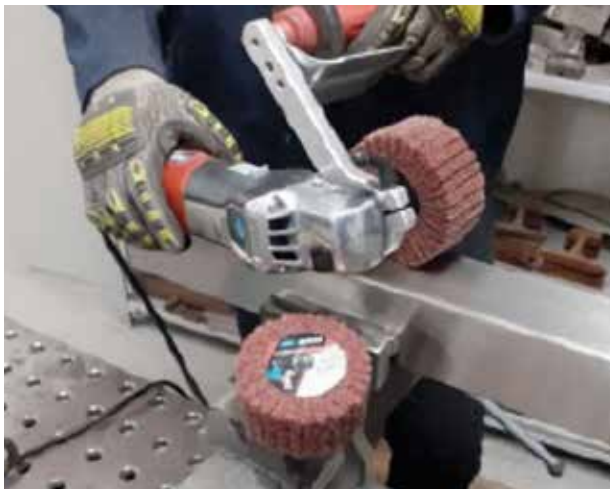
| SIZE | DESCRIPTION | PK QTY | ART NO. |
|---|---|---|---|
| 50mm x 2M | Steel tape for stainless fabricators | 1 | 69957311590 |

# GUARD & HANDLE EXTENSION



- For variable speed right angle grinder
- Converts the grinder quickly and easily into a linear finishing tool

| SIZE | DESCRIPTION | PK QTY | ART NO. |
|---|---|---|---|
| MB650SV | Guard and handle extension | 1 | 66261122513 |





## **BEARTEX WHEELS** FOR SATINEX MACHINES

# SATINEX NON WOVEN



FERR. & INOX

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Blending / satin finishing | 110x100x19 | F2200 | Coarse A | 5700 | 1 | 63642557218 |
| | | F2316 | Medium A Heavy Duty | 5700 | 1 | 66261124068 |
| | | F2300 | Medium A | 5700 | 1 | 63642557404 |
| | | F2400 | Fine A | 5700 | 1 | 63642557405 |
| | | F2504 | Very Fine A | 5700 | 1 | 63642557406 |
| | | F4306 | Medium S | 5700 | 1 | 63642556878 |

# SATINEX INTERLEAVED

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Blending / fine graining | 110x100x19 | F2200 | Coarse A + P80 | 5700 | 1 | 63642557407 |
| | | F2309 | Medium A + P80 | 5700 | 1 | 07660707431 |
| | | F2300 | Medium A + P150 | 5700 | 1 | 63642557408 |
| | | F4402 | Fine S + P150 | 5700 | 1 | 63642556741 |

# SATINEX POLYURETHANE

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Blending / satin finishing | 110x100x19 | P2W01 | Coarse | 5700 | 1 | 63642557410 |

# SATINEX RAPID STRIP

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Cleaning / corrosion removal | 110x100x19 | R4101 | Extra Coarse (SiC) | 5700 | 1 | 63642557184 |

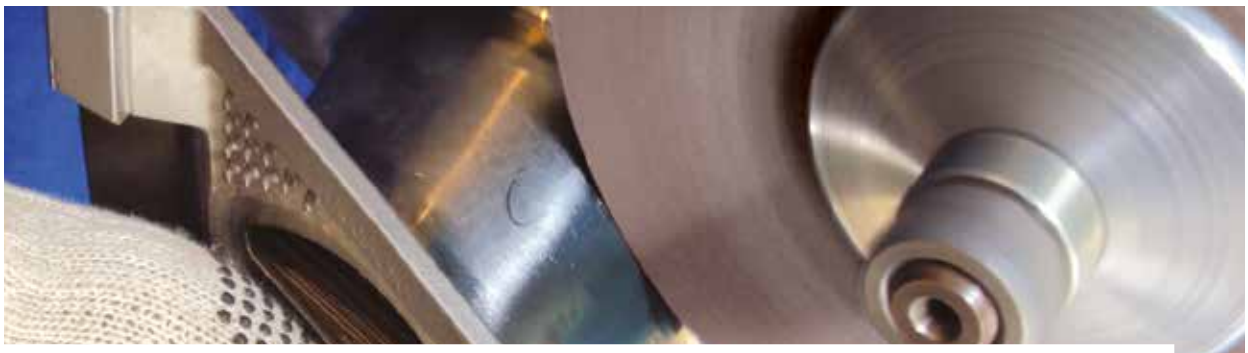
# SATINEX NON WOVEN

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Cleaning / blending / finishing | 110x50x19 | F2200 | Coarse A | 5700 | 2 | 69957336455 |
| | | F2316 | Medium A Heavy Duty | 5700 | 2 | 66261124067 |

# SATINEX INTERLEAVED

| APPLICATION | DIM DxTxB (mm) | CAP CODE | GRADE | MAX RPM | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| Blending / fine graining | 110x50x19 | F2200 | Coarse A + P60 | 5700 | 2 | 66261180082 |

**Dimensions Key:** DIM = Dimensions, D = Diameter, T = Thickness, B = Bore
Other configurations and sizes are available



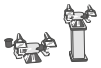
# FLANGE MOUNTED
# FLAP WHEELS

Flange mounted flap wheels have a continual rate of wear as they constantly expose new abrasive grains when in use. Ideal for sanding contours and uneven surfaces as they conform well to intricate shapes thanks to the flap construction. The product structure; abrasive flaps anchored by a resin core at the centre, provides great flexibility and very smooth surface finish. A consistent finish is always maintained due to the uniform cut rate, especially on aluminium and stainless steel parts where they can be used for blending, deburring, finishing applications in metal fabrication, welding and polishing.

Flange mounted flap wheels perform best at a recommended speed of 38-42m/s. At this speed, the abrasive flaps stand up straight due to the centrifugal force, where only the edges are in contact with the workpiece, optimising stock removal and surface finish whilst avoiding thermal load of the workpiece and tool wear.

## METAL R207Plus +++

- The ultimate choice where superior finish is required or for low-pressure applications
- For universal use on steel and stainless steel, can also be used for paint removal and on plastic or wood
- Excellent cut rate, imparting a good finish on curves and contours
- The new generation of premium aluminium oxide grain provides aggressive cut and longer life



FERR. & NON FERR.



| DIM DIAxWxB (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) |
|---|---|---|---|---|
| 150x50x25 | 40 | 1 | 66261140555 | 4800 - 5400 |
| 165x25x32 | 40 | 2 | 63642547170 | 4300 - 4900 |
| | 80 | 2 | 63642546730 | |
| | 120 | 2 | 63642546742 | |
| 165x50x32 | 40 | 1 | 66261140608 | 4300 - 4900 |
| | 60 | 1 | 63642561961 | |
| | 80 | 1 | 63642546731 | |
| | 120 | 1 | 63642546743 | |

Formerly BDX R207Plus

## MADE-TO-ORDER PRODUCT AVAILABILITY

| FLW DIAMETER (mm) | 25 | 30 | 40 | 50 | 80 | 100 | Minimum order quantity |
|---|---|---|---|---|---|---|---|
| 150 | • | • | • | • | • | • | 10pcs |
| 165 | • | • | • | • | • | • | 10pcs |
| 200 | • | • | • | • | • | • | 10pcs |
| 250 | • | • | • | • | • | • | 10pcs |
| 300 | • | • | • | • | • | • | 10pcs |
| 355 | • | • | • | • | • | • | 10pcs |



# BEARTEX FLANGE MOUNTED FLAP WHEELS

Formed by mounting sheets of BearTex around a centre core. The tightly packed piece forms the spokes of a wheel. This construction makes flap wheels the most conformable of all BearTex wheels providing a cushioning action which is ideal for use on uneven or irregular surfaces, as well as flat areas.

## BEARTEX FLAP WHEEL TYPES

1. NON-WOVEN FLAP WHEELS (standard for stock)
2. INTERLEAVED FLAP WHEELS (made-to-order)

Both in variable sizes with widths from 10 to 2000mm.
Available in a wide range of abrasive types, grits and densities for metal and woodworking.

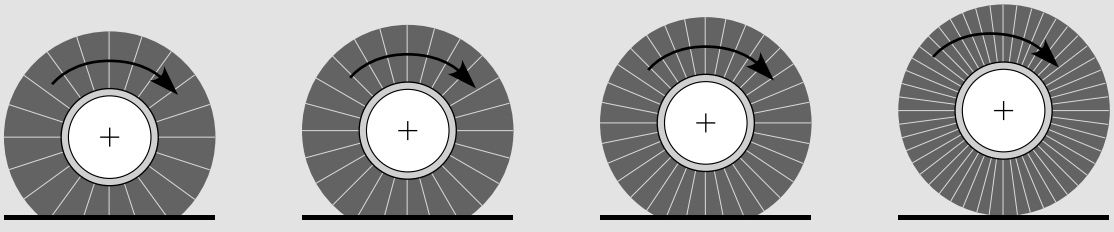
### INTERLEAVED FLAP WHEELS

Interleaved wheels are more aggressive than standard BearTex, due to the coated abrasive flaps found inside the wheel. This creates a "firmer" wheel that provides a higher rate of cut. The ratio of coated flaps to non-woven flaps can be altered to suit particular applications.

Ideal for deburring and grain finishing on stainless steel.
Available in both spindle and flange mounted versions.
Flange mounted interleaved wheels can be shaped to match the profile, e.g., a wood moulding.

### DENSITIES

The different densities facilitate a versatility ranging from soft cushioning pads to hard cleaning and finishing tools. The density of a wheel can be increased (hardened) by adding more flaps, as shown below:



SD: Soft density | MD: Medium density | HD: Hard density | HDEX: Extra Hard density

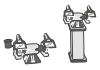
# BEARTEX FLAP WHEEL APPLICATION GUIDE

| SGA MCC | GRADE | MD | OLD QUALITY NAME | GRAIN TYPE | APPLICATION |
|---|---|---|---|---|---|
| F2212 | Coarse A | DAB01 | - | Aluminium Oxide | • Aggressive, very durable cutting capacity<br>• Constant removal of material and corrosion |
| F2301/ F2312 | Medium A | D0005 | D05/DIS | Aluminium Oxide | • Specially made for stainless steel and aluminium<br>• Matte satin finish |
| F2305 | Medium A Heavy Duty | - | - | Aluminium Oxide | • Works faster with a coarser finish than F2301<br>• Higher durability with ability to withstand sharp edges<br>• Specially engineered to avoid smearing |
| F2401/ F2412 | Fine A | D0097 | D97 | Aluminium Oxide | • Fine matte satin finish on stainless steel<br>• Defuzzing wood, scuffing paints and varnishes |
| F2402 | Fine A | D0002 | D02 | Aluminium Oxide | • Use for all metals<br>• Contains anti-smearing resin to reduce rework |
| F2501/ F2519 | Very Fine A | D0091 | D91 | Aluminium Oxide | • Finishing all metals<br>• Cleaning and removing oxide on soft metals |
| F4301 | Medium S | D0054 | D54 | Silicon Carbide | • Semi bright satin finish on stainless steel<br>• Surface preparation on aluminium before anodising |
| F4401 | Fine S | D0071 | D71 | Silicon Carbide | • For stainless steel, aluminium and brass<br>• Weld surface preparation<br>• Wood, sanding of primer, scuffing paints and varnishes |
| F4501 | Very Fine S | D0089 | D89 | Silicon Carbide | • Semi bright satin finish on aluminium, brass and precious metals<br>• Wood, uniform finish, scuffing varnishes |
| F4601/ F4612 | Ultra Fine S | D0098 | D98 | Silicon Carbide | • Light cleaning on metals<br>• Light finishing on precious metals, scuffing varnishes |
| F4801 | Micro Fine S | D0075 | D75 | Silicon Carbide | • Super finishing |

# BEARTEX FLANGE MOUNTED FLAP WHEELS +++

## MEDIUM DENSITY

- The most conformable of all BearTex wheels. Ideal for use on contoured surfaces and parts with awkward geometry
- Gentle cushioning action achieves a consistent and uniform finish with no risk of gouging
- Suitable for a wide range of applications including corrosion removal, cleaning and surface finishing



FERR. & NON FERR.



| DIM DxWxB (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 150x50x50 | Coarse A | F2212 | 1 | 66261083026 |
| | Medium A | F2312 | 1 | 66261082061 |
| | Med A Heavy Duty | F2316 | 1 | 66261083074 |
| | Fine A | F2412 | 1 | 66261083078 |
| | Very Fine A | F2519 | 1 | 66261083082* |
| | Ultra Fine S | F4612 | 1 | 66261083084* |
| 200x50x76 | Coarse A | F2212 | 1 | 66261083027 |
| | Medium A | F2301 | 1 | 63642588131 |
| | Med A Heavy Duty | F2316 | 1 | 66261083075 |
| | Fine A | F2412 | 1 | 66261083079 |
| | Very Fine A | F2504 | 1 | 63642588137 |
| | Very Fine S | F4501 | 1 | 63642588145 |

*Made-to-order. More sizes available made-to-order. **Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width, B = Bore

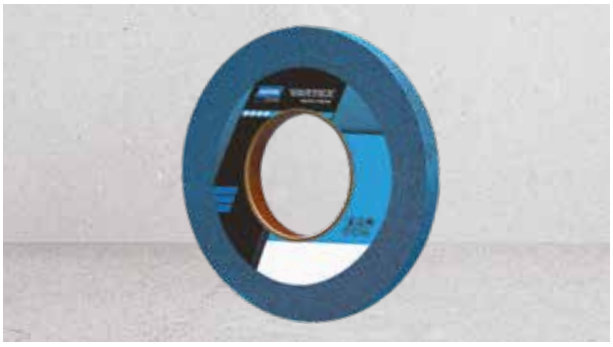
Refer to accessories section at the back of this catalogue for information on metal bushings. The catalogue includes details of all stock products but other options are available in various sizes, grades and densities using Norton's made-to-order. facility. Please contact your local sales or customer service representative for more information.



# RAPID FINISH CONVOLUTE WHEELS
## FOR BENCH & PEDESTAL GRINDERS

Convolute wheels are formed by wrapping non-woven web material around a centre core and bonding the layers together to create an abrasive wheel. Wheels are available in different diameters, grades and densities for burr, flash and rust removal, reducing surface roughness, blending welds and scratch patterns on stainless steel, polishing welds and applying decorative finishes.

## MADE-TO-ORDER SOLUTIONS



### VORTEX RAPID FINISH

++++

- Aggressive, fast-cutting stock removal with excellent form holding
- Proprietary Vortex engineered grain and bond ensures a uniform finish throughout the entire wheel life
- Ideal for deburring, blending and finishing automotive gears and turbine engine components
- Provides a decorative finish on plumbing fixtures and can be used for metal finishing and weld blending during fabrication
- All Vortex convolute wheels are made-to-order



### RAPID FINISH GP A/O & S/C

+++

- For general deburring, blending and finishing on metals, wood and glass
- Clean Bond™ resin technology prevents smearing and loading, even on soft metals
- Wheels have 10%-30% longer life and finish faster thanks to the new grain/bond configuration, reducing the need for wheel changes and increasing productivity
- Wheels can be used wet or dry

# RAPID FINISH DCS (OPEN MESH) +++

- Open mesh construction for blending, rust removal and applying decorative contrast finishes in low to moderate speed applications
- Silicon carbide abrasive for fine finishing with light pressure



| DxWxB(mm) | GRADE | MCC | PK QTY | ART NO. |
|---|---|---|---|---|
| 150x50x25 | Fine | C4401 | 2 | 63642549645 |
| | Medium | C4301 | 2 | 66261058510 |

# RAPID FINISH DMA RED +++

- For light deburring, blending and final/decorative finishing
- Generates uniform satin and antique finishes
- Ideal for blending and finishing as well as surface preparation before buffing, polishing and applying decorative finishes



| DxWxB (mm) | GRADE | MCC | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 150x25x25 | Medium | C2303 | 5 | 3 | 66261007936 |
| 150x50x25 | Medium | C2303 | 5 | 2 | 66261007957 |
| 200x25x76 | Medium | C2303 | 5 | 3 | 66261007831 |
| 200x50x76 | Medium | C2303 | 5 | 2 | 66261007904 |

# RAPID FINISH LIGHT FINISHING +++

- For light deburring, blending, fine finishing and polishing applications
- Ideal for finishing parts with tight tolerances, without altering geometry
- Substantial extended wheel life in a soft, conformable wheel



| DxWxB (mm) | REF CODE | ABR TYPE | GRADE | MCC | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| 150x25x25 | D16 | SiC | Fine | C4411 | 6 | 3 | 66254403708* |
| | D17 | SiC | Fine | C4411 | 7 | 3 | 66254403709 |
| | D18 | SiC | Fine | C4411 | 8 | 3 | 66254421573 |
| 200x25x76 | D16 | SiC | Fine | C4411 | 6 | 3 | 66261095702* |
| | D17 | SiC | Fine | C4411 | 7 | 3 | 66254409924 |
| | D18 | SiC | Fine | C4411 | 8 | 3 | 66254421577* |

**Dimensions Key:** D = Diameter, W = Width, B = Bore, T = Thickness, S = Spindle

* Made-to-order

## **CONVOLUTE WHEELS** FOR BENCH & PEDESTAL GRINDERS

# RAPID FINISH GENERAL PURPOSE RED +++

- Multi-use General Purpose product - starting point for all Convolute wheel applications



| DxWxB (mm) | GRADE | MCC | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **SILICON CARBIDE** | | | | | |
| 150x13x25 | Fine | C4415 | 8 | 1 | 66261162172 |
| 150x25x25 | Medium | C4315 | 8 | 1 | 66261162180 |
| | Fine | C4415 | 7 | 1 | 66261162183 |
| | Fine | C4415 | 8 | 1 | 66261162187 |
| | Fine | C4415 | 9 | 1 | 66261162188 |
| 200x10x76 | Medium | C4315 | 8 | 1 | 78072720077 |
| 200x13x76 | Fine | C4415 | 8 | 1 | 69957313858 |
| 200x20x76 | Medium | C4315 | 8 | 1 | 78072711539 |
| 200x25x76 | Fine | C4415 | 6 | 1 | 66261162193 |
| | Fine | C4415 | 7 | 1 | 66261162194 |
| | Fine | C4415 | 8 | 1 | 66261162195 |
| | Fine | C4415 | 9 | 1 | 66261162196 |
| 200x50x76 | Fine | C4415 | 8 | 1 | 66261162198 |
| 250x13x127 | Fine | C4415 | 8 | 1 | 69957300944 |
| 250x25x127 | Fine | C4415 | 8 | 1 | 66261162200 |
| 300x25x127 | Fine | C4415 | 8 | 1 | 66261169792 |
| **ALUMINIUM OXIDE** | | | | | |
| 150x25x25 | Medium | C2315 | 8 | 1 | 66261162179 |

Wider sizes and specs available upon request



# RAPID FINISH SERIES 1000 LONG LIFE +++

- Ideal for general deburring, blending, finishing and polishing applications
- Starting point for deburring, blending, polishing and finishing applications
- Durable, long-life construction with versatile application range, consistent cut rate and shed resistance
- Smear proof and cool cutting on light deburring applications



| DxWxB (mm) | REF CODE | ABRASIVE TYPE | GRADE | MCC | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| 150x10x25 | D17 | SiC | Fine | C4408 | 7 | 4 | 63642549767 |
| 150x12x25 | D17 | SiC | Fine | C4408 | 7 | 4 | 66261018628 |
| | D17 | Alox | Medium | C2308 | 7 | 4 | 66261018857 |
| | D17 | SiC | Medium | C4308 | 7 | 4 | 69957397880 |
| | D18 | SiC | Fine | C4408 | 8 | 4 | 66261018773 |
| | D18 | Alox | Medium | C2308 | 8 | 4 | 66261018789* |
| | D19 | SiC | Fine | C4408 | 9 | 4 | 66261094584* |
| 150x25x25 | D16 | Alox | Fine | C2406 | 6 | 3 | 66261055204 |
| | | Alox | Medium | C2308 | 6 | 3 | 66261055205* |
| | | SiC | Medium | C4308 | 6 | 3 | 66261055202 |
| 150x25x25 | D17 | SiC | Fine | C4408 | 7 | 3 | 66261055223 |
| | D18 | SiC | Fine | C4408 | 8 | 3 | 66261018774 |
| | D18 | SiC | Medium | C4308 | 8 | 3 | 66261096033* |
| | D19 | SiC | Fine | C4408 | 9 | 3 | 07660705227 |
| | D19 | SiC | Medium | C4308 | 9 | 3 | 66261055371 |
| 150x50x25 | D17 | Alox | Fine | C2406 | 7 | 2 | 66261008897* |
| 200x20x76 | D19 | SiC | Medium | C4308 | 9 | 3 | 66261023567 |
| 200x25x76 | D16 | SiC | Fine | C4408 | 6 | 3 | 66261019693 |
| | | | Medium | C4308 | 6 | 3 | 66261055208 |
| | D17 | SiC | Fine | C4408 | 7 | 3 | 66261018639 |
| | | Alox | Medium | C2308 | 7 | 3 | 66261055232 |
| | | SiC | Medium | C4308 | 7 | 3 | 69957394610 |
| | D18 | SiC | Fine | C4408 | 8 | 8 | 66261018775 |
| 200x25x76 | D18 | Alox | Medium | C2308 | 8 | 3 | 66261018855 |
| | D18 | SiC | Medium | C4308 | 8 | 3 | 66261018673 |
| | D19 | SiC | Fine | C4408 | 9 | 3 | 66261018641 |
| | D19 | SiC | Medium | C4308 | 9 | 3 | 66261018997 |
| 200x50x76 | D16 | SiC | Medium | C4308 | 6 | 2 | 66261055211 |
| | D17 | SiC | Fine | C4408 | 7 | 2 | 66261018877 |
| | | Alox | Medium | C2308 | 7 | 2 | 66261055235 |
| | D18 | SiC | Fine | C4408 | 8 | 2 | 66261019629 |
| | D19 | SiC | Fine | C4408 | 9 | 2 | 66261055276 |
| 250x12x127 | D18 | SiC | Medium | C4308 | 8 | 4 | 66261019005* |
| 250x25x127 | D18 | Alox | Medium | C2308 | 8 | 4 | 69957352402 |

* Made-to-order

## **CONVOLUTE WHEELS** FOR BENCH & PEDESTAL GRINDERS

# RAPID FINISH SERIES 4000 +++

- For heavy deburring, edge breaking and removing parting lines on exotic metals
- The product of choice when edge and form holding are of primary importance



| DxWxB (mm) | REF CODE | ABRASIVE TYPE | GRADE | MCC | DENSITY | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| 150x12x25 | D49 | SiC | Fine | C4406 | 9 | 4 | 66261004021 |
| 150x25x25 | D48 | SiC | Fine | C4406 | 8 | 3 | 66261008658 |
| | | Alox | Medium | C2306 | 8 | 3 | 66261004208 |
| 200x25x76 | D48 | SiC | Fine | C4406 | 8 | 3 | 66261004123 |
| | | Alox | Medium | C2306 | 8 | 3 | 66261004165 |

# BORE HOLE REDUCTION BUSHINGS



| WHEEL BORE (mm) | SIZE OF REDUCED BORE WITH BUSHING (mm) | FOR WHEEL DIAMETER (mm) | PK QTY | ART NO. |
|---|---|---|---|---|
| 25 | 10 | 100 to 150 | 2 | 66261080522* |
| | 13 | - | 2 | 66261080523 |
| | 16 | - | 2 | 66261080524* |
| | 20 | - | 2 | 66261080525* |
| | 22 | - | 2 | 66261080526* |
| 50 | 13 | 150 | 2 | 66261080527* |
| | 16 | - | 2 | 66261080528 |
| | 25 | - | 2 | 66261080529* |
| | 32 | - | 2 | 66261080530* |
| 76 | 25 | 200 | 2 | 66261080531 |
| | 32 | - | 2 | 66261080532 |
| | 50 | - | 2 | 66261080514* |
| 125 | 32 | - | 2 | 66261080534* |

**Dimensions Key:** D = Diameter, W = Width, B = Bore, T = Thickness, S = Spindle

* Made-to-order

# UNDERSTANDING THE PRODUCT

| FAMILY NAME | PRODUCT REFERENCE | DENSITY | ABRASIVE TYPE | GRADE | CAP CODE |
|---|---|---|---|---|---|
| VORTEX | VTX | 7.8.9 | Alox | Medium | C2312 |
| GENERAL PURPOSE | GP | 5.6.7.8.9 | Alox | Medium | C2315 |
| | GP | 5.6.7.8.9 | Alox | Fine | C2408 |
| | GP | 5.6.7.8.9 | SiC | Medium | C4315 |
| | GP | 5.6.7.8.9 | SiC | Fine | C4415 |
| | GP | 5.6.7.8.9 | SiC | Very fine | C4515 |
| DCS | DCS | 4 | SiC | Very fine | C4501 |
| | DCS | 4 | SiC | Fine | C4401 |
| | DCS | 4 | SiC | Medium | C4301 |
| DSS | DSS | 4 | SiC | Medium | C4302 |
| DSA | DSA | 4 | Alox | Medium | C2302 |
| METAL FINISHING | DMA | 5 | Alox | Medium | C2303 |
| SERIES 1000 LONG LIFE | D1 6 A LL | 6.7.8.9 | Alox | Medium | C2308 |
| | D1 7 A LL | 6.7.8.9 | Alox | Medium | C2308 |
| | D1 8 A LL | 6.7.8.9 | Alox | Medium | C2308 |
| | D1 9 A LL | 6.7.8.9 | Alox | Medium | C2308 |
| | D1 6 S LL | 6.7.8.9 | SiC | Fine | C4408 |
| | D1 7 S LL | 6.7.8.9 | SiC | Fine | C4408 |
| | D1 8 S LL | 6.7.8.9 | SiC | Medium | C4308 |
| | D1 9 S LL | 6.7.8.9 | SiC | Medium | C4308 |
| SERIES 4000 | D4 8 A | 8.9 | Alox | Medium | C2306 |
| | D4 8 S | 8.9 | SiC | Fine | C4406 |
| | D4 9 S | 8.9 | SiC | Fine | C4406 |



# RAPID STRIP WHEELS
## FOR DIE GRINDERS

With their thick, strong synthetic fibres, extra coarse silicon carbide abrasive grain and open web construction, Rapid Strip wheels strip and clean fast, don't load or shred and last up to twice as long as other stripping products.

## BLAZE RAPID STRIP WHEELS

- The best choice for removal of surface rust and residue, corrosion, light weld spatter, dirt, mill scale and other similar surface contaminants
- Blaze lasts 2x longer than competitor products thanks to the ceramic alumina long-lasting grain
- Leaves a thoroughly cleaned surface for subsequent processes such as coating, painting and soldering
- Extremely versatile; can withstand aggressive use, but soft enough to prevent gouging and rework
- Apply pressure to strip or remove coatings; use lighter pressure to finish like a surface finishing wheel





| DxWxB (mm) | CAP CODE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|
| STANDARD | | | | |
| 100x13x12 | R9101 | 25 | 8000 | 66623304856 |
| 150x13x12 | R9101 | 15 | 8000 | 66261099378 |
| 200x13x12 | R9101 | 5 | 4500 | 66623393517 |
| SPINDLE MOUNTED WHEELS | | | | |
| 100x13x6 | R9101 | 5 | 8000 | 66623378059 |
| 150x13x8 | R9101 | 10 | 5500 | 66623334482 |

**Dimensions Key:** D = Diameter, W = Width, B = Bore, T = Thickness, S = Spindle

# RAPID STRIP +++

- General purpose wheels for removing coatings such as varnish on wood, metal and plastics
- Nylon fibre, flexible resin and extra coarse grain combine to provide aggressive performance, long life and improved finish
- Leaves a thoroughly cleaned surface, ready for the next stage of the process; coating, painting or soldering
- Will not load on sticky coatings, adhesives, soft metals, will not snag or shed





| DxWxB (mm) | CAP CODE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|
| STANDARD | | | | |
| 100x13x12 | R4101 | 25 | 8000 | 63642585700 |
| 150x13x12 | R4101 | 15 | 5500 | 63642585703 |
| 200x13x12 | R4101 | 5 | 4500 | 63642585704 |
| SPINDLE MOUNTED - STANDARD (1 WHEEL) | | | | |
| 75x13x6 | R4101 | 10 | 10000 | 63642557741 |
| 100x13x6 | R4101 | 10 | 8000 | 63642557742 |
| 150x13x8 | R4101 | 10 | 6000 | 63642557743 |
| SPINDLE MOUNTED - LARGE AREA (2 WHEELS GANGED) | | | | |
| 75x25x6 | R4101 | 5 | 10000 | 63642557744* |
| 100x25x6 | R4101 | 5 | 8000 | 63642557745* |
| 150x25x8 | R4101 | 5 | 6000 | 63642557746* |

* Made-to-order

# MANDRELS STANDARD WHEELS



| DISCS DxWxB (mm) | SPINDLE DIA (mm) | PK QTY | ART NO. |
|---|---|---|---|
| <150x13x12 | 6 | 1 | 07660707022 |
| <200x13x12 | 8 | 1 | 07660707023 |



# RAPID BLEND UNITISED WHEELS
## FOR DIE GRINDERS

Unitised wheels are made from compressed and bonded layers of non-woven abrasive for maintenance operations where an efficient, cost-effective solution is needed for deburring, polishing, cleaning and finishing composites. The uniform construction maintains part tolerance and prevents cutting and gauging. Rapid Blend can be used on a variety of shapes and contours, wheels hold their shape well and don't need to be dressed as often. Wheels are also non-metallic so won't contaminate the workpiece.

## VORTEX RAPID BLEND CLOSED

++++

- For light weld bead and weld spatter removal, heavy deburring and finishing applications
- Proprietary engineered Vortex aluminium oxide aggregate grain provides aggressive, fast, stock removal, reduced cycle times, and increased part quality
- Reduces heat build-up on the workpiece which increases cut rate and helps the disc last up to twice as long without shredding
- Special resin chemistry makes Vortex Rapid Blend ideal for deburring, even on sharp edges, without shedding or smearing





| DxWxB (mm) | CAP CODE | GRADE | PK QTY | RPM | ART NO. |
|---|---|---|---|---|---|
| STANDARD | | | | | |
| 50x6x6 | U2305 | VOR-7AM | 60 | 22100 | 66261080270 |
| 75x3x6 | U2305 | VOR-5AM | 40 | 18000 | 66261093448 |
| | U2305 | VOR-7AM | 40 | 18000 | 66261191445 |
| 75x6x6 | U2305 | VOR-5AM | 40 | 18000 | 66254414832 |
| | U2305 | VOR-7AM | 40 | 18000 | 66261199696 |
| 75x13x6 | U2305 | VOR-7AM | 20 | 18000 | 66261080267 |
| 125x6x22 | U2305 | VOR-5AM | 20 | 9000 | 66254488602 |
| 150x6x25 | U2305 | VOR-5AM | 8 | 7500 | 66254414167 |
| | U2305 | VOR-7AM | 8 | 7500 | 66254407225 |
| SPINDLE MOUNTED WHEELS | | | | | |
| 150x13x8 | U2305 | 3AM | 10 | 8000 | 66623375067 |

**Dimensions Key:** D = Diameter, W = Width, B = Bore, T = Thickness, S = Spindle

# RAPID BLEND NEX +++

- Good choice for light deburring and blending
- Can be easily pre-formed for use on a wide variety of shapes/ contours
- Imparts a bright finish on stainless steel with improved 2SF and 3SF light/soft density formulation
- Fine silicon carbide and flexible density unitised construction for a smooth controlled blending/finishing experience
- Excellent, consistent, smear-free finish



| DxWxB (mm) | CAP CODE | GRADE | PK QTY | RPM | ART NO. |
|---|---|---|---|---|---|
| 50x6x6 | U4401 | NEX-2SF | 20 | 18000 | 63642585756 |
| | U2401 | NEX-4AF | 20 | 22100 | 63642585755* |
| 75x3x6 | U2301 | NEX-8AM | 20 | 18100 | 63642585831 |
| 75x6x6 | U2301 | NEX-2AM | 10 | 12100 | 63642585763* |
| | U4401 | NEX-2SF | 10 | 12100 | 63642585768 |
| | U4401 | NEX-3SF | 10 | 12100 | 63642571113 |
| | U2401 | NEX-6AF | 10 | 18100 | 63642585771 |
| | U2301 | NEX-6AM | 10 | 18100 | 66261081929* |
| | U2301 | NEX-8AM | 10 | 18100 | 63642585774 |
| 125x6x22 | U4401 | NEX-2SF | 20 | 6000 | 66254488603 |
| | U4401 | NEX-3SF | 20 | 6000 | 66254489419 |
| 150x6x13 | U2301 | NEX-2AM | 10 | 4500 | 66261019412 |
| | U4401 | NEX-2SF | 10 | 7500 | 66261019416 |
| | U4401 | NEX-3SF | 8 | 7500 | 66261016691 |
| | U2301 | NEX-6AM | 10 | 7500 | 66261019414 |
| 150x6x25 | U4401 | NEX-2SF | 8 | 7500 | 66261017050 |
| | U4401 | NEX-3SF | 8 | 7500 | 66254489421 |
| 150x13x13 | U2301 | NEX-2AM | 5 | 4500 | 63642585818 |
| | U4401 | NEX-2SF | 5 | 7500 | 63642585812 |
| | U4401 | NEX-3SF | 4 | 7500 | 66261015826 |
| | U2401 | NEX-4AF | 5 | 7500 | 63642585815 |
| | U2301 | NEX-8AM | 5 | 7500 | 63642585824 |
| 150x25x13 | U2301 | NEX-2AM | 5 | 4500 | 69957350267* |
| | U4401 | NEX-2SF | 5 | 5000 | 69957350272 |
| | U2401 | NEX-4AF | 5 | 7500 | 69957350269 |
| 150x25x25 | U2301 | NEX-2AM | 5 | 4500 | 63642585789* |
| | U4401 | NEX-2SF | 5 | 5000 | 63642585795 |
| | U2401 | NEX-4AF | 5 | 7500 | 63642585792 |
| 200x25x25 | U2301 | NEX-2AM | 5 | 3500 | 63642585796 |
| | U4401 | NEX-2SF | 5 | 4000 | 63642585797 |

* Made-to-order

# SMALL UNITISED WHEELS / BOBS +++



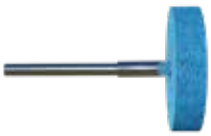
| DxWxB (mm) | CAP CODE | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|
| 25x25x5 | U4401 | NEX 2SF | 50 | 66261014883 |
| 25x25x5 | U2301 | NEX 6AM | 50 | 66261014908 |
| Use with threaded mandrel | - | - | 1 | 66261077832 |



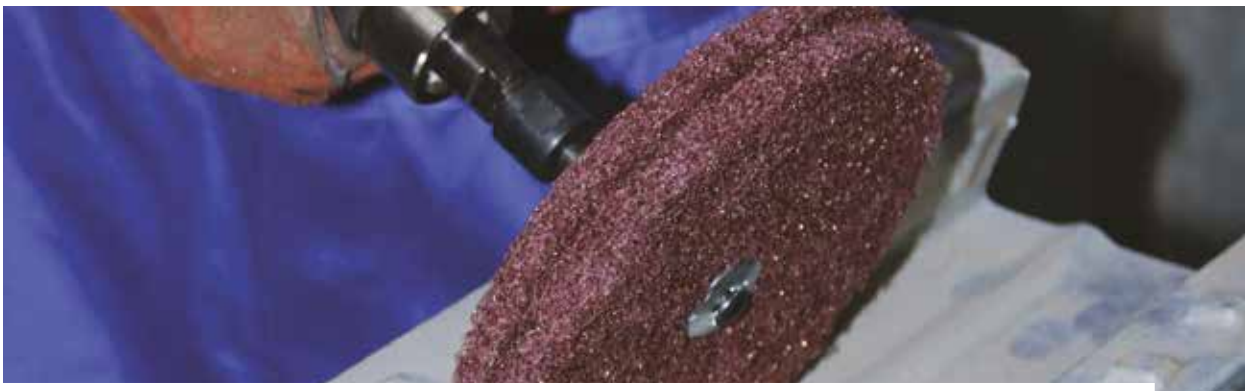
# SMALL UNITISED WHEELS / MOUNTED POINTS

- Reaches into small and awkward areas for deburring, dimensioning, cleaning and finishing.
- Ideal for 3D Printed components as a final clean up.
- Soft and gentle, so less risk of surface damage.
- Various sizes and options available for use in areas difficult to access.
- Can also be mounted on a normal low speed drill for many cleaning and 'touch-up' tasks.

## SMALL UNITISED WHEELS / MOUNTED POINTS ++++

| | DIM DIAxTxS (mm) | SPEC + CAP CODE | GRADE/SHAPE | APPLICATION | PK QTY | RPM | ART NO. |
|---|---|---|---|---|---|---|---|
|  | 30x6x3 | VORTEX U2305 | MEDIUM 7A / WHEEL | Deburring/ Blending | 10 | 16000 | 78072757523 |
|  | 6x12x3 | VORTEX U2305 | MEDIUM 7A / POINT | Deburring/ Blending | 10 | 16000 | 78072757528 |
|  | 10x12x3 | VORTEX U2305 | MEDIUM 7A / POINT | Deburring/ Blending | 10 | 16000 | 78072757529 |
|  | 10x12x3 | NEX U4401 | FINE 3S / POINT | Finishing, soft action | 10 | 16000 | 78072757530 |
|  | 30x15x3 | HEAVY DUTY F2316 | MEDIUM A HD / WHEEL 3 layers | Cleaning/ Blending flexible, conformable | 10 | 16000 | 78072757594 |

Other sizes/specs available upon request, also with 6mm dia spindle.



# HIGH STRENGTH DISCS
## FOR DIE GRINDERS

Made of a strong nylon web impregnated with abrasive grain and resin, BearTex high strength discs are designed for demanding applications on a wide range of materials. A general purpose product which produces a light satin finish.

Applications include rust/oxide or coating removal, pipe ID and OD polishing, casting cleaning, highlighting (antiquing), contaminant removal, removal of handling marks, gasket removal, cleaning and blending of surface imperfections, prepping prior to soldering, removal of filling materials, cleaning angles and odd shapes. Will not stretch or shed. Ganging increases versatility.

## BEARTEX HIGH STRENGTH DISCS +++

- The new, improved specification means discs last longer and have better resistance to tearing when used on burrs and sharp edges
- Can be combined with multiple wheels to form a very flexible, durable wheel for use on bench or straight grinders
- Strong, smear-proof resin binders help produce light satin finishes
- Different sizes are available for mounting on bench grinders or portable die grinders using a mandrel



| DxB (mm) | CAP CODE | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|
| 100x8 | F2303 | Medium | 10 | 66254429562 |
| 150x12 | F2303 | Medium | 10 | 77696087534 |
| | F2506 | Very fine | 10 | 77696087535 |
| 200x12 | F2303 | Medium | 10 | 77696087536 |
| | F2506 | Very fine | 10 | 77696087537 |

## BEARTEX LAP MOPS +++

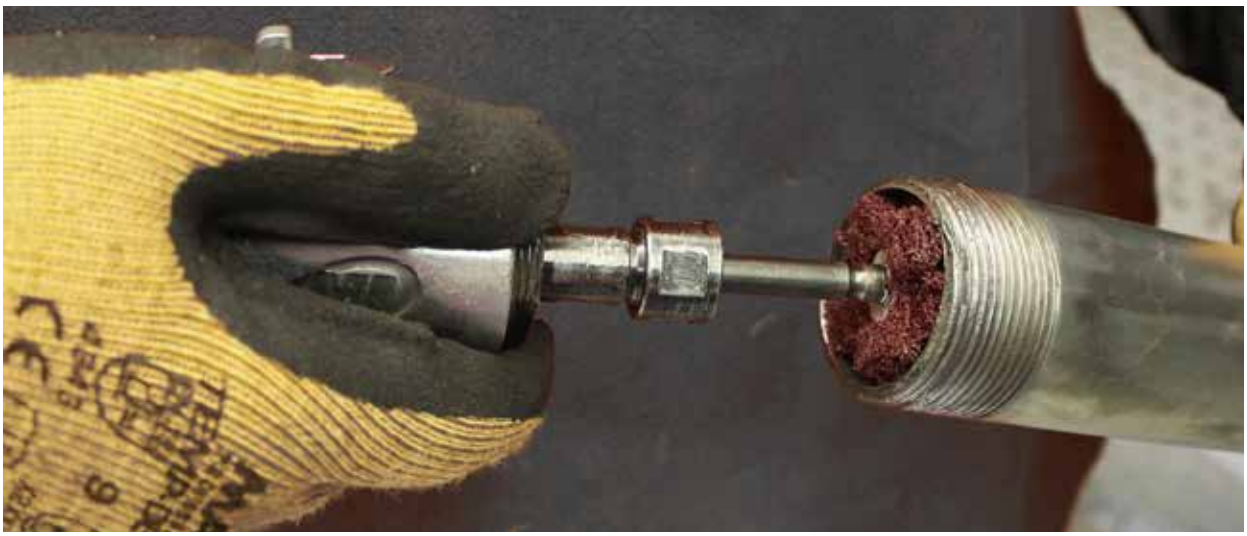
- Ideal for hard-to-reach areas and intricate shaped components
- Use with a mandrel



| D (mm) | CAP CODE | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|---|
| 150 | F2520 | Very fine | 5 | 4000 | 07660707529* |

**Dimensions Key:** D = Diameter, W = Width, B = Bore, T = Thickness, S = Spindle

* Made-to-order



# HIGH-STRENGTH CROSS BUFFS +++

- Ideal for use on internal pipes and tubes
- For quick deburring and cleaning



| DxT (mm) | GRADE | PK QTY | MAX RPM | ART NO. |
|---|---|---|---|---|
| 38x13 | Medium | 100 | 18000 - 23000 | 08834189308 |
| 38x13 | Very fine | 100 | 18000 - 23000 | 08834189307* |
| Mandrel MM32-4** | - | 1 | 18000 - 23000 | 63642587136* |

** Use Mandrel MM32-4 to mount 38mm Cross Buffs

* Made-to-order

# MANDRELS FOR DIE GRINDERS

| | LxSxW (mm) | FOR USE WITH WHEEL DIA (mm) | MAX USABLE WHEEL WIDTH (mm) | BORE HOLE DIA (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **MANDRELS WITH WASHERS** | | | | | | |
| RapidStrip/Plain discs | 55x6x40 | Up to 150 | 13 | 10 to 12 | 1 | 07660707022 |
| RapidStrip/Plain discs/large dia Unitised wheels >150mm | 55x8x38 | Up to 200 | 13 | 10 to 13 | 1 | 07660707023 |
| **MANDRELS** | | | | | | |
| Unitised wheels | 60x6 | Up to 75 | 6 | 6 & 10 | 1 | 63642586234 |
| Unitised wheels | 75x6 | Up to 75 | 6 to 12 | 6 & 10 | 1 | 63642586236 |
| Unitised wheels | 85x6 | Up to 150 | 12 to 25 | 6 | 1 | 63642586239 |
| **THREADED MANDREL** | | | | | | |
| Unitised wheels/bobs | 25x6 | 25 | 25 | 5 | 1 | 66261077832 |









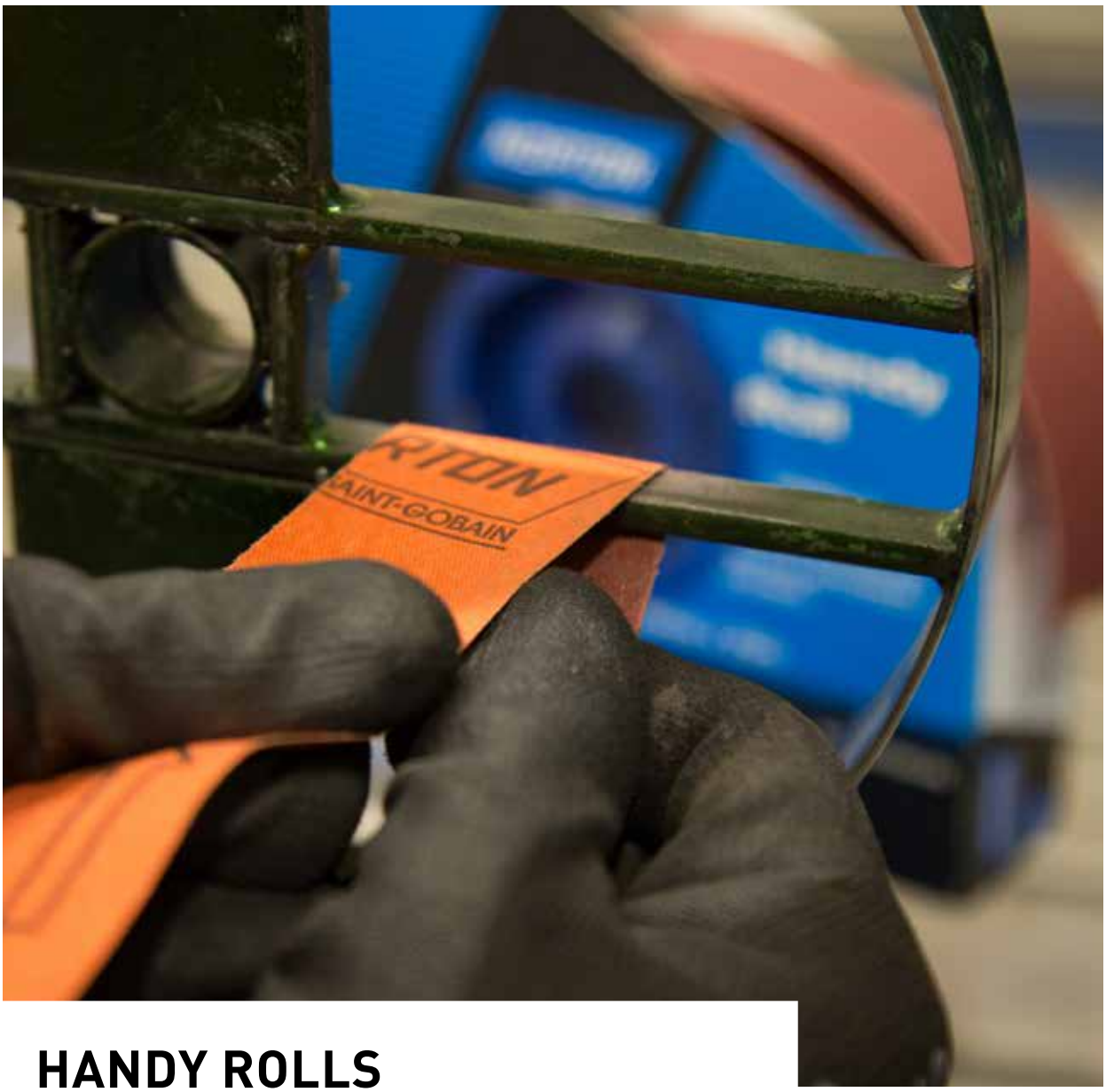

**Dimensions Key:** L = Length, W = Width, B = Bore, S = Spindle






# ROLLS


| | | | |
|---|---|---|---|
| Handy rolls | 142 | BearTex rolls | 152 |
| Paper & cloth rolls | 146 | Rotolo Foam rolls | 154 |
| Norton MeshPower rolls | 151 | | |




# HANDY ROLLS

Engineered for flexibility and fast cutting, cloth handy rolls tear cleanly and straight without shedding and are packed in a protective dispenser to eliminate waste and damage.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Suitable ○





| MATERIALS / APPLICATIONS | R222 | F2316 | K20N |
|---|---|---|---|
| | +++++ | ++++ | +++ |
| General purpose (metal, wood, etc.) | ✓✓ | ✓ | ○ |
| Scouring and light deburring, | ✓✓ | ✓✓ | ✓ |
| Scale and rust removal, | ✓ | ✓ | ✓✓ |
| Blending and fine sanding, | ✓ | ✓✓ | ✓ |
| Polishing lathe turnings, rolls and cylinders, and blending machine tool marks | ✓ | ✓✓ | ○ |

# R222 +++++

- Versatile aluminium oxide abrasive for hand sanding of wood and metal
- For general purpose maintenance applications and offers extra durability and even wear
- Flexible cotton backing ideal for sanding profiled surfaces and round steel parts
- Dispenser unit for easy storage and product protection

FERR. & NON FERR. | HARD & SOFT WOOD




| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 25mmx25m | 40 | 1 | 63642531849 |
| | 50 | 1 | 63642531850 |
| | 60 | 1 | 63642531823 |
| | 80 | 1 | 63642531820 |
| | 100 | 1 | 63642531815 |
| | 120 | 1 | 63642531811 |
| | 150 | 1 | 63642531808 |
| | 180 | 1 | 63642531805 |
| | 220 | 1 | 63642531802 |
| | 240 | 1 | 63642531799 |
| | 320 | 1 | 63642531796 |
| | 400 | 1 | 63642531793 |
| | 600 | 1 | 63642560206 |
| 38mmx25m | 40 | 1 | 63642531828 |
| | 50 | 1 | 63642531826 |
| | 60 | 1 | 63642531824 |
| | 80 | 1 | 63642531821 |
| | 100 | 1 | 63642531817 |
| | 120 | 1 | 63642531812 |
| | 150 | 1 | 63642531809 |
| | 180 | 1 | 63642531806 |
| | 220 | 1 | 63642531803 |
| | 240 | 1 | 63642531800 |
| | 280 | 1 | 63642536425 |
| | 320 | 1 | 63642531797 |
| | 400 | 1 | 63642531794 |
| | 600 | 1 | 63642539150 |
| 50mmx25m | 40 | 1 | 63642531829 |
| | 50 | 1 | 63642531827 |
| | 60 | 1 | 63642531825 |
| | 80 | 1 | 63642534758 |
| | 100 | 1 | 63642531818 |
| | 120 | 1 | 63642531814 |
| | 150 | 1 | 63642531810 |
| | 180 | 1 | 63642531807 |
| | 220 | 1 | 63642531804 |
| | 240 | 1 | 63642531801 |
| | 280 | 1 | 63642536426 |
| | 320 | 1 | 63642531798 |
| | 400 | 1 | 63642531795 |
| | 600 | 1 | 63642534757 |

SPEC CHECK

R222 handy rolls are designed for manual applications. The high flexibility of the cloth in combination with the wide grit range, from coarse to fine, provides an excellent tool for a variety of applications including deburring, rust removal and finishing metal.

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length




# K20N +++

## THE AFFORDABLE CONSUMABLE FOR EVERYDAY USE

- Aluminium oxide grain for fast cut, good material removal and excellent price/performance ratio
- Good choice for small-volume metal and woodworking applications
- Superior conformability to flat and complex surfaces and better finishes
- Dispenser unit for easy storage and product protection



FERR. & NON FERR. HARD & SOFT WOOD




| DIM WxL | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 38mm x 25m | 40 | 1 | 69957393819 |
| | 60 | 1 | 69957377802 |
| | 80 | 1 | 69957374796 |
| | 100 | 1 | 69957375075 |
| | 120 | 1 | 69957375074 |
| | 150 | 1 | 66261159485 |
| | 180 | 1 | 69957393824 |
| | 220 | 1 | 69957375532 |
| | 240 | 1 | 66261153914 |
| 50mm x 25m | 60 | 1 | 69957373478 |
| | 80 | 1 | 69957375076 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

# NON-WOVEN F2316 ++++

- Flexible 3D handpad material in roll form for hand and machine use
- Complementary to R222 and K20N handy rolls, for finishing
- Premium aluminium oxide grain gives a performance boost, cleaning, blending deburring and finishing in record time
- Ideal to access awkward corners and recesses




FERR. & NON FERR.

| DIM WxL (mm/m) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 38mm x 5m | F2316 Heavy Duty MED A | F2316 | 1 | 66261129709 |



# PAPER & CLOTH ROLLS

Coated abrasive rolls are ideal for fast easy sanding, light deburring and polishing of wood, paint, metal and plaster, rust and scale. They can be torn to exact lengths as needed.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Suitable ○



| | PAPER ROLLS | | | CLOTH ROLLS | |
|---|---|---|---|---|---|
| MATERIALS / APPLICATIONS | H231 Strong F-Weight paper | A275 Fibre-reinforced latex, B-weight paper | G131F E-weight backing | R222 Flexible J-weight cotton cloth | K20N J-weight cotton cloth |
| | +++++ | ++++ | +++ | +++++ | +++ |
| Metal | ✓ | | | ✓✓ | ○ |
| Wood | ✓✓ | ✓ | ○ | | |
| Primer / paint / varnish | ✓ | ✓✓ | ○ | | |

# H231 +++++

- Aluminium oxide grain for long life
- Open grain distribution and anti-static properties helps reduce clogging
- Premium product for all types of wood and also suitable for surface finishing on metal
- Minimise dust when used with an appropriate extraction system

NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 120mm x 50m | 60 | 1 | 63642539189 |
| | 80 | 1 | 63642539187 |
| | 120 | 1 | 63642539183 |
| | 150 | 1 | 63642539181 |
| | 180 | 1 | 63642546049 |

SPEC CHECK

Grinding non-conductive materials, such as wood, creates electrical charges in the abrasive that causes adhesion of the grinding dust to the abrasive. The anti-static properties of H231 ground the electrical charge though the coated abrasive and the machine preventing this adhesion, reducing clogging and longer product life.

# NORTON PRO A275 ++++

- Premium heat-treated aluminium oxide abrasive blend for long life and fast cut rate
- Suitable for use on primer, paint filler and coating sanding (for automotive and transport applications) and wood
- Tear resistant fibre-reinforced latex for wet or dry sanding
- No-Fil® anti-loading third layer for better finish, loading resistance and extended life

NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 100mm x 50m | 80 | 2 | 63642591122 |
| | 120 | 2 | 63642591123 |
| | 150 | 2 | 69957391073 |
| | 180 | 2 | 63642591124 |
| | 220 | 2 | 63642590924 |
| | 240 | 2 | 63642590927 |
| | 320 | 2 | 63642591649 |
| 115mm x 50m | 80 | 2 | 69957380739 |
| | 120 | 2 | 69957380761 |
| | 150 | 2 | 69957380765 |
| | 180 | 2 | 69957380767 |
| | 220 | 2 | 69957380769 |
| | 240 | 2 | 69957380777 |
| | 280 | 2 | 69957380778 |
| | 320 | 2 | 69957380779 |
| | 400 | 2 | 69957380781 |
| | 500 | 2 | 69957396696 |

## **PAPER** ROLLS

# G131F +++

- Aluminium oxide grain for fast cut, good material removal and excellent price/ performance ratio
- Versatile product for wood and plaster sanding
- Responsibly sourced, made with FSC mix certified paper backing
- Wide made-to-order availability

PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 100mm x 50m | 40 | 2 | 66623372536 |
| | 60 | 2 | 66623372537 |
| | 80 | 2 | 66623372538 |
| | 100 | 2 | 66623372539 |
| | 120 | 2 | 66623372540 |
| 115mm x 50m | 40 | 2 | 66623372551 |
| | 60 | 2 | 66623372204 |
| | 80 | 2 | 66623372535 |
| | 100 | 2 | 66623372552 |
| | 120 | 2 | 66623372545 |
| | 150 | 2 | 66623372205 |
| | 180 | 2 | 66623372558 |
| | 220 | 2 | 66623372554 |
| 120mm x 50m | 40 | 2 | 66623372542 |
| | 60 | 2 | 66623372543 |
| | 80 | 2 | 66623372553 |
| | 100 | 2 | 66623372541 |
| | 120 | 2 | 66623372544 |
| | 150 | 2 | 66623372556 |
| | 180 | 2 | 66623372559 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

FSC

FSC www.fsc.org FSC® C119505 FSC® C106037 FSC® C106597 FSC® C107190 FSC® C122014 The mark of responsible forestry

## FSC® CERTIFICATION

Utilising responsibly sourced material and preserving natural resources is a high priority, look out for the FSC® logo next to products manufactured using FSC® certified paper.

# R222 +++++

- Versatile aluminium oxide abrasive for hand sanding and handheld machine sanding
- For general purpose maintenance applications, offers extra durability and even wear
- Flexible cotton backing ideal for sanding profiled surfaces and round steel parts
- Long life in wood and metal applications



NON FERR.

PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50mm x 50m | 40 | 5 | 63642512909 |
| | 60 | 5 | 63642540086 |
| | 80 | 5 | 63642539135 |
| | 100 | 5 | 63642539136 |
| | 120 | 5 | 63642559727 |
| | 150 | 5 | 63642539208 |
| | 180 | 5 | 63642539137 |
| | 220 | 5 | 63642512916 |
| | 240 | 5 | 63642512917 |
| | 320 | 5 | 63642512918 |
| | 400 | 5 | 63642512919 |
| 100mm x 50m | 40 | 1 | 63642536559 |
| | 60 | 1 | 63642560979 |
| | 80 | 1 | 63642531852 |
| | 100 | 1 | 63642531854 |
| | 120 | 1 | 63642531855 |
| | 150 | 1 | 63642545861 |
| | 180 | 1 | 63642531856 |
| | 240 | 1 | 63642531857 |
| | 320 | 1 | 63642545865 |
| | 400 | 1 | 63642545867 |
| 430mm x 50m | 60 | 1 | 63642539142 |
| | 80 | 1 | 63642539143 |
| | 120 | 1 | 63642539145 |
| | 150 | 1 | 63642539146 |
| | 180 | 1 | 63642539147 |

## **CLOTH** ROLLS

# K20N +++

- Aluminium oxide grain for fast cut, good material removal and excellent price/ performance ratio
- Ideal for general purpose maintenance applications

FERR. & NON FERR. HARD & SOFT WOOD



**Dimensions Key:**
DIM = Dimensions,
W = Width,
L = Length

| DIM WxL (mm/m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50mm x 50m | 60 | 5 | 69957380137 |
| | 80 | 5 | 69957377805 |
| | 100 | 5 | 69957376896 |
| | 120 | 5 | 69957372227 |
| | 220 | 5 | 69957380131 |
| | 240 | 5 | 69957377806 |
| 100mm x 50m | 80 | 1 | 69957375536 |
| | 100 | 1 | 69957375528 |
| | 120 | 1 | 69957375529 |
| | 150 | 1 | 69957375530 |
| | 180 | 1 | 69957375531 |

## MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT | BACKING | 24 | 36 | 40 | 60 | 80 | 100 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 | 600 | 800 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R222 | Flexible J-weight cotton cloth | | • | • | • | • | • | • | • | • | • | • | • | • | • | • | |
| R309* | Super flexible cotton cloth | | | | • | • | • | • | • | • | • | • | • | • | • | | |
| H231 | Strong F-Weight paper | | • | • | • | • | • | • | • | • | • | • | • | • | • | | |
| R817* | Heavy polyester cloth | • | • | • | • | • | • | | | | | | | | | | |
| A275 | Fibre-reinforced latex, B-weight paper | | | | | • | • | • | • | • | • | • | • | • | • | • | • |
| K20N | J-weight cotton cloth | | | • | • | • | • | • | • | • | • | • | | | | | |
| G131F | E-weight backing | | | • | • | • | • | • | • | • | • | | | | | | |

* Made-to-order

### MINIMUM ORDER QUANTITIES FOR MADE-TO-ORDER ITEMS (50m LONG)

| DIMENSIONS (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| Up to 25mm | 20 pieces |
| 26 up to 50mm | 12 pieces |
| 51 up to100mm | 4 pieces |
| 101 up to 200mm | 2 pieces |
| Over 201mm | 1 piece |



# NORTON MESHPOWER ROLLS

Norton MeshPower is a multifunctional abrasive, designed with thousands of holes, created by the unique mesh matrix structure. This hole structure allows dust extraction in any application.

- Mesh backing enables excellent dust extraction, for a cleaner working environment and less clean up time
- No-Fil® technology prevents clogging for longer product life
- Can be used wet or dry
- Self-grip backing for a quick and easy change
- Can be used on many materials, flat and contoured surfaces, by hand or machine
- No defined hole pattern for fast, easy alignment with the back-up pad
- Easy to identify product type by grain colour

## MESHPOWER ROLLS CERAMIC +++++



| DIMENSIONS | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 75 x 10 m | 80 | 1 | 69957326171 |
| | 120 | 1 | 69957326176 |
| | 180 | 1 | 69957326178 |
| | 240 | 1 | 69957326179 |
| | 320 | 1 | 69957326182 |
| 115 x 10m | 60 | 1 | 78072712624 |
| | 80 | 1 | 69957326269 |
| | 120 | 1 | 69957326270 |
| | 180 | 1 | 69957326271 |
| | 240 | 1 | 69957326272 |
| | 320 | 1 | 69957326273 |

### CERAMIC ADVANTAGE

Ceramic grain provides the ultimate material removal, best productivity, longest life and finest finish.



# **BEARTEX** ROLLS

BearTex non-woven rolls are ideal for a broad range of applications from cleaning and finishing to deburring and light polishing operations. The flexibility of BearTex products ensures constant contact with the surface and prevents cutting or gouging when working.

Rolls can be cut to the required size and folded to suit any application.

## BEARTEX SLIT ROLLS +++

- Flexible 3D handpad material in roll form for hand and machine use
- Conforms to contours of work surface and provides a uniform finish
- Long life with resilient construction
- Ideal for blending and finishing applications on a variety of substrates



| DIM WxL (mm x m) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 100mm x 10m | Medium A | F2300 | 2 | 63642557499 |
| | ***NEW*** Heavy Duty MED A | F2316 | 2 | 66261106168 |
| | Fine A | F2401 | 2 | 66261018300 |
| | Very Fine A | F2560 | 2 | 63642557738 |
| | Very Fine A Long Life | F2504 | 2 | 66261018301 |
| | Micro Fine A | F2801 | 2 | 63642557500 |
| | Ultra Fine S | F4660 | 2 | 63642557501 |
| 115mm x 10m | Very Fine A | F2560 | 2 | 63642557739 |
| | Very Fine A Long Life | F2504 | 2 | 63642587694 |
| | Ultra Fine S | F4660 | 2 | 63642557503 |
| 120mm x 10m | General Purpose | F2568 | 2 | 63642515571 |

| DIM WxL (mm x m) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 125mm x 10m | Medium A | F2300 | 2 | 63642557504 |
| | Fine A | F2401 | 2 | 66261018307 |
| | Very Fine A | F2560 | 2 | 63642557740 |
| | Very Fine A Long Life | F2504 | 2 | 66261018308 |
| | Micro Fine A | F2801 | 2 | 63642557505* |
| | Ultra Fine S | F4660 | 2 | 63642557506 |
| 150mm x 10m | Medium A | F2300 | 2 | 63642557507 |
| | ***NEW*** Heavy Duty MED A | F2316 | 2 | 66261106011 |
| | Very Fine A | F2504 | 2 | 66261018312 |
| | Ultra Fine S | F4660 | 2 | 63642557508* |

* Made-to-order

# BEARTEX ROTOLO ROLLS PRE-CUT +++

- Ideal storage and space saver with self dispensing function
- Rotolo rolls precut every 150mm for easy pad size use
- Thinner web (Thinflex version) cuts faster, saves time, with no added effort from the user. Product can be scrunched, rolled and saves shelf space



| DIM WxL (mm x m) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| BEARTEX | | | | |
| 115mm x 10m | Very Fine A | F2504 | 1 | 77696009598 |
| | Ultra Fine S | F4807 | 1 | 77696042071 |
| | ***NEW*** Micro Fine A | F2802 | 1 | 66261124481 |
| | ***NEW*** White | F0001 | 1 | 66261124480 |
| THINFLEX | | | | |
| 115mm x 10m | Very Fine A | F2504 | 1 | 77696042073 |
| | Ultra Fine S | F4807 | 1 | 77696042075 |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width





# **ROTOLO FOAM** ROLLS

The special flexible and conforming foam backing allows a very good distribution of sanding pressure preventing over sanding and are ideal for fine sanding on round edges, contours and curves, providing an outstanding finish on primers and top coats. Rotolo Foam rolls are pre-perforated for easy handling by tearing cut sheets out of dispenser box.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓

| MATERIALS |  NORTON PRO A275 |  GOLD RESERVE A296 |
|---|---|---|
| | ++++ | +++ |
| Metal - fine sanding | ✓✓ | ✓ |
| Wood - fine sanding | ✓✓ | ✓ |
| Filler | ✓✓ | ✓ |
| Varnish / paint / primer | ✓✓ | ✓ |
| Composites /coatings | ✓✓ | ✓ |

# NORTON PRO A275 ++++

- Premium aluminium oxide foam rolls are water-resistant, for dry or wet sanding. Washable
- 25m long roll of pre-cut sheets, easy to use and economic
- Excellent for fine sanding with high finishing level
- Ideal for use on round edges, contours and curves without breaking through the paint surface

FERR. & NON FERR. | PAINT/VARN, HARD WOOD & SOFT WOOD



| DIM WxL (mm x m) | GRIT | COLOUR | PK QTY | ART NO. |
|---|---|---|---|---|
| 115mm x 25m | 120 | Apple Green | 2 | 63642535316 |
| | 150 | Orange | 2 | 63642557584 |
| | 180 | Purple | 2 | 63642557599 |
| | 220 | Red | 2 | 63642557600 |
| | 240 | Electric Blue | 2 | 63642557602 |
| | 280 | Grey | 2 | 63642557604 |
| | 320 | Salmon | 2 | 63642557606 |
| | 360 | Pink | 2 | 63642557607 |
| | 400 | Yellow | 2 | 63642557608 |
| | 500 | Dark Blue | 2 | 63642557611 |
| | 600 | Fuchsia | 2 | 63642557612 |
| | 800 | Turquoise | 2 | 63642557613 |
| | 1000 | White | 2 | 63642557616 |
| | 1500 | Green | 2 | 63642557617 |

# GOLD RESERVE A296 +++

- Tough aluminium oxide grain produces a quick and cool cut
- Strong B weight latex / paper backing resists tearing
- Conformable and flexible
- Water-based, non-loading stearate, resists loading

FERR. & NON FERR. | PAINT/VARN. & HARD WOOD



| DIM WxL (mm x m) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115mm x 25m | 240 | 2 | 66261097596 |
| | 320 | 2 | 66261097598 |
| | 400 | 2 | 66261097599 |
| | 500 | 2 | 66261097600 |
| | 600 | 2 | 66261097601 |
| | 800 | 2 | 66261097602 |

See the Norton Automotive Aftermarket catalogue for extended offer of A296 Rotolo Foam rolls

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

SPEC CHECK

Box labels are colour coded by grit size for easy product recognition.
The colour-coding follows the Norton Pro grit colour-coding system

## NOTES



NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# SHEETS & SPONGES


| | | | |
|---|---|---|---|
| Cut sheets | 158 | Sheets & hand pads | 163 |
| Norton MeshPower | 159 | BearTex sheets & hand pads | 167 |
| | | Abrasive sponges | 169 |



# CUT SHEETS
## FOR SANDING BLOCKS

Norton offers a full range of cut sheets for hand and machine use, providing a range of efficient, user-friendly abrasive solutions. The extended range of dimensions and grits comply with all commonly encountered applications.

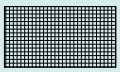
## PRODUCT SELECTION GUIDE CUT SHEETS

Highly recommended ✓✓
Recommended ✓
Suitable ○

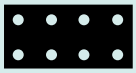
| | | MESH CUT SHEETS | | PAPER CUT SHEETS | | |
|---|---|---|---|---|---|---|
| MATERIAL | APPLICATION | NORTON MESHPOWER CERAMIC M920 | NORTON MESHPOWER ALOX M220 | NORTON PRO PLUS A975 | NORTON PRO A275 | G131F |
| | | +++++ | ++++ | +++++ | ++++ | +++ |
| Metal | Coarse sanding | ○ | | | | ✓ |
| | Finishing | ○ | | | | ✓ |
| Hard Wood | Coarse sanding | ✓✓ | ✓ | | ○ | ✓ |
| | Finishing | ✓✓ | ✓ | ✓✓ | ✓ | ✓ |
| Soft Wood | Coarse sanding | | ✓✓ | | ✓ | ✓ |
| | Finishing | | ✓✓ | ✓✓ | ✓ | ✓ |
| Filler | Aluminium/Metal | ✓✓ | ✓ | ✓ | ✓ | ○ |
| | Polyester | ✓✓ | ✓ | ✓✓ | | ○ |
| Varnish / Paint / Primer | Coarse sanding | ✓✓ | ✓ | | ✓✓ | ○ |
| | Finishing | ✓✓ | ✓ | ✓✓ | ✓ | ○ |
| Composites / Coatings | Sanding | ✓✓ | ✓ | ✓✓ | ✓ | ○ |
| | Finishing | ✓✓ | ✓ | ✓✓ | ✓ | ○ |
| Plaster | Coarse sanding | | ✓✓ | | | ✓✓ |
| | Finishing | | ✓✓ | | ✓✓ | ✓ |

## **HOLE PATTERNS** FOR CUT SHEETS

Norton offers a range of cut sheets with different hole patterns for dust extraction. Other hole patterns available on request.



70 × 125mm
MeshPower



80 × 133mm
8 holes ø 10mm



115 × 280mm
with no holes



# NORTON MESHPOWER SHEETS

An alternative to traditional perforated paper sheets, Norton MeshPower is a multifunctional abrasive, designed with thousands of holes, created by the unique mesh matrix structure. This hole structure allows dust extraction in any application.

- Mesh backing enables excellent dust extraction, for a cleaner working environment and less clean up time
- No-Fil® technology prevents clogging for longer product life
- Can be used wet or dry
- Self-grip backing for a quick and easy sheet change
- Can be used on many materials, flat and contoured surfaces, by hand or machine
- No defined hole pattern for fast, easy alignment with the back-up pad
- Easy to identify product type by grain colour

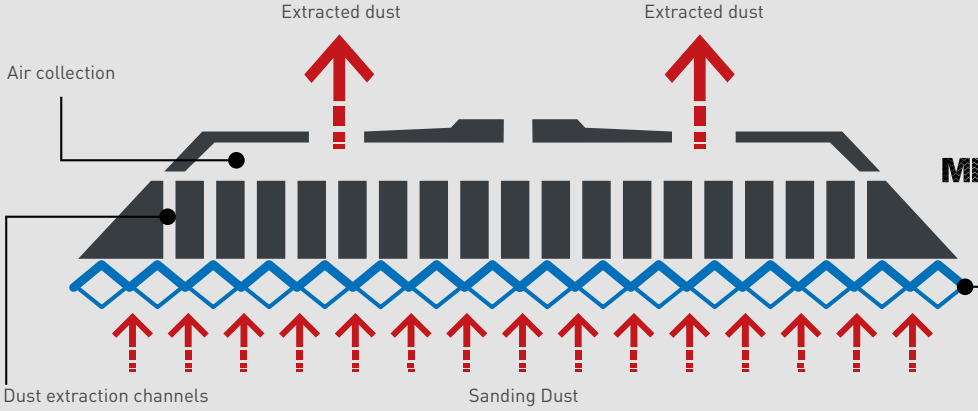
YouTube
Norton MeshPower

## POWERFUL DUST EXTRACTION MEANS A CLEANER ENVIRONMENT

The demand for a cleaner working environment, better quality finish and reduced consumable cost, means sanding solutions have evolved, from paper backed abrasive to a mesh construction with thousands of tiny holes.

Norton MeshPower responds to these demands by offering dust extraction in many operations. The open mesh construction of the backing allows dust particles to flow freely through thousands of tiny holes, creating a virtually dust free sanding environment. Better for your health, better for your application and better for your business!



## **CUT SHEETS** FOR SANDING BLOCKS

### CERAMIC ADVANTAGE

Ceramic grain provides the ultimate material removal, best productivity, longest life and finest finish.

## MESHPOWER CUT SHEETS M920 CERAMIC



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 70x125 | 80 | 50 | 69957325770 |
| | 120 | 50 | 69957325772 |
| | 180 | 50 | 69957325773 |
| | 240 | 50 | 69957325774 |
| | 320 | 50 | 69957325775 |
| 70x198 | 80 | 50 | 69957325962 |
| | 120 | 50 | 69957325963 |
| | 180 | 50 | 69957325964 |
| | 240 | 50 | 69957325965 |
| | 320 | 50 | 69957325966 |
| 70x420 | 80 | 50 | 69957325986 |
| | 120 | 50 | 69957325987 |
| | 180 | 50 | 69957325988 |
| | 240 | 50 | 69957325990 |
| | 320 | 50 | 69957325991 |
| 115x230 | 80 | 50 | 69957326057 |
| | 120 | 50 | 69957326062 |
| | 180 | 50 | 69957326063 |
| | 240 | 50 | 69957326065 |
| | 320 | 50 | 69957326068 |

## MESHPOWER CUT SHEETS M220 ALUMINIUM OXIDE



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 70x420 | 80 | 50 | 69957326288 |
| | 120 | 50 | 69957326289 |
| | 180 | 50 | 69957326291 |
| | 240 | 50 | 69957326292 |
| | 320 | 50 | 69957326294 |

# NORTON PRO PLUS A975 +++++

- Norton SG ceramic grain blended with heat treated aluminium oxide abrasive for the highest cut rate
- Extra durability and even wear, ideal for large surface areas
- Higher and faster cut rate with uniform scratch pattern
- Resists clogging during use thanks to the No-Fil® stearate layer

NON FERR. | PAINT/VARN, HARD WOOD



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 80 x 133 | 240 | 25 | 66254478608 |
| | 320 | 25 | 66254478614 |
| | 400 | 25 | 66254478617 |

# NORTON PRO A275 ++++

- Premium, heat-treated aluminium oxide abrasive for fast cut rate and improved performance
- The water based No-Fil® resists loading
- Universal cut sheet for multiple applications
- Unique fibre-reinforced latex paper for additional flexibility and tear resistance

NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 70 x 125 | 80 | 50 | 63642558002 |
| | 100 | 50 | 63642585263 |
| | 120 | 50 | 63642585272 |
| | 150 | 50 | 63642558005 |
| | 180 | 50 | 63642585274 |
| | 220 | 50 | 63642585281 |
| | 240 | 50 | 63642585284 |
| | 320 | 50 | 63642558006 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

# G131F +++

- Aluminium oxide grain for fast cut, good material removal and excellent price/ performance ratio
- Versatile product for wood and plaster sanding
- Made with FSC mix certified paper backing
- Wide made-to-order availability

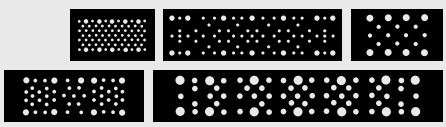
FSC | HARD WOOD & SOFT WOOD



| DIM W x L (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 115 x 280 | 80 | 50 | 66623372576 |
| | 120 | 50 | 66623372581 |
| | 180 | 50 | 66623372579 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

SEE THE NORTON AUTOMOTIVE AFTERMARKET CATALOGUE FOR
**A975 & H835 MULTIAIR CUT SHEETS**
Other sizes available on request.



## **CUT SHEETS** FOR SANDING BLOCKS

# MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT / GRIT | 36 | 40 | 60 | 80 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 | 500 | 600 | 800 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MESHPOWER M920 CERAMIC | | | | • | • | | • | | • | | • | | | | |
| MESHPOWER M220 ALOX | | | | • | • | | • | | • | | • | | | | |
| NORTON PRO PLUS A975 | | | | • | • | • | • | • | • | • | • | • | • | • | • |
| BLUE FIRE NORZON H835F* | | • | • | • | • | | • | | | | | | | | |
| NORTON PRO A275 | | | | • | • | • | • | • | • | • | • | • | • | • | • |
| H231* | • | • | • | • | • | • | • | | • | | • | | | | |
| G131F | | • | • | • | • | • | • | | | | | | | | |

• Available as made-to-order

## **HOLE PATTERNS** FOR CUT SHEETS AVAILABLE AS MTO

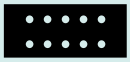
Other sizes and hole patterns available on request


115 × 280mm
14 holes ø 10mm


93 × 180mm
8 holes ø 10mm


93 × 230mm
8 holes ø 10 mm


70 x 125mm


115 × 230mm
10 holes ø 10mm


93 × 230mm
8 holes ø 10 mm


115 × 280mm
10 holes ø 10mm


Delta 98 x 148 mm
7 holes ø 10 mm


Delta ø 96 mm
6 holes ø 8 mm
on hole circle ø 52 mm

## MINIMUM ORDER QUANTITY

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 80 x 133 | 1000 pieces |
| 93 x 180 | 1000 pieces |
| 93 x 230 | 1000 pieces |
| 115 x 230 | 1000 pieces |
| 115 x 280 | 1000 pieces |
| Delta 96mm | 2000 pieces |
| Delta 98 x 148 | 1000 pieces |

### FSC® CERTIFICATION

Utilising responsibly sourced material and preserving natural resources is a high priority, look out for the FSC® logo next to products manufactured using FSC® certified paper.



