



SURFACE SOLUTIONS

# INDUSTRIAL APPLICATIONS

2025



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Rapid Strip

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# **MARKET** SOLUTIONS

Norton delivers innovative solutions across many industries where abrasives are an integral part of manufacturing 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**

The Norton Cutting-off and Grinding Disc Range is ideal for use in the manufacture and repair of upstream, midstream and downstream components, shipbuilding, oil rigs and pipelines. In addition, 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 to improve our habitat.



# WOOD & COMPOSITES

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



ENGINEERED SHAPED CERAMIC GRAIN FOR:





LONGER LIFE



**COOLER CUT** 



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 stringent monitoring and audit system, 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.

G00D +++

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.

# MAKING THE WORLD A BETTER HOME Mitigating climate change means decarbonising 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 planet's 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 decarbonise and reduce their own environmental footprint. Our net zero ambition is also a concrete expression of our purpose: Making the world a better home!

# **OUR COMMITMENT TO A MORE SUSTAINABLE FUTURE**

Sustainability is at the core of what we do; we have clear commitments built around five pillars:



# POSITION SUSTAINABILITY AS A DRIVER FOR GROWTH

- Decarbonisation of our customers applications
- By 2030, 100% of products covered by Environmental product declaration / Life Cycle Assessment (ISO 14040)
- Circular economy, recycling services eco-innovation



# LIMIT OUR ENVIRONMENTAL FOOTPRINT

- By 2030, reduce energy consumption and CO, emissions by -33% (Scope 1 and 2)\*
- -50% water withdrawal and reuse by 2030
- -80% of non-valorised residues by 2030
- Reduction of waste to landfill, and reuse and recycle
- Increased biodiversity and reduced pollution



# TAKE ACTIONS ACROSS THE SUPPLY CHAIN

- Reduction of -16% CO<sub>2</sub> value chain emissions by 2030 (Scope 3)\*\*
- Decarbonising our transportation
- 100% of packaging recyclable, >30% of recycled or bio-sourced packaging content by 2030



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

- Customer centricity on safety, health comfort and wellbeing
- Surface solutions to reduce vibration noise, dust, VOC and odour
- Solutions that are more respectful of the environment and the people
- 100% REACH compliant



# ENCOURAGE EMPLOYEE ENGAGEMENT

- Awareness and education programmes
- 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, visit:

www.nortonabrasives.com

- \* CALCULATION METHOD: 2025 vs 2010 at isoproduction 2010/2030 vs 2017 in absolute terms
- \*\* including transport (upstream & downstream), purchases of goods and services

# 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
- Freestanding, space-saving option also available
- Optional additional graphic information system tailored to you to help 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.
- H: 2270mm x W: 1035mm x D: 500mm

DISPLAY KIT TYPES	PK QTY	NORTON	CLIPPER
Kit with light	1	410076979	410048416
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

ACCESSORIED	PK QTY	NORTON	CLIPPER
Header with light	1		
Header without light	1		
Shelf	1	MTO	MTO
Drill motor hooks x2	1	MIO	MIO
Euro hooks x35	1		
Core Drill hook	1		

SURFACE PREPARATION & FINISHING



MATERIAL REMOVAL



**CUTTING & GRINDING** 



# 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



# With MyAbrasives, the ordering process is simple:











# MAKING ORDERING EASIER:

- Detailed product information and specifications, including images and videos
- Access to order confirmations, product availability and delivery lead times
- 3. Available from smartphones, tablets and PCs 24/7
- Automatically creates a list of most frequently ordered products for ease of future ordering
- 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



SAINT-GOBAIN

PASSING OUR KNOWLEDGE

















# 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.







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

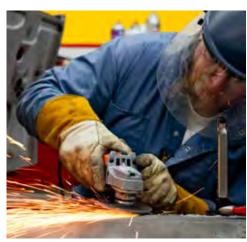
Keep up to date with what's happening at Norton via Facebook, Instagram and LinkedIn. Share your creations with us using the hashtag #Nortonabrasives, you might even get featured on one of our pages!











# 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 a highly specialised industry, the Norton training service provides specialised and practical knowledge on how to safely use abrasive products and get the maximum performance every time.

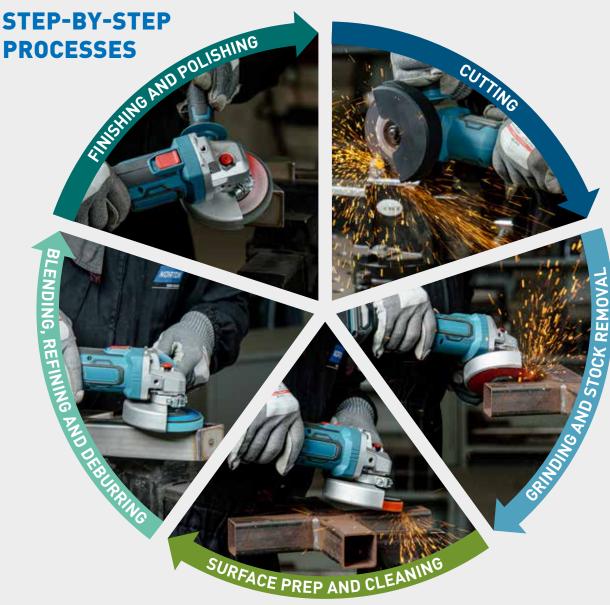
Thanks to our dedicated network of engineers, we're able to visit you at your preferred location or alternatively, we have a number of training facilities across Europe where you're welcome to visit.

# SOLUTIONS FOR RIGHT ANGLE GRINDER

At Norton, we know a lot about abrasives. Using our technical expertise and experience gained over many years of manufacturing and selling the full range of products for the metal fabrication market, including cutting and grinding wheels, flap and fibre discs and finishing and polishing products, we can help you select the right products to support your metal fabrication customers in all applications, on any material and where any size of angle grinder is used.

Our solutions empower you to navigate every stage of the application process with confidence. Whether cutting, grinding, blending, refining, cleaning, finishing or polishing, our precision-engineered abrasives ensure optimal results, enhancing productivity and profitability.





Training and demonstration opportunities are available and held

in our Centre of Excellence facilities located across Europe.

For more information, visit nortonabrasives.com or contact your local sales representative.



# CUTTING DISCS & GRINDING WHEELS

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# CUTTING DISCS & GRINDING WHEELS FOR METAL FABRICATION & WELDING

# 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, grinding, and surface finishing operations on any materials related to industrial fabrication markets.

# UNDERSTANDING THE PRODUCT

- Quality tier
- 2 Application material
- 3 Diameter x Thickness x Hole
- 4 Product specification
- 5 Maximum peripheral speed
- Machine cutting or grinding
- 7 Product code
- 8 OSA certification
- 9 EN12413



# PRODUCT SELECTION GUIDE

CUTTING DISCS FOR ANGLE AND STRAIGHT GRINDERS

Highly recommended 🗸	C	G	1	O.	C	4	C	C ON-	W MU	117
MATERIALS	NORTON QUANTUM3	X-TREME PRO	X-TREME	VULCAN	FOUNDRY X	RAIL	STARLINE	1-2-3	ALU	MULTI MATERIAL
	INNOVATION	+++++	+++++	++++	++++	++++	++++			
Steel / construction steel	✓	✓	✓	✓	✓	✓	✓	✓		✓
Low alloy	✓	✓	✓	✓	✓	✓	✓	✓		✓
High alloy	1	1	✓					✓		
Thin sheets, plates, profiles	✓	1	✓	✓			✓	1		✓
Stainless steel / inox	1	1	1	1				✓		/
Cast iron					1					
Non ferrous									1	✓
Titanium	1								1	1
Stone concrete										1
Tiles / ceramics										1
Rail hard grade						1				
Rail medium grade						✓				
Rail soft grade						✓				
Glass ceramics PVC										/



# PRODUCT SELECTION GUIDE

GRINDING DISCS FOR ANGLE GRINDERS

Highly recommended ✓	8	5	Final Control		dia dia	Ö.	ALU III
MATERIALS	NORTON QUANTUM3	X-TREME	VULCAN	FOUNDRY X	STARLINE	1-2-3	ALU
	INNOVATION	+++++	++++	++++	+++		
Steel / construction steel	<b>✓</b>	✓	✓	✓	✓	✓	
Low alloy	✓	✓	✓	✓	✓	✓	
High alloy	✓	✓					
Thin sheets, plates, profiles	✓	✓	✓		1		
Stainless steel / inox	✓	✓	✓			✓	
Cast iron				✓			
Non ferrous							<b>✓</b>
Titanium	✓		✓				<b>✓</b>
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 its 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











TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
	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
TYPE 41	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
	TYPE 41	115  TYPE 41  125  180  230  TYPE 42  115	TYPE 41  115  1.0x22.23*  1.3x22.23*  1.6x22.23*  1.0x22.23*  1.0x22.23*	TYPE 41     1.15     1.0x22.23*     NQ 60 ZZ       1.3x22.23*     NQ 60 ZZ       1.6x22.23*     NQ 60 ZZ       1.3x22.23*     NQ 60 ZZ       1.6x22.23*     NQ 60 ZZ       1.6x22.23*     NQ 46 ZZ       180     1.6x22.23     NQ 46 ZZ       230     1.9x22.23     NQ 46 ZZ       TYPE 42     115     0.8x22.23     NQ 60 ZZ	TYPE 41  115  1.0x22.23* NQ 60 ZZ 25  1.3x22.23* NQ 60 ZZ 25  1.6x22.23* NQ 46 ZZ 25  1.6x22.23* NQ 60 ZZ 25  1.0x22.23* NQ 60 ZZ 25  1.3x22.23* NQ 60 ZZ 25  1.3x22.23* NQ 60 ZZ 25  1.6x22.23* NQ 46 ZZ 25  180 1.6x22.23* NQ 46 ZZ 25  230 1.9x22.23 NQ 46 ZZ 25  TYPE 42 115 0.8x22.23 NQ 60 ZZ 25



**TUBS MADE FROM 100% RECYCLED PLASTIC** 

\* X-TEND included



# AIRTIGHT PACKAGING

Stops atmosphere & weather elements eroding product performance

# **DESICCANT POUCH**

Holds thousands of tiny pores that absorb and trap moisture in

### X-TEND PERFORMANCE



# NORTON QUANTUM3 INNOVATION

# **CUTTING DISCS**

- Increased disc thickness for a stronger and more durable cutting performance
- 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





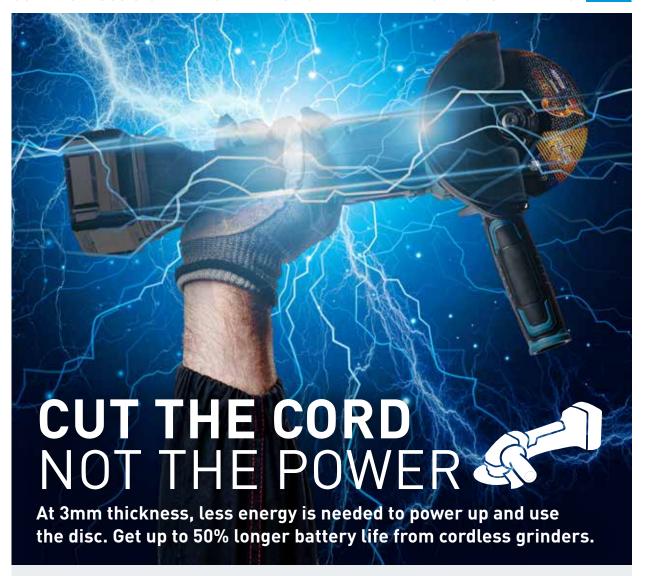




	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS						
aurani (		125	2.0x22.23	NQ 36 Y	25	66252848856
	TYPE 41	125	2.5x22.23	NQ 24 P	25	66252845954
4		230	2.5x22.23	NQ 24 P	25	66252846173
<b>→</b> // (100 m) (100 m) (100 m)	TYPE 42	125	2.5x22.23	NQ 24 P	25	66252832258
		230	2.5x22.23	NQ 24 P	25	66252846174
8000083F						



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



# NORTON QUANTUM3 INNOVATION



# 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
- Boost the amperage on cordless grinders, thanks to the disc's lighter weight and fast-cutting action
- Self-sharpening ceramic grain technology for fast material removal resulting in less grinding time







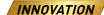




	TYPE	DIA (mm)	IxB (mm)	SPEC	PKQIY	ART NU.
GRINDING WHEELS						
	TYPE 27	115	3.0x22.23	NQ 30 S	10	66252846608
		125	3.0x22.23	NQ 30 S	10	66252846609
122						



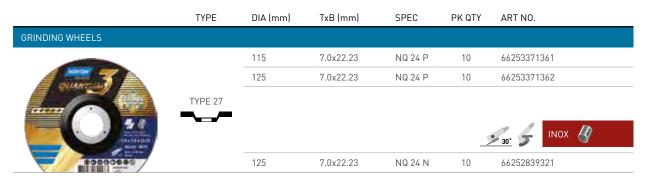
# NORTON QUANTUM3 INNOVATION



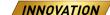
# **GRINDING WHEELS**

- 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





# NORTON QUANTUM3 INNOVATION



# HIGH FREQUENCY GRINDING WHEELS

- Optimised wheel for use on high frequency machines under high pressure
- 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







	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
GRINDING WHEELS						
		180	7.0x22.23	NQ 24 P	10	66253371364
OUANTUM		230	7.0x22.23	NQ 24 P	10	66253371365
4.0	TVDE 07					
	TYPE 27					
Autorities						





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.

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

# NORTON QUANTUM3



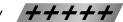
# **COMBINATION WHEEL**

- 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, thanks to the disc's lighter weight and fastcutting action
- Ideal for pipe cutting



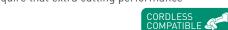
	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
OMBINATION WHEELS						
OUNTERS		125	4.2x22.23	NQ 24 R	20	66253371357
	TYPE 27	180	4.2x22.23	NQ 24 R	20	66253371359
		230	4.2x22.23	NQ 24 R	20	66253371360

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



- Long 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° 30° 6



TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
	115	1.0x22.23	ZA60X	25	66252846978
	125	1.0x22.23	ZA60X	25	66252846979
TYPE 41		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
		115 125 TYPE 41	TYPE 41  115 1.0x22.23 125 1.6x22.23 1.6x22.23 2.0x22.23 180 1.6x22.23	TYPE 41  115 1.0x22.23 ZA60X  125 1.0x22.23 ZA60X  1.6x22.23 ZA46X  2.0x22.23 ZA36X  180 1.6x22.23 ZA46X	TYPE 41  115 1.0x22.23 ZA60X 25 1.0x22.23 ZA60X 25 1.6x22.23 ZA46X 25 2.0x22.23 ZA36X 25 180 1.6x22.23 ZA46X 25



# 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







	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS						
		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
	TYPE 41	PE 41	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
	TVD= 10	115	2.5x22.23	A 36 V	25	66252921567
	TYPE 42	125	2.5x22.23	A 36 V	25	66252918816
		230	2.5x22.23	A 36 V	25	66252918818







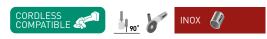


TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
	115	7.0x22.23	A 24 R	10	66252918822
TVD= 05	125	4.0x22.23	A 24 R	10	66252950672
TYPE 27		7.0x22.23	A 24 R	10	66252918823
	180	7.0x22.23	A 24 R	10	66252918824
	230	7.0x22.23	A 24 R	10	66252918825

# CUTTING DISCS & GRINDING WHEELS FOR METAL FABRICATION & WELDING

# VULCAN ####

• Dedicated for stainless steel



	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS						
MILLEAN		115	1.0x22.23	A 60 T Inox	25	66252833400
			1.6x22.23	A 46 T Inox	25	66252833401
		125	1.0x22.23	A 60 T Inox	25	66252833402
	TYPE 41		1.6x22.23	A 46 T Inox	25	66252833403
in to an			2.5x22.23	A 30 S Inox	25	66252833409
0000		180	1.6x22.23	A 46 T Inox	25	66252833405
THE REAL PROPERTY OF THE PERSON NAMED IN COLUMN TWO IN COL		230	1.9x22.23	A 46 T Inox	25	66252833406
Section .			2.5x22.23	A 30 S Inox	25	66252925427
	T)/DE //0	115	2.5x22.23	A 30 S Inox	25	66252925486
	TYPE 42	125	2.5x22.23	A 30 S Inox	25	66252925487
		230	2.5x22.23	A 30 S Inox	25	66252925489