# SHEETS & HAND PADS
## FOR HAND SANDING

Norton offers a comprehensive range of paper, cloth and waterproof sheets for manual applications, used in all commonly encountered industrial applications.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓



| | | CLOTH SHEETS | | PAPER SHEETS | WATERPROOF SHEETS | |
|---|---|---|---|---|---|---|
| MATERIAL | APPLICATION | R222 | K20N | NORTON PRO A275 | T489 | T100 |
| | | +++++ | +++ | ++++ | ++++ | +++ |
| Metal | Wet sanding | | | | ✓✓ | ✓ |
| | Dry sanding | ✓✓ | ✓ | | | |
| Hardwood | Coarse sanding | ✓✓ | ✓ | | | |
| | Light sanding & finishing | | | ✓✓ | | |
| Varnish / paint / primer | Wet sanding | | | | ✓✓ | ✓ |
| | Dry sanding | | | ✓✓ | | |

More products available in the Norton Automotive Aftermarket catalogue

## **SHEETS & HAND PADS** FOR HAND SANDING

### R222 CLOTH SHEETS +++++

- Aluminium oxide abrasive
- Highly flexible J-weight cloth backing for use on curves and contours
- High quality universal product
- Tears cleanly and easily

FERR.& NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 230 x 280 | 40 | 25 | 63642531776 |
| | 50 | 25 | 63642531777 |
| | 60 | 25 | 63642531778 |
| | 80 | 50 | 63642531779 |
| | 100 | 50 | 63642531780 |
| | 120 | 50 | 63642531781 |
| | 150 | 50 | 63642531782 |
| | 180 | 50 | 63642531783 |
| | 220 | 50 | 63642531785 |
| | 240 | 50 | 63642531786 |
| | 280 | 50 | 63642531788 |
| | 320 | 50 | 63642531789 |
| | 400 | 50 | 63642531790 |
| | 600 | 50 | 63642534613 |

### K20N CLOTH SHEETS +++

- Aluminium oxide abrasive for aggressive cutting action on all dry sanding applications
- Heavy and light duty hand sanding depending on grit
- For use on wood and metal (rust removal to light finishing)
- Excellent price / performance ratio

FERR.& NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 230 x 280 | 40 | 50 | 69957307652 |
| | 60 | 50 | 69957307653 |
| | 80 | 50 | 69957307655 |
| | 100 | 50 | 69957307659 |
| | 120 | 50 | 69957307661 |
| | 150 | 50 | 69957307663 |
| | 180 | 50 | 69957307668 |
| | 220 | 50 | 69957307669 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

# NORTON PRO A275 PAPER SHEETS ++++

- Premium, aluminium oxide abrasive for fast cut rate and improved performance
- The water based No-Fil® improves resistance to clogging
- Faster cut rate and longer life
- Unique fibre-reinforced latex paper for additional flexibility and tear resistance

PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 230 x 280 | 80 | 50 | 63642558015 |
| | 100 | 50 | 63642585256 |
| | 120 | 100 | 63642558016 |
| | 150 | 100 | 63642586145 |
| | 180 | 100 | 63642558017 |
| | 220 | 100 | 63642586139 |
| | 240 | 100 | 63642558018 |
| | 280 | 100 | 63642585742 |
| | 320 | 100 | 63642586132 |
| | 360 | 100 | 63642586133 |
| | 400 | 100 | 63642586134 |
| | 500 | 100 | 63642586136 |
| | 600 | 100 | 63642586137 |
| | 800 | 100 | 63642586138 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

# T489 WATERPROOF SHEETS ++++

- Extremely sharp silicon carbide grain for hard and tough surfaces
- Flexible backing for improved conformability to workpiece
- For use on lacquer, paint, metal, glass, stone, marble and plastic
- Waterproof paper backing for wet and dry sanding

FERR. & NON FERR. | PAINT/ VARN | STONE



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 230 x 280 | 60 | 50 | 63642532956 |
| | 80 | 50 | 63642532988 |
| | 100 | 50 | 63642532989 |
| | 120 | 50 | 63642532990 |
| | 150 | 50 | 63642532991 |
| | 180 | 50 | 63642532957 |
| | 220 | 50 | 63642532992 |
| | 240 | 50 | 63642532993 |
| | 280 | 50 | 63642532994 |
| | 320 | 50 | 63642532995 |
| | 360 | 50 | 63642532996 |
| | 400 | 50 | 63642532997 |
| | 500 | 50 | 63642532998 |
| | 600 | 50 | 63642532999 |
| | 800 | 50 | 63642533000 |
| | 1000 | 50 | 63642533001 |
| | 1200 | 50 | 63642533002 |

## **SHEETS & HAND PADS** FOR HAND SANDING

# T100 WATERPROOF SHEETS +++

- Aluminium oxide abrasive
- Waterproof paper backing for wet and dry sanding
- Multi-purpose product
- Excellent price / performance ratio

FERR. & NON FERR. PAINT/ VARN



| DIM WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 230 x 280 | 60 | 50 | 77696081101 |
| | 80 | 50 | 77696069788 |
| | 100 | 50 | 77696081102 |
| | 120 | 50 | 77696081103 |
| | 150 | 50 | 77696081104 |
| | 180 | 50 | 77696081105 |
| | 220 | 50 | 77696069787 |
| | 240 | 50 | 77696081106 |
| | 280 | 50 | 77696081107 |
| | 320 | 50 | 77696069784 |
| | 360 | 50 | 77696081108 |
| | 400 | 50 | 77696081109 |
| | 500 | 50 | 77696081110 |
| | 600 | 50 | 77696081111 |
| | 800 | 50 | 77696081112 |
| | 1000 | 50 | 77696081113 |
| | 1200 | 50 | 77696081114 |
| | 1500 | 50 | 63642531009 |





# **BEARTEX** SHEETS &HAND PADS

Hand pads are ideal for a broad range of applications from cleaning and finishing to deburring and light polishing operations. The flexibility of BearTex products ensures constant contact with the surface and prevents cutting or gouging when working. Can be folded to suit hand / shape. Perforated pads for clean and easy tearing also available. These perforations allow for smooth, shred free split to create two smaller, easy to use 115mm x 150mm pads




## BEARTEX HAND PADS +++

- Open mesh construction resists clogging
- Flexible, conforms to curves, contours and tight spaces easily, will not break
- Waterproof, washable and reusable
- Lasts longer than standard sandpaper and will not gouge the workpiece when used

| | DIM W x L (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **HAND PADS** | | | | | |
|  | 150x230 | Medium A | F2302 | 20 | 63642557491 |
| | | Medium A | F2316 | 20 | 63642577268 |
| | | Medium A | F2300 | 20 | 63642557493 |
| | | Fine A | F2401 | 20 | 66261018286 |
| | | Very Fine A Long Life | F2504 | 20 | 66261018287 |
| | | Gen. Purpose Clean & Scour A | F2568 | 20 | 63642574103 |
| | | Medium S | F4300 | 20 | 66261039806 |
| | | Ultra Fine S | F4807 | 20 | 77696046252 |
| | | Micro Fine A | F2801 | 20 | 63642557277 |
| | | White Cleaning (Non-Abrasive) | F0001 | 20 | 66261018283 |
| | 230x280 | Very Fine A Long Life | F2504 | 20 | 66261018291 |
| | | Ultra Fine S | F4807 | 20 | 66261018292 |
| **PERFORATED HAND PADS (PRE-CUT)** | | | | | |
| | 150x230 | Very Fine A Long Life | F2504 | 20 | 66261018293 |
| | | Ultra Fine S | F4807 | 20 | 66261018294 |

## **SHEETS & HAND PADS** FOR HAND SANDING

# THIN FLEX HAND PADS +++

- Thinner special coated web design cuts fast and saves time
- Ultra flexible so conforms even better to contoured surfaces for an ultra-consistent scratch pattern
- Ideal for getting into tight spaces as pads can be scrunched and rolled
- Advanced web formation provides superior grain adhesion, durability and product life
- Ideal for woodworking, metalworking, maintenance operations as well as car body repair

| | DIM WxL (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|---|
|  | 115x230 | Very fine A long life | F2543 | 4x25 | 63642506166 |
| | | Ultra fine S | F4614 | 4x25 | 63642506167 |
| | | Micro fine A | F2804 | 10x10 | 66261113519 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

## PRODUCT SELECTION GUIDE

| CAP CODE | GRADE | ABRASIVE | TARGET MATERIAL | APPLICATION | BENEFITS |
|---|---|---|---|---|---|
| HAND PADS (IN ORDER OF DECREASING AGGRESSIVENESS) | | | | | |
| F2316 | Medium A | Aluminium oxide | Stainless steel | • Rust removal<br>• Blending<br>• Deburring<br>• Bluing removal | • Aggressive and durable<br>• Long life<br>• Ideal replacement for coated abrasive steel wool and wire brushes |
| F2300 | Medium A | Aluminium oxide | Metals and ceramics | • Cleaning, deburring<br>• Rust removal<br>• Coating removal | • Strong and open construction<br>• Resists loading<br>• Long life<br>• Ideal for achieving a matte satin finish |
| F2401 | Fine | Aluminium oxide | Wood and plastics | • Cleaning and Intermediate finishing of ferrous and non-ferrous metals<br>• Defuzzing wood, denibbing lacquers, paints and plastic | • Coarser and stiffer than very fine pad<br>• Ideal for achieving a matte satin finish |
| F2560/ F2529 | Very fine | Aluminium oxide | General purpose | • Rust removal<br>• Automotive primer keying<br>• Defuzzing wood, denibbing plastic | • Conforms well to contoured surfaces<br>• Excellent finish on a wide variety of surfaces |
| F2504 | Very fine (long life) | Aluminium oxide | General purpose | • Rust removal<br>• Automotive primer keying<br>• Defuzzing wood, denibbing plastic,<br>• Light sanding of old paint and new primers | • Moderate flexibility<br>• Fast initial cut<br>• Long life<br>• No colour blend when used with solvents |
| F2568 | Gen. purpose clean & scour | Alumina silicate | Metals & plastics | • General purpose cleaning, surface preparation prior to painting<br>• Removal of light stains and oxide marks on metal surfaces | • Low-cost pad<br>• Good performance at an economical price |
| F4300 | Medium (SiC) | Silicon carbide | Stainless steel | • Satin finishing aluminium, cleaning glass moulds<br>• Grain finishing, removal of weld bluing on stainless steel | • Resilient<br>• Conforms well to surface contours |
| F4660/ F4807/ F4605 | Ultra fine | Silicon carbide | General purpose | • Keying clear coat, finishing metal, deburring plastics, finishing aluminium<br>• Doors and window frames, blending paint, scuffing varnishes and keying acrylic coatings | • Can be used wet or dry with prepping compounds |
| F2801/ F2829 | Micro fine | Calcined alumina | Precious metals, varnished wood, car body work | • Keying clear coat<br>• Polishing | • Produces an extremely high quality surface finish<br>• Ideal for cleaning precious metals and finishing varnished wood |
| F0001 | White cleaning | None | All surfaces | • Light cleaning, polishing<br>• Rubbing down primer and highlighting wood | • Highly conformable<br>• Tear resistant<br>• Ideal for use with liquid detergent |



# ABRASIVE SPONGES
## FOR HAND SANDING

Abrasive sanding sponges are designed for use on wood, paint and metal. Their flexible nature means they can be used on curved, contoured and flat surfaces.

## PRODUCT SELECTION GUIDE

| MATERIAL | APPLICATION | GRIT |
|---|---|---|
| | | ++++ |
| All materials | Rough sanding | 60 |
| | Semi-finishing | 100 |
| | Finishing | 180 + |

## ABRASIVE SPONGES APPLICATION GUIDE

| GRADE | GRIT | FINISH GENERATED | APPLICATIONS |
|---|---|---|---|
| Medium | 60 | 180/120 | Scuffing, shaping filler |
| Fine | 100 | 400/320 | Feather edging, scuffing primer, and new parts before painting |
| Super fine | 180 | 600/500 | Preparing panel for base coat |
| Ultra fine | 220 | 1000/800 | Sanding base coat, removing clear coat defects |
| Micro fine | 280 | 1500/1200 | Clear coat sanding, removing minor defects |

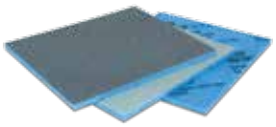
## **ABRASIVE SPONGES** FOR HAND SANDING

# SPONGES ++++

- Multi-purpose, can be used for wet or dry sanding
- Easy to reach areas inaccessible to sandpaper sheets
- Conforms to surface shapes and contours, providing a uniform finish
- Washable and robust can be reused, extending product life

## ONE SIDED ABRASIVE

FERR.& NON FERR. | PAINT/VARN, PLASTER & FILLER, HARD WOOD & SOFT WOOD



| DIM WxLxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 140x115x6 | 60 | 20 | 63642550599 |
| | 100 | 20 | 63642550601 |
| | 180 | 20 | 63642550602 |
| | 220 | 20 | 63642550603 |
| | 280 | 20 | 63642550604 |

## TWO SIDED ABRASIVE



| DIM WxLxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 123x98x12,5 | 60 | 60 | 77696093995 |
| | 100 | 60 | 77696094014 |
| | 180 | 60 | 77696094091 |
| 123x98x12,5 | 60 | 250 | 77696094102 |
| | 100 | 250 | 77696094099 |
| | 180 | 250 | 77696094100 |

## FOUR SIDED ABRASIVE



| DIM WxLxH (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 100x66x26 | 60 | 60 | 77696098472 |
| | 100 | 60 | 77696094093 |
| | 180 | 60 | 77696094095 |
| 100x66x26 | 100 | 250 | 77696094104 |
| | 180 | 250 | 77696094105 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length, H = Height

SPEC CHECK

Abrasive sponges generate a finer finish than conventional coated abrasive products. The sponges are washable and can be reused, giving greater product life.





## **REASONS TO CHOOSE A SPONGE** VS CONVENTIONAL SHEET

### ELIMINATE CLOGGING

- The combination of flexible foam backing material and abrasive grit adhesion continually releases sanded material
- Any clogging can be washed out

### PRESSURE CONTROL

- Foam backing optimum pressure distribution to prevent sanding through surfaces
- Pressure spots are eliminated providing even surface pattern

### ADAPT TO CONTOURS

- Flexible foam allows adaptability to contours, shapes or areas of limited access
- No folding or buckling results in an even pattern without scratching



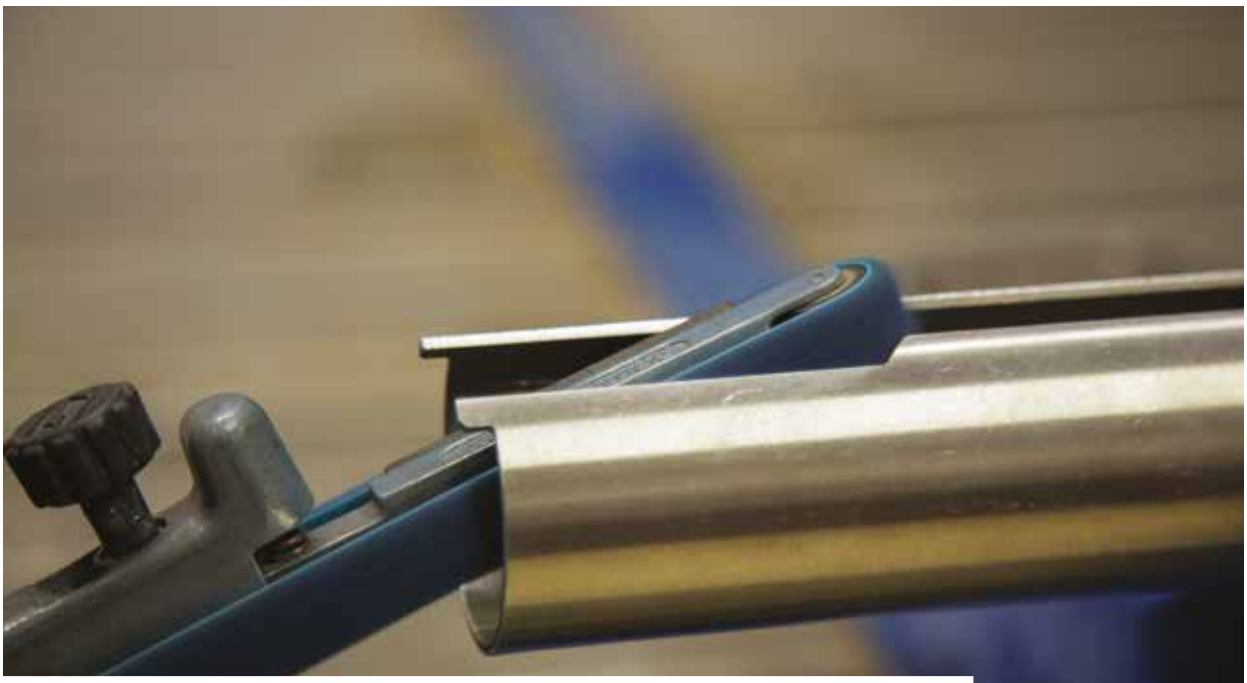
NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# BELTS


File belts 172
Portable belts 179
Narrow belts 182
Rapid Prep belts 190



# FILE BELTS
## FOR FILE BELT MACHINES

Norton offers a wide range of file belts designed to outstanding performance on intricate shapes and contours. Portable file belt sanders have replaced tedious hand filing and sanding. First introduced in pneumatic, they are now also available in electric. Increasingly, tool manufacturers are introducing additional fixtures for additional applications. The belts listed are popular stock sizes, but additional sizes, specifications, backing materials, and edge scallops are available made-to-order.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Satisfactory ○



| | VIKING R996 | SG R929 | RAPIDPREP | NORZON R822 | NORZON R817 | R445 | R230 |
|---|---|---|---|---|---|---|---|
| | +++++ | +++++ | +++++ | ++++ | ++++ | +++ | +++ |
| Stainless steel, inox & duplex | ✓✓ | ✓✓ | ✓✓ | ✓ | | | |
| Inconel, titanium & super alloys | ✓✓ | ✓✓ | ✓✓ | ✓ | | | |
| Carbon, construction & mild steels | | ✓✓ | ✓✓ | ✓ | | | |
| Cast iron | | ✓ | ✓ | ✓✓ | | | |
| Non-ferrous metal (brass/aluminium) | | | | | ✓✓ | ○ | ○ |
| Hard & softwood | | | | | ✓✓ | | ✓ |
| Composite materials | | | | | | ✓✓ | ○ |
| Stone, concrete | | | | | | ✓✓ | |
| Glass, plastic | | | | | | ✓✓ | |
| Rubber, plastic | | | | | ✓✓ | | ○ |
| Leather | | | | | ✓✓ | | ○ |

# PNEUMATIC FILE BELT SANDER 10x330mm, free speed 18000 RPM, 0,5 HP



- The new Norton pneumatic file belt sander makes life easier when used in hard-to-reach and awkward applications and areas
- Use with Norton file belts for stock removal, deburring or surface preparation and defect removal on corners, contours and tight areas
- Small but powerful file belt sander with 0,5 hp motor, for a mighty output
- Ergonomic soft grip improves manoeuvrability and reduces operator fatigue
- Small size and light weight improves control and finish as well as reduced vibration for better operator comfort and the ability to get into small parts

| DESCRIPTION | BELT SIZE | HORSEPOWER | FREE SPEED | RECOMMENDED OPERATING PRESSURE | TOOL WEIGHT | ART NO. |
|---|---|---|---|---|---|---|
| Pneumatic file belt sander | 10x330mm | 0.5 | 18000rpm | 6.2 bar | 0.82 kg | 77696091766 |

# PNEUMATIC FILE BELT KIT



- For stock removal to finishing
- The kit contains a wide assortment of premium ceramic and non-woven file belts, complete with pneumatic file belt sander
- The ultimate solution for all applications from removal of rust and corrosion, deburring, blending to finishing of panels and car body
- Machine is 10x330mm. All belts are 10x300mm to fit the machine

| KIT CONTENTS | ITEM ART NO. | PK QTY | ART NO. |
|---|---|---|---|
| File belt machine | 77696091766 | 1 | |
| Ceramic File belt 10x330mm P60 | 66261144369 | 20 | |
| Ceramic File belt 10x330mm P80 | 66623303270 | 20 | |
| Rapid Prep File belt 10x330mm Coarse | 69957360172 | 10 | 78072707299 |
| Rapid Prep File belt 10x330mm Medium | 63642578004 | 10 | |
| Rapid Prep File belt 10x330mm Very Fine | 69957360176 | 10 | |
| NORTON TOOL BAG SIZE: 56x31x45cm | 69957343696 | 1 | |

## **FILE BELTS** FOR FILE BELT MACHINES

# VIKING R996

- The best choice for use on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- Maximum performance for lowest overall grinding cost on the most difficult-to-grind materials
- Heavy duty applications with the highest stock removal, reduced heat, loading and glazing
- Advanced "supersize" grinding aid for fast and consistent cut rate with less off hand pressure required to cut

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 9x533 | 40 | 10 | 66261128510 |
| | 60 | 10 | 66261128511 |
| | 80 | 10 | 66261128512 |
| 13x457 | 40 | 10 | 66261128495 |
| | 60 | 10 | 66261128498 |
| | 80 | 10 | 66261128499 |
| 19x457 | 60 | 10 | 66254408250 |
| | 80 | 10 | 66254471640 |

# SG R929

- Made with premium SG abrasive grain, perfect for heat sensitive metals
- High content of active filler for cool cut, no burn marks on the metal part
- Excellent performance at low and medium pressure
- X-weight polyester cloth, extremely durable even on aggressive applications

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 9x533 | 40 | 10 | 66261123552 |
| | 60 | 10 | 66261123553 |
| | 80 | 10 | 66261123554 |
| | 120 | 10 | 66261123555 |
| 10x330 | 40 | 10 | 66623303110 |
| | 60 | 10 | 66261144369 |
| | 80 | 10 | 66623303270 |
| | 120 | 10 | 66623303271 |
| 13x305 | 60 | 10 | 66261023616 |
| | 80 | 10 | 66261023617 |
| | 120 | 10 | 66261023618 |
| 13x457 | 40 | 10 | 66261123522 |
| | 60 | 10 | 66261123523 |
| | 80 | 10 | 66261123524 |
| | 120 | 10 | 66261123525 |

**Dimensions Key:** W = Width, L = Length

| | WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|---|
| | 13x610 | 40 | 10 | 66261123636 |
| | | 60 | 10 | 66261123638 |
| | 19x457 | 40 | 10 | 66254487679 |
| | | 60 | 10 | 66254480427 |
| | | 80 | 10 | 66254481839 |
| | 20x520 | 40 | 10 | 66623303272 |
| | | 60 | 10 | 66261029755 |
| | | 80 | 10 | 66623303275 |
| | | 120 | 10 | 66623303276 |

# RAPIDPREP SURFACE CONDITIONING FILE BELTS +++++

- Strong synthetic mesh and aluminium oxide abrasive bonded together with a smear resistant adhesive
- Open construction of non-woven material for tough cutting action without clogging or loading
- Ideal for removing paint, rust, adhesives, coatings and sealant corrosion in hard to access areas

METAL INOX

| | WxL (mm) | GRADE | PK QTY | ART NO. |
|---|---|---|---|---|
|  | 10x330 | Coarse | 10 | 69957360172 |
| | | Medium | 10 | 63642578004 |
| | | Ver y Fine | 10 | 69957360176 |

**Dimensions Key:** W = Width, L = Length

## **FILE BELTS** FOR FILE BELT MACHINES

# NORZON R822 ++++

- Norzon grain continually exposes new cutting surfaces for long belt life even at high pressure
- Extremely durable for use in all demanding applications
- X-weight cotton backing for moderate to light pressure applications

FERR. & NON FERR.



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 10x330 | 40 | 10 | 66261144347 |
| | 60 | 10 | 66261144348 |
| | 80 | 10 | 66261144349 |
| | 120 | 10 | 66261144350 |
| 13x457 | 40 | 10 | 66261141253 |
| | 60 | 10 | 66261141254 |
| | 80 | 10 | 66261141255 |
| | 120 | 10 | 66261141256 |
| 13x610 | 60 | 10 | 63642539830 |
| 19x457 | 40 | 10 | 66623330766 |
| | 60 | 10 | 63642539828 |
| | 80 | 10 | 63642539836 |
| 20x520 | 40 | 10 | 66261141266 |
| | 60 | 10 | 66261141267 |
| | 80 | 10 | 66261141269 |
| | 120 | 10 | 66261141270* |
| 30x533 | 40 | 10 | 63642538962 |
| | 60 | 10 | 63642538963 |
| | 80 | 10 | 63642538964 |

**Dimensions Key:** W = Width, L = Length

* Made-to-order

# NORZON R817 ++++

- Norzon grain continually exposes new cutting surfaces for long belt life even at high pressure
- Heavy polyester cloth, stiff tear resistant for tough applications
- Ideal for grinding skis
- High-performance resin bond provides strong grain adhesion, extending belt life
- Open grain distribution, recommended for grinding soft materials like aluminium, plastic, rubber or leather

NON FERR. PLASTIC, RUBBER & LEATHER



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 30x533 | 24 | 10 | 69957383624 |
| | 40 | 10 | 63642556322 |
| 34x435 | 24 | 10 | 63642545273 |
| | 36 | 10 | 63642568989 |
| | 40 | 10 | 63642549470 |

# R445 +++

- Hard and sharp silicon carbide grains for medium duty applications
- Can be used for dry or wet due to polyester backing
- For high initial cut on non-ferrous and soft-loading materials such as glass, titanium, masonry, composites, plastic and rubber

NON FERR. STONE, GLASS



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 15x475 | 80 | 50 | 63642539677 |
| 20x520 | 60 | 50 | 66254425393 |
| | 80 | 50 | 63642567304 |
| | 120 | 50 | 63642547790 |
| 30x533 | 60 | 50 | 63642519009 |
| | 80 | 50 | 69957379493 |
| | 120 | 50 | 69957371884 |

**Dimensions Key:** W = Width, L = Length

## **FILE BELTS** FOR FILE BELT MACHINES

# R230 +++

- Hard aluminium oxide abrasive for good product life
- Open grain distribution for reduced clogging and loading material such as wood and aluminium
- Ideal for sanding wood and grinding metal
- Good cut rate on low-pressure finishing operations with ability to leave a very good finish

FERR. NON FERR. WOOD



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 10x330 | 60 | 10 | 66261114049 |
| 30x533 | 40 | 10 | 63642546483 |
| | 60 | 10 | 63642546477 |
| | 80 | 10 | 63642546478 |

**Dimensions Key:** DIM = Dimensions, W = Width, L = Length

# MADE-TO-ORDER PRODUCT AVAILABILITY

| CAP CODE | GRAIN / GRIT | 24 | 36 | 40 | 60 | 80 | 100 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Viking R996 | New SG supersize, YY/Y-polyester | • | • | • | • | • | | | | | | | | | |
| SG R929 | SG, X-polyester | | • | • | • | • | • | • | | | | | | | |
| R895 | NZ, YY-polyester | • | • | • | • | • | • | • | • | • | • | | | | |
| Norzon R822 | Norzon, X-cotton | • | • | • | • | • | • | • | • | | | | | | |
| Norzon R817 | Norzon, Y-polyester | • | • | • | • | • | • | • | | | | | | | |
| R445 | Silicon carbide, X/Y-polyester | | | | • | • | • | • | • | • | • | • | | | |
| R293 | Blend aluminium oxide, X/Y-polyester | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| R230 | Aluminium oxide, X-cotton | | • | • | • | • | • | • | • | • | | | | | |

# MINIMUM ORDER QUANTITIES

## FOR MADE-TO-ORDER PRODUCTS

| SIZE (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| All file belts | 200 pieces |



# PORTABLE BELTS
## FOR PORTABLE BELT MACHINES

Norton offers portable belts in a variety of sizes, designed to fit the most common types of machine. Portable belts are designed for all metal and wood working applications. Choose 36 – 50 grits for rough/heavy-duty applications, 60 – 100 for intermediate, and 100 – 220 for finishing/polishing applications. The belts listed are popular stock sizes, but additional sizes, specifications, and backing materials, are available made-to-order. All Norton belts are supplied with butt joints for easy mounting and smoother work.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Suitable ○





| | SG R929 | NORZON R817 | R230 |
|---|---|---|---|
| MATERIAL | +++++ | ++++ | +++ |
| Metal | ✓✓ | | ✓ |
| Hard wood | | ✓✓ | ✓ |
| Soft wood | | ✓ | ✓✓ |

## **PORTABLE BELTS** FOR PORTABLE BELT MACHINES

### SG R929 +++++

- Premium SG abrasive grain ideal for heat sensitive metals
- High content of active filler for cool cut, no burn marks on the metal part
- X-weight polyester cloth, extremely durable even in aggressive applications
- Excellent performance at low and medium pressure

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x800 | 60 | 10 | 66261023832 |
| | 80 | 10 | 66261023833 |
| | 120 | 10 | 66261023834 |

### NORZON R817 ++++

- Norzon grain continually exposes new cutting surfaces for long belt life even at high pressure
- Heavy polyester cloth, stiff and tear resistant for tough applications
- High-performance resin bond provides strong grain adhesion for longer belt life
- Open grain distribution prevents loading when grinding wood and soft materials like aluminium, plastic, rubber or leather

FERR. NON FERR. WOOD



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 200x750 | 40 | 10 | 69957355996* |
| | 60 | 10 | 69957371516 |
| | 80 | 10 | 69957371517 |
| | 100 | 10 | 66261182174 |
| | 120 | 10 | 69957371513 |

* Made-to-order

### R230 +++

- Hard aluminium oxide abrasive for good product life
- Open grain distribution for reduced clogging on materials such as wood and aluminium
- Multi-purpose product ideal for sanding wood and grinding metal
- Excellent cut rate on low-pressure finishing operations, imparts a good finish

NON FERR. WOOD



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 75x457 | 40 | 10 | 63642538877 |
| | 60 | 10 | 63642539426 |
| | 80 | 10 | 63642539422 |
| | 120 | 10 | 63642539415 |
| 75x533 | 40 | 10 | 63642546289 |
| | 60 | 10 | 63642546257 |
| | 80 | 10 | 63642534248 |
| | 100 | 10 | 63642546273 |
| | 120 | 10 | 63642530701 |

**Dimensions Key:** W = Width, L = Length



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 75x610 | 60 | 10 | 63642546473 |
| | 80 | 10 | 63642567329 |
| 100x610 | 40 | 10 | 63642546295 |
| | 60 | 10 | 63642560145 |
| | 80 | 10 | 63642529798 |
| | 100 | 10 | 63642546242 |
| | 120 | 10 | 63642529797 |
| 100x620 | 40 | 10 | 63642546457 |
| | 60 | 10 | 63642534465 |
| | 80 | 10 | 63642529799 |
| | 100 | 10 | 63642534770 |
| | 120 | 10 | 63642546452 |
| 100x690 | 40 | 10 | 63642537627 |
| | 60 | 10 | 63642537544 |
| | 80 | 10 | 63642537546 |
| | 100 | 10 | 63642537548 |
| | 120 | 10 | 63642537632 |
| 200x750 | 24 | 10 | 63642521182 |
| | 36 | 10 | 69957349006 |
| | 40 | 10 | 69957349007 |
| | 60 | 10 | 69957349010 |
| | 80 | 10 | 69957349014 |
| | 100 | 10 | 69957349394 |
| | 120 | 10 | 63642558814 |

**Dimensions Key:** W = Width, L = Length

# MADE-TO-ORDER PRODUCT AVAILABILITY

| CAP CODE | GRAIN / GRIT | 24 | 36 | 40 | 60 | 80 | 100 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SG R929 | SG, X-polyester | | • | • | • | • | • | • | | | | | | | |
| Norzon R817 | Norzon, Y-polyester | • | • | • | • | • | • | • | | | | | | | |
| R230 | Aluminium oxide, X-cotton | | • | • | • | • | • | • | • | • | | | | | |

# MINIMUM ORDER QUANTITIES

## FOR MADE-TO-ORDER PRODUCTS

| SIZE (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| All portable belts | 100 pieces |



# NARROW BELTS
## FOR BACKSTAND MACHINES

A broad selection of sizes and grits for most dimensioning, intermediate grinding and polishing applications. The belts listed are popular stock sizes, but additional sizes, specifications, and backing materials, are available made-to-order.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓
Suitable ○

| MATERIAL | COMING SOON NORTON RAZORSTAR® INNOVATION | VIKING R996 +++++ | RED-X R976 +++++ | SG R929 +++++ | BLUEFIRE R895 ++++ | NORZON R822 ++++ | W445 ++++ | R445 +++ | R293 +++ |
|---|---|---|---|---|---|---|---|---|---|
| Stainless steel, inox & duplex | ✓✓ | ✓✓ | ✓ | ○ | ✓ | ✓ | | | |
| Inconel, titanium & super alloys | ✓✓ | ✓✓ | ✓ | ○ | | ✓ | | | |
| Carbon, construction & mild steels | ✓✓ | | | ✓✓ | ✓✓ | ✓ | | ○ | ○ |
| Cast iron | ✓ | | | ✓✓ | ✓ | ✓✓ | | ○ | ○ |
| Non-ferrous metal (brass/aluminium) | ✓ | | | ✓✓ | ✓ | | | ○ | ○ |
| Hard & softwood | | | | | | | | | |
| Stone, concrete | | | | | | | | ✓✓ | ○ |
| Glass, plastic | | | | | | | ✓✓ | ○ | |

NEW

NORTON RAZORSTAR®

SAINT-GOBAIN

# UNBEATABLE GRINDING PERFORMANCE

NORTON RAZORSTAR® BELTS
FEATURING ENGINEERED SHAPED CERAMIC GRAIN

- HIGHER CUT RATE
- LONGER LIFE
- COOLER CUT

***SHARPER* THAN EVER**



## *NEW* NORTON RAZORSTAR® *INNOVATION*

- A breakthrough innovation of razor-sharp ceramic grain with a tough microstructure cuts faster and removes more material. This is combined with the highest percentage of grains applied to the backing in an upright position for razor-sharp cutting
- Unique, patented grain geometry means new, sharp cutting edges are exposed as the grain fractures during grinding providing consistent cut rate and unparalleled belt life
- The sharp grain and top-size layer combine to significantly reduce heat generation, resulting in less thermal damage of the workpiece

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x2000 | 36+ | 10 | 66254427525 |
| 50x2500 | 36+ | 10 | 66254422505 |
| 50x3500 | 36+ | 10 | 66254422506 |
| 50x4000 | 36+ | 10 | 66254422507 |
| 75x2000 | 36+ | 10 | 66254427271 |
| 75x2500 | 36+ | 10 | 66254427524 |
| 75x3000 | 36+ | 10 | 66254422509 |
| 75x3500 | 36+ | 10 | 66254422510 |
| 75x4000 | 36+ | 10 | 66254422512 |

## **NARROW BELTS** FOR BACKSTAND MACHINES

# VIKING R996

- The best choice for use on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- The excellent performance for lowest overall grinding cost on your most difficult-to-grind materials
- Achieve maximum stock removal, reduced heat generation and no loading and glazing in heavy duty applications
- 'Supersize' layer applied to the abrasive reduces heat generation and cuts faster, even with less off hand pressure

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x2000 | 36 | 10 | 66254403822 |
| | 40 | 10 | 66254403847 |
| | 60 | 10 | 66254411262 |
| | 80 | 10 | 66254449025 |
| 50x2500 | 40 | 10 | 66254408229 |
| | 60 | 10 | 66254416129 |
| 50x3500 | 36 | 10 | 66254404039 |
| | 80 | 10 | 66254456931 |
| 50x4000 | 36 | 10 | 66254404064 |
| | 40 | 10 | 66254404065 |
| | 60 | 10 | 66254405015 |
| 75x2000 | 24 | 10 | 69957364735 |
| | 36 | 10 | 66254410065 |
| | 40 | 10 | 66254407955 |
| | 60 | 10 | 66254407954 |
| | 80 | 10 | 66254456158 |
| 75x2500 | 24 | 10 | 69957364736 |
| | 36 | 10 | 66254403849 |
| | 40 | 10 | 66254403887 |
| | 60 | 10 | 66254403891 |

**Dimensions Key:** W = Width, L = Length

# RED-X R976

- Patented ceramic SG grain for increased cut rate on carbon and stainless steel
- A new high-performance formulation of supersize layer for excellent results on materials from stainless steel to inconel to titanium
- Higher material removal rate at low and medium pressure in fine grits
- Reduced heat generation reduces risk of burn

METAL INOX



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x2000 | 60 | 10 | 66254401458 |
| | 120 | 10 | 66254408387 |
| 50x3500 | 36 | 10 | 66254409222 |
| | 40 | 10 | 66623385396 |
| | 60 | 10 | 66261071965 |
| 50x4000 | 36 | 10 | 66261055060 |
| | 80 | 10 | 66254401290 |
| 75x2000 | 36 | 10 | 66623319745 |
| | 40 | 10 | 66261067686 |
| | 60 | 10 | 66261060879 |
| | 80 | 10 | 66254403117* |
| | 120 | 10 | 66254404255 |
| 75x2500 | 40 | 10 | 66254402279 |
| | 60 | 10 | 66254433345 |
| | 80 | 10 | 66254407537 |
| | 120 | 10 | 66254407535 |

**Dimensions Key:** W = Width, L = Length

* Made-to-order

# SG R929 +++++

- Premium SG abrasive ideal for heat sensitive metals as the SG grain reduces heat generation
- High content of active filler for cool cut, no burn marks on the metal part
- X-weight polyester cloth, extremely durable even on aggressive applications
- Excellent performance at low and medium pressure

FERR. & NON FERR.





| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x1600 | 40 | 10 | 66261023879 |
| | 50 | 10 | 66261023880 |
| | 60 | 10 | 66261023881 |
| | 80 | 10 | 66261023882 |
| 50x2000 | 36 | 10 | 69957350787 |
| | 40 | 10 | 69957350790 |
| | 50 | 10 | 69957350792 |
| | 60 | 10 | 69957350793 |
| | 80 | 10 | 69957350794 |
| | 120 | 10 | 69957350795 |
| 75x2000 | 36 | 10 | 69957350796 |
| | 40 | 10 | 69957350797 |
| | 50 | 10 | 69957350798 |
| | 60 | 10 | 69957350799 |
| | 80 | 10 | 69957350800 |
| | 100 | 10 | 66261024222 |
| | 120 | 10 | 69957350801 |
| 75x2500 | 36 | 10 | 69957350882 |
| | 40 | 10 | 69957350883 |
| | 50 | 10 | 69957350884 |
| | 60 | 10 | 69957350888 |
| | 80 | 10 | 69957350898 |
| | 120 | 10 | 66261023977 |
| 100x1000 | 40 | 10 | 69957350903 |
| | 60 | 10 | 69957350905 |
| | 80 | 10 | 69957350906 |
| 100x2000 | 36 | 10 | 69957350802 |
| | 40 | 10 | 69957350804 |
| | 60 | 10 | 69957350805 |
| | 80 | 10 | 69957350806 |
| | 120 | 10 | 69957350807 |
| 150x2000 | 36 | 10 | 69957350809 |
| | 40 | 10 | 69957350812 |
| | 60 | 10 | 69957350813 |
| | 80 | 10 | 69957350815 |
| 150x2500 | 40 | 10 | 66261023984 |
| | 60 | 10 | 66261023992 |
| | 80 | 10 | 66261023993 |

**Dimensions Key:** W = Width, L = Length




## BLUEFIRE R895 ++++

- Heavy polyester backing for high material removal rate in demanding applications
- Optimised grain coverage for maximum efficiency
- Improved needle-sharp grain with engineered micro-fracturing for aggressive cutting action

FERR. & NON FERR.



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 75x2000 | 36 | 10 | 78072724738 |
| | 40 | 10 | 78072724739 |
| | 60 | 10 | 78072724741 |
| | 80 | 10 | 78072724742 |
| 150x2000 | 40 | 10 | 78072724755 |
| | 60 | 10 | 78072724756* |
| | 80 | 10 | 78072724757 |
| | 120 | 10 | 78072724758 |

**Dimensions Key:** W = Width, L = Length

* Made-to-order

# NORZON R822 ++++

- High-performance, self-sharpening zirconia alumina abrasive for excellent cut rate and product life
- Extremely durable for demanding applications
- X-weight cotton backing for moderate to light pressure applications

FERR. & NON FERR.



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x2000 | 36 | 10 | 63642546222 |
| | 40 | 10 | 63642547270 |
| | 60 | 10 | 63642546210 |
| | 80 | 10 | 63642546212 |
| | 120 | 10 | 63642516010 |
| 75x2000 | 24 | 10 | 63642539088 |
| | 36 | 10 | 63642539386 |
| | 40 | 10 | 63642539388 |
| | 50 | 10 | 63642538998 |
| | 60 | 10 | 63642539389 |
| | 80 | 10 | 63642538999 |
| | 120 | 10 | 63642539002 |
| 75x2500 | 36 | 10 | 63642546092 |
| | 40 | 10 | 63642546094 |
| | 60 | 10 | 63642546097 |
| | 80 | 10 | 63642546099 |
| 100x920 | 40 | 10 | 63642539330 |
| | 50 | 10 | 63642539328 |
| | 60 | 10 | 63642546216 |
| | 80 | 10 | 63642546214 |
| | 100 | 10 | 63642539383 |
| 100x1000 | 40 | 10 | 63642547284 |
| | 50 | 10 | 63642538971 |
| | 60 | 10 | 63642538973 |
| | 80 | 10 | 63642538975 |
| | 100 | 10 | 63642538977 |
| | 120 | 10 | 63642536388 |
| 150x2000 | 36 | 10 | 63642539008 |
| | 40 | 10 | 63642539010 |
| | 60 | 10 | 63642539014 |
| | 80 | 10 | 63642539016 |

**Dimensions Key:** W = Width, L = Length

## **NARROW BELTS** FOR BACKSTAND MACHINES

# W445 ++++

- Special cork grain for polishing glass and final finishing of glass edges
- Can be used wet or dry
- Long life with uniform polishing effect

GLASS



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 100x2000 | No abrasive grain | 10 | 63642580818 |
| 100x3350 | No abrasive grain | 10 | 63642545206 |
| 140x3300 | No abrasive grain | 10 | 66254415118 |

# R293 +++

- General purpose aluminium oxide belt with good price / performance ratio
- Resin bond system provides good grain retention and life versus key competitors
- For high initial cut on non-ferrous and soft-loading materials such as glass, titanium, masonry, composites, plastic and rubber
- With active filler for improved life on metal applications

FERR. NON FERR. WOOD



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 50x2000 | 36 | 10 | 63642546943 |
| | 40 | 10 | 63642551489 |
| | 60 | 10 | 63642546878 |
| 50x4000 | 36 | 10 | 63642539981 |
| | 40 | 10 | 63642539982 |
| | 60 | 10 | 63642539985 |
| 75x2000 | 36 | 10 | 63642547942 |
| | 40 | 10 | 63642564728 |
| | 60 | 10 | 63642548528 |
| | 80 | 10 | 63642548275 |
| 75x2500 | 36 | 10 | 63642546130 |
| | 60 | 10 | 63642551507 |
| 100x920 | 40 | 10 | 63642548306 |
| | 60 | 10 | 63642548307 |
| | 80 | 10 | 63642551544 |
| | 100 | 10 | 63642551546 |
| | 120 | 10 | 63642551547 |
| | 180 | 10 | 63642551549 |
| 100x3000 | 40 | 10 | 63642551511 |

**Dimensions Key:** W = Width, L = Length

# R445 +++

- Hard and sharp silicon carbide grain
- Can be used for dry or wet applications due to polyester backing
- Ideal for use in medium duty applications
- For high initial cut on non-ferrous and soft-loading materials such as glass, titanium, masonry, composites, plastic and rubber

NON FERR. STONE, GLASS



| WxL (mm) | GRIT | PK QTY | ART NO. |
|---|---|---|---|
| 100x2000 | 60 | 10 | 69957355675 |
| | 80 | 10 | 69957355677 |
| | 120 | 10 | 69957355681 |
| 100x3350 | 60 | 10 | 63642546593 |
| | 80 | 10 | 63642546594 |
| | 120 | 10 | 63642546597 |
| | 150 | 10 | 63642546599 |
| | 180 | 10 | 63642546600 |
| | 220 | 10 | 63642546602 |
| | 240 | 10 | 63642546603 |
| | 400 | 10 | 63642546616 |

**Dimensions Key:** W = Width, L = Length

# MADE-TO-ORDER PRODUCT AVAILABILITY

| CAP CODE | GRAIN / GRIT | 24 | 36 | 40 | 60 | 80 | 100 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Viking R996 | New SG supersize, YY/Y-polyester | • | • | • | • | • | | | | | | | | | |
| RED-X R976 | SG supersize, X-polyester | | • | • | • | • | • | • | | | | | | | |
| SG R929 | SG, X-polyester | | • | • | • | • | • | • | | | | | | | |
| Norax | Special multi-layer abrasive | | | | | | | | | | | | | | |
| H231 | Aluminium oxide, F-paper | | • | • | • | • | • | • | • | | • | • | • | • | • |
| Bluefire R895 | NZ, YY-polyester | • | • | • | • | • | • | • | • | • | • | | | | |
| Norzon R822 | Norzon, X-cotton | • | • | • | • | • | • | • | • | | | | | | |
| W445 | SiC/cork, X-cotton | | | | | | | | | | | | | | |
| R293 | Blend aluminium oxide, X/Y-polyester | • | • | • | • | • | • | • | • | | • | • | • | • | • |
| R445 | Silicon carbide, X/Y-polyester | | | | • | • | • | • | • | | • | | | | |

# MINIMUM ORDER QUANTITIES FOR MADE-TO-ORDER PRODUCTS

| SIZE (mm) | LENGTH (mm) 750 - 1999mm | LENGTH (mm) > 2000mm |
|---|---|---|
| Up to 50mm | 40 pieces | 40 pieces |
| 51 up to 100mm | 30 pieces | 30 pieces |
| Over 101mm | 20 pieces | 10 pieces |



# **RAPID PREP** BELTS

Norton non-woven belts are a combination of strong synthetic mesh and quality abrasive, bonded together by a smear-resistant adhesive. The open construction of non-woven material enables aggressive cutting action and improved surface finish while maintaining its non-loading feature.
Ideal product to provide a great finish or remove burrs without gouging or undercutting the workpiece

## PRODUCT SELECTION GUIDE

| | EXTRA COARSE | COARSE | MEDIUM | FINE | VERY FINE |
|---|---|---|---|---|---|
| Scale removal | ● | | | | |
| Stock removal | | ● | | | |
| Heavy deburring | | ● | | | |
| Light deburring | | | ● | | |
| Light finishing | | | ● | | |
| Blending | | | | ● | |
| Finishing | | | | | ● |

## PRODUCT OVERVIEW

### APPLICATIONS

- Removing surface defects
- Light edge burrs
- Parting lines, flashing
- Rust, oxides and corrosion
- Paints and scale
- Blending mill marks
- Tool marks
- Uneven edges
- Applying decorative finishes

### MACHINE USED

- File belt sander
- Portable sander
- Backstand machine

### ABRASIVE GRAIN

- Vortex engineered aluminium oxide
- Aluminium oxide

### GRIT RANGE

- Extra coarse
- Coarse
- Medium
- Fine
- Very fine

# RAPID PREP BELT MATERIAL AVAILABLE IN TWO SPECIFICATIONS:

## XF

Offers good flexibility for file belt applications



## RF

Reinforced low-stretch backing for large narrow belt applications



# AND IN TWO GRAIN TYPES

### **VORTEX RAPID PREP** A/O ++++

Better choice for finishing and blending applications



- Vortex engineered grain technology combines the cutting speed of coarse grits with the finish of fine grits
- Durable product for blending, finishing, cleaning, and light deburring
- Most consistent cutting and finishing surface conditioning products on the market
- Clean Bond technology - smear free, does not load on aluminium or soft metals
- Achieve a burr-free, paintable finish in fewer steps without damaging the base material
- Friable grain structure keeps Ra specs throughout belt life and reduces scrap and rework

### **RAPID PREP** A/O +++

Good choice for finishing and blending applications



- General purpose product for blending, finishing, cleaning, and light deburring
- Achieve a burr-free, paintable finish in fewer steps without damaging the base material

## **RAPID PREP** BELTS

# RAPID PREP A/O XF SURFACE BLENDING FILE BELTS +++



| WxL (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 6x457 | Coarse | S2238 | 20 | 63642535959 |
| | Medium | S2338 | 20 | 63642535963 |
| | Fine | S2438 | 20 | 63642536140* |
| | Very fine | S2538 | 20 | 66623333511 |
| 13x457 | Coarse | S2238 | 20 | 63642535980 |
| | Medium | S2338 | 20 | 63642536113 |
| | Fine | S2438 | 20 | 63642536141* |
| | Very fine | S2538 | 20 | 66261055311 |
| 19x457 | Coarse | S2238 | 20 | 63642536114 |
| | Medium | S2338 | 20 | 63642536116 |
| | Fine | S2438 | 20 | 63642536142 |
| | Very fine | S2538 | 20 | 66261003622 |
| 6x610 | Coarse | S2238 | 20 | 63642536118 |
| | Medium | S2338 | 20 | 63642536121 |
| | Fine | S2438 | 20 | 63642536144* |
| | Very fine | S2538 | 20 | 66623333512 |
| ***NEW*** 10x330 | Coarse | S2238 | 10 | 69957360172 |
| | Medium | S2338 | 10 | 63642578004 |
| | Very fine | S2538 | 10 | 69957360176 |
| 13x610 | Coarse | S2238 | 20 | 63642536122 |
| | Medium | S2338 | 20 | 63642536129 |
| | Fine | S2438 | 20 | 63642536145* |
| | Very fine | S2538 | 20 | 66261019876 |
| 13x305 | Coarse | S2238 | 20 | 63642536134 |
| | Medium | S2338 | 20 | 63642536137 |
| | Fine | S2438 | 20 | 63642536164* |
| | Very fine | S2538 | 20 | 66254499884 |

**Dimensions Key:** W = Width, L = Length

* Made-to-order



# RAPID PREP A/O RF SURFACE BLENDING NARROW BELTS +++



| WxL (mm) | GRADE | CAP CODE | PK QTY | ART NO. |
|---|---|---|---|---|
| 50x2000 | Coarse | S2228 | 5 | 63642531724 |
| | Medium | S2328 | 5 | 63642531726 |
| | Fine | S2428 | 5 | 63642531732 |
| | Very fine | S2528 | 5 | 63642531733 |
| 75x2000 | Coarse | S2228 | 5 | 63642531735 |
| | Medium | S2328 | 5 | 63642531741 |
| | Fine | S2428 | 5 | 63642531743 |
| | Very fine | S2528 | 5 | 63642531751 |
| 100x3500 | Coarse | S2228 | 5 | 63642531760 |
| | Medium | S2328 | 5 | 63642531761 |
| | Fine | S2428 | 5 | 63642531764 |
| | Very fine | S2528 | 5 | 63642531784 |
| 150x2000 | Coarse | S2228 | 5 | 63642531787 |
| | Medium | S2328 | 5 | 63642531813 |
| | Fine | S2428 | 5 | 63642531816 |
| | Very fine | S2528 | 5 | 63642531819 |

**Dimensions Key:** W = Width, L = Length

More sizes available on a Made-to-order

# VORTEX RAPID PREP RF SURFACE BLENDING NARROW BELTS ++++
MADE-TO-ORDER



| WxL (mm) | GRADE | CAP CODE | INFORMATION |
|---|---|---|---|
| Various belt sizes | Extra Coarse | S2123 | More information available on request |
| | Coarse | S2223 | |
| | Medium | S2323 | |
| | Fine | S2423 | |
| | Very fine | S2523 | |



# **BELTS** BY DIMENSION

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **9x533mm** | | | | |
| 40 | R996 | 10 | 66261128510 | +++++ |
| | R929 | 10 | 66261123552 | +++++ |
| 60 | R996 | 10 | 66261128511 | +++++ |
| | R929 | 10 | 66261123553 | +++++ |
| 80 | R996 | 10 | 66261128512 | +++++ |
| | R929 | 10 | 66261123554 | +++++ |
| 120 | R929 | 10 | 66261123555 | +++++ |
| **10x330mm** | | | | |
| 40 | R929 | 10 | 66623303110 | +++++ |
| | R822 | 10 | 66261144347 | ++++ |
| 60 | R929 | 10 | 66261144369 | +++++ |
| | R822 | 10 | 66261144348 | ++++ |
| | R230 | 10 | 66261114049 | +++ |
| 80 | R929 | 10 | 66623303270 | +++++ |
| | R822 | 10 | 66261144349 | ++++ |
| 120 | R929 | 10 | 66623303271 | +++++ |
| | R822 | 10 | 66261144350 | ++++ |
| **13x305mm** | | | | |
| 60 | R929 | 10 | 66261023616 | +++++ |
| 80 | R929 | 10 | 66261023617 | +++++ |
| 120 | R929 | 10 | 66261023618 | +++++ |
| **13x457mm** | | | | |
| 40 | R996 | 10 | 66261128495 | +++++ |
| | R929 | 10 | 66261123522 | +++++ |
| | R822 | 10 | 66261141253 | ++++ |
| 60 | R996 | 10 | 66261128498 | +++++ |
| | R929 | 10 | 66261123523 | +++++ |
| | R822 | 10 | 66261141254 | ++++ |
| 80 | R996 | 10 | 66261128499 | +++++ |
| | R929 | 10 | 66261123524 | +++++ |
| | R822 | 10 | 66261141255 | ++++ |
| 120 | R929 | 10 | 66261123525 | +++++ |
| | R822 | 10 | 66261141256 | ++++ |
| **13x610mm** | | | | |
| 40 | R929 | 10 | 66261123636 | +++++ |
| 60 | R929 | 10 | 66261123638 | +++++ |
| | R822 | 10 | 63642539830 | ++++ |
| **15x475mm** | | | | |
| 80 | R445 | 50 | 63642539677 | +++ |
| **19x457mm** | | | | |
| 40 | R929 | 10 | 66254487679 | +++++ |
| | R822 | 10 | 66623330766 | ++++ |
| 60 | R996 | 10 | 66254408250 | +++++ |
| | R929 | 10 | 66254480427 | +++++ |
| | R822 | 10 | 63642539828 | ++++ |
| 80 | R996 | 10 | 66254471640 | +++++ |
| | R929 | 10 | 66254481839 | +++++ |
| | R822 | 10 | 63642539836 | ++++ |

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **20x520mm** | | | | |
| 40 | R929 | 10 | 66623303272 | +++++ |
| | R822 | 10 | 66261141266 | ++++ |
| 60 | R929 | 10 | 66261029755 | +++++ |
| | R822 | 10 | 66261141267 | ++++ |
| | R445 | 50 | 66254425393 | +++ |
| 80 | R929 | 10 | 66623303275 | +++++ |
| | R822 | 10 | 66261141269 | ++++ |
| | R445 | 50 | 63642567304 | +++ |
| 120 | R929 | 10 | 66623303276 | +++++ |
| | R822 | 10 | 66261141270* | ++++ |
| | R445 | 50 | 63642547790 | +++ |
| **30x533mm** | | | | |
| 24 | R817 | 50 | 69957383624 | ++++ |
| 40 | R822 | 10 | 63642538962 | ++++ |
| | R817 | 50 | 63642556322 | ++++ |
| | R230 | 10 | 63642546483 | +++ |
| 60 | R822 | 10 | 63642538963 | ++++ |
| | R445 | 50 | 63642519009 | +++ |
| | R230 | 10 | 63642546477 | +++ |
| 80 | R822 | 10 | 63642538964 | ++++ |
| | R445 | 50 | 69957379493 | +++ |
| | R230 | 10 | 63642546478 | +++ |
| 120 | R445 | 50 | 69957371884 | +++ |
| **34x435mm** | | | | |
| 24 | R817 | 50 | 63642545273 | ++++ |
| 36 | R817 | 50 | 63642568989 | ++++ |
| 40 | R817 | 50 | 63642549470 | ++++ |
| **50x800mm** | | | | |
| 60 | R929 | 10 | 66261023832 | +++++ |
| 80 | R929 | 10 | 66261023833 | +++++ |
| 120 | R929 | 10 | 66261023834 | +++++ |
| **75x457mm** | | | | |
| 40 | R230 | 10 | 63642538877 | +++ |
| 60 | R230 | 10 | 63642539426 | +++ |
| 80 | R230 | 10 | 63642539422 | +++ |
| 120 | R230 | 10 | 63642539415 | +++ |
| **75x533mm** | | | | |
| 40 | R230 | 10 | 63642546289 | +++ |
| 60 | R230 | 10 | 63642546257 | +++ |
| 80 | R230 | 10 | 63642534248 | +++ |
| 100 | R230 | 10 | 63642546273 | +++ |
| 120 | R230 | 10 | 63642530701 | +++ |
| **75x610mm** | | | | |
| 60 | R230 | 10 | 63642546473 | +++ |
| 80 | R230 | 10 | 63642567329 | +++ |
| **100x610mm** | | | | |
| 40 | R230 | 10 | 63642546295 | +++ |
| 60 | R230 | 10 | 63642560145 | +++ |
| 80 | R230 | 10 | 63642529798 | +++ |
| 100 | R230 | 10 | 63642546242 | +++ |
| 120 | R230 | 10 | 63642529797 | +++ |

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **100x620mm** | | | | |
| 40 | R230 | 10 | 63642546457 | +++ |
| 60 | R230 | 10 | 63642534465 | +++ |
| 80 | R230 | 10 | 63642529799 | +++ |
| 100 | R230 | 10 | 63642534770 | +++ |
| 120 | R230 | 10 | 63642546452 | +++ |
| **100x690mm** | | | | |
| 40 | R230 | 10 | 63642537627 | +++ |
| 60 | R230 | 10 | 63642537544 | +++ |
| 80 | R230 | 10 | 63642537546 | +++ |
| 100 | R230 | 10 | 63642537548 | +++ |
| 120 | R230 | 10 | 63642537632 | +++ |
| **200x750mm** | | | | |
| 24 | R230 | 10 | 63642521182 | +++ |
| 36 | R230 | 10 | 69957349006 | +++ |
| 40 | R817 | 10 | 69957355996* | ++++ |
| | R230 | 10 | 69957349007 | +++ |
| 60 | R817 | 10 | 69957371516 | ++++ |
| | R230 | 10 | 69957349010 | +++ |
| 80 | R817 | 10 | 69957371517 | ++++ |
| | R230 | 10 | 69957349014 | +++ |
| 100 | R817 | 10 | 66261182174 | ++++ |
| | R230 | 10 | 69957349394 | +++ |
| 120 | R817 | 10 | 69957371513 | ++++ |
| | R230 | 10 | 63642558814 | +++ |
| **50x1600mm** | | | | |
| 40 | R929 | 10 | 66261023879 | +++++ |
| 50 | R929 | 10 | 66261023880 | +++++ |
| 60 | R929 | 10 | 66261023881 | +++++ |
| 80 | R929 | 10 | 66261023882 | +++++ |
| **50x2000mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254427525 | +++++ |
| 36 | R996 | 10 | 66254403822 | +++++ |
| | R929 | 10 | 69957350787 | +++++ |
| | R822 | 10 | 63642546222 | ++++ |
| | R293 | 10 | 63642546943 | +++ |
| 40 | R996 | 10 | 66254403847 | +++++ |
| | R929 | 10 | 69957350790 | +++++ |
| | R822 | 10 | 63642547270 | ++++ |
| | R293 | 10 | 63642551489 | +++ |
| | R929 | 10 | 69957350792 | +++++ |
| 60 | R996 | 10 | 66254411262 | +++++ |
| | R976 | 10 | 66254401458 | +++++ |
| | R929 | 10 | 69957350793 | +++++ |
| | R822 | 10 | 63642546210 | ++++ |
| | R293 | 10 | 63642546878 | +++ |
| 80 | R996 | 10 | 66254449025 | +++++ |
| | R929 | 10 | 69957350794 | +++++ |
| | R822 | 10 | 63642546212 | ++++ |
| 120 | R976 | 10 | 66254408387 | +++++ |
| | R929 | 10 | 69957350795 | +++++ |
| | R822 | 10 | 63642516010 | ++++ |

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **50x2500mm continued** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422505 | +++++ |
| 40 | R996 | 10 | 66254408229 | +++++ |
| 60 | R996 | 10 | 66254416129 | +++++ |
| **50x3500mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422506 | +++++ |
| 36 | R996 | 10 | 66254404039 | +++++ |
| | R976 | 10 | 66254409222 | +++++ |
| 40 | R976 | 10 | 66623385396 | +++++ |
| 60 | R976 | 10 | 66261071965 | +++++ |
| 80 | R996 | 10 | 66254456931 | +++++ |
| **50x4000mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422507 | +++++ |
| 36 | R996 | 10 | 66254404064 | +++++ |
| | R976 | 10 | 66261055060 | +++++ |
| | R293 | 10 | 63642539981 | +++ |
| 40 | R996 | 10 | 66254404065 | +++++ |
| | R293 | 10 | 63642539982 | +++ |
| 60 | R996 | 10 | 66254405015 | +++++ |
| | R293 | 10 | 63642539985 | +++ |
| | R976 | 10 | 66254401290 | +++++ |
| **75x2000mm** | | | | |
| 24 | R996 | 10 | 69957364735 | +++++ |
| | R822 | 10 | 63642539088 | ++++ |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254427271 | +++++ |
| 36 | R996 | 10 | 66254410065 | +++++ |
| | R929 | 10 | 69957350796 | +++++ |
| | R976 | 10 | 66623319745 | +++++ |
| | R895 | 10 | 78072724738 | ++++ |
| | R822 | 10 | 63642539386 | ++++ |
| | R293 | 10 | 63642547942 | +++ |
| 40 | R996 | 10 | 66254407955 | +++++ |
| | R976 | 10 | 66261067686 | +++++ |
| | R929 | 10 | 69957350797 | +++++ |
| | R895 | 10 | 78072724739 | ++++ |
| | R822 | 10 | 63642539388 | ++++ |
| | R293 | 10 | 63642564728 | +++ |
| 50 | R929 | 10 | 69957350798 | +++++ |
| | R822 | 10 | 63642538998 | ++++ |
| 60 | R996 | 10 | 66254407954 | +++++ |
| | R976 | 10 | 66261060879 | +++++ |
| | R929 | 10 | 69957350799 | +++++ |
| | R895 | 10 | 78072724741 | ++++ |
| | R822 | 10 | 63642539389 | ++++ |
| | R293 | 10 | 63642548528 | +++ |

# **BELTS** BY DIMENSION

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **75x2000mm continued** | | | | |
| 80 | R996 | 10 | 66254456158 | +++++ |
| | R976 | 10 | 66254403117* | +++++ |
| | R929 | 10 | 69957350800 | +++++ |
| | R895 | 10 | 78072724742 | ++++ |
| | R822 | 10 | 63642538999 | ++++ |
| | R293 | 10 | 63642548275 | +++ |
| 100 | R929 | 10 | 66261024222 | +++++ |
| 120 | R976 | 10 | 66254404255 | +++++ |
| | R929 | 10 | 69957350801 | +++++ |
| | R822 | 10 | 63642539002 | ++++ |
| **75x2500mm** | | | | |
| 24 | R996 | 10 | 69957364736 | +++++ |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254427524 | +++++ |
| 36 | R996 | 10 | 66254403849 | +++++ |
| | R929 | 10 | 69957350882 | +++++ |
| | R822 | 10 | 63642546092 | ++++ |
| | R293 | 10 | 63642546130 | +++ |
| 40 | R996 | 10 | 66254403887 | +++++ |
| | R976 | 10 | 66254402279 | +++++ |
| | R929 | 10 | 69957350883 | +++++ |
| | R822 | 10 | 63642546094 | ++++ |
| 50 | R929 | 10 | 69957350884 | +++++ |
| 60 | R996 | 10 | 66254403891 | +++++ |
| | R976 | 10 | 66254433345 | +++++ |
| | R929 | 10 | 69957350888 | +++++ |
| | R822 | 10 | 63642546097 | ++++ |
| | R293 | 10 | 63642551507 | +++ |
| 80 | R976 | 10 | 66254407537 | +++++ |
| | R929 | 10 | 69957350898 | +++++ |
| | R822 | 10 | 63642546099 | ++++ |
| 120 | R976 | 10 | 66254407535 | +++++ |
| | R929 | 10 | 66261023977 | +++++ |
| **75x3000mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422509 | +++++ |
| **75x3500mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422510 | +++++ |
| **75x4000mm** | | | | |
| 36+ | NORTON RAZOR-STAR® | 10 | 66254422512 | +++++ |
| **100x920mm** | | | | |
| 40 | R822 | 10 | 63642539330 | ++++ |
| | R293 | 10 | 63642548306 | +++ |
| 50 | R822 | 10 | 63642539328 | ++++ |
| 60 | R822 | 10 | 63642546216 | ++++ |
| | R293 | 10 | 63642548307 | +++ |
| 80 | R822 | 10 | 63642546214 | +++ |
| | R293 | 10 | 63642551544 | +++ |
| 100 | R822 | 10 | 63642539383 | ++++ |
| | R293 | 10 | 63642551546 | +++ |
| 120 | R293 | 10 | 63642551547 | +++ |
| 180 | R293 | 10 | 63642551549 | +++ |

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **100x1000mm** | | | | |
| 40 | R929 | 10 | 69957350903 | +++++ |
| | R822 | 10 | 63642547284 | ++++ |
| 50 | R822 | 10 | 63642538971 | ++++ |
| 60 | R929 | 10 | 69957350905 | +++++ |
| | R822 | 10 | 63642538973 | ++++ |
| 80 | R929 | 10 | 69957350906 | +++++ |
| | R822 | 10 | 63642538975 | ++++ |
| 100 | R822 | 10 | 63642538977 | ++++ |
| 120 | R822 | 10 | 63642536388 | ++++ |
| **100x2000mm** | | | | |
| 36 | R929 | 10 | 69957350802 | +++++ |
| 40 | R929 | 10 | 69957350804 | +++++ |
| 60 | R929 | 10 | 69957350805 | +++++ |
| | R445 | 10 | 69957355675 | +++ |
| 80 | R929 | 10 | 69957350806 | +++++ |
| | R445 | 10 | 69957355677 | +++ |
| 120 | R929 | 10 | 69957350807 | +++++ |
| | R445 | 10 | 69957355681 | +++ |
| * | W445 | 10 | 63642580818 | ++++ |
| **100x3000mm** | | | | |
| 40 | R293 | 10 | 63642551511 | +++ |
| **100x3350mm** | | | | |
| 60 | R445 | 10 | 63642546593 | +++ |
| 80 | R445 | 10 | 63642546594 | +++ |
| 120 | R445 | 10 | 63642546597 | +++ |
| 150 | R445 | 10 | 63642546599 | +++ |
| 180 | R445 | 10 | 63642546600 | +++ |
| 220 | R445 | 10 | 63642546602 | +++ |
| 240 | R445 | 10 | 63642546603 | +++ |
| 400 | R445 | 10 | 63642546616 | +++ |
| * | W445 | 10 | 63642545206 | ++++ |
| **140x3300mm** | | | | |
| * | W445 | 10 | 66254415118 | ++++ |
| **150x2000mm** | | | | |
| 36 | R929 | 10 | 69957350809 | +++++ |
| | R822 | 10 | 63642539008 | ++++ |
| 40 | R929 | 10 | 69957350812 | +++++ |
| | R895 | 10 | 78072724755 | ++++ |
| | R822 | 10 | 63642539010 | ++++ |
| 60 | R929 | 10 | 69957350813 | +++++ |
| | R895 | 10 | 78072724756* | ++++ |
| | R822 | 10 | 63642539014 | ++++ |
| 80 | R929 | 10 | 69957350815 | +++++ |
| | R895 | 10 | 78072724757 | ++++ |
| | R822 | 10 | 63642539016 | ++++ |
| 120 | R895 | 10 | 78072724758 | ++++ |
| **150x2500mm** | | | | |
| 40 | R929 | 10 | 66261023984 | +++++ |
| 60 | R929 | 10 | 66261023992 | +++++ |
| 80 | R929 | 10 | 66261023993 | +++++ |

*No abrasive grain

* Made-to-order

# RAPID PREP BELTS

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **6x457mm** | | | | |
| Coarse | S2238 | 20 | 63642535959 | +++ |
| Medium | S2338 | 20 | 63642535963 | +++ |
| Fine | S2438 | 20 | 63642536140* | +++ |
| Very Fine | S2538 | 20 | 66623333511 | +++ |
| **6x610mm** | | | | |
| Coarse | S2238 | 20 | 63642536118 | +++ |
| Medium | S2338 | 20 | 63642536121 | +++ |
| Fine | S2438 | 20 | 63642536144* | +++ |
| Very Fine | S2538 | 20 | 66623333512 | +++ |
| **10x330** | | | | |
| Coarse | S2238 | 10 | 69957360172 | +++ |
| Medium | S2338 | 10 | 63642578004 | +++ |
| Very Fine | S2538 | 10 | 69957360176 | +++ |
| **13x305mm** | | | | |
| Coarse | S2238 | 20 | 63642536134 | +++ |
| Medium | S2338 | 20 | 63642536137 | +++ |
| Fine | S2438 | 20 | 63642536164* | +++ |
| Very Fine | S2538 | 20 | 66254499884 | +++ |
| **13x457mm** | | | | |
| Coarse | S2238 | 20 | 63642535980 | +++ |
| Medium | S2338 | 20 | 63642536113 | +++ |
| Fine | S2438 | 20 | 63642536141* | +++ |
| Very Fine | S2538 | 20 | 66261055311 | +++ |
| **13x610mm** | | | | |
| Coarse | S2238 | 20 | 63642536122 | +++ |
| Medium | S2338 | 20 | 63642536129 | +++ |
| Fine | S2438 | 20 | 63642536145* | +++ |
| Very Fine | S2538 | 20 | 66261019876 | +++ |
| **19x457mm** | | | | |
| Coarse | S2238 | 20 | 63642536114 | +++ |
| Medium | S2338 | 20 | 63642536116 | +++ |
| Fine | S2438 | 20 | 63642536142 | +++ |
| Very Fine | S2538 | 20 | 66261003622 | +++ |

* Made-to-order

| GRIT | CAP CODE | PK QTY | ART NO. | |
|---|---|---|---|---|
| **50x2000mm** | | | | |
| Coarse | S2228 | 5 | 63642531724 | +++ |
| Medium | S2328 | 5 | 63642531726 | +++ |
| Fine | S2428 | 5 | 63642531732 | +++ |
| Very Fine | S2528 | 5 | 63642531733 | +++ |
| **75x2000mm** | | | | |
| Coarse | S2228 | 5 | 63642531735 | +++ |
| Medium | S2328 | 5 | 63642531741 | +++ |
| Fine | S2428 | 5 | 63642531743 | +++ |
| Very Fine | S2528 | 5 | 63642531751 | +++ |
| **100x3500mm** | | | | |
| Coarse | S2228 | 5 | 63642531760 | +++ |
| Medium | S2328 | 5 | 63642531761 | +++ |
| Fine | S2428 | 5 | 63642531764 | +++ |
| Very Fine | S2528 | 5 | 63642531784 | +++ |
| **150x2000mm** | | | | |
| Coarse | S2228 | 5 | 63642531787 | +++ |
| Medium | S2328 | 5 | 63642531813 | +++ |
| Fine | S2428 | 5 | 63642531816 | +++ |
| Very Fine | S2528 | 5 | 63642531819 | +++ |

## NOTES



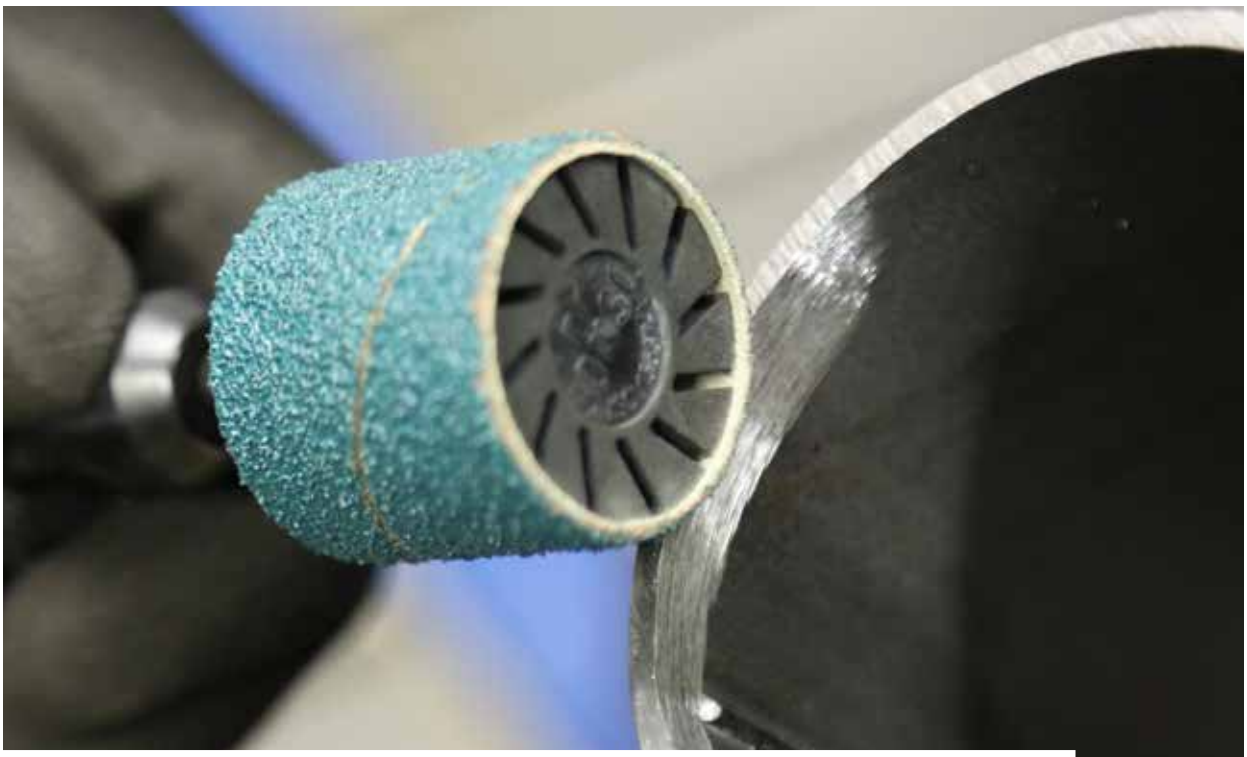
NORTON®

SAINT-GOBAIN

COATED ABRASIVES

# SPECIALTIES


| | |
|---|---|
| Spirabands and Cones | 200 |
| Cartridge and Spiral rolls | 204 |
| Sanding stars | 208 |



# SPIRABANDS & CONES
## FOR DIE GRINDERS

Both abrasive spirabands and cones are unique shapes designed to access hard-to-reach areas including internal diameters, edges, surfaces curves and contours of components. They are ideal for removing parting lines, imperfections and burrs on surfaces and post-processing and repair work on metal structures, achieving high stock removal thanks to premium grain and exceptional product life even under the most demanding operating conditions. The spiral construction avoids shadow marks and provides smooth, chatter-free cutting action. Easy to mount and remove from cylindrical rubber mandrel by turning slightly to the right.