	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
GRINDING WHEELS						
		115	6.4x22.23	A 30 S Inox	10	66252925513
VILLEAN	TYPE 27	125	6.4x22.23	A 30 S Inox	10	66252925514
****		230	6.4x22.23	A 30 S Inox	10	66252925517

# VULCAN ####

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

					COMPATIB	INUX III
	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS				·		
WIRCAN # 18		115	1.0x22.23	A 60 S	25	66252925431
			1.6x22.23	A 46 S	25	66252925432
	TYPE 41		2.0x22.23	A 30 S	25	66252925437*
			2.5x22.23	A 30 S	25	66252925442
1951281781			3.0x22.23	A 30 S	25	66252925447
		125	1.0x22.23	A 60 S	25	66252925433
00000000			1.6x22.23	A 46 S	25	66252925434
Marine Marine			2.0x22.23	A 30 S	25	66252925438
			2.5x22.23	A 30 S	25	66252925443
			3.0x22.23	A 30 S	25	66252925448

\* Made-to-order

CORDLESS METAL INOX



CUTTING DISCS						
		180	1.6x22.23	A 46 S	25	66252925435
100 CAN			2.0x22.23	A 30 S	25	66252925440
			2.5x22.23	A 30 S	25	66252925445
	TYPE 41		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
		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
	TYPE 42		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	25	66252925493
			3.2x22.23	A 30 S	25	66252925498

# VULCAN FAST CUT ####



- For use on low and medium power machines
- Suitable for hard steel

	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	30° ART NO.
GRINDING WHEELS						
		180	6.4x22.23	A 30 P	10	66252830805**
Jucan 5 th	TYPE 27	230	6.4x22.23	A 30 P	10	66252830807**

\*\* Up to +30% performance improvement



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

# 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









	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
GRINDING WHEELS						
VIIICAN		115	6.4x22.23	A 30 P	10	66252830803
	TYPE 27	125	6.4x22.23	A 30 P	10	66252830804
51						



TYPE

DIA (mm)

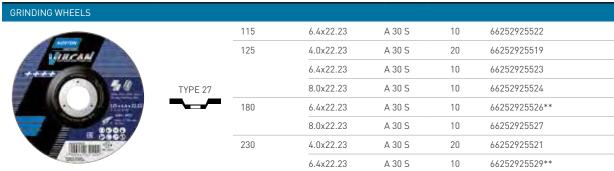
- · Great price versus performance ratio
- The general purpose range of grinding wheels







<u></u>			
SPEC	PK QTY	ART NO.	
A 30 S	10	66252925522	•



TxB (mm)





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







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

<sup>\*\*</sup> Up to +30% performance improvement



# STARLINE ###



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

CORDLESS COMPATIBLE	METAL INOX	

	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS - ANGLE GRINDER						
		115	1.0x22.23	A 60 R	25	66252837243
			1.6x22.23	A 46 R	25	66252837244
Strelled J.			2.5x22.23	A 30 P	25	66252837249
		125	1.0x22.23	A 60 R	25	66252837245
(m.n.m.			1.6x22.23	A 46 R	25	66252837246
# DOOD 100	TYPE 41		2.5x22.23	A 30 P	25	66252837250
		180	1.6x22.23	A 46 R	25	66252837247
No.			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
		230	3.2x22.23	A 30 P	25	66252837278



	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
GRINDING WHEELS						
PORTON		115	6.4x22.23	A 24 Q	10	66252837263
Baranis	TYPE 27	125	6.4x22.23	A 24 Q	10	66252837264
100 May 100 Ma		180	6.4x22.23	A 24 Q	10	66252837268**
		230	6.4x22.23	A 24 Q	10	66252837269**

<sup>\*\*</sup> Up to +30% performance improvement



# **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









TYPE DIA (mm) TxB (mm) SPEC PK QTY ART NO.

TYPE 27 125 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



	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS						
NORTON		115	1.0x22.23	C 60 T	25	66252833258
			1.6x22.23	C 46 T	25	66252828951
MULTI WATERIAL	TYPE 41	125	1.0x22.23	C 60 T	25	66252918924
			1.6x22.23	C 46 T	25	66252828952
125mm MAT - 8741		230	1.9x22.23	C 46 T	25	66252918925





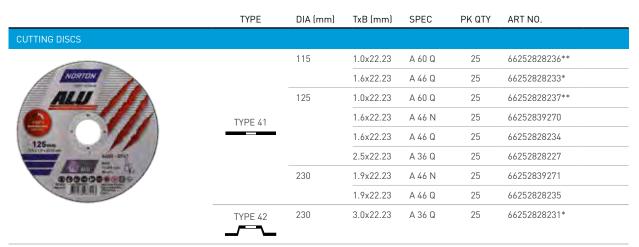
# **NORTON ALU**

- 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















TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
T)/DE 05	125	7.0x22.23	A 36 Q	10	66252828228
TYPE 27	180	7.0x22.23	A 36 Q	10	66252828230*
	230	7.0x22.23	A 36 Q	10	66252828232*

\* Made-to-order

<sup>\*\*</sup> Up to +30% performance improvement

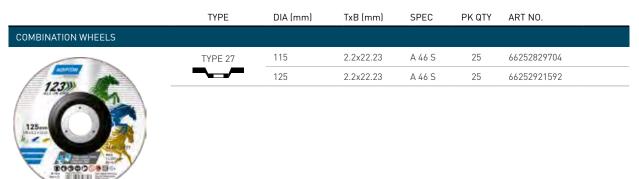
# CUTTING DISCS & GRINDING WHEELS FOR METAL FABRICATION & WELDING

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







# **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 discs 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.

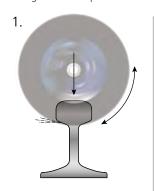
The bore dimensions of the cutting wheel can be adjusted using reduction rings that come with the original machine.

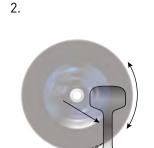
# **UNDERSTANDING** THE PRODUCT

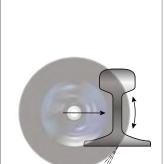
- Product code
- Application material
- Diameter x Thickness x Hole
- Product specification
- Maximum peripheral speed
- Machine cutting
- Safety pictograms
- OSA certification
- EN standard



CUTTING-OFF
Arrange the workpiece so that a uniform section can be cut







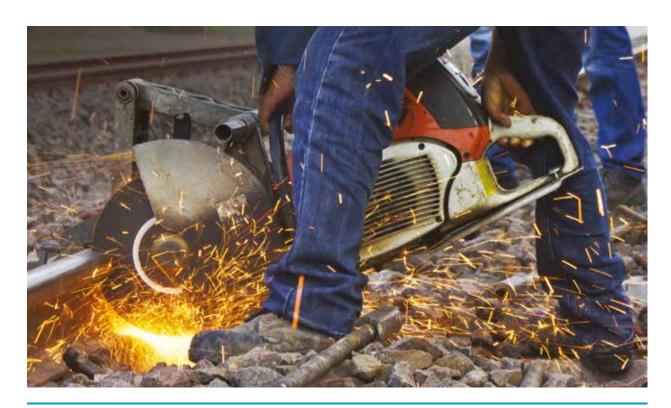
3.

# KEY:

Direction of cut



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





# NORTON QUANTUM3 RAIL INNOVATION







- Designed for comfort, built to last and 'made to bite'
- Long product life reduces the number of replacement discs, reducing the 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



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

### 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 three 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







	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
de la						

# RAIL ####





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





# **GRINDING WHEELS** FOR FOUNDRY

Cast iron used in foundry applications requires a specific type of cutting and grinding wheel to achieve a quick and clean cut. Norton Foundry X has been designed to remove the maximum amount of material in the shortest time. Premium zirconia grains and heavy reinforcements ensure that Norton Foundry X performs on the most powerful machines and under pressure in the toughest circumstances.

# FOUNDRY X ####

- New 180mm and 230mm Foundry X wheels are made with four layers of reinforcement to work under the highest side pressure without the risk of breakage
- For use on High Frequency machines, in enduring applications, and in the toughest environments



	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
GRINDING WHEELS						
FOUL ORY N		125	7.0x22.23	ZA24T LONG LIFE	10	66253371176
	TYPE 27	180	7.0x22.23	ZA20R COMFORT	10	66253370493
		230	7.0x22.23	ZA24T LONG LIFE	10	66253371175
5 7 mm and			7.0x22.23	ZA20R COMFORT	10	66252842546



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

# VULCAN ####

- General purpose cutting discs for all steel petrol saw applications
- Provides a straight and fast cut
- Long wheel life





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



FOR CHOP SAWS

Norton's cutting discs 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







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

<sup>\*</sup> Made-to-order



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

TYPE 41

# VULCAN ####

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









	TYPE	DIA (mm)	TxB (mm)	SPEC	PK QTY	ART NO.
CUTTING DISCS						
		400	4.5x32.0	C 30 R	10	66252925484*









_	300	3.0x32.0	A 30 S	10	66252925466
-		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

<sup>\*\*</sup> Max Operating Speed 100m/s

<sup>\*</sup> Made-to-order



# **TECHNICAL INFORMATION**

# SHAPE SPECIFICATION SYSTEM

BF 27

BF 41

BF 42



# DEPRESSED CENTRE GRINDING WHEELS

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

Application: grinding

#### FLAT CUTTING DISCS

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

Application: cutting

# DEPRESSED CENTRE CUTTING DISCS

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

Application: cutting

# 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 masl (ISO 7010)



protective gloves (ISO 7010)



Wear eye protection (ISO 7010)



Wear ear protection (ISO 7010)



instruction manual/ booklet (ISO 7010)



Unly permitted for grinding at an angle greater than 10°



only suitabl 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)

#### **TECHNICAL INFORMATION**

# 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:**

V04/2028 indicates production in the 2nd quarter of 2025 and advised usage before the 2nd quarter of 2028

# 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.

	SPEED CONVERSION	FOLLOWING EN 12413
WHEEL DIAMETER (mm)	MAXIMUM OPERATING SPEED (RPM) for resinoid bonded cutting discs & grinding wheels in handheld and stationary operations	
	80 m/s	100 m/s
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

### D<sub>0</sub>s

Always handle & store wheels carefully. Cutting discs should be stacked horizontally & 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 & ensure that it is correctly positioned & securely fitted. It should cover at least one half of the wheel & protect the operator in the unlikely event of a wheel breakage. NON-REINFORCED CUTTING DISCS SHOULD ONLY BE USED ON FIXED MACHINES & SHOULD BE CORRECTLY GUARDED

Always switch 'OFF' the power at the 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 & ensure that they are undamaged, clean & 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 & 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 the 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 & 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 & grinding operations clear. It is very dangerous if an operator trips & 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 & 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 4mm 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 & you are not well balanced

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POLISHING DISCS

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<sup>†</sup> 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 operations needs.

This extensive product range includes products designed for all types of applications, 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**

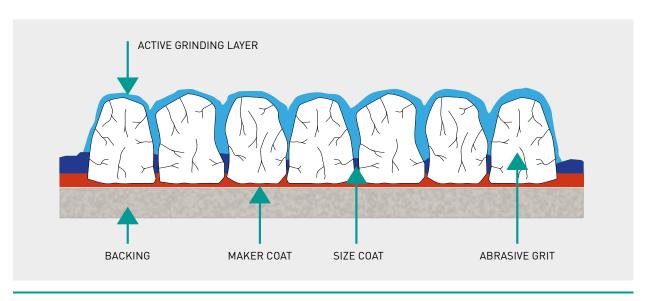
Whether paper, cloth, vulcanised fibre or polyester film, the backing must be smooth enough for uniform adhesive coating, strong enough to withstand grinding pressures and flexible enough to conform to contours if necessary.

### **ABRASIVE TYPES**

The ideal abrasive grain offers maximum resistance to 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
			A A A A A A
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 hardwoods. 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 make it the ideal abrasive for sanding nonferrous 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 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 cloth, Y-weight backing is used on products designed for severe applications, such as narrow belt grinding hand tools, and wide belts sanding lumber and particleboard.

## **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		С	4	4	15
MARKETING PRODUCT NAME	MARKETING CAP CODE FAMILY	TYPE OF MATERIAL	GRAIN	GRADE	INTERNAL DIFFERENTIATION
Bear-Tex	Flat Stock	F	<b>0</b> - No Grain	<b>0</b> - No Grit	Consecutive
Rapid Blend-Unified	Utitized / Unified	U	<b>1</b> - A/O White	<b>1</b> - Extra Coarse	numbers used for internal
Rapid Strip	Rapid Strip	R	<b>2</b> - A/O Brown	2 - Coarse	differentiation
Rapid Prep-Surface Conditioning	SCM Surface Conditioning Material / Blending	S	<b>4</b> - S/C	<b>3</b> - Med.	
Rapid Finish-Convolute	Convolute	С	<b>5</b> - Garnet	<b>4</b> - Fine	
Floor pads	Floor Maintenance	JF	<b>7</b> - Diamond	<b>5</b> - Very Fine	
			<b>9</b> - Ceramic	<b>6</b> - Ultra Fine	
				<b>7</b> - 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
- Brass

- Copper
- Nickel

- Chromium • Tantalum
- Stainless steel • Ceramics
- Zinc • Glass

• Titanium

- Fibreglass
- Wood

- Plywood
- Plastic

## APPLICATIONS INCLUDE

- Blending
- Cleaning Polishing

• Dulling laminates

- Highlighting Imparting satin
- Scouring

- Deburring

- · Defuzzing plywood
- · Decorative finishes
  - Scrubbing

 Removing raised wood fibres



# DISCS FOR ANGLE GRINDERS

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Fibre discs	53	Rapid Blend	6
Flap discs	60	Rapid Prep	7
Semi-flexible discs	66	Polishing discs	8



# 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, light blending and polishing, coated abrasive flap and fibre discs are available in many shapes, abrasive grains, speciality 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

- Longer lifespan, 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 of 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	OF PERFORMANCE & PRICE	PERFORMANCE. LOW INITIAL PRICE
	++++	++++	+++
Removing scale and coarse welding marks		-	
Removing coatings, epoxy/glue, paint	_	-	
Removing rust, oxidation, corrosion and residue	Blaze Rapid Strip Ceramic extra coarse	-	Rapid Strip S/C extra coarse
Removing parting lines and seams on fibreglass parts	nes and seams on		
Removing paint/graffiti from concrete/stone		-	
Removing weld marks and weld spatter	-		Rapid Prep A/O coarse
Stainless steel deburring and cleaning	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/0 medium
Light cleaning	-	Vortex Rapid Prep A/O medium	Rapid Prep A/0 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

EXCELLENT BLEND

CONSISTENT





# 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 🗸 🗸





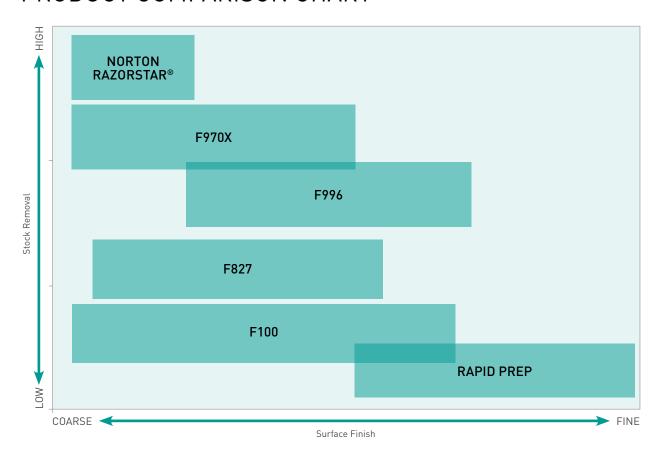






MATERIALS	<b>NEW</b> NORTON RAZORSTAR®	NORTON QUANTUM F996	BLAZE X F970X	NORZON F827	METAL F100
	INNOVATION	++++	++++	++++	+++
Stainless steel, inox	11	<b>√</b> √	1		
Titanium, inconel & super alloys	11	<b>//</b>	1		
Carbon, construction & mild steel	11	✓	11	✓	✓
Cast iron	11	✓	1	✓	✓
Non-ferrous metal (brass/aluminium)	✓			✓	✓
Hardwood				✓	✓

# PRODUCT COMPARISON CHART





# **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 topsize 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 a consistent cut rate and unparalleled disc life



SIZE (mm)	GRIT	MAX. RPM	PK QTY	ART NO.
115x22	36+	13300	25	66254434179
125x22	36+	12000	25	66254434181
180x22	36+	8600	25	66254434506

## NORTON 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

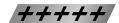
SIZE (mm)	THREAD	DENSITY	MAX. RPM	PK QTY	ART NO.
115	M14	Rigid	13300	5	66254442905
125	M14	Rigid	12200	5	66254442902
180	M14	Rigid	8600	5	66254442907



METAL

### FIBRE DISCS FOR ANGLE GRINDERS

# 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











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

# BLAZE X F970X +++++



- 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









F 370X
with intransa

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	



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











SIZE (mm)	GRIT	PK QTY	ART NO.
115 x 22	24	25	69957360048
	36	25	63642539615
	60	25	63642539616
	80	25	63642539617
	120	25	63642533055
125 x 22	24	25	63642539619
	36	25	63642536483
-	50	25	63642539620
	60	25	69957360057
	80	25	63642539622
	120	25	63642533056
180 x 22	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













SIZE (mm)	GRII	PKQIY	ART NO.
115 x 22	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
125 x 22	16	25	66623385761
	24	25	66623385764
	36	25	66623385768
	40	25	66623385770

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# FIBRE DISCS FOR ANGLE GRINDERS

SIZE	(mm)	GRIT	PK QTY	ART NO.
125	x 22	50	25	66623385773
	-	60	25	66623385775
	-	80	25	66623385776
	-	100	25	66623385778
	-	120	25	66623385779
180	x 22	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
- Grits 60+ and finer
- Conforms to ISO 15636

115	M14	Hard	13300		
125	N41/		10000	5	69957382828
125	M14	Medium	13300	5	69957382825
	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

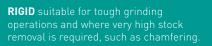




# FIBRE DISC BACK-UP PAD DENSITY GUIDE





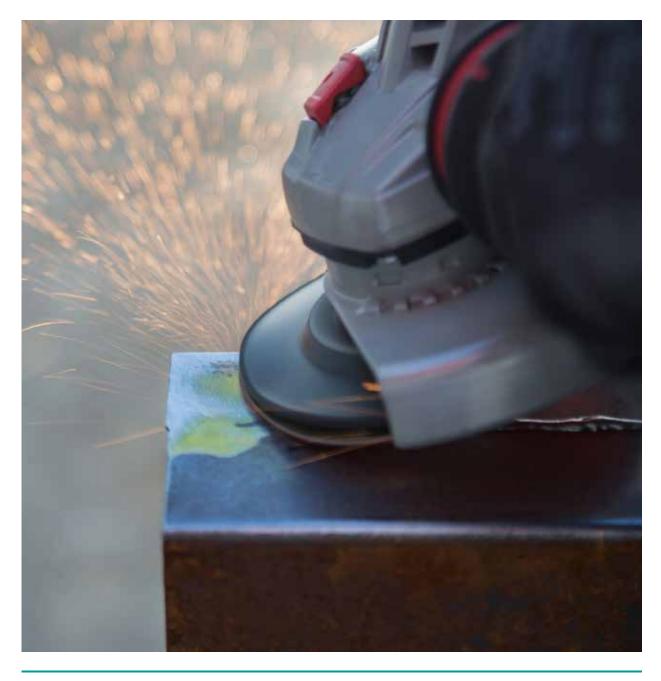




HARD DENSITY suitable for coarse applications and higher stock removal, such as chamfering, welded seam or deburring work.



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





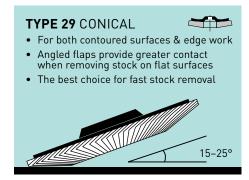
# FOR ANGLE GRINDERS

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



# DISC SHAPES



# TYPE 27 FLAT • For use on flat surfaces · Best choice for blending & finishing



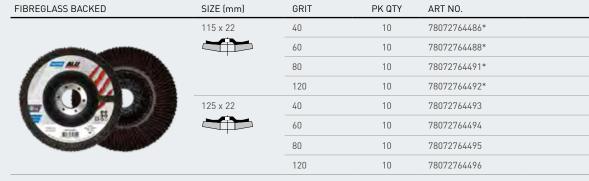
# NORTON ALU MESH FLAP DISC

- 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









\* Made-to-order



# X-TREME PRO R928R +++++



- X-Treme Pro R928R red 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 R928R is ideal for fast grinding when used at medium pressure on stainless steel or harder metals.

FIBREGLASS BACKED	SIZE (mm)	GRIT	PK QTY	ART NO.
THE PARTY OF THE P	115 x 22	40	10	78072723630
		60	10	78072723632
		80	10	78072723633
		120	10	78072723634
部	125 x 22	40	10	78072723652
NUITE STATE OF THE		60	10	78072723653
		80	10	78072723654
NEW COLOUR		120	10	78072723655
SAME	180 x 22	40	10	78072723810
QUALITY & PERFORMANCE				



For quick & efficient material removal, with a long lifespan.



Perfect for fast edge chamfering and de-burring



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





- 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







FIBREGLASS BACKED	SIZE (mm)	GRIT	PK QTY	ART NO.
	115 x 22	40	10	78072726071
PREME .		60	10	78072726074
		80	10	78072726075
		120	10	78072726043
	125 x 22	40	10	78072726076
		60	10	78072726077
		80	10	78072726078
<b>V</b> I SPEC		120	10	78072726045
SPEC CHECK	180 x 22	40	10	78072726080
Using a supersized disc is not necessary on		60	10	78072726081
carbon steel as less heat is generated than on stainless steel. X-Treme R860 is the best	125 x 22	40	10	78072726053
choice for carbon steel.		60	10	78072726068

# NORTON QUANTUM R996 #++++

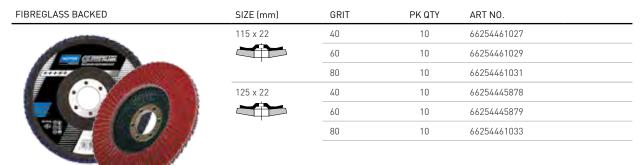


- Ideal for cool grinding on stainless steel
- Extremely aggressive ceramic grain for noticeably faster cut rate
- Strong polyester backing for demanding work on edges
- Especially suitable for high-pressure applications on high-power angle grinders











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

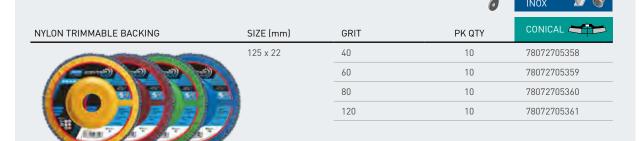
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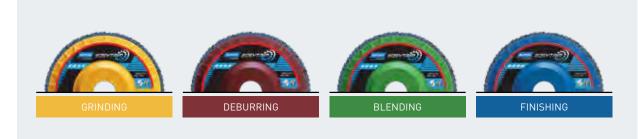


# NORTON EASYTRIM R842 ####



- Trimmable backing pad extends product life, so fewer discs are needed
- The backing plate is colour-coded by grit, so product identification and selection is easy
- Sharp zirconia grain, grinds material away quickly in all applications
- Create flexible flaps by trimming the pad for easy access to T-joins, corners and curves







# VULCAN R842



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





# 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

CORDLESS
COMPATIBLE SALVAN FERR. WOOD WOOD

• Best price-performance ratio

		COMPATIBLE		& NUN FERR.	
FIBREGLASS BACKED	SIZE (mm)	GRIT	PK QTY	ART NO.	
	115x22	40	10	66254492267	
Shada !		60	10	66254492268	
****		80	10	66254492270	
		120	10	66254492269	
	125x22	40	10	66254492271	
		60	10	66254492272	
		80	10	66254492273	
		120	10	66254492274	



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

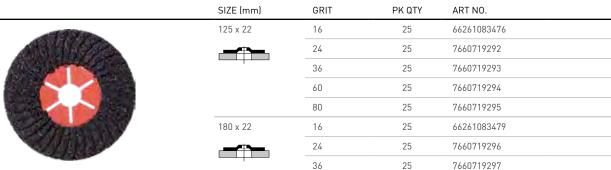
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Semi-flexible discs are created by coating heavy-duty fibre with multiple layers of a special resin-bonded abrasive. They are commonly used to clean stone, the hulls of ships and boats, to remove rust from large surfaces and coatings, and for removing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

# CP FLEX ####

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



60

80



# 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

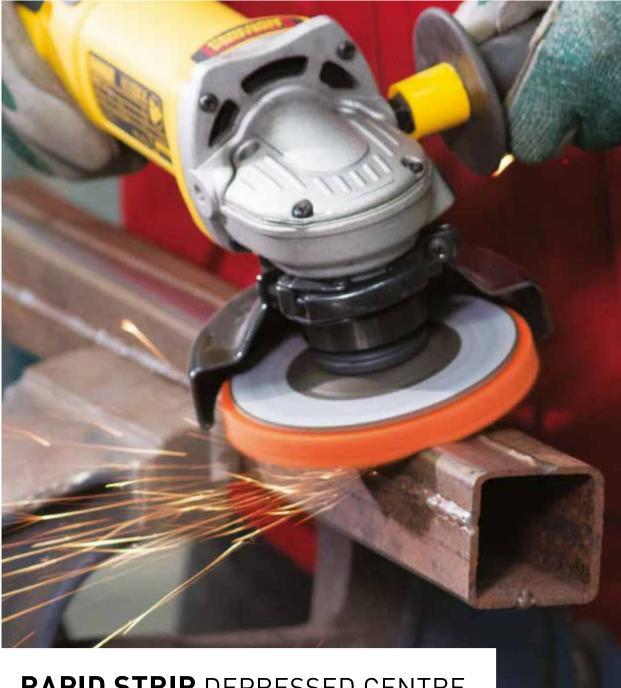


7660719298

7660719299

25

25



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

Non-woven discs consist of three components: a strong synthetic fibre mesh, a quality abrasive, and a smear-resistant adhesive. Rapid Strip discs are designed with an open web construction to provide aggressive cutting action while maintaining a cool, non-loading surface. The thick, strong synthetic fibres combined with extra coarse silicon carbide grain make removing rust, weld spatter, scale, and other surface contaminants easy. These discs are ideal for preparing and cleaning the surface before and after welding.



# BLAZE RAPID STRIP +++++



DPC TYPE 27 & TYPE 29 CONICAL

- · Best option for removing surface rust, corrosion, weld spatter, and other 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
	180x22	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 cutting and extended lifespan
- Effective at cleaning to prepare surfaces for subsequent steps, such as painting or 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 S0FT	115x22	R4104	5	12000	66254423035
	125x22	R4104	5	12000	66254423036
RAPID STRIP	115x22	R4101	10	12000	66261009649
R4101 HARD	125x22	R4101	10	12000	66261030655



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

Non-woven discs have three components: a strong synthetic fibre mesh, a quality abrasive and a smear-resistant adhesive. Rapid Blend discs have a unitised construction with varying weave, from open to tighter, for deburring to finishing applications. It 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 the 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.
	115x6x22	U9101	EXTRA COARSE	10	12000	69957314481
	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
- 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.
- Undersized backing plate gives longer usable diameter



	SHAPE	DIM DIAxTxH (mm)	CAP CODE	GRADE	PK QTY	MAX RPM	ART NO.
ARCHIO.		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
		115x12x22	U2206	VORTEX 5AC	10	12000	66254439690
		125x12x22	U2206	VORTEX 5AC	10	12000	66254439691
		125x12x22	U2305	VORTEX 5AM	10	12000	63642531710
		TZUXTZXZZ	U2305	VORTEX 3AM	10	7500	63642531717

# BEARTEX HIGH STRENGTH DISCS ####

## TYPE 27 DISCS

• Comformable and flexible heavy-duty material for contours and unusual shapes.

• Improves access to awkward areas



SHAPE	DIAxTxB (mm)	CAP CODE	GRADE	PK QTY	MAX RPM	ART NO.
	115x10x22	F2303	HSMA	10	12000	66261020549
	125x10x22	F2303	HSMA	10	12000	78072702394
	115x10x22	F2209	HS CRS A	10	12000	66254431673
	125x10x22	F2209	HS CRS A	10	12000	66254431674
	180x10x22	F2209	HS CRS A	10	7500	66254431675

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

- Fast finish achieved with a wide range of products to suit a variety of finish requirements
- Undersized backing plate gives longer usable diameter



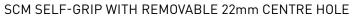
	SHAPE	DIAxTxB (mm)	CAP CODE	GRADE	PK QTY	MAX RPM	ART NO.
	115x12x22 125x12x22 125x6x22 125x12x22		U4401	NEX2SF	10	12000	66261020546
		115,,10,,00	U4401	NEX3SF	10	12000	66254461726
		IIOXIZXZZ	U2401	NEX2AF		12000	66261020547
			U2301	NEX2AM		12000	66261020548
		125x12x22 —	U4401	NEX2SF	10	12000	66254496320
			U4401	NEX3SF	10	12000	77696067125
and the same of th		U4401	NEX2SF	10	12000	77696067118	
		1051000	U4401	NEX2SF	10	12000	63642531722
		IZOXIZXZZ	U4401	NEX3SF	10	12000	63642531723



# FOR ANGLE GRINDERS Non-woven discs have three components: a strong synthetic fibre mesh, quality abrasives, and a smear-resistant adhesive. Panid Pren discs have an onen weave that excels in

Non-woven discs have three components: a 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.