Spirabands and cones perform best at a recommended speed of 20-30m/s to optimise stock removal and surface finish whilst avoiding thermal load of the workpiece and tool wear.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓





| MATERIALS | BLAZE R920 | NORZON R822 |
|---|---|---|
| | +++++ | ++++ |
| Stainless steel, inox & duplex | ✓✓ | ✓ |
| Inconel, titanium & super alloys | ✓✓ | ✓ |
| Carbon steel, construction steel & mild steel | ✓✓ | ✓✓ |
| Cast iron | ✓ | ✓✓ |
| Non-ferrous metal (brass/aluminium) | | ✓ |
| Hard & softwood | | ✓✓ |

# BLAZE R920 +++++

- The best choice on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- Maximum performance helps achieve the lowest overall grinding cost on the most difficult-to-grind materials
- Premium Ceramic alumina grain provides longer life versus any other spiraband on stainless, titanium and super alloys
- Works well in heavy duty applications for maximum stock removal, reduced heat, loading and glazing

METAL INOX



| DIM DIAxW (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|
| **ABRASIVE SPIRABANDS** | | | | | |
| 15x30 | 36 | 100 | 66261137086 | 25000 - 31500 | 7660705182 |
| | 60 | 100 | 66623331569 | | |
| | 80 | 100 | 66623331571* | | |
| 22x20 | 36 | 100 | 66254402665 | 17500 - 21000 | 63642562578 |
| | 60 | 100 | 66261192992 | | |
| | 80 | 100 | 66623330997 | | |
| 30x30 | 36 | 100 | 66261137092 | 12700 - 15800 | 7660707918 |
| | 60 | 100 | 66254493572 | | |
| 45x30 | 36 | 100 | 66254402667 | 9250 - 10500 | 7660705196 |
| | 60 | 100 | 66261031600 | | |

**Dimensions Key:** DIM = Dimensions, DIA = Diameter, W = Width
Other dimensions available upon request
* Made-to-order

# NORZON R822 ++++

- A great choice for carbon steel and welds
- Prevents loading on aluminium
- Zirconia abrasive provides an aggressive cut and long life on carbon steel and welds
- Ideal for use on irregular shaped components such as curves, or recesses

METAL INOX HARD WOOD



| DIM DIAxW (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|
| **ABRASIVE SPIRABANDS** | | | | | |
| 13x25 | 50 | 100 | 63642528507 | 29400 - 36500 | 7660705185 |
| | 80 | 100 | 63642528508 | | |
| 15x30 | 36 | 100 | 66261034127 | 25000 - 31500 | 7660705182 |
| | 50 | 100 | 63642528509 | | |
| | 60 | 100 | 66623386740 | | |
| | 80 | 100 | 63642528496 | | |

Formerly X-Treme R822

# **SPIRABANDS & CONES** FOR DIE GRINDERS



| DIM DIAxW (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|
| **ABRASIVE SPIRABANDS** | | | | | |
| 22x20 | 36 | 100 | 63642539865 | 17500 - 21000 | 63642562578 |
| | 50 | 100 | 63642528497 | | |
| | 60 | 100 | 63642539866 | | |
| | 80 | 100 | 63642539867 | | |
| 25x25 | 36 | 100 | 63642528510 | 15300 - 19000 | 7660705183 |
| | 50 | 100 | 63642528511 | | |
| | 60 | 100 | 66623316384 | | |
| | 80 | 100 | 63642528512 | | |
| 30x30 | 36 | 100 | 63642566870 | 12700 - 15800 | 7660707918 |
| | 50 | 100 | 63642535053 | | |
| | 60 | 100 | 63642545925 | | |
| | 80 | 100 | 63642545926 | | |
| 38x25 | 36 | 100 | 66261180965 | 10000 - 12500 | 7660717568 |
| | 50 | 100 | 66261180966 | | |
| | 80 | 100 | 66261180967 | | |
| 45x30 | 36 | 100 | 63642528498 | 9250 - 10500 | 7660705196 |
| | 50 | 100 | 63642528514 | | |
| | 60 | 100 | 63642545928 | | |
| | 80 | 100 | 63642528515 | | |
| 51x25 | 50 | 100 | 66261180974 | 7500 - 9300 | 7660705184 |
| | 80 | 100 | 63642528518 | | |
| 60x30 | 36 | 100 | 63642536541 | 6500 - 7900 | 7660717631 |
| | 50 | 100 | 63642539765 | | |
| | 60 | 100 | 63642539874 | | |
| | 80 | 100 | 63642539766 | | |




| DIM DBxDTxH (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|
| **ABRASIVE CONES** | | | | | |
| 20x14x63 | 36 | 100 | 66261176761 | 25000 - 31500 | 7660740439 |
| | 50 | 100 | 66261176657 | | |
| | 80 | 100 | 66261176656 | | |
| | 120 | 100 | 66261176540 | | |
| 36x22x60 | 36 | 100 | 63642520987 | 15300 - 19000 | 7660740441 |
| | 50 | 100 | 63642536572 | | |
| | 80 | 100 | 63642545922 | | |
| | 120 | 100 | 66261176703 | | |

**Dimensions Key:** DIM = Dimensions, DB = Base diameter, DT = Top diameter, H = Height

Formerly X-Treme R822

# ACCESSORIES ++++

- Rubber expanding mandrel gives a forgiving finish
- Shaft diameter 6mm
- Easy to mount and remove spiraband from serrated rubber holder by turning slightly to the right



FERR. & NON FERR.

| | DIM DxWxS (mm) | PK QTY | ART NO. |
|---|---|---|---|
| **SPIRABAND MANDRELS** | | | |
|  | 13x25x6 | 1 | 7660705185 |
| | 15x30x6 | 1 | 7660705182 |
| | 22x20x6 | 1 | 63642562578 |
| | 25x25x6 | 1 | 7660705183 |
| | 30x30x6 | 1 | 7660707918 |
| | 38x25x6 | 1 | 7660717568 |
| | 45x30x6 | 1 | 7660705196 |
| | 51x25x6 | 1 | 7660705184 |
| | 60x30x6 | 1 | 7660717631 |

| | DIM DBxDTxH (mm) | PK QTY | ART NO. |
|---|---|---|---|
| **CONE MANDRELS** | | | |
|  | 20x14x63 | 1 | 7660740439 |
| | 36x22x60 | 1 | 7660740441 |



Small unitised mounted points are great for reaching small and awkward areas during deburring, dimensioning, cleaning and finishing. See page 138 for the full range.



# CARTRIDGE & SPIRAL ROLLS
## FOR DIE GRINDERS

Cartridge rolls are excellent for getting into small spaces, intricate areas and inside surfaces and corners where other abrasive shapes cannot reach. The abrasive cloth is rolled and glued to form a solid shape with abrasive grain on all sides. As the products are used, the grain fractures during use and reveals the next layer of abrasive, continually renewing the cutting edge. Typically, cartridge rolls are used on high-speed air grinders mounted on a mandrel for flash removal, polishing, or removing machine tool marks, edge breaking and dressing fillet weld seams on metal structures.

High speed air grinders are compact and lightweight for using mandrel-mounted abrasives, allowing better control than larger die grinders, they're a 'must' for any detail work on small parts. Cartridge and spiral rolls perform best at a recommended speed of 6-9 m/s to optimise stock removal and surface finish whilst avoiding thermal load of the workpiece and tool wear.

## PRODUCT SELECTION GUIDE

Highly recommended ✓✓
Recommended ✓





| MATERIALS | BLAZE R920 | METAL R265 |
|---|---|---|
| | +++++ | +++ |
| Stainless steel, inox & duplex | ✓✓ | |
| Inconel, titanium & super alloys | ✓✓ | |
| Carbon steel, construction steel & mild steel | ✓✓ | ✓ |
| Cast iron | ✓ | ✓✓ |
| Non-ferrous metal (brass/aluminium) | | ✓✓ |
| Hard & softwood | | ✓ |
| Composite materials | | ✓ |
| Stone, concrete | | |
| Glass, plastic | | |

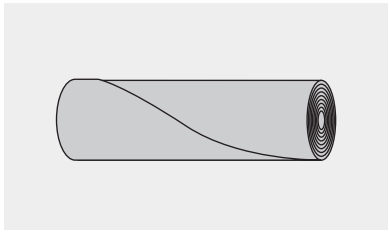
# SHAPE RECOMMENDATION GUIDE

## STRAIGHT ZPE

Straight rolls wear to the shape required. Effective for:

- Flash removal
- Polishing or removing machine tool marks
- Edge breaking
- Reaching into corners, where larger diameter tools cannot work

All cartridge rolls are resin bond, half-glued.

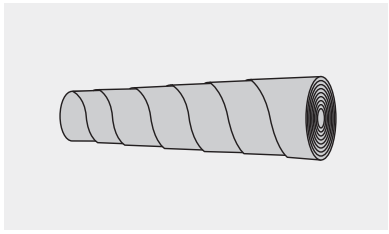


## SPIRAL ZSPI

Spiral rolls are suited for use on contoured parts. Effective for:

- Grinding/polishing of channels, fillets and radii, and deburring small holes
- Tapered end can be used when the area to finish is hard-to-reach with a full cartridge roll
- Conforms to small areas
- Fits into irregular concaves, contours, channels

All spiral rolls are fully tapered, resin bonded, half glued.



# BLAZE R920

- Ceramic alumina grain for the highest productivity of all rolls, with faster cut rate and long life
- Grinding aid provides a cooler cut and reduced loading and glazing on hard-to-grind materials, stainless steel, cobalt, inconel and titanium
- Improved bond system retains the grain for longer, helping you get more use from just one product
- Strong backing provides excellent durability even under tough pressure and wears evenly

METAL INOX

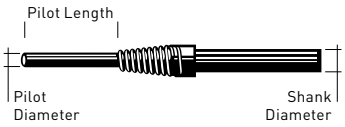
| | DIM BSxLxB (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE | |
|---|---|---|---|---|---|---|---|
| **STRAIGHT ZPE** | | | | | | | |
|  | 6x38x3 | 80 | 50 | 66261128986 | 19000 - 28600 | 63642556791 | |
| | | 120 | 50 | 66261128995 | | | |
| | 10x38x3 | 80 | 50 | 66261128988 | 11500-17200 | 63642556791 | |
| | | 120 | 50 | 66261128997 | | | |
| | 13x38x3 | 60 | 50 | 66261128975 | 8800 - 13200 | 63642556791 | |
| | | 80 | 50 | 66261128990 | | | |
| | | 120 | 50 | 66261128999 | | | |
| **SPIRAL ZSPI** | | | | | | | |
|  | 10x38x3 | 60 | 50 | 66261129486 | 11500 - 17200 | 63642556791 | |
| | | 80 | 50 | 66261129493 | | | |
| | 13x38x3 | 60 | 50 | 66261129489 | 8800 - 13200 | 63642556791 | |
| | | 80 | 50 | 66261129496 | | | |

**Dimensions Key:** DIM = Dimensions, BS = Base diameter, L = Length, B = Bore
Other dimensions available upon request

## **CARTRIDGE & SPIRAL ROLLS** FOR DIE GRINDERS

# STEEL MANDREL FOR CARTRIDGE ROLLS

| DESCRIPTION | DIM DIAxL (mm) | SHAFT DIAMETER (mm) | PK QTY | ART NO. |
|---|---|---|---|---|
| Steel mandrel for cartridge rolls with a 6mm shaft | 3x19 | 6mm | 1 | 63642556790 |
| | 3x25 | 6mm | 1 | 63642556791 |




**Dimensions Key:** DIM = Dimensions, DIA = Pilot diameter, L = Pilot length

# METAL R265 +++

- A good choice for hard-to-grind materials that require an economical option or for multi-purpose applications
- Resin bond system ensures edge adhesion
- Aluminium oxide abrasive provides a good cut rate and good product life
- Runs cooler and more efficiently; ideal for grinding exotic alloys

FERR. & NON FERR.

| | DIM BSxLxB (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|---|
| **STRAIGHT ZPE** | | | | | | |
|  | 10x38x3 | 60 | 50 | 66261128886 | 11500 - 17200 | 63642556791 |
| | | 80 | 50 | 66261128901 | | |
| | | 120 | 50 | 66261128912 | | |
| | 13x38x3 | 60 | 50 | 66261128891 | 8800 - 13200 | 63642556791 |
| | | 80 | 50 | 66261128904 | | |
| | | 120 | 50 | 66261128914 | | |

| | DIM BSxLxB (mm) | GRIT | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) | MANDREL CODE |
|---|---|---|---|---|---|---|
| **SPIRAL ZSPI** | | | | | | |
|  | 10x38x3 | 80 | 50 | 66261129113 | 11500 - 17200 | 63642556790 |
| | 13x38x3 | 80 | 50 | 66261129117 | 8800 - 13200 | 63642556791 |
| | | 120 | 50 | 66261129124 | | |

**Dimensions Key:** DIM = Dimensions, BS = Base diameter, L = Length, B = Bore

Formerly BDX R265

# MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT / GRIT | 60 | 80 | 120 |
|---|---|---|---|
| BLAZE R920 | • | • | • |
| R422 | • | • | • |
| METAL R265 | • | • | • |

## MINIMUM ORDER QUANTITY STRAIGHT ZPE

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 6x25x3 | 250 pieces |
| 6x38x3 | 250 pieces |
| 10x25x3 | 250 pieces |
| 10x38x3 | 250 pieces |
| 13x25x3 | 250 pieces |
| 13x38x3 | 250 pieces |
| 19x25x3 | 250 pieces |
| 19x38x3 | 250 pieces |

## MINIMUM ORDER QUANTITY SPIRAL ZSPI

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 10x25x3 | 250 pieces |
| 10x38x3 | 250 pieces |
| 10x50x3 | 250 pieces |
| 13x25x3 | 250 pieces |
| 13x38x3 | 250 pieces |
| 19x38x3 | 250 pieces |
| 19x50x3 | 250 pieces |



# SANDING STARS

Ideal for deburring and finishing difficult to access metal applications, irregular shaped components, holes, radii and grooves as small as 35mm as well as removing sharp edges which may cause manual handling problems on irregular or awkward sized components. The perfect tool for applications requiring a perfect 360º finish, ideal for irregular surfaces due to high flexibility and conformability. Sanding stars are a multi-layered abrasive tool that are rived together on a 6mm shaft.

Sanding stars perform best at a recommended speed of 15-25m/s for optimising stock removal and surface finish whilst avoiding thermal load of the workpiece and tool wear.

## PRODUCT SELECTION GUIDE SANDING STARS

Highly recommended ✓✓
Recommended ✓



| MATERIALS | BLAZE R946 |
|---|---|
| | +++++ |
| Stainless steel, inox & duplex | ✓✓ |
| Inconel, titanium & super alloys | ✓✓ |
| Carbon steel, construction steel & mild steel | ✓✓ |
| Cast iron | ✓ |

# BLAZE R946 +++++

- Cuts cooler and lasts longer on stainless steel, cobalt, inconel, titanium and other hard-to-grind materials
- Maximum performance for lowest overall grinding cost on your most difficult-to-grind materials
- Reduced heat, loading and glazing on stainless, titanium and super alloys
- Conforms to irregular shaped components and contours



METAL INOX



| DIM DIAxS (mm) | GRIT | NUMBER OF PLYES | PK QTY | ART NO. | RECOMMENDED SPEED (RPM) |
|---|---|---|---|---|---|
| 40x6 | 60 | 12 | 10 | 66261131904 | 7200 - 12000 |
| | 120 | 12 | 10 | 66261132447 | |
| 60x6 | 60 | 12 | 10 | 66261132442 | 4800 - 8000 |
| | 120 | 12 | 10 | 66261132449 | |
| 100x6 | 60 | 12 | 10 | 66261132445 | 2900 - 4800 |
| | 120 | 12 | 10 | 66261132452 | |

## MADE-TO-ORDER PRODUCT AVAILABILITY

| PRODUCT / GRIT | 80 | 120 | 150 | 180 | 240 | 320 |
|---|---|---|---|---|---|---|
| BLAZE R946 | • | • | • | • | • | • |
| NORZON R427* | • | • | • | • | • | |
| METAL R309* | • | • | • | • | • | • |

* available as MTO

### MINIMUM ORDER QUANTITY

| DIAMETER (mm) | MINIMUM ORDER QUANTITY |
|---|---|
| 25 | 50 pieces |
| 40 | 50 pieces |
| 50 | 50 pieces |
| 60 | 50 pieces |
| 70 | 50 pieces |
| 80 | 50 pieces |
| 100 | 50 pieces |
| 125 | 50 pieces |



# SAFETY ADVICE

## GENERAL PRECAUTIONS

Safety instructions provided by the machine manufacturers must be followed. Where fitted, all guards, covers and hoods must be in place on the machine during grinding, and should not be modified in any way. Abrasives should not be used near inflammable material or in an environment where there is a risk of explosion.

Sparks should be directed away from the face and body, if possible, towards the floor. Dust extraction equipment must be used whenever it is available. The instructions for use given by the abrasive manufacturer must be followed e.g., 'Not to be used without a support', or 'Not to be used for wet grinding'. The workpiece must be firmly fixed before grinding starts. Check all abrasives visually before use and make certain that the product is suitable for the application. No modifications should be made to abrasive products after delivery.

When using a portable grinder always switch it off and allow the spindle to stop completely before putting the tool down.

## TRANSPORT & STORAGE

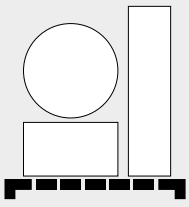
All coated abrasives should be handled carefully. Damage can be caused by mishandling, which should be avoided. Coated abrasives should be stored in dry, frost free conditions. They should be kept away from heat sources, cold, damp walls, doors or windows and should not be in direct contact with the floor. Temperatures and humidity should be between 18°C and 22°C and 45%-65% relative humidity. Coated abrasives should not be exposed to direct sunlight. Products should be kept in their original packaging until immediately before use. Once unpacked, they should be stored in a way which avoids distortion.

Temperature and humidity are the two most important climatic factors influencing coated abrasive performance. Backings and adhesives are sensitive to climatic changes and will gain or lose moisture according to the relative humidity of their surroundings.

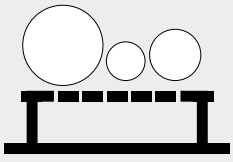
Excessive humidity may cause a softening of some types of adhesive bonds so that the product quickly fills and clogs, or loses its grain during use. Excessive dryness may cause brittleness, reduced flexibility, and distortion of product shapes.

As moisture in the coated abrasive product increases or decreases, dimensional changes can occur. When the backing changes more than the adhesive bond, it causes cupping.

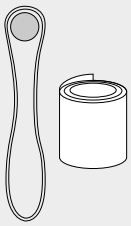
High and low humidity can cause concave and convex cupping respectively. The newer synthetic-backed belts are not affected by moisture. Broad temperature swings will not permanently harm these products either, but cold temperatures will cause a "cold set" condition. Consequently, these products should be allowed to come to room temperature before use.



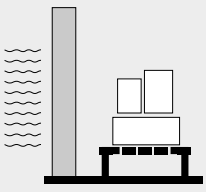
KEEP PRODUCTS IN ORIGINAL PACKAGING



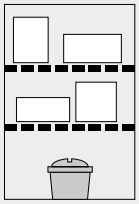
STORE BULK ROLLS FLAT



STORE BELTS PROPERLY



KEEP AWAY FROM HEAT / COLD SOURCES



PRE-CONDITION BEFORE USE

- Keep products in original packages. These packages facilitate handling and can be stacked in the most practical and convenient manner.
- Bulk rolls should not be allowed to stand on edge after they have been unpacked. Store flat on shelves or pallets.
- Narrow belts which have been removed from the carton should be rolled up and stored on edge on a clean shelf. Belts may be draped over a large cylinder, such as a brake drum, or flanged hanger of the type used for a garden hose. Never hang a belt from a nail – the backing will crease and the abrasive belt might crack.
- Wide belts should be hung over a tube of at least 100mm diameter. Centre the belt joint over the tube and add a light weight (such as old packaging tubes) to the bottom loop of the belt to aid in removing set.
- Condition for 24 hours prior to use.
- For maximum product efficiency, precondition coated abrasive products in a chamber of controlled temperature and humidity before use.

# SAFETY ADVICE

For your safety you should ensure that you are fully aware of how to safely use abrasives

## DO's

| |
|---|
| Read the safety instructions provided by the abrasives and equipment supplier |
| Store abrasives in dry, frost-free conditions avoiding wide variations in temperature |
| Ensure that the product is suitable for its purpose |
| Handle, store and transport products with care |
| Disconnect the power to the machine before fitting the product |
| Examine all products before mounting and periodically during use for possible defects or damage (core flatness, fatigue cracks, undercutting, arbor hole damage...) |
| Check that correct mounting devices are used and that they are clean, undistorted and free from burrs |
| Ensure that work rests are properly adjusted and secure |
| Always use a correctly designed and adjusted guard (on belts) |
| Ensure that the workpiece is secure |
| Wear appropriate personal protective equipment at all times |
| Avoid clogging and uneven wear to ensure that the product is working efficiently |
| Ensure accordance between product direction arrow / machine rotation |
| Ensure that all machines using abrasives meet the requirements of the current European machinery directives-CE |
| Be aware of the hazards likely during the use of abrasives and observe the recommended precautions to be taken:<br>• Bodily contact with the abrasive product at operating speed<br>• Injury resulting from product breakage during use<br>• Grinding debris, sparks, fumes and dust generated by the grinding process<br>• Noise<br>• Vibration |

## DON'Ts

| |
|---|
| Allow untrained people to use abrasives |
| Use a product that is damaged |
| Use a product if it cannot be properly identified |
| Use a machine that is not in good working order or one with defective parts |
| Force the abrasive onto the mounting device or modify the size of the mounting hole |
| Exceed the maximum operating speed marked on the product |
| Apply shock or excessive force to the product or let it overheat |
| Use mounting flanges which are not clean and flat |
| Tighten the mounting device excessively |
| Start the machine until the guard is in place and fastened securely |
| Continue to use a product if vibration occurs. |
| Grind on the part of the product which is not designed for the operation |
| Start the machine with the workpiece in contact with the abrasive product |
| Grind material for which the product is not designed |
| Stop the abrasive by applying pressure to its surface, let it stop naturally |
| Wear loose clothing, ties and jewellery |
| Use abrasive products near flammable materials |

## SAFETY ADVICE

# PERSONAL PROTECTION

Safety goggles, ear defenders, safety gloves, dust masks and, if conditions are severe, additional face protection. Leather aprons and safety shoes must be worn.


Wear a mask (ISO 7010)


Wear protective gloves (ISO 7010)


Wear eye protection (ISO 7010)


Wear ear protection (ISO 7010)


Refer to instruction manual/ booklet (ISO 7010)


Only suitable for wet grinding


Do not use for wet grinding (ISO 7010)





NORTON®

SAINT-GOBAIN



# BONDED ABRASIVES


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# INTRODUCTION BONDED ABRASIVES

From standard aluminium oxide bench wheels to premium ceramic abrasive surface grinding wheels, Norton offers high performance abrasive solutions that can maximise productivity in virtually all industrial applications.

The extensive product range is designed to meet all your precision grinding and roughing application needs, with all the most appropriate abrasive specifications, including grinding wheels, segments, mounted points, dressing sticks and sharpening stones.

Norton, the industry's most comprehensive Bonded abrasive product line.

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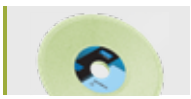


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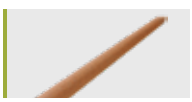
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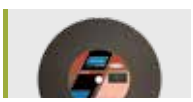


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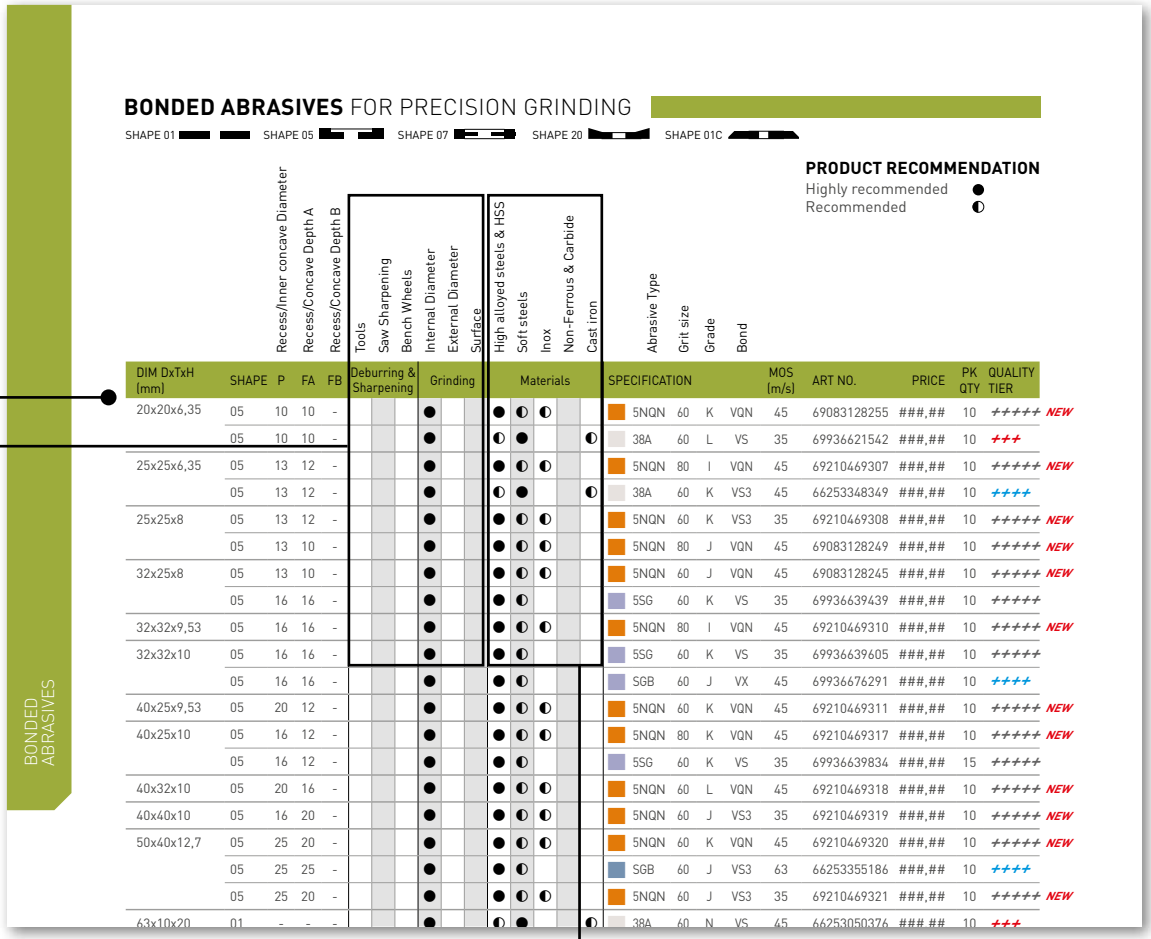


REINFORCED WHEELS 276

# HOW TO READ THE GRINDING WHEEL SECTION

## 1. SELECT YOUR DIMENSION

20 x 20 x 6,35mm



**BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Recess/Inner concave Diameter | Recess/Concave Depth A | Recess/Concave Depth B | Deburring & Sharpening: Tools | Deburring & Sharpening: Saw Sharpening | Deburring & Sharpening: Bench Wheels | Grinding: Internal Diameter | Grinding: External Diameter | Grinding: Surface | Materials: High alloyed steels & HSS | Materials: Soft steels | Materials: Inox | Materials: Non-Ferrous & Carbide | Materials: Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PRICE | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20x20x6,35 | 05 | 10 | 10 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69083128255 | ###,## | 10 | +++++ | NEW |
| | 05 | 10 | 10 | - | | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936621542 | ###,## | 10 | +++ | |
| 25x25x6,35 | 05 | 13 | 12 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | I | VQN | 45 | 69210469307 | ###,## | 10 | +++++ | NEW |
| | 05 | 13 | 12 | - | | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 45 | 66253348349 | ###,## | 10 | ++++ | |
| 25x25x8 | 05 | 13 | 12 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VS3 | 35 | 69210469308 | ###,## | 10 | +++++ | NEW |
| | 05 | 13 | 10 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | J | VQN | 45 | 69083128249 | ###,## | 10 | +++++ | NEW |
| 32x25x8 | 05 | 13 | 10 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VQN | 45 | 69083128245 | ###,## | 10 | +++++ | NEW |
| | 05 | 16 | 16 | - | | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639439 | ###,## | 10 | +++++ | |
| 32x32x9,53 | 05 | 16 | 16 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | I | VQN | 45 | 69210469310 | ###,## | 10 | +++++ | NEW |
| 32x32x10 | 05 | 16 | 16 | - | | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639605 | ###,## | 10 | +++++ | |
| | 05 | 16 | 16 | - | | | | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936676291 | ###,## | 10 | ++++ | |
| 40x25x9,53 | 05 | 20 | 12 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69210469311 | ###,## | 10 | +++++ | NEW |
| 40x25x10 | 05 | 16 | 12 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | K | VQN | 45 | 69210469317 | ###,## | 10 | +++++ | NEW |
| | 05 | 16 | 12 | - | | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639834 | ###,## | 15 | +++++ | |
| 40x32x10 | 05 | 20 | 16 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | L | VQN | 45 | 69210469318 | ###,## | 10 | +++++ | NEW |
| 40x40x10 | 05 | 16 | 20 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VS3 | 35 | 69210469319 | ###,## | 10 | +++++ | NEW |
| 50x40x12,7 | 05 | 25 | 20 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69210469320 | ###,## | 10 | +++++ | NEW |
| | 05 | 25 | 25 | - | | | | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VS3 | 63 | 66253355186 | ###,## | 10 | ++++ | |
| | 05 | 25 | 20 | - | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VS3 | 35 | 69210469321 | ###,## | 10 | +++++ | NEW |
| 63x10x20 | 01 | - | - | - | | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 66253050376 | ###,## | 10 | +++ | |

## 2. CHOOSE YOUR APPLICATION

### DEBURRING & SHARPENING

- Tools
- Saw sharpening
- Bench grinding

### GRINDING

- Internal
- External
- Surface

## 3. IDENTIFY SURFACE TYPE / MATERIAL

- High alloyed steels and HSS
- Soft steels
- Non-ferrous and carbide
- Cast Iron

## ARTICLE IDENTIFIED

Please contact your Norton representative if you need assistance or advice.

# WHAT IS A GRINDING WHEEL?

A grinding wheel is a precision tool with thousands of cutting points. It consists of abrasive grains held in a matrix of bond and separated by pores. The abrasive grains are the cutting points while the purpose of the bond is to hold the individual grains together. The pores (hollow spaces between adjacent abrasive grains and the bond) serve to provide clearance for coolant penetration and metal chips removed in the grinding process.

When the wheel is rotated at grinding speed and applied to the workpiece, the abrasive grains cut the material that is being ground, removing the material in small chips.

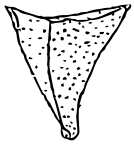
Under the action of the forces imposed during grinding, the abrasive cutting points are worn flat, resulting in the points becoming blunt. This causes an increase in friction, and a build-up of heat.

The increase in grinding forces causes either the abrasive to fracture, exposing new cutting edges, or fractures the bond bridges holding the abrasive grains. In the latter case fresh abrasive grains are exposed to cut the workpiece.

In normal vitrified grinding applications, the wheel has to be dressed.

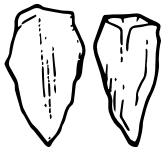
By varying the properties of the abrasive, the type of bond, the make-up of the wheel, it is possible to produce grinding wheels with a vast range of different grinding characteristics.

# ABRASIVE TYPES



### CERAMIC ALUMINIUM OXIDE

Norton SG, Norton Quantum are patented ceramic forms of aluminium oxide that are harder and sharper than conventional abrasive grains.
The ceramic grain has a unique microcrystalline structure and when used in a grinding operation this microstructure becomes self-sharpening.
This leads to a reduction in the need for wheel dressing and a considerably cooler cutting action.



### ALUMINIUM OXIDE

Generally recommended for grinding materials of high tensile strength, such as stainless steel and tool steels, but it can also be used on some high tensile aluminium and bronze alloys. It is manufactured in varying qualities.



### SILICON CARBIDE

Harder than aluminium oxide with a very sharp abrasive grain shape. It is recommended for grinding relatively soft materials such as aluminium or cast iron as well as grinding extremely hard materials such as cemented carbide.



### ZIRCONIA ALUMINA

For use in rough grinding applications where high stock removal is required. Associated with high tech resin bonds.



# GRAIN SPECIFICATIONS

## CERAMIC BLENDS

### NQN Blends

INNOVATION

The new, proprietary, nano-crystalline ceramic grain from Saint-Gobain offers unparalleled grinding productivity across multiple applications.

The new micro-structure of the grain features a significant crystal size reduction compared to previous generation ceramic grains.

The unique formulation and reduced crystal size allows the grain to micro-fracture and self-sharpen more efficiently.

This keeps the wheel sharper for longer, reducing heat, wear flats, and minimising the need for dressing.

### NQ Blends

Blends that include medium, high, very high concentrations of premium abrasive NQ. NQ has improved self-sharpening properties allowing even cooler grinding action vs. SG. NQ blends are specially suited for low to medium pressure applications.

### SG Blends

A blend of premium abrasives that include a medium, high, very high concentration of premium abrasive SG. SG has a unique microcrystalline structure allowing self-sharpening.

## ALUMINIUM OXIDE TYPES

### 38A

White fused aluminium oxide (99,8% pure). The most friable and cool cutting of the aluminium oxides. This abrasive is supplied in all types of standard range wheels ideal for use on hard and heat sensitive steels and alloys. It has traditionally been used for sharpening high-speed steel and cast alloy tools and cutters. 38A is used for cylindrical, surface and internal grinding.

### 32A

Sharp, monocrystalline 32A aluminium oxide purple grain, the most versatile abrasive for medium- to heavy-stock removal on the market.

### 19A

A blend of A and 38A abrasives. This abrasive gives a grinding action that can be compared to the average of its components. It is supplied in some standard tool room wheels, used for surface, cylindrical, centreless and miscellaneous grinding on less heat sensitive steels.

### A

This is a particularly tough form of aluminium oxide suitable for grinding high tensile strength materials, specifically, off-hand grinding (bench grinding wheels) and sharpening stones.

### 57A

Semi-pure brown fused aluminium oxide (98% pure). The higher purity of 57A makes it a good general-purpose abrasive. Its versatility enables it to be used for grinding steel parts in both soft and hard states.

### 86A

Pink aluminium oxide is a highly refined form of alumina which makes it a little tougher than pure white, increasing the strength along the shear planes. This abrasive is available in a range of mounted points and wheels.

## SILICON CARBIDE TYPES

### 39C

Green silicon carbide with highest purity. It is ideal for grinding cemented carbide cutting tools, fired ceramics and glass, where it provides advanced performance.

### 37C

Black silicon carbide. Supplied mainly in the resin bonds of advanced wheels used for grinding grey iron, non-ferrous metals and in vitrified bonds for grinding non-metallic materials, such as rubber and stone.





## **BONDED ABRASIVES** PRODUCT SELECTION

# GRIT SIZE

The number in the grinding wheel, marking designating grit size, represents the approximate number of openings per linear inch in the final screen size used to size the grain. The following rules should be followed:

### USE COARSE GRIT

- For soft, ductile, stringy materials such as soft steel or aluminium
- For rapid stock removal
- Where finish is not important
- For large areas of contact

### USE FINE GRIT

- For hard, brittle materials such as hard tool steels, cemented carbides and glass
- For fine finishes
- For small areas of contact
- For holding small corner radii

# WHEEL GRADE

The grade indicates the relative holding power of the bond, which holds abrasive grains in a wheel. This is represented in the specification by letters running through the alphabet from softest to hardest. The following rules should be followed with regard to grade:

### USE SOFT GRADE

- For hard materials such as hard tool steels and carbides
- For large areas of contact
- For rapid stock removal

### USE HARD GRADE

- For soft materials
- For small or narrow areas on contact
- For longer wheel life

### COMMON RANGE OF GRADES

| F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CYLINDRICAL/CENTRELESS | | | | | | | | | | | |
| SURFACE GRINDING | | | | | | | | | | | | | | | |
| | | | | ID GRINDING | | | | | | | | | | | |
| | | | TOOL GRINDING | | | | | | | | | | | | |
| | | | | | THREAD GRINDING | | | | | | | | | | |
| NON-REINFORCED ORGANIC | | | | | | | | | | | | | | | |
| | | | | | | | | | | REINFORCED ORGANIC | | | | | |

# BOND TYPES-VITRIFIED

Vitrified bonds are the most common precision grinding bond. Porosity and strength of the wheels made with this bond give high stock removal along with their rigidity helping to attain high precision. Not affected by water, acid, oils or ordinary temperature variations.

## THE MOST COMMON VITRIFIED BONDS ARE:

| | |
|---|---|
| VV1 | New innovative bond with improved versatility for multiple applications and alloys. Used for precision grinding operations with Aluminium Oxide abrasives. |
| VITRIUM³ | **VITRIUM³ REVOLUTIONARY BOND TECHNOLOGY**<br>The Vitrium³ bond platform features an exclusive chemistry that delivers an entirely new grain adhesion science, providing cool cutting, long and precise profile holding across a wide range of precision grinding applications. |
| **VS** | Historical entry level bond, available with both aluminium oxide and silicon carbide. |
| **VX / VXP** | Equivalent to VS bond, for ceramic only. |
| **VQN / VQNP** | These bonds are associated with Norton Quantum technology - a technology for low, medium and high force applications. |

# BOND TYPES-ORGANIC

These bonds are used in two types of wheels. Firstly, wheels used on portable or fixed machines for the rapid removal of metal. Secondly, cutting-off wheels either un-reinforced or reinforced, for use on portable or fixed machines. The most common organic bonds are:

| SNAGGING WHEELS & CUPS | |
|---|---|
| B & B3 | Foundry wheels: multi-purpose bond that gives satisfactory results on most applications |
| B28 | Foundry wheels: high level bond suitable for most technical applications requiring high powered machines |
| **CUTTING-OFF WHEELS** | |
| BFX | Foundry X bond technology designed to increase cut rate and wheel life in all cut-off applications on a wide range of tough materials |
| BF1 | Specific bond ensuring the best quality of cut in dry or wet conditions |
| BF3 | New generation bond assuring the best wheel life in dry cutting operations; versatile and long wheel life. Ideal for heavy duty operations |
| B24 | New generation bond used on silicon carbide cut-off wheels that gives the best performance and the ultimate cut quality on non-ferrous metals in wet conditions |
| B25 | Standard multi-purpose bond that offers durability and freeness of cut in a wide variety of materials and applications. Can also be used in wet cutting on softer grades |
| B26 | New generation bond used on aluminium oxide cut-off wheels that gives the best performance and the ultimate cut quality on ferrous metals in wet conditions |
| B65 | Traditional bond gives good performance and long wheel life in dry cutting conditions |

# SELECTING THE RIGHT PRODUCT

## THERE ARE NINE MAIN FACTORS TO BE CONSIDERED WHEN SELECTING A GRINDING WHEEL FOR ANY APPLICATION:

- The material to be ground – its type and hardness
- The stock to be removed
- The workpiece geometry and surface finishes required
- The grinding machine, the type of machine, the power available and its conditions
- Wheel speeds and feeds
- Grinding contact area
- Grinding fluid – whether the operation is wet or dry
- The severity of the grinding operation
- The dressing method

### MATERIAL TO BE GROUND

The type of material affects the selection of abrasive, grit size and grade. Alumina type abrasives are the most suitable for grinding high tensile materials such as steel and ferritic cast iron. The more friable types of alumina are preferred on harder steels and applications having large arcs of contact.

Low tensile strength materials and non-metallic materials are most efficiently ground or cut with silicon carbide abrasive.

The hardness of the material governs the amount of penetration that can be achieved by the abrasive.
For this reason, finer grit size wheels are required to grind hard materials and soft materials are best ground with medium to coarse grit size wheels.

For most efficient operation, the grade must be adjusted to suit the hardness of the material. As a general guide, the harder the material, the softer the grade of wheel required.

### STOCK TO BE REMOVED

This affects the choice of abrasive size and bond type.

High stock removal rates, as in fettling operations, require coarse grit wheels, typically 12 to 24 mesh.

Fine finishes and tight limits on finished workpiece geometry require finer grit sizes.

Final surface finish is often achieved by 'spark out'. No further infeed is applied and the wheel is allowed to grind until the majority of the grinding sparks cease.

## NOTES

# SURFACE FINISH

Recommended ●

GRIT SIZE →

| CENTRE LINE AVERAGE (CLA) | SURFACE FINISH RA (MICRONS) | 46 | 60 | 80 | 100 | 120 | 150 | 180 | 220 |
|---|---|---|---|---|---|---|---|---|---|
| 42 | 1,10 | ● | | | | | | | |
| 32 | 0,80 | ● | | | | | | | |
| 26 | 0,70 | ● | | | | | | | |
| 21 | 0,50 | | ● | | | | | | |
| 16 | 0,40 | | ● | | | | | | |
| 14 | 0,35 | | ● | ● | | | | | |
| 11 | 0,25 | | ● | ● | | | | | |
| 8 | 0,20 | | | ● | ● | | | | |
| 7 | 0,17 | | | ● | ● | ● | | | |
| 6 | 0,14 | | | | ● | ● | ● | | |
| 5 | 0,12 | | | | | ● | ● | ● | |
| 4 | 0,10 | | | | | | ● | ● | ● |
| 3 | 0,08 | | | | | | | ● | ● |
| 2 | 0,05 | | | | | | | | ● |
| MIN FORM RADIUS | METRIC (mm) | 0,75 | 0,50 | 0,40 | 0,25 | 0,20 | 0,18 | 0,13 | 0,10 |
| | IMPERIAL (Inches) | ,030 | ,020 | ,015 | ,010 | ,008 | ,007 | ,005 | ,004 |

The achievable surface finish in any grinding operation is highly dependent upon the grit size of the grinding wheel. The following chart shows the range of surface finishes achievable when using grinding wheels of different grit sizes on conventional precision grinding applications, together with the minimum form radius that can be ground using each grit size.

**Other factors can affect the surface finish achieved. In particular:**

- Production grinding applications, with higher stock removal ranges, will give surface finishes at the coarser end of the range
- Plunge grinding applications will often require the selection of a grit size one size finer than shown
- Dressing techniques and the type of material can also affect the surface finish achieved

### ACHIEVING IMPROVED SURFACE FINISHES

By changing the wheel dressing technique, it is possible to achieve finer surface finishes than those shown. As well as reducing the dresser infeed per revolution of the grinding wheel, it is also possible to reduce the infeed and traverse rate when grinding, thus reducing the stock removal rate. Obviously, this approach will have limited application in production grinding but it can be very useful in tool room work.

# READING THE PRODUCT

1. Safety pictograms
2. Strong Norton branding
3. Product dimensions (mm)
4. Product specification
5. Maximum operating speed
6. Article number; for use when re-ordering
7. oSa certified
   The Organisation for Safety of Abrasives
8. European safety standard EN 12413





NORTON®

SAINT-GOBAIN

BONDED ABRASIVES

# PRECISION GRINDING


| | |
|---|---|
| Straight wheels | 229 |
| Straight & tapered cups | 242 |
| Dishes | 245 |
| Cylinders | 246 |
| Segments | 247 |

# PRECISION GRINDING APPLICATIONS

Thanks to Norton's technical expertise, bond and abrasive grain formulations are optimised to best suit the technical request of all precision operations. Our vitrified wheels are available in a variety of shapes, diameters and arbor sizes available from stock or on request. They are intended to maximise your productivity by improving your grinding efficiency and part quality in surface, tool and cutter, ID and cylindrical grinding as well as sharpening applications.



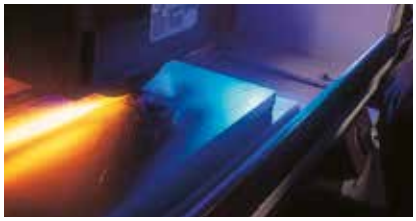
## TOOL GRINDING

Tool grinding refers to the maintenance and repair of the cutting tools used in manufacturing operations. Wheels of all sizes and shapes are used in tool and cutter applications. Most wheels used are vitrified, in grit sizes 36 to 220, and in grades H through to N.



## SAW SHARPENING

Saw sharpening refers to the maintenance and repair of saw blades. Vitrified flat wheels and cups are used in grit sizes 54 to 60. Resin treatment reinforces the wheel and helps reduce wheel face deformation.



## SURFACE GRINDING

The term surface grinding is used to describe the grinding of flat surfaces in which the wheel moves past the workpiece in a flat plane, or vice versa. Surface grinding applications range can very from heavy rapid stock removal, to precision contour grinding.



## EXTERNAL CYLINDRICAL GRINDING

Norton's leading technology, provides you with the best precision, formholding vitrified wheels to maximise productivity, increase grinding efficiency and improve part quality in all your external cylindrical grinding operations.



## INTERNAL CYLINDRICAL GRINDING

Internal grinding refers to the grinding of bores or holes and is probably one of the most difficult types of grinding. Internal grinding applications range from very rapid stock removal to more controlled processes capable of generating sizes and concentricity measured in microns.



## BENCH AND PEDESTAL GRINDING

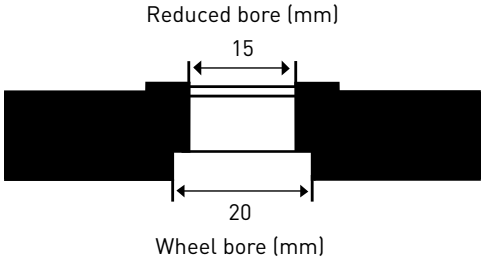
Bench and pedestal grinding application refers to offhand deburring and sharpening of parts and tools. The wheels are mounted on bench grinders or pedestal grinders and covers three types of abrasives to answer all deburring, shaping and sharpening needs: aluminium oxide for high speed tool steels and other metals, and silicon carbide for non-ferrous metals.



# REDUCTION RINGS

Plastic reduction rings may be used to adapt grinding wheels to fit on various spindle sizes.
These rings reduce the bore hole size, allowing the wheel to be safely mounted on a spindle with a smaller diameter.

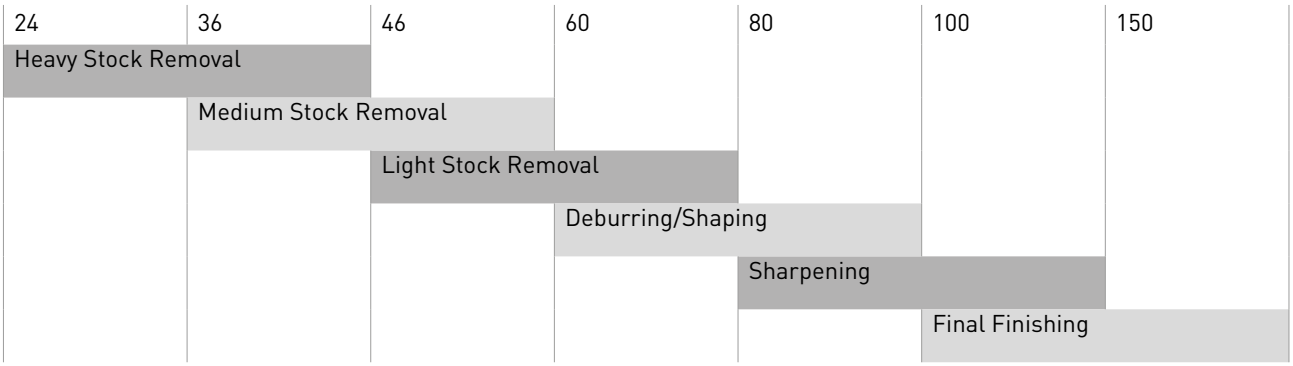
- Reduction rings should never come in contact with the flange
- Reduction rings should not be used on wheels of thicknesses less than 6mm, nor greater than 50mm
- Always use one reduction ring on each side of the wheel when the wheel is thick enough to allow correct seating
- Never use reduction rings to reduce the hole below the minimum specified in the FEPA safety code




| WHEEL BORE (mm) | REDUCED TO (mm) | ART NO. |
|---|---|---|
| 50,8 | 35 | 7660704766 |
| 32 | 25 | 7660717540 |
| 32 | 20 | 7660717538 |
| 31,75 | 15,88 | 7660704757 |
| 31,75 | 12,7 | 7660704755 |
| 20 | 16 | 7660717530 |
| 20 | 15 | 7660717529 |
| 20 | 13 | 7660717527 |
| 20 | 12 | 7660717525 |
| 20 | 10 | 7660717524 |
| 16 | 6 | 510008919 |

# APPLICATION/GRIT RECOMMENDATION GUIDE

COARSER (GRINDING) FINER (FINISHING)




SPEC CHECK

- Unsecured machines can move, causing grinding breakage and injury. Fixed-based bench and pedestal grinders MUST be secured.
- Do not grind wood, plastic, or any other non-metallic material on a bench or pedestal grinder.
- All bench and pedestal wheels must be dressed to prevent loading. Loading can cause excessive heat, damage to the workpiece, and wheel breakage. Dressing exposes new cutting edges and provides chip clearance.
- Recommended starting dressing stick: 1" x 1" x 6" 37C24-SVK Part # 61463610462

SPEC CHECK

**WHEEL DRESSING**

Single Point Diamond Tools

- Rigidly mount Single Point tools at a 10°-15° angle to the wheel centreline with a line drawn through the centre of the wheel, pointing in the direction of wheel travel
- Point of contact should be slightly below centreline of the wheel
- Use coolant whenever possible
- Normal infeed is .001" per pass
- Lead selections range from .002" - .010" per wheel revolution
- Rotate the tool 1/4 turn periodically to maintain a sharp point
- Use VBE, V, VS, VK bonds for general purpose applications or medium contact areas
- Use VBEP, VSP, VS3P, VCP, VP2 bonds on wide contact areas where heat is an issue

It is the user's responsibility to refer to and comply with ANSI B7.1

Multi-Point Diamond Tools

- Most multi-point tools are used for straight face dressing
- Tool should have full face contact with the wheel
- With new tool, 3 to 5 passes at .005" per pass should be taken to expose diamonds
- Infeed per pass .001" - .002"
- Use coolant whenever possible
- Use appropriate lead (and traverse rate)
- Contact your Norton representative for proper tool selection for Targa (TG) wheels

Dressing Ceramic Wheels

- Use our specially designed Norton SG diamond tools when dressing ceramic wheels
- When first using a Norton SG tool, make 3 to 5 passes at .005" infeed to ensure full face contact between the dressing tool and wheel face
- Reduce normal dressing infeed by half. Do not exceed infeed of .002" per pass
- The lead selection should be between .006" - .030" per wheel revolution. Faster traverse with Norton SG tools generally provides an open wheel face that can maximise productivity of the ceramic abrasive
- To optimise applications using ceramic abrasives and/ or tools, normal dressing parameters must change. Reduce infeed by 25%. Significant reductions in the amount of infeed and frequency of dress will result in substantially lower cost per part ground
- See the Fliesen Tool section for Furioso tools, engineered specifically for Quantum vitrified wheel dressing

# TROUBLESHOOTING GUIDE

Check the obvious first. Before changing the grinding wheel specification, investigate the following most common causes for most grinding problems:

1. Diamond dressing tool condition (check if worn or dull, rotate tool or replace if necessary)
2. Coolant direction, volume and filtration
3. Wheel dressing procedures (dress more open to free up cut rate, dress more closed to improve finish)

| PROBLEM | POSSIBLE CAUSE | CORRECTION |
|---|---|---|
| Workpiece burn | Poor coolant direction | Redirect coolant into grinding zone |
| | Restricted or low coolant volume | Increase coolant volume |
| | Wheel too hard | Use one grade softer wheel |
| | Wheel structure too closed | Use porous bond wheel |
| | Wheel dressed too fine | Dress wheel coarser, more "open" |
| | Worn dressing tool | Inspect, rotate or replace dressing tool |
| | Work speed too slow | Increase work speed |
| | Infeed too fast | Reduce stock removed per pass or upgrade to 5SG or 5NQ |
| Wheel loading and glazing | Wheel too fine | Use coarser grit or softer grade wheel |
| | Wheel too hard | Use one grade softer wheel |
| | Too durable abrasive | Use a sharper, more friable abrasive |
| | Poor coolant quality | Change coolant or use high detergent type |
| | Wheel structure too closed | Use a porous bond wheel |
| | Wheel too finely dressed | Dress wheel very open |
| | Diamond dressing tool worn | Replace diamond and dress coarse (open) |
| | Depth of cut too small | Increase feed and traverse speed |
| Chatter | Unsupported work | Increase work support |
| | Machine vibration | Check for worn bearings |
| | Too heavy cut rate | Reduce cut rate |
| | Wheel too hard | Use one grade softer wheel |
| | Wheel structure too closed | Use a porous bond wheel |
| | Wheel out of balance | Check wheel balance or try new wheel |
| Chatter marks on workpiece | Worn spindle bearings | Check and correct for truth and end play |
| | Wheel out of truth | Redress wheel and check mounting |
| | Poorly clamped wheel | Check tightness of mounting nuts |
| | Glazed face of wheel | Redress wheel with sharp dressing tool |
| Poor surface finish | Incorrect wheel dress | Dress wheel finer (slow down dressing tool traverse) |
| | Worn dressing tool | Inspect, rotate, or replace dressing tool |
| | Too coarse grit size | Use a finer grit size |
| | Wheel too hard | Use softer grade |
| Not holding form | Wheel too soft | Use one grade harder wheel |
| | Wheel structure too open | Use a more closed wheel structure |
| Not holding corner | Incorrect wheel dress | Dress wheel finer. Face and side true wheel. |
| | Too large grit size | Use smaller grit size (maximum grit diameter less than 1,5 times corner radius) |
| | Wheel too soft | Use harder grade wheel |
| | Wheel structure too open | Use more closed structure wheel |

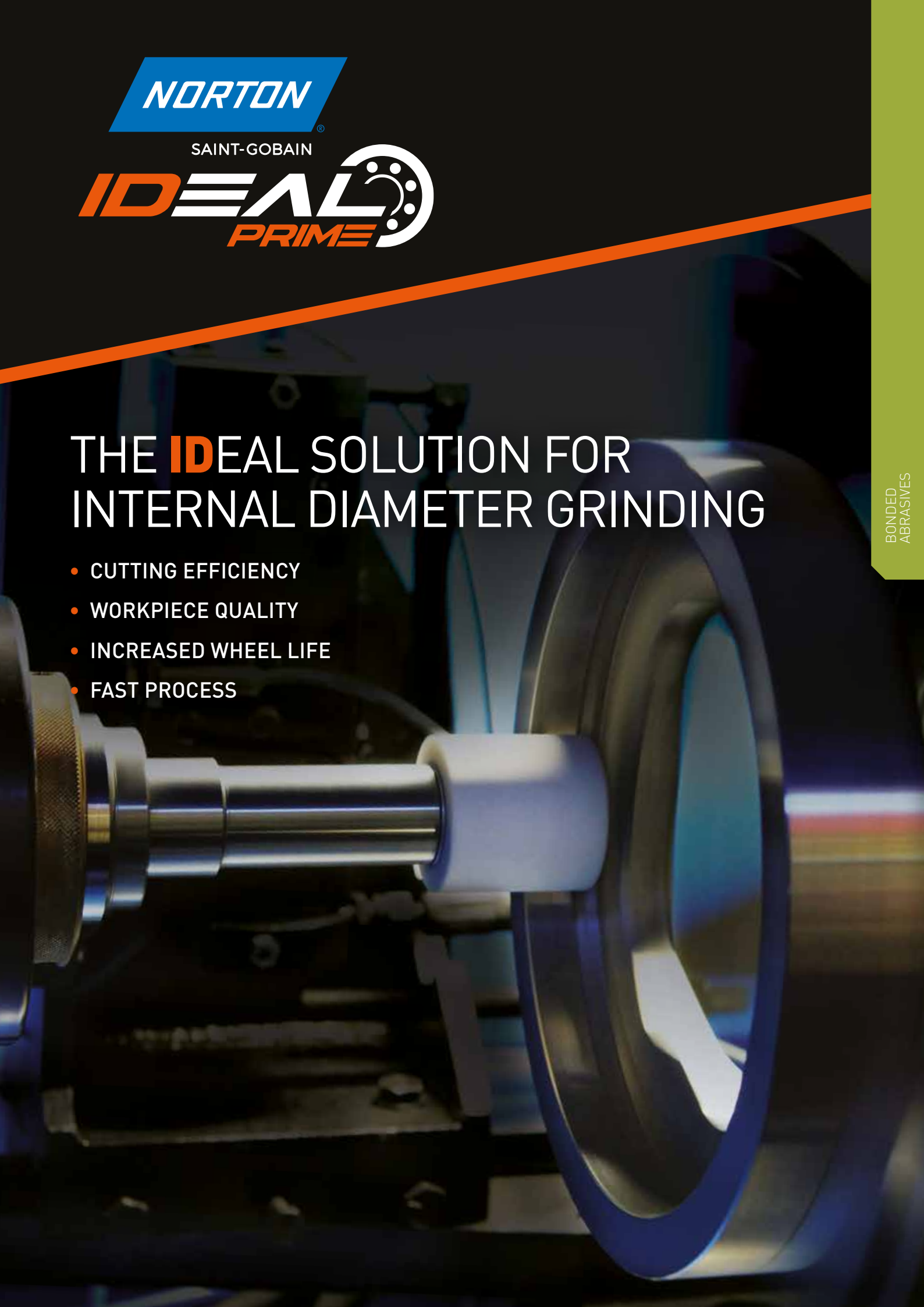
NORTON

SAINT-GOBAIN

IDEAL PRIME

# THE IDEAL SOLUTION FOR INTERNAL DIAMETER GRINDING

- CUTTING EFFICIENCY
- WORKPIECE QUALITY
- INCREASED WHEEL LIFE
- FAST PROCESS



BONDED ABRASIVES

NORTON
SAINT-GOBAIN

VV1

# A VERSATILE GRINDING SOLUTION

BONDED ABRASIVES



- FOR MULTIPLE APPLICATIONS
- INCREASES WORKPIECE QUALITY
- FEWER WHEEL CHANGES AND PARAMETER ADJUSTMENTS
- LOWER ENERGY CONSUMPTION REDUCES CARBON FOOTPRINT



## NQN

**INNOVATION**

Norton's Innovative ceramic grain

- Unparalleled sharpness reducing cycle times
- Improved cutting efficiency results in reduced power draw
- Micro-fracturing grain leads to improved part quality and geometry
- Self-sharpening grain technology stays sharper for longer, lowering dress requirements and significantly improving wheel life



## NQ

+++++

Engineered microcrystalline ceramic grain

- A perfect blend of sharp grains for the ultimate free cutting action
- Unique, microcrystalline structure is self-sharpening for long product life
- Can be used in all low, medium and high force applications
- Reduces the need for dressing



## 3SG / 5SG

++++

Traditional ceramic microstructure grain

- Very high concentration of SG ceramic aluminium oxide abrasive for high removal rate and extended wheel life
- Unique, microcrystalline structure is self-sharpening for long product life
- Very good cutting capabilities on very hard steels



## SGA / SGB

++++

A blend with a low concentration of ceramic grain for good performance in a number of applications

- Harder and sharper than conventional abrasive grains for good cutting capabilities
- Very versatile for use on a number of steels
- Suitable for low to medium power machines

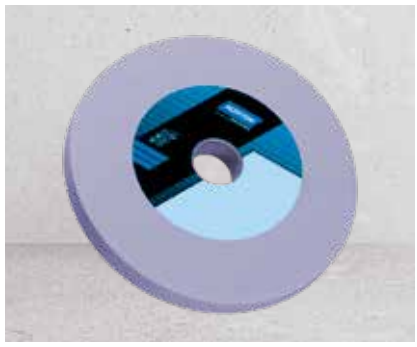


## 38A VS3

++++

The latest bond innovation with conventional alumina grain

- High purity aluminium oxide abrasive for cool and burn free cutting
- Highly friable abrasive, versatile on hard metals (HRc >50)
- Ideal for heat sensitive applications with light to moderate feed rates
- Improved profile accuracy and wheel life



## GF

++++

A low concentration of ceramic grain with durable aluminium oxide grain

- Good performance on common soft and medium steels

## **BONDED ABRASIVES** FOR PRECISION GRINDING



### 38A

+++

High purity aluminium oxide abrasive

- Friable grain renews sharp cutting edges for good product life
- Good cut rate and reduced heat generation on hardened or high-speed tool steels
- Ideal for heat-sensitive applications ideally in low/medium pressure applications
- Ideal for use on all steel hardnesses



### 19A

+++

A blend of brown and white aluminium oxides for good price vs. performance ratio

- Combines cutting efficiency and wheel life
- Very versatile, can be used on a wide variety of steels
- Good yield, good removal rate
- Good balance between cut rate and form holding ability



### 32A

+++

Semi-friable brown aluminium oxide

- Tough grain maintains sharp edges for good wheel life
- Good profile holding reduces dressing needs
- For use on the most common soft/ medium steels



### A

+++

Brown aluminium oxide

- For soft steel removal, shaping and deburring
- Very tough, suitable for grinding most types of soft steels
- Good wheel life and hard wearing for general purpose cylindrical off-hand bench and pedestal grinding applications
- Good price vs. performance ratio



### 39C

+++

Highest purity green silicon carbide abrasive

- The most friable conventional abrasive grain. Harder and more friable than aluminium oxide abrasive
- For all general purpose bench and pedestal applications on non-ferrous materials and carbide tools
- Ideal for high precision grinding and sharpening applications
- Good cut rate and finish on metal carbide and non-ferrous hard or heat sensitive materials



### 37C

+++

High purity black silicon carbide abrasive

- Harder and more friable than aluminium oxide abrasive
- Suitable for roughing operations in coarse grit and resinoid wheels
- Ideal for grinding and sharpening applications on non-ferrous metals



# STRAIGHT WHEELS
## FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**COLOUR CODE REFERENCE**

| CERAMIC BLENDS | ALUMINIUM OXIDE TYPES | SILICON CARBIDE TYPES |
|---|---|---|
| INNOVATION NQN BLEND | 38A | 39C |
| NQ BLEND | 32A | 37C |
| SG BLEND | 19A | |
| | A | |

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13x13x4 | 01 | - | - | - | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | K | VS3 | 35 | 69210469305 | 10 | +++++ | NEW |
| 13x13x4.76 | 01 | - | - | - | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VS3 | 63 | 66253355176 | 10 | ++++ | |
| | 05 | 6 | 6 | - | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VS3 | 63 | 66253355177 | 10 | ++++ | |
| 16x16x6 | 05 | 10 | 8 | - | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VS3 | 35 | 69083128259 | 10 | +++++ | NEW |
| | 01 | - | - | - | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | J | VQN | 45 | 69083128269 | 10 | +++++ | NEW |
| | 01 | - | - | - | | | | ● | | | ● | ◐ | ◐ | | | 3NQN | 60 | K | VS3 | 35 | 69083128247 | 10 | +++++ | NEW |
| 20x20x6 | 05 | 13 | 10 | - | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | J | VQN | 45 | 69083128220 | 10 | +++++ | NEW |
| | 05 | 13 | 10 | - | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VS3 | 35 | 69083128227 | 10 | +++++ | NEW |
| | 01 | - | - | - | | | | ● | | | ● | ◐ | ◐ | | | 3NQN | 60 | L | VQN | 45 | 69083128244 | 10 | +++++ | NEW |
| | 01 | 13 | 10 | - | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 45 | 66253348355 | 10 | ++++ | |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Recess/Inner concave Diameter | Recess/Concave Depth A | Recess/Concave Depth B | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20x20x6.35 | 05 | 10 | 10 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69083128255 | 10 | +++++ | NEW |
| | 05 | 10 | 10 | - | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936621542 | 10 | +++ | |
| 25x25x6.35 | 05 | 13 | 12 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | I | VQN | 45 | 69210469307 | 10 | +++++ | NEW |
| | 05 | 13 | 12 | - | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 45 | 66253348349 | 10 | ++++ | |
| 25x25x8 | 05 | 13 | 12 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VS3 | 35 | 69210469308 | 10 | +++++ | NEW |
| | 05 | 13 | 10 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | J | VQN | 45 | 69083128249 | 10 | +++++ | NEW |
| 32x25x8 | 05 | 13 | 10 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VQN | 45 | 69083128245 | 10 | +++++ | NEW |
| | 05 | 16 | 16 | - | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639439 | 10 | +++++ | |
| 32x32x9.53 | 05 | 16 | 16 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | I | VQN | 45 | 69210469310 | 10 | +++++ | NEW |
| 32x32x10 | 05 | 16 | 16 | - | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639605 | 10 | +++++ | |
| | 05 | 16 | 16 | - | | | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936676291 | 10 | ++++ | |
| 40x25x9.53 | 05 | 20 | 12 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69210469311 | 10 | +++++ | NEW |
| 40x25x10 | 05 | 16 | 12 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | K | VQN | 45 | 69210469317 | 10 | +++++ | NEW |
| | 05 | 16 | 12 | - | | | | | | ● | | | ● | ◐ | | | | 5SG | 60 | K | VS | 35 | 69936639834 | 15 | +++++ | |
| 40x32x10 | 05 | 20 | 16 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | L | VQN | 45 | 69210469318 | 10 | +++++ | NEW |
| 40x40x10 | 05 | 16 | 20 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VS3 | 35 | 69210469319 | 10 | +++++ | NEW |
| 50x40x12.7 | 05 | 25 | 20 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | K | VQN | 45 | 69210469320 | 10 | +++++ | NEW |
| | 05 | 25 | 25 | - | | | | | | ● | | | ● | ◐ | | | | SGB | 60 | J | VS3 | 63 | 66253355186 | 10 | ++++ | |
| | 05 | 25 | 20 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VS3 | 35 | 69210469321 | 10 | +++++ | NEW |
| 63x10x20 | 01 | - | - | - | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 66253050376 | 10 | +++ | |
| 63x40x12.7 | 05 | 32 | 20 | - | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 80 | I | VQN | 45 | 69210469323 | 10 | +++++ | NEW |
| | 05 | 32 | 20 | - | | | | | | ● | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936621565 | 10 | +++ | |
| 76x25x12.7 | 01 | - | - | - | | | | | | ● | | | | | ● | ● | | 39C | 80 | I | V | 45 | 66253052726 | 10 | +++ | |
| 76x32x20 | 05 | 42 | 16 | | | | | | | ● | | | ● | ◐ | ◐ | | | 5NQN | 60 | J | VQN | 45 | 69210469324 | 10 | +++++ | NEW |
| 80x25x12.7 | 01 | - | - | - | | | | | | ● | | | | | ● | ● | | 39C | 60 | M | V | 45 | 66253051624 | 10 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | | | ● | ● | | 39C | 60 | M | V | 45 | 66253051623 | 10 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | | | | | ● | 37C | 60 | N | V | 35 | 69936668764 | 10 | +++ | |
| 100x10x20 | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 35 | 69936640015 | 1 | +++ | |
| 100x10x32 | 01 | - | - | - | ● | | | | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 66253050380 | 2 | +++ | |
| 100x13x32 | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 66253050409 | 1 | +++ | |
| 100x20x32 | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 66253050413 | 1 | +++ | |
| 125x6x32 | 01 | - | - | - | | ● | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 66253050440 | 2 | +++ | |
| 125x10x32 | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675731 | 1 | +++ | |
| 125x13x32 | 01 | - | - | - | ● | | | | | | | | | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 66253050290 | 2 | +++++ | |
| 125x16x32 | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 45 | 66253050237 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 66253050393 | 2 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675736 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936667443 | 2 | +++ | |
| | 01 | - | - | - | | | ● | | | | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675558 | 1 | +++ | |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

INNOVATION

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150x4x20 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675591 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 100 | M | VS | 45 | 69936640219 | 1 | +++ |
| 150x4x30 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | N | VS | 45 | 69936639730 | 1 | +++ |
| 150x4x32 | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS3 | 63 | 66243541079 | 5 | ++++ |
| | 01 | - | - | - | | ● | | | | | | ● | | | | 19A | 60 | M | VS | 63 | 69936674920 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 66253050248 | 2 | +++ |
| 150x6x31.75 | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 35 | 69936621582 | 1 | +++ |
| 150x6x32 | 01 | - | - | - | | ● | | | | | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253055040 | 2 | +++++ |
| | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936675741 | 2 | +++ |
| | 01 | - | - | - | | ● | | | | | | ● | | | | 19A | 60 | M | VS | 63 | 69936675964 | 2 | +++ |
| | 01 | - | - | - | | ● | | | | | | | | ● | | 39C | 120 | K | VS | 45 | 69936675617 | 2 | +++ |
| 150x8x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 66253055041 | 2 | +++++ |
| 150x8x32 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675743 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 120 | J | VS | 45 | 69936675748 | 1 | +++ |
| 150x10x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253050280 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 45 | 69936641112 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | M | VS | 45 | 66253050373 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 120 | J | VS | 45 | 69936675749 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 66253050357 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675629 | 2 | +++ |
| 150x13x31.75 | 01 | - | - | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | K | VS | 50 | 69936622862 | 1 | +++++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | K | VS | 35 | 69936621564 | 1 | +++ |
| 150x13x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253050142 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936675757 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 45 | 69936675759 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 120 | J | VS | 45 | 69936675760 | 1 | +++ |
| 150x16x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253050367 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | H12 | VXP | 45 | 69936677177 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | L | VS | 45 | 69936675763 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675764 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 45 | 69936675767 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936675657 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675659 | 2 | +++ |
| 150x20x31.75 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253353966 | 1 | ++++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | K | VS | 35 | 69936623474 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 100 | K | VS | 35 | 69936623221 | 1 | +++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Recess/Inner concave Diameter | Recess/Concave Depth A | Recess/Concave Depth B | Deburring & Sharpening: Tools | Deburring & Sharpening: Saw Sharpening | Deburring & Sharpening: Bench Wheels | Grinding: Internal Diameter | Grinding: External Diameter | Grinding: Surface | Materials: High alloyed steels & HSS | Materials: Soft steels | Materials: Inox | Materials: Non-Ferrous & Carbide | Materials: Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150x20x32 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050155 | 2 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 100 | J | VX | 45 | 66253049895 | 2 | ✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | M | VS | 45 | 66253050372 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936641391 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 45 | 69936639416 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 100 | J | VS | 45 | 66243570493 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 36 | P | VS | 45 | 69936641366 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 60 | N | VS | 45 | 69936641368 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936641411 | 2 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936641413 | 2 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936641414 | 2 | ✦✦✦ |
| 150x25x20 | 01 | - | - | - | | | | | | ● | | | | | | ● | ● | | 39C | 80 | K | VS | 35 | 69936641429 | 1 | ✦✦✦ |
| 150x25x32 | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 66253050452 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 36 | Q | VS | 45 | 66253050265 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936641370 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936675661 | 2 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 66253050278 | 2 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675664 | 2 | ✦✦✦ |
| 175x4x51 | 01 | - | - | - | | | | ● | | | | | | | ● | | | | 19A | 60 | M | VS | 63 | 66253052709 | 6 | ✦✦✦ |
| 180x6x31.75 | 01 | - | - | - | | | | | ● | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253353968 | 2 | ✦✦✦✦ |
| 180x6x32 | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | | | | 3SG | 120 | K | VS | 35 | 69936676015 | 1 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | | ● | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675784 | 2 | ✦✦✦ |
| 180x10x32 | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | J | VS | 45 | 69936675781 | 1 | ✦✦✦ |
| 180x13x31.75 | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 46 | K | VS | 50 | 69936623227 | 1 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | K | VS | 50 | 69936623231 | 1 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | | | | SGB | 46 | K | VX | 50 | 69936623240 | 1 | ✦✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | | | | SGB | 60 | K | VX | 50 | 69936623255 | 1 | ✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS3 | 63 | 66253353972 | 1 | ✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253353974 | 1 | ✦✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | ◐ | ● | | | ◐ | 38A | 100 | L | VS | 35 | 69936623220 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | | | ● | ● | | 39C | 100 | J | VS | 35 | 69936623248 | 1 | ✦✦✦ |
| 180x13x32 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | ◐ | | | 2NQN | 46 | I | VS3 | 45 | 69210469326 | 2 | ✦✦✦✦✦ NEW |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 80 | J | VX | 45 | 66253054892 | 2 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 120 | J | VX | 45 | 66253054874 | 2 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936639148 | 2 | ✦✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675797 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 45 | 69936675801 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 120 | J | VS | 45 | 69936675802 | 1 | ✦✦✦ |
| 180x16x32 | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | H12 | VXP | 35 | 69936677179 | 1 | ✦✦✦✦✦ |
| | 01 | - | - | - | | | | | | ● | | | | ◐ | ● | | | ◐ | 38A | 46 | J | VS | 35 | 69936675806 | 1 | ✦✦✦ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 66253050453 | 1 | ✦✦✦ |

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

INNOVATION

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 180x20x31.75 | 01 | - | - | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 46 | K | VS | 50 | 69936623242 | 1 | ++++ |
| | 05 | 100 | 6 | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | J | VS | 35 | 69936639808 | 1 | ++++ |
| | 01 | - | - | - | | | ● | | | | ● | ◐ | | | | SGB | 60 | K | VX | 50 | 69936623480 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 46 | L | VS | 35 | 69936623312 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936623472 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | K | VS | 35 | 69936623477 | 1 | +++ |
| 180x20x32 | 01 | - | - | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | H12 | VXP | 35 | 66243593654 | 1 | ++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 46 | H10 | VXP | 45 | 69936638723 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253049878 | 2 | ++++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936641372 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936641415 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936676582 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675666 | 2 | +++ |
| 180x25x31.75 | 05 | 105 | 13 | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 46 | K | VS | 50 | 69936621519 | 1 | ++++ |
| | 05 | 105 | 13 | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | K | VS | 50 | 69936621570 | 1 | ++++ |
| | 05 | 105 | 12 | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS3 | 63 | 66253354036 | 1 | ++++ |
| | 05 | 105 | 12 | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253354035 | 1 | ++++ |
| 180x25x32 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675812 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675564 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936675667 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936667101 | 2 | +++ |
| 200x2x32 | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS3 | 50 | 66243541085 | 5 | ++++ |
| 200x3x32 | 01 | - | - | - | | ● | | | | | ● | ◐ | | | | SGB | 80 | K | VS3 | 50 | 66253354588 | 5 | ++++ |
| 200x4x32 | 01 | - | - | - | | ● | | | | | ● | ◐ | | | | SGB | 80 | K | VS3 | 63 | 66243541087 | 5 | ++++ |
| 200x6x31.75 | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 120 | I | VS | 35 | 69936640156 | 1 | +++ |
| 200x6x32 | 01 | - | - | - | | ● | | | | | ● | ◐ | | | | SGB | 60 | K | VS3 | 63 | 66243541086 | 5 | ++++ |
| | 01 | - | - | - | | ● | | | | | ● | ◐ | | | | SGB | 120 | J | VX | 45 | 69936677029 | 2 | ++++ |
| | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 80 | N | VS | 45 | 69936639662 | 2 | +++ |
| | 01 | - | - | - | | ● | | | | | | | | ● | | 39C | 120 | K | VS | 45 | 69936675636 | 2 | +++ |
| 200x8x32 | 001C | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 35 | 69210431430 | 5 | ++++ |
| 200x10x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936639157 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 80 | J | VX | 45 | 69936639158 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 63 | 66253348277 | 1 | ++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 120 | J | VS | 45 | 69936675819 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 100 | K | VS | 35 | 69936639461 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675637 | 2 | +++ |
| 200x13x31.75 | 01 | - | - | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 46 | K | VS | 50 | 69936623236 | 1 | ++++ |
| | 01 | - | - | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | K | VS | 50 | 69936623241 | 1 | ++++ |
| | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 120 | I | VS | 35 | 69936641286 | 4 | +++ |
| 200x13x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936639160 | 2 | ++++ |

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Recess/Inner concave Diameter | Recess/Concave Depth A | Recess/Concave Depth B | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 120 | J | VX | 45 | 69936676608 | 2 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 63 | 66253348352 | 1 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS | 45 | 69936675821 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | J | VS | 45 | 69936676152 | 2 | +++ |
| 200x16x76.2 | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675827 | 1 | +++ |
| 200x20x20 | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936641417 | 2 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | M | VS | 45 | 69936640220 | 2 | +++ |
| 200x20x31.75 | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 46 | K | VX | 50 | 69936623774 | 1 | +++++ |
| | 01 | - | - | - | | | | | | ● | | | | ● | ◐ | | | | SGB | 70 | H12 | VXP | 50 | 69936623902 | 1 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS3 | 63 | 66253354039 | 1 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253354038 | 1 | ++++ |
| 200x20x32 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | ◐ | | | 3NQN | 46 | J | VQN | 45 | 69210469327 | 2 | +++++ NEW |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | ◐ | | | 2NQN | 60 | I | VS3 | 45 | 69210469328 | 2 | +++++ NEW |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 60 | H12 | VXP | 45 | 69936677181 | 2 | +++++ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 60 | H10 | VXP | 45 | 69936639172 | 2 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 46 | H | VX | 45 | 69936639171 | 2 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253049887 | 5 | ++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | N | VS | 45 | 69936641400 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 66253051075 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 69936667154 | 1 | +++ |
| | 01 | - | - | - | | | | | | ● | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936641402 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 66253051077 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | K | VS | 45 | 66253051080 | 1 | +++ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936641375 | 1 | +++ |
| | 01 | - | - | - | | | | | | ● | | | | | ● | | | | A | 60 | N | VS | 45 | 69936666929 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936641418 | 2 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936676351 | 2 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936641421 | 2 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | | | | | ● | 37C | 60 | K | VK | 35 | 69210431674 | 5 | +++ |
| 200x20x50 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 66253050362 | 2 | +++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936641104 | 2 | +++ |
| | 01 | - | - | - | | | | | | ● | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS | 35 | 69936639462 | 1 | +++ |
| 200x20x50.8 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 60 | H12 | VXP | 45 | 66243593696 | 2 | +++++ |
| | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | 3SG | 46 | I12 | VXP | 45 | 66253052711 | 2 | +++++ |
| | 01 | - | - | - | | | | | | | | | ● | ● | ◐ | | | | 3SG | 46 | K | VS | 50 | 69936623654 | 2 | +++++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | J | VS | 45 | 69936675832 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | H | VS | 45 | 69936675834 | 1 | +++ |
| | 01 | - | - | - | | | | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 66253049967 | 1 | +++ |
| 200x20x51 | 01 | - | - | - | | | | ● | | | | | | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 69936639251 | 2 | ++++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