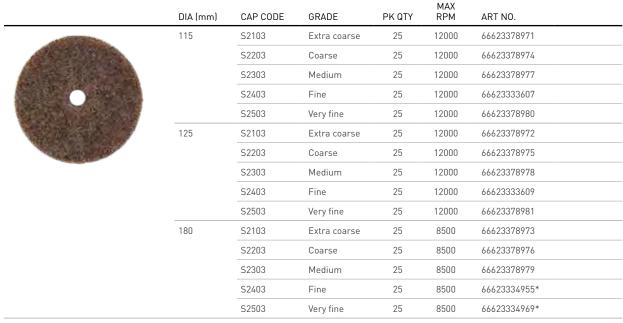
# VORTEX RAPID PREP ####





- 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
- 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





\* Made-to-order

TO ACHIEVE A LINEAR DIRECTIONAL LINE FINISH ON A RAG (MAKING IT MORE VERSATILE) SEE OUR RANGE OF SATINEX QC M14 WHEELS - PAGE 133



#### VORTEX RAPID PREP ####

#### SCM FLAP DISCS

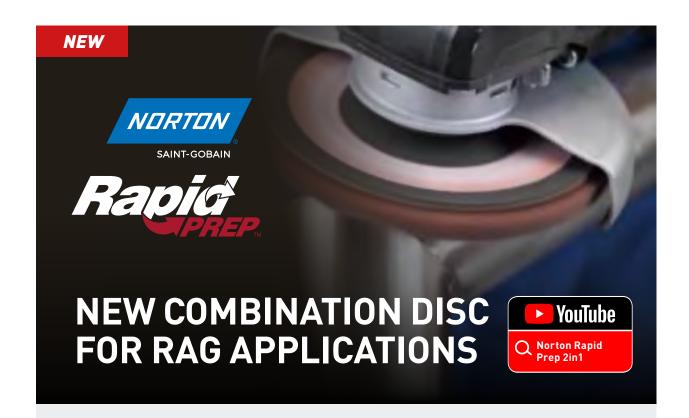
- Layers of Surface Conditioning Material (SCM) in a variety of grades for quick blending and finishing
- Longer life and durability with smear-free cut and finish with one disc
- Three-dimensional non-woven abrasive fabric layers containing high-performance Vortex grain with Clean Bond™ technology
-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



BLENDING	DIM DIAxT (mm)	CAP CODE	GRADE	PK QTY	MAX RPM	ART NO.
	115x22	S2103	Extra coarse	5	12200	66261149751*
		S2203	Coarse	5	12200	66261130726
		S2303	Medium	5	12200	66261130773
		S2403	Fine	5	12200	66261130776
ALLO ALLO ALLO ALLO ALLO ALLO ALLO ALLO		S2503	Very fine	5	12200	66261130777
	125x22	S2103	Extra coarse	5	12200	66261149752*
		S2203	Coarse	5	12200	66261130779
		S2303	Medium	5	12200	66261130780
		S2403	Fine	5	12200	66261130781
		S2503	Very fine	5	12200	66261130782

\* Made-to-order

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#### **NEW** NORTON RAPID PREP 2IN1 ####



- A versatile hybrid flap disc made of interleaved coated Easy to use with a soft-cushioning effect, ideal abrasive flaps and non-woven surface conditioning material
- Grind, smooth and finish in one step, reducing the need for multiple abrasive steps and offering a quick, versatile, lower-cost solution to achieve excellent surface finish results
- for working on intricate contours and tube shapes without the risk of gouging or damage
- Multitasking capability grind, weld removal, deburr, blend-in, finish and refine



_U	IA (mm)	CAP CODE	GRADE	Phuli	MAX RPM	ART NU.
1	15	S2200	Coarse	5	13200	66254451101
		S2300	Medium	5	13200	66254451103
		S2500	Very fine	5	13200	66254451104
1:	25	S2200	Coarse	5	12200	66254451105
		S2300	Medium	5	12200	66254451106
		S2500	Very fine	5	12200	66254451107



#### 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





### 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	MAX RPM	ART NO.
115	S2211	Coarse FB*	DSB	20	12000	63642557510*
125	S2211	Coarse FB*	DSB	20	12000	63642557721*
150	S2211	Coarse FB*	DSB	10	9600	63642557727

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

\* Made-to-order

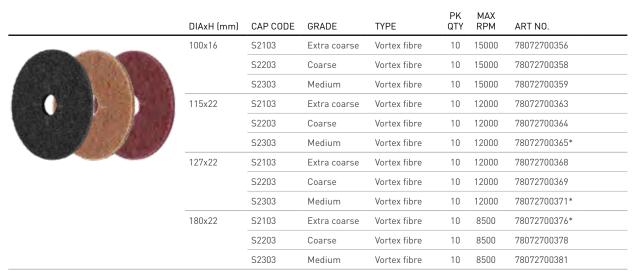
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#### RAPID PREP SURFACE BLENDING DISCS FOR ANGLE GRINDER

#### VORTEX RAPID PREP ####

SCM FIBRE BACKED 22mm CENTRE HOLE

• For better durability on sharp-edge work



<sup>\*</sup> Made to order

#### **NEW** RAPID PREP XHD CERAMIC SCM ####



SCM SELF-GRIP WITH REMOVABLE 22mm CENTRE HOLE

- · Heavy-duty SCM material for hybrid coated, non-woven weld grinding, and surface blending applications
- Grind down weld and parting lines, and blend and finish the surface in a single step
- It can cut as aggressively as a 60-grit conventional coated flap and fibre disc while offering improved conformability and a paint-ready finish

	DIAxH (mm)	CAP CODE	GRADE	TYPE	MAX RPM	PK QTY	ART NO.
ALL STATE OF THE S	115x22	S9244	Coarse	XHD	12000	10	78072754572
		S9344	Medium	XHD	12000	10	78072754589
	125x22	S9244	Coarse	XHD	12000	10	78072754573
STATE OF THE PARTY		S9344	Medium	XHD	12000	10	78072754590
	180x22	S9244	Coarse	XHD	8500	10	78072754587
The second second		S9344	Medium	XHD	8500	10	78072754591



#### RAPID PREP XHD CERAMIC SCM ####



SCM FIBRE BACKED 22mm CENTRE HOLE

• For better durability on sharp-edge work

		DIAxH (mm)	CAP CODE	GRADE	TYPE	PK QTY	RPM	ART NO.
		115x22	S9244	Coarse	XHD Fibre back	10	12000	78072700366*
			S9344	Medium	XHD Fibre back	10	12000	78072700367*
		125x22	S9244	Coarse	XHD Fibre back	10	12000	78072700374*
			S9344	Medium	XHD Fibre back	10	12000	78072700375
XHD Coarse	XHD Medium	180x22	S9244	Coarse	XHD Fibre back	10	8500	78072700382*
			S9344	Medium	XHD Fibre back	10	8500	78072700383*

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

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

• Locating the disc easily onto the centre pin, helps reduce vibration

DIA (mm)	DENSITY	ATTACHMENT	PK QTY	ART NO.
115	Medium	M14	1	77696076935
125	Medium	M14	1	77696076941
180	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
180	Medium	M14	1	69957382844
	Medium	5/8	1	63642595940



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<sup>\*</sup> Made to order



KIT CONTENTS	ITEM ART NO.	PK QTY	KIT ART NO.
Norton Quantum3 cutt-off wheel NQ60ZZ-125x1.3x22.23-T41	66253371351	25	,
Blaze Rapid Strip disc 125x22 R9101 AOXC	66623303916	10	
Norzon Fibre disc 125x22 P36	63642536483	25	(00570//000
Vulcan Zirconia flap discs 125x22 P60	63642502317	10	- 69957366032
Nylon fibreglass reinforced back-up pad for fibre discs 125 M14	66623376821	1	-
Norton professional tool bag: Polybag 600D 38x23x28cm	78072710141	1	_

### WELD PREPARATION AND FINISHING IN 4-STEPS (CARBON STEEL)





#### STEP 1 CUTTING

Norton Quantum3 cutting discs are easy to use, easy to steer and deliver consistent results. No dust or smell, so the process is more comfortable.

Norton Quantum3 is a very comfortable disc to use, offering the longest life on the market.



#### STEP 2 CLEANING

blaze Rapid Strip discs are best used at a 10-15° angle to quickly eliminate unwanted coatings and corrosion, with minimal stock removal. It's a truly versatile product, as you can achieve a more aggressive action as you increase the pressure. It's comfortable to use without damaging or gouging components.



#### STEP 3 **BEVELLING**

discs in P36 combined with a hard serrated back-up pad is the best option. It'll remove material quickly, and the flat contact area makes it easy to control and help generate the required angle.



STEP 4 **WELD SEAM REMOVAL** 

Vulcan R842 in grit P60 to quickly remove the weld seam and generate a finish ready for paint or other surface coatings.



KIT CONTENTS	ITEM ART NO.	PK QTY	KIT ART NO.
Quantum flap discs 125x22 P60	66254445879	10	
Rapid Prep discs 125x22 Coarse	66623378975	25	
Rapid Blend discs 125x12x22 Fine	66254496320	10	69957366033
Medium plain non-woven back-up pad 125 M14	69957382841	1	
Norton professional tool bag: Polybag 600D 38x23x28cm	78072710141	1	

### WELD REMOVAL TO A COMMERCIAL FINISH IN 3-STEPS (STAINLESS STEEL)





#### STOCK REMOVAL

Norton Quantum flap disc in grit P60 is ideal for weld and stock removal. Flap discs are particularly suited to this application as the constant erosion of the backing allows new, sharper grain to be exposed during use, offering longer product life. As the backing is softer than that of a fibre disc, the surface finish will be better, reducing the number of further steps.



#### BLENDING & REFINING

comfortable to use with finer finishing capabilities. Discs are best used at an angle of 10-15° preventing scratch patterns. A coarse grade disc is used to enable us to refine the finish from step 2.



### STEP 3 FINISHING

Rapid Blend NEX-2SF has excellent final finishing capabilities and imparts an extremely fine, bright and shiny surface. It's best used at a 10-15° angle and needs to be moved slowly across the workpiece, using just the weight of the angle grinder for pressure. Also, try NEX-3SF spec for more durability when flexibility and comfortability are less of a concern. For best results and to avoid burn, use at 6000 to 7000 rpm.

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#### **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.
11520	F2504	Very fine A	XFLD (Plain)	10	4900	66254481898
115x22	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 (aluminium & non-ferrous)	1	7660739107
	Green	55x160x38	Gloss	Aluminium & stainless steel	1	7660739108
	White	55x160x38	Super high-gloss	Polishing stainless steel, aluminium & non-ferrous	1	7660739109
	Blue	55x160x38	General high-gloss	All metals & hard plastics	1	7660739112



# DISCS FOR MINI ANGLE GRINDERS

Speedlok discs
Mini Flap Discs
Non-Woven Speedlok Discs
Rapid Strip Speedlok Discs

2	Rapid	Blend Speedlok Discs
9	Ranid	Pren Speedlok Discs

2	Speedlok	Buffing	& Polishing Discs	

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## **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 mould construction, automotive, aeronautical and aerospace industry, and equipment and pressure vessel construction. The SpeedLok fastener makes it quick and easy to change. The disc locks securely to the back-up pad, to prevent slipping or release as a result of heat. The two-button attachment systems (TR or TS) ensures the disc is properly centered 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.

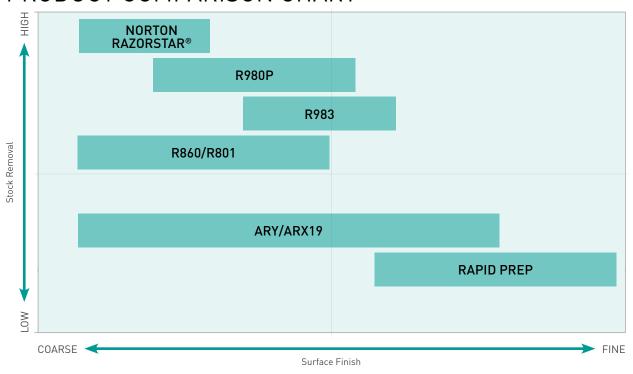
#### PRODUCT SELECTION GUIDE

Highly recommended  Recommended						
MATERIALS	<b>NEW</b> NORTON RAZORSTAR®	BLAZE R980P	RED HEAT R983	NORZON R860	NORZON + R801	METAL ARY/ARX19
	INNOVATION	+++++	++++	++++	++++	+++
Stainless steel, inox	<b>//</b>	<b>//</b>	<b>//</b>		1	
Titanium, inconel & super alloys	11	11	11		✓	
Carbon, construction & mild steel	<b>//</b>	11	11	<b>//</b>	11	✓
Cast iron	✓	✓	✓	<b>//</b>	<b>//</b>	✓
Non-ferrous metal (brass/aluminium)	11			✓		✓
Composite materials	✓	1	✓	✓	/	✓

\*Available on request



#### PRODUCT COMPARISON CHART



#### QUICK CHANGE DISC ATTACHMENTS & TIPS





TS ATTACHMENT



TR ATTACHMENT



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



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#### **NEW** NORTON RAZORSTAR®

INNOVATION

- The extremely sharp grit enables better tool control and an exceptionally high cut rate
- The topsize coating, combined with the innovative shaped grain, cuts significantly cooler reducing and even eliminating burn
- The heavy polyester backing supports excellent material removal while remaining flexible enough to adapt to corners and contours when used with a smaller back-up pad
- When used with lighter pressure, RazorStar® quick change discs produce a surface finish comparable to a 60-qrit
- The RazorStar® grain delivers exceptional performance on special alloys used in the aerospace industry



				intex = 3
SIZE (mm)	GRIT	RECOMMENDED RPM	PK QTY	TR ATTACHMENT
50	36+	5700 - 13400	50	66254459347
75	36+	3800 - 8900	50	66254459349

### USE WITH RUBBER BACK-UP PADS FOR MINI ANGLE GRINDER 6mm SPINDLE

SIZE (mm)	DENSITY	MAX. RPM	PK QTY	ART NO.
38	Medium	25100	5	63642556629
50	Hard	19000	5	63642586926
75	Hard	12800	5	63642586932



METAL A





- The best choice for part cut and finish on stainless steel, inconels, 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







	SIZE (mm)	GRIT	RECOMMENDED 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
Grinding on stainless generates a considerable		50	5700 - 13400	50	63642597045	69957390699
		60	5700 - 13400	50	63642597050	69957390700
		80	5700 - 13400	50	63642597052	69957390701
		120	5700 - 13400	50	66261136868	66261136986
amount of heat; always use a Norton Blaze disc with a	75	36	3800 - 8900	50	63642597053	69957390702
supersize layer to reduce heat build-up and improve cut quality. Typically, a coarse grit disc is used		50	3800 - 8900	50	63642597057	69957390703
		60	3800 - 8900	50	63642597060	69957390704
		80	3800 - 8900	50	63642597062	69957390705
when grinding MIG welds and a finer grit disc is used when grinding TIG welds.		120	3800 - 8900	50	66261136980	-

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#### 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 A

					INUX
	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



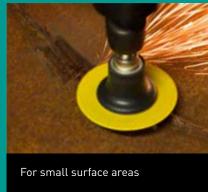
- High-performance ceramic discs, laminate-free for extra
   New advanced grain formulation and improved backing flexibility when working on curves and contours
- For use in medium-pressure applications
- for excellent cut rate and longer life

					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









#### 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

				CORDLESS COMPATIBLE		FERR. NON FERROUS, INOX	
	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 ensures the disc remains sharper for longer, increasing usage time and driving down overall process cost
- High removal rate when used on stainless steel

					ii tox
	SIZE (mm)	GRIT	RECOMMENDED RPM	PK QTY	TR ATTACHMENT
	50	36	5700 - 13400	50	63642556405
000		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

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

#### METAL ARY19 #++



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

					FERR. N WOOD	ION FERR. 🍶 🧄
	SIZE (mm)	GRIT	RECOMMENDED RPM	PK QTY	TR ATTACHMENT	TS ATTACHMENT 🍮
15 M 20 70	38	60	7600 - 17600	50		63642586596
0		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
-/10050		320	5700 - 13400	50	63642586695	63642586681
V SPEC	75	60	3800 - 8900	50	63642586731	63642586699
Our most versatile SpeedLok		80	3800 - 8900	50	63642586733	63642586705
disc. Traditional aluminium		120	3800 - 8900	50	63642586735	63642586708
oxide discs are a good starting specification for general	g	180	3800 - 8900	50	63642586738	
purpose grinding.		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 R884P	Zirconia	•	•		•	•	•		•				
Norzon+ R801	Zirconia with supersize		•	•	•	•	•	•	•				
R422*	Silicon carbide		•	•	•	•	•	•	•	•			
Metal ARY19	Aluminium oxide	•	•	•	•	•	•	•	•	•	•	•	•

<sup>\*</sup> Available on request

#### MINIMUM ORDER QUANTITY

SIZE (mm)	MINIMUM ORDER QUANTITY	SIZE (mm)	MINIMUM ORDER QUANTITY
25	500 pieces	50	250 pieces
38	500 pieces	75	250 pieces



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 a 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 centered 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 🗸

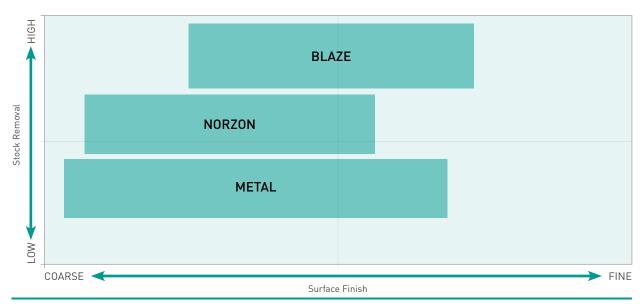






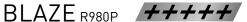
	BLAZE	NORZON	METAL
	++++	++++	+++
Stainless steel, inox & duplex	<b>//</b>	✓	
Inconel, titanium & super alloys	<b>//</b>	✓	
Carbon steel, construction steel & mild steel	<b>//</b>	<b>//</b>	✓
Cast iron	✓	<b>//</b>	✓
Non-ferrous metal (brass/aluminium)		<b>//</b>	✓
Hard & soft wood		<b>//</b>	✓