INNOVATION

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936640176 | 2 | +++ |
| 200x20x76.2 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | H | VX | 45 | 66253050156 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675836 | 1 | +++ |
| 200x25x20 | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 35 | 69936641405 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 80 | K | VS | 35 | 69936641422 | 1 | +++ |
| 200x25x31.75 | 05 | 110 | 10 | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | G | VSPF | 35 | 69936640304 | 1 | +++++ |
| | 05 | 105 | 13 | - | | | ● | | | | ● | ◐ | ◐ | | | 3SG | 60 | K | VS | 50 | 69936621575 | 1 | +++++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | K | VS | 35 | 69936623912 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | P | VS | 35 | 69936623910 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | ● | | | | A | 60 | N | VS | 35 | 69936623913 | 2 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 100 | K | VS | 35 | 69936623599 | 1 | +++ |
| 200x25x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 66253054889 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253049888 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | N | VS | 45 | 69936641406 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | L | VS | 45 | 69936627127 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 45 | 66253051079 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936641407 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | N | VS | 45 | 69936675847 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | K | VS | 45 | 66253051082 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 24 | R | VS | 45 | 69936676374 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 30 | P | VS | 45 | 69936641382 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | P | VS | 45 | 69936641383 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | M | VS | 45 | 66253050271 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 46 | L | VS | 45 | 69936675639 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936641424 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 66253050276 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 100 | J | VS | 45 | 66243570496 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 100 | J | VS | 45 | 66253050375 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936641428 | 2 | +++ |
| 200x25x50 | 05 | 110 | 10 | - | | | | | | ● | ● | ◐ | | | | 3SG | 60 | I | VS | 35 | 69936639454 | 2 | +++++ |
| 200x25x50.8 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 46 | K | VX | 45 | 66253050183 | 2 | ++++ |
| 200x25x51 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 66253051086 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936640125 | 1 | +++ |
| 200x25x76.2 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | N | VS | 45 | 69936675841 | 1 | +++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | L | VS | 35 | 69936675842 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 69936675845 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675568 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 69936675846 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936675672 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936675673 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675674 | 2 | +++ |
| 200x32x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253049892 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | M | VS | 45 | 66253052712 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936675855 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | P | VS | 45 | 69936666932 | 1 | +++ |
| 200x32x32 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936640814 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | N | VS | 45 | 69936690246 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936640293 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936667106 | 2 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 120 | K | VS | 45 | 69936675677 | 2 | +++ |
| 200x32x51 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936640245 | 1 | +++ |
| 200x32x76.2 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | N | VS | 45 | 69936675849 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 69936675854 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 66243593707 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936675644 | 2 | +++ |
| 200x40x20 | 05 | 110 | 25 | - | | | ● | | | | | | ● | ● | | 39C | 80 | J | VS | 35 | 69936640285 | 1 | +++ |
| 200x40x50.8 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | I | VS | 45 | 69936681707 | 1 | +++ |
| 225x5x60 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 54 | J | VS | 45 | 69936675859 | 1 | +++ |
| 225x20x51 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | H12 | VXP | 45 | 69936676452 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | H | VX | 45 | 69936640943 | 2 | ++++ |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | I | VS | 45 | 69936640871 | 1 | +++ |
| 225x25x76.2 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | H | VX | 45 | 66243570377 | 2 | +++++ |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | H12 | VXP | 45 | 66243593705 | 2 | +++++ |
| 230x5x31.75 | 01 | - | - | - | ● | | | | | | | ● | | | | 19A | 54 | J | VS | 40 | 69936623905 | 2 | +++ |
| 230x25x32 | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 80 | K | VS | 35 | 69936639374 | 1 | +++ |
| 230x25x50.8 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | H | VS | 45 | 69936639829 | 1 | +++ |
| 250x10x32 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 63 | 69936675931 | 1 | +++ |
| | 01 | - | - | - | | ● | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 35 | 69210431945 | 5 | ++++ |
| 250x13x32 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 63 | 66253348353 | 1 | ++++ |
| 250x25x31.75 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 35 | 69936623914 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | K | VS | 35 | 69936623664 | 1 | +++ |
| 250x25x32 | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L5 | VS | 45 | 66253049927 | 1 | +++ |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936641386 | 1 | +++ |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | L | VS | 45 | 69936675679 | 1 | +++ |

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
INNOVATION
NQN BLEND
NQ BLEND
SG BLEND

**ALUMINIUM OXIDE TYPES**
38A
32A
19A
A

**SILICON CARBIDE TYPES**
39C
37C

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 250x25x76 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 2NQN | 60 | G | VS3 | 35 | 69210469332 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | | ● | | | | 32A | 60 | I | VS | 35 | 69936639898 | 2 | +++ | |
| 250x25x76.2 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 2NQN | 46 | G | VS3 | 35 | 69210469333 | 1 | +++++ | NEW |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | K | VS | 45 | 69936623668 | 1 | +++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 54 | F11 | VXP | 45 | 69936676054 | 1 | +++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253055045 | 1 | +++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 46 | K | VX | 45 | 66253050124 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253050126 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 70 | H12 | VXP | 45 | 69936623901 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS3 | 63 | 66253354041 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253354040 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 80 | L | VS | 45 | 69936623651 | 1 | +++ | |
| 250x32x32 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253050162 | 1 | ++++ | |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 69936667158 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | P | VS | 45 | 69936666943 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | M | VS | 45 | 69936642130 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936639837 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936640845 | 1 | +++ | |
| 250x32x76.2 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | H | VX | 45 | 66253055046 | 1 | +++++ | |
| 250x40x32 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | Q | VS | 45 | 69936666945 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | N | VS | 45 | 69936666946 | 1 | +++ | |
| 250x40x51 | 01 | - | - | - | | | | | ◐ | ● | | | | | ● | 37C | 60 | K | VK | 35 | 69210431004 | 3 | +++ | |
| 250x40x76 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | L | VS3 | 35 | 69210432025 | 3 | ++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 35 | 69210431657 | 3 | ++++ | |
| 250x40x76.2 | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | I | VX | 45 | 66253050259 | 1 | +++++ | |
| | 01 | - | - | - | ● | | | | | | ● | ◐ | | | | 3SG | 46 | G12 | VXPC | 45 | 69936676056 | 1 | +++++ | |
| 300x25x127 | 01 | - | - | - | | | | | | ● | ● | ◐ | ◐ | | | 3NQN | 60 | K | VQN | 45 | 69210469335 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | ◐ | | | 2NQN | 60 | J | VS3 | 45 | 69210469336 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 46 | K | VV1 | 50 | 69210469422 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 60 | H12 | VV1P | 45 | 69210469625 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 46 | K | VV1 | 50 | 69210469425 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 60 | K | VV1 | 50 | 69210469426 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 45 | 69210469427 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 80 | L | VV1 | 50 | 69210469428 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | K | VS3 | 63 | 66253354042 | 2 | ++++ | |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | K | VV1 | 50 | 69210469429 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 80 | L | VV1 | 50 | 69210469521 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936623687 | 1 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | ● | ● | | 39C | 80 | J | VS | 45 | 69936640343 | 1 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | ● | ● | | 39C | 120 | K | VS | 35 | 69936675646 | 1 | +++ | |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Deburring & Sharpening: Saw Sharpening | Deburring & Sharpening: Bench Wheels | Grinding: Internal Diameter | Grinding: External Diameter | Grinding: Surface | Materials: High alloyed steels & HSS | Materials: Soft steels | Materials: Inox | Materials: Non-Ferrous & Carbide | Materials: Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300x32x127 | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 60 | K | VV1 | 50 | 69210469437 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | F12 | VV1P | 45 | 69210469626 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469439 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | H | VV1 | 50 | 69210469442 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469443 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936675580 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675581 | 1 | +++ | |
| 300x32x32 | 01 | - | - | - | | | ● | | | | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 45 | 69936639618 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 66253051100 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936675575 | 1 | +++ | |
| 300x32x76.2 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | H | VV1 | 50 | 69210469444 | 1 | +++ | NEW |
| 300x40x30 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | P | VS | 45 | 69936681734 | 1 | +++ | |
| 300x40x31.75 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 35 | 69936623686 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 35 | 69936623703 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | N | VS | 35 | 69936623724 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | | ● | ● | | 39C | 60 | L | VS | 35 | 69936623682 | 1 | +++ | |
| 300x40x32 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936639682 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | M | VS | 45 | 69936640221 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936639362 | 1 | +++ | |
| | 01 | - | - | - | ● | | | | | | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936676387 | 1 | +++ | |
| 300x40x76 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | K | VV1 | 50 | 69210469445 | 1 | +++ | NEW |
| 300x40x76.2 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936675607 | 1 | +++ | |
| 300x40x127 | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 46 | H | VV1 | 50 | 69210469446 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 60 | K | VV1 | 50 | 69210469447 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | G10 | VV1P | 45 | 69210469651 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469448 | 1 | +++++ | NEW |
| | 05 | 190 | 12 | - | | | | | | ● | ◐ | ● | | | | SGA | 60 | K | VV1 | 50 | 69210469449 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | J | VV1 | 50 | 69210469450 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469451 | 1 | +++++ | NEW |
| | 05 | 190 | 12 | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469452 | 1 | +++++ | NEW |
| | 05 | 190 | 12 | - | | | | | | ● | | ● | | | | 19A | 60 | M | VV1 | 50 | 69210469453 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936675584 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675585 | 1 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936675684 | 1 | +++ | |
| | 01 | - | - | - | | | | | | ● | | | ● | ● | | 39C | 80 | K | VS | 45 | 69936675649 | 1 | +++ | |
| 300x50x32 | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936681823 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 60 | N | VS | 45 | 66243570484 | 1 | +++ | |
| 300x50x76.2 | 07 | 160 | 10 | 10 | | | | | | ● | ● | ◐ | | | | 3SG | 46 | H | VV1 | 50 | 69210469454 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | I | VV1 | 50 | 69210469455 | 1 | +++++ | NEW |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
INNOVATION
NQN BLEND
NQ BLEND
SG BLEND

**ALUMINIUM OXIDE TYPES**
38A
32A
19A
A

**SILICON CARBIDE TYPES**
39C
37C

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 300x50x127 | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | H11 | VV1P | 45 | 69210469652 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | G10 | VV1P | 45 | 69210469627 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | J | VV1 | 50 | 69210469456 | 1 | +++++ | NEW |
| 350x50x127 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 80 | L | VS3 | 35 | 69210431072 | 2 | ++++ | |
| 355x25x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | L | VV1 | 50 | 69210469457 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | K | VV1 | 50 | 69210469458 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | | SGA | 46 | J | VV1 | 50 | 69210469459 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 60 | L | VV1 | 50 | 69210469460 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469461 | 1 | +++++ | NEW |
| 355x32x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 2NQ | 60 | J | VS3 | 45 | 66253348373 | 1 | +++++ | |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 54 | E12 | VV1P | 45 | 69210469658 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469462 | 1 | +++++ | NEW |
| 355x40x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 2NQ | 46 | G | VS3 | 45 | 66253348367 | 1 | +++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | L | VV1 | 50 | 69210469463 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | K | VV1 | 50 | 69210469464 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | K | VV1 | 50 | 69210469465 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 46 | J | VV1 | 50 | 69210469466 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | G10 | VV1P | 45 | 69210469628 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | | 38A | 60 | L | VV1 | 50 | 69210469467 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | J | VV1 | 50 | 69210469468 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469469 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 24 | Q | VS | 45 | 69936675586 | 1 | +++ | |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 46 | N | VS | 45 | 69936675587 | 1 | +++ | |
| | 01 | - | - | - | | | | | ◐ | ● | | | ● | ● | | 39C | 60 | K | VS | 45 | 69936675685 | 1 | +++ | |
| 355x50x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 3NQ | 46 | H | VQN | 45 | 66253262049 | 1 | +++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | ◐ | | | 2NQ | 46 | G | VS3 | 45 | 66253348366 | 1 | +++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 46 | J | VV1 | 50 | 69210469470 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 46 | F12 | VV1P | 45 | 69210469634 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 46 | J | VV1 | 50 | 69210469471 | 2 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 54 | G12 | VV1P | 50 | 69210469635 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 54 | G10 | VV1P | 45 | 69210469632 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469472 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | K | VV1 | 50 | 69210469473 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | I | VV1 | 50 | 69210469474 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469475 | 1 | +++++ | NEW |
| | 07 | 190 | 12 | 13 | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469476 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | K | VV1 | 50 | 69210469477 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 36 | O | VS | 45 | 69936675589 | 1 | +++ | |
| 400x25x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469478 | 1 | +++++ | NEW |
| 400x50x127 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 45 | 69210431108 | 1 | ++++ | |

# **BONDED ABRASIVES** FOR PRECISION GRINDING

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 400x50x203 | 01 | - | - | - | | | | | ● | | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 45 | 69210431757 | 1 | ++++ | |
| 406x25x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | L | VV1 | 50 | 69210469479 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 80 | I10 | VV1P | 50 | 69210469637 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469480 | 1 | +++++ | NEW |
| 406x32x127 | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VV1 | 50 | 69210469481 | 1 | +++++ | NEW |
| 406x40x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | L | VV1 | 50 | 69210469482 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469483 | 1 | +++++ | NEW |
| | 20 | 215 | 8 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | K | VX | 50 | 66243469015 | 1 | ++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348356 | 1 | ++++ | |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | N | VS | 35 | 66243448167 | 1 | +++ | |
| | 05 | 215 | 13 | | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | M | VV1 | 50 | 69210469484 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | | ● | | | | 32A | 60 | K | VV1 | 50 | 69210469485 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | | | ● | ● | | 39C | 60 | J | VS | 50 | 66243468572 | 1 | +++ | |
| | 01 | - | - | - | | | | | ◐ | ● | | | ● | ● | | 39C | 80 | K | VS | 45 | 66243466414 | 1 | +++ | |
| 406x50x127 | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 46 | H | VV1 | 50 | 69210469486 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 5SG | 46 | G12 | VV1P | 45 | 69210469677 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 46 | I | VV1 | 50 | 69210469487 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ● | ◐ | | | | 3SG | 46 | F12 | VV1P | 35 | 69210469679 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | 3SG | 54 | F12 | VV1P | 45 | 69210469681 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ● | ◐ | | | | 3SG | 54 | E12 | VV1P | 35 | 69210469682 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ● | ◐ | | | | 3SG | 54 | D12 | VV1P | 35 | 69210469683 | 1 | +++++ | NEW |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ● | ◐ | | | | 3SG | 60 | K | VS | 35 | 66243448204 | 1 | +++++ | |
| | 05 | 215 | 13 | - | | | | | | ● | ◐ | ● | | | | SGB | 54 | E12 | VV1P | 35 | 69210469659 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | G10 | VV1P | 45 | 69210469645 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 46 | H | VV1 | 50 | 69210469488 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ● | ◐ | | | | SGB | 46 | F12 | VV1P | 35 | 69210469660 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | ◐ | ● | ● | ◐ | | | | SGB | 60 | K | VV1 | 50 | 69210469489 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | | SGA | 80 | I10 | VV1P | 50 | 69210469661 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | | SGB | 46 | I | VV1 | 50 | 69210469490 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ◐ | ● | | | | SGB | 46 | F12 | VV1P | 45 | 69210469684 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | | SGB | 60 | L | VV1 | 50 | 69210469491 | 1 | +++++ | NEW |
| | 20 | 215 | 8 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | L | VX | 50 | 66243468989 | 1 | ++++ | |
| | 20 | 215 | 8 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | K | VX | 50 | 66243468991 | 1 | ++++ | |
| | 01 | - | - | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | I11 | VV1P | 45 | 69210469685 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 46 | I | VV1 | 50 | 69210469492 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | F12 | VV1P | 45 | 69210469663 | 1 | +++++ | NEW |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 35 | 66243448201 | 1 | +++ | |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 35 | 66243448116 | 1 | +++ | |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | | ● | | | | 32A | 46 | J | VV1 | 50 | 69210469493 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | ◐ | ● | | ● | | | | 32A | 46 | I | VV1 | 50 | 69210469494 | 1 | +++++ | NEW |
| | 05 | 215 | 13 | - | | | | | | ● | | ● | | | | 32A | 46 | F12 | VV1P | 45 | 69210469676 | 1 | +++++ | NEW |
| | 01 | - | - | - | | | ● | | | | | ● | | | | A | 24 | Q | VS | 45 | 66243467496 | 1 | +++ | |

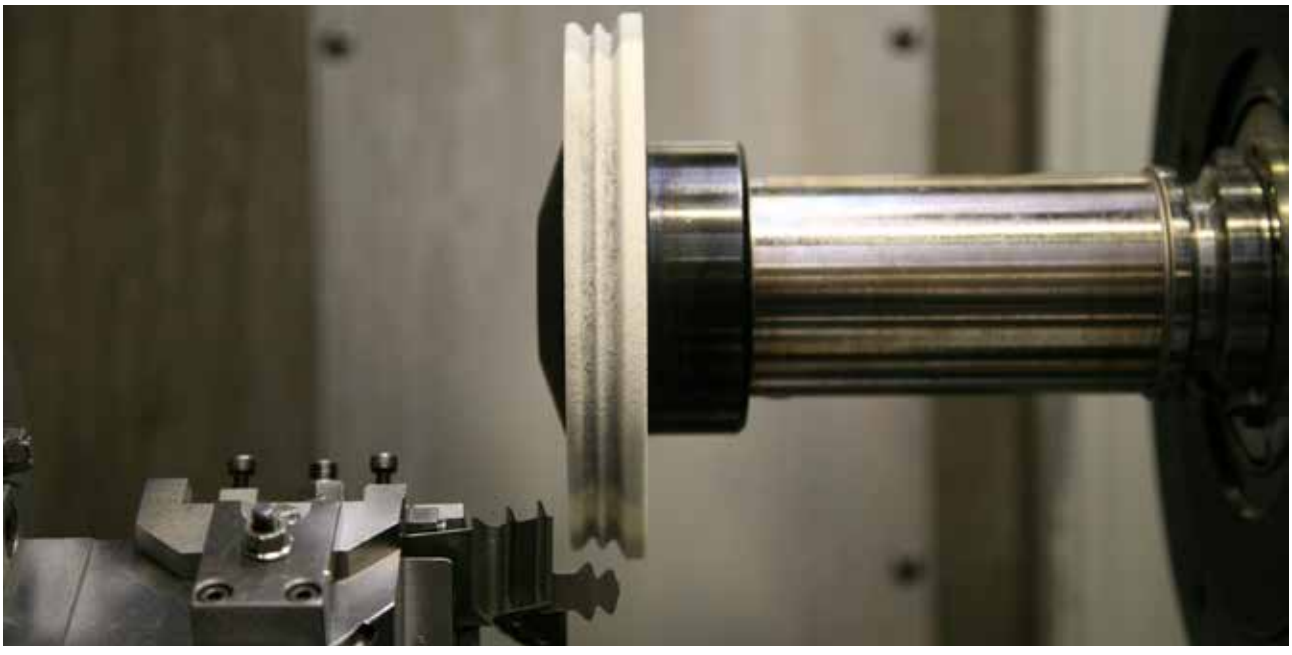
## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
INNOVATION
NQN BLEND
NQ BLEND
SG BLEND

**ALUMINIUM OXIDE TYPES**
38A
32A
19A
A

**SILICON CARBIDE TYPES**
39C
37C

| DIM DxTxH (mm) | SHAPE | P | FA | FB | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 406x63x127 | 07 | 215 | 12 | 12 | | | | | | ● | ◐ | ● | | | | SGB | 46 | F12 | VW1P | 45 | 69210469689 | 1 | +++++ | NEW |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | L | VX | 50 | 66243468993 | 1 | ++++ | |
| 406x76x127 | 07 | 215 | 12 | 25 | | | | | | ● | ● | ◐ | | | | 3SG | 54 | E12 | VW1P | 45 | 69210469690 | 1 | +++++ | NEW |
| | 07 | 215 | 12 | 25 | | | | | | ● | ● | ◐ | | | | SGB | 46 | F12 | VW1P | 45 | 69210469691 | 1 | +++++ | NEW |
| | 07 | 215 | 13 | 25 | | | | | ◐ | ● | ◐ | ● | | | | SGB | 46 | I | VW1 | 35 | 69210469495 | 1 | +++++ | NEW |
| | 07 | 215 | 13 | 25 | | | | | | ● | ◐ | ● | | | | SGB | 46 | F12 | VW1P | 45 | 69210469692 | 1 | +++++ | NEW |
| | 07 | 215 | 12 | 25 | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | F | VW1 | 50 | 69210469693 | 1 | +++++ | NEW |
| | 07 | 215 | 12 | 25 | | | | | ◐ | ● | | ● | | | | 32A | 46 | I | VW1 | 50 | 69210469687 | 1 | +++++ | NEW |
| 406x100x152.4 | 07 | 220 | 15 | 15 | | | | | | ● | ● | ◐ | | | | 3SG | 54 | E12 | VXP | 35 | 66243449287 | 1 | +++++ | |
| | 07 | 220 | 15 | 15 | | | | | | ● | ◐ | ● | | | | GF | 46 | I | VX | 35 | 66243449285 | 1 | ++++ | |
| 457x50x127 | 20 | 215 | 8 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | L | VX | 50 | 66243468995 | 1 | ++++ | |
| | 01 | - | - | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 66243466558 | 1 | +++ | |
| | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 50 | 66243448676 | 1 | +++ | |
| 457x50x203.2 | 01 | - | - | - | | | | | ● | | ◐ | ● | | | | SGA | 60 | K | VX | 50 | 61463694560 | 1 | ++++ | |
| 457x63x127 | 20 | 215 | 13 | - | | | | | ◐ | ● | ◐ | ● | | | | GF | 60 | L | VX | 50 | 66243468996 | 1 | ++++ | |
| 457x80x203.2 | 07 | 290 | 13 | 13 | | | | | | ● | ● | ◐ | | | | SGB | 46 | F12 | VXP | 35 | 66243468578 | 1 | ++++ | |
| | 07 | 280 | 13 | 13 | | | | | | ● | ◐ | ● | | | | GF | 46 | F12 | VXP | 35 | 66243469018 | 1 | ++++ | |
| 508x50x203.2 | 01 | - | - | - | | | | | ● | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253055088 | 1 | +++++ | |
| | 01 | - | - | - | | | | | ● | | ◐ | ● | | | | SGA | 80 | I10 | VXP | 50 | 61463699663 | 1 | ++++ | |
| | 01 | - | - | - | | | | | ● | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 35 | 66243466565 | 1 | +++ | |
| 500x60x203 | 20 | 290 | 10 | - | | | | | ● | | ● | ◐ | | | | SGB | 60 | K | VX | 50 | 66243468575 | 1 | ++++ | |



HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc



# STRAIGHT & TAPERED CUPS
## FOR PRECISION GRINDING

### SHAPE KEY



SHAPE 06



SHAPE 11

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | W | E | Deburring & Sharpening: Tools | Deburring & Sharpening: Saw Sharpening | Deburring & Sharpening: Bench Wheels | Grinding: Internal Diameter | Grinding: External Diameter | Grinding: Surface | Materials: High alloyed steels & HSS | Materials: Soft steels | Materials: Inox | Materials: Non-Ferrous & Carbide | Materials: Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 63x40x20 | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348322 | 10 | ++++ |
| 80x32x20 | 11 | 6 | 8 | ● | | | | | | ● | ◐ | | | | SGB | 60 | L | VX | 45 | 66253050137 | 6 | ++++ |
| 80x40x20 | 6 | 10 | 10 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | L | VX | 45 | 66253050098 | 10 | ++++ |
| | 6 | 6 | 10 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 66243570391 | 10 | ++++ |
| | 6 | 6 | 8 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | L | VS3 | 63 | 66253348323 | 6 | ++++ |
| | 6 | 8 | 8 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 63 | 66253348289 | 6 | ++++ |
| 80x40x32 | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | J | VS3 | 45 | 66253348326 | 10 | ++++ |
| 100x40x20 | 11 | 8 | 10 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050110 | 2 | +++++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936686170 | 2 | +++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936688495 | 2 | +++ |
| 100x40x31.75 | 11 | 6 | 13 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VS | 32 | 69936624043 | 2 | +++++ |
| | 11 | 6 | 13 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | J | VS3 | 35 | 66253358217 | 2 | ++++ |
| | 11 | 6 | 13 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 35 | 66253358216 | 2 | ++++ |
| | 11 | 6 | 13 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 32 | 66253348630 | 2 | ++++ |
| 100x40x32 | 11 | 13 | 13 | ● | | | | | | ● | ◐ | ◐ | | | 2NQ | 46 | J | VS3 | 45 | 66253348633 | 2 | +++++ |
| | 11 | 8 | 10 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050114 | 2 | +++++ |
| | 6 | 8 | 10 | ● | | | | | ◐ | ◐ | ● | | | | 38A | 60 | K | VS | 45 | 69936674854 | 2 | +++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | | 38A | 60 | K | VS | 45 | 69936686169 | 2 | +++ |
| 100x50x20 | 6 | 10 | 10 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253049965 | 2 | +++++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253049960 | 2 | +++++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

## COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

| DIM DxTxH (mm) | SHAPE | W | E | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rim Width | | | | | | | | | | | | | | | | | | | | | | |
| Back Thickness | | | | | | | | | | | | | | | | | | | | | | |
| 100x50x20 | 6 | 10 | 13 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 80 | L | VX | 45 | 66253049966 | 2 | +++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 66253050069 | 2 | +++++ |
| | 6 | 8 | 10 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 69936641284 | 2 | ++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348327 | 2 | ++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | I | VS3 | 45 | 66253348629 | 2 | ++++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 80 | J | VS3 | 45 | 66253348324 | 2 | ++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 120 | I8 | VS3 | 45 | 66253358793 | 2 | ++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936644193 | 2 | +++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936639450 | 2 | +++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | M | VS | 45 | 69936639460 | 2 | +++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 80 | J | VS | 45 | 69936639600 | 2 | +++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | | | ● | ● | | 39C | 80 | J | VS | 45 | 69936640131 | 2 | +++ |
| 100x50x32 | 6 | 10 | 10 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050073 | 2 | +++++ |
| | 6 | 10 | 10 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936674859 | 2 | +++ |
| 125x40x31.75 | 6 | 13 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | J8 | VS3 | 45 | 66253358795 | 2 | ++++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J6 | VS3 | 35 | 66253358219 | 2 | ++++ |
| 125x40x32 | 11 | 8 | 10 | ● | | | | | | ● | ◐ | | | | SGB | 46 | J | VX | 45 | 69936682429 | 2 | ++++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936686175 | 2 | +++ |
| | 11 | 8 | 10 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936686176 | 2 | +++ |
| 125x45x20 | 11 | 6 | 13 | ● | | | | | | ● | ◐ | | | | 3SG | 46 | K | VX | 45 | 66253055954 | 2 | +++++ |
| | 11 | 6 | 13 | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 69936686736 | 2 | ++++ |
| 125x50x32 | 6 | 13 | 13 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 66253050075 | 2 | ++++ |
| | 6 | 13 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936674867 | 2 | +++ |
| | 6 | 10 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936639992 | 2 | +++ |
| 125x63x32 | 6 | 10 | 13 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 69936640579 | 2 | ++++ |
| | 6 | 25 | 16 | ● | | | | | ◐ | | | ● | ● | | 39C | 60 | J | V | 45 | 69936668305 | 2 | +++ |
| 150x40x32 | 6 | 16 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 45 | 69936674872 | 2 | +++ |
| | 6 | 16 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936674875 | 2 | +++ |
| 150x50x32 | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 46 | K | VX | 45 | 66253050068 | 2 | +++++ |
| | 11 | 10 | 13 | ● | | | | | | ● | ◐ | | | | SGB | 46 | J | VX | 45 | 66253050133 | 2 | ++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253050076 | 2 | ++++ |
| | 11 | 10 | 13 | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253050134 | 2 | ++++ |
| | 11 | 10 | 13 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936686177 | 2 | +++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936674879 | 2 | +++ |
| | 11 | 10 | 13 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936682576 | 2 | +++ |
| 150x50x65 | 6 | 20 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 69936639480 | 2 | +++ |
| | 6 | 20 | 16 | ● | | | | | ◐ | | | ● | ● | | 39C | 80 | J | VS | 32 | 69936639798 | 2 | +++ |
| 150x60x32 | 6 | 10 | 16 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 54 | K | VX | 45 | 66253050099 | 2 | ++++ |
| 150x63x32 | 6 | 13 | 13 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 46 | J | VX | 45 | 66253054727 | 2 | ++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | I | VS | 45 | 69936640369 | 2 | +++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | J | VS | 45 | 69936674881 | 2 | +++ |
| 150x63x50.8 | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 36 | H | VX | 45 | 66253050080 | 2 | ++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | J | VX | 45 | 66253050082 | 2 | ++++ |

# **BONDED ABRASIVES** FOR PRECISION GRINDING

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | W | E | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 150x80x32 | 6 | 20 | 20 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 46 | H | VX | 45 | 66253050096 | 2 | ++++ |
| | 6 | 20 | 20 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 46 | G10 | VXP | 45 | 69936676357 | 2 | ++++ |
| | 6 | 20 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 45 | 69936674905 | 2 | +++ |
| | 6 | 20 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | I | VS | 45 | 69936658606 | 2 | +++ |
| 165x63x32 | 6 | 10 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | F12 | VXP | 45 | 66253051529 | 2 | +++ |
| 175x75x76.2 | 6 | 20 | 20 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 46 | G11 | VXP | 45 | 66253050097 | 2 | ++++ |
| | 6 | 20 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | I | VS | 45 | 69936681747 | 2 | +++ |
| 180x40x76.2 | 6 | 32 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | M | VS | 45 | 69936674884 | 2 | +++ |
| 180x63x50.8 | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 46 | J | VX | 45 | 66253050084 | 2 | ++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | H | VS | 45 | 69936674887 | 2 | +++ |
| 180x76x32 | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | I | VS | 45 | 69936639449 | 2 | +++ |
| 180x76x78 | 6 | 16 | 16 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 36 | I | VX | 45 | 66253049962 | 2 | +++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | I | VS3 | 45 | 66253348321 | 2 | ++++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | J | VS | 45 | 69936639817 | 2 | +++ |
| | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 45 | 69936639616 | 2 | +++ |
| 180x80x32 | 6 | 16 | 16 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 45 | 69936674889 | 2 | +++ |
| 200x40x32 | 6 | 45 | 15 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | L | VS | 45 | 66243570536 | 2 | +++ |
| | 6 | 45 | 15 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 60 | L | VS | 45 | 66243570537 | 2 | +++ |
| 200x40x76.2 | 6 | 40 | 13 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 60 | L | VX | 45 | 66253050087 | 2 | ++++ |
| | 6 | 40 | 13 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | M | VS | 45 | 69936674890 | 2 | +++ |
| | 6 | 40 | 13 | ● | | | | | ◐ | | | ● | ● | | 39C | 60 | J | V | 45 | 69936668347 | 2 | +++ |
| 200x63x50.8 | 6 | 20 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 45 | 69936674898 | 2 | +++ |
| 200x82x78 | 6 | 16 | 20 | ● | | | | | ◐ | ● | ◐ | | | | 3SG | 36 | I | VX | 45 | 66253049964 | 2 | +++++ |
| | 6 | 16 | 20 | ● | | | | | ◐ | ● | ◐ | | | | SGB | 36 | H10 | VXP | 45 | 69936679013 | 2 | ++++ |
| | 6 | 16 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 36 | H | VS3 | 45 | 66253348319 | 2 | ++++ |
| | 6 | 16 | 20 | ● | | | | | ◐ | ◐ | ● | | | ◐ | 38A | 46 | H | VS3 | 45 | 66253348325 | 2 | ++++ |
| 300x63x127 | 6 | 40 | 20 | ● | | | | | ◐ | | | ● | ● | | 39C | 60 | J | V | 45 | 69936668365 | 1 | +++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc



# DISHES
## FOR PRECISION GRINDING

### SHAPE KEY



SHAPE 12

### PRODUCT RECOMMENDATION

Highly recommended ●
Recommended ◐

### COLOUR CODE REFERENCE

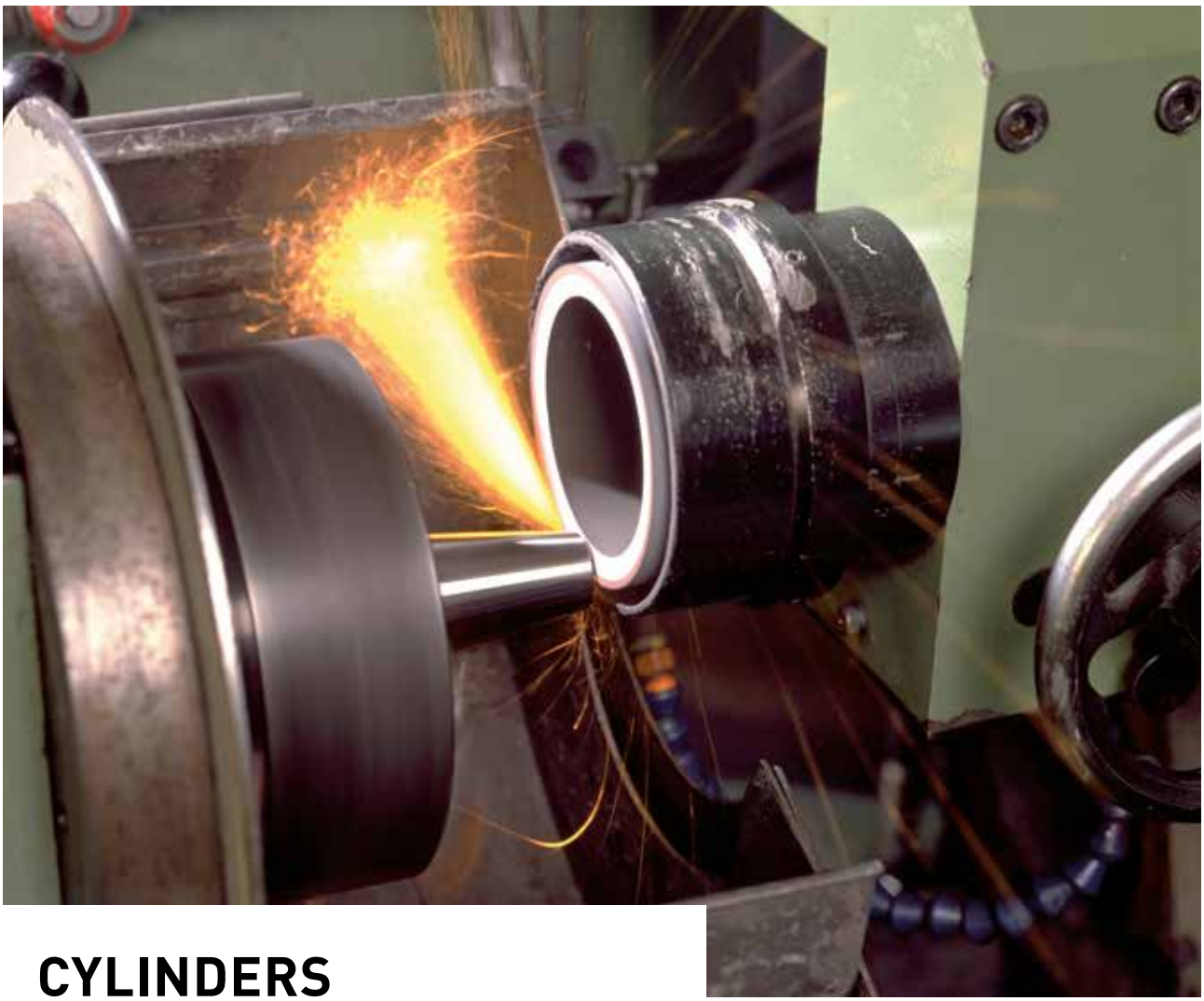
**CERAMIC BLENDS**
INNOVATION
NQN BLEND
NQ BLEND
SG BLEND

**ALUMINIUM OXIDE TYPES**
38A
32A
19A
A

**SILICON CARBIDE TYPES**
39C
37C

| DIM DxTxH (mm) | W | E | J | K | U | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100x13x12.7 | 5 | 7 | 45 | 50 | 2,5 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936624605 | 2 | +++ |
| 100x13x20 | 5 | 7 | 41 | 41 | 3,2 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050236 | 2 | +++++ |
| | 5 | 7 | 41 | 41 | 3,2 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348382 | 2 | ++++ |
| 125x13x20 | 6 | 7 | 61 | 61 | 3,2 | ● | | | | | | ● | ◐ | ◐ | | | 2NQ | 60 | J | VS3 | 45 | 66253348378 | 2 | +++++ |
| | 6 | 7 | 61 | 61 | 3,2 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | J | VX | 45 | 69936686768 | 2 | +++++ |
| | 6 | 7 | 61 | 61 | 3,2 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348488 | 2 | ++++ |
| 150x13x20 | 8 | 9 | 56 | 56 | 3,2 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | L | VX | 45 | 66253050231 | 2 | +++++ |
| | 8 | 9 | 56 | 56 | 3,2 | ● | | | | | | ● | ◐ | | | | SGB | 46 | K | VS3 | 45 | 66253348384 | 2 | ++++ |
| | 8 | 9 | 56 | 56 | 3,2 | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VS3 | 45 | 66253348379 | 2 | ++++ |
| 150x13x32 | 7 | 9 | 86 | 86 | 3,2 | ● | | | | | | ● | ◐ | | | | 3SG | 60 | K | VX | 45 | 66253050239 | 2 | +++++ |
| | 7 | 9 | 86 | 86 | 3,2 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 46 | K | VS | 45 | 69936686194 | 2 | +++ |
| | 7 | 9 | 86 | 86 | 3,2 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | J | VS3 | 45 | 66253348380 | 2 | ++++ |
| 150x20x32 | 8 | 9 | 87 | 87 | 3,2 | ● | | | | | | ● | ◐ | | | | SGB | 60 | K | VX | 45 | 66253050245 | 2 | ++++ |
| 200x20x32 | 10 | 12 | 90 | 90 | 3,2 | ● | | | | | | ◐ | ● | | | ◐ | 38A | 60 | K | VS | 45 | 69936686215 | 2 | +++ |
| 200x32x32 | 10 | 12 | 92 | 92 | 3,2 | ● | | | | | | ● | ◐ | | | | SGB | 46 | I | VX | 45 | 66253050253 | 2 | ++++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc



# CYLINDERS
## FOR PRECISION GRINDING

### SHAPE KEY



SHAPE 02

### PRODUCT RECOMMENDATION

Highly recommended ●
Recommended ◐

### COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

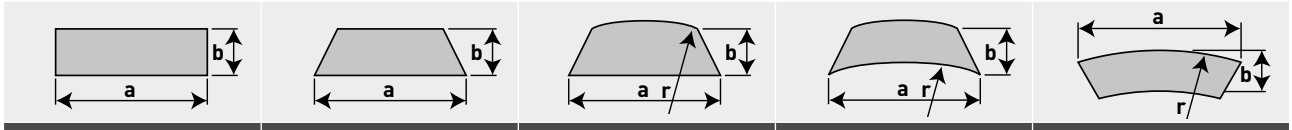
| DIM DxTxH (mm) | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | MOS (m/s) | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200x100x160 | | | | | | ● | ● | ◐ | | | | SGB46 | H | VX | | 45 | 69936686693 | 1 | ++++ |
| | | | | | | ● | ◐ | ● | | | ◐ | 38A 46 | G | VS3 | | 45 | 66253348386 | 1 | ++++ |
| 254x100x204 | | | | | | ● | ◐ | ● | | | ◐ | 38A 46 | G | VS3 | | 45 | 66253348387 | 1 | ++++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc



# SEGMENTS
## FOR PRECISION GRINDING

### SHAPE KEY




SHAPE SA | SHAPE SO | SHAPE SB | SHAPE SE | SHAPE SD

### PRODUCT RECOMMENDATION

Highly recommended ●
Recommended ◐

### COLOUR CODE REFERENCE

**CERAMIC BLENDS**
- NQN BLEND
- NQ BLEND
- SG BLEND

**ALUMINIUM OXIDE TYPES**
- 38A
- 32A
- 19A
- A

**SILICON CARBIDE TYPES**
- 39C
- 37C

| DIM AxBxR | TYPE | Deburring & Sharpening: Tools | Saw Sharpening | Bench Wheels | Grinding: Internal Diameter | External Diameter | Surface | Materials: High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous & Carbide | Cast iron | SPECIFICATION: Abrasive Type | Grit size | Grade | Bond | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16x50x90 | SE | | | | | | ● | ● | ◐ | ◐ | | | 3NQ | 46 | H | VQN | 69083141440 | 4 | +++++ |
| | SE | | | | | | ● | ● | ◐ | ◐ | | | 2NQ | 36 | H | VS3 | 66253348492 | 4 | +++++ |
| | SE | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | H | VS3 | 66253348785 | 4 | ++++ |
| | SE | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | G | VS3 | 66253348493 | 4 | ++++ |
| 16x53.5x110 | SE | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | I | VS | 69936688485 | 4 | +++ |
| | SE | | | | | | ● | ◐ | ● | | | ◐ | 38A | 46 | H | VS | 69936688614 | 4 | +++ |
| 20x42x90 | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 60 | G | VS | 69936686264 | 4 | +++ |
| 21x59.5x121 | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 30 | H | VS | 69936624796 | 4 | +++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | H | VS3 | 66253348638 | 4 | ++++ |
| 22x60x110 | SO | | | | | | ● | ● | ◐ | ◐ | | | 2NQ | 36 | G | VS3 | 66253348778 | 4 | +++++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | G | VS3 | 66253348665 | 4 | ++++ |
| 25x50x110 | SO | | | | | | ● | ● | ◐ | | | | 3SG | 60 | G | VX | 66253050282 | 4 | +++++ |
| | SO | | | | | | ● | | ● | | | | 19A | 54 | I | VS | 69936686249 | 4 | +++ |
| 25x65x100 | SB | | | | | | ● | | | | | ● | 37C | 30 | H | V | 69936688426 | 4 | +++ |
| 25x70x110 | SO | | | | | | ● | ● | ◐ | | | | 3SG | 36 | E12 | VXP | 69936688295 | 4 | +++++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 30 | I | VS | 69936682296 | 4 | +++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | I | VS | 69936682640 | 4 | +++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 36 | H | VS3 | 66253348783 | 4 | ++++ |
| 25x80x150 | SA | | | | | | ● | ● | ◐ | | | | 3SG | 36 | E12 | VXP | 69936688321 | 4 | +++++ |
| | SA | | | | | | ● | ◐ | ● | | | ◐ | 38A | 30 | I | VS | 69936686253 | 4 | +++ |
| 38x103x180 | SO | | | | | | ● | ● | ◐ | ◐ | | | 3NQ | 36 | H | VQN | 69083141453 | 4 | +++++ |
| | SO | | | | | | ● | ● | ◐ | | | | 3SG | 36 | H | VX | 66253050287 | 4 | +++++ |
| | SO | | | | | | ● | ◐ | ● | | | ◐ | 38A | 30 | H | VS3 | 66253348780 | 4 | ++++ |

HSS = High Speed Steel  Steel hardened = Over 50Rc  Steel soft = Up to 50Rc

## NOTES



NORTON®

SAINT-GOBAIN



# BENCH WHEELS


| | |
|---|---|
| Why choose Norton Starline | 250 |
| Bench wheel recommendation guide | 251 |
| The Starline Range | 252 |
| Hand Dressers | 254 |



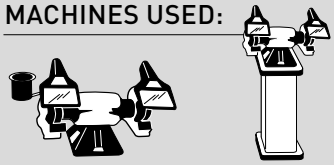
# BENCH WHEELS
## FOR BENCH & PEDESTAL MACHINES

Bench and pedestal wheels are commonly used in tool rooms for all metal removal, deburring, shaping and sharpening applications in the maintenance and repair industry. Norton offers a simple, easily identifiable range of wheels for use on bench and pedestal grinders and on all metal types.

## WHY CHOOSE NORTON STARLINE

Starline offers a good quality range with a wide range of sizes at a competitive price.

MACHINES USED:



BENCH GRINDER

PEDESTAL GRINDER

## STARLINE IS AVAILABLE IN THREE GRAIN TYPES



### BROWN ALUMINIUM OXIDE (A)

+++

- High quality aluminium oxide with premium vitrified bond
- Precision engineered grit size and hardness for maximum cut rate, finish and wheel life.



### WHITE ALUMINIUM OXIDE (38A)

+++

- White aluminium oxide with premium vitrified bond
- Precision engineered grit size and hardness for maximum cut rate and cool grinding action on hardened or high-speed tool steels.



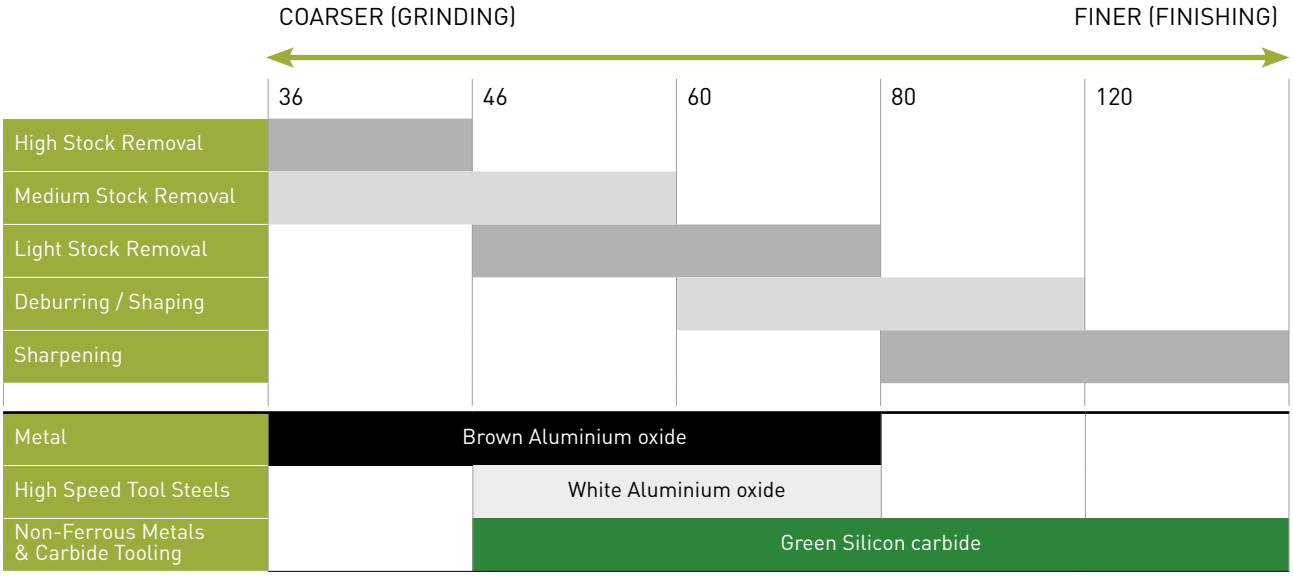
### GREEN SILICON CARBIDE (39C)

+++

- Sharp green silicon carbide
- Precision engineered grit size and hardness for high cut range and finish on non-ferrous metals.

# BENCH WHEEL RECOMMENDATION GUIDE

Use the application guide below to identify the right abrasive for the metal type and removal rate.




# STARLINE RANGE AVAILABILITY

**SIZE RANGE:** 125 - 350mm **GRIT RANGE:** 36 - 120

All wheels with a 32mm bore are supplied with reduction rings 32/20mm to adapt the product to different spindle sizes.

SPEC CHECK

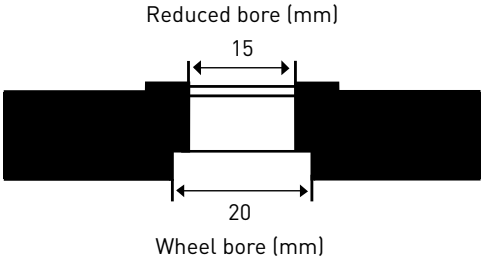
- For wheels diameter 200mm and smaller.
- Before using the wheel for the first time, the face of the wheel needs to be 'opened' using a used wheel of a dressing stick
- All bench and pedestal wheels must be dressed to prevent loading. Loading can cause excessive heat, damage to the workpiece, and wheel breakage. Dressing exposes new cutting edges and provides chip clearance.
- Do not grind wood, plastic or any other non-metallic material on a bench or pedestal grinder
- Unsecured machines can move, causing grinding breakage and injury. Fixed-based bench and pedestal grinders MUST be secured

⚠ It is the user's responsibility to refer to and comply with ANSI B7.1

# REDUCTION RINGS

Plastic reduction rings may be used to adapt grinding wheels to fit on various spindle sizes.
These rings reduce the bore hole size, allowing the wheel to be safely mounted on a spindle with a smaller diameter.

- Reduction rings should never come in contact with the flange
- Reduction rings should not be used on wheels of thicknesses less than 6mm, nor greater than 50mm
- Always use one reduction ring on each side of the wheel when the wheel is thick enough to allow correct seating
- Never use reduction rings to reduce the hole below the minimum specified in the FEPA safety code.




| WHEEL BORE (mm) | REDUCED TO (mm) | ART NO. |
|---|---|---|
| 50.8 | 35 | 7660704766 |
| 32 | 25 | 7660717540 |
| 32 | 20 | 7660717538 |
| 31.75 | 15.88 | 7660704757 |
| 31.75 | 12.7 | 7660704755 |
| 20 | 16 | 7660717530 |
| 20 | 15 | 7660717529 |
| 20 | 13 | 7660717527 |
| 20 | 12 | 7660717525 |
| 20 | 10 | 7660717524 |
| 16 | 6 | 510008919 |

# STARLINE +++

- High quality brown aluminium oxide (A) bonded with premium vitrified bond for a good metal removal rate.
- Precision engineered grit sizes and hardness for maximum cut rate, finish and wheel life.
- Sharp green silicon carbide (39C) is precision engineered for high cut range and finish on non-ferrous metals.

**COLOUR CODE REFERENCE**
- A
- 38A
- 39C

| MACHINE TYPE | DIM DxTxH (mm) | ABRASIVE TYPE | GRIT | GRADE | BOND | MOS (m/s) | ART NO. | PK QTY |
|---|---|---|---|---|---|---|---|---|
| BENCH / PEDESTAL WHEELS | 125x20x32 | A | 46 | N | VS | 45 | 66253195830 | 1 |
| | | A | 60 | N | VS | 45 | 66253289860 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338189 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338040 | 1 |
| | 150x20x31.75 | A | 46 | N | VS | 45 | 61463626365 | 1 |
| | | A | 60 | N | VS | 45 | 61463626363 | 1 |
| | | 39C | 60 | K | VS | 45 | 61463626364 | 1 |
| | | 39C | 80 | K | VS | 45 | 61463626163 | 1 |
| | 150x20x32 | A | 36 | O | VS | 45 | 66253338141 | 1 |
| | | A | 46 | N | VS | 45 | 66253289863 | 1 |
| | | A | 60 | N | VS | 45 | 66253290208 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338090 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338041 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338042 | 1 |
| | | 39C | 120 | K | VS | 45 | 66253338191 | 1 |
| | 150x25x32 | 38A | 60 | N | VS | 45 | 66253338092 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338044 | 1 |
| | 180x20x32 | A | 46 | N | VS | 45 | 66253338021 | 1 |
| | | A | 60 | N | VS | 45 | 66253338022 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253338093 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338094 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338045 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338050 | 1 |
| | 200x20x31.75 | A | 60 | N | VS | 45 | 61463626369 | 1 |
| | | 39C | 60 | K | VS | 45 | 61463626366 | 1 |
| | | 39C | 80 | K | VS | 45 | 61463626362 | 1 |
| | 200x20x32 | A | 36 | O | VS | 45 | 66253338192 | 1 |
| | | A | 46 | N | VS | 45 | 66253338023 | 1 |
| | | A | 60 | N | VS | 45 | 66253338024 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253338096 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338099 | 1 |
| | | 39C | 46 | K | VS | 45 | 66253338051 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338052 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338053 | 1 |
| | | 39C | 120 | K | VS | 45 | 66253338185 | 1 |

| MACHINE TYPE | DIM DxTxH (mm) | ABRASIVE TYPE | GRIT | GRADE | BOND | MOS (m/s) | ART NO. | PK QTY |
|---|---|---|---|---|---|---|---|---|
| BENCH / PEDESTAL WHEELS | 200x25x31.75 | 39C | 60 | K | VS | 45 | 61463626370 | 1 |
| | 200x25x32 | A | 36 | O | VS | 45 | 66253338025 | 1 |
| | | A | 46 | N | VS | 45 | 66253338026 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253338142 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338065 | 1 |
| | | 38A | 80 | N | VS | 45 | 66253338066 | 1 |
| | | 39C | 46 | K | VS | 45 | 66253338054 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338055 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338056 | 1 |
| | 250x25x31.75 | 39C | 60 | K | VS | 45 | 61463626373 | 1 |
| | 250x32x32 | A | 36 | O | VS | 45 | 66253289887 | 1 |
| | | A | 60 | N | VS | 45 | 66253338027 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253338067 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338068 | 1 |
| | | 39C | 46 | K | VS | 45 | 66253338057 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338059 | 1 |
| | | 39C | 80 | K | VS | 45 | 66253338060 | 1 |
| | 300x25x127 | 39C | 60 | K | VS | 45 | 61463626374 | 1 |
| | 300x32x127 | A | 60 | N | VS | 45 | 66253338188 | 1 |
| | 300x32x32 | A | 36 | O | VS | 45 | 66253289888 | 1 |
| | | A | 46 | N | VS | 45 | 66253338029 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253381592 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338069 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338074 | 1 |
| | 300x40x127 | A | 60 | N | VS | 45 | 66253338032 | 1 |
| | 300x40x127 | 39C | 60 | K | VS | 45 | 66253338077 | 1 |
| | 300x40x127 | 39C | 80 | K | VS | 45 | 66253338078 | 1 |
| | 300x40x31.75 | A | 36 | O | VS | 45 | 66253386235 | 1 |
| | 350x50x127 | A | 36 | O | VS | 45 | 66253338102 | 1 |
| | | 38A | 46 | N | VS | 45 | 66253338072 | 1 |
| | | 38A | 60 | N | VS | 45 | 66253338073 | 1 |
| | | 39C | 46 | K | VS | 45 | 66253338079 | 1 |
| | | 39C | 60 | K | VS | 45 | 66253338080 | 1 |
| | | 39C | 80 | K | VS | 45 | 61463626361 | 1 |

SPEC CHECK

Before using the wheel for the first time, the face of the wheel needs to be 'opened' using a used wheel of a dressing stick.

## HAND DRESSER

+++++

- High diamond concentration
- Grit 18/25 SPC
- High wear resistance and long product lifetime
- Suitable for face and side dressing



| SPECIFICATION | PK QTY | ART NO. |
|---|---|---|
| HD-150 | 1 | 60157682852 |

## NOTES




SAINT-GOBAIN

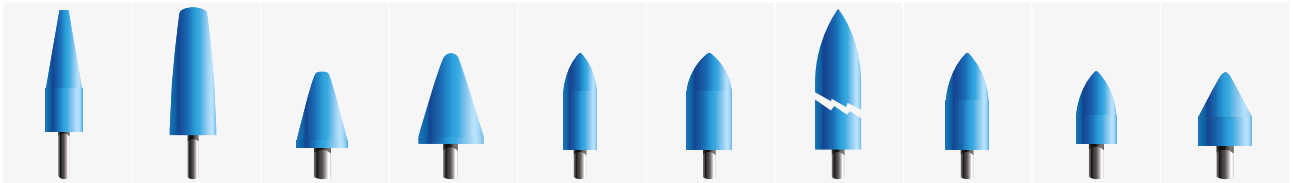
BONDED ABRASIVES

# MOUNTED POINTS

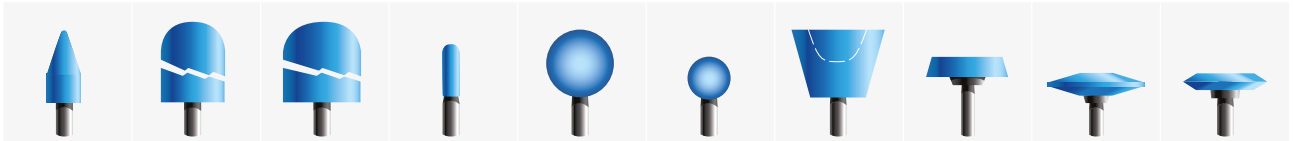

| | |
|---|---|
| Vitrified mounted points | 258 |
| Organic mounted points | 263 |

# **BONDED ABRASIVES** MOUNTED POINTS & WHEELS

## CONICAL SHAPE / A



A1 | A3 | A5 | A7 | A8 | A9 | A10 | A11 | A12 | A14



A15 | A19 | A20 | A24 | A25 | A26 | A31 | A34 | A36 | A37

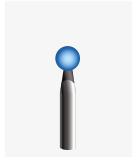


A38

## CONICAL SHAPE / B



B44 | B45 | B46 | B52 | B53 | B54 | B91 | B97 | B121 | B122



B123

## CYLINDRICAL SHAPE / W



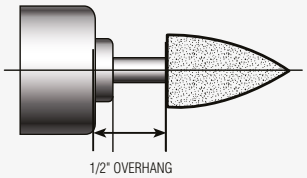
W

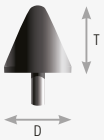
## CYLINDRICAL SHAPE / C



C

## MEASUREMENT GUIDE




**Description of Overhang**
Overhang is the distance between the grinder chuck and the abrasive on the spindle. The larger the overhang, the lower the maximum safe operating speed.

**Size**
Measured by diameter (D) x thickness (T)

## MACHINE PICTOGRAMS

|  |  |
|---|---|
| Die and pencil grinder | Horizontal/straight shaft portable grinder |

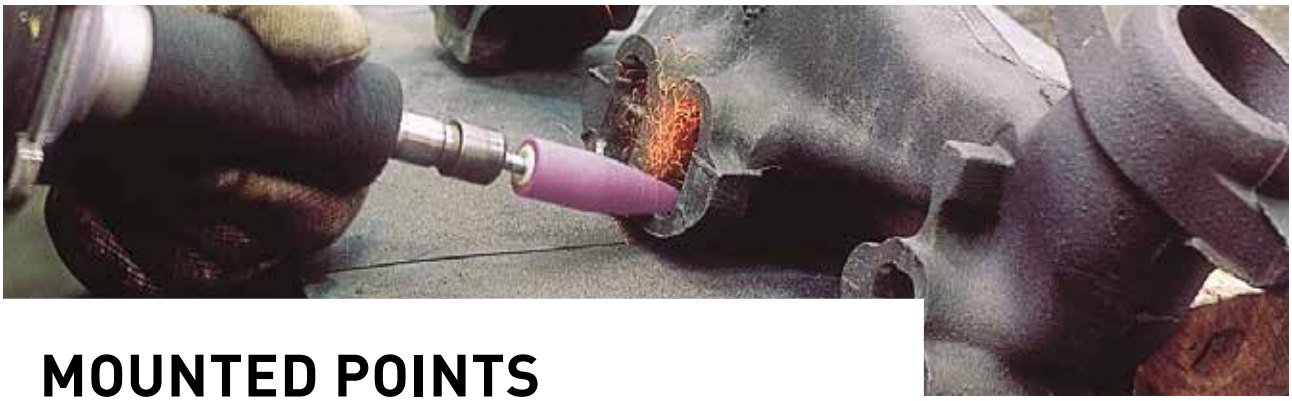
## PERSONAL PROTECTION

|  |  |  |  |  |
|---|---|---|---|---|
| Wear a mask (ISO 7010) | Wear protective gloves (ISO 7010) | Wear eye protection (ISO 7010) | Wear ear protection (ISO 7010) | Refer to instruction manual/booklet (ISO 7010) |

In rotating abrasives, the maximum permissible rotational speed is a factor of key importance that results from the maximum operating speed specified in the applicable standards as a function of the tool diameter and is given in revolutions per minute (1/min. or min.-1). The maximum RPM is based on the shape and spindle combination and the length of overhang (see description above).
For safe maximum RPM, please refer to the leaflet provided or contact your Norton representative.

SPEC CHECK

- For best mounted point performance, always run the mounted point at the maximum allowable speed according to ANSI B7.1. Refer to the speed chart included in each shipment for proper operating speeds.
- Use "A" shapes for medium to heavy-duty blending.
- Use "B" shapes for light deburring and finishing/polishing.
- Use "W" shapes for offhand and precision grinding of medium to heavy stock.
- Use 36 grit and coarser for rough grinding.
- Use 60 and 90 grits for imparting fine finishes or when grinding on narrow surfaces.



# MOUNTED POINTS

The Norton mounted points range provides quality and efficiency in grinding operations. The high-quality grain ensures a perfect surface finish with metallographic integrity. For small jobs or high-volume foundry and casting operations, or for tool room or aerospace industry applications, Norton mounted points cut cooler and provide up to 30% higher metal removal rates.



## NQ CERAMIC +++++

Norton Quantum ceramic grain was developed from Norton patented Seeded-Gel technology. The revolutionary ceramic grain multiplies the cutting efficiency by controlling breakdown at micrometric level.

- Reduce wasted down time with less product changeover, increasing productivity ratio saving total abrasive cost.
- Higher metal removal rate and a smooth grinding experience thanks to reduced vibrations through the machine.
- Self-sharpening grain prevents loading, for free cutting action with no glazing. No need for costly, time-consuming rework. The coolest cut maintains metallurgic integrity.
- Fast grinding on heat sensitive alloys (Fe and Ni based) hard and medium steels, a full range of shapes and sizes available.



## 86A VITRIFIED +++

Highly refined pink aluminium oxide abrasive

- Friable grain for good cutting performance
- Long lasting profile tool
- Versatile for large variety of steels
- Reduced dress frequency



## 38A VITRIFIED +++

Pure white aluminium oxide abrasive

- Most friable alumina grain for easy and cool cut
- Good value for general purpose, small applications
- Compatible with most of the steel alloys
- Cool cutting, less burn
- Excellent price vs performance ratio



## 39C VITRIFIED +++

Highest purity green silicon carbide abrasive

- Suitable for use on castings for heavy-duty edge grinding
- Very hard and durable with excellent edge-holding capability
- Low wear rate for long product life

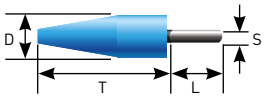


## 37C VITRIFIED +++

High purity black silicon carbide abrasive

- Harder and more friable than aluminium oxide abrasive
- Suitable for roughing operations in coarse grit and resinoid wheels
- Ideal for grinding and sharpening applications on non-ferrous metals

## SHAPE OGIVE (A)

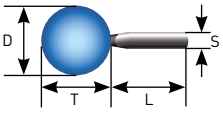



## COLOUR CODE REFERENCE

86A 37C 38A 39C NQ

| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| A1 | 20x65 | 6x40 | 86A | 36 | P | VS | 66253055235 | 10 | +++ |
| A1 | 20x65 | 6x40 | 38A | 60 | R | VM | 69936635216 | 10 | +++ |
| A1 | 20x65 | 6x40 | 86A | 60 | O | VS | 66253055218 | 10 | +++ |
| A3 | 22x70 | 6x40 | 5NQ | 46 | R | VS3 | 69078664025 | 10 | +++++ |
| A3 | 22x70 | 6x40 | 5NQ | 60 | R | VS3 | 69078663919 | 10 | +++++ |
| A3 | 22x70 | 6x40 | 38A | 36 | T | VM | 69936623827 | 10 | +++ |
| A3 | 22x70 | 6x40 | 86A | 36 | O | VS | 66253055021 | 10 | +++ |
| A3 | 22x70 | 6x40 | 38A | 60 | R | VM | 69936643931 | 10 | +++ |
| A3 | 22x70 | 6x40 | 86A | 60 | O | VS | 66253055212 | 10 | +++ |
| A5 | 20x28 | 6x40 | 5NQ | 46 | R | VS3 | 69078664027 | 10 | +++++ |
| A5 | 20x28 | 6x40 | 5NQ | 60 | R | VS3 | 69078663924 | 10 | +++++ |
| A5 | 19x29 | 6x40 | 38A | 60 | R | VM | 69936613862 | 10 | +++ |
| A5 | 20x28 | 6x40 | 86A | 60 | O | VS | 66253055094 | 10 | +++ |
| A7 | 30x50 | 6x40 | 5NQ | 36 | R | VS3 | 69078664028 | 10 | +++++ |
| A7 | 30x50 | 6x40 | 5NQ | 60 | R | VS3 | 69078664029 | 10 | +++++ |
| A7 | 30x50 | 6x40 | 86A | 36 | O | VS | 66253055022 | 10 | +++ |
| A8 | 20x50 | 6x40 | 86A | 36 | O | VS | 66253055308 | 10 | +++ |
| A9 | 30x50 | 6x40 | 86A | 36 | O | VS | 66253055395 | 10 | +++ |
| A10 | 22x70 | 6x40 | 86A | 36 | O | VS | 66253055237 | 10 | +++ |
| A11 | 22x45 | 6x40 | 5NQ | 60 | R | VS3 | 69078663906 | 10 | +++++ |
| A11 | 22x45 | 6x40 | 38A | 36 | T | VM | 69936623830 | 10 | +++ |
| A11 | 22x45 | 6x40 | 86A | 36 | O | VS | 66253055095 | 10 | +++ |
| A11 | 22x45 | 6x40 | 86A | 36 | O | VS | 66253055307 | 10 | +++ |
| A11 | 22x45 | 6x40 | 86A | 60 | O | VS | 66253055214 | 10 | +++ |
| A12 | 20x32 | 6x40 | 5NQ | 60 | R | VS3 | 69078663913 | 10 | +++++ |
| A12 | 20x32 | 6x40 | 86A | 60 | O | VS | 66253055096 | 10 | +++ |
| A15 | 6x25 | 6x40 | 5NQ | 80 | R | VS3 | 69078663914 | 10 | +++++ |
| A15 | 6x25 | 6x40 | 86A | 90 | O | VS | 66253055126 | 10 | +++ |
| A25 | Ø25 | 6x40 | 5NQ | 46 | R | VS3 | 69078664031 | 10 | +++++ |
| A25 | Ø25 | 6x40 | 5NQ | 60 | R | VS3 | 69078663917 | 10 | +++++ |
| A25 | 25x25 | 6x40 | 86A | 60 | O | VS | 66253055128 | 10 | +++ |
| A26 | 16x16 | 6x40 | 86A | 46 | O | VS | 66253055204 | 10 | +++ |
| A36 | 40x10 | 6x40 | 86A | 60 | O | VS | 66253055129 | 10 | +++ |
| A38 | 25x25 | 6x40 | 86A | 60 | O | VS | 66253054946 | 10 | +++ |

## SHAPE BALL (B)

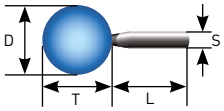



| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| B46 | 4x8 | 6x40 | 38A | 90 | S | VM | 69936626240 | 10 | +++ |
| B52 | 10x20 | 3x40 | 38A | 90 | S | VM | 69936643938 | 10 | +++ |
| B52 | 10x20 | 3x40 | 86A | 90 | O | VS | 66253055232 | 10 | +++ |
| B52 | 10x20 | 3x40 | 5NQ | 60 | R | VS3 | 69078664033 | 10 | +++++ |
| B53 | 8x16 | 3x40 | 38A | 90 | S | VM | 69936690891 | 10 | +++ |
| B53 | 8x16 | 3x40 | 86A | 90 | O | VS | 66253055305 | 10 | +++ |
| B54 | 6x13 | 6x40 | 86A | 90 | O | VS | 66253055139 | 10 | +++ |

*Shape not available in the US ANSI code

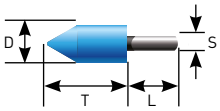
# BONDED ABRASIVES MOUNTED POINTS & WHEELS

## SHAPE BALL (B)



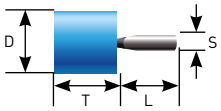

| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| B97 | 4x10 | 3x40 | 38A | 90 | Q | VM | 69936623856 | 10 | +++ |
| B97 | 4x10 | 3x40 | 86A | 90 | O | VS | 66253055141 | 10 | +++ |
| B97 | 4x10 | 3x40 | 5NQ | 90 | R | VS3 | 69078663941 | 10 | +++++ |
| B121 | Ø13 | 3x40 | 38A | 90 | S | VM | 69936623857 | 10 | +++ |
| B122 | Ø10 | 3x40 | 38A | 90 | Q | VM | 69936623858 | 10 | +++ |
| B122 | Ø10 | 3x40 | 5NQ | 90 | R | VS3 | 69078663926 | 10 | +++++ |
| B123 | 5x5 | 3x40 | 38A | 90 | R | VM | 69936630653 | 10 | +++ |
| B123 | 5x5 | 3x40 | 86A | 90 | O | VS | 66253055207 | 10 | +++ |

## SHAPE CYLINDRICAL (C)



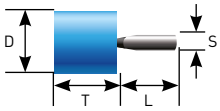

| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| C262 | 16x32 | 3x40 | 38A | 90 | S | VM | 69936634345 | 10 | +++ |

## CYLINDRICAL (W)




| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| W144 | 3x6 | 3x40 | 5NQ | 80 | R | VS3 | 66253478592 | 10 | +++++ |
| W144 | 3x6 | 3x40 | 5NQ | 100 | R | VS3 | 66253478593 | 10 | +++++ |
| W144 | 3x6 | 6x40 | 38A | 90 | S | VM | 69936623859 | 10 | +++ |
| W144 | 3x6 | 6x40 | 86A | 90 | O | VS | 66253055147 | 10 | +++ |
| W145 | 3x10 | 3x40 | 5NQ | 100 | R | VS3 | 66253478596 | 10 | +++++ |
| W149 | 4x6 | 3x40 | 86A | 90 | P | VS | 66253055150 | 10 | +++ |
| W153 | 5x10 | 3x40 | 5NQ | 60 | R | VS3 | 66253477243 | 10 | +++++ |
| W153 | 5x10 | 6x40 | 5NQ | 60 | R | VS3 | 66253479001 | 10 | +++++ |
| W153 | 5x10 | 6x40 | 38A | 90 | Q | VM | 69936623863 | 10 | +++ |
| W153 | 5x10 | 6x40 | 86A | 90 | O | VS | 66253055160 | 10 | +++ |
| W154 | 5x13 | 3x40 | 5NQ | 100 | R | VS3 | 66253477249 | 10 | +++++ |
| W154 | 5x13 | 6x40 | 38A | 90 | Q | VM | 69936623864 | 10 | +++ |
| W154 | 5x13 | 6x40 | 86A | 90 | O | VS | 66253055162 | 10 | +++ |
| W162 | 6x10 | 6x40 | 5NQ | 60 | R | VS3 | 66253479004 | 10 | +++++ |
| W162 | 6x10 | 3x40 | 86A | 60 | P | VS | 66253055166 | 10 | +++ |
| W162 | 6x10 | M4M | 38A | 90 | S | VM | 69936637877 | 10 | +++ |
| W163 | 6x13 | 6x40 | 86A | 60 | O | VS | 66253055210 | 10 | +++ |
| W163 | 6x13 | 6x40 | 86A | 90 | O | VS | 66253055167 | 10 | +++ |
| W164 | 6x20 | 6x40 | 38A | 90 | S | VM | 69936623869 | 10 | +++ |
| W169 | 8x10 | 3x40 | 5NQ | 80 | R | VS3 | 66253478607 | 10 | +++++ |
| W169 | 8x10 | 6x40 | 86A | 60 | O | VS | 66253055398 | 10 | +++ |
| W170 | 8x13 | 3x40 | 86A | 60 | O | VS | 66253055248 | 10 | +++ |
| W171 | 8x20 | 6x40 | 5NQ | 60 | R | VS3 | 66253477399 | 10 | +++++ |
| W171 | 8x20 | 3x40 | 86A | 60 | O | VS | 66253055171 | 10 | +++ |
| W171 | 8x20 | 6x40 | 38A | 90 | S | VM | 69936630875 | 10 | +++ |

## CYLINDRICAL (W)




## COLOUR CODE REFERENCE

86A 37C 38A 39C NQ

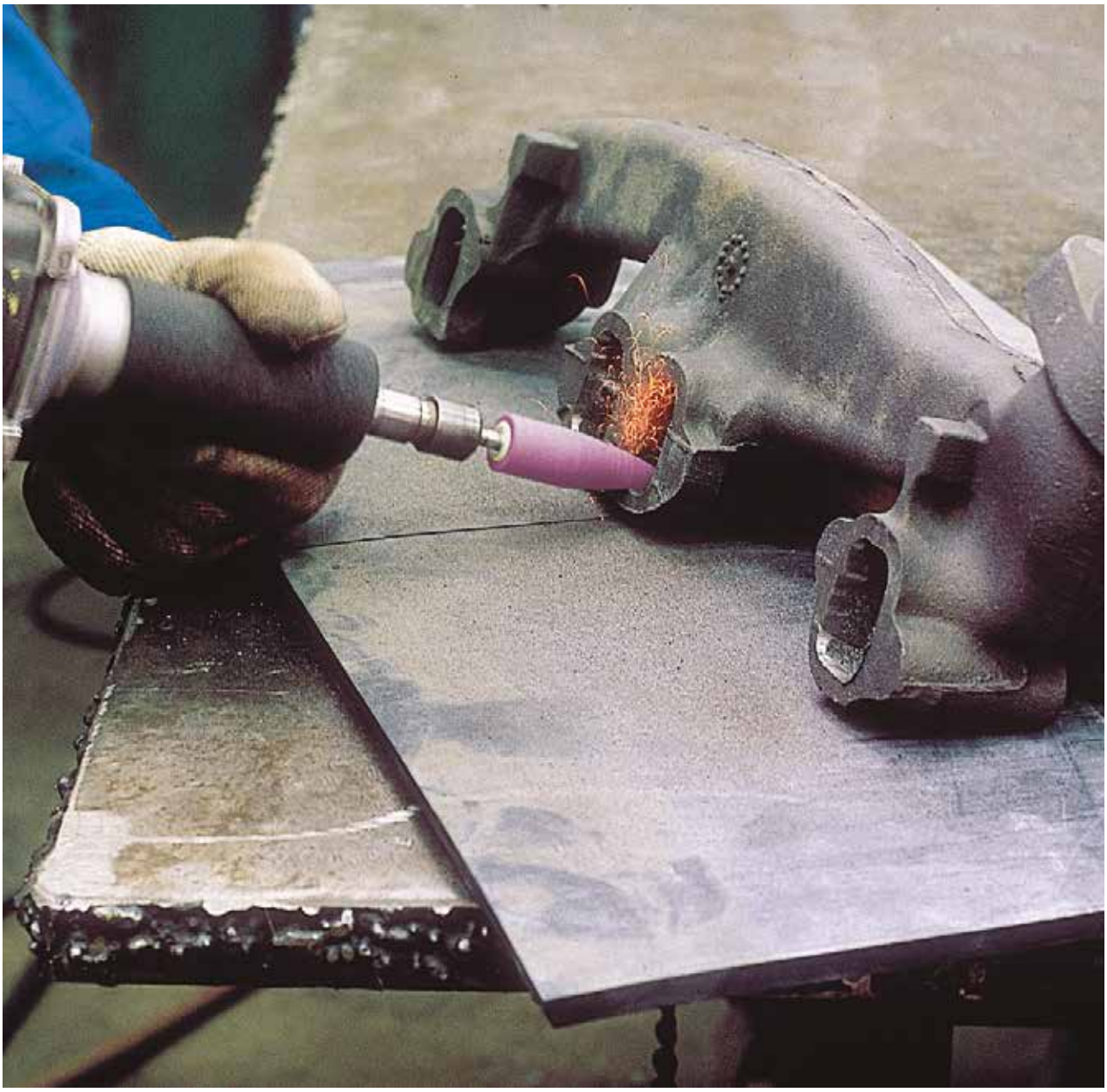
| SHAPE | DIM DxT (mm) | SPINDLE SxL (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| W175 | 10x10 | 3x40 | 5NQ | 60 | R | VS3 | 66253477402 | 10 | +++++ |
| W175 | 10x10 | 3x40 | 5NQ | 80 | R | VS3 | 66253478609 | 10 | +++++ |
| W175 | 10x10 | 3x40 | 86A | 90 | O | VS | 66253055173 | 10 | +++ |
| W176 | 10x13 | 6x40 | 38A | 60 | R | VM | 69936623872 | 10 | +++ |
| W176 | 10x13 | 6x40 | 86A | 60 | P | VS | 66253055315 | 10 | +++ |
| W176 | 10x13 | 6x40 | 38A | 90 | R | VM | 69936623873 | 10 | +++ |
| W176 | 10x13 | 6x40 | 38A | 90 | S | VM | 69936637874 | 10 | +++ |
| W177 | 10x20 | 6x40 | 5NQ | 46 | R | VS3 | 66253477415 | 10 | +++++ |
| W177 | 10x20 | 6x40 | 5NQ | 80 | R | VS3 | 66253478612 | 10 | +++++ |
| W177 | 10x20 | 3x40 | 86A | 60 | Q | VBEM | 66253055092 | 10 | +++ |
| W177 | 10x20 | 6x40 | 38A | 90 | S | VM | 69936626743 | 10 | +++ |
| W179 | 10x32 | 3x40 | 86A | 60 | O | VS | 66253055223 | 10 | +++ |
| W179 | 10x32 | 6x40 | 38A | 60 | R | VM | 69936637875 | 10 | +++ |
| W17-* | 13x3 | 3x40 | 5NQ | 100 | R | VS3 | 66253480329 | 10 | +++++ |
| W*** | 13x40 | 3x40 | 38A | 46 | S | VM | 66243451690 | 10 | +++ |
| W*** | 13x40 | 3x40 | 86A | 90 | P | VS | 66253055131 | 10 | +++ |
| W195 | 16x20 | 3x40 | 86A | 60 | O | VS | 66253055091 | 10 | +++ |
| W195 | 16x20 | 6x40 | 38A | 90 | S | VM | 69936623840 | 10 | +++ |
| W196 | 16x25 | 6x40 | 86A | 46 | M | VBEM | 69210449262 | 20 | +++ |
| W196 | 16x25 | 6x40 | 86A | 90 | O | VS | 66253054973 | 10 | +++ |
| W197 | 16x50 | 6x40 | 5NQ | 36 | R | VS3 | 66253478269 | 10 | +++++ |
| W197 | 16x50 | 6x40 | 38A | 46 | S | VM | 69936631541 | 10 | +++ |
| W204 | 20x20 | 6x40 | 38A | 60 | R | VM | 69936623841 | 10 | +++ |
| W204 | 20x20 | 6x40 | 86A | 60 | O | VS | 66253055134 | 10 | +++ |
| W205 | 20x25 | 6x40 | 5NQ | 46 | R | VS3 | 66253478279 | 10 | +++++ |
| W205 | 20x25 | 6x40 | 5NQ | 60 | R | VS3 | 66253478280 | 10 | +++++ |
| W205 | 20x25 | 6x40 | 86A | 36 | O | VS | 66253054948 | 10 | +++ |
| W205 | 20x25 | 6x40 | 86A | 46 | P | VM | 66243538896 | - | +++ |
| W205 | 20x25 | 6x40 | 86A | 60 | O | VS | 66253055135 | 10 | +++ |
| W206 | 20x30 | 6x40 | 86A | 60 | O | VS | 66253055013 | 10 | +++ |
| W207 | 20x40 | 6x40 | 5NQ | 36 | R | VS3 | 66253478404 | 10 | +++++ |
| W218 | 25x13 | 6x40 | 5NQ | 36 | R | VS3 | 66253478412 | 10 | +++++ |
| W220 | 25x25 | 6x40 | 5NQ | 36 | R | VS3 | 66253478419 | 10 | +++++ |
| W220 | 25x25 | 6x40 | 38A | 36 | T | V | 69936643936 | 10 | +++ |
| W220 | 25x25 | 6x40 | 86A | 36 | O | VS | 66253055231 | 10 | +++ |
| W220 | 25x25 | 6x40 | 86A | 60 | O | VS | 66253055136 | 10 | +++ |
| W221 | 25x40 | 6x40 | 86A | 36 | O | VS | 66253055016 | 10 | +++ |
| W230 | 32x32 | 6x40 | 5NQ | 36 | R | VS3 | 66253478626 | 10 | +++++ |
| W230 | 32x32 | 6x40 | 5NQ | 46 | R | VS3 | 66253478443 | 10 | +++++ |
| W230 | 30x30 | 6x40 | 86A | 36 | O | VS | 66253055221 | 10 | +++ |
| W230 | 30x30 | 6x40 | 38A | 36 | T | VM | 69936635225 | 10 | +++ |
| W230 | 30x30 | 6x40 | 38A | 60 | R | VM | 69936623849 | 10 | +++ |
| W230 | 30x30 | 6x40 | 86A | 60 | O | VS | 66253055138 | 10 | +++ |
| W232 | 30x50 | 6x40 | 86A | 60 | O | VS | 66253055300 | 10 | +++ |
| W236 | 40x12 | 6x40 | 86A | 60 | O | VS | 66253055304 | 10 | +++ |
| W238 | 40x40 | 6x40 | 86A | 36 | P | VS | 66253055019 | 10 | +++ |

# NORTON **MOUNTED POINTS DISPLAY**




- Ideal for showcasing mounted points with 3mm and 6mm shaft
- Dimensions: 315 (w) x 245 (d) x 240 (h) mm
- Lock option for added security

| KIT CONTENTS | ART NO. |
|---|---|
| Norton Mounted Points Display | 00410140348 |





# **ORGANIC** MOUNTED POINTS

Produced specifically for demanding applications, Norton organic mounted points work harder for you. With stock removal that's twice as fast and product life that's up to four times longer than their conventional aluminium oxide counterparts, organic mounted points increase productivity and clean more parts in less time, reducing your overall process cost.