#### PRODUCT COMPARISON CHART



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#### MINI FLAP DISCS FOR MINI ANGLE GRINDERS



- For stainless steel and super alloys
- Provides longer life compared to any mini flap disc when used on stainless, titanium & super alloys
- Extremely aggressive ceramic grain for noticeably faster

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

				COM ANDEL CO		IIIOX = 0
	SIZE (mm)	GRIT	RECOMMENDED RPM	PK QTY	TR ATTACHMENT	BACK-UP PAD
	50	40	11500 - 15000	10	66261120104	_
5 0 0		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	



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

	SIZE (mm)	GRIT	RECOMMENDED RPM	PK QTY	TR ATTACHMENT	BACK-UP PAD
500	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

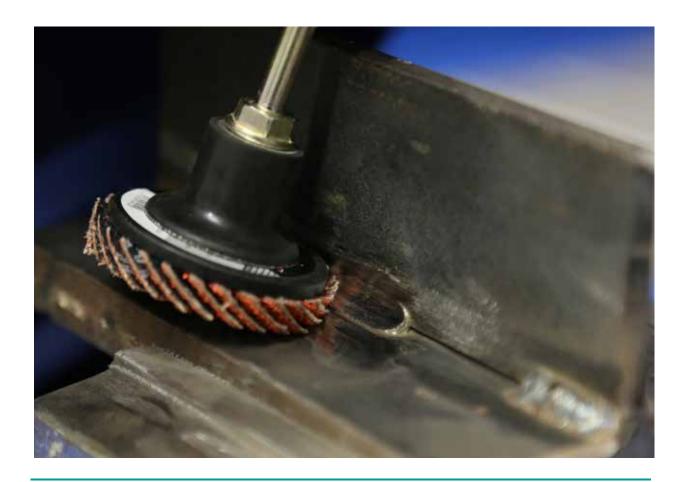
For longer life and faster cut rate on moderately demanding applications



#### 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



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### 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 smearresistant 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

			A		AF 29F 28F		ATT OF THE	ALC:
		C			287			
	RAPID STRIP	RAPID STRIP	BLAZE RAPID BLEND	VORTEX RAPID BLEND	RAPID BLEND NEX	VORTEX RAPID PREP	RAPID PREP	RAPID PREP XHD CERAMIC
	+++++	+++	+++++	++++	+++	++++	+++	++++
Scale removal	11	<b>//</b>	✓					✓
Stock removal	<b>//</b>		✓	✓				<b>//</b>
Heavy deburring	✓		✓	//				//
Light deburring	✓	✓	✓	//	✓	✓	11	
Light finishing	✓				11	<b>//</b>	1	
Blending			<b>//</b>	<b>//</b>	✓	11	✓	✓
Finishing					11	✓	11	

MOST AGGRESSIVE LEAST CONFORMABLE

LEAST AGGRESSIVE MOST CONFORMABLE



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.





- Ideal for removing coatings on a variety of surfaces
- With ceramic alumina grain, disc lasts twice as long than similar discs
- · 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
					_	

TR+ RAPID STRIP 🥌 Use with TR+ Holder 63642585751 100 R4101 X Coarse SG 8000

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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.

#### BLAZE RAPID BLEND QUICK CHANGE DISC SPEEDLOK (OPEN) ######



- For the removal of surface rust and residue, corrosion, light weld spatter, 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. Ideal for deburring and blending





DIAxT (mm)	CAP CODE	GRADE	MAX. RPM	PK QTY	ART NO.
50x6	U9101	Extra Coarse	22000	25	66623313923
75x6	U9101	Extra Coarse	15000	25	66623313930

#### 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, without any smearing
- Longer life than other surface blending discs (up to 8x) means fewer disc changes for less downtime 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 ####



- Closed structure 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	SPEC	GRADE	MAX. RPM	PK QTY	TR ATTACHMENT 🍣
	50x6	U2305	ЗАМ	Medium	22000	60	66254428237
ATT TO		U2305	5AM	Medium	22000	60	66254413660
		U2305	7AM	Medium	22000	60	66254433510
	NEW	U2206	5AC	Coarse	22000	10	66254439680*
	NEW	U2206	8AC	Coarse	22000	10	66254439678*
War Lotter	75x3	U2305	5AM	Medium	18000	40	66261093556
		U2305	7AM	Medium	18000	40	66261090909
	75x6	U2305	ЗАМ	Medium	18000	40	66254428238
		U2305	5AM	Medium	18000	40	66254413661
		U2305	7AM	Medium	18000	40	66254406395
	NEW	U2206	5AC	Coarse	18000	10	66254439676*
	NEW	U2206	8AC	Coarse	18000	10	66254439641*

#### 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 changing the workpiece geometry
- Excellent for light deburring of flashing and threads, blending alloys, polishing, and finishing.
- Bright finish on stainless steel with improved 2SF and 3SF specification



	DIA (mm)	CAP CODE	GRADE	MAX. RPM	PK QTY	TR ATTACHMENT
28F	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
		U4401	4 A Fine	22000	10	63642585679
295 200 age W	75	U2301	2 A Medium	18000	10	63642585697
20F 20F		U2301	6 A Medium	18000	10	63642585726
101.45		U4401	2 S Fine	15000	10	63642585691
		U4401	3 S Fine	15000	10	66254473614
		U2401	4 A Fine	15000	10	63642585695

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### 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 grit, providing 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
- Proprietary engineered Vortex aluminium oxide abrasive grain and coating method combines 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 is maintained throughout disc life, reducing the need for rework and reducing the total consumable cost
- The Clean Bond™ resin system ensures surfaces stay smear-free; loading is prevented on alloys with high nickel content, aluminium, and soft metals



	DIA (mm)	CAP CODE	GRADE	PK QTY	TR ATTACHMENT 🍣
A West	25	S2203	Coarse	50	78072750699*
		S2303	Medium	50	78072750700
		S2503	Very fine	50	78072750701
	50	S2103	Extra coarse	50	66623378336
		S2203	Coarse	50	66623378340
		S2303	Medium	50	66623378342
The same of the sa		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 sizes and grades available MTO



#### **NEW** NORTON RAPID PREP 2IN1 ####

- A versatile hybrid flap disc made of interleaved coated abrasive flaps and non-woven surface conditioning material
- Grind, smooth and finish in one step, reducing the need for multiple abrasive steps and offering a quick, versatile, lower-cost solution to achieve excellent surface finish results
- Easy to use with a soft-cushioning effect, ideal for working on intricate contours and tube shapes without the risk of gouging or damage
- Multitasking capability grind, weld removal, deburr, blend-in, finish and refine





DIA (mm)	CAP CODE	GRADE	MAX. RPM	PK QTY	TR ATTACHMENT 🍣
50	S2200	Coarse	21000	5	66254451130
	S2300	Medium	21000	5	66254451134
75	S2200	Coarse	14500	5	66254451135
	S2300	Medium	14500	5	66254451136

#### RAPID PREPA/OSCM ++++



- 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 $^{\text{TM}}$  resin system ensures surfaces stay smear-free; loading is prevented on alloys with high nickel content, aluminium and soft metals



50 S2108 Extra coarse 50 66623378355*	
ACMINISTRATION OF THE PROPERTY	
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, are available on a fast MTO basis

\* Made to order

#### **NEW** RAPID PREP XHD CERAMIC SCM ####



- Heavy-duty SCM material for hybrid coated/non-woven weld grinding/surface blending applications
- Can cut just as aggressive as a 60-grit conventional coated flap and fibre disc, while offering better conformability and a paint-ready finish



DIA (mm)	CAP CODE	GRADE	PK QTY	TR ATTACHMENT
50	S9244	Coarse	20	78072754592
	S9344	Medium	20	78072754584
75	S9244	Coarse	20	78072754593
	S9344	Medium	20	78072754585

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### **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, and cleaning angles and odd shapes
- Will not stretch or shed





DIA (mm)		CAP CODE	GRADE	PK QTY	TR ATTACHMENT
50		F2303	Medium	50	63642585924
		F2506	Very Fine	50	08834163987
	NEW	F2209	Coarse	20	66254442044
75		F2303	Medium	50	08834164065
		F2506	Very Fine	50	63642585932
	NEW	F2209	Coarse	20	66254442045

#### 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

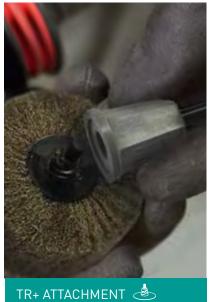




DIA (mm)	GRADE	PK QTY	TR ATTACHMENT
50	Medium	50	63642587165
75	Medium	50	63642587167







Norton quick change pads are premium back-up 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
All materials

**Machine**Mini angle grinder & die grinder

**Process**Grinding & 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
- Separate shaft 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





**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 as chamfering, welded seam or deburring work.

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#### SPEEDLOK BUFFING & POLISHING DISCS FOR MINI ANGLE GRINDERS

#### 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



#### **BLUE NYLON**

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



#### ANGLE GRINDER ADAPTOR

- Adapts the standard quick change back-up pad Suitable for use with rubber back-up pads for use on an angle grinder

  - Female M14, male thread 1/4 20 UNC



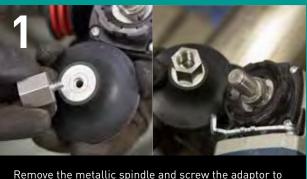
TYPE	DENSITY	MAX. RPM	PK QTY	ART NO.
M14 Adaptor	Metal	12000	1	63642587997



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









### 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.



#### 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





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 is 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 than the RPM marked on the tool.

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#### MINI RIGHT ANGLE GRINDER GRINDING TOOLS AND KITS

### 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 Grinder MAX RPM 22.000 (0.45 HP)	66261177765	1	
Norton tool bag size: 56x31x45cm	-	1	
Blaze Rapid Strip speedlok disc 50mm R9101 AOXC SL3	66623303912	10	69957300298
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 along with a 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 Grinder MAX RPM 22.000 (0.45 HP)	66261177765	1	
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	69957300300
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	



# DISCS FOR ORBITAL MACHINE

Norton	Mes	hPower	Discs
Self-Gr	in &	Beartex	Discs

104	Screenback Discs
106	Plain Discs
	D +

	1	
	1	É

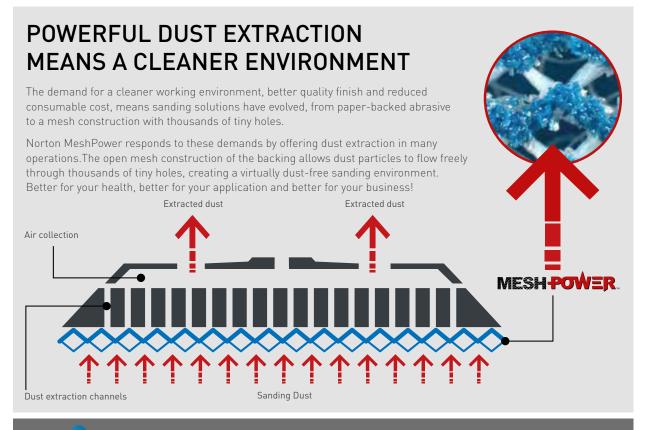


#### NORTON MESHPOWER DISCS

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 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





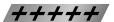


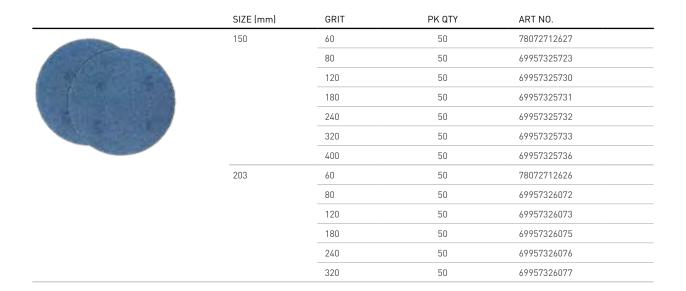
#### **CERAMIC ADVANTAGE**

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

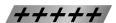


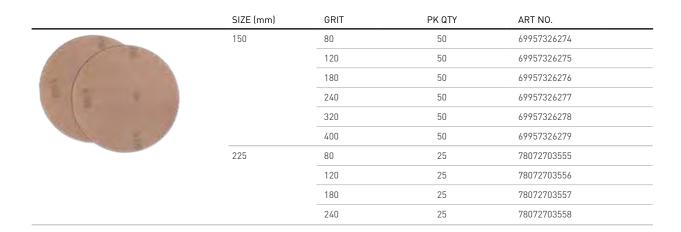
#### MESHPOWER DISCS CERAMIC +++++





#### MESHPOWER DISCS ALUMINIUM OXIDE #++++





#### PAD SAVER

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

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#### **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	BLAZE A995 Multi-Air	NORTON PRO PLUS A975	NORTON NORZON H835F	NORTON PRO A275	H231	NORTON PRO FILM Q275	H425*
		INNOVATION	+++++	+++++	++++	++++	++++	++++
Metal	Coarse sanding	<b>√</b> √		<b>//</b>		✓		
	Finishing	<b>//</b>		<b>//</b>		✓		
Hardwood	Coarse sanding	<b>//</b>		11	0	✓		✓
	Finishing	✓	<b>//</b>	✓	✓	11	✓	✓
Softwood	Coarse sanding	✓		✓	✓	<b>//</b>		✓
	Finishing	✓	<b>//</b>	✓	✓	✓	✓	✓
Filler	Aluminium / metal	✓	✓	11	✓		✓	
	Polyester	✓	//	✓				
Varnish /	Coarse sanding	11		✓	<b>//</b>	✓		
paint / primer	Finishing	11	//	✓	✓	0	✓	
Composites /	Ероху	11	11	11		✓		
coatings	Acrylic	11	11		✓			
	Fibre glass	11		11		✓		
	Finishing	✓	//		✓		✓	
Plaster	Coarse sanding					✓		0
	Finishing				<b>//</b>	0		
Stone & glass	Coarse sanding					0		11
	Finishing					0		11

\*Available as MTO only



#### BLAZE A995 MULTI-AIR



- 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
- Norton No-Fil® water-based stearate coating ensures you get the superior finish you need while minimising user fatigue, and rework



#### NORTON MULTI-AIR BACK-UP PADS

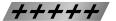


DIA (mm)	DENSITY	PK QTY	ART NO.	
150	Hard	1	07660719198	
	Medium	1	63642585872	

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#### **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 a 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







	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
		80	100	400	66254477881
		120	100	400	66254477879
		150	100	400	66254477882
		180	100	400	66254477883
	150	220	100	400	66254477884
		240	100	400	66254477885
		280	100	400	66254477886
	15 holes	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 & Multi-Air Soft Touch discs



## NORTON 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





	DIAxH (mm)	GRIT	PK QTY	ART NO.	
	150	40	50	69957390933	
		60	50	69957390940	
		80	50	69957391248	
40000000000000000000000000000000000000		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 MultiAir self-grip discs



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#### **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
- Fibre reinforced latex paper is flexible yet tear resistant









	DIAxH (mm)	GRIT	PK QTY	BOX QTY	ART NO.
		80	50	100	63642585133
		120	50	100	63642585145
		150	50	100	63642585148
	76	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
		80	100	100	63642585184
		100	100	100	63642585186
		120	100	100	63642569701
		150	100	100	63642569702
		180	100	100	63642585190
	150	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
		80	100	400	66254405540
		100	100	400	66254405542
		120	100	400	66254405528
		150	100	400	66254405530
		180	100	400	66254405546
	150	220	100	400	66254405548
		240	100	400	66254405549
		280	100	400	66254405550
	15 holes	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









	DIAxH (mm)	GRIT	PK QTY	BOX QTY	ART NO.
		36	100	50	66261176734
	125	60	100	100	63642516174
		80	100	100	63642516175
是一、全人从人生一个		120	100	100	63642516176
<b>第一块艺术的情况</b>		180	100	100	63642537389
	8 holes	240	100	100	69957360184
		320	100	100	63642537390
		36	100	50	63642551458
		40	100	100	63642531875
		50	100	100	69957360119
	150	60	100	100	63642519158
	130	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 ####

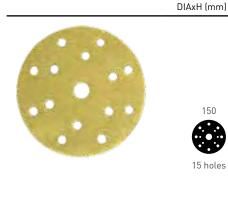


- Heat-treated aluminium oxide grain for fast material removal and excellent performance on paint, varnish and fillers
- Flexible film backing is resistant to tearing and provides a consistent scratch pattern which reduces rework
- No-Fil® layer on the abrasive prevents dust build-up during sanding for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



PAINT/VARN, HARD & SOFTWOOD







15 holes

GRIT	PK QTY	BOX QTY	ART NO.
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 the 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	BEARTEX SE	LF-GRIP DUST HOLE	DISCS			
		F2560	Very fine A	10	69957383151		
		F4802	Ultra fine S	10	69957383158		
	7 holes	F2801	Micro fine A	10	69957383162*		
		BEARTEX SE	LF-GRIP PLAIN DISC	5			
ASSESSED OF THE PROPERTY.	150	F2560	Very fine A	10	63642574240		
	150	F4660	Ultra fine S	10	63642581769		
		BEARTEX PLAIN DISCS (WITHOUT SELF-GRIP)					
		F2560	Very fine A	10	63642557497		
		F4807	Ultra fine S	10	63642557498		
		RFΔR	TEX 🚜	<b>++</b>			
	150	BEARTEX SE	ELF-GRIP PLAIN DISC	6			
		F2316	Medium A 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	<b>HARD</b> Blue Rubber
Scruffing, shaping, sanding & finishing For use on filler, primer, paint, clear coat, wood, plaster, composites & metal	<b>MEDIUM</b> Black Rubber
Final sanding, to obtain the best finishes	<b>SOFT</b> Orange Foam / Rubber
MACHINE	ATTACHMENT TYPE
Electrical angle grinder	M14
Electrical & pneumatic grinders (US tools)	5/8

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.

Other orbital sanders

М8

5/16



	DIM DIAxH (mm)	THREAD	DENSITY	PK QTY	ART NO.
	76	5/16"	Medium	6	63642567810*
Self-grip standard	No holes				
and he want	125	5/16"	Medium	3	69957350739
CASS BEST	<b>A</b>				
	8 holes				
_	125	M14	Medium	3	69957350744
			. rouium	· ·	67767666711
*The 76mm back-up pad is a universal attachment	No holes	=/			
system for both self-grip and self-adhesive discs.	150	5/16 & M8	Medium	1	66623338436
It provides the maximum					
flexibility and optimal finishing results. The	No holes				
self-grip DUO combines an innovative design	150	M14	Medium	3	63642567812
of gripping structures in the shape of flat-					
top mushrooms which provides a highly uniform —	No holes				
finish while allowing both	150	5/16 & M8	Hard	1	66623338451
self-adhesive and self-grip discs to be used on this			Medium	1	66623338450
unique system	15 holes		Soft	1	66623338452

## 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



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 the risk of scratching the workpiece. Use the foam interface between the Norton self-grip back-up pad and the self-grip abrasive disc.



#### HOLE PATTERNS FOR DISCS AVAILABLE AS MADE-TO-ORDER Other sizes and hole paterns available on request 115mm 125mm 150mm ø115mm ø125mm with 8 holes ø150 mm 8 holes ø10 mm ø125mm ø150mm with 6 holes on hole circle ø120 mm with no holes with no holes ø10 mm on hole circle ø90 mm ø10 mm on hole circle ø80 mm + 1 centre hole ø10 mm + 1 centre hole ø17 mm + 1 centre hole ø17 mm ø225mm ø150mm ø150mm ø203mm ø150mm with 180 holes ø203 mm 8 holes ø225 mm 10 holes with 17 holes ø12 mm on hole circle ø105 mm + 1 centre hole ø18 mm ø12 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				•	•	•	•	•	•	•	•	•	•	•	•			
Norzon H835F		•	•	•	•		•											
Norton Pro A275				•	•	•	•	•	•	•	•	•	•	•	•			
H231	•	•	•	•	•	•	•		•		•							
Norton Pro Film Q275				•	•	•	•	•	•		•	•	•	•	•	•	•	•
H425*	•	•	•	•	•			•			•	•		•	•			

<sup>\*</sup> 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.



## PRODUCT SELECTION GUIDE

Highly recommended 🗸 🗸 Recommended 🗸		College D	
MATERIALS	APPLICATIONS	Q43N	Q421
		+++	+++
Wall & ceiling sanding	Surface preparation	<b>/</b> /	✓
Wood floor sanding	Surface preparation	✓	<b>√</b> √
	Between coats	<b>√</b>	<b>/</b> /

## Q43N +++

- Sharp silicon carbide grain for an 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

## Q421 +++

- Silicon carbide abrasive for an 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





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

Dimensions Key: DIM = Dimensions, DIA = Diameter

PAINT/VARN, PLASTER & FILLER, HARDWOOD & SOFTWOOD	
---	--

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



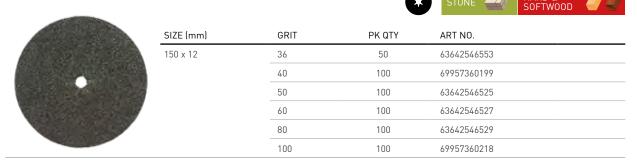
## PRODUCT SELECTION GUIDE

Highly recommended 🗸 Recommended 🗸 MATERIAL / APPLICATIONS H425 H231 ++++ ++++ Surface preparation 1 11 Wood (floor sanding) Coarse sanding 11 Stone Finishing //

#### H425 ####

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

• For dry applications only





#### 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 on solid wood floors



		a Noivi Elin.	HARD & SOLI MOOD
SIZE (mm)	GRIT	PK QTY	ART NO.
350 x 40	40	10	63642540076
	50	10	63642540078
	60	10	63642540079
	80	10	63642540080

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



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 self-grip discs for further information about the 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, and increased tear resistance. Contact your local sales representative.



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 FL	00R PADS 25mr	n 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 floo	r pads come with	n an 89mm removable centrepiece		
THIN LINE FLO	OOR PADS 15mm	THICK		
406	JU014	Black Super Strip	10	63642585895
	JF068	Green Super Scrub	10	63642585899
	JF040	Beige / White	10	63642585903
	JF175	White Super Gloss	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 a					
Blue Super Clean For general duty scrubbing or heavy spray cleaning jobs					
Beige / White For buffing & 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



# WHEELS

Flap wheels
Convolute wheels
Rapid Strip wheels

120	Rapid Blend unitised wheels	14
138	Small unitised wheels / Mounted points	14
144	High strength discs	15



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

## PRODUCT SELECTION GUIDE

Highly recommended 🗸 🗸 Recommended 🗸







MATERIALS	NORTON QUANTUM	NORZON R822	METAL R207Plus
	++++	++++	+++
Stainless steel, inox & duplex	<b>//</b>	✓	
Inconel, titanium & super alloys	11	✓	
Carbon steel, construction steel & mild steel	<b>//</b>	<b>//</b>	<b>//</b>
Cast iron	✓	<b>//</b>	11
Non-ferrous metal (brass /aluminium)			11
Hard & softwood		11	✓
Composite materials			✓
Stone, concrete			✓
Glass, plastic			✓



## 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 the greatest durability, and longest life on tough applications and stainless steel



	DIM DIAxWxS (mm)	GRIT	PK QTY	ART NO.	RECOMMENDED SPEED (RPM)
and the latest and th	30x15x6	40	10	66261154243	9500 - 15900
		60	10	66261154300	
		80	10	66261154301	
	40x20x6	40	10	66261154302	7100 - 12000
		60	10	66261154305	
		80	10	66261154306	
Aligh Inv.	60x30x6	40	10	66261154315	4800 - 7900
NEW COLOUR		60	10	66261154316	
SAME  POUALITY  SERFORMANCE		80	10	66261154318	
		120	10	66261154320	
	80x50x6	40	10	66261154340	3600 - 6000
V SPEC CHECK		60	10	66261154341	

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

#### 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	0



	DIM DIAxWxS (mm)	GRIT	PK QTY	ART NO.	RECOMMENDED SPEED (RPM)
and the same	30x20x6	40	10	66261033325	9500 -15900
		60	10	66261139984	
		80	10	66261139986	
	40x20x6	40	10	69957300004	7100 - 12000
L CDEC		60	10	69957300006	
		80	10	69957300007	
	60x30x6	40	10	63642539952	4800 - 7900
V SPEC CHECK		60	10	63642536547	
Reducing the working		80	10	63642539953	
pressure and the peripheral speeds of the abrasive wheels results in reduced	80x30x6	40	10	63642539954	3600 - 6000
		60	10	63642539955	
heat generation on the workpiece and the tool, eliminating burn marks and improving finish.		80	10	63642536548	

Formerly X-Treme R822

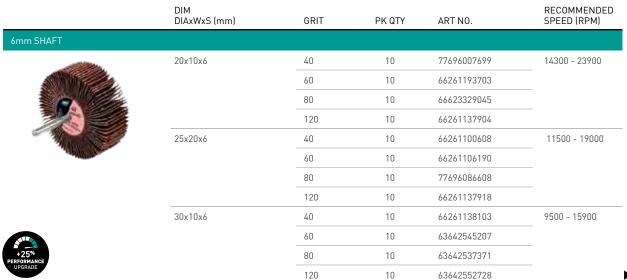
#### METAL R207Plus



- 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 geneartion of premium aluminium oxide grain provides an aggressive cut yet long product life
- Conforms to the workpiece thanks to the flexible cotton backing







<sup>† +25%</sup> performance upgrade



6mm SHAFT					
A Paris	30x15x6	40	10	66261056890	9500 - 15900
		60	10	63642513148	
		80	10	63642561466	
		120	10	63642551593	
	30x30x6	40	10	66261138108	9500 - 15900
A STATE OF THE PARTY OF THE PAR		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
	00x30x0		10		
		60		63642531867	
		80	10	63642533096	
	0005007	120	10	63642534250	E700 0500
+25% PERFORMANCE	80x50x6	40	10	69957360914	5700 - 9500
UPGRAUE		60	10	63642559718	
+25% performance upgrade		80	10	69957360916	
		120	10	69957360917	



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 R928R		•	•	•	•				
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 (GRII	COARSE (GRINDING)					
COATED GRIT	40	60	80	120	180	240	320
NON-WOVEN GRADE	COA	RSE	ME	DIUM	FINE	VER	/ FINE
Preparing metal for painting		•	•				
Blending out medium machine marks		•	•				
Blending metal surfaces			•	•			
Applying a 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 two times longer product life
- Enhanced Clean Bond™ resin coverage for consistent uniform surface finish, with no smearing
- Premium aluminium oxide grain for improved cut rate









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







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 MTO. Please contact your local sales or customer service representative for more information.

#### BEARTEX FLAP WHEELS TR+ MOUNTED ####



• Beneficial for quick changes in environments where operations can not be disrupted







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)





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

For 100mm Speedlok TR+ discs

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## 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 productivityenhancing; 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 the 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





use compressed air to power the tool. Because moisture in compressed air will rust the air



that has a MAX RPM rating less than 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 cartridges, spirabands, cones), mounted flap wheels, mounted points, and carbide burrs, complete with a 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 60L70	66261146497	1	_
Norton metal carbide burr shape F12.7x25mm CUT D 60L70	66261146540	1	_
Mounted point shape A21 25x25mm 3NQ P80 0 VS	61463688956	10	_
Mounted point shape A38 25x25mm 86A P60 0 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	

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## **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



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









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	



+25% performance upgrade

Dimensions Key: DIM = Dimensions, DIA = Diameter, W = Width, TH = Thread Formerly BDX R207Plus



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





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**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 & steel, satin finishing	Satinex non-woven fine and very fine for bright linear finishes		
Metalworking	Cleaning and removing scale, oxide and rust	Satinex Rapid Strip		
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 two or three step solution to remove marks, then finish





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

<sup>\*</sup> Made to order

#### 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





DIM DxTxB (mm)	CAP CODE	GRADE	MAX RPM	PK QTY	ART NO.
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
	DxTxB (mm)	DxTxB (mm) CAP CODE  110x100x19 F2200 F2316 F2300 F2400 F2504	DxTxB (mm)         CAP CODE         GRADE           110x100x19         F2200         Coarse A           F2316         Medium A Heavy Duty           F2300         Medium A           F2400         Fine A           F2504         Very Fine A	DxTxB (mm)         CAP CODE         GRADE         MAX RPM           110x100x19         F2200         Coarse A         5700           F2316         Medium A Heavy Duty         5700           F2300         Medium A         5700           F2400         Fine A         5700           F2504         Very Fine A         5700	DxTxB (mm)         CAP CODE         GRADE         MAX RPM         PK QTY           110x100x19         F2200         Coarse A         5700         1           F2316         Medium A Heavy Duty         5700         1           F2300         Medium A         5700         1           F2400         Fine A         5700         1           F2504         Very Fine A         5700         1

#### SATINEX INTERLEAVED

APPLICATION	DIM DxTxB (mm)	CAP CODE	GRADE	MAX RPM	PK QTY	ART NO.
Blending /	110x100x19	F2200	Coarse A + P80	5700	1	63642557407
fine graining		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*

<sup>\*</sup> Made to order

#### 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

• Smaller width wheels for more precise control

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

<sup>\*</sup> Made to order

#### 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



## **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 a 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, and 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 the 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









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	٠	•	•	•	•	•	10pcs
165	•	•	•	•	•	•	10pcs
200	•	•	•	•	•	•	10pcs
250	•	•	•	•	•	•	10pcs
300	•	•	•	•	•	•	10pcs
355	•	•	•	•	•	•	10pcs



Formed by mounting sheets of Beartex around a centre core. The tightly packed piece form 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 are in variable sizes with widths from 10 to 2000mm. Available in a wide range of abrasive types, grits and densities for metal and woodworking.

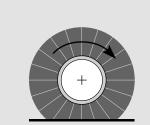
#### INTERLEAVED FLAP WHEELS

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.

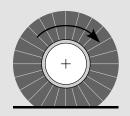
Ideal for deburring and grain finishing on stainless steel. Available in both spindle and flange-mounted versions. Flange-mounted interleaved wheels can be shaped to match the profile, e.g. a wooden mould.

#### **DENSITIES**

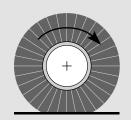
The different densities provide versatility ranging from soft cushioning pads, to hard cleaning and finishing tools. The density of a wheel can be increased (hardened) by adding more flaps, as shown below:



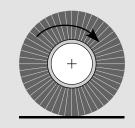
SD: Soft density



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

## BEARTEX FLANGE MOUNTED FLAP WHEELS ###



#### MEDIUM DENSITY

- The most conformable of all Beartex wheels. Suitable for a wide range of applications 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

including corrosion removal, cleaning and surface finishing









DxWxB (mm)	
150x50x50	

200x50x76

GRADE	CAP CODE	PK QTY	ART NO.
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*
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*

<sup>\*</sup>Made-to-order. More sizes available Made-to-order.

Dimensions Key: DIM = Dimensions, DIA = Diameter, W = Width, B = Bore

Refer to the 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.