## NZ ORGANIC

++++

Zirconia alumina self-sharpening abrasive and durable organic bond

- Up to 4x faster stock removal than aluminium oxide products for heavy duty operations
- Stable under high cutting pressure
- Designed for large scale removal
- Super long cutting action / long lasting



## A ORGANIC

+++

Brown aluminium oxide, tougher than pure white aluminium oxide abrasive

- Good cutting performance on medium to soft steels
- Suitable for carbon steel, HSS and alloyed steel

SPEC CHECK

Use "A" shapes for medium to heavy duty blending.
Use "W" shapes for off-hand and precision grinding of medium to heavy stock.

# **BONDED ABRASIVES** MOUNTED POINTS & WHEELS

## GRAIN COLOUR CODE

NZ A

| SHAPE | DIM DxT (mm) | SPINDLE DxT (mm) | ABRASIVE TYPE | GRIT SIZE | GRADE | BOND | ART NO. | PK QTY | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|
| A1 | 20x65 | 6x40 | NZ | 24 | U | BXR1 | 61463689077 | 10 | ++++ |
| A3 | 22x70 | 6x40 | NZ | 24 | U | BXR1 | 61463689079 | 10 | ++++ |
| A5 | 20x28 | 6x40 | NZ | 24 | U | BXR1 | 61463689081 | 10 | ++++ |
| A11 | 21x45 | 6x40 | NZ | 24 | U | BXR1 | 61463689082 | 10 | ++++ |
| W177 | 10x20 | 6x40 | NZ | 24 | U | BXR1 | 61463689084 | 10 | ++++ |
| W178 | 10x25 | 6x40 | NZ | 24 | U | BXR1 | 61463689085 | 10 | ++++ |
| W188 | 13x40 | 6x40 | A | 36 | Q | B | 66253053225 | 20 | +++ |
| W188 | 13x40 | 6x40 | NZ | 24 | U | BXR1 | 61463689090 | 10 | ++++ |
| W204 | 20x20 | 6x40 | NZ | 24 | U | BXR1 | 61463689091 | 10 | ++++ |
| W205 | 20x25 | 6x40 | NZ | 24 | U | BXR1 | 61463689093 | 10 | ++++ |
| W207 | 20x40 | 6x40 | NZ | 24 | U | BXR1 | 61463689095 | 10 | ++++ |
| W220 | 25x25 | 6x40 | A | 46 | Q | B | 66253053237 | 20 | +++ |
| W220 | 25x25 | 6x40 | NZ | 24 | U | BXR1 | 61463689097 | 10 | ++++ |
| W221 | 25x40 | 6x40 | A | 46 | Q | B | 66253053243 | 20 | +++ |
| W230 | 30x30 | 6x40 | A | 36 | Q | B | 66253053250 | 20 | +++ |
| W230 | 30x30 | 6x40 | NZ | 24 | U | BXR1 | 61463689099 | 10 | ++++ |
| W236 | 40x13 | 6x40 | A | 46 | Q | B | 66253053251 | 20 | +++ |
| W236 | 40x12 | 6x40 | NZ | 24 | U | BXR1 | 61463689100 | 10 | ++++ |





NORTON®

SAINT-GOBAIN

BONDED ABRASIVES

# DRESSING STICKS & SHARPENING STONES


| | |
|---|---|
| Dressing sticks | 266 |
| Bench & combination oil stones | 268 |
| Abrasive & precision files | 270 |
| Abrasive slips and specialties | 273 |



# DRESSING STICKS

Norton dressing sticks are designed to help you achieve maximum performance from your vitrified wheels. Use for truing, cleaning, and dressing diamond, CBN and conventional abrasive wheels.

## NORBIDE +++++

- Manufactured from sintered boron carbide
- Extremely hard and very dense
- Excellent chemical and wear resistance
- Long product life, reduced maintenance and less downtime
- Suitable also for dressing tool and cutter wheels 200mm and smaller, especially cup and dish shapes




| SHAPE | DIM WxHxL (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| RECTANGULAR | 5x12.7x76.2 | NORBIDE | 1 | 61463610148 |

## 39C ++++

- Highest purity green silicon carbide abrasive
- Harder and more friable than aluminium oxide abrasive
- Ideal for dressing conventional vitrified grinding wheels
- Outperforms 37C for better cutting efficiency and longer life



| SHAPE | DIM WxHxL (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| RECTANGULAR | 25x50x200 | 39C 60 KV | 1 | 69936685066 |

## 37C +++

- High purity black silicon carbide abrasive
- Harder and more friable than aluminium oxide abrasive
- Ideal for dressing conventional vitrified grinding wheels

| SHAPE | DIM WxHxL/DIAxL (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **DRESSING STICKS FOR SUPER ABRASIVE GRINDING WHEELS** | | | | |
| SQUARE | 13x13x150 | 37C 80 MV | 10 | 69936685063 |
| | | 37C 320 HV | 10 | 66243453547 |
| **DRESSING STICKS FOR BONDED ABRASIVE GRINDING WHEELS** | | | | |
| RECTANGULAR | 25x50x200 | 37C 24 TV | 10 | 69936685072 |
| SQUARE | 25x25x150 | 37C 30 UV | 10 | 69936624620 |
| ROUND | 25.4x203.2 | 37C 30 TV | 10 | 61463625024 |



## 38A +++

- High purity white aluminium oxide abrasive
- Friable abrasive
- Ideal for dressing CBN Super Abrasive wheels

| SHAPE | DIM WxHxL (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **DRESSING STICKS FOR SUPER ABRASIVE GRINDING WHEELS** | | | | |
| RECTANGULAR | 13x25x150 | 38A 150 HVBE | 10 | 61463605565 |
| | | 38A 220 HVBE | 10 | 61463605066 |
| | | 38A 320 HVBE | 10 | 69936684889 |
| SQUARE | 13x13x150 | 38A 220 HVS | 10 | 69936682631 |
| | | 38A 150 IVBE | 10 | 69936682314 |
| | 20x20x200 | 38A 150 HVBE | 10 | 69936685064 |
| | | 38A 220 IVBE | 10 | 61463603606 |
| **GENERAL PURPOSE DRESSING STICKS** | | | | |
| RECTANGULAR | 13x25x150 | 38A 220 KV | 10 | 66243460886 |




SPEC CHECK

Use 38A dressing sticks to dress CBN wheels.
Use 37C dressing sticks to dress Diamond wheels.



# BENCH & COMBINATION
## OIL STONES

Since 1823, Norton has been the leading supplier of benchstones, files, slips and rubbing bricks. Our comprehensive line of sharpening and finishing stones delivers superior performance solutions.

## PRODUCT SELECTION

| APPLICATION | COARSE / MEDIUM SHARPENING | FINE STONING |
|---|---|---|
| Carbide tool | Medium and coarse, Crystolon Bench | Fine Crystolon Bench |
| | Coarse/fine Crystolon, Combination | Coarse/fine Crystolon Combination |
| Steel tool | Medium and coarse India Bench | Fine India Bench |
| | Coarse/fine India Combination | Coarse/fine India Combination |

## CRYSTOLON +++

- Premium silicon carbide abrasive
- Pre-filled with oil
- Fast cutting stone; ideal for general sharpening of cutting tools
- Fast stock removal for quick edge shaping with minimal loading
- Saves time by eliminating the need for pre-soaking prior to use

| DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| BENCH STONES | | | | |
| 102x25x13 | MJB24 | Medium Crystolon | 5 | 61463685480 |
| 152x51x25 | MJB6 | Medium Crystolon | 5 | 61463685505 |
| | FJB6 | Fine Crystolon | 5 | 61463685500 |
| COMBINATION OIL STONES | | | | |
| 102x44x16 | JB134 | Coarse/Fine Crystolon | 5 | 61463685440 |
| 127x51x19 | JB45 | Coarse/Fine Crystolon | 5 | 61463685445 |
| 152x51x25 | JB6 | Coarse/Fine Crystolon | 5 | 61463685450 |
| 203x51x25 | JB8 | Coarse/Fine Crystolon | 5 | 61463685455 |



# INDIA +++

- Smooth cutting aluminium oxide abrasive
- Norton's trademark for a fine finish
- Pre-filled with oil
- Long lasting cutting edge
- Ideal for cleaning, deburring and good quality finishes
- Saves time by eliminating the need for pre-soaking prior to use

| DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **BENCH STONES** | | | | |
| 102x25x6 | MB14 | Medium India | 5 | 61463685575 |
| | FB14 | Fine India | 5 | 61463685570 |
| 102x25x13 | CB24 | Coarse India | 5 | 61463685595 |
| | MB24 | Medium India | 5 | 61463685590 |
| | FB24 | Fine India | 5 | 61463685585 |
| 102x44x13 | MB124 | Medium India | 5 | 61463626048 |
| 152x38x13 | MB26 | Medium India | 5 | 61463626034 |
| 152x51x19 | UPB6 | Medium India | 5 | 61463690694 |
| 152x51x25 | CB6 | Coarse India | 5 | 61463685620 |
| | MB6 | Medium India | 5 | 61463685615 |
| | FB6 | Fine India | 5 | 61463685610 |
| 203x51x25 | CB8 | Coarse India | 5 | 61463685635 |
| | UPB8 | Medium India | 5 | 61463685755 |
| | MB8 | Medium India | 5 | 61463685630 |
| | FB8 | Fine India | 5 | 61463685625 |
| **COMBINATION OIL STONES** | | | | |
| 102x25x13 | IB24 | Coarse/Fine India | 5 | 61463626001 |
| 102x44x16 | IB134 | Coarse/Fine India | 5 | 61463685550 |
| 127x51x19 | IB45 | Coarse/Fine India | 5 | 61463685555 |
| 152x51x25 | IB6 | Coarse/Fine India | 5 | 61463685560 |
| 152x64x25 | IB20 | Coarse/Fine India | 5 | 61463626103 |
| 178x51x25 | IB7 | Coarse/Fine India | 5 | 61463690647 |
| 203x51x25 | IB8 | Coarse/Fine India | 5 | 61463625078 |





# ARKANSAS +++

- Natural premium Novaculite quarried in Arkansas and available in soft and hard
- Dense construction
- Sharpest possible razor edges
- Near mirror finishes
- Use for finer honing after India stone
- Absorbs oil at a slower rate, hence does not require pre-filling

| DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **BENCH STONES** | | | | |
| 102x25x10 | HB14 | Hard Arkansas | 5 | 61463687555 |
| | SB14 | Soft Arkansas | 5 | 61463687565 |
| 152x51x19 | HB6 | Hard Arkansas | 5 | 61463685660 |





# **ABRASIVE & PRECISION** FILES

Norton abrasive files hold their shape while imparting the finest, most uniform finish on precision machine parts, and in tool and die making.

## PRODUCT SELECTION

| APPLICATION | COARSE / MEDIUM SHARPENING | FINE STONING | FINISH HONING |
|---|---|---|---|
| Carbide tool | Medium Crystolon square | - | - |
| Centre punches | Medium India triangle | Fine India triangle | - |
| Countersinks | Coarse/medium India triangle | Fine India triangle | Hard Arkansas triangle |
| Form cutter | Coarse/medium India knife blade | Fine India knife blade | Hard Arkansas knife blade |
| Keyways | Coarse/medium India square | Fine India square | Hard Arkansas square |
| Lathe bits | - | Fine India square | Hard Arkansas square |
| Machine knife stone | Coarse Crystolon machine knife | - | - |
| Magnetic chucks | - | India round | - |
| Pointed | Medium India pointed | - | Hard Arkansas pointed |
| Precision machine knife | Medium India half round | Fine India half round | - |
| Radius tools | Medium India round | Fine India round | Hard Arkansas round |
| Router bits | - | Fine India square | - |
| Silversmith | Medium India Silversmith | Fine India Silversmith | - |
| Tap threads | - | Fine India triangle | - |

## CRYSTOLON +++

- Premium silicon carbide abrasive
- Fast cutting
- Ideal for general sharpening

| SHAPE | DIM LxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| SQUARE | 152x25 | MJF76 | Medium Crystolon | 5 | 61463625039 |
| TRIANGLE | 152x13 | MJF146 | Medium Crystolon | 5 | 61463625043 |



# INDIA +++

- Smooth cutting aluminium oxide abrasive
- Ideal when a close tolerance is more important than the speed of cut



| DIM LxDIA (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **ABRASIVE FILES** | | | | |
| **ROUND** | | | | |
| 102x3 | FF212 | Fine India | 5 | 61463626076 |
| 102x6 | MF214 | Medium India | 5 | 61463686475 |
| | FF214 | Fine India | 5 | 61463686470 |
| 102x10 | MF234 | Medium India | 5 | 61463686490 |
| | FF234 | Fine India | 5 | 61463686485 |
| 102x13 | MF244 | Medium India | 5 | 61463686505 |
| | FF244 | Fine India | 5 | 61463686500 |
| 152x10 | FF236 | Fine India | 5 | 61463626106 |
| 152x13 | MF246 | Medium India | 5 | 61463686520 |
| 152x16 | MF256 | Medium India | 5 | 61463686535 |
| | FF256 | Fine India | 5 | 61463686530 |
| 152x19 | MF266 | Medium India | 5 | 61463686550 |
| **HALF ROUND** | | | | |
| 102x10 | MF334 | Medium India | 5 | 61463686385 |
| 102x13 | MF344 | Medium India | 5 | 61463686400 |
| | FF344 | Fine India | 5 | 61463686395 |
| **SQUARE** | | | | |
| 102x6 | FF14 | Fine India | 5 | 61463686065 |
| | MF14 | Medium India | 5 | 61463686070 |
| 102x10 | FF34 | Fine India | 5 | 61463686080 |
| | MF34 | Medium India | 5 | 61463686085 |
| | CF34 | Coarse India | 5 | 61463686090 |
| 102x13 | CF44 | Coarse India | 5 | 61463686105 |
| | FF44 | Fine India | 5 | 61463686095 |
| | MF44 | Medium India | 5 | 61463686100 |
| 152x10 | FF36 | Fine India | 5 | 61463626037 |
| | MF36 | Medium India | 5 | 61463626038 |
| 152x13 | FF46 | Fine India | 5 | 61463686110 |
| | MF46 | Medium India | 5 | 61463686115 |
| 152x16 | FF56 | Fine India | 5 | 61463686125 |
| | MF56 | Medium India | 5 | 61463686130 |
| 152x19 | CF66 | Coarse India | 5 | 61463686150 |
| | FF66 | Fine India | 5 | 61463686140 |
| | MF66 | Medium India | 5 | 61463686145 |
| 152x25 | FF76 | Fine India | 5 | 61463686155 |

## **BONDED ABRASIVES** DRESSING STICKS & SHARPENING STONES

| DIM LxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| TRIANGLE | | | | |
| 102x6 | MF114 | Medium India | 5 | 61463686235 |
| | FF114 | Fine India | 5 | 61463686230 |
| 102x8 | MF124 | Medium India | 5 | 61463626027 |
| | FF124 | Fine India | 5 | 61463626028 |
| 102x10 | MF134 | Medium India | 5 | 61463686250 |
| | FF134 | Fine India | 5 | 61463686245 |
| 102x13 | CF144 | Coarse India | 5 | 61463686270 |
| | MF144 | Medium India | 5 | 61463686265 |
| | FF144 | Fine India | 5 | 61463686260 |
| 152x10 | MF136 | Medium India | 5 | 61463626090 |
| | FF136 | Fine India | 5 | 61463626054 |
| 152x13 | MF146 | Medium India | 5 | 61463686280 |
| | FF146 | Fine India | 5 | 61463686275 |
| 152x16 | MF156 | Medium India | 5 | 61463686295 |
| | FF156 | Fine India | 5 | 61463686290 |
| 152x19 | MF166 | Medium India | 5 | 61463686310 |
| | FF166 | Fine India | 5 | 61463686305 |
| 152x25 | MF176 | Medium India | 5 | 61463686325 |
| 203x19 | MF180 | Medium India | 5 | 61463626130 |
| | FF180 | Fine India | 5 | 61463626082 |
| PRECISION FILES | | | | |
| KNIFE BLADE FILES | | | | |
| 102x25x3 | MF724 | Medium India | 5 | 61463686775 |
| | FF724 | Fine India | 5 | 61463686770 |
| SILVERSMITH FILES | | | | |
| 102x13x2 | FF444 | Fine India | 5 | 61463686955 |
| | MF444 | Medium India | 5 | 61463686960 |

## ARKANSAS ABRASIVE FILES +++

- Hard Novaculite abrasive quarried in Arkansas
- Produces the finest edge possible while maintaining tolerances unequalled by any other abrasive
- Produces a highly polished finish

| DIM LxDIA/LxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| HALF ROUND | | | | |
| 76x6 | HB14 | Hard Arkansas | 5 | 61463686800 |
| SQUARE | | | | |
| 76x6 | HF13 | Hard Arkansas | 5 | 61463686590 |
| 76x10 | HF33 | Hard Arkansas | 5 | 61463686595 |
| 76x13 | HF43 | Hard Arkansas | 5 | 61463686600 |
| TRIANGLE | | | | |
| 76x6 | HF113 | Hard Arkansas | 5 | 61463686620 |
| 76x10 | HF133 | Hard Arkansas | 5 | 61463686625 |
| 76x13 | HF143 | Hard Arkansas | 5 | 61463686630 |





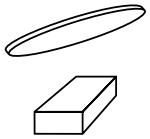
# ABRASIVE SLIPS & SPECIALTIES

Norton abrasive slips and specialty stones impart the finest, most uniform finish on a wide range of tools. These fast-acting slips hold their shape and are long lasting.

## PRODUCT SELECTION

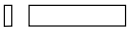
| APPLICATION | COARSE / MEDIUM SHARPENING | FINE STONING | FINISH HONING |
|---|---|---|---|
| Carbide tools | Medium and Crystolon round edge slip | Fine Crystolon round edge slip | - |
| | Coarse or medium Crystolon carbide tool slip | Fine Crystolon carbide tool slip | - |
| Gouges (wood) | - | Fine India gouge Sharpening stone | - |
| Leather | Medium Crystolon Tradesmen | - | - |
| Milling cutter | Medium India round edge slip | Fine India round edge slip | Hard Arkansas round edge slip |
| Pen knife | - | - | Arkansas pen knife |
| Reamers | Medium India reamer stone | Fine India reamer stone | - |
| Scythe stone | Scythe stone | - | - |
| Steel tool | - | - | Rubber stick |

| SHAPE | DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| SPECIALTY STONES | | | | | |
| SCYTHE STONE | 240x35x13 | TJ4 | Scythe Stone | 10 | 69936693133 |
| | 254x32x19 | JT930 | Scythe Stone | 5 | 61463687675 |
| RUBBER STICK | 200x10x20 | - | A240FR96 | 5 | 69936625667 |



# CRYSTOLON +++

- Premium silicon carbide abrasive
- Fast cutting stone; ideal for general sharpening of cutting tools
- Fast stock removal for quick edge shaping with minimal loading

| SHAPE | DIM LxWxH/DIAxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **SLIP STONES** | | | | | |
| CARBIDE TOOL  | 89x19x13 | FJT63 | Fine Crystolon | 5 | 61463687285 |
| ROUND EDGE  | 114x44x6 | FJS24 | Fine Crystolon | 5 | 61463687075 |
| **SPECIALTY STONES** | | | | | |
| RUBBING BRICK  | 203x51x51 | BF28 | Hand Crystolon | 5 | 61463687845 |
| | 203x89x38 | 235 | Fluted Crystolon | 5 | 61463687795 |
| MACHINE KNIFE STONE  | 102x38 | JB74 | Coarse Crystolon | 5 | 61463687570 |



# INDIA +++

- Smooth cutting aluminium oxide abrasive
- Norton's trademark for a fine finish
- Ideal when a close tolerance is more important than the speed of cut

| SHAPE | DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **SLIP STONES** | | | | | |
| ROUND EDGE | 102x25x11 | MS14 | Medium India | 5 | 61463687140 |
| | | FS14 | Fine India | 5 | 61463687135 |
| | 114x44x6 | MS24 | Medium India | 5 | 61463687150 |
| | | FS24 | Fine India | 5 | 61463687145 |
| | 114x44x10 | MS34 | Medium India | 5 | 61463687165 |
| | | FS34 | Fine India | 5 | 61463687160 |
| | 114x44x13 | MS44 | Medium India | 5 | 61463687180 |
| | | FS44 | Fine India | 5 | 61463687175 |
| **SPECIALTY STONES** | | | | | |
| REAMER STONES | 127x25x5 | MT125 | Medium India | 5 | 61463687430 |



# ARKANSAS +++

- Natural premium Novaculite quarried in Arkansas and available in soft and hard
- Sharpest possible razor edges
- Near mirror finishes
- Use for finer honing after India stone

| SHAPE | DIM LxWxH (mm) | TYPE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| **SLIP STONES** | | | | | |
| ROUND EDGE | 102x32x6 | HS14 | Hard Arkansas | 5 | 61463687050 |





NORTON®

SAINT-GOBAIN

BONDED ABRASIVES

# ORGANIC WHEELS & CUPS FOR SNAGGING


Snagging wheels 276
Snagging cups 276

# ORGANIC WHEELS & CUPS FOR SNAGGING

Norton offers a range of products for portable snagging foundry applications. Type 01 straight wheels are used on portable machines and Type 06 and 11 cup wheels on vertical grinders. Since finish tolerances are not usually critical, coarse, durable wheels are used with grit sizes ranging from 16 to 24.



## ZF7A / 25ZF

+++++

Special design of abrasive blends

- Very durable for heavy duty grinding
- Excellent wheel life and metal removal rates
- Ideal for all steels and non-ferrous metals



## A

+++

Tougher than pure white aluminium oxide abrasive

- General purpose abrasive ideal for most operations
- Good wheel life, limited metal removal rate
- Good for cutting medium to soft steels
- Suitable price/performance ratio
- First choice for less technical applications



## 37C

+++

Low purity black silicon carbide abrasive

- Harder and more friable than aluminium type abrasives
- Suitable for roughing operations in coarse grit and resinoid wheels
- Ideal for grinding and sharpening applications on metal carbide and non-ferrous metals
- Ideal for applications with no technical requirement



## 39C

+++

Highest purity green silicon carbide abrasive

- High cut rate/power on special alloys and titanium
- Extremely friable abrasive for better cutting efficiency and cut quality



**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| | | Rim Width | Back Thickness | Steels | Non-Ferrous metals | Cast iron | Abrasive type | Grit size | Grade | Structure | Bond | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WHEELS | | | | | | | | | | | | | | |
| SHAPE | DIM DxTxH (mm) | W | E | Materials | | | SPECIFICATION | | | | | MOS (m/s) | PK QTY | ART NO. | QUALITY TIER |
| 01 | 50x13x10 | | | ◐ | | ◐ | A | 24 | T | - | B28 | 50 | 10 | 66253057649 | +++ |
| 01 | 100x20x20 | - | - | ◐ | | ◐ | A | 24 | R | - | B28 | 50 | 10 | 66253057660 | +++ |
| 01 | 150x25x20 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 5 | 69210432717 | +++ |
| 01 | 150x32x20 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 5 | 69210433145 | +++ |
| 01 | 200x20x32 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 5 | 69210431516 | +++ |
| 01 | 300x30x32 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 1 | 69210433807 | +++ |
| 01 | 400x50x127 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 1 | 69210431446 | +++ |
| 01 | 500x50x127 | - | - | ◐ | | ◐ | A | 24 | Q | 5 | B3 | 50 | 1 | 69210435391 | +++ |
| 01 | 508x50x50 | - | - | ◐ | | ◐ | ZF7A | 16 | R | 5 | B3 | 50 | 1 | 66253057670 | +++++ |
| 01 | 508x60x127 | - | - | ◐ | | ◐ | ZF7A | 16 | Q | 5 | B3 | 50 | 1 | 66243453103 | +++++ |
| 01 | 508x60x127 | - | - | ◐ | | ◐ | ZF7A | 16 | R | 5 | B3 | 50 | 1 | 66253057671 | +++++ |
| 01 | 508x60x127 | - | - | ◐ | | ◐ | ZF7A | 20 | Q | - | B3 | 50 | 1 | 66253057673 | +++++ |
| 01 | 600x60x203 | | | ◐ | | ◐ | ZF7A | 16 | Q | - | B38 | 63 | 1 | 66243570264 | +++++ |
| 01 | 760x80x304.8 | | | ◐ | | ◐ | ZF7A | 14 | R | - | B38 | 50 | 1 | 66253057675 | +++++ |
| | CUPS | | | | | | | | | | | | | | |
| SHAPE | DIM DxTxH (mm) | W | E | Materials | | | SPECIFICATION | | | | | MOS (m/s) | PK QTY | ART NO. | QUALITY TIER |
| 11 | 125x50x5/8" | 25 | 19 | ◐ | | ◐ | A | | P | 5 | B5 | 50 | 1 | 66253065737 | +++ |
| 11 | 125x50x5/8" | 25 | 19 | | ◐ | | 39C | 16 | P | 5 | B5 | 50 | 4 | 69083141415 | ++++ |
| 11 | 125x50xM14 | 25 | 20 | | ◐ | | 37C | 16 | N | 5 | B5 | 50 | 1 | 69210432282 | +++ |
| 11 | 150x50xM14 | 40 | 20 | | ◐ | | 37C | 16 | N | 5 | B5 | 50 | 1 | 69210432287 | +++ |

## NOTES



NORTON®

SAINT-GOBAIN

BONDED ABRASIVES

# STRAIGHT CUT-OFF WHEELS

Non-Reinforced & Reinforced wheels 280

# STRAIGHT NON-REINFORCED & REINFORCED CUT-OFF WHEELS

Reinforced cut-off wheels contain fibreglass to increase mechanical resistance when in use. The reinforcements increase the lateral stress capacity, resulting in higher resistance to breakage.

Non-reinforced cut-off wheels are only designed for use on fixed base machines, where the work is securely clamped, the wheel is adequately guarded and operating on a controlled cutting plane. They are suitable for use in dry or wet conditions, depending on bond type.




## XGP

+++++

Special combination of abrasive blends

- High durability with good cutting capability
- Very long wheel life and high metal removal rate
- Perfect for lab applications
- Suitable for use on all types of steel



## 4NZ

+++++

High concentration of zirconia oxide abrasive

- Extremely tough aluminium oxide abrasive
- Very long wheel life
- Very high cutting capability and high metal removal rate if high pressure is applied
- Perfect for technical applications

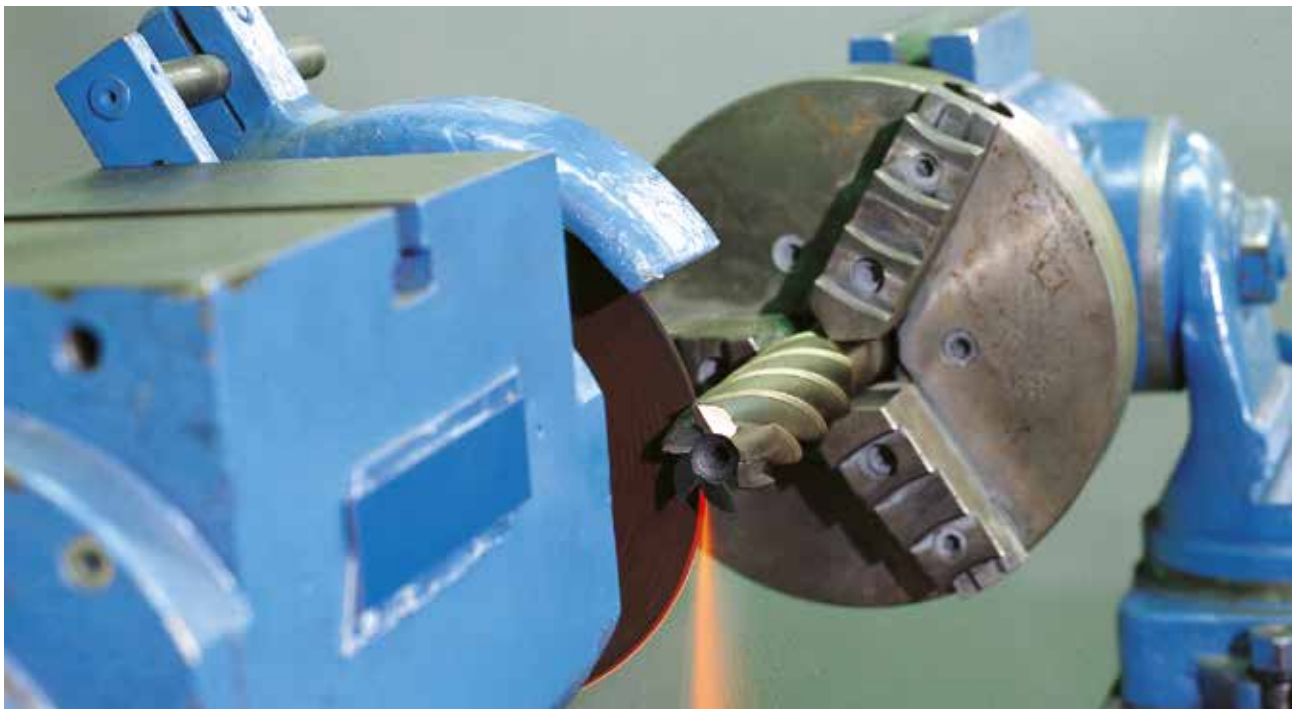



## 39C

+++++

Highest purity green silicon carbide abrasive

- Harder and more friable than aluminium oxide abrasive
- Excellent to cut all non-metals (titanium, aluminium bronze)
- Extremely friable abrasive for better cutting efficiency and cut quality





## NZ

++++

Latest generation of Norzon grain with finer structure and sharper shape combined with Foundry X bond technology

- Excellent micro-fracturing properties
- Greater heat resistance
- Longer wheel life. Lower total abrasive cost
- Improved cut rate
- Reduced cycle time




## U57A

++++

Specially treated brown aluminium oxide abrasive

- Tough and hard aluminium oxide abrasive
- Not suitable for use on extremely hard materials
- Long wheel life
- Ideal for heavy duty applications




## 57A

+++

Semi-friable aluminium oxide abrasive

- Less tough than type A abrasive but offers better cutting quality with a pointed shape
- Cool and burn free cutting
- Ideal for heat-sensitive applications with light to moderate feed rates
- Good compromise between cut quality and wheel life
- Very versatile: suitable for all steels

# **BONDED ABRASIVES** STRAIGHT NON-REINFORCED & REINFORCED CUT-OFF WHEELS

## SHAPE KEY



SHAPE 41



SHAPE 42

**PRODUCT RECOMMENDATION**
Highly recommended ●
Recommended ◐

| DIM DxTxH (mm) | SHAPE | MATERIALS | | | | SPECIFICATION | | | | MOS (m/s) | PK QTY | ART NO. | QUALITY TIER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | High alloyed steels & HSS | Soft steels | Inox | Non-Ferrous | Abrasive type | Grit size | Grade | Bond | | | | |
| **NON-REINFORCED** | | | | | | | | | | | | | |
| 100x1x13 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056355 | +++ |
| 125x1.6x20 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 69936625774 | +++ |
| 125x1x20 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056359 | +++ |
| 150x1x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056373 | +++ |
| | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056364 | +++ |
| 150x1.6x25.4 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 69936626781 | +++ |
| 150x1.6x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056372 | +++ |
| | 41 | ◐ | ● | ◐ | | 57A | 60 | N | B25 | 80 | 25 | 66253056360 | +++ |
| 150x2x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056369 | +++ |
| 150x3x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 20 | 66253056374 | +++ |
| 180x1x31.75 | 41 | ◐ | ● | ◐ | | 57A | 60 | R | B25 | 80 | 25 | 69936625781 | +++ |
| 180x1.6x31.75 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056375 | +++ |
| | 41 | ◐ | ● | ◐ | | 57A | 60 | R | B25 | 80 | 25 | 66253056376 | +++ |
| 180x1.6x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 69936691397 | +++ |
| 200x1.6x20 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 66253056377 | +++ |
| 200x1.6x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | N | B25 | 80 | 25 | 66253056382 | +++ |
| | 41 | ◐ | ● | ◐ | | 57A | 60 | N | B25 | 80 | 25 | 66253056380 | +++ |
| 200x2x32 | 41 | ◐ | ● | ◐ | | 57A | 60 | P | B25 | 80 | 25 | 69936631641 | +++ |
| **REINFORCED** | | | | | | | | | | | | | |
| 200x2x32 | 41 | ◐ | ◐ | ● | | 57A | 60 | O | B25 | 80 | 25 | 66253056386 | ++++ |
| 400x4.5x40 | 41 | | ● | ◐ | | 57A | 24 | P | B25 | 80 | 10 | 66253059176 | +++ |
| 500x5x25.4 | 41 | | ● | ◐ | | 57A | 24 | T | B25 | 80 | 5 | 66253056529 | +++ |
| | 41 | | ● | ◐ | | 57A | 24 | P | B25 | 80 | 5 | 66253056533 | +++ |
| | 41 | | ● | ◐ | | 57A | 24 | R | B25 | 80 | 5 | 66253056536 | +++ |
| 500x6x76.2 | 42 | | ◐ | ● | | 57A | 20 | R | B25 | 80 | 10 | 66253056538 | +++ |
| | 41 | | ● | ◐ | | 57A | 24 | P | B25 | 100 | 5 | 66253057645 | +++ |



NORTON®

SAINT-GOBAIN



# SUPER ABRASIVES


| | |
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| **DIAMOND & CBN GRINDING WHEELS** | **285-316** |
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# INTRODUCTION

Diamond is the hardest material known to man, closely followed by Cubic Boron Nitride (CBN). As a result of their hardness these materials are used extensively in the most demanding precision grinding, slicing, and cutting applications. Super Abrasive wheels use diamond and CBN technology to cut demanding materials such as carbide, high speed steel, ceramics, and glass.

Norton provides ultimate, high performance Super Abrasive solutions for the cutting tools industry, offering products specifically designed to deal with the hardest and most challenging materials.

# HOW TO READ A SPECIFICATION

| ASD | 151 | R | 75 | B99 |
|---|---|---|---|---|
| ABRASIVE TYPE | GRIT SIZE | GRADE | CONCENTRATION | BOND |

### ABRASIVE TYPE

Both diamond & CBN have distinctive characteristics that meet the most demanding applications.

**ASD**: Synthetic diamond, armoured, high quality, versatile.

**CB**: Cubic boron nitride, armoured, durable.

### GRIT SIZE

Size of the Super Abrasive particles according to FEPA standards. The smaller the number, the finer the grit size.

### GRADE

Refers to the degree of durability of the wheel, progressing alphabetically from A (softest, least durable) to Z (hardest, most durable).

### CONCENTRATION

Indicates the amount of Super Abrasive grits in the wheel. For CBN wheels the concentration number is included in the grade (Q=50, T=75, W=100, Z=125), concentration 100~4,4 ct/cm³, and accordingly 50~2,2 ct/cm³.
The optimum concentration depends upon the application.

### BOND

The element in a grinding wheel that holds the diamond or CBN grains together.

# GRIT SIZE

The grit size selection depends on the required stock removal rate and the required surface finish.

| EUROPEAN (FEPA) SIZE | U.S. STANDARD | US NORTON GRIT SIZE [MESH] | |
|---|---|---|---|
| | MESH | DIAMOND | CBN |
| 1182 | 16/20 | 16 | – |
| 852 | 20/30 | 24 | 24 |
| 602 | 30/40 | 36 | 36 |
| 501 | 35/40 | – | – |
| 427 | 40/50 | 46 | 46 |
| 301 | 50/60 | 60 | 60 |
| 251 | 60/70 | - | - |
| - | 50/80 | 80 | 80C |
| 252 | 60/80 | 100 | 80 |
| 213 | 70/80 | - | - |
| 181 | 80/100 | 105 | 100 |
| - | 80/120 | 100S | 120C |
| 151 | 100/120 | 110 | 120 |
| 126 | 120/140 | 120 | 150 |
| 107 | 140/170 | 150 | 180 |
| 91 | 170/200 | 180 | 220 |
| 76 | 200/230 | 220 | 230 |
| 64 | 230/270 | 240 | 240 |
| 54 | 270/325 | 320 | 320 |
| 46 | 325/400 | 400 | 400 |

| APPROXIMATE EUROPEAN (FEPA) SIZE | NOMINAL MICRON SIZE | NORTON GRIT SIZE [MESH] |
|---|---|---|
| M63 | 40/60 | – |
| M40 | 30/40 | 500 |
| M25 | 20/30 | – |
| M16 | 10/20 | 600 |
| M10 | 6/12 | 800 |
| M6.3 | 4/8 | – |
| M4.0 | 2/4 | – |
| M1.0 | 0/2 | – |

## CONCENTRATION

The concentration influences the stock removal rate and the geometry of the workpiece.

**DIAMOND** 50/75/100/125 **CBN** Q/T/W/Z

# DIAMOND & CBN WHEELS

Norton diamond and CBN wheels are designed to grind and cut the hardest materials known to man, helping make 'difficult-to-grind' applications routine operations. Hardness, abrasion resistance, compressive strength, thermal conductivity are all features designed to achieve a high level of precision and quality, making them a logical choice for a wide range of applications.



## DIAMOND WHEELS



### BENEFITS

- High quality synthetic diamonds provide excellent material removal rate and longer wheel life than conventional silicon carbide wheels
- Engineered B-99 resin bond provides free cutting capabilities and superior form holding in dry tool room and 1A1R cut-off operations in grinding glass and ceramic materials
- Can be used wet or dry, in off-hand finishing of carbide tools, providing fast stock removal

### APPLICATIONS

- Cemented carbide
- Glass
- Ceramics
- Fibreglass
- Plastics
- Stone
- Abrasives
- Electronic components and materials

## CBN WHEELS



### BENEFITS

- Made with durable CBN abrasive which cuts easily through hard to grind steels, HRC50 and harder, resisting wear
- Engineered B-99 resin bond for free cutting capability and superior form holding
- Aztec IV bond for larger cutting depth
- Used for dry tool resharpening when heavy stock removal is required

### APPLICATIONS

- High speed tool steels
- Die steels
- Hardened carbon steels
- Alloy steels
- Aerospace alloys
- Hard stainless steel
- Abrasion-resistant ferrous materials

# WHEEL SHAPES



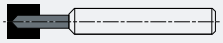
1A1

PAGE 288, 291, 296, 298



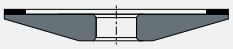
1A1R

PAGE 302



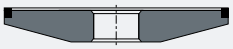
1A1W

PAGE 296, 301



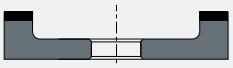
4A2

PAGE 294, 304



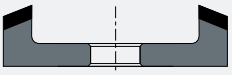
4A9

PAGE 296



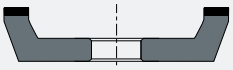
6A2

PAGE 291



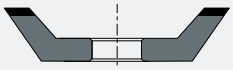
6VV5

PAGE 295



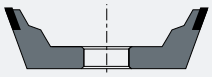
11A2-70º

PAGE 292



11V2

PAGE 292



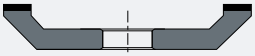
11V9

PAGE 290, 292



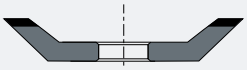
12A2-20º

PAGE 305



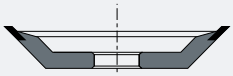
12A2-45º

PAGE 305



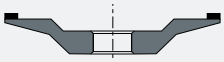
12V2

PAGE 294



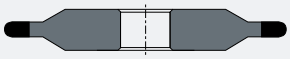
12V9

PAGE 289, 292, 294



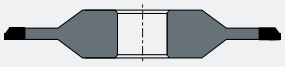
13A2

PAGE 305



14F1

PAGE 287, 303



14M1

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# ROUND TOOLS

## DIAMOND AND CBN GRINDING WHEELS FOR THE MACHINING OF ROUND TOOLS

Norton offers a comprehensives product range for work on round tools including drills, end mills and reamers. Diamond and CBN grinding wheels are ideal for producing and re-sharpening tungsten carbide and HSS tools.

The following sections are arranged by application for easy identification of the correct grinding wheel for fluting, gashing, grinding of clearance angles and re-sharpening. Within the sub-chapters the grinding wheels are ordered by FEPA code.



| FLUTING | GASHING | GRINDING OF CLEARANCE ANGLES |
|---|---|---|

### BOND OVERVIEW DIAMOND

| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| R100 B99 | ↑ | For CNC grinding operations (wet) |
| R75 B99 | | For universal grinding (wet or dry) |
| R50 B99 | | For universal grinding (wet or dry) |
| R75 B49 | | For universal grinding (dry) |
| R50 B49 | | For universal grinding (dry) |

### BOND OVERVIEW CBN

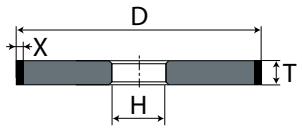
| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| W B99 | ↑ | For CNC grinding operations (wet) |
| T B99 | | For universal grinding (wet or dry) |
| Aztec IV | | Very free grinding dry grinding bond |
| R75 B49 | | For universal grinding (dry) |



# DIAMOND & CBN WHEELS
## FOR MACHINING ROUND TOOLS

The Norton B99 resin bonded wheel is ideal for flute grinding on CNC machines and is particularly suitable for applications on standard tools.
D64R100B99 and B107 W B99 are the most commonly used products for flute grinding, however other specifications can be made available on request.

## 1A1 FLUTING




| DxTxX (mm) | H (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| DIAMOND | | | | |
| 100x10x5 | 20 | ASD64 R100 B99 | 1 | 7958732706 |
| 125x5x3 | 20 | ASD126 R100 B99 | 1 | 7958732469 |
| 125x10x10 | 20 | ASD64 R100 B99 | 1 | 7958732470 |
| 125x12x10 | 20 | ASD64 R100 B99 | 1 | 7958732471 |
| CBN | | | | |
| 100x11x5 | 20 | CB107 W B99 | 1 | 7958732712 |
| 125x10x10 | 20 | CB107 W B99 | 1 | 7958728828 |



# DIAMOND & CBN WHEELS
## FOR MACHINING ROUND TOOLS

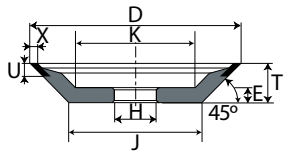
The state-of-the-art Norton B99 resin bond is free cutting and has good corner stability, the most essential characteristic required for CNC gashing.

**Two standard specifications are offered:**

- For tungsten carbide tools: ASD64 R100 B99
- For HSS-tools: CB107 W B99.

Both are available in 12V9 as well as in 1V1 shape. Further combinations of dimensions, grit sizes and concentrations are available on request.

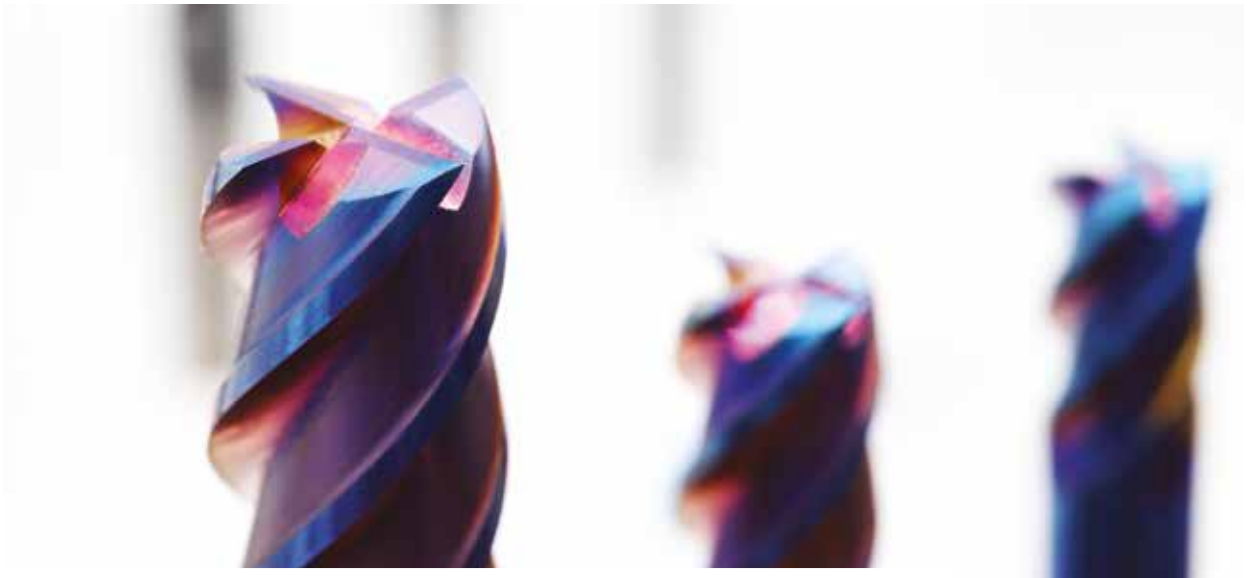
## 12V9 GASHING




| DxXxU (mm) | H (mm) | T (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 100x2x10 | 20 | 20 | 52 | 11 | 60 | ASD64 R100 B99 | 1 | 7958732837 |
| 100x3x10 | 20 | 20 | 52 | 11 | 60 | ASD64 R100 B99 | 1 | 7958732832 |
| 125x2x10 | 20 | 25 | 60 | 12 | 74 | ASD64 R100 B99 | 1 | 7958733019 |
| 150x3x10 | 20 | 25 | 81 | 15 | 99 | ASD64 R100 B99 | 1 | 7958732919 |
| **CBN** | | | | | | | | |
| 125x3x10 | 20 | 25 | 71 | 14 | 74 | CB107 W B99 | 1 | 7958732814 |
| 150x3x10 | 20 | 25 | 81 | 15 | 99 | CB107 W B99 | 1 | 7958732920 |

ADDITIONAL INFORMATION

Stiffened body

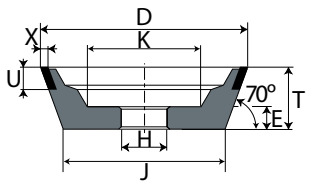


# DIAMOND & CBN WHEELS
## FOR MACHINING ROUND TOOLS

Norton B99 resin bond tools are an ideal choice for grinding clearances and relief angles on CNC machines. With excellent cutting behaviour the bond produces a good surface finish. The listed grinding wheels are suitable for the production and re-sharpening of tungsten carbide and HSS round tools.

D64 R100 B99 and B107 W B99 are the most common specifications for clearance angle grinding applications; however, other specifications are available on request.

## 11V9 CLEARANCE ANGLE GRINDING




| DxXxU (mm) | H (mm) | T (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| DIAMOND | | | | | | | | |
| 100x2x10 | 20 | 35 | 59 | 15 | 74 | ASD64 R100 B99 | 1 | 7958732876 |
| 100x3x10 | 20 | 35 | 53 | 15 | 74 | ASD64 R100 B99 | 1 | 7958732877 |
| CBN | | | | | | | | |
| 100x3x10 | 20 | 35 | 53 | 15 | 74 | CB107 W B99 | 1 | 7958732844 |

ADDITIONAL INFORMATION
Stiffened body

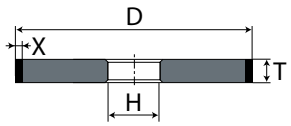


# **DIAMOND & CBN WHEELS** FOR ROUND TOOL UNIVERSAL GRINDING

Norton offers a comprehensive selection of different bonds and concentrations for re-sharpening applications on universal machines. The B99 grinding wheels can be used wet or dry.

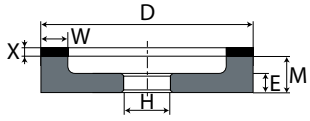
The lower the diamond or CBN concentration the more suited the product will be to grinding large contact areas. Aztec IV is a special free cutting resin bond which is designed for dry grinding operations and enables high material removal.

## 1A1 RE-SHARPENING




| DxTxX (mm) | H (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **DIAMOND** | | | | |
| 100x4x3 | 20 | ASD91 R75 B99 | 1 | 7958732717 |
| 100x10x5 | 20 | ASD91 R75 B99 | 1 | 7958732711 |
| 125x10x5 | 20 | ASD126 R100 B99 | 1 | 7958732466 |
| 150x10x3 | 20 | ASD126 R50 B99 | 1 | 7958732724 |
| 150x10x3 | 32 | ASD126 R75 B99 | 1 | 7958732726 |
| **CBN** | | | | |
| 100x10x5 | 20 | CB126 T B99 | 1 | 7958732704 |
| 150x10x3 | 20 | CB126 T B99 | 1 | 7958732725 |

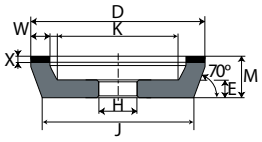
## 6A2 RE-SHARPENING




| DxWxX (mm) | H (mm) | M (mm) | E (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | |
| 100x6x4 | 20 | 23 | 10 | ASD151 R75 B99 | 1 | 7958732881 |
| 100x12x2 | 20 | 18 | 10 | ASD107 R50 B99 | 1 | 7958732879 |
| 125x6x5 | 20 | 25 | 10 | ASD64 R75 B99 | 1 | 7958732922 |
| 150x10x2 | 20 | 23 | 10 | ASD91 R50 B99 | 1 | 7958732932 |
| 150x15x2 | 32 | 23 | 10 | ASD107 R50 B99 | 1 | 7958732933 |
| 150x20x2 | 20 | 20 | 10 | ASD126 R75 B99 | 1 | 7958732934 |
| **CBN** | | | | | | |
| 150x6x4 | 20 | 23 | 10 | CB151 T B99 | 1 | 7958732936 |
| 150x6x4 | 32 | 23 | 10 | CB151 T B99 | 1 | 7958732935 |

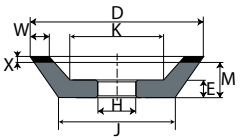
# **DIAMOND & CNC WHEELS** FOR ROUND TOOL UNIVERSAL GRINDING

## 11A2-70° RE-SHARPENING



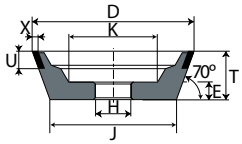

| DxWxX (mm) | H (mm) | M (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 100x5x4 | 20 | 20 | 75 | 10 | 88 | ASD151 R75 B99 | 1 | 60157682163 |
| **CBN** | | | | | | | | |
| 100x5x4 | 20 | 20 | 75 | 10 | 88 | CB126 T B99 | 1 | 60157682165 |

## 11V2 RE-SHARPENING



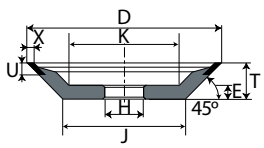

| DxWxX (mm) | H (mm) | M (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 100x5x3 | 20 | 22 | 72 | 8 | 82 | ASD91 R75 B99 | 1 | 7958733007 |
| 100x5x3 | 20 | 22 | 72 | 8 | 82 | ASD126 R75 B99 | 1 | 7958733011 |

## 11V9 RE-SHARPENING




| DxXxU (mm) | H (mm) | T (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 75x2x10 | 20 | 30 | 40 | 10 | 53 | ASD126 R75 B99 | 1 | 7958732859 |
| 100x2x10 | 20 | 35 | 55 | 10 | 74 | ASD126 R75 B99 | 1 | 7958732867 |
| 100x3x10 | 20 | 35 | 60 | 10 | 74 | ASD126 R75 B99 | 1 | 7958732862 |
| 125x3x10 | 20 | 40 | 81 | 10 | 96 | ASD126 R75 B99 | 1 | 7958732847 |
| **CBN** | | | | | | | | |
| 75x1.5x10 | 20 | 30 | 40 | 10 | 53 | BN181 Aztec IV | 1 | 69014152323 |
| 75x2x10 | 20 | 30 | 40 | 10 | 53 | CB126 T B99 | 1 | 7958732853 |
| 100x1.5x10 | 20 | 35 | 55 | 10 | 75 | BN126 Aztec IV | 1 | 69014152115 |
| 100x1.5x10 | 20 | 35 | 55 | 10 | 75 | BN181 Aztec IV | 1 | 69014152118 |
| 100x1.5x10 | 32 | 35 | 55 | 10 | 75 | BN181 Aztec IV | 1 | 69014152120 |
| 100x2x10 | 20 | 35 | 55 | 10 | 74 | CB126 T B99 | 1 | 7958732869 |

## 12V9 RE-SHARPENING




| DxXxU (mm) | H (mm) | T (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 75x2x10 | 20 | 25 | 34 | 10 | 39 | ASD64 R75 B99 | 1 | 7958732816 |
| 100x3x10 | 20 | 20 | 65 | 10 | 59 | ASD46 R75 B99 | 1 | 7958732885 |

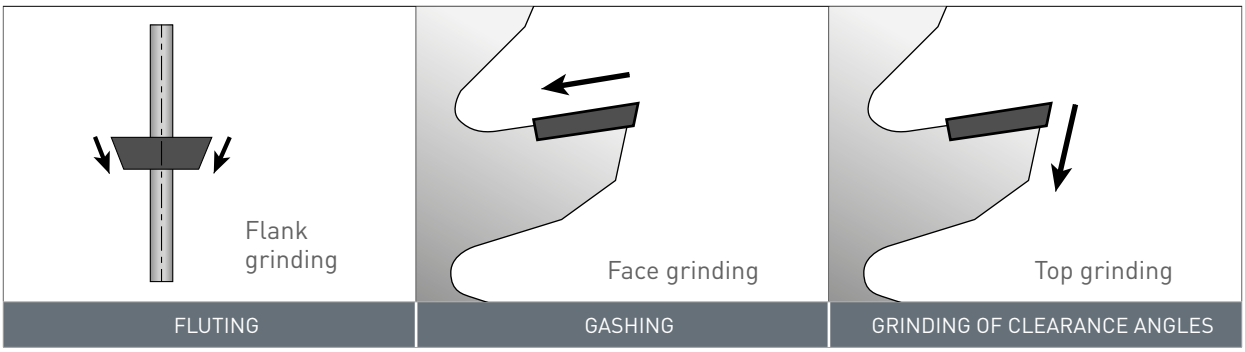


# SAW BLADES

## DIAMOND AND CBN GRINDING WHEELS FOR THE SAW BLADE INDUSTRY

With an emphasis on excellent price vs. performance ratios, the saw blade programme aims to provide the best solutions for grinding tungsten carbide tipped saw blades and one-piece HSS saws.

The tungsten carbide tipped circular saw blade grinding wheels have been specifically designed for face grinding and flank grinding. Norton offers grinding wheels for the most common machine types required for these applications.



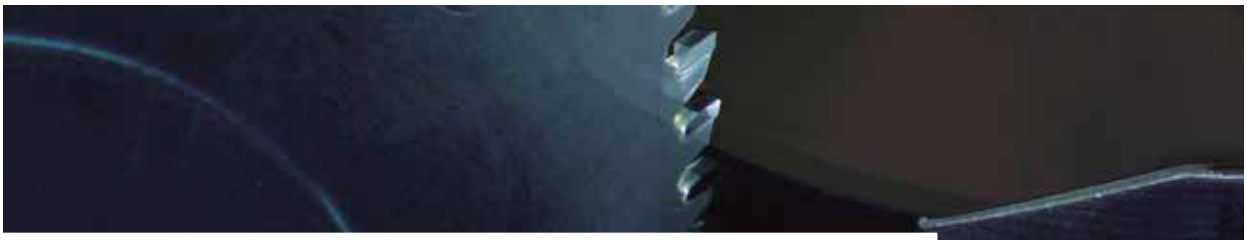

1A1W grinding pins for hollow tooth grinding are also available.

## BOND OVERVIEW DIAMOND

| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| ***ECO*** Face | | Face grinding of tungsten carbide tipped saw blades |
| ***ECO*** Flank | | Flank grinding of tungsten carbide tipped saw blades |
| ***ECO*** Top-AW | | Top-grinding of tungsten carbide tipped saw blades on AKEMAT and WOODTRONIC machines |
| ***ECO*** Top | | Universal top-grinding of tungsten carbide tipped saw blades |
| ***ECO*** Top-R | | Top-grinding of tungsten carbide tipped saw blades, especially re-sharpening |
| ***ECO*** Top-P | | Top-grinding of tungsten carbide tipped saw blades, especially production |
| ***B99*** | | Universal resin bond for wet and dry grinding |

## BOND OVERVIEW CBN

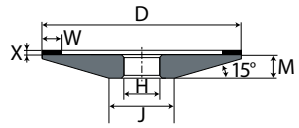
| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| ***ECO*** Curve | | Profiling and re-sharpening of HSS saw blades |



# DIAMOND & CBN WHEELS
## FOR SHARPENING OF TUNGSTEN CARBIDE TIPPED SAW BLADES

The tooth face of circular saw blades is ground with sharp angled cup wheels. Depending on the tooth pitch, different angles and wheel thicknesses are required. The greater the number of teeth around the circumference, the narrower the space between them and the thinner the grinding wheel needs to be. Even the narrowest tooth gaps can be machined with our 12V9 *ECO* Face wheels.
For reasons of stability, conventional tooth gaps are mainly ground using 4A2 or 12V2 grinding wheels.

## 4A2 FACE GRINDING

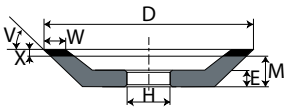



| DxWxX (mm) | H (mm) | M (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| DIAMOND | | | | | | |
| 100x5x2 | 25* | 7 | 51.5 | ASD91 R75 B99 | 1 | 7958725784 |

ADDITIONAL INFORMATION For conventional tooth gaps

*4A2K (with Keyway)

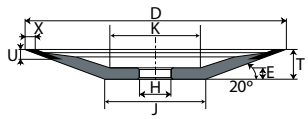
## 12V2 FACE GRINDING




| DxWxX (mm) | H (mm) | M (mm) | V (°) | E (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| DIAMOND | | | | | | | |
| 125x4x2 | 32 | 11 | 30° | 9 | ASD46 R125 B99 | 1 | 60157682189 |
| 125x4x2 | 32 | 11 | 30° | 9 | ASD76 R125 B99 | 1 | 60157682188 |
| 200x4x2 | 32 | 13 | 30° | 11 | ASD46 R125 B99 | 1 | 7958725781 |
| 200x4x2 | 32 | 13 | 30° | 11 | ASD76 R125 B99 | 1 | 7958725780 |

ADDITIONAL INFORMATION For conventional tooth gaps

## 12V9 FACE GRINDING




| DxXxU (mm) | H (mm) | T (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| DIAMOND | | | | | | | | |
| 125x2.3x4 | 32 | 13 | 101 | 10 | 70 | D46 ***ECO*** Face | 1 | 69014148184 |
| 150x2.3x4 | 32 | 13 | 126 | 10 | 95 | D46 ***ECO*** Face | 1 | 7958719191 |
| 200x2.3x4 | 32 | 13 | 173 | 10 | 145 | D46 ***ECO*** Face | 1 | 69014148205 |

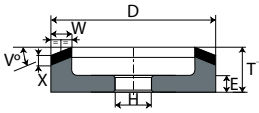
ADDITIONAL INFORMATION For conventional tooth gaps



# DIAMOND & CBN WHEELS
## FOR SHARPENING OF TUNGSTEN CARBIDE TIPPED SAW BLADES

To ensure the circular nature of the saw and to define the wedge and clearance angles, the top of the saw blade needs to be ground.
Vollmer and Widma machines normally require 6VV5 cup wheels Akemat and Woodtronic machines require 14M1 state of the art peripheral wheels.

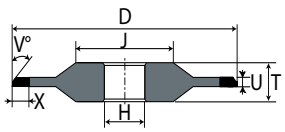
## 6VV5 TOP GRINDING




| DxWxX (mm) | V (°) | H (mm) | T (mm) | E (mm) | SPECIFICATION | ADDITIONAL INFORMATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 125x5x10 | 8° | 32 | 22 | 11 | ASD126/46 R100/ R75 ***ECO*** TOP-P | For production, oil | 1 | 7958725661 |
| 125x5x10 | 8° | 32 | 22 | 11 | ASD126/46 R125/ R100 ***ECO*** TOP-R | For re-sharpening | 1 | 7958725663 |

*6VV5K (with keyway)

## 14M1 TOP GRINDING




| DxUxX (mm) | V (°) | H (mm) | T (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | |
| 200x5x8 | 8° | 32 | 10 | 156 | ASD126/46 R100/ R75 ***ECO*** TOP-AW | 1 | 7958725786 |

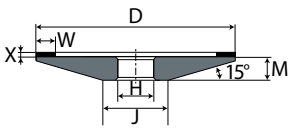
ADDITIONAL INFORMATION D126/D46: U=2.5/2.5



# DIAMOND & CBN WHEELS
## FOR SHARPENING OF TUNGSTEN CARBIDE TIPPED SAW BLADES

During the flank grinding process the cutting width of the circular saw blade is defined. Therefore, typically two 4A9 grinding wheels are simultaneously fed from both sides.
When manufacturing saw blades there is a wide variety of tooth geometries and designs to choose from. Depending on the intended use of the saw, the tooth design can be flat, alternate, trapezoid or any combination of these. Hollow ground teeth are very common to achieve finer cuts with no burrs. The rounded shape of hollow ground teeth is produced with 1A1W grinding pins.

## 4A9 FACE GRINDING

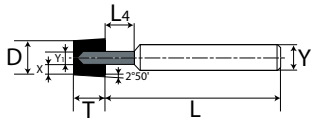



| DxXxW (mm) | H (mm) | T (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| DIAMOND | | | | | | |
| 100x4x5 | 32 | 10 | 55 | ASD126 ECO Flank | 1 | 7958725738 |

ADDITIONAL INFORMATION Universal use

*4A9K (with Keyway)

## 1A1W HOLLOW TOOTH GRINDING




| DxTxX (mm) | Y (mm) | L (mm) | $Y_1$ (mm) | $L_4$ (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| DIAMOND | | | | | | | |
| 6.5x3x1.75 | 6 | 42 | 4.1 | 10 | ASD76 R125 B99 | 1 | 7958725782 |

ADDITIONAL INFORMATION For all common machines

COLOUR CODES FOR MACHINE MANUFACTURERS

| Vollmer-Biberach | Vollmer-Dornhan | Woodtronic | Akemat | Widma |
|---|---|---|---|---|

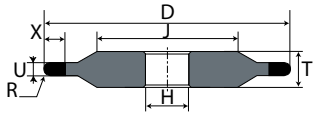


# DIAMOND & CBN WHEELS
## FOR SHARPENING HSS SAW BLADES

HSS saw blades are one-piece saws that are ground from one solid piece of metal. For this process HSS saws require special grinding machines.

14F1 wheels grind the required profile under CNC control. Wheels are ideal for both initial profiling and re-sharpening thanks to the advanced resin bond systems which ensure the wheels are economic and extremely wear resistant.

## 14F1 INITIAL PROFILING AND RE-SHARPENING




ADDITIONAL INFORMATION
For Loroch machines

| DxUxX (mm) | R (mm) | H (mm) | T (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| CBN | | | | | | | |
| 200x1.3x6.5 | 0.65 | 32 | 8 | 169 | CB107 ***ECO*** Curve | 1 | 7958706686 |
| 200x1.6x7 | 0.8 | 32 | 8 | 164 | CB107 ***ECO*** Curve | 1 | 7958714307 |
| 200x2x8 | 1 | 32 | 8 | 164 | CB107 ***ECO*** Curve | 1 | 7958706684 |
| 200x2.5x8 | 1.25 | 32 | 8 | 159 | CB107 ***ECO*** Curve | 1 | 7958716444 |
| 200x3x10 | 1.5 | 32 | 8 | 160 | CB107 ***ECO*** Curve | 1 | 7958718179 |
| 200x4x12.5 | 2 | 32 | 8 | 157 | CB107 ***ECO*** Curve | 1 | 7958716216 |



# GENERAL ENGINEERING

## DIAMOND AND CBN GRINDING WHEELS FOR GENERAL ENGINEERING

Norton diamond and CBN wheels for general engineering are suitable for many grinding applications like OD-, ID-, and flat grinding, machining of knives, milling cutters and polishing.

Most of the bonds listed in this section are made with ASD (armoured synthetic diamonds) grit and are suitable for wet and dry grinding applications. Some wheels use AMD (armoured metal bond diamonds) which are more wear resistant but require a coolant.

More information about the application can be found in the relevant sub-chapters.

### BOND OVERVIEW DIAMOND

| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| R100 B99 | ↑ | For universal grinding (wet or dry) |
| R75 B99 | | For universal grinding (wet or dry) |
| R50 B99 | | For universal grinding (wet or dry) |
| R75 B49 | | For universal grinding (dry) |
| R50 B49 | | For universal grinding (dry) |

### BOND OVERVIEW CBN

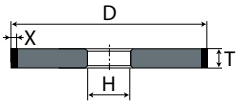
| BOND | WEAR RESISTANCE | RECOMMENDATION FOR USE |
|---|---|---|
| W B99 | ↑ | For universal grinding (wet or dry) |
| T B99 | | For universal grinding (wet or dry) |
| Q B99 | | For universal grinding (wet or dry) |
| R75 B49 | | For universal grinding (dry) |
| R50 B49 | | For universal grinding (dry) |



# DIAMOND & CBN WHEELS
## FOR GENERAL ENGINEERING

Norton offers a comprehensive stock programme for resin bonded 1A1 standard grinding wheels designed for OD- and flat grinding tungsten carbide and steel parts.
All specified grinding wheels can be used for OD- and flat grinding. However, wheels (R50) with lower concentration have been specifically designed for flat grinding operations.
Other specifications are available on request.

## 1A1 OD AND FLAT GRINDING



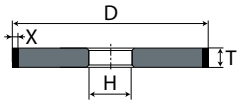

| DxTxX (mm) | H (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| **DIAMOND** | | | | |
| 175x15x3 | 32 | ASD126 R50 B99 | 1 | 7958732730 |
| 200x10x3 | 32 | ASD126 R75 B99 | 1 | 7958732731 |
| 200x10x3 | 51 | ASD126 R75 B99 | 1 | 7958732732 |
| 200x15x3 | 32 | ASD126 R75 B99 | 1 | 7958732840 |
| 250x15x3 | 76.2 | ASD126 R75 B99 | 1 | 7958732804 |
| 300x10x3 | 127 | ASD126 R75 B99 | 1 | 7958732824 |
| 300x15x3 | 127 | ASD126 R75 B99 | 1 | 7958732810 |
| 300x20x3 | 127 | AMD126 R50 B99 | 1 | 7958732812 |
| 400x15x3 | 127 | ASD126 R50 B99 | 1 | 7958788923* |
| **CBN** | | | | |
| 200x10x3 | 51 | CB126 T B99 | 1 | 7958732803 |
| 200x15x3 | 32 | CB126 Q B99 | 1 | 7958732838 |
| 300x15x3 | 127 | CB126 T B99 | 1 | 7958732808 |
| 300x20x3 | 127 | CB126 Q B99 | 1 | 7958732815 |
| 350x20x3 | 127 | CB126 Q B99 | 1 | 7958788928* |
| 350x30x3 | 127 | CB126 Q B99 | 1 | 7958788929* |
| 400x20x3 | 127 | CB126 Q B99 | 1 | 7958788932* |



# DIAMOND & CBN WHEELS
## FOR GENERAL ENGINEERING

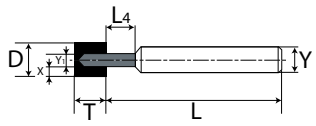
Resin bonded grinding pins and grinding wheels can be used for wet or dry applications, either manually or on automatic grinding machines. To avoid burning and to ensure stable grinding conditions the diameter must be carefully selected. It is highly recommended to choose a diameter no bigger than 70% of the bore. When using grinding pins, it is very important to follow the permitted speed instructions, which are engraved on the grinding tool. If the permitted speed is slower than the adjustable speed of the grinding spindle, a different technical solution is required.

## 1A1 ID GRINDING




| DxTxX (mm) | H (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|
| DIAMOND | | | | |
| 15x12x2 | 6 | ASD126 R100 B99 | 1 | 7958732728 |
| 20x10x2 | 6 | ASD126 R100 B99 | 1 | 7958732950 |
| 30x10x3 | 10 | ASD126 R75 B99 | 1 | 7958732956 |
| 40x15x3 | 10 | ASD126 R75 B99 | 1 | 7958732971 |
| CBN | | | | |
| 12x10x2 | 6 | CB126 W B99 | 1 | 7958732722 |
| 15x12x2 | 6 | CB126 W B99 | 1 | 7958732729 |
| 20x10x2 | 6 | CB126 W B99 | 1 | 7958732948 |
| 20x15x2 | 6 | CB126 W B99 | 1 | 7958732957 |
| 30x15x3 | 10 | CB126 W B99 | 1 | 7958732937 |
| 40x15x3 | 10 | CB126 W B99 | 1 | 7958732961 |
| 50x15x3 | 20 | CB126 W B99 | 1 | 7958732981 |

# 1A1W IDF GRINDING




| DxTxX (mm) | Y (mm) | L (mm) | $Y_1$ (mm) | $L_4$ (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | |
| 3x6x0.65 | 3 | 60 | 1.7 | 8 | ASD126 R100 B99 | 1 | 7958732949** |
| 5x6x1.5 | 3 | 60 | 2.1 | 8 | ASD64 R100 B99 | 1 | 7958732944 |
| 5x6x1.5 | 3 | 60 | 2.1 | 8 | ASD126 R100 B99 | 1 | 7958732943 |
| 6x6x1.5 | 6 | 60 | 3.1 | 8 | ASD64 R100 B99 | 1 | 7958732940 |
| 6x6x1.5 | 6 | 60 | 3.1 | 8 | ASD126 R100 B99 | 1 | 7958732941 |
| 8x10x2 | 6 | 60 | 4.1 | 12 | ASD64 R100 B99 | 1 | 7958732954 |
| 8x10x2 | 6 | 60 | 4.1 | 12 | ASD126 R100 B99 | 1 | 7958732953 |
| 10x10x2 | 6 | 60 | - | - | ASD64 R100 B99 | 1 | 7958732959 |
| 10x10x2 | 6 | 60 | - | - | ASD126 R100 B99 | 1 | 7958732960 |
| 12x12x2 | 6 | 60 | - | - | ASD64 R100 B99 | 1 | 7958732963 |
| **CBN** | | | | | | | |
| 3x6x0.65 | 3 | 60 | 1.7 | 8 | CB126 W B99 | 1 | 7958732947 |
| 5x6x1.5 | 3 | 60 | 2.1 | 8 | CB126 W B99 | 1 | 7958732946 |
| 6x6x1.5 | 6 | 60 | 3.1 | 8 | CB126 W B99 | 1 | 7958732938 |
| 8x10x2 | 6 | 60 | 4.1 | 12 | CB126 W B99 | 1 | 7958732955 |
| 10x10x2 | 6 | 60 | - | - | CB126 W B99 | 1 | 7958732958 |
| 12x12x2 | 6 | 60 | - | - | CB126 W B99 | 1 | 7958732962 |

** Available while stocks last

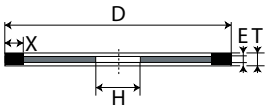


# DIAMOND & CBN WHEELS
## FOR GENERAL ENGINEERING

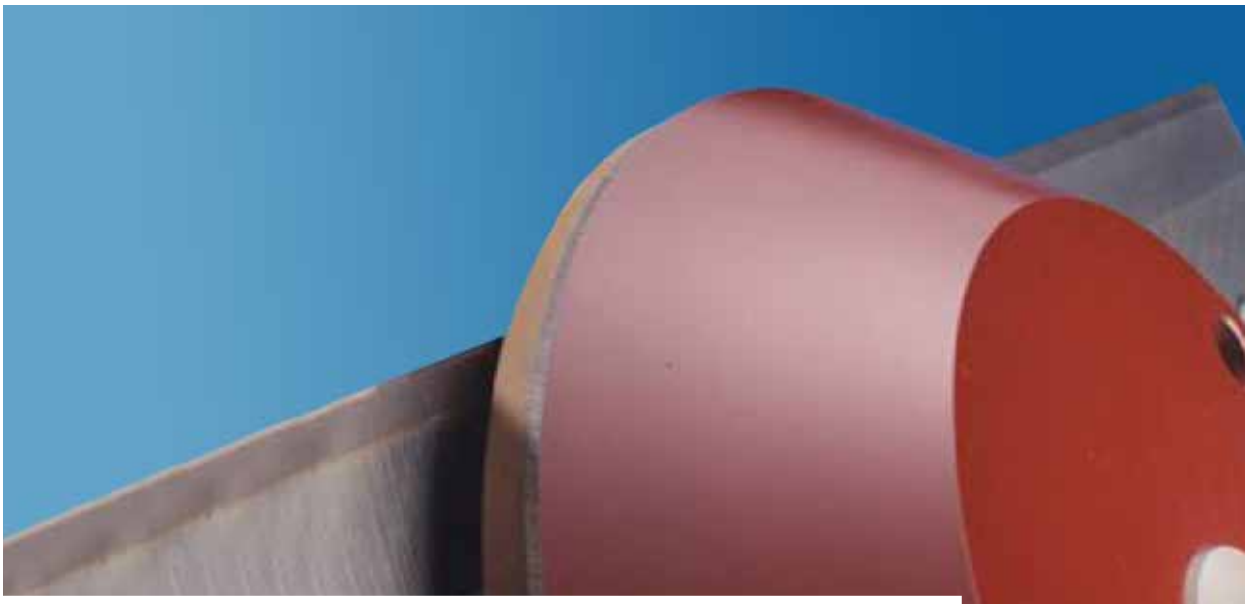
Norton offers a small assortment of standard resin bonded cut-off grinding wheels. The specified diamond cut-off wheels cut hard, short-chipping and wear resistant materials such as glass, ceramics and carbide. The contained CBN cut-off wheels are ideal for machining high speed steel, hardened steel, 55 HRC and magnetic materials.

Further specifications for resin bond, sintered metal and electroplated metal bond are available on request.

## 1A1R CUT-OFF



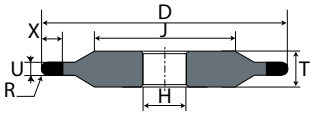

| DxTxX (mm) | E (mm) | H (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| DIAMOND | | | | | |
| 100x0.9x5 | 0.7 | 20 | ASD126 R75 B99 | 1 | 60157681683 |
| 125x1x5 | 0.7 | 20 | ASD126 R75 B99 | 1 | 60157681686 |
| 150x1x5 | 0.8 | 20 | ASD126 R75 B99 | 1 | 60157681688 |
| CBN | | | | | |
| 150x1x5 | 0.8 | 20 | CB151 T B99 | 1 | 60157682103 |



# DIAMOND & CBN WHEELS
## FOR GENERAL ENGINEERING KNIFE GRINDING

Norton offers a range of resin bonded grinding wheels for machining flat, circular and profile knives.
The 6A2 grinding wheels are specifically designed for wet grinding of circular knifes with tungsten carbide-steel combinations on Göckel and Reform machines.
The 14F1 grinding wheels are designed for use on Weinig machines for grinding profile knives for the wood industry.

## 14F1 PROFILE GRINDING




ADDITIONAL INFORMATION
For Weinig machines

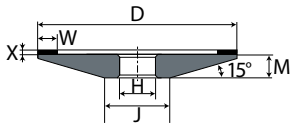
| DxUxX (mm) | R (mm) | H (mm) | T (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| CBN | | | | | | | |
| 200x2x7 | 1 | 60 | 10 | 129 | CB126 T B99 | 1 | 7958732990 |
| 200x4x7 | 2 | 60 | 10 | 134 | CB151 W B99 | 1 | 7958732988 |



# DIAMOND & CBN WHEELS
## FOR GENERAL ENGINEERING MILLING CUTTERS

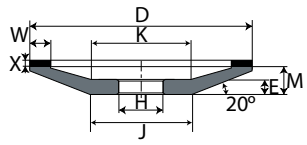
Grinding tool faces and clearances are the main applications of the milling cutter.
Norton offers a diverse range of grinding wheels to enable excellent performance in both applications. A comprehensive range of grit sizes and concentrations provides the ideal solution for each application. The price vs. performance ratio of these tools is the underlying benefit of this product range.

## 4A2 FACE GRINDING



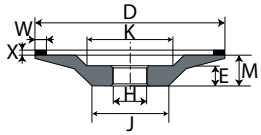

| DxWxX (mm) | H (mm) | M (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| DIAMOND | | | | | | |
| 125x5x2 | 20 | 7 | 84 | ASD126 R75 B99 | 1 | 7958732870 |
| 125x5x2 | 32 | 7 | 84 | ASD91 R75 B99 | 1 | 7958732866 |
| 150x5x2 | 20 | 9 | 94 | ASD126 R75 B99 | 1 | 7958732864 |
| 150x5x2 | 32 | 9 | 94 | ASD91 R75 B99 | 1 | 7958732855 |
| CBN | | | | | | |
| 100x5x2 | 20 | 6 | 66 | CB126 T B99 | 1 | 7958732884 |
| 150x5x4 | 20 | 9 | 94 | CB107 T B99 | 1 | 7958732852 |

## 12A2-20° FACE GRINDING




| DxWxX (mm) | H (mm) | M (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 125x6x4 | 32 | 14 | 54 | 8 | 54 | ASD91 R75 B99 | 1 | 60157682172 |
| 150x5x2 | 20 | 16 | 68 | 9 | 68 | ASD64 R50 B99 | 1 | 69014151397 |
| 150x5x2 | 32 | 16 | 68 | 9 | 68 | ASD126 R75 B99 | 1 | 69014151963 |
| **CBN** | | | | | | | | |
| 150x5x4 | 20 | 16 | 68 | 9 | 68 | CB126 Q B99 | 1 | 69014151412 |

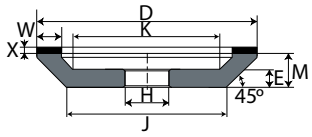
## 13A2 FACE GRINDING




| DxWxX (mm) | H (mm) | M (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 125x5x4 | 20 | 19 | 50 | 9 | 73 | ASD126 R75 B99 | 1 | 7958732991** |

** Available while stocks last

## 12A2-45° TOP GRINDING




| DxWxX (mm) | H (mm) | M (mm) | K (mm) | E (mm) | J (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|---|
| **DIAMOND** | | | | | | | | |
| 100x5x2 | 20 | 23 | 54 | 10 | 56 | ASD107 R50 B99 | 1 | 7958732999 |
| 100x6x3 | 20 | 20 | 64 | 10 | 62 | ASD76 R75 B99 | 1 | 7958732968 |
| 100x6x3 | 20 | 20 | 64 | 10 | 62 | ASD126 R75 B99 | 1 | 7958732966 |
| 125x6x3 | 32 | 23 | 83 | 10 | 81 | ASD126 R75 B99 | 1 | 7958732969 |
| **CBN** | | | | | | | | |
| 125x6x2 | 20 | 23 | 83 | 10 | 81 | CB126 T B99 | 1 | 7958732970 |



# DIAMOND LAPPING COMPOUNDS
## FOR GENERAL ENGINEERING

Norton lapping compounds are supplied in a standard concentration of 5g dispenser syringes. Perfectly sized synthetic diamond powder is mixed with a paste. When used, this compound should be diluted with water or alcohol.

### APPLICATIONS & MARKETS

- Used for lapping an extremely wide range of parts by hand
- Superfinishing of electronic components, semi-conductors, magnetic heads, rigid discs and optical discs
- Finishing for routine operations
- Preparatory lapping
- Fast removal of material, roughing

## DIAMOND COMPOUND PASTE

- Optimised diamond grit distribution
- Easy and safe application

| GRADE (MICRONS) | COLOUR | CONTENTS | PK QTY | ART NO. |
|---|---|---|---|---|
| 1/4 | GREY | 5g | 1 | 69014154990 |
| 1/2 | LIGHT GREY | 5g | 1 | 69014154991 |
| 1 | IVORY | 5g | 1 | 69014154992 |
| 3 | YELLOW | 5g | 1 | 69014154993 |
| 6 | ORANGE | 5g | 1 | 69014154994 |
| 9 | GREEN | 5g | 1 | 69014154995 |
| 12 | LIGHT BLUE | 5g | 1 | 69014154996 |
| 15 | BLUE | 5g | 1 | 69014154997 |
| 20 | BROWN | 5g | 1 | 69014154998 |
| 30 | RED | 5g | 1 | 69014154999 |
| 45 | CHESTNUT | 5g | 1 | 69014155000 |
| 60 | VIOLET | 5g | 1 | 69014155001 |





# DIAMOND FILES
## FOR GENERAL ENGINEERING

Norton offers a range of diamond files in various shapes for deburring, tool profiling, hardened steel and metal carbides, glass, ceramics and hard plastics.

## FILES

- Free cutting and very high wear resistant, requiring only low contact pressure

| SHAPE | BASE BODY CROSSSECTION | LENGTH OF DIAMOND LAYER | TOTAL LENGTH | SHAFT Ø | GRIT SIZE | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| ▭ | 5×1 | 70 | 140 | 3 | D91 | 1 | 66260134227 |
| ▭ | 5×1 | 70 | 140 | 3 | D126 | 1 | 66260134228 |
| △ | 3.5 | 70 | 140 | 3 | D126 | 1 | 66260134231 |
| ⌓ | 5x2 | 70 | 140 | 3 | D91 | 1 | 66260110230 |
| ⌓ | 5x2 | 70 | 140 | 3 | D126 | 1 | 66260134235 |
| ○ | Ø 3 | 70 | 140 | 3 | D126 | 1 | 66260134237 |

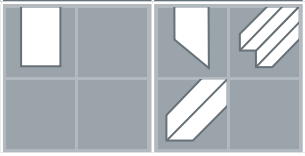




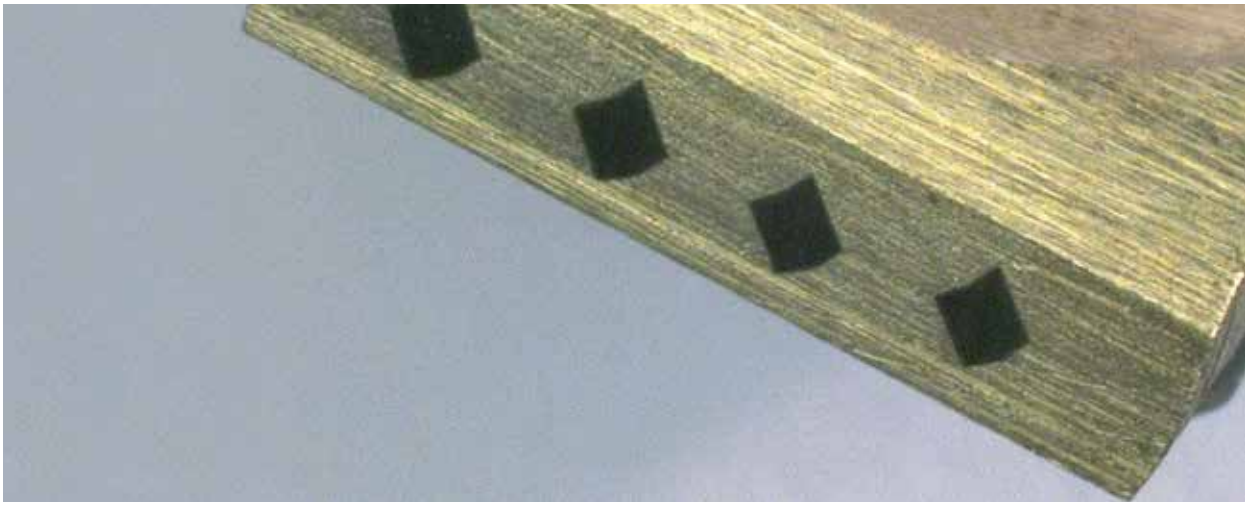

# **DIAMOND DRESSERS** FOR CONVENTIONAL GRINDING WHEELS

Norton-Winter stationary diamond dressing tools have a worldwide reputation for quality and technology. Ideal for profiling and straight dressing of all conventional grinding wheels.

## PRODUCT SELECTION GUIDE

| APPLICATIONS | STRAIGHT PLUNGE GRINDING | ANGULAR PLUNGE / PROFILE GRINDING | CENTRELESS / THROUGH-FEED GRINDING | INTERNAL GRINDING | DIAFORM | SINTERED GRAINS |
|---|---|---|---|---|---|---|
| PROFILE AVAILABILITY |  | | | | | |
| Blade tool with CVD | | ● | | | | ● |
| Blade tool with natural grains | ● | ◐ | ● | | | ◐ |
| Profile dresser | | | | | ● | |
| Multi point | ◐ | | ◐ | | | |
| Single point | | | | ● | | |

Highly recommended ● Recommended ◐



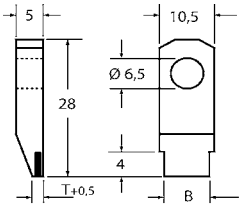
# SELECTING A BLADE TOOL DRESSER

| | | |
|---|---|---|
| Natural diamonds |  | An effective diamond layer with a length of up to 15mm creates an economical dressing solution. Using precise diamond setting patterns, with overlapped rows of stones, ensures that consistent dressing results are achieved. |
| Synthetic diamonds |  | The constant cross section given by synthetic diamonds, guarantees a constant dressing behaviour through the complete life of the dressing tool. |
| Dressing of profiles with blade tools |  | Profile grinding operation using blade tools are done either using natural diamonds or synthetic diamonds in needle form, such form allows better retention of the diamonds to the bond avoiding shortage on lifetime of the blades. |

# BLADE TOOL DRESSERS +++++

- Synthetic multi-crystalline diamond
- The most consistent dresser for demanding profiling and straight dressing



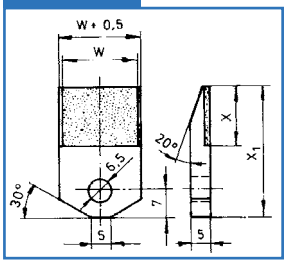



| | UPC | DESCR. | BEST | BETTER | GOOD |
|---|---|---|---|---|---|
| Coarse (T=1.1mm) | 66260336093 | 3584-OC/4 | 4 CVD logs | | |
| | 66260337292 | 3584-OC/3 | | 3 CVD logs | |
| | 66260337491 | 3584-OC/2 | | | 2 CVD logs |
| Fine (T=0.8mm) | 66260195223 | 3564-OC/4 | 4 CVD logs | | |
| | 66260337624 | 3564-OC/3 | | 3 CVD logs | |
| | 66260337490 | 3564-OC/2 | | | 2 CVD logs |

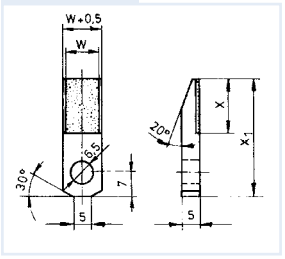
# BLADE TOOL DRESSERS ++++

- An economical dressing solution for all Alox and SiC wheels
- Natural diamond
- Needles are recommended for profile dressing

BEST




GOOD






| | UPC | DESCR. | BEST | GOOD |
|---|---|---|---|---|
| Profile Grinding (Needle) | 69014185756 | TFC180-20-10-28*N1100 T645 E | 20x28mm | |
| | 69014185757 | TFD180-10-12-28*N1000 T645 E | | 10x28mm |
| Coarse | 69014185716 | TFCS140-20-10-28*D1181 T645 E | 20x28mm | |
| | 69014185737 | TFDS140-10-12-28*D1181 T645 E | | 10x28mm |
| Medium | 69014185718 | TFCS115-20-10-28*D1001 T645 E | 20x28mm | |
| | 69014185736 | TFDS115-10-12-28*D1001 T645 E | | 10x28mm |
| Fine | 69014185732 | TFCS90-20-10-28*D711 T645 E | 20x28mm | |
| | 69014185735 | TFDS90-10-12-28*D711 T645 E | | 10x28mm |

# SCREWED SHANKS FOR BLADE TOOL DRESSERS +++++

| DIA (mm) | L (mm) | SHANK CODE | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 12.065 | 40 | MT1 | HPB-H3 | 1 | 60157682832 |
| 9.045 | 25.5 | MT0 | HPB-H4 | 1 | 60157682907 |
| 11.11 | 50 | Z11.11 | HPB-H2 | 1 | 60157682910 |
| 10.00 | 50 | Z10 | HPB-HX | 1 | 60157682911 |



# SINGLE-POINT DRESSER

+++++

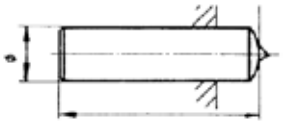
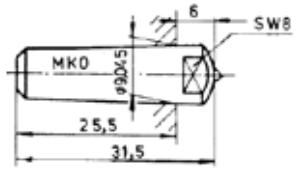
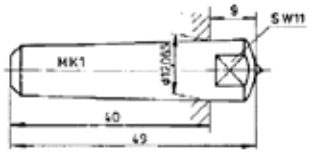
- Highest quality diamonds
- Specifically developed for dressing ceramic abrasive (SG/TG) wheels which require faster traverse speed dressing
- High performance tools
- Enables dressing costs to be reduced, specially at production grinding stations



++++

- Standard diamonds
- Ideal for applications where it is difficult to measure the performance of the dressing tool
- Economy product
- Suitable for dressing conventional abrasive wheels



| | | BEST | | | GOOD | | |
|---|---|---|---|---|---|---|---|
| SHANK | SKETCH | UPC | DESCR. | CARAT | UPC | DESCR. | CARAT |
| Cyl. 8mm |  | 66260161755 | BCSG10-8 | 1.0 ct | 66260211029 | SP05-C8x50-AA | 0.5 ct |
| Cyl. 10mm | | 66260161766 | BCSG10-10 | 1.0 ct | 66260211033 | SP05-C10x50-AA | 0.5 ct |
| Cyl 11.11 | | 66260157010 | BCSG10-M7 | 1.0 ct | 66260195005 | BC5-7 | 0.5 ct |
| Cyl 12mm | | 66260161777 | BCSG10-12 | 1.0 ct | 66260161774 | BC5-12 | 0.5 ct |
| MK0 |  | 69014119600 | SP15-MK0 | 1.5 ct | 69014119599 | SP10-MK0 | 1.0 ct |
| MK1 |  | 69014119595 | SP15-MK1 | 1.5 ct | 69014119594 | SP10-MK1 | 1.0 ct |

# PROFILE DRESSER

+++++

- Extremely high performance tools
- Used to meet extremely high profile accuracy requirements

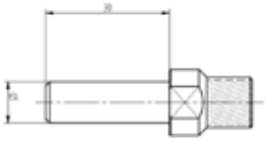
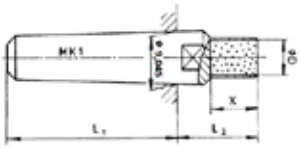
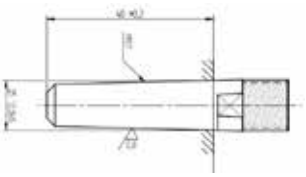


| SHANK (mm) | RADIUS (mm) | ANGLE | SPECIFICATION | ART NO. |
|---|---|---|---|---|
| Z9, 52 | 0.13 | 40° | DC 40/130 | 60157682850 |
| | 0.50 | 40° | DC 40/500 | 60157682901 |
| | 0.25 | 60° | DC 60/250 | 60157682905 |

# MULTI-POINT DRESSER

- Economical and robust
- Ideal for straight dressing at high speed with low technical demands



| SHANK | | COARSE | | | FINE | | |
|---|---|---|---|---|---|---|---|
| | | UPC | DESCR. | CARAT | UPC | DESCR. | CARAT |
| Cyl. 8mm |  | 66260329350 | HIG5-11-11-Z8-40* D1001 H710 | 5.0 ct | 66260386425 | HPRO58-5-8-Z8-20* D426 H710 | 1.0 ct |
| Cyl. 10mm | | 7958773912 | HIG5-11-11-45-Z10/K-30 *D711 H710 | 5.0 ct | 66260196236 | HPRO88-8-0-8-Z10-50* D426 H710 | 2.4 ct |
| Cyl 11.11 | | 69014172027 | HIG5-11-11-Z11-30 *D711 H710 | 5.0 ct | 66260154289 | HPRO48-4-8-40-Z11,11-30 * D76 H770 | 0.6 ct |
| MK0 |  | 66260389441 | HIG3,5-8-0-11-MK0-25.5 *D711 H710 | 3.5 ct | 66260385998 | HPRO88-8-0-8-MK0-25,5* D426 H710 | 2.4 ct |
| MK1 |  | 66260195959 | HIG5-11-11-MK1-40 *D1001 H710 | 5.0 ct | 66260196240 | HPRO88-8-8-MK1-40* D426 H770 | 2.4 ct |

# HAND DRESSER

- High diamond concentration
- Grit 18/25 SPC
- High wear resistance and long product lifetime
- Suitable for face and side dressing



| SPECIFICATION | PK QTY | ART NO. |
|---|---|---|
| HD-150 | 1 | 60157682852 |

# BRAKE CONTROLLED TRUING DEVICE

- For fast effective truing of diamond and CBN wheels with minimum loss of abrasive
- Ideal for truing diamond and CBN wheel types: straight wheels with diamond in the periphery, tool and cutter grinding wheels, wheels used on surface and cylindrical grinding machines, cut-off wheels and internal grinding wheels and cup wheels with diamonds in the rim, as used on vertical spindle surface grinders



| SPECIFICATION | PK QTY | ART NO. |
|---|---|---|
| BCTD | 1 | 66260274459 |

# WHEELS FOR BRAKE CONTROLLED TRUING DEVICE

| DIA (mm) | T (mm) | B (mm) | SPECIFICATION | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 80 | 25 | 13 | Wheel 37C60-NV | 10 | 69936668764 |

# DRESSING STICKS

- High purity white aluminium oxide abrasive
- Friable abrasive
- Ideal for dressing CBN Super Abrasive wheels

| DIA (mm) | SPECIFICATION | PK QTY | ART NO. | APPLICATION |
|---|---|---|---|---|
| 13x25x150 | 38A 150 HVBE | 10 | 61463605565 | For SA wheels ≥D54 |
| | 38A 220 HVBE | 10 | 61463605066 | - |
| | 38A 320 HVBE | 10 | 69936684889 | For SA wheels ≤D46 |



SPEC CHECK

Mount the device spindle parallel to the wheel spindle to ensure correct straight face truing.
For cup shaped wheels, the device spindle will be mounted perpendicularly to the wheel spindle.
Use appropriate traverse rates.

# TECHNICAL INFORMATION

## DESIGNATION OF GRIT SIZES

| FEPA MICRONS | US MESH | JIS | DWMI | DIAMOND | CBN | RA (mm) SURFACE FINISH | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | CARBIDE | STEEL PLUNGE | STEEL OSCILLATING |
| 1181 | 16/18 | | | | | | | |
| 1182 | 16/20 | | | 16 | | | | |
| 1001 | 18/20 | | | | | | | |
| 851 | 20/25 | | | | | | | |
| 852 | 20/30 | 20 | | 24 | 24 | | | |
| 711 | 25/30 | | | | | | | |
| 601 | 30/35 | | | | | | | |
| 602 | 30/40 | 30 | | 36 | 36 | | | |
| 501 | 35/40 | | | | | | | |
| 426 | 40/45 | | | | | | | |
| 427 | 40/50 | 40 | | 46 | 46 | | | |
| 356 | 45/50 | | | | | | | |
| 301 | 50/60 | 50 | | 50 | 50 | | | |
| | 50/80 | | | | | | | |
| 251 | 60/70 | | | 60 | 60 | | | |
| 252 | 60/80 | 60 | 60 | 80c | 80c | 0.6-0.9 | | |
| 213 | 70/80 | | | 80 | 80 | | | |
| 181 | 80/100 | 80 | 80 | 100 | 100 | 0.4-0.7 | 1.0-1.1 | 0.9-1.1 |
| | 80/120 | | | 110c | | | | |
| 151 | 100/120 | 100 | 100 | 110 | 120 | | 0.9-1.0 | 0.8-0.9 |
| 126 | 120/140 | 120 | 120 | 120 | 150 | 0.4-0.5 | 0.8-0.9 | 0.6-0.8 |
| 107 | 140/170 | 140 | 150 | 150 | 180 | | 0.6-0.8 | 0.5-0.6 |
| 91 | 170/200 | 170 | 180 | 180 | 220 | 0.3-0.4 | 0.5-0.6 | 0.4-0.5 |
| 76 | 200/230 | 200 | 220 | 220 | 230 | | | |
| 64 | 230/270 | 230 | 240 | 240 | 240 | 0.2-0.3 | 0.4-0.5 | |
| 54 | 270/325 | 270 | 320 | 320 | 320 | | | |
| 46 | 325/400 | 325 | 400 | 400 | 400 | 0.1-0.2 | | |
| | 400/500 | 400 | | 500 | 500 | | | |
| M63 | 40/60 | | | | | | | |
| M40 | 30/40 | 500 | | 500 | | | | |
| M25 | 20/30 | 700 | | | | | | |
| | 15/25 | 800 | | | | | | |
| M16 | *10/20* | 1000 | | 600 | | | | |
| | *8/16* | 1500 | | | | | | |
| M10 | *6/12* | 2000 | | 800 | | | | |
| M6.3 | *4/8* | 2500 | | | | | | |
| | *3/6* | 4000 | | | | | | |
| M4 | *2/4* | 5000 | | | | | | |
| M1 | *0/2* | 15000 | | | | | | |

## CONCENTRATION

The concentration is defined by a standard and indicates the weight of abrasive (in carats) contained in 1cm³ of abrasive strip – 1 carat = 0.2 grams.

| CONCENTRATION* | | | NUMBER OF CARATS/cm³ | | ABRASIVE WEIGHT PER cm³ |
|---|---|---|---|---|---|
| DIAMOND ABRASIVE | | CBN ABRASIVE* | | | |
| 100 | = | W | 4.4 | = | 0.88g/cm³ |
| 75 | = | T | 3.3 | = | 0.66g/cm³ |
| 50 | = | Q | 2.2 | = | 0.44g/cm³ |

* Other concentrations available upon request

## SELECTION OF CONCENTRATION

The choice of concentration depends on the machining parameters:

| HIGH CONCENTRATION | MEDIUM OR LOW CONCENTRATION |
|---|---|
| Roughing operations | Finishing operation |
| Powerful machine | Low power machine |
| Small contact area | Large contact area |
| Retention of profile or sharp edges of wheel | Cutting without temperature rise |

| OPERATION | INTERNAL GRINDING | EXTERNAL GRINDING | SURFACE GRINDING | SHARPENING |
|---|---|---|---|---|
| Diamond | 100 | 75 | 50 | 50/75 |
| CBN | W | T | Q | Q/T |

## NOTES




NORTON®

SAINT-GOBAIN

DIAMOND TOOLS

# DIAMOND TOOLS


| | |
|---|---|
| Introduction | 318 |
| **DIAMOND BLADES** | **320-356** |
| for concrete & reinforced concrete | 320 |
| for universal building materials | 325 |
| for multi materials | 336 |
| for ceramic & porcelain tiles | 340 |
| for granite, marble & natural stone | 346 |
| for asphalt & abrasive materials | 350 |
| for refractory materials | 353 |
| **CUP GRINDERS** | **357-360** |
| for concrete & building materials | 357 |
| **DRILLING CORE BITS** | **361-371** |
| for concrete | 361 |
| for universal building materials | 367 |
| Technical Information | 372 |

# INTRODUCTION

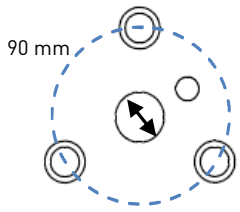
Norton Clipper Diamond Blades are the ultimate abrasive cutting solution in construction and building industries. With a range of products suitable for use on concrete, tile, brick, and asphalt, Norton Clipper offers the best choice for every cutting and drilling application in the building/construction industry.




## UNDERSTANDING THE PRODUCT

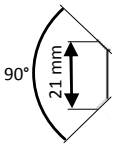
1. Safety pictograms
2. Strong Norton Clipper branding
3. Product name
4. Product dimensions (mm)
5. Machine type
6. oSa certified
   The Organisation for Safety of Abrasives
7. European safety standard EN13236:2010

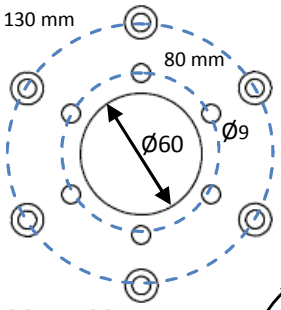
## BORE PATTERNS




### TS5

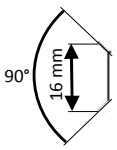
3 conical holes for countersunk
M10 screws on a 90mm circle.
Bore 25.4mm

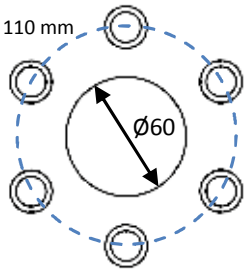



### HYDROSTRESS

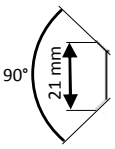
6 conical holes for countersunk
M8 screws on a 130mm circle
6 holes ø9mm on a 80mm circle
Bore 60mm




### TS20

6 conical holes for countersunk
M10 screws on a 110mm circle
Bore 60mm



# DIAMOND TOOL QUALITY TIERING

Within the Norton Clipper diamond tool range, we offer a choice of four performance levels, adapted to the requirements of our customers. Quality tiering is clearly communicated through the range names: Extreme, Pro, Classic and Standard, which are supported on the packaging by the number of quality diamonds located underneath the names. An additional performance indicator on the sleeve quickly and effectively indicates Pro and Extreme products.







**CLASSIC:** good quality versus performance ratio for occasional use.




**PRO:** professional quality for frequent use, designed for high performance and great productivity.




**EXTREME:** the most innovative Norton Clipper blades, with the fastest and smoothest cutting speeds and extremely long life, for the heaviest use.




**STANDARD:** Simple range designed with the customer in mind.
Focused on key applications and providing the user with a reliable solution.

# SELECTING THE RIGHT BLADE FOR YOUR MATERIAL

To make selecting the right blade as easy as possible, our material colour coding system has been applied to all of our packaging.




**RED** for:
- Reinforced Concrete
- Cured Concrete



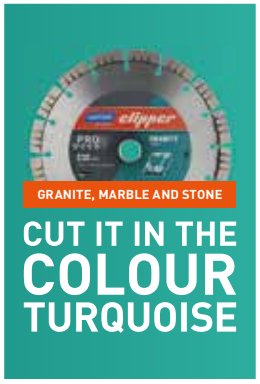

**BLUE** for:
- Bricks
- Blocks
- General Building Materials



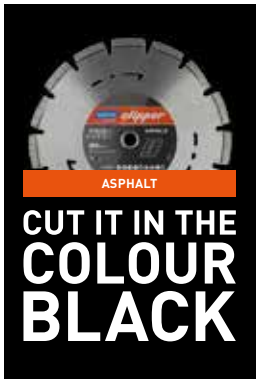

**GREEN** for:
- Porcelain
- Ceramic Tiles




**GREY** for:
- Multi-Materials from hard concrete to the most abrasive asphalt




**TURQUOISE** for:
- Granite
- Marble
- Natural Stone




**BLACK** for:
- Asphalt
- Abrasive Materials




**ORANGE** for:
- Refractory Materials



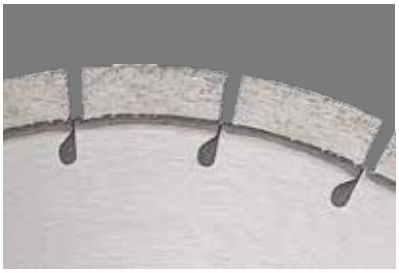

# **DIAMOND BLADES** FOR CONCRETE & REINFORCED CONCRETE

Reinforced concrete, cured concrete, kerb stones, concrete pipes, engineering bricks, facing bricks, refractory bricks, flagstones and paving stones, block paving, washed gravel concrete slabs, natural stone, flint, sandstone and limestone.

## EXTREME BETON SILENCIO

Residential areas, city centres, schools and hospitals are especially sensitive to noise, with local regulations preventing excessive noise levels. With up to 17mm high segments and a bespoke specification for each application, Norton Silencio is our quietest diamond blade, reducing noise by up to 20x (-13 dB) compared to conventional blades when used on concrete, reinforced concrete, granite and building materials, while achieving a fast, efficient cut.

- A noise dampening layer is sandwiched between two sheets of steel which absorbs the cutting vibrations and sound of the product when in use
- Patented 'off-set gullets' prevent whistling air flow around the diamond blade
- Each blade is fine-tuned to provide the best possible noise reduction and cutting performance on a particular machine application









| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 230 | 22.23 | 17/2.8 | 1 | 70184601168 |
| | 300 | 20 | 15/3.2 | 1 | 70184629000 |
| | 300 | 25.4 | 15/3.2 | 1 | 70184642421 |
| | 350 | 20 | 15/3.2 | 1 | 70184647780 |
| | 350 | 25.4 | 15/3.2 | 1 | 70184628999 |
| | 350 | 25.4 | 15/3.2 | 1 | 70184628997 |
| | 400 | 20 | 15/3.2 | 1 | 70184694504 |
| | 400 | 25.4 | 15/3.2 | 1 | 70184643510 |
| | 450 | 25.4 | 15/3.2 | 1 | 70184631020 |
| | 500 | 25.4 | 15/3.2 | 1 | 70184630416 |

# EXTREME BETON +++++

- Up to 20% faster cut rate than the previous version.
- Up to 20% longer life thanks to increased segment height, a high density and more even distribution of diamonds throughout the segment as well as better grain retention.
- Less vibration for a smoother, more comfortable cut and better cut quality.
- 60% stronger torque resistance for exceptional safety thanks to the i-HDTM process.
- Suitable for cutting concrete and reinforced concrete with angle grinders, cut-off saws, and floor saws exceeding 90 horsepower.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/2.2 | 1 | 70184630301 |
| | 125 | 22.23 | 12/2.2 | 1 | 70184630302 |
| | 230 | 22.23 | 15/3.0 | 1 | 70184647723 |
| | 300 | 20 | 15/3.0 | 1 | 70184647787 |
| | 300 | 25.4 | 15/3.0 | 1 | 70184647788 |
| | 350 | 20 | 15/3.2 | 1 | 70184647789 |
| | 350 | 25.4 | 15/3.2 | 1 | 70184647790 |
| | 400 | 20 | 15/3.2 | 1 | 70184693353 |
| | 400 | 25.4 | 15/3.2 | 1 | 70184693354 |
| | 450 | 25.4 | 15/3.8 | 1 | 70184602363 |
| | 500 | 25.4 | 15/3.8 | 1 | 70184601690 |
| | 600 | 25.4 | 15/4.4 | 1 | 70184601691 |
| | 700 | 25.4 | 15/4.4 | 1 | 70184601692* |
| | 800 | 25.4 | 15/4.4 | 1 | 70184601693 |




* Available on request

| NAME | MACHINES | POWER | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| Beton 10 | | 20 - 30 hp | 500 | 25.4 | 15/3.8 | 1 | 70184601696 |
| | | 20 - 30 hp | 600 | 25.4 | 15/4.4 | 1 | 70184601735 |
| | | 20 - 30 hp | 700 | 25.4 | 15/4.4 | 1 | 70184601999* |
| Beton 20 | | 35 - 54 hp | 600 | 25.4 | 15/4.4 | 1 | 70184694212* |
| | | 35 - 54 hp | 700 | 25.4 | 15/4.4 | 1 | 70184694733 |
| | | 35 - 54 hp | 800 | 25.4 | 15/4.4 | 1 | 70184694735* |
| Beton 30 | | 55 - 90 hp | 600 | 25.4 | 15/4.4 | 1 | 70184694719* |
| | | 55 - 90 hp | 700 | 25.4 | 15/4.4 | 1 | 70184694718* |
| | | 55 - 90 hp | 800 | 25.4 | 15/4.4 | 1 | 70184694721* |



* Available on request

## *NEW* PRO BETON BATTERY SILENCIO ++++

- Specially designed to optimise the performance of battery powered floor saws like Norton Clipper CS350 B.
- The 12mm high laser welded segments offer a long life time and efficient cutting in concrete and reinforced concrete.
- Silencio steel center combined with a battery machine offers an unequaled working comfort.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 300 | 25.4 | 12/2.5 | 1 | 70184632960 |
| | 350 | 25.4 | 12/2.5 | 1 | 70184632962 |

## PRO BETON SILENCIO ++++

- The Norton Clipper Pro Beton Silencio blade reduces noise by up to three times (-5 dB(A)) compared to conventional blades when used on an angle grinder thanks to a special steel core.
- Features 12mm high segments for longer life.
- It is specialised for use on reinforced concrete and building materials, helping you to cut quickly and efficiently in environments where noise and costs need to be kept to a minimum.
- A diameter of 350mm has been developed for electric handheld cut-off saws.

YouTube




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 230 | 22.23 | 12/2.6 | 1 | 70184602810 |
| | 350 | 25.4 | 12/2.8 | 1 | 70184603274 |

## PRO BETON ++++

- Laser welded blade for intensive use on a wide range of construction materials and reinforced concrete.
- For dry or wet cutting.
- Narrow gullet for great results on hard materials.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 230 | 22.23 | 12/2.8 | 1 | 70184612117* |
| | 300 | 20 | 10/2.5 | 1 | 70184627058** |
| | 350 | 20 | 10/2.8 | 1 | 70184627060** |
| | 350 | 25.4 | 10/2.8 | 1 | 70184627061** |
| | 400 | 25.4 | 10/3.2 | 1 | 70184627062** |
| | 450 | 25.4 | 10/3.2 | 1 | 70184627063** |
| | 500 | 25.4 | 10/3.8 | 1 | 70184627064** |
| | 600 | 25.4 | 10/4.0 | 1 | 70184627065** |

* Available on request

# *NEW* PRO BETON SOFT II ++++

- Laser welded blade with 12mm high segments ensuring good performance and long life in concrete.
- Especially designed for use on floor saws and hand held petrol saws.
- This blade features cutting depth indicators (up to Ø 450) that helps to monitor the cut.
- Clear indication of the way of rotation on the steel center helps to mount the blade on the machine.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | ART NO. |
|---|---|---|---|---|
| | 300 | 20 | 12/2.8 | 70184631807 |
| | 300 | 25.4 | 12/2.8 | 70184631808 |
| | 350 | 20 | 12/2.8 | 70184631809 |
| | 350 | 25.4 | 12/2.8 | 70184631590 |
| | 400 | 20 | 12/3.2 | 70184631810 |
| | 400 | 25.4 | 12/3.2 | 70184631591 |
| | 450 | 25.4 | 12/3.2 | 70184631602 |
| | 500 | 25.4 | 12/3.8 | 70184632393 |
| | 600 | 25.4 | 12/4.4 | 70184632394 |
| | 700 | 25.4 | 12/4 | 70184633217 |




# CLASSIC BETON TURBO +++

- Laser welded diamond blade.
- For dry or wet cutting.
- Corrugated segments.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | ART NO. |
|---|---|---|---|---|
| | 115 | 22.23 | 10/2.4 | 70184694465 |
| | 125 | 22.23 | 10/2.4 | 70184694466 |
| | 230 | 22.23 | 10/2.6 | 70184694467 |
| | 300 | 20 | 10/3.2 | 70184694468 |
| | 300 | 22.23 | 10/3.2 | 70184602486 |
| | 350 | 20 | 10/3.2 | 70184694469 |
| | 350 | 25.4 | 10/3.2 | 70184694470 |
| | 400 | 20 | 10/3.2 | 70184601392 |
| | 400 | 25.4 | 10/3.2 | 70184694471 |



# CLASSIC BETON +++

- An economical solution.
- Laser welded blade.
- Dry or wet cutting.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | ART NO. |
|---|---|---|---|---|
| | 300 | 20 | 10/2.8 | 70184626869 |
| | 300 | 25.4 | 10/2.8 | 70184626870 |
| | 350 | 20 | 10/2.8 | 70184626871 |
| | 350 | 25.4 | 10/2.8 | 70184626872 |
| | 400 | 25.4 | 10/3.2 | 70184626873 |
| | 450 | 25.4 | 10/3.2 | 70184626874 |
| | 500* | 25.4 | 10/3.4 | 70184694416* |
| | 600* | 25.4 | 10/3.6 | 70184694417* |




* 500-600mm with undercutting protection segments

# STANDARD BETON TURBO

- Sintered segmented blade with a turbo shape.
- More aggressive cut on harder materials.
- For cutting light reinforced concrete and harder building materials.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | ART NO. |
|---|---|---|---|---|
| | 115 | 22.23 | 8/2.6 | 70184608578 |
| | 125 | 22.23 | 8/2.8 | 70184608579 |
| | 230 | 22.23 | 9/3.4 | 70184608580 |
| | 300 | 20 | 10/3.7 | 70184608581 |
| | 350 | 25.4/20 | 10/4 | 70184608582 |





# **DIAMOND BLADES** FOR UNIVERSAL BUILDING MATERIALS

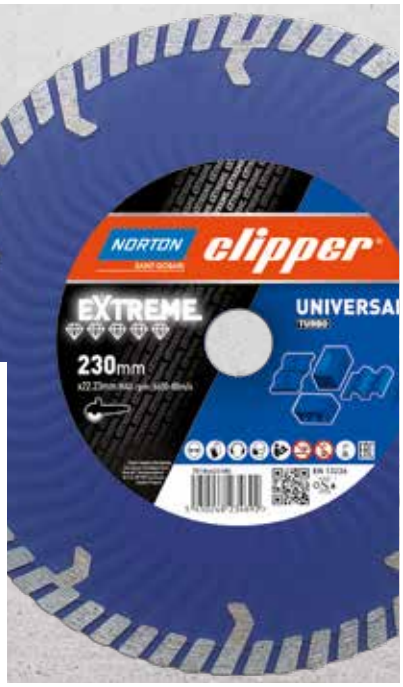
Cured concrete, kerbs, concrete pipes, bricks, block paving, flagstones and paving stones, washed gravel concrete slabs, natural stone, sandstone, limestone and flint.

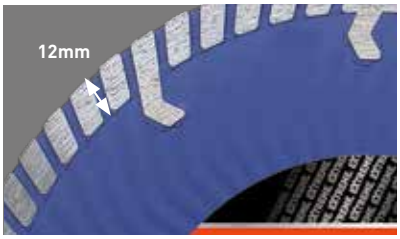



## EXTREME UNIVERSAL TURBO

The Extreme Universal blade cuts all medium to hard construction materials, fast.

- 12mm impregnated diamond segments provide long life.
- Arrow-shaped inserts on the blade protect the steel core for reduced blade wear, as well as indicating the correct direction for rotation.
- The ventilated waved steel centre reduces heat, which aids blade rigidity during dry cutting.
- The corrugated continuous rim enables smooth, high-quality cutting and ease of use. It also cuts more aggressively on hard materials.
- Ideal for use on a very wide range of medium to hard construction materials, block paving, granite, natural stone, roof tiles and hard tiles.



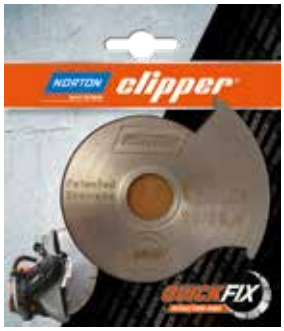






| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/1.8 | 1 | 70184623598 |
| | 125 | 22.23 | 12/2.0 | 1 | 70184623599 |
| | 230 | 22.23 | 12/2.8 | 1 | 70184623180 |
| | 300 | 20 | 12/2.8 | 1 | 70184611230 |
| | 300 | 25.4 | 12/2.8 | 1 | 70184611236 |
| | 350 | 20 | 12/3.2 | 1 | 70184611427 |
| | 350 | 25.4 | 12/3.2 | 1 | 70184611561 |
| | 230 | 70/22.23 + Flange | 12/2.8 | 1 | 70184623448 |

# QUICK FIX

- The Quickfix system allows the bore of a blade to be adjusted to fit machines with different arbor/ shaft diameters. There are two versions; the first allows a blade with a 25,4mm bore to be fitted to a machine with a 22,23mm arbor/shaft. The second allows a blade with either a 25.4mm or 22.23mm bore to be mounted on a machine with a 20mm arbor/shaft.
  The system complies with the requirements of European Standard EN 13236.




| MACHINES | BORE OF BLADE (mm) | BORE OF MACHINE (mm) | PK QTY | ART NO. |
|---|---|---|---|---|
| | 25.4 | 22.23 | 1 | 70184623894 |
| | 25.4/22.23 | 20 | 1 | 70184622589 |

# PRO UNIVERSAL TURBO

- 12mm high continuous rim blade.
- Ideal for use on general materials and stone.
- Reinforcement flanges around the bore ensure rigidity and straight cutting under the most demanding conditions.
- Use dry or wet.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/2.1 | 1 | 70184610314 |
| | 125 | 22.23 | 12/2.1 | 1 | 70184610315 |
| | 150 | 22.23 | 12/2.5 | 1 | 70184610316 |
| | 180 | 22.23 | 12/2.5 | 1 | 70184610317 |
| | 230 | 22.23 | 12/2.8 | 1 | 70184610267 |
| | 300 | 20 | 12/3.2 | 1 | 70184610259 |
| | 350 | 20 | 12/3.2 | 1 | 70184610334* |
| | 350 | 25.4 | 12/3.2 | 1 | 70184610336 |




* Available on request

# CLASSIC UNIVERSAL TURBO +++

- An economical solution.
- Continuous rimmed blade.
- Use dry or wet.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/2.2 | 1 | 70184626814 |
| | 125 | 22.23 | 10/2.2 | 1 | 70184626815 |
| | 180 | 22.23 | 10/2.4 | 1 | 70184626816 |
| | 230 | 22.23 | 10/2.6 | 1 | 70184626818 |
| | 300 | 20 | 10/3.2 | 1 | 70184626822 |
| | 350 | 25.4 | 10/3.2 | 1 | 70184626824 |
| | 125 | M14 | 10/2.0 | 1 | 70184629695 |
| | 230 | 70/22.23 + Flange | 10/2.6 | 1 | 70184626819 |




# STANDARD UNIVERSAL TURBO +++++

- Sintered continuous rim blade with a turbo shape.
- Aggressive cut on harder materials.
- Better quality of cut thanks to its continuous rim.
- Ideal for hard materials that need a good quality cut (rooftiles).



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/2.5 | 1 | 70184608560 |
| | 125 | 22.23 | 10/2.8 | 1 | 70184608561 |
| | 230 | 22.23 | 10/3.2 | 1 | 70184608563 |
| | 300 | 20 | 10/3.2 | 1 | 70184608570 |



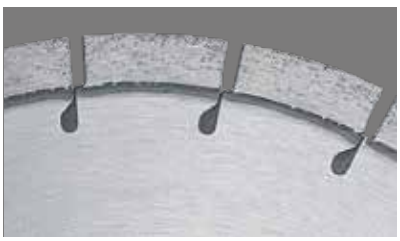



# EXTREME UNIVERSAL SILENCIO

Residential areas, city centres, schools and hospitals are especially sensitive to noise, with local regulations preventing excessive noise levels. With up to 15mm high segments and a bespoke specification for each application, Norton Silencio is our quietest diamond blade, reducing noise by up to 30x (-15 dB) compared to conventional blades when used on concrete, granite and building materials, while achieving a fast, efficient cut.

- A noise dampening layer is sandwiched between two sheets of steel which absorbs the cutting vibrations and sound of the product when in use
- Patented 'off-set gullets' prevent whistling air flow around the diamond blade
- Each blade is fine-tuned to provide the best possible noise reduction and cutting performance on a particular machine application





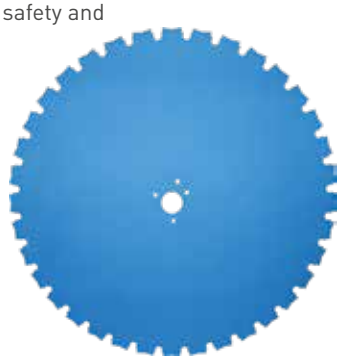

YouTube
Norton Clipper Silencio

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 300 | 25.4 | 15/2.8 | 1 | 70184640269 |
| | 350 | 25.4 | 15/2.8 | 1 | 70184628998 |
| | 400 | 25.4 | 15/3.1 | 1 | 70184640270 |
| | 450 | 25.4 | 15/3.1 | 1 | 70184694368* |
| | 500 | 25.4 | 15/3.2 | 1 | 70184630309 |

* Available on request

# EXTREME UNIVERSAL SILENCIO +++++

- Our best quality for your masonry saw.
- Reduction of noise up to 30x.
- Laser welded blade for optimum safety and performance.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 650 | 25.4 | 15/4.4 | 1 | 70184694227 |
| | 900 | 60/55 | 15/4.4 | 1 | 70184694030 |
| | 1000 | 60/55 | 15/4.4 | 1 | 70184694595 |

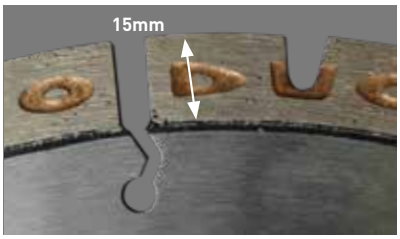


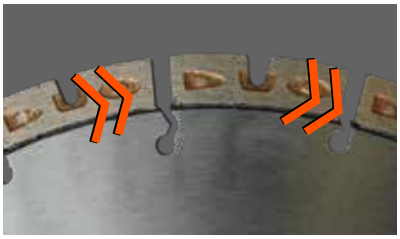



# EXTREME UNIVERSAL LASER

The Extreme Universal blade has super fast cutting and very long life on all materials.

- Up to 15mm high segments provide long life and fast cut on all building materials.
- The DUO segments provide high cutting speed, improved comfort and low vibration levels.
- Arrow-shaped gullet slots quickly remove debris from the blade surface and indicates the rotational direction.
- 'DUO' shaped cut reduces heat and cools the blade core.
- Laser welded segments ensure optimum safety against segment loss.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 300* | 30/25.4 | 15/2.8 | 1 | 70184612282 |
| | 350* | 30/25.4 | 15/2.8 | 1 | 70184612283 |
| | 400 | 25.4 | 10/3.2 | 1 | 70184611438 |
| | 450 | 25.4 | 10/3.2 | 1 | 70184611439 |
| | 500 | 25.4 | 7/3.8 | 1 | 70184611440 |

* Special Duo shaped segments and Duo laser cuts for 300mm & 350mm diameter blades only

# PRO UNIVERSAL SILENCIO ++++

- The Norton Clipper Pro Universal Silencio blade reduces noise by up to eight times (-9 dB(A)) compared to conventional blades when used with a masonry saw
- The Pro Universal Silencio blade features 12mm high segments for longer life
- Ideal for concrete and building materials, it achieves a fast, efficient cut with limited noise for sensitive environments at a more economical cost when price is a consideration




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/2.2 | 1 | 70184607952 |
| | 125 | 22.23 | 12/2.2 | 1 | 70184607953 |
| | 230 | 22.23 | 12/2.6 | 1 | 70184608410 |
| | 350 | 25.4 | 12/3.1 | 1 | 70184602811 |

# PRO UNIVERSAL LASER ++++

- Fast cutting
- Use dry or wet cutting on masonry saws
- For use on concrete slabs and general purpose building materials







| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/2.2 | 1 | 70184607493 |
| | 125 | 22.23 | 12/2.3 | 1 | 70184607684 |
| | 150 | 22.23 | 12/2.2 | 1 | 70184607685 |
| | 180 | 22.23 | 12/2.5 | 1 | 70184607686 |
| | 180 | 30 | 12/2.5 | 1 | 70184607687 |
| | 230 | 22.23 | 12/3.0 | 1 | 70184603038 |
| | 300 | 20 | 12/3.1 | 1 | 70184607689 |
| | 300 | 25.4 | 12/3.1 | 1 | 70184607690 |
| | 350 | 20 | 12/3.2 | 1 | 70184607691 |
| | 350 | 25.4 | 12/3.2 | 1 | 70184607692 |
| | 350 | 25.4 | 10/2.8 | 1 | 70184611209 |
| | 400 | 25.4 | 10/2.5 | 1 | 70184610679 |
| | 400 | 25.4 | 10/3.2 | 1 | 70184625951 |
| | 450 | 25.4 | 10/3.2 | 1 | 70184625952 |
| | 500 | 25.4 | 10/3.2 | 1 | 70184625953 |

YouTube

# CLASSIC UNIVERSAL LASER +++

- An economical blade choice for dry or wet cutting on masonry saws
- For use on construction materials and lightweight blocks, Poroton, Kalksandstein

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 7/2.2 | 1 | 70184626834 |
| | 125 | 22.23 | 7/2.2 | 1 | 70184626835 |
| | 150 | 22.23 | 7/2.2 | 1 | 70184626836 |
| | 180 | 22.23 | 7/2.5 | 1 | 70184626837 |
| | 230 | 22.23 | 10/2.5 | 1 | 70184626838 |
| | 300 | 20 | 10/2.5 | 1 | 70184626839 |
| | 300 | 25.4 | 10/2.5 | 1 | 70184626840 |
| | 350 | 20 | 10/2.8 | 1 | 70184626841 |
| | 350 | 25.4 | 10/2.8 | 1 | 70184626842 |




# CLASSIC UNIVERSAL +++

- An economical solution
- Sintered blade
- Use dry or wet

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/1.8 | 1 | 70184626806 |
| | 125 | 22.23 | 10/1.8 | 1 | 70184626807 |
| | 180 | 22.23 | 10/2.2 | 1 | 70184626809 |
| | 230 | 22.23 | 10/2.4 | 1 | 70184626810 |
| | 300 | 20 | 10/3.0 | 1 | 70184626811 |
| | 350 | 25.4 | 10/3.2 | 1 | 70184626813 |




# STANDARD UNIVERSAL

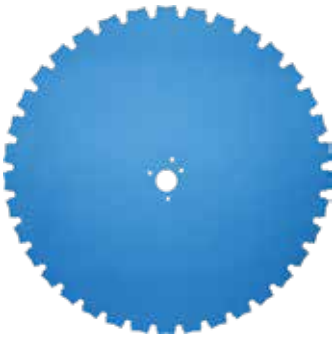
- Sintered segmented blade.
- For universal building materials such as bricks,pavers and building blocks.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/1.9 | 1 | 70184608572 |
| | 125 | 22.23 | 10/2.2 | 1 | 70184608573 |
| | 230 | 22.23 | 10/2.6 | 1 | 70184608575 |
| | 300 | 20 | 10/3 | 1 | 70184608576 |
| | 350 | 25.4/20 | 10/3.4 | 1 | 70184608577 |



# EXTREME UNIVERSAL LASER +++++

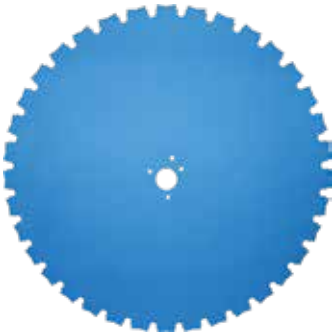
- Super fast cutting and very long life on all materials from soft to hard.
- Up to 15mm high segments.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 900 | 60 | 15/4.8 | 1 | 70184647651 |

# PRO UNIVERSAL LASER ++++

- Laser welded ensure optimum performance and security.
- 12mm segment height.
- For use on concrete slabs and general purpose building materials.
- Use dry or wet cutting on masonry saws.

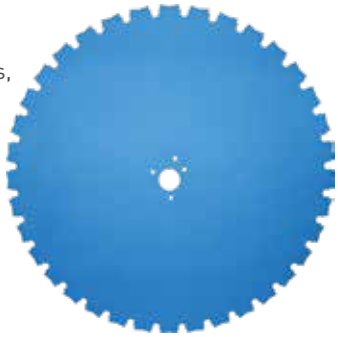


| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 600 | 25.4 | 12/4.4 | 1 | 70184647258* |
| | 625 | 60 | 12/4.4 | 1 | 70184693972 |
| | 650 | 25.4 | 12/4.4 | 1 | 70184647265 |
| | 700 | 25.4 | 12/4.4 | 1 | 70184603061** |
| | 700 | 60 | 12/4.4 | 1 | 70184647264 |
| | 900 | 60 | 12/4.4 | 1 | 70184647266 |
| | 1000 | 60 | 12/4.4 | 1 | 70184647263 |

** Specially designed for your CM70 ALU  * Available on request

# CLASSIC UNIVERSAL LASER +++

- An economical blade choice for dry or wet cutting on masonry saws.
- For use on construction materials and lightweight blocks, clay blocks, and sandstone.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 600 | 25.4 | 10/4.4 | 1 | 70184647267 |
| | 625 | 60 | 10/4.4 | 1 | 70184647269 |
| | 1000 | 60 | 10/4.4 | 1 | 70184647650 |

# EXTREME UNIVERSAL TP-Z

- Innovative mortar raker with alternated Z shape segments that reduces contact surface area for a faster cut with less friction.
- Made with i-HD™ technology for long life and a high removal rate.
- For the removal of mortar joints between bricks, natural stone blocks or facing bricks.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 7/6.5 | 1 | 70184601130 |
| | 125 | 22.23 | 7/6.5 | 1 | 70184641691 |

# PRO UNIVERSAL TP

- Segments with different thicknesses for a number of different mortar joints.
- The hard-metal protection inserts prevent under-cutting of the steel-centre and contributes to longer product life
- For the removal of mortar joints between bricks, natural stone blocks or facing bricks
- Removes mortar 2x faster than a standard blade




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 6.5/4.5 | 1 | 70184610712 |
| | 125 | 22.23 | 6.5/4.5 | 1 | 70184610713 |
| | 115 | 22.23 | 6.5/6.5 | 1 | 70184610305 |
| | 125 | 22.23 | 6.5/6.5 | 1 | 70184610307 |
| | 115 | 22.23 | 6.5/8.0 | 1 | 70184610715 |
| | 125 | 22.23 | 6.5/8.0 | 1 | 70184610716 |

# PRO UNIVERSAL TP-V

- Special tool for the repair of cracks in floors and walls.
- The V-shape segments widen the crack to allow repair with mortar.
- For use on concrete floors and walls, masonry walls, and plasterboard.
- Removes concrete 2x faster than a standard blade.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 13/6.5 | 1 | 70184624198 |
| | 125 | 22.23 | 13/6.5 | 1 | 70184624199 |

# PRO UNIVERSAL DUCTILE ++++

- Multi-material vacuum-brazed blades for dry-cutting of a wide variety of materials.
- For use on general purpose building materials, concrete, asphalt roof shingles, PVC, clay and fibre glass-reinforced resin, small amount of wood, ductile iron and metals





| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 2.8 | 1 | 70184694459 |
| | 125 | 22.23 | 2.8 | 1 | 70184694460 |
| | 180 | 22.23 | 2.8 | 1 | 70184694461 |
| | 230 | 22.23 | 3.1 | 1 | 70184694462 |
| | 300 | 20 | 3.4 | 1 | 70184694463 |
| | 350 | 25.4 | 3.4 | 1 | 70184694464 |
| | 400 | 20 | 3.3 | 1 | 70184694691 |




*Formerly Multi-Runner*

# PRO PIPE CUTTER ++++

- For cutting and grinding plastic pipes
- Allows to cut and grind a plastic pipe in only one step
- Can be used on all materials

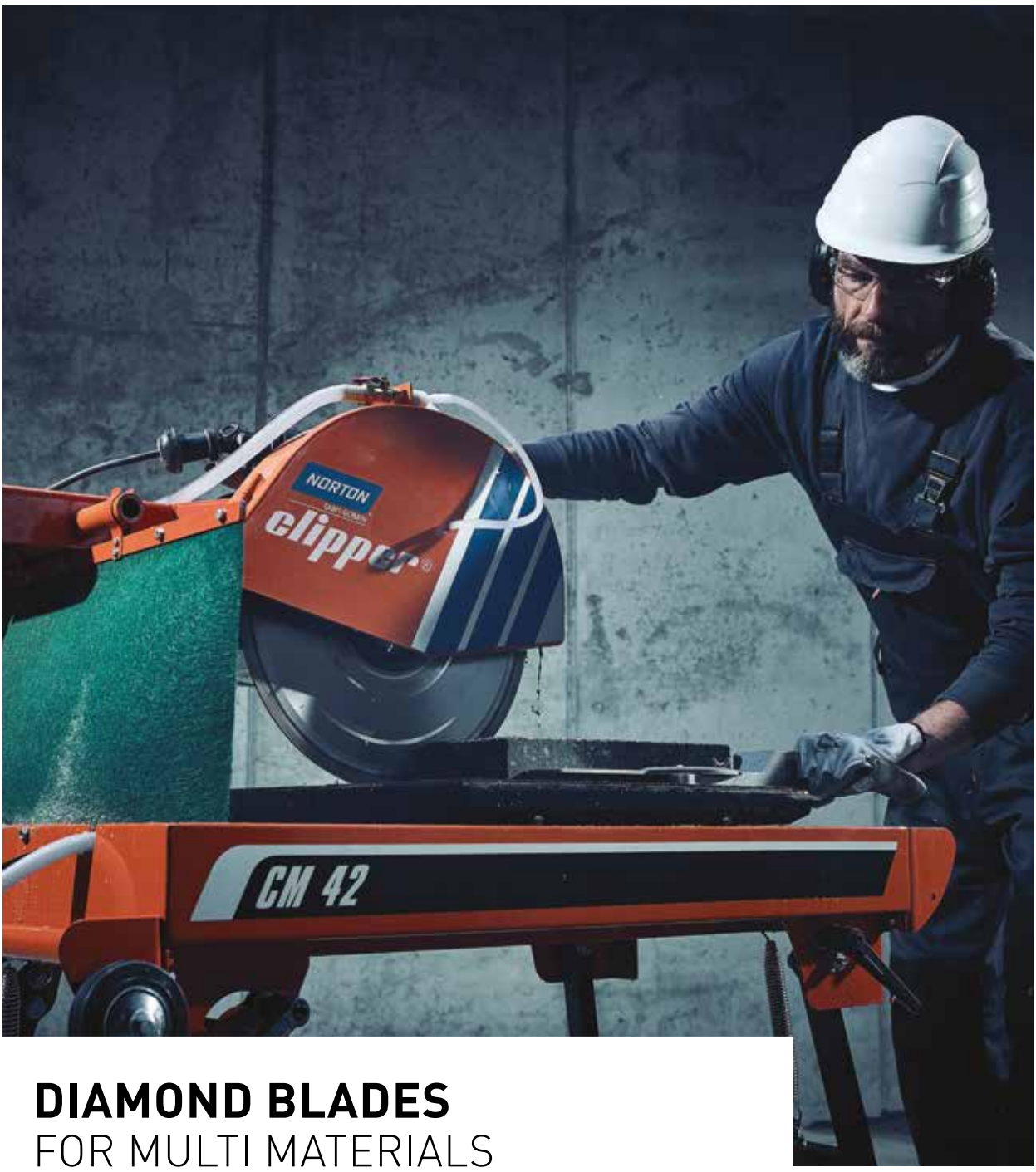


| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 125 | 22.23 | 2.5 | 1 | 70184601374 |










# DIAMOND BLADES
## FOR MULTI MATERIALS

Multi-purpose blades for cutting concrete, reinforced concrete, roof tiles, paviours, blocks, granite, natural stone, asphalt, breeze blocks, sandstone and gridstone.




# PRO 4X4 EXPLORER

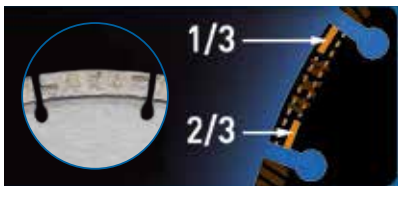
The Pro 4x4 Explorer range is even better than before. Faster cutting, longer life, improved safety and greater comfort when used on any material are all additional benefits of this blade.

- Multipurpose blade cuts all materials
- Up to 12mm segment height for more cuts per wheel
- Trapezoid shaped segments give a comfortable, smoother cut with lower vibration levels
- Patented cut depth indicator allows better visibility of cut depth when in use
- Keep track of segment wear with the specially engraved wear indicator
- Patented drop shaped gullets prevents fatigue cracks even when cutting thick metal

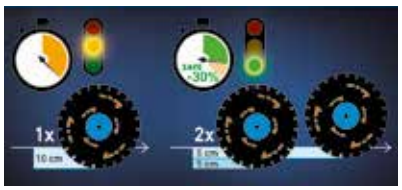
## APPLICATIONS

- Reinforced concrete
- Concrete lintels
- Limestone concrete
- Concrete roof tiles
- Paviours and blocks
- Granite & natural stones
- Asphalt
- Asphalt over concrete
- Breeze blocks
- Gridstone
- Sandstone
- Steel parts up to 5mm thick

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/2.2 | 1 | 70184602018 |
| | 125 | 22.23 | 10/2.2 | 1 | 70184602019 |
| | 180 | 22.23 | 10/2.5 | 1 | 70184602020 |
| | 230 | 22.23 | 12/2.5 | 1 | 70184602021 |
| | 300 | 20 | 12/3.0 | 1 | 70184602022 |
| | 300 | 25.4 | 12/3.0 | 1 | 70184602023 |
| | 350 | 20 | 12/3.2 | 1 | 70184602091 |
| | 350 | 25.4 | 12/3.2 | 1 | 70184602093 |
| | 400 | 25.4 | 12/3.2 | 1 | 70184602095 |
| | 400 | 20 | 12/3.2 | 1 | 70184602094 |
| | 450 | 25.4 | 12/3.2 | 1 | 70184602096 |



Segment wear indicator



Patented cutting depth indicator




# INVINCIBLE iHD TECHNOLOGY™

- **INVINCIBILITY** - Second generation iHD auto-attachment technology makes blade segments Invincible and the blade itself, incredibly safe to use.
- **DEPENDABILITY** - No mounting/demounting required, you can rely on Invincible to cut through all building materials.
- **VERSATILITY** - Invincible works well with any sidekick; battery powered or regular angle grinder.
- **SPEED AND POWER** - Our 'Man of Steel' cuts through material quickly and easily.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22,23 | 12/2,2 | 1 | 70184603342 |
| | 125 | 22,23 | 12/2,2 | 1 | 70184603343 |
| PER KIT OF 10 BLADES WITH A CARDBOARD DISPLAY: | | | | | |
| | 115 | 22.23 | 12/2,2 | 10 | 70184607642 |
| | 125 | 22.23 | 12/2,2 | 10 | 70184607643 |









# STANDARD ALL MATERIALS

- For cutting various materials such as concrete, granite, asphalt, bricks, pavers, building blocks, steel parts up to 5mm thick and much more.
- For use on a handheld saw machine. Masonry saw and floor saw are compatible with 350mm diameter diamond blades for occasional use.
- 100% laser blades with segment height of 10mm





| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. | |
|---|---|---|---|---|---|---|
| | 115 | 22.23 | 10/2.2 | 1 | 70184609627 | |
| | 125 | 22.23 | 10/2.2 | 1 | 70184609628 | |
| | 230 | 22.23 | 10/2.5 | 1 | 70184609629 | |
| | 300 | 20 | 10/2.5 | 1 | 70184609630 | |
| | 350 | 25.4/20 | 10/2.8 | 1 | 70184609633 | |
| | 400 | 25.4/20 | 10/3 | 1 | 70184632527 | *NEW* |

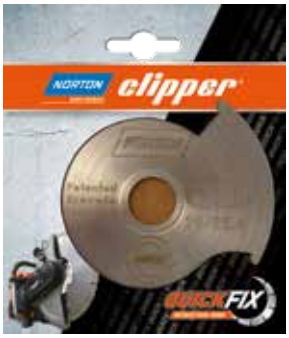


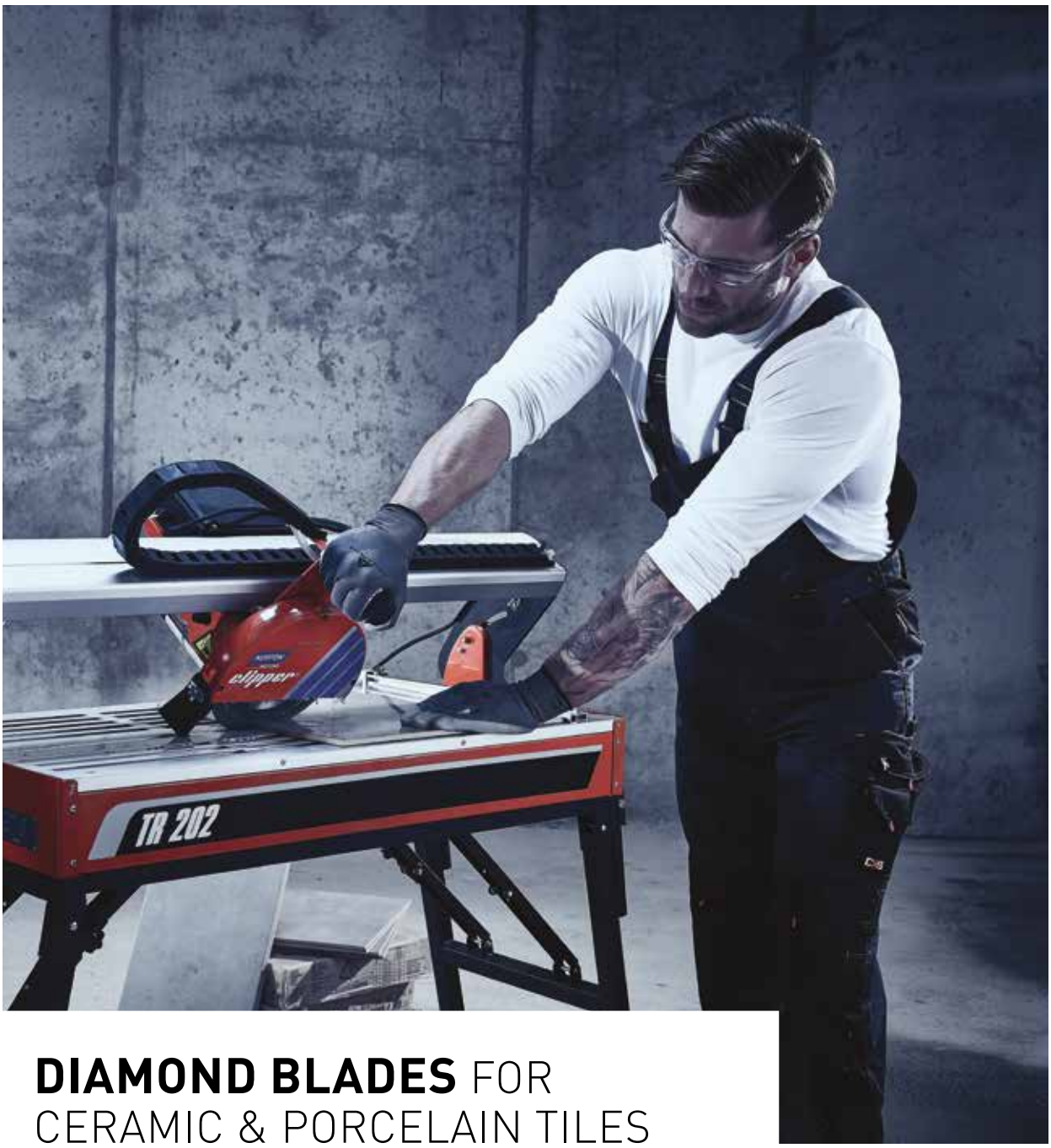

# QUICK FIX

The system allows for blades bore to be adjusted to fit machines with different arbor/shaft diameters. There are two versions, the first allows a blade with a 25,4mm bore to be fitted to a machine with a 22.23mm arbor/shaft. The second allows a blade with either a 25.4mm or 22.23mm bore to be mounted on a machine with a 20mm arbor/shaft.

The system complies with the requirements of European Standard EN 13236.

| MACHINES | BORE OF BLADE (mm) | BORE OF MACHINE (mm) | ART NO. |
|---|---|---|---|
| | 25.4 | 22.23 | 70184623894 |
| | 25.4/22.23 | 20 | 70184622589 |






# **DIAMOND BLADES** FOR CERAMIC & PORCELAIN TILES

Ceramic and porcelain tiles, vitrified reconstituted stone, glass, textured glass, glazed ceramic tiles, granite, marble, slate and hard natural stone.

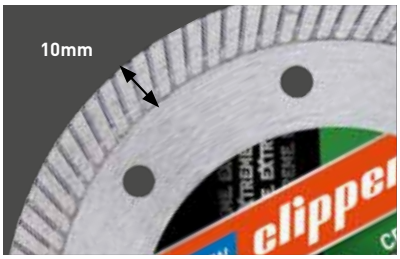



# EXTREME CERAMIC TURBO

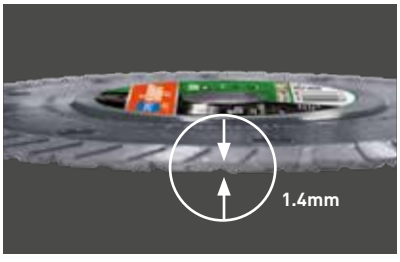
- This 10mm high continuous rim blade is the perfect choice for a high quality cut
- Premium diamond grade and free cutting metal bond make this blade perfect for cutting even the hardest tiles
- 1,4mm thickness for fast cutting and reduced material wastage
- The reinforced flange on the steel centre helps to keep the blade straight without causing damage to the tile
- For use on angle grinders, rail tile and masonry saws
- Can be used on porcelain, ceramic, vitreous, marble, terracotta, granite, slate, reconstituted stone, floor and wall tiles

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/1.4 | 1 | 70184644759 |
| | 125 | 22.23 | 10/1.4 | 1 | 70184644760 |
| | 180 | 22.23 | 10/1.4 | 1 | 70184621970 |
| | 200 | 25.4 | 10/2 | 1 | 70184625427 |
| | 230 | 22.23 | 10/2 | 1 | 70184621973 |
| | 230 | 25.4 | 10/2 | 1 | 70184627653 |
| | 250 | 25.4 | 10/2 | 1 | 70184625428 |
| | 250 | 30 | 10/2 | 1 | 70184645565* |
| | 300 | 20 | 10/2.2 | 1 | 70184633159 |
| | 300 | 25.4 | 10/2.2 | 1 | 70184625429 |
| | 300 | 30 | 10/2.2 | 1 | 70184645566 |






10mm high diamond rim




1.4mm thick blade



Fast cutting continuous rim

# EXTREME CERAMIC

- Continuous rim sintered diamond blade for wet cutting on masonry saws.
- Thin laser-cut slots to allow blade cooling and smoother cut.
- For use on glazed ceramic tiles, granite, marble, slate, and quarry tiles.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 200 | 25.4 | 9/1.6 | 1 | 70184647047 |
| | 230 | 25.4 | 9/1.6 | 1 | 70184644431 |
| | 250 | 25.4 | 9/1.6 | 1 | 70184644432 |
| | 300 | 25.4 | 9/2.0 | 1 | 70184630334 |
| | 350 | 25.4 | 9/2.0 | 1 | 70184630335 |




# EXTREME CERAMIC SOFT*

- Continuous rim sintered diamond blade for wet cutting on masonry saws.
- Thin laser-cut slots to allow blade cooling and smoother cut.
- For use on glazed ceramic tiles.
- Offers a very good finish on the hardest tiles.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 200 | 25.4 | 2 /9 | 1 | 70184603234 |
| | 230 | 25.4 | 2 /9 | 1 | 70184603235 |
| | 250 | 25.4 | 2 /9 | 1 | 70184603236 |
| | 300 | 25.4 | 2 /9.5 | | 70184602483 |
| | 350 | 25.4 | 2 /9.5 | 1 | 70184602484 |
| | 400 | 25.4 | 2.4 /10 | 1 | 70184603237 |




* Extreme Ceramic Soft range blades are recommended to cut hard materials




# *NEW* EXTREME GRES

- Specially developed to cut through hard and thick tiles up to 3cm deep with no need for resharpening.
- Diameters 250mm and above all feature a conical segment that reduces friction against the material ensuring a fast and clean cut.
- Diameters 300 and 350mm offer incredible 15mm high laser welded segments, giving revolutionary long life!
- A Silencio version exists in several diameters makingup to 8x less noise than a non silent blade (in Ø 350mm).
- These blades are THE solution for cutting hard and thick tiles.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 10/1.3 | 1 | 70184602447 |
| | 125 | 22.23 | 10/1.3 | 1 | 70184602448 |




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 250 | 25.4 | 12/2.2 | 1 | 70184632632 |
| | 250 | 25.4 | 12/2.2 | 1 | 70184632631 |
| | 300 | 25.4 | 15/2.2 | 1 | 70184632896 |
| | 300 | 25.4 | 15/2.2 | 1 | 70184632897 |
| | 350 | 25.4 | 15/2.2 | 1 | 70184632569 |
| | 350 | 25.4 | 15/2.2 | 1 | 70184632570 |

YouTube

# PRO CERAMIC ++++

- Good value for money
- Continuous diamond rim
- Can be used for dry or wet cutting
- For use on ceramics, granite, marble, slate, quarry tiles

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| *Wet & dry cutting* | | | | | |
| | 115 | 22.23 | 9/1.6 | 1 | 70184625942 |
| | 125 | 22.23 | 9/1.6 | 1 | 70184625940 |
| | 230 | 22.23 | 9/2.2 | 1 | 70184625946 |
| *Wet cutting only* | | | | | |
| | 150 | 25.4/22.23 | 10/1.6 | 1 | 70184625560 |
| | 180 | 25.4/22.23 | 10/1.9 | 1 | 70184625561 |
| | 200 | 25.4 | 10/1.9 | 1 | 70184625093 |
| | 200 | 30 | 10/1.9 | 1 | 70184625094 |
| | 230 | 25.4 | 10/1.9 | 1 | 70184625096 |
| | 250 | 25.4 | 10/2 | 1 | 70184625097 |
| | 300 | 25.4 | 10/2 | 1 | 70184625098 |
| | 350 | 25.4 | 10/2 | 1 | 70184625100 |




# CLASSIC CERAMIC TURBO +++

- Turbo continuous rimmed diamond blade faster, and smoother cutting of hard ceramic tiles.
- Economical solution.
- Suitable for dry or wet cutting porcelain and ceramic tiles.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 7/1.6 | 1 | 70184627645 |
| | 125 | 22.23 | 7/1.6 | 1 | 70184627646 |



# CLASSIC CERAMIC +++

- Continous diamond rim.
- Good value for money.
- Suitable for dry or wet cutting hard and ceramic tiles.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 5/1.6 | 1 | 70184626825 |
| | 125 | 22.23 | 5/1.6 | 1 | 70184626826 |
| | 180 | 25.4/22.23 | 5/1.7 | 1 | 70184626828 |
| | 200 | 30/25.4 | 5/1.7 | 1 | 70184626829 |
| | 230 | 22.23 | 5/1.8 | 1 | 70184626830 |
| | 230 | 25.4 | 5/1.8 | 1 | 70184628734 |
| | 250 | 25.4 | 5/1.8 | 1 | 70184626831 |
| | 300 | 25.4 | 5/2.1 | 1 | 70184626832 |
| | 350 | 25.4 | 5/2.1 | 1 | 70184626833 |




# STANDARD CERAMIC

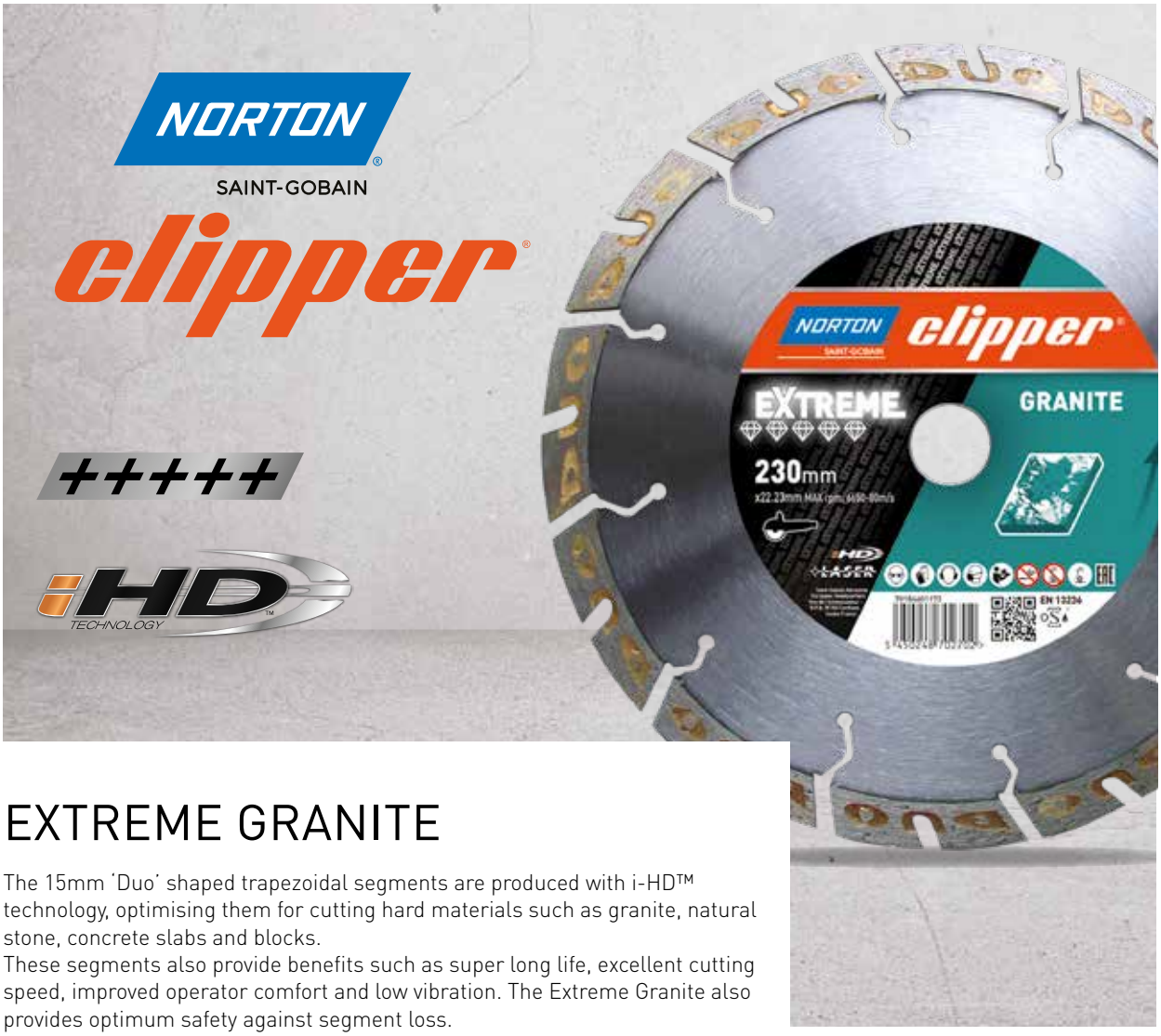
- Turbo continuous rimmed diamond blade faster, and smoother cutting of hard ceramic tiles.
- Economical solution.
- Suitable for dry or wet cutting porcelain and ceramic tiles.