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
200x50x76	Fine S	C4401	2	63642515565*
	Medium S	C4301	2	7660705208*

\* Made to order

## RAPID FINISH DSS SURFACE FINISHING (OPEN MESH)





DxWxB(mm)	GRADE	MCC	PK QTY	ART NO.
150x25x25	Medium A	C2302 4 6		66261058550*
	Coarse S	C4202	4	66261058553*
150x50x25	Medium S	C4302	2	66261058560*
300x50x125	Coarse S	C4202	1	66261058574*

\* Made to order

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#### **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 CARB	IDE				
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*
	105				
ALUMINUM OX	IDE				
150x25x25	Medium	C2315	8	1	66261162179

Wider sizes and specs available upon request \* Made to order





## 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	мсс	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

REF

CODE

ABRASIVE

**TYPE** 

## RAPID FINISH SERIES 1000 LONG LIFE ###



GRADE

- Ideal for general deburring, blending, finishing and polishing applications
- Starting point for deburring, blending, polishing and finishing applications

DxWxB

(mm)

• Durable, long-life construction with versatile application range, consistent cut rate and shed resistance

QTY

ART NO.

• Smear-proof & cool cutting on light deburring applications

DENSITY

MCC



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	C4408	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*
	-	Alox	Medium	C2308	7	3	66261055229
200x20x76	D19	SiC	Medium	C4408	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

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<sup>\*</sup> Made to order

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

	DxWxB (mm)	REF CODE	ABRASIVE TYPE	GRADE	мсс	DENSITY	PK QTY	ART NO.
	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
(1)		-	Alox	Medium	C2308	7	2	66261055235
		D18	SiC	Fine	C4408	8	2	66261019629
		D18	SiC	Medium	C4308	8	2	7660705226*
		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

## RAPID FINISH SERIES 4000 ###



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

\* Made to order

## 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



## **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

## 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
	D17ALL	6,7,8,9	Alox	Medium	C2308
	D18ALL	6,7,8,9	Alox	Medium	C2308
	D19ALL	6,7,8,9	Alox	Medium	C2308
	D16SLL	6,7,8,9	SiC	Fine	C4408
	D17SLL	6,7,8,9	SiC	Fine	C4408
	D18SLL	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

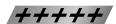
<sup>\*</sup> Made to order



# **RAPID STRIP WHEELS**FOR DIE GRINDERS

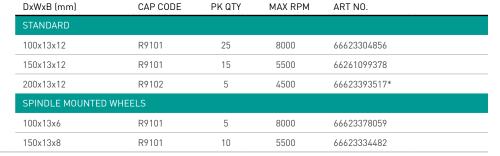
With their thick, strong synthetic fibres, extra coarse silicon carbide abrasive grain and open web construction, Rapid Strip wheels strip and clean fast, don't load or shred and last up to twice as long as other stripping products.

## **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 two times 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





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

\* Made to order



### 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
- 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 - STAN	DARD (1 WHEEL)			
75x13x6	R4101	10	10000	63642557741*
100x13x6	R4101	10	8000	63642557742
150x13x8	R4101	10	6000	63642557743
SPINDLE MOUNTED - LARG	E AREA (2 WHEELS	GANGED)		
75x25x6	R4101	5	10000	63642557744*
100x25x6	R4101	5	8000	63642557745*
150x25x8	R4101	5	6000	63642557746





### MANDRELS STANDARD WHEELS

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



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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.

CAP CODE

SPEC

#### VORTEX RAPID BLEND CLOSED



GRADE

PK QTY

- 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

DxWxB (mm)

- 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

RPM

ART NO.



STANDARD						
50x6x6	U2305	VOR-7AM	Medium	60	22100	66261080270
NEW	/ U2206	VOR-5AC	Coarse	10	22100	66254439679*
75x3x6	U2305	VOR-5AM	Medium	40	18000	66261093448
	U2305	VOR-7AM	Medium	40	18000	66261191445
75x6x6	U2305	VOR-5AM	Medium	40	18000	66254414832
	U2305	VOR-7AM	Medium	40	18000	66261199696
NEW	/ U2206	VOR-5AC	Coarse	10	18000	66254439687*
NEW	/ U2206	VOR-8AC	Coarse	10	18000	66254439683*
75x13x6	U2305	VOR-7AM	Medium	20	18000	66261080267
125x6x22	U2305	VOR-5AM	Medium	20	9000	66254488602
	U2206	VOR-5AC	Coarse	10	9000	66254439686*
150x6x25	U2305	VOR-5AM	Medium	8	7500	66254414167
	U2305	VOR-7AM	Medium	8	7500	66254407225
NEW	/ U2206	VOR-5AC	Coarse	10	7500	66254439685*
NEW	/ U2206	VOR-8AC	Coarse	10	7500	66254439684*
SPINDLE MOUN	ITED WHEEL	S				
150x13x8	U2305	ЗАМ	Medium	10	8000	66623375067

\* Made to order

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



# RAPID BLEND NEX ###



CAP CODE

GRADE

- 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

DxWxB (mm)

• Fine silicon carbide and flexible density unitised construction for a smooth controlled blending/finishing experience

ART NO.

• Excellent, consistent, smear-free finish

RPM

PK QTY



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-4AF	10	18100	63642585766*
	U2401	NEX-6AF	10	18100	63642585771*
	U2301	NEX-6AM	10	18100	66261081929*
	U2201	NEX-8AC	10	18100	63642585776*
	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
	U2301	NEX-6AM	8	7500	66261015989*
200x25x25	U2301	NEX-2AM	5	3500	63642585796
	U4401	NEX-2SF	5	4000	63642585797

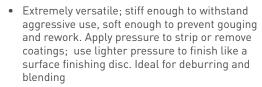
\* Made to order

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#### RAPID BLEND UNITISED WHEELS FOR DIE GRINDERS

#### BLAZE RAPID BLEND #++++

- · For the removal of surface rust and residue, corrosion, light weld spatter, 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





DxWxB (mm)	CAP CODE	GRADE	PK QTY	RPM	ART NO.
150x6x13	U9101	EXTRA COARSE	16	7500	66261100759
150x6x25	U9101	EXTRA COARSE	16	7500	77696005274

# SMALL UNITISED WHEELS / BOBS ###





33
18
5
6
2
)



# 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.

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# **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, and cleaning angles and odd shapes. It will not stretch or shed.

#### 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	n)	CAP CODE	GRADE	PK QTY	MAX RPM	ART NO.
100x8		F2303	Medium	10	8000	66254429562
,	NEW	F2209	Coarse A	10	8000	66254442046
150x12		F2303	Medium	10	4000	77696087534
		F2506	Very fine	10	4000	77696087535
	NEW	F2209	Coarse A	10	4000	66254442005
200x12		F2303	Medium	10	3000	77696087536
		F2506	Very fine	10	3000	77696087537*
ı	NEW	F2209	Coarse A	10	3000	66254442019

\* Made to order

#### 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*
	F2303 High strength	Medium	5	4000	63642573074
	F2316 Heavy duty	Medium	5	4000	63642573587

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*



<sup>\*</sup> 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

<sup>\*\*</sup> Use Mandrel MM32-4 to mount 38mm Cross Buffs

NOTES			

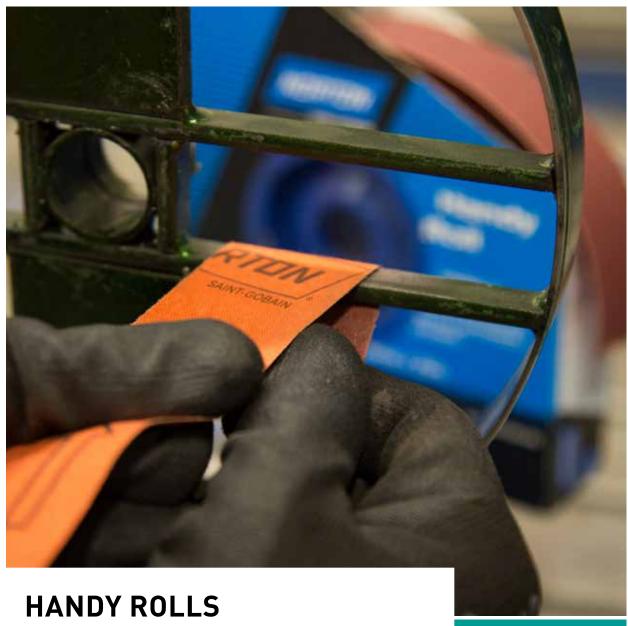


# ROLLS

Handy rolls	
Paper & cloth rolls	
Norton MeshPower ro	١١١

154	Beartex rolls
158	Rotolo Foam rolls

1	6	4
1	6	6



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.)	<b>//</b>	✓	0
Scouring and light deburring	<b>//</b>	11	✓
Scale and rust removal	✓	✓	11
Blending and fine sanding	✓	11	<b>√</b>
Polishing lathe turnings, rolls and cylinders, and blending machine tool marks	✓	<b>//</b>	0



#### R222 ++++

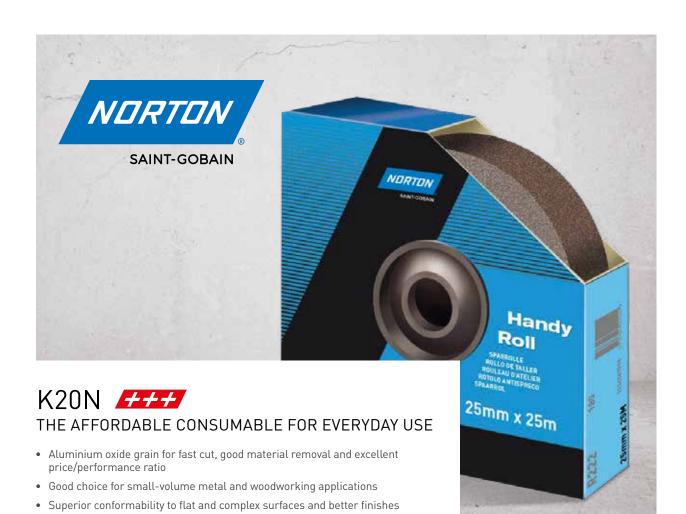
- Versatile aluminium oxide abrasive for hand sanding wood and metal
- For general purpose maintenance applications and offers extra durability and even wear
- Flexible cotton backing ideal for sanding profiled surfaces and round steel parts
- Dispenser unit for easy storage and product protection





	DIM WxL (mm/m)	GRIT	PK QTY	ART NO.
	25mmx25m	40	1	63642531849
		50	1	63642531850
		60	1	63642531823
		80	1	63642531820
Harnly		100	1	63642531815
		120	1	63642531811
Beauthe		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
V   SPEC		100	1	63642531818
- CHECK		120	1	63642531814
R222 handy rolls are designed		150	1	63642531810
for manual applications.  The high flexibility of the cloth in combination with the wide		180	1	63642531807
		220	1	63642531804
grit range, from coarse to		240	1	63642531801
fine, provides an excellent tool		280	1	63642536426
for a variety of applications including deburring, rust		320	1	63642531798
removal and finishing metal.		400	1	63642531795
		600	1	63642534757

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















• Dispenser unit for easy storage and product protection

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



FERR. & NON FERR.

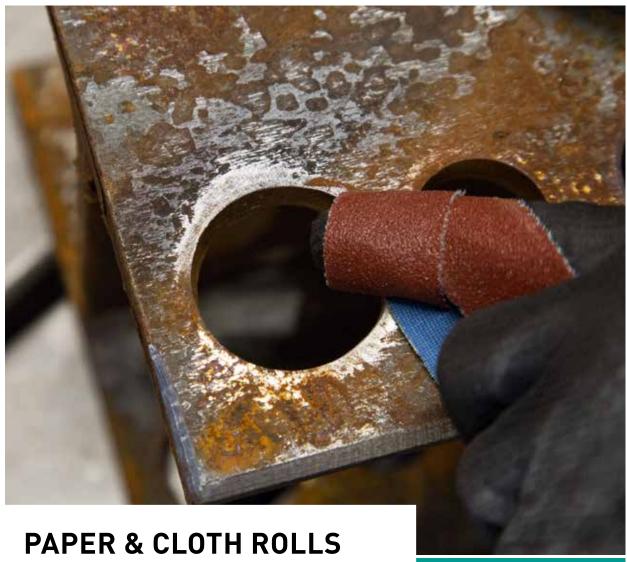
# NON-WOVEN F2316 ####

- Flexible 3D handpad material in roll form for 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



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

\* Made to order



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

# PRODUCT SELECTION GUIDE

0		0		
	PAPER ROLLS		CLOTH	ROLLS
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
++++	++++	+++	++++	+++
✓			11	0
11	✓	0		
1	11	0		
	Strong F-Weight paper +++++	H231 A275 Strong Fibre-reinforced F-Weight paper paper  ++++++ +++++++++++++++++++++++++++++	H231 A275 G131F Strong Fibre-reinforced E-weight backing paper  ++++++ + ++++ ++++   V  O	H231 A275 G131F R222 Strong Fibre-reinforced E-weight paper paper backing J-weight cotton cloth



#### 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 by using an appropriate extraction system













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



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 through the coated abrasive and the machine preventing this adhesion, reducing clogging and prolonging 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













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

### 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 make-to-order availability



	DIM WxL (mm/m)	GRIT	PK QTY	ART NO.
	100mm x 50m	40	2	66623372536
		60	2	66623372537
		80	2	66623372538
100		100	2	66623372539
		120	2	66623372540
VIII EN	115mm x 50m	40	2	66623372551
		60	2	66623372204
200		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
FSC		150	2	66623372556
1.90		180	2	66623372559

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



#### **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.



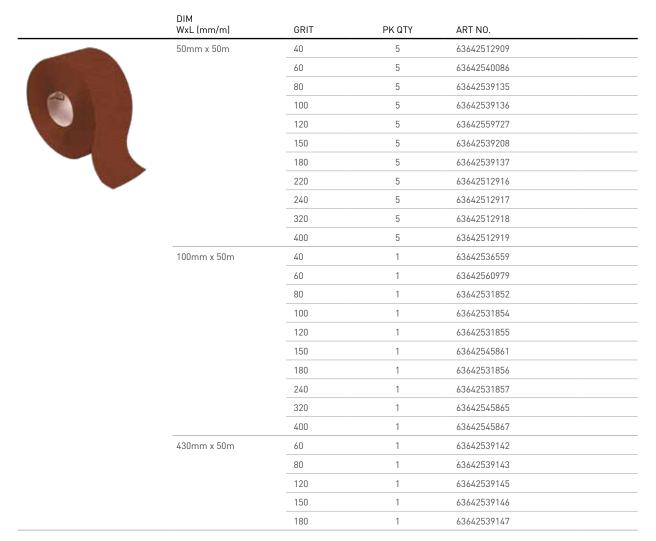
# R222 ++++

- 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









# K20N ###

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



	DIM WxL (mm/m)	GRIT	PK QTY	ART NO.
	50mm x 50m	60	5	69957380137
		80	5	69957377805
1		100	5	69957376896
Dimensions Key: DIM = Dimensions, W = Width, L = Length		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

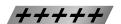


# **NORTON MESHPOWER** ROLLS

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	
90		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.

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**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.
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
	<b>NEW</b> 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 ###

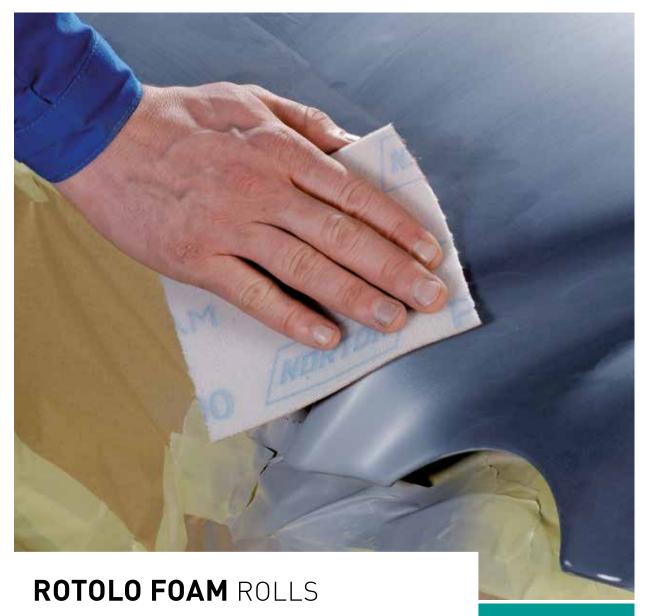
- Ideal storage and space saver with self dispensing function
- Rotolo rolls precut every 150mm for easy pad size use
- Thinner web (Thinflex version) cuts faster, saves time, with no added effort from the user. The product can be scrunched, rolled, and saves shelf space



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
	<b>NEW</b> Micro Fine A	F2802	1	66261124481
	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





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 the dispenser box.