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 7/1.6 | 1 | 70184608555 |
| | 125 | 22.23 | 7/1.6 | 1 | 70184608556 |
| | 180 | 22.23/25.4 | 7/1.8 | 1 | 70184608557 |
| | 200* | 30/25.4 | 7/2 | 1 | 70184608558 |
| | 230 | 22.23/25.4 | 8/2 | 1 | 70184608559 |






# **DIAMOND BLADES** FOR GRANITE, MARBLE & NATURAL STONE




# EXTREME GRANITE

The 15mm 'Duo' shaped trapezoidal segments are produced with i-HD™ technology, optimising them for cutting hard materials such as granite, natural stone, concrete slabs and blocks.
These segments also provide benefits such as super long life, excellent cutting speed, improved operator comfort and low vibration. The Extreme Granite also provides optimum safety against segment loss.
The exclusive 'arrow' shaped gullet slots permanently indicate the correct direction of rotation.

YouTube

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 230 | 22.23 | 15/2.6 | 1 | 70184601172 |
| | 300 | 20 | 15/3 | 1 | 70184601173 |
| NEW | 350 | 20 | 15/3 | 1 | 70184632363 |
| | 350 | 25.4 | 15/3 | 1 | 70184601174 |
| | 350 | 25.4 | 15/2.8 | 1 | 70184603311 |
| | 500 | 25.4 | 15/3.2 | 1 | 70184603312 |
| NEW | 650 | 25.4 | 12/4.6 | 1 | 70184632587 |
| | 900 | 60 | 12/4.6 | 1 | 70184603313 |

# EXTREME STRADALIT +++++

- Laser-welded, 10mm high segments with silent steel-centre, ideal for wet cutting very hard natural stone, cured clay pavers and engineering bricks on masonry saws.

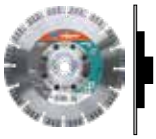


| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 10/2.5 | 1 | 70184621132 |
| | 400 | 25.4 | 10/2.5 | 1 | 70184623047 |

# PRO GRANITE TURBO ++++

- The 12mm laser-welded segments are corrugated in shape, which generates less friction and makes the blade more efficient. These segments also provide the blade with strong cutting performance and a long life.
- Designed for dry and wet cutting.
- Specifically designed for granite, concrete slabs and other hard stone materials.
- An excellent cost-to-performance ratio, offering great value for money.





| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | 22.23 | 12/2.2 | 1 | 70184626525 |
| | 125 | 22.23 | 12/2.2 | 1 | 70184626526 |
| | 180 | 22.23 | 12/2.4 | 1 | 70184626527 |
| | 230 | 22.23 | 12/2.6 | 1 | 70184626528 |
| | 230 | 70/22.23 + Flange | 12/2.6 | 1 | 70184629653 |
| | 300 | 20 | 12/3.2 | 1 | 70184626530 |
| | 300 | 25.4 | 12/3.2 | 1 | 70184626529 |
| | 350 | 20 | 12/3.2 | 1 | 70184626531 |
| | 350 | 25.4 | 12/3.2 | 1 | 70184626532 |
| | 400 | 25.4 | 12/3.2 | 1 | 70184626533 |

# PRO GRANITE ++++

- Great value for money blade.
- Designed for use on granite, marble and natural stone.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 10/3.0 | 1 | 70184610385 |
| | 400 | 25.4 | 10/3.2 | 1 | 70184610386 |
| | 450 | 25.4 | 10/3.4 | 1 | 70184610436 |
| | 500 | 25.4 | 7/3.2 | 1 | 70184610437 |
| | 600 | 25.4 | 7/4.4 | 1 | 70184610438* |

* Available on request

# PRO MARMO ++++

- Versatile diamond blade suitable for materials such as granite, marble, plastics and natural stone, and is ideal for use on angle grinders, cut-off saws and masonry saws
- The electroplated surface and drop-down diamond inserts on the steel centre clean the cutting profile while in use, these features ensure fast and smooth cutting




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 50 | 6 | 2.4 | 1 | 70184629965 |
| | 115 | 22.23 | 2.4 | 1 | 70184626663 |
| | 125 | 22.23 | 2.4 | 1 | 70184626666 |
| | 150 | 20 | 2.4 | 1 | 70184601282 |
| | 230 | 22.23 | 2.8 | 1 | 70184626668 |
| | 300 | 25.4 | 2.9 | 1 | 70184620243 |
| | 350 | 25.4 | 2.9 | 1 | 70184620244 |

# PRO MARMO SURF ++++

- Pro Marmo Surf can be used as both a diamond blade and a diamond cup grinder and is well suited for cutting and grinding natural stone.
- Electroplated continuous rim generates smooth cutting and grinding.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 115 | M14 | 2.4 | 1 | 70184640590 |
| | 125 | M14 | 2.4 | 1 | 70184640591 |
| | 230 | 70/22.23 + Flange | 2.8 | 1 | 70184640592 |




# **DIAMOND BLADES** FOR ASPHALT & ABRASIVE MATERIALS

Asphalt, asphalt over concrete, green concrete, bitumen, cement joints, breeze blocks and Lignacite blocks

## EXTREME ASPHALT +++++

HD TECHNOLOGY

- 15mm laser welded duo-shaped segments protect against undercutting on the steel centre and give the blade excellent cutting speed, low vibration when in use, and an extended product life*.
- The patented 'depth of cut' indicator with stroboscope effect provides the user with greater control*.
- Eight high wear protection segments further extend the blade's life.
- Exclusive 'arrow' shaped engraving permanently marks the direction of rotation*.
- Wide gullet slots contribute to fast removal of cutting debris.

+LASER

| MACHINES | POWER | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | < 20 hp | 300 | 20 | 15/3 | 1 | 70184694907 |
| | < 20 hp | 350 | 25.4 | 15/3.2 | 1 | 70184694537 |
| | < 20 hp | 400 | 25.4 | 15/3.2 | 1 | 70184694911 |
| | < 20 hp | 450 | 25.4 | 15/3.2 | 1 | 70184694912 |
| | < 20 hp | 500 | 25.4 | 15/3.6 | 1 | 70184694913 |




* Available on request

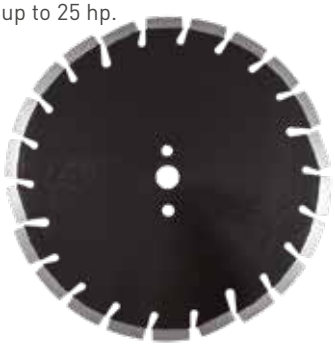
+LASER

| NAME | MA-CHINES | POWER | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|---|
| Asphalt 10 | | 20 - 30 hp | 500 | 25.4 | 10/4.3 | 1 | 70184640191 |
| | | 20 - 60 hp | 600 | 25.4 | 12/4.4 | 1 | 70184603293 |
| | | 20 - 60 hp | 700 | 25.4 | 12/4.4 | 1 | 70184603354 |
| | | 20 - 60 hp | 800 | 25.4 | 12/4.4 | 1 | 70184603355 |
| | | 20 - 30 hp | 900 | 25.4 | 10/4.3 | 1 | 70184640195 |
| Asphalt 20 | | 20 - 60 hp | 600 | 25.4 | 12/4.4 | 1 | 70184603293 |
| | | 20 - 60 hp | 700 | 25.4 | 12/4.4 | 1 | 70184603354 |
| | | 20 - 60 hp | 800 | 25.4 | 12/4.4 | 1 | 70184603355 |



# EXTREME GREEN CONCRETE +++++

- 14mm high laser welded segments for longer life.
- Wear protection segments to prevent under-cutting of the steel core.
- For use on green concrete, lignacite and tarmac top blocks for machines up to 25 hp.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 300 | 25.4 | 14/3 | 1 | 70184602877 |
| | 350 | 25.4 | 14/3 | 1 | 70184602876 |

# EXTREME ASPHALT LB +++++

- Diamond blades with wide segments for loop-cutting asphalt and abrasive materials with a floor saw.
- Large choice of segment widths to suit all loop-cutting applications on abrasive materials.
- Thick steel centre and hammer segments for better protection against under-cutting of the steel core.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 8 | 1 | 70184618296* |
| | 350 | 25.4 | 10 | 1 | 70184615813* |

* Available on request

# *NEW* PRO ASPHALT II ++++

- Designed for intensive use, this blade displays excellent longevity and provides great value for money.
- Specific segments protect the steel center from undercutting and prevents premature wear of the blade.
- 12mm high laser welded segments for a long life.
- A patented depth indicator helps the operator to monitor the cutting depth and indicates the rotation direction (up to Ø450mm).




| MACHINES | POWER | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | < 20 HP | 300 | 20 | 12/2.8 | 1 | 70184631578 |
| | < 20 HP | 300 | 25.4 | 12/2.8 | 1 | 70184631579 |
| | < 20 HP | 350 | 20 | 12/3.2 | 1 | 70184631580 |
| | < 20 HP | 350 | 25.4 | 12/3.2 | 1 | 70184631995 |
| | < 20 HP | 400 | 25.4 | 12/3.2 | 1 | 70184631582 |
| | < 20 HP | 450 | 25.4 | 12/3.2 | 1 | 70184631583 |
| | < 20 HP | 500 | 25.4 | 12/3.8 | 1 | 70184631995 |
| | < 20 HP | 600 | 25.4 | 12/3.8 | 1 | 70184631996 |
| | < 20 HP | 700 | 25.4 | 12/4.4 | 1 | 70184632649 |

# PRO GREEN CONCRETE

- Laser welded segments for wet cutting.
- Wear protection segments to help prevent under-cutting of the steel centre.
- For use on green concrete, lignacite and tarmac top blocks.



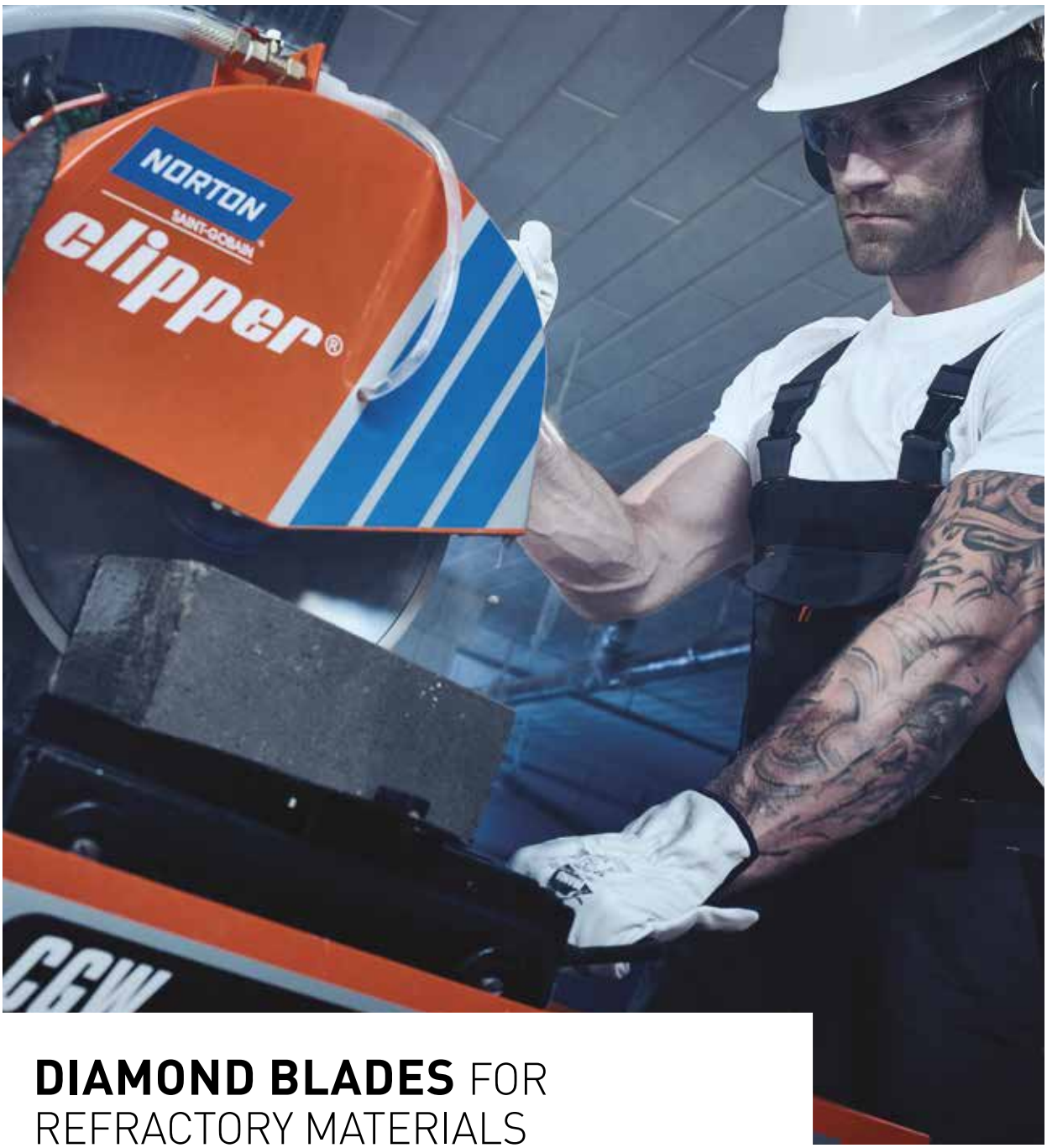

| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 300 | 25.4 | 10/2.5 | 1 | 70184624684 |
| | 350 | 25.4 | 10/2.8 | 1 | 70184624685 |

# CLASSIC ASPHALT

- Laser welded diamond segments make this blade suitable for wet or dry cutting asphalt, asphalt over concrete, green concrete, abrasive materials and concrete roof tiles.
- Its versatility and price to performance ratio, make this blade excellent value for money.




| MACHINES | POWER | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | < 20 hp | 300 | 20 | 10/2.5 | 1 | 70184626876 |
| | < 20 hp | 300 | 25.4 | 10/2.5 | 1 | 70184626877 |
| | < 20 hp | 350 | 20 | 10/2.8 | 1 | 70184626878 |
| | < 20 hp | 350 | 25.4 | 10/2.8 | 1 | 70184626879 |
| | < 20 hp | 400 | 20 | 10/3.2 | 1 | 70184645242 |
| | < 20 hp | 400 | 25.4 | 10/3.2 | 1 | 70184626880 |
| | < 20 hp | 450 | 25.4 | 10/3.2 | | 70184626881 |
| | < 20 hp | 500* | 25.4 | 10/3.2 | 1 | 70184601944 |
| | < 20 hp | 600* | 25.4 | 10/3.2 | 1 | 70184601945 |




# **DIAMOND BLADES** FOR REFRACTORY MATERIALS

Discover our blades specially designed for cutting electrofused materials, Corhart ZAC, Corhart 104, Zirconia, Jargal, mullite, aluminia, basalt, dolomite, tar and magnesite, Oxydes - Magnesite and Chromite, chrome. low and high content of alumina, zirconia, silica, beauxite, durital, rocal, zirmul, silicon carbide, carborundum, graphite and all refractory materials.

# EXTREME RC465 +++++

- Laser-welded diamond blade with key-hole geometry.
- For use on oxides - dolomite, tar and magnesite.

| MACHINES | DIA (mm) | BORE (mm) | STEEL TYPE | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 400 | 25.4 | Standard | 10/3.2 | 1 | 70184626316* |
| | 450 | 25.4 | Standard | 10/3.8 | 1 | 70184626317* |
| | 450 | 25.4 | Silencio | 10/3.8 | 1 | 70184630620 |
| | 500 | 25.4 | Standard | 10/3.8 | 1 | 70184626318 |
| | 600 | 25.4 | Standard | 10/3.8 | 1 | 70184626319* |
| | 650 | 25.4 | Standard | 10/3.8 | 1 | 70184629314* |




* Available on request

# EXTREME RC525 +++++

- Laser-welded diamond blade with key-hole geometry.
- Fireclay insulation brick.
- For use on oxides - magnesite, chromite, and chrome. Low content alumina < 70%.

| MACHINES | DIA (mm) | BORE (mm) | STEEL TYPE | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 500 | 25.4 | Silencio | 12/3.8 | 1 | 70184641533 |
| | 500 | 25.4 | Standard | 12/3.8 | 1 | 70184626283* |
| | 600 | 25.4 | Standard | 12/3.8 | 1 | 70184626706* |




* Available on request

# EXTREME RC540 +++++

- Laser-welded diamond blade with wide-gullet geometry.
- For use on oxides - zirconia and silica. High content alumina >70% - mullite. beauxite, durital, rocal, and zirmul.

| MACHINES | DIA (mm) | BORE (mm) | STEEL TYPE | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 400 | 25.4 | Standard | 10/3.2 | 1 | 70184626321* |
| | 450 | 25.4 | Standard | 10/3.8 | 1 | 70184626322* |
| | 450 | 25.4 | Silencio | 10/3.8 | 1 | 70184647831 |
| | 500 | 25.4 | Silencio | 10/3.8 | 1 | 70184631081 |
| | 500 | 25.4 | Standard | 10/3.8 | 1 | 70184626323* |
| | 600 | 25.4 | Standard | 10/3.8 | 1 | 70184626324* |




* Available on request

# EXTREME RC575 +++++

- Laser-welded diamond blade with wide-gullet geometry.
- For use on non-oxides - silicon carbide, carborundum, and graphite.



| MACHINES | DIA (mm) | BORE (mm) | STEEL TYPE | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 400 | 25.4 | Standard | 10/3.2 | 1 | 70184626321* |
| | 450 | 25.4 | Standard | 10/3.8 | 1 | 70184626322* |
| | 450 | 25.4 | Silencio | 10/3.8 | 1 | 70184647831 |
| | 500 | 25.4 | Silencio | 10/3.8 | 1 | 70184631081 |
| | 500 | 25.4 | Standard | 10/3.8 | 1 | 70184626323* |
| | 600 | 25.4 | Standard | 10/3.8 | 1 | 70184626324* |

* Available on request

# PRO BETON ++++

- Good value for money laser-welded blade, with 10mm high free-cutting segments, for wet or dry cutting.
- Versatile product designed for petrol handheld saws, floor saws and masonry saws.
- For use on concrete, reinforced concrete, concrete slabs, and refractory blocks containing aluminium oxides.



| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 10/2.8 | 1 | 70184627061 |
| | 400 | 25.4 | 10/3.2 | 1 | 70184627062 |
| | 450 | 25.4 | 10/3.2 | 1 | 70184627063 |
| | 500 | 25.4 | 10/3.8 | 1 | 70184627064 |
| | 600 | 25.4 | 10/4.0 | 1 | 70184627065 |

## PRO ZDM 200

- Very good value for money laser welded refractory blade for wet or dry cutting.
- For use on refractory materials such as oxides, magnesite, chromite and insulation bricks.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 7/2.4 | 1 | 70184610238 |
| | 450 | 25.4 | 7/3.2 | 1 | 70184610239 |
| | 500 | 25.4 | 7/3.2 | 1 | 70184610240* |

* Available on request

## PRO ZMD 944T

- Very good value for money laser welded refractory blade for wet or dry cutting.
- For use on refractory materials such as oxides, magnesite, chromite and insulation bricks.




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 350 | 25.4 | 7/2.4 | 1 | 70184610284 |
| | 450 | 25.4 | 7/3.2 | 1 | 70184610285 |
| | 500 | 25.4 | 7/3.2 | 1 | 70184610286 |




# **CUP GRINDERS** FOR CONCRETE & BUILDING MATERIALS

Now with i-HD™ technology, Norton Clipper Extreme Cup Grinders provide the ultimate surface grinding performance.

## EXTREME CG COMFORT INNOVATION

- EXTREME CG Comfort has been specifically developed to lower vibration levels and improve operator comfort
- Lower vibration levels
- Comfortable to use
- New segment shape for optimum results
- i-HD™ Technology for high material removal and long life

| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 100 | 20 | 22.23 | 4.5 | 1 | 70184607656 |
| | 125 | 25 | 22.23 | 4.5 | 1 | 70184602648 |
| | 180 | 30 | 22.23 | 4.5 | 1 | 70184607657 |




See page 07 for more information on merchandising displays

## PRO CG +++++

- EXTREME CG Comfort has been specifically developed to lower vibration levels and improve operator comfort.
- Lower vibration levels
- Comfortable to use
- New segment shape for optimum results
- i-HDTM Technology for high material removal and long life



| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 100 | 20 | 22.23 | 4.5 | 1 | 70184607656 |
| | 125 | 25 | 22.23 | 4.5 | 1 | 70184602648 |
| | 180 | 30 | 22.23 | 4.5 | 1 | 70184607657 |

## EXTREME CUT' N GRIND +++++

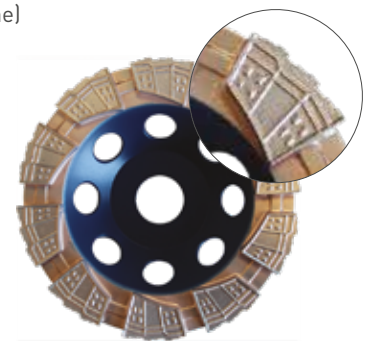
- Multi-purpose tool for cutting and grinding of building materials
- i-HD™ technology offers longer life, a faster cut and a unique design
- Can be used for the same applications as diamond blades and diamond cup grinders
- Equipped with an aluminium flange in connection M14 for offset cutting and grinding




| MACHINES | DIA (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| | 125 | M14 | 25 / 3.9 | 1 | 70184602036 |

## PRO CG ++++

- High material removal rate
- Low vibration for better comfort when in use
- i-HD ™ manufacturing technology ensures long life and a good standard of finishing
- For surfacing and grinding medium hardness construction and building materials (concrete, reinforced concrete, natural stone)



| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 100 | 19 | 22.23 | 4.5 | 1 | 70184694988 |
| | 125 | 24 | 22.23 | 4.5 | 1 | 70184694989 |
| | 180 | 29 | 22.23 | 4.5 | 1 | 70184694990 |

# PRO CUT'N'GRIND ++++

- Sintered turbo shape, for fast material removal and good finishing quality in cutting and grinding.
- Equipped with an aluminium flange in connection M14 for offset cutting and grinding.
- Can be used for the same applications as diamond blades and diamond cup grinders.
- For use on concrete, washed concrete, blocks, ductile iron and natural stones.






| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 100 | 19 | M14 | 25 / 3.9 | 1 | 5450248465591 |
| | 125 | 29 | M14 | 25 / 3.9 | 1 | 5450248465607 |

# PRO CG-PCD LOW VIBRATION ++++

- Designed for the fast removal of glue, epoxy resins and paint
- The embedded anti-vibration system provides comfort during use
- Use a concrete cup wheel after using PCD wheels to ensure a great finish



H = 18mm



| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | PCD ELEMENTS | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 125 | 18 | 22.23 | 12pcs | 1 | 70184645886 |

# CLASSIC CG +++

- An economical solution
- For surfacing and grinding hard construction and building materials (concrete, reinforced concrete, natural stone)
- Smaller segments have excellent performance on hard materials
- Flat sides avoid damaging walls or ceilings during flush grinding

HD TECHNOLOGY



| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | SEGMENT H/W (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 100 | 19 | 22.23 | 4.5 | 1 | 70184694995 |
| | 125 | 24 | 22.23 | 4.5 | 1 | 70184694996 |
| | 180 | 29 | 22.23 | 4.5 | 1 | 70184601079 |

# CLASSIC CG-PCD +++

- Cost-effective PolyCrystalline Diamond (PCD) cup wheel
- Designed for the fast removal of glue, epoxy resins and paint
- Use a concrete cup wheel after using PCD wheels to ensure a great finish








| MACHINES | DIA (mm) | CUP HEIGHT (mm) | BORE (mm) | PCD ELEMENTS | PK QTY | ART NO. |
|---|---|---|---|---|---|---|
| | 125 | 19 | 22.23 | 12pcs | 1 | 70184693445 |



# DRILLING CORE BITS
## FOR CONCRETE

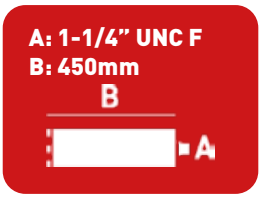
Reinforced concrete, cured concrete, kerb stones, concrete pipes, engineering bricks, facing bricks, refractory bricks, flagstones and paving stones, block paving, washed gravel concrete slabs, natural stone, flint, sandstone and limestone.

## EXTREME CB BETON

- The Extreme CB Beton diamond core bit uses a unique configuration of bond and diamond specification in a revolutionary new dual fluted/ tapered segment, for extreme performance: easy drill-start, 20% faster drilling speed than standard corebits, better product life with 12mm segment height.
- Useful length: 450mm.
- Connection: 1 ¼" UNC female thread.
- Applications: concrete and reinforced concrete.

LASER

**A: 1-1/4" UNC F**
**B: 450mm**



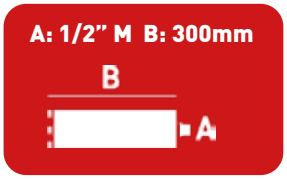

| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 48/41 | 24/3.6/12 | 4 | 70184629370 |
| | 52/45 | 24/3.6/12 | 4 | 70184629161 |
| | 62/55 | 24/3.6/12 | 5 | 70184629338 |
| | 67/60 | 24/3.6/12 | 5 | 70184629162 |
| | 77/70 | 24/3.6/12 | 6 | 70184629163 |
| | 82/75 | 24/3.6/12 | 6 | 70184629174 |
| | 87/80 | 24/3.6/12 | 7 | 70184630450 |
| | 92/85 | 24/3.6/12 | 7 | 70184629167 |
| | 102/95 | 24/3.6/12 | 8 | 70184629176 |
| | 107/100 | 24/3.6/12 | 9 | 70184629091 |
| | 112/105 | 24/3.6/12 | 9 | 70184629052 |
| | 117/110 | 24/3.6/12 | 9 | 70184629685** |
| | 122/114 | 24/4/12 | 9 | 70184629455 |
| | 127/119 | 24/4/12 | 10 | 70184629175 |
| | 132/124 | 24/4/12 | 10 | 70184629339 |
| | 142/134 | 24/4/12 | 10 | 70184629866 |
| | 152/144 | 24/4/12 | 11 | 70184629104 |
| | 162/154 | 24/4/12 | 12 | 70184629165 |
| | 178/170 | 24/4/12 | 13 | 70184629166 |
| | 182/174 | 24/4/12 | 13 | 70184629349 |
| | 202/192 | 24/5/12 | 14 | 70184629178 |
| | 230/220 | 24/5/12 | 15 | 70184630442 |
| | 250/240 | 24/5/12 | 16 | 70184629180 |
| | 300/290 | 24/5/12 | 18 | 70184629534 |
| | 350/340 | 24/5/12 | 19 | 70184629701 |
| | 400/390 | 24/5/12 | 20 | 70184629902 |



# PRO CB BETON CROWNED ++++

- Ideal for concrete, reinforced concrete, masonry blocks, and also suitable for asphalt and abrasive materials.
- Useful length: 300mm
- Connection: ½" Male thread
- Applications: for concrete and masonry walls
- Professional crown bit for small diameters wet-drilling jobs
- Brazed crown bit for wet-drilling






| MACHINES | OD / ID* (mm) | CROWN W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 14/10 | 7/2.0 | 1 Crown | 70184612947 |
| | 16/12 | 7/2.0 | 1 Crown | 70184612823 |
| | 18/14 | 7/2.0 | 1 Crown | 70184612824 |
| | 20/16 | 7/2.0 | 1 Crown | 70184612825 |
| | 22/18 | 7/2.0 | 1 Crown | 70184612826 |
| | 25/21 | 7/2.0 | 1 Crown | 70184612827 |
| | 28/24 | 7/2.0 | 1 Crown | 70184612828 |
| | 30/26 | 7/2.0 | 1 Crown | 70184612829 |
| | 32/28 | 7/2.0 | 1 Crown | 70184612830 |
| | 35/31 | 7/2.0 | 1 Crown | 70184612831 |
| | 38/34 | 7/2.0 | 1 Crown | 70184612833 |
| | 40/36 | 7/2.0 | 1 Crown | 70184612834 |
| | 51/47 | 7/2.0 | 1 Crown | 70184612835 |

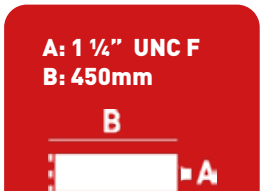


* Made-to-order

# PRO CB BETON SEGMENTED ++++

- Useful length: 450mm
- Connection: 1 ¼" UNC female thread
- Applications: concrete and reinforced concrete, masonry blocks. Also suitable for asphalt and abrasive materials
- Core drills with laser welded segments for wet drilling. The special tapered-shape segments allow for an easier start of the drill






| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 52/45 | 24/3.5/10 | 4 | 70184624870 |
| | 57/50 | 24/3.5/10 | 4 | 70184624871 |
| | 62/55 | 24/3.5/10 | 5 | 70184624872 |
| | 67/60 | 24/3.5/10 | 5 | 70184624873 |
| | 72/65 | 24/3.5/10 | 5 | 70184624874 |
| | 77/70 | 24/3.5/10 | 6 | 70184624875 |
| | 82/75 | 24/3.5/10 | 6 | 70184624876 |
| | 87/80 | 24/3.5/10 | 6 | 70184624878 |
| | 92/85 | 24/3.5/10 | 7 | 70184624879 |
| | 102/95 | 24/3.5/10 | 8 | 70184624880 |
| | 107/100 | 24/3.5/10 | 8 | 70184624881 |
| | 112/105 | 24/3.5/10 | 8 | 70184624882 |
| | 122/114 | 24/4.0/10 | 9 | 70184624883 |
| | 127/119 | 24/4.0/10 | 9 | 70184624884 |
| | 132/124 | 24/4.0/10 | 9 | 70184624885 |

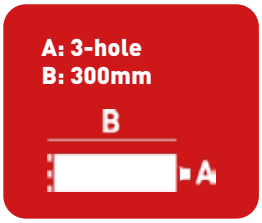


| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 142/134 | 24/4.0/10 | 10 | 70184624886 |
| | 152/144 | 24/4.0/10 | 11 | 70184624887 |
| | 162/154 | 24/4.0/10 | 11 | 70184624888 |
| | 172/164 | 24/4.0/10 | 12 | 70184624889 |
| | 182/174 | 24/4.0/10 | 12 | 70184624890 |
| | 202/194 | 24/4.0/10 | 14 | 70184624892 |
| | 227/218 | 24/4.5/10 | 15 | 70184624894 |
| | 252/243 | 24/4.5/10 | 16 | 70184624895 |
| | 300/290 | 24/5.0/10 | 19 | 70184624897 |
| | 350/340 | 24/5.0/10 | 21 | 70184624900 |



# PRO CB BETON ROBO ++++

- Applications: for concrete, reinforced concrete,
  concrete pipes, and ductile iron pipes.
- Useful length: 300mm.
- Connection: three hole flange.
- Specially adapted for use on ROBO core drilling machine.

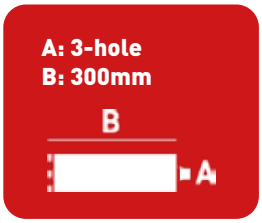



| OD / ID* (mm) | SEGMENT L / W / H (mm) | No. SEGMENTS | ITEM No. |
|---|---|---|---|
| 137/129 | 24/4.0/10.0 | 9 | 70184613170 |
| 152/144 | 24/4.0/10.0 | 10 | 70184612883 |
| 166/158 | 24/4.0/10.0 | 10 | 70184620436 |
| 182/174 | 24/4.0/10.0 | 12 | 70184613316 |
| 187/179 | 24/4.0/10.0 | 12 | 70184613075 |
| 196/187 | 24/4.0/10.0 | 12 | 70184612882 |
| 201/192 | 24/4.0/10.0 | 12 | 70184612956 |
| 225/216 | 24/4.0/10.0 | 12 | 70184612958 |
| 248/238 | 24/5.0/10.0 | 13 | 70184612884 |
| 251/241 | 24/5.0/10.0 | 13 | 70184612959 |
| 257/247 | 24/5.0/10.0 | 13 | 70184612960 |
| 277/267 | 24/5.0/10.0 | 14 | 70184613080 |
| 299/289 | 24/5.0/10.0 | 16 | 70184613076 |



# PRO CB BETON ROBO ++++

- Applications: for concrete, reinforced concrete,
  concrete pipes, natural stone and granite.
- Useful length: 300mm.
- Connection: three hole flange.
- Special soft bond for use with hard material and high speed drilling.
- Specially adapted for use on ROBO core drilling machine thanks to its corrugated shape.

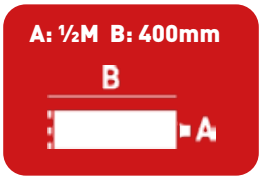





| OD / ID* (mm) | SEGMENT L / W / H (mm) | No. SEGMENTS | ITEM No. |
|---|---|---|---|
| 355/345 | 24/5.0/10.0 | 18 | 70184603099 |

# CLASSIC CB BETON CROWNED +++

- Core drill with brazed segments.
- Ideal for concrete, reinforced concrete, masonry blocks, and also suitable for asphalt and abrasive materials.
- Good value for money.

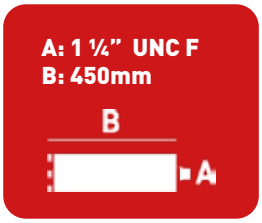



| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 32/26 | 16/3.0/7 | 3 | 70184694514 |
| | 42/36 | 16/3.0/7 | 3 | 70184694516 |
| | 52/46 | 24/3.0/10 | 4 | 70184694517 |
| | 62/46 | 24/3.0/10 | 5 | 70184694518 |
| | 72/65 | 24/3.5/10 | 6 | 70184694519 |
| | 82/75 | 24/3.5/10 | 7 | 70184694520 |
| | 92/85 | 24/3.5/10 | 8 | 70184694521 |
| | 102/95 | 24/3.5/10 | 9 | 70184694522 |
| | 112/105 | 24/3.5/10 | 9 | 70184694523 |
| | 122/115 | 24/3.5/10 | 10 | 70184694524 |
| | 132/124 | 24/4.0/10 | 10 | 70184694525 |
| | 152/144 | 24/4.0/10 | 11 | 70184694526 |



# CLASSIC CB BETON SEGMENTED +++

- Useful length: 450mm
- Connection: 1 ¼" UNC female thread
- Applications: for concrete and masonry walls
- Core drill with brazed segments
- Good value for money




| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 51/45 | 24/3.0/10 | 5 | 70184613201 |
| | 56/50 | 24/3.0/10 | 5 | 70184613202 |
| | 61/55 | 24/3.5/10 | 5 | 70184613203 |
| | 66/59 | 24/3.5/10 | 6 | 70184613204 |
| | 71/64 | 24/3.5/10 | 6 | 70184613205 |
| | 76/69 | 24/3.5/10 | 6 | 70184613206 |
| | 81/74 | 24/3.5/10 | 7 | 70184613207 |
| | 86/79 | 24/3.5/10 | 7 | 70184613208 |
| | 91/84 | 24/3.5/10 | 8 | 70184613209 |
| | 101/94 | 24/3.5/10 | 8 | 70184613210 |
| | 106/99 | 24/3.5/10 | 9 | 70184613211 |
| | 111/104 | 24/3.5/10 | 9 | 70184613212 |
| | 121/114 | 24/3.5/10 | 10 | 70184613213 |
| | 126/118 | 24/4.0/10 | 10 | 70184613214 |



**Dimensions Key:** DIA = Diameter

| MACHINES | OD / ID* (mm) | SEGMENT L / W / H (MM) | No. SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 131/123 | 24/4.0/10 | 10 | 70184613215 |
| | 141/133 | 24/4.0/10 | 11 | 70184613216 |
| | 151/143 | 24/4.0/10 | 12 | 70184613217 |
| | 161/153 | 24/4.0/10 | 12 | 70184613218 |
| | 171/163 | 24/4.0/10 | 13 | 70184613219 |
| | 181/173 | 24/4.0/10 | 13 | 70184613220 |
| | 186/178 | 24/4.0/10 | 13 | 70184630513 |
| | 201/193 | 24/4.0/10 | 14 | 70184613222 |
| | 211/203 | 24/4.0/10 | 14 | 70184613223 |
| | 225/215 | 24/5.0/10 | 15 | 70184613252 |
| | 251/241 | 24/5.0/10 | 16 | 70184613224 |
| | 271/261 | 24/5.0/10 | 18 | 70184613253 |
| | 300/290 | 24/5.0/10 | 20 | 70184613225 |



## EXTREME CB BETON SEGMENTS

- Applications: concrete and reinforced concrete.
- Retipping segments for Extreme Beton corebits.



| RANGE (mm) | SEGMENT L / W / H (MM) | ART NO. |
|---|---|---|
| 42-57 | 24/2.8/10 | 310390374 |
| 58-72 | 24/2.8/10 | 310390375 |

## PRO CB BETON CROWNS

- Applications: concrete and reinforced concrete, masonry.
- Retipping crowns for Pro CB Beton crownbits.



| OD / ID* (mm) | CROWN H / W (MM) | ART NO. |
|---|---|---|
| 42-57 | 24/3.5/10 | 310328465 |
| 58-72 | 24/3.5/10 | 310328467 |
| 73-87 | 24/3.5/10 | 310328470 |
| 88-102 | 24/3.5/10 | 310328486 |
| 118-146 | 24/4.0/10 | 310328487 |

## PRO CB BETON SEGMENTS ++++

- Applications: concrete and reinforced concrete, masonry blocks. Also suitable for asphalt and abrasive materials.
- Retipping segments for Pro CB Beton segmented corebits.



| RANGE (mm) | SEGMENT L / W / H (MM) | ART NO. |
|---|---|---|
| 291-490 | 24/5.0/10 | 310377888 |

## PRO CB BETON SOFT SEGMENTS ++++

| RANGE (mm) | SEGMENT L / W / H (MM) | ART NO. |
|---|---|---|
| 42-57 | 24/3.5/10 | 310461243 |
| 58-72 | 24/3.5/10 | 310461244 |
| 73-87 | 24/3.5/10 | 310459189 |
| 88-102 | 24/3.5/10 | 310459337 |
| 118-146 | 24/4.0/10 | 310461266 |
| 147-190 | 24/4.0/10 | 310459338 |
| 191-290 | 24/4.5/10 | 310459336 |
| 500-1000 | 24/5.0/10 | 310461359 |



## CLASSIC CB BETON SEGMENTS +++

- Applications: concrete and concrete products.
- Retipping segments for Classic CB Beton corebits.



| RANGE (mm) | SEGMENT L / W / H (MM) | ART NO. |
|---|---|---|
| 66-76 | 24/3.5/10 | 310002555 |
| 96-116 | 24/3.5/10 | 310002557 |
| 121-151 | 24/4.0/10 | 310002558 |
| 156-186 | 24/4.0/10 | 310002559 |
| 191-221 | 24/4.0/10 | 310002560 |

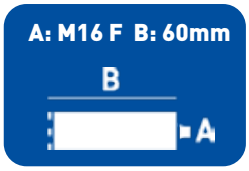


# **DRILLING CORE BITS** FOR UNIVERSAL BUILDING MATERIALS

For masonry and light building material on handheld machines.
For plumbers and electricians.

## PRO DS ++++

- Length: 60mm.
- Connection: M16 female.
- Applications: medium-hard building materials.
- High-quality laser-welded, segmented drill bit for handheld drilling.
  This professional standard tool is suitable for dry drilling of electrical sockets and switches.





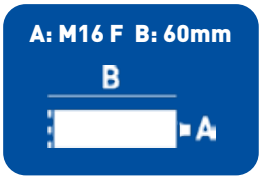




| MACHINES | OD* (mm) | ART NO. |
|---|---|---|
| | 28 | 70184612873 |
| | 152 | 70184612874 |

## CLASSIC DS ++++

- Length: 60mm.
- Connection: M16 female.
- Application: medium-hard building materials.
- Representing great value for money, this laser-welded, segmented drill bit is made for handheld drilling and is suitable for dry drilling of electrical sockets and switches.

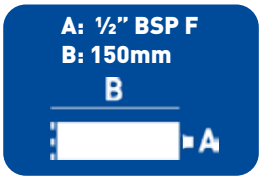





| MACHINES | OD* (mm) | ART NO. |
|---|---|---|
| | 68 | 70184620422 |
| | 82 | 70184620423 |

## STANDARD CB UNIVERSAL UNIVERSAL

- Useful length: 150mm.
- Connection: ½" BSP female.
- The conical connection shape enhances the core bit's installation, resulting in improved stability. This superior mounting reduces vibrations during operation, making the core bit a safer tool to use.
- Optimised for the best balance between drilling speed, product life and comfort.
- Laser-welded segments ensure optimal performance.








| MACHINES | OD/ID* (mm) | SEGMENT L / W / H (MM) | QTY SEGMENTS | ART NO. |
|---|---|---|---|---|
| | 28 / 21 | 13 / 3.5 / 8 | 3 | 70184633379 |
| | 35 / 28 | 17 / 3.5 / 8 | 3 | 70184633380 |
| | 38 / 31 | 17 / 3.5 / 8 | 3 | 70184633381 |
| | 45 / 38 | 24 / 3.5 / 8 | 3 | 70184633382 |
| | 52 / 45 | 24 / 3.5 / 8 | 4 | 70184633383 |
| | 55 / 48 | 24 / 3.5 / 8 | 4 | 70184633384 |
| | 65 / 58 | 24 / 3.5 / 8 | 4 | 70184633385 |
| | 68 / 61 | 24 / 3.5 / 8 | 4 | 70184633386 |
| | 78 / 71 | 24 / 3.5 / 8 | 5 | 70184633387 |
| | 105 / 97 | 24 / 4 / 8 | 5 | 70184633388 |
| | 107 / 99 | 24 / 4 / 8 | 5 | 70184633389 |
| | 117 / 109 | 24 / 4 / 8 | 5 | 70184633390 |
| | 127 / 119 | 24 / 4 / 8 | 6 | 70184633391 |
| | 152 / 144 | 24 / 4 / 8 | 7 | 70184633392 |

**Dimensions Key:** DIA = Diameter

NORTON

SAINT-GOBAIN

clipper

## DRILLING CORE BITS

DRY DIAMOND CORE DRILLS ARE USED TO CREATE HOLES QUICKLY AND NEATLY IN BRICK AND BLOCK, USUALLY TO ALLOW PIPEWORK THROUGH WALLS



# STANDARD CB UNIVERSAL PLUMBER KIT

Dry drilling is a fairly simple process requiring a drill motor of min 800W equipped with a clutch. Power drills or drilling motors with three jaw chucks, SDS and ½" BSP fittings can all be used with Norton dry diamond cores once the correct adaptor has been chosen.
Accessories like length extensions or dust-swivel can also be fitted.

| MACHINES | DESCRIPTION | ART NO. |
|---|---|---|
| | STANDARD CB UNIVERSAL DRY DIAMOND CORE 5-SET containing : 38mm, 52mm, 65mm, 117mm, 127mm cores, 2 x HEX, 2 x SDS adaptors, 1 x ejector drift, 1 x pilot drill | 70184633396 |

| DESCRIPTION | DIAMETER | CONNECTION | LENGTH | ART NO. |
|---|---|---|---|---|
| Standard CB Universal core bit | 38 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 52 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 65 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 117 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 127 | 1/2" Female | 150mm | - |
| Adaptor HEX - 1/2"M x 88mm | - | - | - | 310011349 |
| Adaptor HEX - 1/2"M x 240mm | - | - | - | - |
| Adaptor SDS - 1/2"M x 115mm | - | - | - | 310012391 |
| Adaptor SDS - 1/2"M x 240mm | - | - | - | - |
| Pilot drill Ø10mm | - | - | - | 310011347 |
| Ejector drift | - | - | - | 310011351 |

| MACHINES | DESCRIPTION | ITEM No. |
|---|---|---|
| | STANDARD CB UNIVERSAL DRY DIAMOND CORE 5-SET Containing : 35mm, 45mm, 55mm, 68mm, 105mm Cores, 2 x HEX, 2 x SDS adaptors, 1 x Ejector Drift, 1 x pilot drill, | 70184633397 |

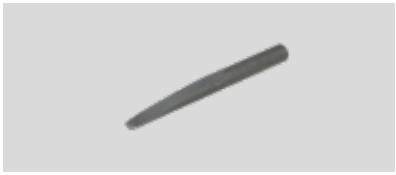
| DESCRIPTION | DIAMETER | CONNECTION | LENGTH | ART NO. |
|---|---|---|---|---|
| Standard CB Universal core bit | 35 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 45 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 55 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 68 | 1/2" Female | 150mm | - |
| Standard CB Universal core bit | 105 | 1/2" Female | 150mm | - |
| Adaptor HEX - 1/2"M x 88mm | - | - | - | 310011349 |
| Adaptor HEX - 1/2"M x 240mm | - | - | - | - |
| Adaptor SDS - 1/2"M x 115mm | - | - | - | 310012391 |
| Adaptor SDS - 1/2"M x 240mm | - | - | - | - |
| Pilot drill Ø10mm | - | - | - | 310011347 |
| Ejector drift | - | - | - | 310011351 |



HEX - 1/2" MALE ADAPTOR



SDS Male - 1/2" MALE ADAPTOR



EJECTOR DRIFT



TAPER MASONRY DRILL



240mm HEX AND SDS - ½"F ADAPTORS



# **DRILLING CORE BITS** FOR NATURAL STONE & TILES

For granite, marble, natural stone, ceramic tiles and porcelain.

## EXTREME VB DRY +++++

- Connection: M14 for fitting directly onto angle grinders.
- Vacuum-brazed diamond drills designed for dry-drilling of hard ceramic tiles and natural stones.




| MACHINES | OD/ID* (mm) | ART NO. |
|---|---|---|
| | 6 x M14 | 70184647338 |
| | 8 x M14 | 70184647339 |
| | 10 x M14 | 70184647340 |
| | 12 x M14 | 70184647341 |
| | 14 x M14 | 70184602901 |
| | 18 x M14 | 70184602902 |
| | 20 x M14 | 70184645760 |
| | 28 x M14 | 70184645761 |
| | 30 x M14 | 70184602903 |
| | 32 x M14 | 70184602904 |
| | 35 x M14 | 70184645762 |
| | 40 x M14 | 70184602905 |
| | 45 x M14 | 70184645763 |
| | 50 x M14 | 70184694357 |
| | 55 x M14 | 70184646255 |
| | 60 x M14 | 70184602906 |
| | 65 x M14 | 70184602907 |
| | 68 x M14 | 70184645764 |
| | 70 x M14 | 70184602908 |
| | 75 x M14 | 70184602909 |
| | 82 x M14 | 70184645765 |
| | 102 x M14 | 70184602119 |
| | 107 x M14 | 70184602120 |
| | 132 x M14 | 70184602121 |
| | Suitcase pack containing dia. 20, 28, 35, 50, 68mm + mounting wrench | 70184694328 |
| | Suitcase pack containing dia. 6/8/10/12/35/45/68 + centering device | 70184694419 |



# CLASSIC VB DRY +++

- Connection: Ø 10mm connection for three-jaw chuck power drills.
- Application: For dry or wet drilling.
- Electroplated diamond drills designed for drilling all types of tiles found in the industry, will also give outstanding performance on hard and brittle materials such as marble, granite and porcelain.

| MACHINES | OD/ID* (mm) | ART NO. |
|---|---|---|
| | 6 | 310305776 |
| | 8 | 310305777 |
| | 10 | 310305778 |
| | 12 | 310305780 |
| | 14 | 310305792 |
| | 28 | 310305793 |
| | 35 | 310305794 |
| | 45 | 310316728 |
| | 68 | 310316729 |
| | 82 | 310316730 |
| | 3-Pack 6/8/10 | 310301580 |



# ACCESSORIES





| DESCRIPTION | ART NO. |
|---|---|
| Centering device for small diameters up to 28mm | 310491177 |
| Centering device for diameters up to 90mm | 70184645766 |
| M14-Hex adaptor | 310464939 |









# TECHNICAL INFORMATION

## OPERATING SPEEDS

| MAXIMUM OPERATING SPEED | | |
|---|---|---|
| DIAMETER (mm) | MAX M/S | MAX RPM |
| 100 | 80 | 15300 |
| 115 | 80 | 13300 |
| 125 | 80 | 12250 |
| 150 | 80 | 10200 |
| 180 | 80 | 8500 |
| 200 | 80 | 7650 |
| 230 | 80 | 6650 |
| 250 | 80 | 6100 |
| 300 | 100 | 6400 |
| 350 | 100 | 5500 |
| 400 | 100 | 4800 |
| 450 | 63 | 2700 |

NEVER EXCEED THE MAXIMUM OPERATING SPEEDS:

- Hand held blades ø ⩽ 230mm: 80m/s
- Hand held blades ø > 230mm: 100m/s
- Others: 63m/s

## PERSONAL PROTECTION

Safety goggles, ear defenders, safety gloves, dust masks and, if conditions are severe, additional face protection. Leather aprons and safety shoes must be worn.


Wear a mask (ISO 7010)


Wear protective gloves (ISO 7010)


Wear eye protection (ISO 7010)


Wear ear protection (ISO 7010)


Refer to instruction manual/ booklet (ISO 7010)


Do not use for face grinding (ISO 7010)


Do not use for wet grinding (ISO 7010)


Only suitable for wet grinding

# TROUBLESHOOTING

## DIAMOND BLADE DOES NOT CUT

| | |
|---|---|
| Cause | The segments are too hard for the material |
| Solution | Check if the blade is suitable for the material |
| Cause | The segments have become blunt |
| Solution | Sharpen the segments by cutting an abrasive material (e.g., sandstone) |
| Cause | Insufficient machine power |
| Solution | Check the voltage, machine power and filters |

## EXCESSIVE WEAR

| | |
|---|---|
| Cause | The segment is too soft for the material (e.g., if a blade for hard material is used to cut abrasive material) |
| Solution | Check if the diamond blade is suitable for the material |

## CRACKING OF STEEL CENTRE

| | |
|---|---|
| Cause | The segments are too hard for the material |
| Solution | Check if the blade is suitable for the material |
| Cause | Excessive cutting pressure, overheating, material slippage, twisting or jamming in the cut |
| Solution | Leave the blade to do the work, do not exert too much pressure and allow the blade to cool regularly by leaving it to rotate away from the workpiece for a few seconds |

## LOOSENING OR CRACKING OF SEGMENTS

| | |
|---|---|
| Cause | The segments are too hard for the material. This results in the diamond blade bouncing in the cut resulting in cracking segments |
| Solution | Check if the diamond blade is suitable for the material |

## SCORCHING OF SEGMENTS

| | |
|---|---|
| Cause | Excessive cutting pressure causing overheating. This is easily recognisable from the blue colouring where the segments and the steel core are welded together |
| Solution | Allow the diamond blade to cool regularly by rotating the blade away from the workpiece for a few seconds |
| Cause | The segments are too hard for the material |
| Solution | Check if the diamond blade is suitable for the material. Alternatively use less cutting pressure and let the blade do the work |

## UNDERCUTTING

| | |
|---|---|
| Cause | Undercutting occurs when the steel core wears faster than the segment, i.e., where the segment and steel core meet. This is usually caused by materials that are highly abrasive. The cutting debris is not removed sufficiently and the steel core is affected. Undercutting is certain to occur if a diamond blade for hard materials is used to cut abrasive materials |
| Solution | Use a diamond blade suitable for the specific material |

# SAFETY ADVICE

## DOs

| |
|---|
| Read the safety instructions provided by the abrasives and equipment supplier |
| Store abrasives in dry, frost-free conditions avoiding wide variations in temperature |
| Ensure that the product is suitable for its purpose |
| Handle, store and transport products with care |
| Examine all products before mounting and periodically during blade use for possible defects or damage (core flatness, fatigue cracks, undercutting, arbor hole damage...) |
| Check that correct mounting devices are used and that they are clean, undistorted and free from burrs |
| Ensure that work rests are properly adjusted and secure |
| Always use a correctly designed and adjusted guard (on the blade and belts) |
| Ensure that the workpiece is secure |
| Wear appropriate personal protective equipment at all times |
| Avoid clogging and uneven wear to ensure that the product is working efficiently |
| Ensure accordance between product direction arrow / machine rotation |
| Ensure that all machines using abrasives meet the requirements of the current European machinery directives-CE |
| Be aware of the hazards likely during the use of abrasives and observe the recommended precautions to be taken:<br>• Bodily contact with the abrasive product at operating speed<br>• Injury resulting from product breakage during use<br>• Grinding debris, sparks, fumes and dust generated by the grinding process<br>• Noise<br>• Vibration |

## DON'Ts

| |
|---|
| Allow untrained people to use abrasives |
| Use a product that is damaged or one which has been dropped |
| Use a product if it cannot be properly identified |
| Use a machine that is not in good working order or one with defective parts |
| Force the abrasive onto the mounting device or modify the size of the mounting hole |
| Exceed the maximum operating speed marked on the product |
| Apply shock or excessive force to the product or let it overheat |
| Use mounting flanges which are not clean and flat |
| Tighten the mounting device excessively |
| Start the machine until the guard is in place and fastened securely |
| Continue to use a product if vibration occurs. |
| Grind on the part of the product which is not designed for the operation |
| Start the machine with the workpiece in contact with the abrasive product |
| Grind material for which the product is not designed |
| Stop the abrasive by applying pressure to its surface, let it stop naturally |
| Exceed permissible rotation speeds: refer to values engraved on product |
| Use blades with missing segments or core cracks |
| Use dry products marked for wet use |
| Wear loose clothing, ties and jewellery |



NORTON®

SAINT-GOBAIN

# STEP DRILLS


Introduction 376
Step drills 377

# INTRODUCTION

Norton step drills work optimally on metal sheets of up to 5mm thickness. However, many different size holes can be drilled, with a clean finish every time. Prolong the life of Norton step drills by using with OneBond CO 500 Cutting Oil for faster cutting through metal sheets.

# GENERAL INFORMATION

## HSSM2 **TiAlN** COATED



+++++

TiAlN (Aluminium Titanium Nitride) coating provides excellent performance; it is very hard and wear resistant with low heat conductivity. It has very good chemical stability and oxidation resistance. Recommended for use with heat resistant alloys, high alloy steel, stainless steel, titanium alloys and NiCo alloys.

## HSSM2 **TiN** COATED



++++

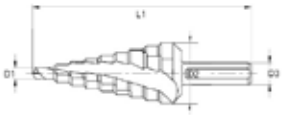
TiN coated step drills provide a cost-effective solution with long tool life. Hard, with good temperature stability and a low friction coefficient. For general purpose use on most materials including steel, stainless steel <1100 N/mm², cast iron, brass, bronze and plastic.

# RECOMMENDED CUTTING SPEEDS

| Material | Carbon steel <700 N/mm² | Carbon steel >700 N/mm² | Alloy steel <1000 N/mm² | Stainless Steel <1400 N/mm² | Cast iron <250 N/mm² | Cast iron >250 N/mm² | CuZn (Brittle) | CuZn (Tough) | Al-alloy <11% Si | Thermo plastics | Duro plastics |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vc=m/min | 30 | 20 | 20 | 10 | 15 | 10 | 60 | 35 | 30 | 20 | 15 |
| Coolant | Cutting oil | Cutting oil | Cutting oil | Cutting oil | Com-pressed air | Com-pressed air | Com-pressed air | Com-pressed air | Cutting oil | Water | Com-pressed air |
| Ø mm | R.P.M | | | | | | | | | | |
| 3-8 | 3185-1194 | 2123-796 | 2123-796 | 1062-398 | 1592-597 | 1062-398 | 6369-2389 | 3715-1393 | 3185-1194 | 2123-796 | 1592-597 |
| 9-15 | 1062-637 | 708-425 | 708-425 | 354-212 | 531-318 | 354-212 | 2123-1274 | 1238-743 | 1062-637 | 708-425 | 531-318 |
| 16-22 | 597-434 | 398-290 | 398-290 | 199-145 | 299-217 | 199-145 | 1194-869 | 697-507 | 597-434 | 398-290 | 299-217 |
| 23-29 | 415-329 | 277-220 | 277-220 | 138-110 | 208-165 | 138-110 | 831-659 | 485-384 | 415-329 | 277-220 | 208-165 |
| 30-36 | 318-265 | 212-177 | 212-177 | 106-88 | 159-133 | 106-88 | 637-531 | 372-310 | 318-265 | 212-177 | 159-133 |

# STEP DRILLS HSSM2-TiN ++++

- Ideal for drilling repetitive holes in metal sheets or tubes
- Fast penetration, centre and drill in one operation
- Works optimally on steel, cast iron, brass and plastics
- Also can be use on stainless steel and bronze

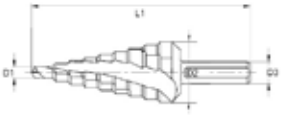




| $L_1xD_1xD_2xD_3$ (mm) | STEPS | HOLE DIAMETERS (mm) | MAX HOLE DEPTH (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 65x4x12x6 | 5 | 4-6-8-10-12 | 5 | 1 | 66261140028 |
| 65x4x12x6 | 9 | 4-5-6-7-8-9-10-11-12 | 3 | 1 | 78072765476 |
| 75x4x20x8 | 9 | 4-6-8-10-12-14-16-18-20 | 4 | 1 | 5539553840 |
| 100x4x30x10 | 14 | 4-6-8-10-12-14-16-18-20-22-24-26-28-30 | 4 | 1 | 5539553845 |

# STEP DRILL HSSM2-TiAlN +++++

- Ideal for drilling repetitive holes in metal sheets or tubes
- Fast penetration, centre and drill in one operation
- Highly recommended for heat resisting alloys, high-alloy steel, stainless steel, Titanium alloys and NiCo alloys

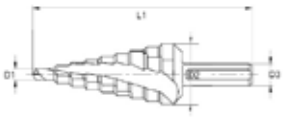




| $L_1xD_1xD_2xD_3$ (mm) | STEPS | HOLE DIAMETERS (mm) | MAX HOLE DEPTH (mm) | PK QTY | ART NO. |
|---|---|---|---|---|---|
| 82x5x35x12.7 | 13 | 5-13-15-17-19-21-23-25-27-29-31-33-35 | 3 | 1 | 5539553846 |

# STEP DRILLS HSSM2-TiN ++++

- Ideal for drilling repetitive holes in metal sheets or tubes
- Fast penetration, centre and drill in one operation
- Works optimally on steel, cast iron, brass and plastics
- Also can be use on stainless steel and bronze
- TiN Step drill kit cover most common materials and hole dimensions





| $L_1xD_1xD_2xD_3$ (mm) | STEPS | HOLE DIAMETERS (mm) | MAX HOLE DEPTH (mm) | PK QTY | ITEM ART NO. | ART NO. |
|---|---|---|---|---|---|---|
| 65x4x12x6 | 9 | 4-5-6-7-8-9-10-11-12 | 3 | 1 | 78072765476 | |
| 75x4x20x8 | 9 | 4-6-8-10-12-14-16-18-20 | 4 | 1 | 5539553840 | 5539553847 |
| 100x4x30x10 | 14 | 4-6-8-10-12-14-16-18-20-22-24-26-28-30 | 4 | 1 | 5539553845 | |

## NOTES



NORTON®
SAINT-GOBAIN

# CORE DRILLS


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Core Drills 382

# HIGH PERFORMANCE
# CORE DRILLS (ANNULAR CUTTERS)



Norton core drills are best used with either magnetic drills or drill press machines. A core drill works differently than conventional twist drills, as it cuts only a groove at the periphery of the hole, leaving a solid core in the centre that is ejected by the centre pin. This results in faster and easier drilling of larger holes and a much longer tool life.

Norton high performance core drills enable easy drilling of a wide range of materials, and we make it even easier for you to choose the best solution from our range of core drills, whether it be TCT (Tungsten Carbide Tipped), HSS-E (High Speed Steel Cobalt alloy) or HSSM2 (High Speed Steel M2). All our core drills are supplied as standard with a Weldon Shank. Alternative shanks (Universal, Fein, Thread) and other core dimensions are available on request.

## ENERGY SAVING

Since core drills do not have to drill/cut through the entire diameter of the required hole, they require less energy to drill through the material.



## SAVE MONEY

Core drills stay sharp longer and can produce 5 to 10 times more holes than a twist drill.

## SPEC CHECK

HSSM2 and HSS-E can be easily re-sharpened and re-used for drilling.

Core drills can **NOT** drill blind holes. They can only make through holes.

Materials like cast iron produce a lot of powder, compressed air is recommended instead of cutting oil or coolant.

**TIP!** To keep your core drill at its optimum efficiency always use it with suitable cutting oil.

# PRODUCT RECOMMENDATION GUIDE

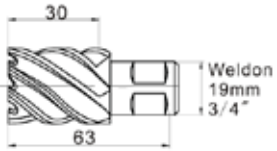
| | HSSM2 | HSS-E (Co alloy)* | TCT |
|---|---|---|---|
| **MATERIAL** (Tensile strength in N/mm² ) | +++ | ++++ | +++++ |
| ALU < 10% Si < 600 N/mm² | ** | *** | *** |
| ALU > 10% Si < 600 N/mm² | * | ** | *** |
| CARBON STEEL < 500 N/mm² | *** | *** | *** |
| CARBON STEEL < 750 N/mm² | ** | *** | *** |
| ALLOY STEEL < 900 N/mm² | * | *** | *** |
| ALLOY STEEL < 1100 N/mm² | | *** | *** |
| ALLOY STEEL < 1400 N/mm² | | ** | *** |
| Stainless steel < 700 N/mm² | * | *** | *** |
| Stainless steel < 900 N/mm² | | ** | *** |
| Stainless steel > 900 N/mm² | | * | *** |
| Brass, Nickel, Titanium | | ** | ** |
| Nickel based alloy | | | *** |
| Cast iron | | * | *** |
| Plastic | *** | *** | |
| Graphite | | | *** |
| Rail | | * | *** |

* HSS-E (Co alloy); Available on demand, MTO product.
Product list available in core drill brochure.

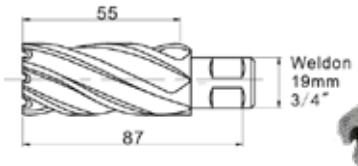


# HSSM2 CORE DRILLS WELDON SHANK

- Made of solid high performance HSS
- Can be re-sharpened








| CUT DIAM | CUTTING DEPTH 25mm ART NO. | CUTTING DEPTH 50mm ART NO. |
|---|---|---|
| 12 | 78072726995 MTS | 78072726996 MTS |
| 13 | 78072745567 MTS | 78072745617 MTS |
| 14 | 78072745568 MTS | 78072745618 MTS |
| 15 | 78072745569 MTS | 78072745619 MTS |
| 16 | 78072745570 MTS | 78072745620 MTS |
| 17 | 78072745571 MTS | 78072745625 MTS |
| 18 | 78072745581 MTS | 78072745798 MTS |
| 19 | 78072745583 MTS | 78072745799 MTS |
| 20 | 78072745585 MTS | 78072745800 MTS |
| 21 | 78072745586 MTS | 78072745801 MTS |
| 22 | 78072741647 MTS | 78072741659 MTS |
| 23 | 78072745588 MTS | 78072745804 MTS |
| 24 | 78072745590 MTS | 78072745805 MTS |
| 25 | 78072745591 MTS | 78072745806 MTS |
| 26 | 78072745592 MTS | 78072745807 MTS |
| 27 | 78072745593 MTS | 78072745808 MTS |
| 28 | 78072745594 MTS | 78072745810 MTS |
| 29 | 78072745595 MTS | 78072745811 MTS |
| 30 | 78072741651 MTS | 78072741667 MTS |
| 31 | 78072745596 MTS | 78072745812 MTS |
| 32 | 78072745597 MTS | 78072745813 MTS |
| 33 | 78072745598 MTS | 78072745814 MTS |
| 34 | 78072745600 MTS | 78072745815 MTS |
| 35 | 78072745601 MTS | 78072745816 MTS |
| 36 | 78072745602 MTS | 78072745817 MTS |
| 37 | 78072745607 MTS | 78072745818 MTS |
| 38 | 78072745608 MTS | 78072745819 MTS |
| 39 | 78072745609 MTS | 78072745820 MTS |
| 40 | 78072745610 MTS | 78072745821 MTS |
| 41 | 78072745611 MTS | 78072745822 MTS |
| 42 | 78072745612 MTS | 78072745823 MTS |
| CENTRE PIN | 6.35 / 5.3 x 77mm | 6.34 / 5.3 x 102mm |

MTS; Made to Stock

# STEEL CENTRE PIN (EJECT PIN)

## CENTRE PIN/EJECTOR PIN HAS THREE FUNCTIONS:

- Centring - enables more accurate core positioning
- Oiling - directs automatic lubrication straight into the cutting area
- Ejecting - assists in ejecting the waste core from the core drill after each cut



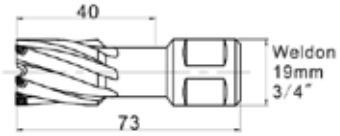
| DESCRIPTION | ART NO. |
|---|---|
| STEEL PIN 6.35 / 5.3 x 102mm | 78072741722 MTS |
| STEEL PIN 6.35 / 5.3 x 77mm | 78072741675 MTS |
| STEEL PIN 7.98 x 90mm | 78072748026 MTS |

MTS; Made to Stock

# TCT CORE DRILLS WELDON SHANK***

- Tungsten Carbide Tipped cutting edges welded to a tough alloy steel body
- Ultimate wear resistance and longer tool life
- Can run faster than HSS drills for more productivity
- Very good performance on rail






| CUT DIAM | CUTTING DEPTH 35mm ART NO. |
|---|---|
| 12 | 78072751462 |
| 13 | 78072751891 |
| 14 | 78072751899 |
| 15 | 78072751904 |
| 16 | 78072751906 |
| 17 | 78072751905 |
| CENTRE PIN |  6.35 x 77 mm |
| 18 | 78072751909 |
| 19 | 78072751911 |
| 20 | 78072751912 |
| 21 | 78072751913 |
| 22 | 78072751914 |
| 23 | 78072751915 MTS |
| 24 | 78072751944 |
| 25 | 78072751945 |
| 26 | 78072751999 |
| 27 | 78072752007 |
| 28 | 78072752043 |
| 29 | 78072752195 |
| 30 | 78072752196 |
| 31 | 78072752197 |
| 32 | 78072752203 |
| 33 | 78072748025 MTS |
| 34 | 78072752214 |
| CENTRE PIN |  7.98 x 90 mm |

MTS; Made to Stock

# TCT CORE DRILLS WELDON SHANK***

| CUT DIAM | CUTTING DEPTH 35mm<br>ART NO. |
|---|---|
| 35 | 78072752218 |
| 36 | 78072752221 |
| 37 | 78072752217 |
| 38 | 78072752229 |
| 39 | 78072752366 |
| 40 | 78072752371 |
| 41 | 78072752373 |
| 42 | 78072752374 |
| 43 | 78072752376 |
| 44 | 78072752377 |
| 45 | 78072752379 |
| 46 | 78072752381 |
| 47 | 78072752594 |
| 48 | 78072752596 |
| 49 | 78072752599 |
| 50 | 78072752600 |
| 51 | 78072752601 |
| 52 | 78072752648 |
| CENTRE PIN |  <br>7.98 x 90 mm |

T.C.T cutting depth 50 mm available on demand full range information in core drill brochure

*** Made-to-order



* 6,35 x 77 mm and 6,35 x 102 mm not included
** 7,98 x 90 mm and 7,98 x 105 mm not included

# RECOMMENDED CUTTING SPEEDS

## FOR HSSM2 AND HSS-E

| Material | High Carbon steel up to<750 N | Alloyed steel up to <1200 N | Stainless Steel | Aluminium | Grey Cast iron | Brass | Copper |
|---|---|---|---|---|---|---|---|
| Vc=m/min | 20 | 10 | 12 | 37 | 18 | 25 | 40 |
| Ø mm | R.P.M | | | | | | |
| 12-18 | 530-350 | 265-175 | 320-210 | 980-655 | 480-320 | 660-440 | 1060-700 |
| 19-25 | 340-250 | 165-130 | 200-150 | 620-470 | 300-230 | 420-320 | 670-510 |
| 26-32 | 245-200 | 125-100 | 145-120 | 455-370 | 200-180 | 305-250 | 490-400 |
| 33-39 | 195-165 | 95-80 | 115-95 | 360-305 | 175-147 | 240-200 | 390-330 |
| 40-46 | 160-140 | 79-70 | 90-85 | 295-255 | 143-125 | 195-170 | 320-280 |
| 47-53 | 135-120 | 67-60 | 80-72 | 250-225 | 122-108 | 165-150 | 270-240 |
| 54-60 | 115-105 | 58-53 | 70-63 | 220-195 | 106-95 | 145-130 | 235-210 |

It is recommended to use HSSM2 and HSS-E tools with cutting oil, except for grey cast iron, where compressed air should be used to keep it clean and cool.

## FOR T.C.T. CORE DRILL

| Material | High Carbon steel up to<750 N | Alloyed steel up to <1200 N | Stainless Steel | Aluminium | Grey Cast iron | Brass | Copper |
|---|---|---|---|---|---|---|---|
| Vc=m/min | 45 | 30 | 20 | 90 | 35 | 50 | 35 |
| Ø mm | R.P.M | | | | | | |
| 12-18 | 1327-796 | 795-530 | 530-350 | 2390-1590 | 930-620 | 1325-885 | 930-620 |
| 19-25 | 754-537 | 500-380 | 340-250 | 1510-1150 | 590-450 | 840-635 | 590-450 |
| 26-32 | 550-448 | 370-300 | 245-200 | 1100-895 | 430-340 | 615-500 | 430-340 |
| 33-39 | 434-367 | 290-245 | 195-165 | 870-735 | 335-285 | 490-410 | 335-285 |
| 40-46 | 358-311 | 240-265 | 160-140 | 715-625 | 280-240 | 400-345 | 280-240 |
| 47-53 | 304-270 | 200-180 | 135-120 | 610-540 | 239-210 | 340-300 | 239-210 |

It is recommended to use T.C.T tools with coolant, except for grey cast iron, where compressed air should be used to keep it clean and cool.

## NOTES



NORTON®

SAINT-GOBAIN

# WIRE BRUSHES & CARBIDE BURRS


| | |
|---|---|
| Wire brushes | 389 |
| Carbide burrs | 405 |
| Bevelling tools | 415 |
| Steel wool | 418 |

# INTRODUCTION

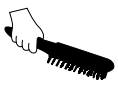
Norton offers a range of wire brushes suitable for a wide variety of surface processing applications. The range encompasses crimped and knotted wire power wheel brushes, bevelled brushes, cup brushes, end brushes and hand brushes.

A number of different types of wire are available which have been specifically selected to give the best results in any specific application.

## WIRE TYPES

| TEMPERED QUALITY STEEL WIRE | | | STAINLESS STEEL WIRE | | | BRASS WIRE |
|---|---|---|---|---|---|---|
| CRIMPED | | STRAIGHT | CRIMPED | | STRAIGHT | CRIMPED |
|  | |  |  | |  |  |
| Removing dust and smoothing low-grade and non-alloy steels | | | Brushing and smoothing chrome-nickel steels, including stainless steel | | | Brushing, cleaning and smoothing brass, copper and bronze |
| NOSCW NOrmal Steel Crimped Wire | NOSKW NOrmal Steel Knotted Wire | NOSSW NOrmal Steel Straight Wire | STSCW STainless Steel Crimped Wire | STSKW STainless Steel Knotted Wire | STSSW STainless Steel Straight Wire | BRACW BRAss Crimped Wire |

## SHAPE KEY

| CODE | PRODUCT TYPE | TOOL | APPLICATION |
|---|---|---|---|
| WHB | Crimped Wheel Brushes |  | Supplied as standard with arbour hole as indicated.<br>The size of the arbour hole can be reduced with reduction rings.<br>Wheel brushes with short wire are more aggressive.<br>Larger widths require more horsepower. |
| | Twist Knotted Wheel Brushes |  | Suitable for brushing out welded joints and brushing sharp corners. |
| BEB | Bevel Brushes |  | Specially designed for brushing hard-to-reach places such as edges and corners. |
| CPB | Crimped Cup Brushes |  | Use for cleaning jobs, especially on larger surfaces.<br>Ideal for removing rust, corrosion, paint and primers.<br>Removal of rust, corrosion, paint and primers. |
| | Twist Knotted Cup Brushes |  | An aggressive brush excellent for heavy-duty cleaning and finishing of large surfaces. Can be used for removing barnacles, scale, paint, rust and corrosion, as well as cleaning weld seams and spot-welds. |
| WHB/ENB | Shaft Mounted Brushes |  | Suitable for industrial use. Ideal for hard-to-reach areas.<br>All shaft mounted brushes are equipped with a 6mm shank. |
| HCB/SPB | Hand Brushes |  | With wooden core. Available in different widths.<br>For use on narrow work pieces.<br>Ideal for light deburring and cleaning profiled surfaces. |
| TUB | Pipe Brushes |  | With handle or thread. For deburring and cleaning tubes. |



# WIRE BRUSHES
## FOR ANGLE GRINDERS

Wire brushes are excellent tools for deburring, removing rust, paint, corrosion and weld splatter from metal surfaces. They're almost spark free and with lower thermal impact, reduce the risk of workpiece burn. Norton offers a number of brush types and sizes for large flat areas to small, tight spaces. All provide a uniform finish and excellent price/performance ratio.

## PRODUCT SELECTION GUIDE

### FOR ANGLE GRINDERS

| ANGLE GRINDER SIZE (mm)* | 115 | 125 | 150 | 180 | 230 |
|---|---|---|---|---|---|
| BRUSH TYPES | BRUSH DIAMETER (mm)* | | | | |
| Wheel brush, knotted | 100,115 | 75, 80, 100 | 115,125, 150 | 150, 178 | 178 |
| Wheel brush, crimped | 100,115 | 75, 80, 100, 125 | 115, 125, 150 | 115, 125, 150 | 178 |
| Cup brush, knotted | 65 | 75, 80, 100 | 80, 100 | 100, 125, 150 | 125, 150 |
| Cup brush, crimped | 60 | 75, 80, 100 | 80,100 | 100, 125, 150 | 125,150 |

* Please, check always MOS (Maximum operation Speed) marked on the wire brush and machine operation speed.

### BY APPLICATION

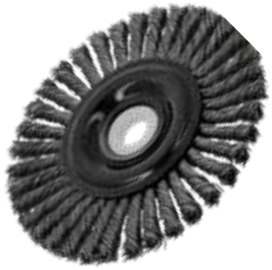
Highly recommended ●

| | WIRE DIAMETER (mm) | | | | |
|---|---|---|---|---|---|
| APPLICATIONS | 0.2 | 0.3 | 0.35 | 0.5 | 0.8 |
| Roughening | | | | ● | ● |
| Planing | ● | ● | ● | | |
| Deburring | ● | ● | ● | | |
| Edge honing | ● | ● | ● | | |
| Descaling/paint stripping | ● | ● | ● | ● | ● |
| Weld seams | ● | ● | ● | ● | ● |

### BY TYPE & MATERIAL

Highly recommended ●

| PRODUCT AVAILABILITY ON: | STEEL | CARBON STEEL | STAINLESS STEEL | NON-FERROUS METAL | ALUMINIUM |
|---|---|---|---|---|---|
| Normal steel | ● | ● | | | |
| Stainless steel | | | ● | ● | ● |



## PIPELINE HIGH PERFORMANCE TWIST KNOTTED WHEEL BRUSHES +++++

- Long life, high material removal, for high-speed work
- Aggressive removal of welding scale and weld removal of tube joins in pipelines

| DxBxA L (mm) | NO. KNOTS | RECOMMENDED RPM | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|---|
| 0.50 mm | | | | | |
| 115x6x22.2 T22 | 36 | 6300 - 12500 | 10 | 63642581151 | 63642581639 |
| 125x6x22.2 T23 | 42 | 5500 - 11000 | 1 | 63642581157 | - - |
| | 42 | 5500 - 11000 | 15 | - - | 63642581640 |
| 178x6x22 T35 | 76 | 4000 - 8000 | 15 | 63642581169*MTO | - - |

*MTO; Made-to-order



## *NEW!* CRIMPED WHEEL BRUSHES ++++

- For cleaning light surface oxidation, paint and primers without removing the base material
- Wheel shape makes it easier to access hard-to-reach areas

| DxBxA L (mm) | RECOMMENDED RPM | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.30 mm | | | | |
| 115x15xM14 T25 | 6300 - 12500 | 1 | 78072749618 | - - |
| 115x15 x M14 T25 | 6300 - 12500 | 1 | - - | 78072749622 - |



## TWIST KNOTTED WHEEL BRUSHES ++++

- Aggressive brush for de-burring, edge honing, removing rust, paint and weld spatter

| DxBxA L (mm) | RECOMMENDED RPM | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.35 mm | | | | |
| 125x13x22.2 T28 | 5500 - 11000 | 1 | 66254406178 | - - |
| 0.50 mm | | | | |
| 115x11x22.2 T23 | 6300 - 12500 | 15 | - | 78072704146 |
| 115x11x22.2 T23 | 6300 - 12500 | 1 | 66254406167 | **66254406153** |
| 115x11xM14 T23 | 6300 - 12500 | 1 | 66254406160 | - - |
| 125x13x22.2 T28 | 5500 - 11000 | 1 | 66254406166 | - |
| 178x15x22.2 T35 | 4500 - 8500 | 1 | 66254406163 | - - |

**DIMENSION KEY:** D = Diameter B = Width A = Bore min L = Wire Length



# TWIST KNOTTED CUP BRUSHES WITH GUARD

- Aggressive brush for removing rust, paint and weld spatter on large surfaces
- Includes a guard for added protection from dust and particles when in use

| DxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.50 mm | | | | |
| 65xM14 T20 | 115 & 125 | 1 | 66261103046 | 66261103171 |







# TWIST KNOTTED CUP BRUSHES

- Aggressive brush for removing rust, paint, weld spatter from large surfaces

| DxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL | |
|---|---|---|---|---|---|
| 0.35 mm | | | | | |
| 65xM14 T20 | 115 | 1 | 66254406104 | - | - |
| 0.50 mm | | | | | |
| 65xM14 T20 | 115 | 1 | 66254406095 | 66254406068 | |
| 80xM14 T25 | 125 | 1 | 66254406094 | - | - |
| 100xM14 T25 | 150 | 1 | 66254406088 | - | - |



# CRIMPED CUP BRUSHES WITH GUARD

- Multi-purpose brush for the most common cleaning jobs
- Includes a protection guard to shield the user from dust and particles when in use

| DxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.30 mm | | | | |
| 75xM14 T22 | 115 & 125 | 1 | 66261103049 | 66261103176 |



## CRIMPED WIRE CUP BRUSHES ++++

- For cleaning light oxidation, paint and primers of large areas

| DxBxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.30 mm | | | | |
| 60xM14 T16 | 115 | 1 | 66254406058 | 66254406037 |
| 75xM14 T20 | 125 | 1 | 66254406055 | - |
| 80xM14 T25 | 125 | 1 | 66254406054 | 66254404868 |
| 100xM14 T30 | 150 | 1 | 66254406053 | - |
| 125xM14 T35 | 230 | 1 | 66254406050 | - |
| 150xM14 T55 | 230 | 1 | 66254406049 | - |



## TWIST KNOTTED BEVEL BRUSH WITH GUARD +++++

- Aggressive brush for hard-to-reach areas
- Integrated guard offers protection against flying chips of material whilst maintaining surface visibility

| DxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.50 mm | | | | |
| 100xM14 T22 | 115 | 1 | 66261103055 | 66261103179 |



## TWIST KNOTTED BEVEL BRUSHES ++++

- Twisted knotted wires for aggressive applications including preparing joints for welding and removing welds and heavy scale.

| DxBxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.50 mm | | | | |
| 100x13xM14 T20 | 115 | 1 | 66254406149 | 66254406146 |
| 115x15xM14 T27.5 | 125 | 1 | 66254406147 | 66254406144 |

**DIMENSION KEY:** D = Diameter B = Width A = Bore min L = Wire Length



# CRIMPED WIRE BEVEL BRUSH WITH GUARD +++++

- For removal of light rust, corrosion, paint and primer
- Guard offers extra protection against chips

| DxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.30 mm | | | | |
| 100xM14 T24 | 115 | 1 | 66261103056 | 66261103180 |



# CRIMPED WIRE BEVEL BRUSHES ++++

- Crimped wire is thinner and more flexible than knotted wire
- Bevel shape is designed for hard-to-reach areas including edges and corners

| DxBxA L (mm) | GRINDER SIZE (mm) | PK QTY | STEEL |
|---|---|---|---|
| 0.50 mm | | | |
| 100x13xM14 T20 | 115 | 1 | 66254406142 |
| 115x15xM14 T27.5 | 125 | 1 | 66254406109 |










# WIRE BRUSHES
## FOR HAND DRILLS

Norton wire brushes for hand drills are ideal for small and hard-to-reach areas like inner diameters of holes and tubes. Used with medium pressure, the brushes are almost spark free, reducing thermal damage on the workpiece. A number of brush types are available for different application needs.

## PRODUCT SELECTION GUIDE

### BY APPLICATION

Highly recommended ●

| | WIRE DIAMETER (mm) | | | |
|---|---|---|---|---|
| APPLICATIONS | 0.2 | 0.3 | 0.35 | 0.5 |
| Roughing | | | ● | ● |
| Planing | ● | ● | ● | |
| Deburring | ● | ● | ● | ● |
| Edge honing | ● | ● | ● | |
| Descaling/paint stripping | | ● | ● | ● |
| Weld seams | ● | ● | ● | |

### BY TYPE & MATERIAL

Highly recommended ●

| PRODUCT AVAILABILITY ON: | STEEL | CARBON STEEL | STAINLESS STEEL | NON-FERROUS METAL | ALUMINIUM | SOFTWOOD | HARDWOOD |
|---|---|---|---|---|---|---|---|
| Normal steel | ● | ● | | | | ● | ● |
| Stainless steel | | | ● | ● | ● | | |
| Brass wire | | | | ● | | ● | |



# TWIST KNOTTED WIRE BRUSHES WITH SHANK

++++

- For aggressive removal of rust, corrosion, paint and primer

| DxB L (mm) | SHANK (mm) | PK QTY | STEEL |
|---|---|---|---|
| 0.35 mm | | | |
| 70x15 T15 | 6 | 12 | 66254405406 |
| 0.50 mm | | | |
| 70x15 T15 | 6 | 12 | 66254405407 |



# TWIST KNOTTED END BRUSHES

++++

- Perfect for heavy-duty cleaning and deburring in hard-to-reach areas on pipes, tubes and internal diameters.

| DxBxL (mm) | SHANK (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.20 mm | | | | |
| 25x69 T26 | 6 | 50 | - - | 77696091115 |
| 0.35 mm | | | | |
| 19x68 T26 | 6 | 12 | 66254405421 | - - |
| 22x68 T26 | 6 | 12 | 66254405422 | - - |
| 0.50 mm | | | | |
| 28x68 T26 | 6 | 12 | 66254405423 | - - |







**DIMENSION KEY:** D = Diameter B = Width A = Bore min L = Wire Length



# CRIMPED WIRE BRUSHES WITH SHANK

- For removal of light rust corrosion, paint and primer from hard-to-reach areas, edges and corners

| DxB L (mm) | SHANK (mm) | PK QTY | STEEL +++ | STAINLESS STEEL ++++ | BRASS +++ |
|---|---|---|---|---|---|
| 0.20 mm | | | | | |
| 20x4 T3 | 6 | 10 | 66254404872 | - | - |
| 30x6 T6.5 | 6 | 10 | 66254404875 | - | - |
| 30x9 T6.5 | 6 | 10 | 66254404876 | 66254404909* | - |
| 40x9 T9 | 6 | 10 | 66254404879 | 66254404910* | - |
| 50x10 T12.5 | 6 | 10 | 66254404880 | - | - |
| 50x15 T12.5 | 6 | 10 | 66254404881 | 66254405238* | 66254405397 |
| 60x10 17.5 | 6 | 10 | - | 66254405269* | - |
| 60x15 17.5 | 6 | 10 | 66254404885 | 66254405270* | - |
| 70x10 T19 | 6 | 10 | 66254404886 | 66254405271* | - |
| 80x20 T19 | 6 | 10 | - | - | 66254405405 |
| 0.30 mm | | | | | |
| 50x10 T12.5 | 6 | 10 | 66254404891 | - | - |
| 70x10 T19 | 6 | 10 | 66254404899 | 66254405395* | - |
| 70x15 T19 | 6 | 10 | - | 66254405396* | - |
| 80x20 T19 | 6 | 10 | 66254404907 | 66254405398* | - |

* 12PK QTY

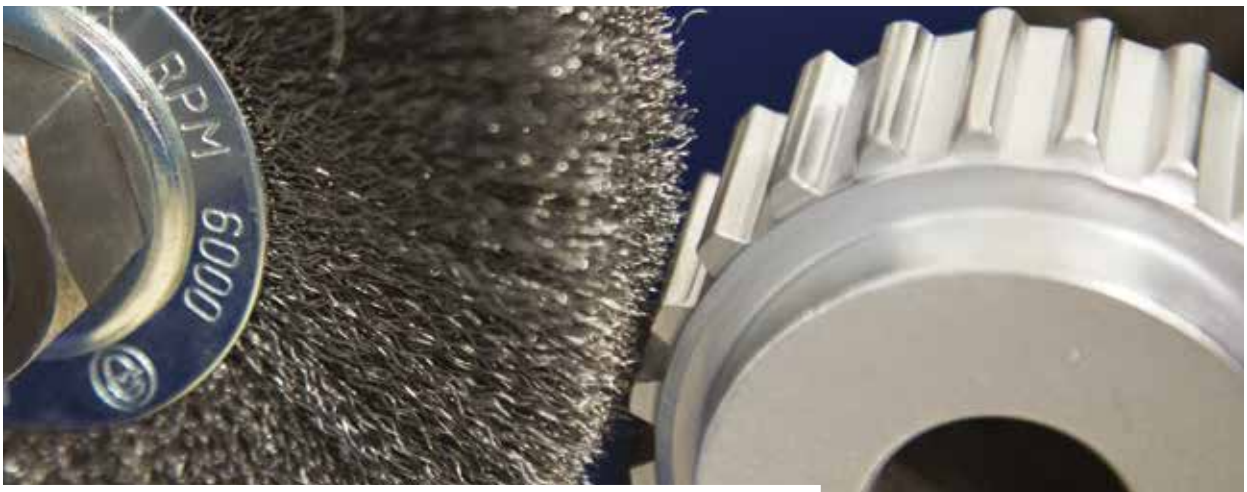


# CRIMPED WIRE END BRUSHES WITH SHANK (ENB) ++++

- Small diameter and flexible wire is perfect for light cleaning of small and hard-to-reach areas including pipes and internal diameters

| DxBxL (mm) | SHANK (mm) | PK QTY | STEEL | STAINLESS STEEL |
|---|---|---|---|---|
| 0.20 mm | | | | |
| 12x60 T20 | 6 | 12 | 66254405408 | - |
| 17x65 T22 | 6 | 12 | 66254405409 | - |
| 0.30 mm | | | | |
| 12x60 T20 | 6 | 12 | 66254405410 | 66254405414 |
| 17x65 T26 | 6 | 12 | 66254405411 | 66254405415 |
| 24x68 T26 | 6 | 12 | 66254405412 | 66254405418 |
| 30x68 T26 | 6 | 12 | 66254405413 | 66254405419 |

**DIMENSION KEY:** D = Diameter B = Width A = Bore min L = Wire Length




# WIRE BRUSHES
## FOR BENCH GRINDERS

Wire wheel brushes for bench grinders are commonly used to remove rust, corrosion, hardened paint and adhesive residues, providing a good surface finish on large or small work pieces at a good price/performance ratio.

## PRODUCT SELECTION GUIDE

### BY APPLICATION

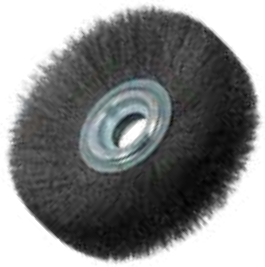
Highly recommended ●

| APPLICATIONS | WIRE DIAMETER (mm) 0.2 | 0.3 | 0.5 |
|---|---|---|---|
| Roughing | | | ● |
| Surface preparation | ● | ● | |
| De-burring | ● | ● | |
| Edge honing | ● | ● | |
| Descaling/paint stripping | ● | ● | ● |
| Weld seams | ● | ● | ● |

### BY TYPE & MATERIAL

Highly recommended ●

| PRODUCT AVAILABILITY ON: | STEEL | CARBON STEEL | STAINLESS STEEL | NON-FERROUS METAL | ALUMINIUM | SOFTWOOD | HARDWOOD |
|---|---|---|---|---|---|---|---|
| Normal steel | ● | ● | | | | ● | ● |
| Stainless steel | | | ● | ● | ● | | |



## CRIMPED WHEEL BRUSHES (WHB) +++

- Ideal for removing corrosion, rust, hardened paints and hard adhesive residues

| DxBxAxR L (mm) | PK QTY | STEEL | STAINLESS STEEL | |
|---|---|---|---|---|
| 0.20 mm | | | | |
| 200x26x32x80 T40 | 1 | 66254406401 | - | - |
| 0.30 mm | | | | |
| 125x24x20x30 T36 | 1 | 66254406282 | - | - |
| 200x36x32x80 T40 | 1 | 66254406243 | - | - |



## CRIMPED WHEEL BRUSHES (WHB) ++++

- Ideal for removing corrosion, rust, hardened paints and hard adhesive residues

| DxBxAxR L (mm) | PK QTY | STEEL | STAINLESS STEEL | |
|---|---|---|---|---|
| 0.30 mm | | | | |
| 100x11x12x20 T22 | 1 | 66254406455 | - | - |
| 150x18x32x50.8 T27 | 1 | 66254406265 | 66254406206 | |
| 180x22x32x50.8 T42 | 1 | 66254406263 | - | - |
| 200x26x32x80 T40 | 1 | 66254406255 | 66254406187 | |
| 250x32x50.8x100 T50 | 1 | 66254406241 | - | - |

FOR MORE INFORMATION VISIT
**www.nortonabrasives.com**





# WIRE BRUSHES
## FOR MANUAL APPLICATIONS

Simple brushing operations can be carried out by hand using Norton manual brushes. A number of brush types are available for different applications including cleaning and removing rust, scale and paint.

## PRODUCT SELECTION GUIDE

### BY APPLICATION

Highly recommended ●

| | TYPE OF WIRE | | | |
|---|---|---|---|---|
| APPLICATIONS | BRASS | CRIMPED | STRAIGHT | NYLON/PVC |
| Descaling/paint stripping | | ● | | |
| Weld seams | | ● | | |
| Brushing/dust removal | | | ● | ● |
| Light cleaning | ● | | | ● |

### BY TYPE & MATERIAL

Highly recommended ●

| PRODUCT AVAILABILITY ON: | STEEL | CARBON STEEL | STAINLESS STEEL | NON-FERROUS METAL | ALUMINIUM | SOFTWOOD | HARDWOOD |
|---|---|---|---|---|---|---|---|
| Normal steel | ● | ● | | | | ● | ● |
| Stainless steel | | | ● | ● | ● | | |
| Brass wire | | | | ● | | ● | |

# BRUSHES WITH WOODEN HANDLE



- Easy manual cleaning of paint, rust, primers, hardened adhesives and silicones.

+++

| L1xL2xL (mm) | NUMBER OF ROWS | PK QTY | ART NO. |
|---|---|---|---|
| WOOD HANDLE NORMAL STEEL STRAIGHT WIRE 0.30 mm | | | |
| 290x140x25 | 2R | 12 | 66254405432 |
| WOOD HANDLE STAINLESS STEEL CRIMPED WIRE 0.30 mm | | | |
| 290x140x25 | 4R | 12 | 66254405461 |
| WOOD HANDLE BRASS CRIMPED WIRE 0.30 mm | | | |
| 290x140x25 | 4R | 12 | 66254405466 |

++++

| | | | |
|---|---|---|---|
| WOOD HANDLE NORMAL STEEL STRAIGHT WIRE 0.30 mm | | | |
| 290x140x25 | 3R | 30 | 66254405434 |
| 290x140x25 | 4R | 24 | 66254405435 |
| 290x140x25 | 5R | 20 | 66254405437 |
| PLASTIC HAND STAINLESS STEEL STRAIGHT WIRE 0.30 mm | | | |
| 290x140x25 | 3R | 30 | 78072755571 |
| 290x140x25 | 4R | 24 | 66254405447 |

# BRUSHES WITH PLASTIC HANDLE



+++

- Easy cleaning with an ergonomic plastic grip

| L1xL2xL (mm) | NUMBER OF ROWS | PK QTY | ART NO. |
|---|---|---|---|
| PLASTIC HAND NORMAL STEEL STRAIGHT WIRE 0.30 mm | | | |
| 265x140x25 | 1R | 12 | 66254405470 |
| PLASTIC HAND STAINLESS STEEL STRAIGHT WIRE 0.30 mm | | | |
| 265x140x25 | 1R | 12 | 66254405471 |
| PLASTIC HAND BRASS CRIMPED WIRE 0.30 mm | | | |
| 265x140x25 | 1R | 12 | 66254405473 |

# NON SPARK HAND BRUSH



++++

- For use in potentially explosive environments, where 'traditional' wire brushes may create sparks.

| L1xL2xL (mm) | WIRE | ROWS | PK QTY | ART NO. |
|---|---|---|---|---|
| SPB | | | | |
| 200x18x45 | 0.20 | 3x6R | 12 | 66254405474 |

# PIPE BRUSHES WITH THREAD



- For cleaning internal diameters of pipes

| L1xL2xL (mm) | WIRE | THREAD | PK QTY | ART NO. |
|---|---|---|---|---|
| STEEL | | | | |
| 10x90x140 | 0.25 | W ¼ | 20 | 78072753590 |
| 18x90x140 | 0.25 | W ¼ | 20 | 78072753605 |
| 25x120x190 | 0.4 | W ½ | 20 | 78072753616 |
| 30x120x190 | 0.4 | W ½ | 20 | 78072753620 |
| 40x120x190 | 0.4 | W ½ | 20 | 78072753626 |
| 50x120x190 | 0.4 | W ½ | 20 | 78072753634 |
| 75x120x190 | 0.4 | W ½ | 10 | 78072753635 |







# OPERATING SPEED

Peripheral speed is a decisive factor in achieving optimum performance from a brush, the table opposite enables you to determine the relevant peripheral speed by simply reading down and across the appropriate diameter and drive shaft operating speed columns.

| RPM | BRUSH DIAMETER (mm) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 20 | 40 | 50 | 80 | 100 | 125 | 150 | 180 | 200 | 250 | 300 | 350 |
| $min^{-1}$ | - | - | - | - | - | - | - | - | - | - | - | - |
| 800 | - | - | - | 3.35 | 4.19 | 5.23 | 6.28 | 7.53 | 8.37 | 10.47 | 12.56 | 14.75 |
| 900 | - | - | 2.35 | 3.77 | 4.71 | 5.88 | 7.06 | 8.48 | 9.41 | 11.77 | 14.12 | 16.47 |
| 1150 | - | - | 3.01 | 4.81 | 6.01 | 7.52 | 9.02 | 10.83 | 12.03 | 15.04 | 18.04 | 21.04 |
| 1200 | 1.26 | 2.51 | 3.14 | 5.02 | 6.28 | 7.85 | 9.41 | 11.3 | 12.55 | 15.69 | 18.83 | 21.97 |
| 1400 | 1.46 | 2.93 | 3.66 | 5.86 | 7.32 | 9.15 | 10.98 | 13.18 | 14.64 | 18.31 | 21.97 | 25.63 |
| 1500 | 1.57 | 3.14 | 3.92 | 6.28 | 7.85 | 9.81 | 11.77 | 14.13 | 15.69 | 19.61 | 23.54 | 27.46 |
| 1800 | 1.88 | 3.77 | 4.71 | 7.54 | 9.41 | 11.77 | 14.12 | 16.95 | 18.83 | 23.54 | 28.24 | 32.95 |
| 2000 | 2.09 | 4.19 | 5.23 | 8.37 | 10.26 | 13.08 | 15.69 | 18.84 | 20.92 | 26.15 | 31.38 | 36.61 |
| 2500 | 2.62 | 5.23 | 6.54 | 10.47 | 13.08 | 16.35 | 19.61 | 23.55 | 26.15 | 32.67 | 39.23 | 45.76 |
| 2800 | 2.93 | 5.86 | 7.32 | 11.72 | 14.64 | 18.31 | 21.97 | 26.37 | 29.29 | 36.61 | 43.93 | 51.25 |
| 3000 | 3.14 | 6.28 | 7.85 | 12.56 | 15.69 | 19.62 | 23.54 | 28.26 | 31.38 | 39.23 | 47.07 | 54.92 |
| 3200 | 3.35 | 6.7 | 8.37 | 13.4 | 16.74 | 20.92 | 25.1 | 30.14 | 33.47 | 41.84 | 50.21 | 58.58 |
| 3500 | 3.66 | 7.33 | 9.15 | 14.65 | 18.31 | 22.89 | 27.46 | 32.97 | 36.61 | 45.76 | 54.92 | 64.07 |
| 4000 | 4.19 | 8.37 | 10.46 | 16.75 | 20.92 | 26.16 | 31.38 | 37.68 | 41.84 | 52.33 | 62.76 | 73.22 |
| 4500 | 4.7 | 9.42 | 11.77 | 18.84 | 23.54 | 29.43 | 35.3 | 42.4 | 47.07 | 58.84 | 70.61 | 82.43 |
| 5000 | 5.23 | 10.47 | 13.08 | 20.93 | 26.15 | 32.7 | 39.23 | 47.1 | 52.33 | 65.38 | 78.5 | - |
| 5400 | 5.65 | 11.3 | 14.12 | 22.94 | 28.24 | 35.31 | 42.36 | 50.67 | 56.48 | 70.61 | 84.78 | - |
| 6000 | 6.28 | 12.56 | 15.69 | 25.12 | 31.38 | 39.24 | 47.07 | 56.52 | 62.76 | 78.5 | - | - |
| 7000 | 7.33 | 14.66 | 18.31 | 29.31 | 36.61 | 45.78 | 54.92 | 65.94 | 73.22 | 91.58 | - | - |
| 8000 | 8.37 | 16.75 | 20.92 | 33.94 | 41.48 | 52.32 | 62.76 | 75.36 | 83.73 | - | - | - |
| 9000 | 9.42 | 18.84 | 23.54 | 37.68 | 47.07 | 58.86 | 70.61 | 84.78 | 94.2 | - | - | - |
| 10000 | 10.47 | 20.93 | 26.17 | 41.86 | 52.33 | 65.4 | 78.5 | 94.2 | - | - | - | - |
| 12500 | 13.08 | 26.17 | 32.71 | 52.33 | 65.42 | 81.75 | 98.13 | - | - | - | - | - |
| 15000 | 15.7 | 31.4 | 39.25 | 62.8 | - | - | - | - | - | - | - | - |
| 17500 | 18.32 | 36.63 | 45.79 | 73.26 | - | - | - | - | - | - | - | - |
| 20000 | 20.93 | 41.87 | 52.33 | 83.73 | - | - | - | - | - | - | - | - |
| 22500 | 23.55 | 47.1 | 58.88 | 94.2 | - | - | - | - | - | - | - | - |
| 25000 | 26.17 | 52.33 | 65.42 | 104.66 | - | - | - | - | - | - | - | - |

## HOW TO READ THIS TABLE

Select your brush diameter, then move down till you reach desirable peripheral speed in m/s, after check on the left side of the table the value for the RPM. Check on page 403 the maximum operating speed per type of brush.

# MAXIMUM OPERATING SPEED

| TYPE | DIAMETER (mm) | MAX RPM |
|---|---|---|
| WHEEL BRUSHES | 80 | 10000 |
| | 100 | 8000 |
| | 125 | 6000 |
| | 150 | 6000 |
| | 180 | 6000 |
| | 200 | 4500 |
| | 250 | 3600 |
| | 250 - 1 row | 3500 |
| | 300 | 3000 |
| CUP BRUSHES | 60/65/75 | 11000 |
| | 60/65/75 | 11000 |
| | 60/65/75 | 10000 |
| | 75 | 9300 |
| | 80/100 | 8500 |
| | 125/150 | 6500 |

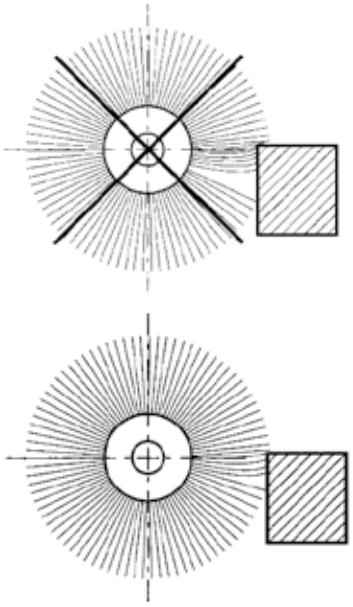
| TYPE | DIAMETER (mm) | MAX RPM |
|---|---|---|
| BEVEL BRUSHES | 100 | 11000 |
| | 100/115 | 11000 |
| | 115 | 10000 |
| TWIST KNOTTED WHEEL BRUSHES | 100 | 11000 |
| | 115 | 11000 |
| | 125 | 10000 |
| | 150/180 | 8500 |
| | 200 | 6500 |
| SHAFT MOUNTED WIRE BRUSHES | 20 | 20000 |
| | 30 | 20000 |
| | 40 | 18000 |
| | 50 | 15000 |
| | 60 | 15000 |
| | 70 | 15000 |
| | 80 | 12000 |

The maximum RPM ratings are safety ratings not recommended operating speeds. The optimum operating speed is determined by the application and in most cases lower operating speeds will prove more efficient and achieve the best result. As a general guide we recommend the following peripheral speeds when working on the materials listed with:

| APPLICATION | CRIMPED WIRE | TWIST KNOTTED |
|---|---|---|
| STEEL | 30m/s | 35-40m/s |
| NON-FERROUS | 18-20m/s | - |
| PLASTIC | 15m/s | - |

## BRUSHING PRESSURE

- Let the tip of the wire brush do the work. Operate the brush with the lightest pressure so only the tips of the wire come in contact with the work
- If heavy pressure is used, wires will be over stressed, resulting in a wiping action, and if this is continued, the life of the brush will be shortened due to wire fatigue
- Apply the work to the face of the brush ensuring as much of the brush face as possible is in full contact. Applying the work to the side or edge of the brushing tool will result in wire breakage and shortened brush life
- Reversing the wheel brush rotation periodically will tend to increase the life of the brush. This results in the sharpening of the wire tips or ends, ensuring faster cutting action



## SIZE OF WIRE

- Use the finest size of wire suitable for the application
- Finer wire size will perform better and last longer than heavier

# TROUBLESHOOTING

Several factors can influence a brush application. If the selected brush does not achieve the expected result, the following table may provide solutions for the most common problems faced by a user.
For further information, please contact our technical department.

| PROBLEM | RECOMMENDED ACTIONS |
|---|---|
| Brush is too aggressive | Increase trim length |
| | Reduce wire diameter |
| | Reduce operating speed |
| Brush is not aggressive enough | Reduce trim length |
| | Increase wire diameter |
| | Increase operating speed |
| Action of brush does not totally remove scale | Reduce trim length |
| | Increase wire diameter |
| Finish is too coarse | Increase trim length |
| | Reduce wire diameter |
| | Increase operating speed |
| | Choose a nylon abrasive brush |
| Finish is too smooth | Reduce trim length |
| | Increase wire diameter |
| Action of brush is not uniform | Reduce brushing pressure |
| | Automate operations to avoid human inaccuracy |
| Wire breaks more than usual | Reduce brushing pressure |
| | Reduce wire diameter |
| | Reduce operating speed |
| Life of the brush is too short | Reduce wire diameter |
| | Increase brush diameter |
| | Reduce brushing pressure |

# SAFETY & STORAGE

Safety goggles or full face protection with side shields must be worn by all operators and others in the immediate area of power brush operations.

- Keep all machine guards in place
- Observe all speed restrictions indicated on brushes
- Appropriate protective clothing and equipment must be used
- Brushes should be carefully checked when removed from the original carton. Do not use if rusted or damaged
- Store brushes in the original carton. Wire brushes should not be exposed to heat, high humidity, acids, fumes or liquids that can result in deterioration of the wire filaments, and subsequently, premature failure of the wires. Also, check for distortion of brush fill that can cause imbalance and excessive vibration when the brush is running
- Check maximum spindle speed. Do not mount and operate the brush if spindle RPM exceeds the maximum safe free speed for which the brush is rated. Spindle length should be sufficient to permit a full nut mounting
- Before starting the machine, rotate the wire brush with a gloved hand to determine that the brush has been correctly mounted and turns freely

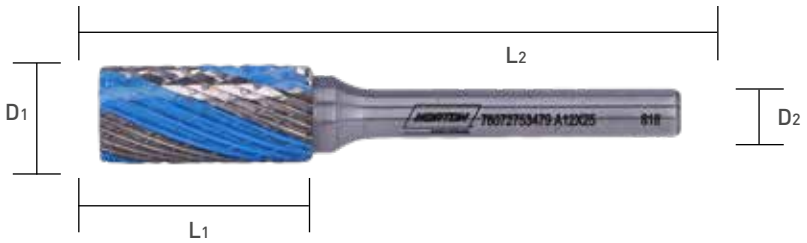


# GEOMETRIES
# FOR OPTIMUM RESULTS

## TUNGSTEN CARBIDE BURRS

Norton has turned carbide burr technology on its head with these 'state of the art' new designs. The new X-TREM teeth geometry meet growing market demands for stainless steel, steel, carbon steel and nickel alloys, providing fast stock removal and long tool life.
The next generation of carbide burrs covers a variety of teeth and cutting shapes that offer an optimal adaptation to the key characteristics of various materials at a very competitive price.

## UNDERSTANDING THE PRODUCT




### BURR DIMENSIONS & DESCRIPTION

| A | 16.0 | x | 25.0 | 6 | x | 65 | X-TREM |
|---|---|---|---|---|---|---|---|
| SHAPE | HEAD DIAMETER | X | HEAD LENGTH | SHANK DIAMETER | X | OVERALL BURR LENGTH (OL) | CUT STYLE |
| | $D_1$ | | $L_1$ | $D_2$ | | $L_2$ | |

# CUT STYLES

| X-TREM CUT | DOUBLE CUT | | ALU CUT | |
|---|---|---|---|---|
|  |  |  |  |  |
| | DC X-TiAIN | DC | ALU X-TiAIN | ALU |
| +++++ | +++++ | ++++ | +++++ | ++++ |
| • Faster stock removal*<br>• Longer life*<br>• Glossy and smooth finish | DC TiAIN coated | Universal cutting style | ALU TiAIN coated | ALU cutting style |

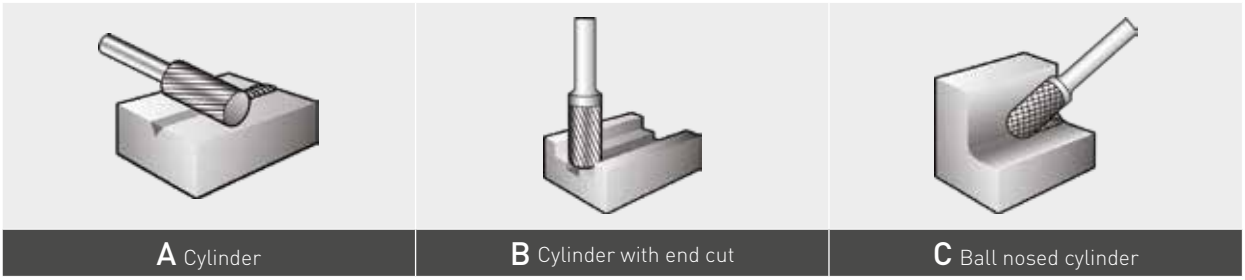
* than double cut (DC)

# PRODUCT RECOMMENDATION GUIDE

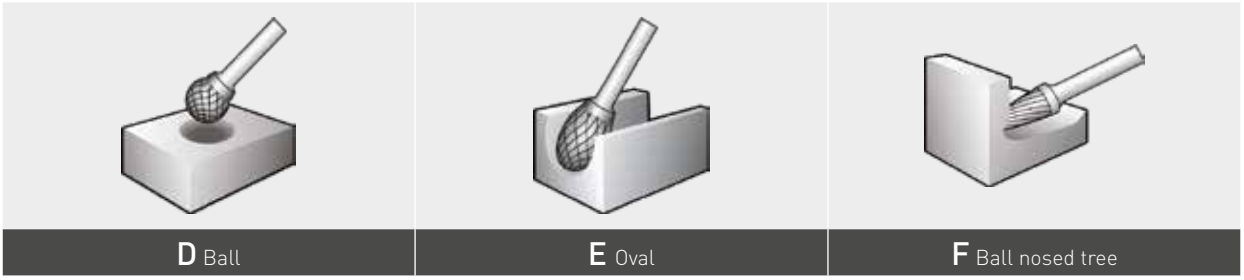
| | X-TREM CUT | DC X-TiAIN | DC | ALU X-TiAIN | ALU |
|---|---|---|---|---|---|
| MATERIALS | +++++ | +++++ | ++++ | +++++ | ++++ |
| Steel<40HRc, carbon steel, non-alloy steel | ***** | ***** | **** | | |
| Steel (40-60HRc), alloyed steel | ***** | ***** | **** | | |
| Stainless steel | ***** | ***** | **** | | |
| Cast iron | ***** | ***** | **** | | |
| Nickel alloys, cobalt alloys | ***** | ***** | **** | | |
| Soft aluminium, aluminium alloys, brass, copper, zinc | | | | ***** | ***** |
| Bronze, titanium, titanium alloys, very hard aluminium alloys | **** | *** | *** | ***** | **** |
| Plastic/wood | | | | ***** | ***** |



# APPLICATION BY SHAPE



**A** Cylinder | **B** Cylinder with end cut | **C** Ball nosed cylinder



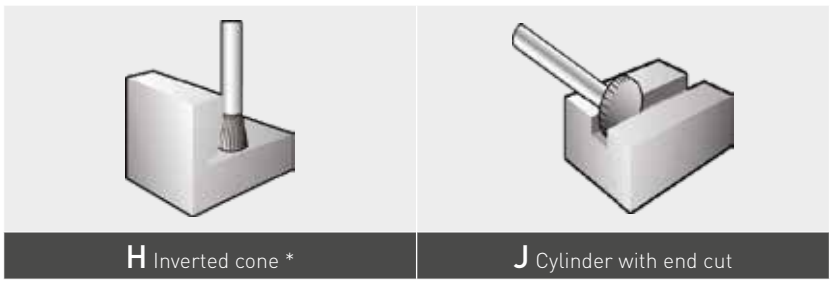
**D** Ball | **E** Oval | **F** Ball nosed tree



**G** Tree | **H** Flame | **J** Countersink 60° *



**K** Countersink 90° * | **L** Ball nosed cone | **M** Cone



**H** Inverted cone * | **J** Cylinder with end cut

* Made-to-order

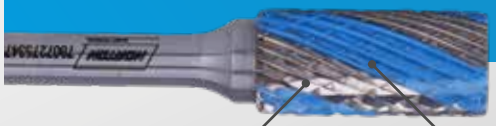
# X-TREM CUT +++++

## A LEAP IN PERFORMANCE



### CARBIDE BURRS DESIGNED TO WORK AS LONG AS YOU DO

- 40% faster stock removal*
- 40% longer life*
- Glossy and smooth finish



Fine teeth
Smoother finishing

Coarse teeth
Faster material removal

**TIP**

All Norton X-TREM burrs are identified with blue stripes so you can be sure you picked up the right product. X-TREM CUT still works long after the blue paint is gone.

* than double cut (DC)

## FOR ALUMINIUM AND NON-FERROUS METALS

### ALU X-TiAIN +++++

- 'ALU' cut style, coated with TiAlN (titanium aluminium nitride) for a smoother cut
- Reduced heat generation on the workpiece
- Excellent chip removal and reduced tooth wear
- Reduces cutting pressure due to improved lubrication

### ALU ++++

- 'ALU' cut style, for deburring aluminium, alloys and plastic
- Wide tooth formation for easy chip flow
- Large chip formation to avoid aluminium dust generation
- Controlled consistent cut

| PRODUCT SHAPE | $D_1xL_1xD_2xL_2$ (mm) | PK QTY | ALU X-TiAIN +++++ | ALU ++++ |
|---|---|---|---|---|
| **A CYLINDER** | | | | |
|  | 10x19x6x65 | 1 | - | 60157638195 |
| | 12x25x6x70 | 1 | - | 63642586517 |
| **B CYLINDER WITH END CUT** | | | | |
|  | 10x19x6x65 | 1 | - | 07660739845 |
| **C BALL NOSED CYLINDER** | | | | |
|  | 10x19x6x65 | 1 | - | 60157638182 |
| | 12x25x6x70 | 1 | - | 07660707846 |

# FOR ALUMINIUM AND NON-FERROUS METALS

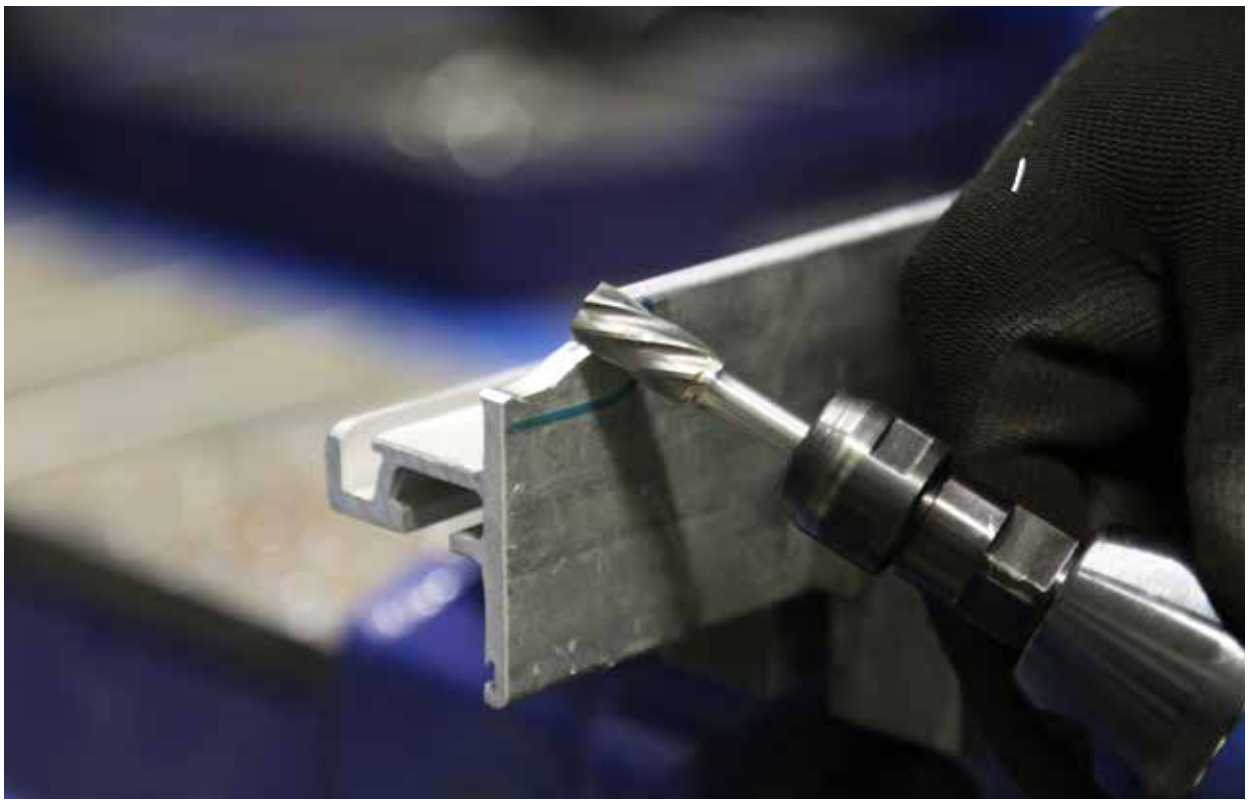
| PRODUCT SHAPE | $D_1xL_1xD_2xL_2$ (mm) | PK QTY | ALU X-TiAlN +++++ | ALU ++++ |
|---|---|---|---|---|
| **F BALL NOSED TREE** | | | | |
|  | 10x19x6x65 | 1 | - | 63642586951 |
| | 12x25x6x70 | 1 | 69957383303 | 60157638181 |
| **L BALL NOSED CONE** | | | | |
|  | 12x30x6x75 | 1 | 69957383325 | - |



## ALU BURR KIT ++++

### FOR ALUMINIUM AND NON-FERROUS METALS

| SHAPE | $D_1xL_1xD_2xL_2$ (mm) | ART NO. | PK QTY | ART NO. |
|---|---|---|---|---|
| C | 12x25 6x70 | 07660707846 | 1 | 66254428260 |
| D | 10x9 6x53 | 63642586824 | 1 | |
| F | 12x25 6x70 | 60157638181 | 1 | |
| L | 12x30 6x75 | 63642587101 | 1 | |



# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

## *NEW!* X-TREM CUT

+++++

- New cutting geometry for faster stock removal and better finish
- Easy to use (works in both directions)
- Longer life than double cut carbide burrs
- The blue stripes for easy identification of the product

## DOUBLE CUT DC X-TiAIN

+++++

- Double cut style, coated with TiAIN (titanium aluminium nitride) for better sliding characteristics
- Universal cutting style for fast material removal, smooth finish and granular chip break
- Excellent chip removal and reduced tooth wear
- Reduces cutting pressure due to improved lubrication

## DOUBLE CUT DC

++++

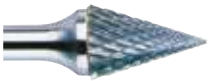
- Universal cutting style for fast material removal
- Unique geometry improves operator control and reduces the size of chips
- Increased cut rate and longer life on tough applications
- Double cut style

| PRODUCT SHAPE | $D_1$xL$_1$x$D_2$x$L_2$ (mm) | PK QTY | *NEW!* X-TREM CUT | DOUBLE CUT DC X-TiAIN | DOUBLE CUT DC |
|---|---|---|---|---|---|
| **A CYLINDER** | | | | | |
|  | 3x13x3x38 | 1 | - | - | 63642586518 |
| | 4x12.7 3x38 | 1 | - | - | 78072756859 |
| | 5x16x6x50 | 1 | - | - | 78072756912 |
| | 6x19x6x50 | 1 | - | - | 66261146394 |
| | 8x19x6x65 | 1 | - | - | 66261146396 |
| | 10x19x6x65 | 1 | - | - | 66261146496 |
| | 10x25x6x162 | 1 | - | - | 63642535764 |
| | 12x25x6x70 | 1 | 78072753479 | - | 66261146497 |
| | 12x25x8x70 | 1 | 78072756634 | - | - |
| | 16x25x6x70 | 1 | - | - | 60157638148 |
| **B CYLINDER WITH END CUT** | | | | | |
|  | 4x16x6x50 | 1 | - | - | 78072756915 |
| | 5x16x6x50 | 1 | - | - | 78072756935 |
| | 6x19x6x50 | 1 | - | - | 63642586641 |
| | 8x19x6x65 | 1 | - | - | 7660707804 |
| | 8x19x6x175 | 1 | - | - | 63642535757 |
| | 9.5x19 6x65 | 1 | - | - | 66261146498 |
| | 12x25x6x70 | 1 | 78072756677 | - | 66261146499 |
| | 16x25x6x70 | 1 | - | - | 66261146500 |

# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

| PRODUCT SHAPE | $D_1xL_1xD_2xL_2$ (mm) | PK QTY | *NEW!* X-TREM CUT | DOUBLE CUT DC X-TiAlN | DOUBLE CUT DC |
|---|---|---|---|---|---|
| **C BALL NOSED CYLINDER** | | | | | |
|  | 3x13 3x38 | 1 | 78072756678 | - | - |
| | 6x13x6x162 | 1 | - | - | 63642535773 |
| | 6x19 6x80 | 1 | - | - | 66261197806 |
| | 6x19x6x50 | 1 | 78072756707 | - | 66261146521 |
| | 8x19x6x64 | 1 | 78072756708 | - | 66261146524 |
| | 9.5x19 6x64 | 1 | 78072756709 | - | 66261146526 |
| | 12x19x6x65 | 1 | - | - | 60157638153 |
| | 12x25x6x70 | 1 | 78072753481 | 69957383241 | 66261146531 |
| | 16x25x6x70 | 1 | - | - | 66261146532 |
| **D BALL** | | | | | |
|  | 6x5 6x50 | 1 | - | - | 66261146533 |
| | 8x6.3 6x52 | 1 | - | - | 66261146534 |
| | 9.5x8 6x54 | 1 | - | - | 66261146535 |
| | 10x9 6x53 | 1 | 78072756722 | - | 07660707832 |
| | 12x11 6x56 | 1 | 78072756783 | - | - |
| | 16x4x6x59 | 1 | - | - | 78072756936 |
| **E OVAL** | | | | | |
|  | 5x7.1 3x38 | 1 | - | - | 78072756954 |
| | 6x10x6x50 | 1 | - | - | 63642586892 |
| | 10x16x6x60 | 1 | - | - | 60157638159 |
| | 12x22x6x67 | 1 | - | - | 60157638162 |
| | 16x25 6x70 | 1 | - | - | 78072756958 |
| **F BALL NOSED TREE** | | | | | |
|  | 3x12.7 3x38 | 1 | - | - | 78072757016 |
| | 6x16x6x50 | 1 | 78072756792 | - | - |
| | 6x18 6x50 | 1 | - | - | 66261146537 |
| | 6x18x6x150 | 1 | - | - | 66623391628 |
| | 8x20x6x150 | 1 | - | - | 66623382151 |
| | 9.5x19 6x65 | 1 | - | - | 66261146539 |
| | 12x25x6x70 | 1 | 78072753486 | - | 66261146540 |
| | 12x25x8x70 | 1 | 78072756793 | - | - |
| | 16x25x6x70 | 1 | - | - | 66261146541 |
| **G TREE** | | | | | |
|  | 3x14 3x38 | 1 | - | - | 60157638163 |
| | 6x16x6x50 | 1 | - | 69957383305 | - |
| | 6x18 6x50 | 1 | - | - | 66261146542 |
| | 8x19x6x64 | 1 | - | - | 66261146544 |
| | 9.5x19 6x64 | 1 | - | - | 66261146545 |
| | 12.7x19 6x64 | 1 | 78072756839 | - | - |
| | 12x25x8x70 | 1 | 78072756840 | - | - |
| | 12.7x25 6x70 | 1 | - | - | 66261146547 |
| | 16x25x6x70 | 1 | - | - | 66261146548 |
| | 19x25x6x70 | 1 | - | - | 78072757018 |

# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

| PRODUCT SHAPE | $D_1xL_1xD_2xL_2$ (mm) | PK QTY | *NEW!* X-TREM CUT | DOUBLE CUT DC X-TiAlN | DOUBLE CUT DC |
|---|---|---|---|---|---|
| **H FLAME** | | | | | |
|  | 5x9.5x4x38 | 1 | - | - | 78072757019 |
| | 8x19 6x64 | 1 | 78072756845 | - | - |
| | 12x32x6x77 | 1 | 78072756850 | - | 63642587971 |
| | 16x36x6x81 | 1 | - | - | 78072757007 |
| **J CYLINDER WITH END CUT** | | | | | |
|  | 12.7x11 6x61 | 1 | - | - | 78072757020 |
| | 16x14 6x64 | 1 | - | | 78072757021 |
| **K COUNTERSINK 90°** | | | | | |
|  | 12.7x6x6x58 | 1 | - | - | 78072757063 |
| | 16x8 6x58 | 1 | - | - | 78072757064 |
| **L BALL NOSED CONE** | | | | | |
|  | 6x16x6x50 | 1 | - | - | 60157638156 |
| | 8x22 6x70 | 1 | - | - | 66261146549 |
| | 9.5x27 6x75 | 1 | - | - | 66261146550 |
| | 12x30x6x75 | 1 | 78072756853 | - | - |
| | 12.7x28 6x77 | 1 | - | - | 66261146552 |
| **M CONE** | | | | | |
|  | 3x11x3x38 | 1 | - | - | 78072757066 |
| | 6x19x6x50 | 1 | - | - | 63642587137 |
| | 10x16x6x65 | 1 | - | - | 63642587133 |
| | 12x22x6x70 | 1 | - | - | 60157638149 |



## *NEW* X-TREM CUT 5 +++++ CARBIDE BURR KIT

| SHAPE | $D_1xL_1xD_2xL_2$ (mm) | ART NO. | PK QTY | ART NO. |
|---|---|---|---|---|
| A | 12x25x6x70 | 78072753479 | 1 | |
| C | 12x25x6x70 | 78072753481 | 1 | |
| D | 12.7x10.8x6x.56 | 78072756783 | 1 | 78072756854 |
| F | 12x25x6x70 | 78072753486 | 1 | |
| L | 12x30 6x75 | 78072756853 | 1 | |

# RECOMMENDED OPERATING SPEEDS (RPM)

| MATERIAL TYPE | PRODUCT DIAMETER | | | | |
|---|---|---|---|---|---|
| | 3mm | 6mm | 10mm | 12mm | 16mm |
| **Steel** | 60000 - 90000 | 45000 - 60000 | 30000 - 40000 | 22500 - 30000 | 18000 - 24000 |
| **Tempered steel** | 60000 - 90000 | 30000 - 45000 | 19000 - 30000 | 15000 - 22500 | 12000 - 18000 |
| **Stainless steel** | 60000 - 90000 | 30000 - 45000 | 19000 - 30000 | 15000 - 22500 | 12000 - 18000 |
| **Casting** | 45000 - 90000 | 22500 - 60000 | 15000 - 40000 | 11000 - 30000 | 9000 - 24000 |
| **Titanium** | 60000 - 90000 | 30000 - 45000 | 19000 - 30000 | 15000 - 22500 | 12000 - 18000 |
| **Nickel** | 60000 - 90000 | 30000 - 45000 | 19000 - 30000 | 15000 - 22500 | 12000 - 18000 |
| **Copper & copper alloys** | 45000 - 90000 | 22500 - 60000 | 15000 - 40000 | 11000 - 30000 | 9000 - 24000 |
| **Aluminium** | 30000 - 90000 | 15000 - 70000 | 10000 - 50000 | 7000 - 38000 | 6000 - 30000 |
| **Plastics** | 30000 - 90000 | 15000 - 70000 | 10000 - 50000 | 7000 - 38000 | 6000 - 30000 |
| **Carbon or glass fibres** | 64000 - 117000 | 32000 - 59000 | 19000 - 35000 | 16000 - 30000 | 12000 - 22000 |

Recommended speeds are for standard shank length of 45mm, maximum overhang 10mm.
Maximum recommended speed for extra-long burrs is 15000 RPM.

# RECOMENDATIONS FOR USE

- It may be necessary to adjust the rates shown to achieve optimum performance
- Running below the optimum speed will encourage chipping
- Harder materials or sticky metals such as, titanium, require slower speeds
- Running above optimum speed will cause tooth wear
- Smaller burrs require faster speeds
- Allowing the tool to become too hot may cause the braze to melt and detach the head of the shank
- Apply constant movement and light pressure when in use
- Do not sink the burr for more than one third of its periphery

## NOTES



# NORTON NORBEVEL

New cutting heads are made with carbide and a high-performance coating for easy bevelling and long life on steel, alloy steel and stainless steel. The new heads can be recognised by their bronze colour coating.

## FOR **BEVELLING**, NORBEVEL PROVIDES:

### BETTER WORKING CONDITIONS

Lightweight and almost vibration-free. The chips are large enough to immediately drop to the ground. No hazardous dust particles and/or combustion gases are released.

### A MORE CONSISTENT AND ACCURATE ANGLE

NorBevel-6 and NorBevel-12 machines provide a more consistent and accurate angle to the metal for a stronger welded joint.

### A MACHINE QUALITY FINISH WITHOUT CONTAMINATION

A better quality weld joint is created through reduced encapsulation of impurities in the weld, as NorBevel does not contaminate the metal.

### SPEED AND FLEXIBILITY

Approximately 1,2m of bevelling can be done in one minute. In a matter of seconds, the machine can be adjusted and the bevel heads replaced.

### NO FINISHING AND NO DISCOLORATION

A perfect end result straight away, without finishing. Discoloration is prevented through reduced sparking that adds hardly any heat to the material.

## FOR **ROUNDING**, NORBEVEL PROVIDES:

### UNIFORM QUALITY

A larger bonding surface is created for paint and coatings due to the uniform radius. Cable feed glands are no longer required to prevent chafing when feeding through cables, wiring and/or piping.

### A QUALITY FINISH

Only with NorBevel you can quickly achieve high levels of constant quality when rounding metal.

### SPEED AND FLEXIBILITY

Rounding small openings from a diameter of 18 mm is easy due to the compact and lightweight machine design. Rounding metal now has an unprecedented degree of flexibility.

**For Norbevel machines, please contact your Norton sales representative to find the latest solution for your application.**

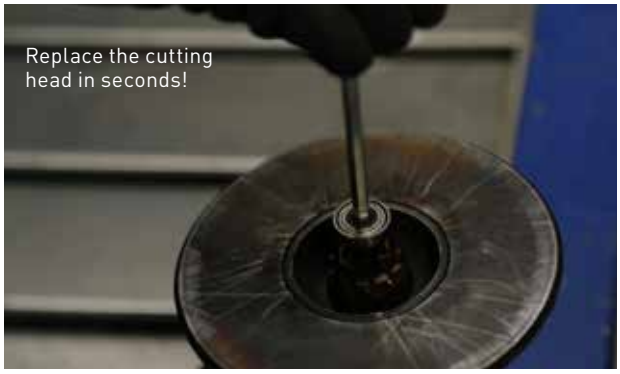


# **NORTON NORBEVEL**-12 RANGE

The Norbevel 12 cutting heads have been designed for heavy duty bevelling and radius work up to a depth of 12mm. All heads can be used on the Norton Norbevel EBA-12 and ABA-12 machines which are adjustable for adapting bevelling depth.

## HEADS FOR NORBEVEL-12 FOR ELECTRIC AND PNEUMATIC MACHINES

| MAX DEPTH (mm) | RADIUS / ANGLE | PK QTY | *NEW* HIGH-PERFORMANCE HEAD; STEEL, LASER-CUT STEEL & STAINLESS STEEL | ALUMINIUM, PLASTIC, BRASS & SOFT METALS |
|---|---|---|---|---|
| 8mm  | R2 | 1 | 78072742984 | 66261113318 |
| | R3 | 1 | 78072742983 | 66261113319 |
| | R4 | 1 | 78072743003 | 66261113320 |
| | R8 | 1 | - | - 66261152484 |
| 8mm  | 30° | 1 | 78072743015 | 66261113321 |
| | 37° | 1 | 78072743013 | |
| | 45° | 1 | 78072743010 | 66261113323 |
| 10 mm | R6 | 1 | 78072743008 | - - |
| 12mm  | R8 | 1 | 78072743009 | - - |
| | 30° | 1 | 78072743020 | 66261146169 |
| | 37° | 1 | 78072743019 | |
| | 45° | 1 | 78072743017 | 66261146171 |
| | 60° | 1 | 78072743021 | - - |






SPEC CHECK Recommended maximum cut depth is 4mm per pass



# **NORTON NORBEVEL**- 6 RANGE

For lighter bevelling and rounding to a depth of 6mm the cutting heads have been designed for heavy duty bevelling and radius work up to a depth of 12mm. All heads can be used on the Norton Norbevel EBA-12 and ABA-12 machines which are adjustable for adapting bevelling depth.

## HEADS FOR NORBEVEL-06 FOR ELECTRIC AND PNEUMATIC MACHINES

| MAX DEPTH (mm) | | RADIUS / ANGLE | PK QTY | *NEW* HIGH-PERFORMANCE HEAD; STEEL, LASER-CUT STEEL & STAINLESS STEEL | ALUMINIUM, PLASTIC, BRASS & SOFT METALS |
|---|---|---|---|---|---|
| 6mm |  | R2 | 1 | 78072742976 | 66261113306 |
| | | R3 | 1 | 78072742973 | 66261113309 |
| | | R4 | 1 | 78072742978 | 66261113310 |
| 6mm |  | 30° | 1 | 78072742982 | 66261113311 |
| | | 45° | 1 | 78072742979 | 66261113312 |

SPEC CHECK Recommended maximum cut depth is 4mm per pass



# STEEL WOOL

For cleaning a variety of materials and highlighting and rubbing wood. Washable and reusable. Won't rust, shred or splinter. Compatible with water-based finishes.

## STANDARD ++++

- Made from strands of ultra-fine steel filaments
- For use on wood, paint, metal, stone, marble and glass
- Can be used with a chemical stripper
- Ideal for cleaning and fine finishing

PAINT/VARN. & SOFTWOOD

| WEIGHT | GRADE | PK QTY | ART NO. |
|---|---|---|---|
| 1kg | 0000 | 12 | 63642593149 |
| 1kg | 000 | 12 | 63642593151 |
| 1kg | 00 | 12 | 63642593153 |
| 1kg | 0 | 12 | 63642593154 |



# Conditions of Sale-General Conditions for the Supply of Goods and Associated Services (Feb 2021)

Conditions of Sale-General Conditions for the Supply of Goods and Associated Services (Feb 2021)

1. (a) In these conditions 'the Company' means Saint-Gobain High Performance Solutions UK Ltd (trading as Saint-Gobain Abrasives) and 'the Customer' means the individual, firm, company or other party with whom the Company contracts. 'Supply' includes (but is not limited to) any supply under a contract of sale. 'International Supply Contract' means such a contract as is described in section 26(3) of the Unfair Contract Terms Act 1977.

(b) No order in pursuance of any quotation or otherwise shall be binding on the Company unless and until such order is accepted by the Company. Any contract made between the Company and the Customer (herein called 'the Contract') shall be subject to these conditions and save as aftermentioned no representative or agent of the Company has authority to agree any terms or make any representations inconsistent with them or to enter into any contract except on the basis of them; any such term representation or contract will bind the Company only if in writing and signed by a director.

(c) Unless otherwise agreed in writing by the Company these conditions shall override any terms and conditions stipulated or referred to by the Customer in his order or pre-contract negotiations.

(d) Any description contained in the Company's catalogues, samples, price lists or other advertising material is intended merely to present a general picture of the Company's products and services and shall not form a representation or be part of the Contract.

(e) In the event that the Company has not given a written acknowledgement of the Customer's order these conditions, provided the Customer shall have had prior notice of them, shall nonetheless apply to the Contract.

(f) In the event that the Customer orders any goods by telephone, any subsequent written order received from the Customer will be deemed to be a confirmation of the order given on the telephone if and only if the written order is (i) marked with the Company's reference number given to the Customer on the telephone and (ii) marked 'Confirmation Only'. Any written order not so marked will be deemed to be a further order from the Customer and may be accepted accordingly.

(g) The Company reserves the right to correct any employee clerical or typographical errors made at any time.

2. (a) Where goods are made to the Customer's specification, instructions or design, the Customer undertakes full responsibility for the suitability and accuracy of the specification, instructions or design and undertakes to indemnify the Company against any infringement of any patent, design rights, registered design, trade mark, trade name, copyright or other intellectual property rights and any loss, damage or expense which it may incur by reason of such infringement in any country and the Customer undertakes further to indemnify the Company for any loss damage or expense in respect of any liability arising under or by reason of the provisions of the Consumer Protection Act 1987 in relation to the specification or design of such goods.

(b) The Customer warrants that it will pass on to all third parties to whom it may supply the goods all information as to the use and safe handling of the goods as may have been passed on to the Customer by the Company.

3. (a) Subject to any agreement to the contrary the Company's quotations are provisional and may be altered to take account of any changes taking place between the date of quotation and the Company's acceptance of the Customer's order in the price of raw materials, rates of wages and other costs of production or in the Customer's specification, instructions or design or in the event that the

Customer orders part only of the quantity referred to in any quotation.

(b) The Company shall be entitled to increase its prices at any time to take account of any increase in the cost to the Company of purchasing any goods or materials or manufacturing working on or supplying any goods or services (including any such increase arising from any error or inadequacy in any specification, instructions or design provided by the Customer or any modification carried out by the Company at the Customer's request) and such increased prices ruling at the date of despatch by the Company shall be substituted for the previous Contract price. All prices quoted are exclusive of VAT and the Customer shall pay any and all taxes duties and other government charges payable in respect of the goods or services.

4. (a) Unless otherwise agreed in writing by the Company, the Company shall deliver the goods by the means most convenient to the Company to the address or addresses specified by the Customer or (in the event that the Customer fails to specify an address) to any address at which the Customer resides or carries on business and off-loading shall be at the Customer's risk.

(b) If the Contract is an International Supply Contract it shall be deemed to incorporate the latest edition of Incoterms current at the date of the Contract save that in the event of any inconsistency between incoterms and any express term of the Contract the latter shall prevail. The Company shall be under no obligation to give the Customer the notice specified in section 32 (3) of the Sale of Goods Act 1979.

(c) Save in the Case of International Supply Contracts and subject to any agreement in writing by the Company, the risk in goods which the Company agrees to supply shall pass to the Customer on the relevant date as defined in sub paragraph 5 (a) hereof or the date (if earlier) on which, the goods being ready for delivery, delivery is postponed at the Customer's request.

(d) The Company shall not be liable for any loss of or damage sustained by any goods left with the Company howsoever caused and whether or not attributable to negligence on the part of the Company or negligence or wilful default on the part of any servant or agent of the Company.

(e) Should the Company be delayed in or prevented from making delivery of the goods or carrying out the services due to war, governmental or parliamentary restrictions, strike, lock-outs, fire, floods, explosions, labour disturbances, trade disputes, damage to or destruction of the goods, breakdown of machinery, shortage of labour or of raw materials or Act of God or due to any other cause whatsoever beyond the reasonable control of the Company the Company shall be at liberty to cancel or suspend the order placed by the Customer without incurring any liability for any loss or damage arising there from.

(f) While the Company will endeavour to deliver the goods or complete the services by any date or within any period agreed upon, such dates and periods are estimates only given in good faith and the Company will not be liable for any failure to deliver or complete by such a date or within such a period. Moreover, the Company shall be entitled to defer delivery until any monies due from the Customer have been received.

5.

(a) For the purposes of this paragraph the goods shall mean the whole or any instalment of the goods which the Company has agreed to supply or to which the Company has agreed to carry out work and the relevant date shall be the date on which (i) the Company despatches the goods or (ii) the Customer takes delivery of the goods at the Company's premises, whichever is the earlier, or (III) (in the case of services) the services or any part thereof are carried out.

(b) Unless otherwise specified in writing by the Company payment for the goods or services or any part thereof shall be made by the customer net cash not later than the end of the month following the month in which the relevant date falls. Time for payment shall be of the essence of the Contract. Without prejudice to any other rights of the Company interest will be payable on all overdue accounts at Barclays Bank PLC base rate plus 4% and for the purpose of paragraphs 6 and 8 hereof the full purchase price of the goods or services shall include any interest payable hereunder.

(c) Queries or inaccuracies regarding the invoice will only be entertained if the Customer has given the Company written notice of such queries or inaccuracies within 14 days of the invoice date.

(d) The Customer shall make all payments due in full without any deduction by way of set-off, counterclaim, discount or abatement, unless the Company expressly agrees otherwise.

6.

(a) If the Customer shall fail to make any payment when it becomes due or shall enter into any composition or any arrangement with his creditors or if being an incorporated company shall have an administrative receiver or administrator appointed or shall pass a resolution for winding up or a Court shall make an order to that effect or if there shall be any breach by the Customer of any of the terms and conditions hereof the Company may defer or cancel any further deliveries and treat the Contract as determined but without prejudice to its right to the full purchase price for goods delivered and services provided and damages for any loss suffered in consequence of such determination.

(b) Cancellation by the Customer will only be accepted at the discretion of the Company and in any case on condition that any costs or expenses incurred by the Company up to the date of cancellation and all loss or damage resulting to the Company by reason of such cancellation will be paid by the Customer to the Company forthwith. Acceptance of such cancellation will only be binding on the Company if in writing.

(c) A charge will be made for any costs incurred by the Company due to suspension or deferment of any order by the Customer or in the event that the Customer defaults in collecting, or giving instructions for the delivery of, any goods.

7.

(a) No claim for damage in transit, shortage of delivery or loss of goods will be entertained unless the Customer shall have given to the Company written notice of such damage, shortage or loss with reasonable particulars thereof within 14 days of receipt of the goods or (in the case of total loss) of receipt of the invoice or other notification of despatch. The Company's liability, if any, shall be limited to replacing or (in its discretion) repairing such goods and it shall be a condition precedent to any such liability that the Customer shall if so requested have returned damaged goods to the Company within 14 days of such request. The Customer shall not be entitled to make any claim against the Company for consequential loss arising out of such damage shortage or loss as aforesaid.

(b) Save as otherwise provided in these conditions the Company's liability in respect of any defect in or failure of goods supplied or work done is limited to replacing or (in its discretion) repairing or paying for the repair or replacement of goods which within 12 months of delivery to the Customer are found to be defective by reason of faulty or incorrect design workmanship parts or materials and carrying out again any services which the Company has failed properly to perform in accordance with the Contract. In the event of any error in any weight, dimension, capacity, performance or other description or information which has formed a representation or is part of a contract the Company's liability in respect of any direct loss or damage sustained by the Customer as a result of such error shall not exceed the price of the goods or services in respect of which the description or information is incorrect. Conditions precedent to the Company's liability hereunder shall be that as soon as reasonably practicable the Customer

(I) shall have given to the Company reasonable notice of the defect, failure or error

(II) shall have either returned the goods to the Company or provided authority for the Company's servants or agents to inspect them, as the Company may request.

The Company shall have no other or further liability in respect of any direct, indirect or consequential loss or damage sustained by the Customer arising from or in connection with any such defect failure or error as aforesaid.

(c) Where the Company agrees to repair or replace goods or carry out again the services in accordance with the foregoing provisions of this paragraph any time specified for delivery under the Contract shall be extended for such period as the Company may reasonably require.

(d) The Company shall have no liability in respect of any failure of goods caused, whether wholly or in part, by any modification to the goods (save for trimming or dressing the goods for use) carried out by or for the Customer (other than by the Company) without the Company's prior written approval.

(e) Save for such terms as may be implied in the Contract by section 12 of the Sale of Goods Act 1979 or section 2 of the Supply of Goods and Services Act 1982 all conditions, warranties and other terms express or implied, statutory or otherwise, are expressly excluded, save insofar as contained herein or as otherwise expressly agreed by the Company in writing PROVIDED that if and insofar as any legislation or any order made thereunder shall make or have made it unlawful to exclude or purport to exclude from the Contract any term or shall have made unenforceable any attempt to exclude any such term, the foregoing provisions of this paragraph will not apply to any such term.

(f) Nothing in this agreement shall limit the Company's liability for death or personal injury caused as a result of the negligence of the Company.

8. The following provisions shall apply to all goods which under the Contract (other than an International Supply Contract) the Company agrees to supply to the Customer. No failure by the Company to enforce strict compliance by the Customer with such provisions shall constitute a waiver thereof and no termination of the contract shall prejudice limit or extinguish the Company's rights under this paragraph.

(I) Property in the goods shall not pass to the Customer until full payment has been received by the Company for the goods and any other goods supplied by the Company or any of its associated companies.

(II) The Customer undertakes that until payment has been made in accordance with 8i) above- not to remove, deface, or cover up any identification marks that the goods are the property of the Company

- to store the goods separately from those belonging to the Customer and others

- to allow the Company, its agents and employees, unrestricted access to the Customer's premises or any other location where the goods are stored, for the purpose of removal of the goods.

(III) The Customer is hereby granted a license by the Company to incorporate the goods in any other products.

(IV) The Customer is hereby licensed to sell on the goods and any products incorporating any of them. The Customer shall, immediately upon receipt of the proceeds of sale, and whether or not payment has become due under paragraph 5 hereof, remit to the Company the full purchase price of the goods sold on less any part thereof which has already been paid and until such amount has been so remitted shall hold such amount as trustee and agent for the Company.

(V) The Customer shall maintain all appropriate insurance in respect of the goods from the date or dates on which the risk therein passes to him. In the event of any loss or damage occurring while the goods remain the property of the Company the Customer shall immediately on receipt of the insurance monies, remit to the Company the full purchase price of the goods lost or damaged less any part thereof which has already been paid and until such amount has been so remitted shall hold such amount as trustee and agent for the Company.

(VI) The licences granted under sub-paragraphs (ii) and (iii) above shall be terminable forthwith at any time upon notice by the Company to the Customer.

9. In the case of International Supply Contract property in the goods shall pass to the Customer upon delivery.

10. Save as hereinbefore provided and subject to the provisions of section 2(I) of the Unfair Contract Terms Act 1977 the Company shall not be liable to the Customer for any damage or for any direct or consequential loss incurred by the Customer in consequence of any negligence on the part of the Company or negligence or wilful default on the part of its servants or agents or in connection with the supply of any goods or the design or manufacture thereof or in the carrying out of any work or the provision of any information.

11. Nothing in these Conditions shall exclude or restrict any liability that the Company may have by virtue of the Consumer Protection Act 1987.

12.

(a) The Customer shall be responsible for complying with any legislation or regulations governing the importation of the goods supplied by the Company under the Contract into the country of destination and for the payment of any duties on them.

(b) The Customer shall be liable for and shall indemnify and hold the Company harmless from any and all liability, loss, claims, damages and costs, which the Company may sustain or incur, arising out of or in any way connected with the Customer's failure to comply with paragraphs 12(a) and/or 15 hereof.

13. Without affecting any other right or remedy available to it, the Company may terminate any Contract with the Customer with immediate effect by giving written notice to the Customer if the Customer commits a material breach of any term of these Conditions and/or the Contract which breach is irremediable or (if such breach is remediable) fails to remedy that breach within a period of seven (7) days after being notified in writing to do so.

14. The Customer shall ensure that in any dealings with the Company, neither it or its employees or agents shall commit any offence under the Bribery Act 2010 ("the Act") including not engaging in any activity, practice or conduct which would constitute an offence under sections 1, 2 or 6 of the Act. The Customer shall inform the Company immediately it becomes aware of any actions between the parties that could constitute an offence under the Act.

15. It is the Company's and the Company's group's policy to comply with all applicable sanctions and legal requirements for the import and export of goods, technology and services. The Company is committed to ensuring compliance with all regulatory and licensing requirements relating to international trade. The Company does not permit the supply of any of its goods to any individuals, companies or organisations that are subject to any trade, economic or financial sanctions, embargoes or similar restrictive measures administered, enacted or enforced by the UK, EU, UN or USA ("Sanctioned Entities"). By entering into this Contract the Customer agrees not to re-sell or otherwise transfer the goods supplied by the Company, either directly or indirectly, to any Sanctioned Entities.

16.

(a) For the purposes of this paragraph 16, (a) "Applicable Data Protection Laws" means (i) to the extent the UK GDPR applies, the law of the United Kingdom or of a part of the United Kingdom which relates to the protection of personal data; (ii) to the extent the EU GDPR applies, the law of the law of the European Union or any member state of the European Union to which the Supplier is subject, which relates to the protection of personal data, in each case, as updated, amended or replaced from time to time; (b) "EU GDPR" means the General Data Protection Regulation ((EU) 2016/679), as it has effect in EU law; (c) "UK GDPR" has the meaning given to it in section 3(10) (as supplemented by section 205(4)) of the Data Protection Act 2018; and (d) the terms "Data Subject", "Personal Data", "processing", "processor" and "controller" shall have the meanings set out in the UK GDPR.

(b) Each party shall comply with the provisions and obligations imposed on it by the Applicable Data Protection Laws when processing Personal Data in connection with these Conditions. Such processing shall continue for so long as these Conditions are in force and shall be in respect of the following:

(I) Categories of data: Contacts within each of the parties and the ultimate customer details;

(II) Types of personal data: names, addresses, email addresses, telephone numbers and other contact details;

(III) Purpose and nature of processing: (I) manage the Contracts between the parties including ordering, fulfilment and billing; and (ii) fulfilment of such Contracts by delivering goods (where relevant).

(c) To the extent that a party processes any Personal Data on behalf of the other party, the processing party shall: (I) comply with the provisions and obligations imposed on a processor by the Applicable Data Protection Laws, and any stipulations set out in the Applicable Data Protection Laws as to what shall be included in the contract between the parties shall form a part of, and are incorporated into, these Conditions as if they were set out in full, and any reference to "documented instructions" (or similar) shall include the provisions of these Conditions; and (II) not disclose any Personal Data to any Data Subject or to a third party other than at the written request of the other party or as expressly provided for in these Conditions.

(d) You agree that we may engage third party providers including any advisers, contractors, or auditors to Process Personal Data ("Sub-Processors"). We shall ensure that our contract with each Sub-Processor shall impose obligations in relation to the Processing of Personal Data on the Sub-Processor that are materially equivalent to the obligations to which we are subject to under these Conditions in relation to the Processing of Personal Data.

(e) If either party receives any complaint, notice or communication which relates to the processing of Personal Data by the other party or to either party's compliance with the Applicable Data Protection Laws, or if any Personal Data processed in connection with these Conditions is subject to a personal data breach (as defined in the UK GDPR), it shall immediately notify the other party and provide the other party with reasonable co-operation and assistance in relation to any such complaint, notice, communication or personal data breach.

17. The proper law of all contracts with the Company shall be English Law which shall govern in all respects the construction and effect of such contracts and of these Conditions. The Customer agrees that in the event of any dispute arising out of the Contract or the performance thereof he will submit to the exclusive jurisdiction of the English Courts.

**Returns**

You must contact our customer service team within 14 days of receiving your order. We do not accept sale and return without prior agreement in writing, where a 25% or £25 handling fee (whichever is higher) will be issued for returns that are agreed.

- It is the customer's responsibility to arrange and cover the costs for shipment, which will need to be returned to our returns depot – this could be located in the UK or EU. Any delivery charges incurred will not be refunded.
- Please ensure the returns document with the returns number, accompanies the product when returned. Once you have packaged your items ready for shipping, clearly write the returns number on the outside of the packaging. Failure to do so could cause delays to any refunds or resolving your query.
- Any returned items need to be returned unused, with no signs of tampering and in the original packaging, which must not be damaged.
- If the returned products are damaged, show signs of tampering or being used, or are damaged in transit in a way that you could have foreseen (such as not being sent back in the original packaging), we withhold the right to refuse any returns (or partial returns).
- Full refunds will only be issued once we have received the products and they have been checked to ensure they have not been damaged or tampered with in any way. This means they should be in their original packaging, unused without any signs of damage and with a copy of the invoice included. We will confirm that we have received the item and that the product has met our required return conditions – please allow 28 days for your account to be credited.

**PLEASE NOTE:**

To obtain or check any prices in this catalogue, please contact the UK Customer Service team on +44 (0)1785 279553, email sga-uk@saint-gobain.com or speak to your local sales representative for further support.

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