# PRODUCT SELECTION GUIDE

Highly recommended ✓✓ Recommended ✓		
MATERIALS	NORTON PRO A275	GOLD RESERVE A296
	++++	+++
Metal - fine sanding	<b>√</b> √	✓
Wood - fine sanding	<b>//</b>	✓
Filler	<b>//</b>	✓
Varnish / paint / primer	<b>//</b>	✓
Composites /coatings	<b>/</b> /	✓



### NORTON PRO A275 ####



- Premium aluminium oxide foam rolls are water-resistant, for dry or wet sanding, and can be washed and reused
- 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



	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
200		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



	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	
The second second second					

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

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



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

NOTES			

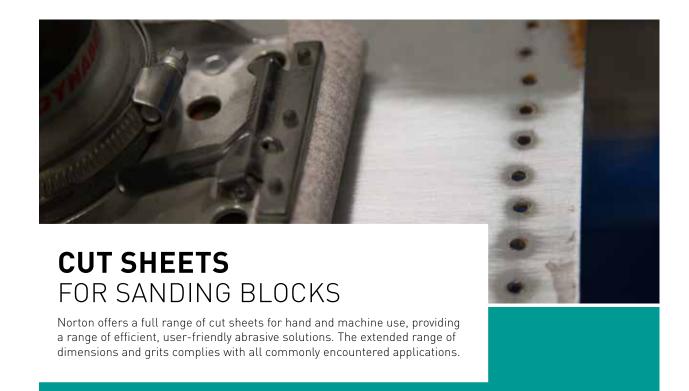


# SHEETS & SPONGES

Cut sheets Norton MeshPower Sheets & hand padsBeartex sheets & hand padsAbrasive sponges

175 179

181



#### PRODUCT SELECTION GUIDE CUT SHEETS

Highly recommended 🗸 Recommended / Suitable O NORTON NORTON **MESHPOWER** NORTON PRO NORTON PRO **ESHPOWER** MATERIAL **APPLICATION** G131F CERAMIC M920 ALOX M220 PLUS A975 Metal Coarse sanding 0 Finishing 0 Hardwood 11 Coarse sanding / 0 Finishing 11 / 11 / / Softwood 11 / / Coarse sanding Finishing 11 11 / / Filler Aluminium/metal // / / / 0 1 0 Polyester 11 11 Varnish / Paint / 0 11 / // Coarse sanding Primer 11 11 0 Finishing / / Composites / Coatings Sanding // 11 / 0 Finishing // / // 0 // 11 Plaster Coarse sanding Finishing 11 11

#### **HOLE PATTERNS FOR CUT SHEETS**

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







8 holes ø 10mm

115 × 280mm with no holes

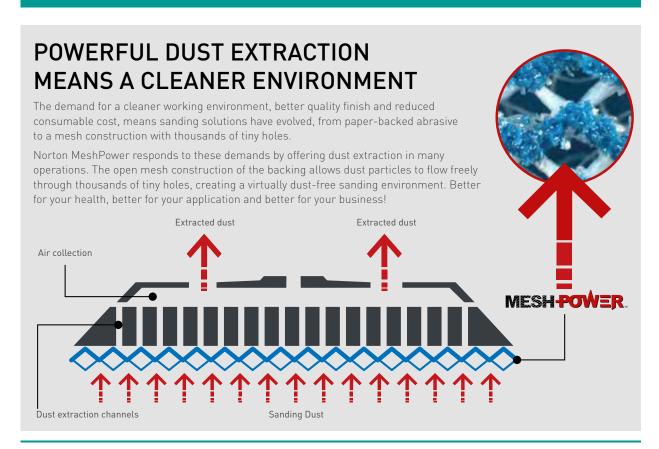


# **NORTON MESHPOWER SHEETS**

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



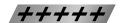




#### **CERAMIC ADVANTAGE**

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	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







DIM WxL (mm)
80 x 133
• • • •
• • • •

GRIT	PK QTY	ART NO.
240	25	66254478608
320	25	66254478614
400	25	66254478617

#### NORTON PRO A275 ####



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







GRIT	PK QTY	ART NO.
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 make-to-order availability







	115	Χ	280	
ĺ				

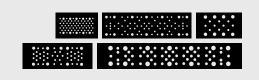
DIM W x L (mm)

GRIT	PK QTY	ART NO.
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.



#### 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				•	•	•	•	•	•	•	•	•	•	•	•
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 are 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 mi



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.



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 recommen Recommended 🗸						
		CLOTH	SHEETS	PAPER SHEETS	WATERPRO	OF SHEETS
MATERIAL	APPLICATION	R222	K20N	NORTON PRO A275	T489	T100
		++++	+++	++++	++++	+++
Metal	Wet sanding				11	✓
	Dry sanding	11	✓			
Hardwood	Coarse sanding	11	1			
	Light sanding & finishing			11		
Varnish /	Wet sanding				<b>//</b>	1
paint / primer	Dry sanding			11		

More products are 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



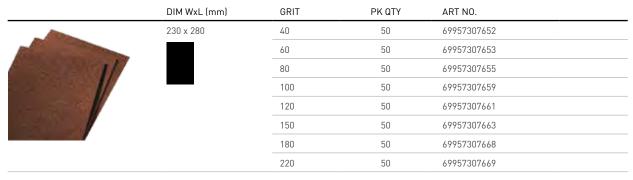
	DIM WxL (mm)	GRIT	PK QTY	ART NO.	
	230 x 280	40	25	63642531776	
		50	25	63642531777	
1/		60	25	63642531778	
		80	50	63642531779	_
400 20 20		100	50	63642531780	
50 ( ) To		120	50	63642531781	
		150	50	63642531782	
		180	50	63642531783	
		220	50	63642531785	
		240	50	63642531786	
		280	50	63642531788	_
		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





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

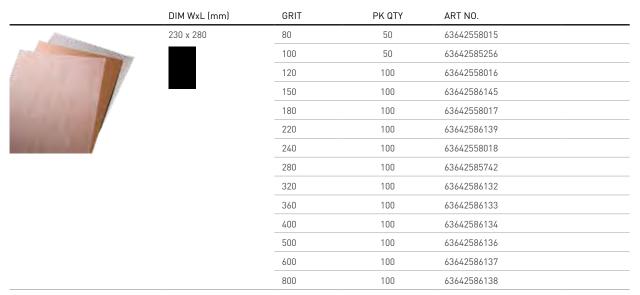


#### NORTON PRO A275 PAPER SHEETS ####



- 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





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 the workpiece
- For use on lacquer, paint, metal, glass, stone, marble and plastic
- · Waterproof paper backing for wet and dry sanding



#### 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







DIM WxL (mm)

GRIT	PK QTY	ART NO.
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





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. It can be folded to suit the hand/ shape. Perforated pads for clean and easy tearing are also available. These perforations allow for a smooth, shred-free split to create two smaller, easy-to-use 115mm x 150mm pads



#### BEARTEX HAND PADS ###



- Open mesh construction resists clogging
- Flexible material conforms to curves, contours and tight spaces easily
- 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-CU	JT)				
	150x230	Very Fine A Long Life	F2504	20	66261018293
		Ultra Fine S	F4807	20	66261018294

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



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

### 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, and can be reused, extending product life

#### ONE SIDED ABRASIVE



	DIM WxLxH (mm)	GRIT	PK QTY	ART NO.
140x11!	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







#### **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 for an 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



# BELTS

File belts 184 Narrow belts 19.
Portable belts 191 Rapid Prep belts 20.



Norton provides a wide range of file belts tailored for exceptional performance on complex shapes and contours. Portable file belt sanders have replaced tedious hand filing and sanding. They were first introduced in pneumatic form and are now also available in electric form. 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  O		A	D	A			
	VIKING R996	SG R929	RAPIDPREP	NORZON R822	NORZON R817	R445	R230
	+++++	+++++	+++++	++++	++++	+++	+++
Stainless steel, inox & duplex	11	11	11	✓			
Inconel, titanium & super alloys	11	11	11	✓			
Carbon, construction & mild steels		11	<b>//</b>	✓			
Cast iron		✓	✓	11			
Non-ferrous metal (brass/aluminium)					11	0	0
Hard & softwood					11		✓
Composite materials						11	0
Stone, concrete						11	
Glass, plastic						11	
Rubber, plastic					11		0
Leather					11		0



# 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

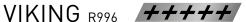
# PNEUMATIC FILE BELT KIT

- · 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



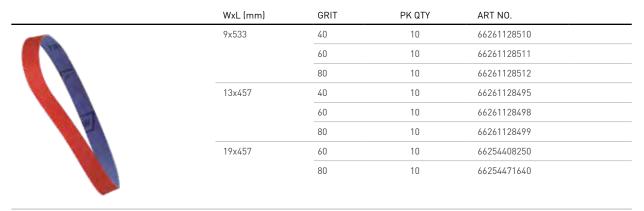
KIT CONTENTS	ITEM ART NO.	PK QTY	ART NO.
File belt machine	77696091766	1	
Ceramic File belt 10x330mm P60	66261144369	20	_
Ceramic File belt 10x330mm P80	66623303270	20	_
Rapid Prep File belt 10x330mm Coarse	69957360172	10	78072707299
Rapid Prep File belt 10x330mm Medium	63642578004	10	_
Rapid Prep File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

#### FILE BELTS FOR FILE BELT MACHINES



- The best choice for use on stainless steel, inconels, chromium cobalt, titanium and extremely hard materials
- Maximum performance for the 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

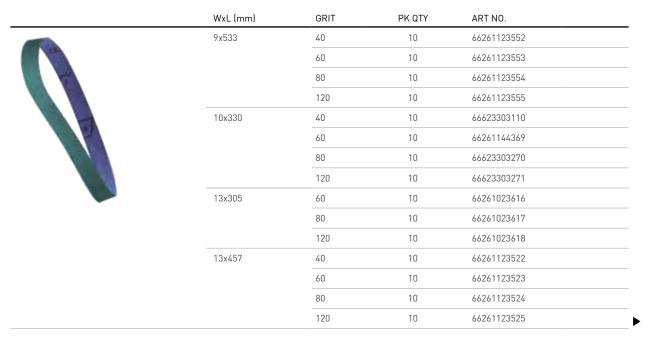






- Made with premium SG abrasive grain, perfect for heat sensitive metals
- High content of active filler for a cool cut, and no burn marks on the metal part
- Excellent performance at low and medium pressure
- X-weight polyester cloth is extremely durable, even on aggressive applications





Dimensions Key: W = Width, L = Length

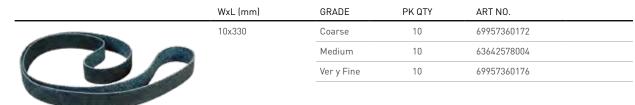


	WxL (mm)	GRIT	PK QTY	ART NO.
	13x610	40	10	66261123636
		60	10	66261123638
	19x457	40	10	66254487679
		60	10	66254480427
		80	10	66254481839
	20x520	40	10	66623303272
		60	10	66261029755
		80	10	66623303275
		120	10	66623303276

# RAPID PREP 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





Dimensions Key: W = Width, L = Length

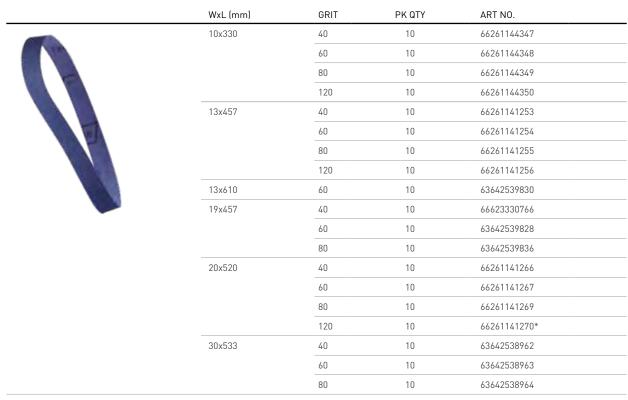
#### FILE BELTS FOR FILE BELT MACHINES

# 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





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 and 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	



- Hard and sharp silicon carbide grains for medium duty applications
- Can be used 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

	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

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#### 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



 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  O			
	SG R929	NORZON R817	R230
MATERIAL	++++	++++	+++
Metal	<b>//</b>		✓
Hardwood		<b>//</b>	✓
Softwood		✓	<b>//</b>

#### PORTABLE BELTS FOR PORTABLE BELT MACHINES



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







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

### NORZON R817 ####



WxL (mm) 200x750

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

ERR. NON FERR. VOOD	<b>5</b>	





GRIT	PK QTY	ART NO.
40	10	69957355996*
60	10	69957371516
80	10	69957371517
100	10	66261182174
120	10	69957371513

\* Made-to-order



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









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	<b></b>

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

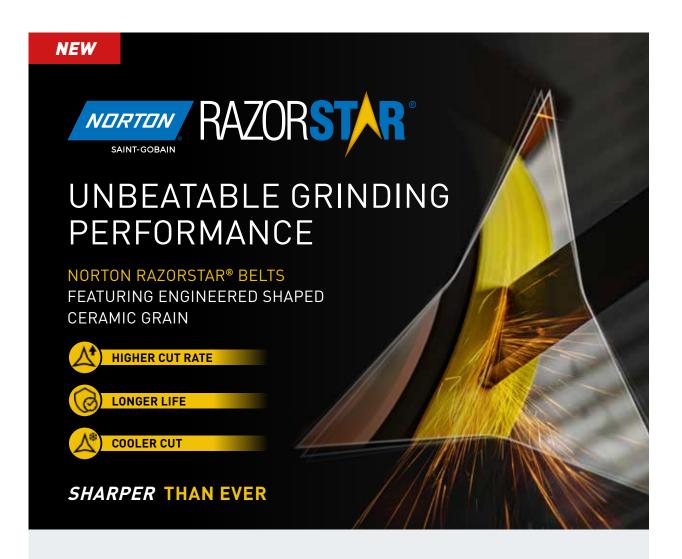
FOR MADE-TO-ORDER PRODUCTS

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



# PRODUCT SELECTION GUIDE

Highly recommended  Recommended  Suitable  O	<b>NEW</b> NORTON RAZORSTAR®	VIKING R996	RED-X R976	SG R929	NORTON R895	NORZON R822	W445	R445	R293
MATERIAL	INNOVATION	+++++	+++++	+++++	++++	++++	++++	+++	+++
Stainless steel, inox & duplex	<b>//</b>	11	✓	0	✓	✓			
Inconel, titanium & super alloys	11	//	1	0		1			
Carbon, construction & mild steels	11			11	11	✓		0	0
Cast iron	✓			11	1	11		0	0
Non-ferrous metal (brass/aluminium)	✓			11	✓			0	0
Hard & softwood									
Stone, concrete								11	0
Glass, plastic							11	0	



### **NEW** NORTON RAZORSTAR®

#### INNOVATION /

- A breakthrough innovation of razor-sharp ceramic grain Unique, patented grain geometry means new, 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
  - sharp cutting edges are exposed as the grain fractures during grinding providing consistent cut rate and unparalleled belt life
  - The sharp grain and topsize layer combine to significantly reduce heat generation, resulting in less thermal damage to the workpiece



VDT VIU



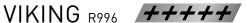


WXL (mm)	GRII	PKUIY	ART NU.	
50x2000	36+	10	66254427525	
50x2500	36+	10	66254422505	
50x3500	36+	10	66254422506	
50x4000	36+	10	66254422507	
75x2000	36+	10	66254427271	
75x2500	36+	10	66254427524	
75x3000	36+	10	66254422509	
75x3500	36+	10	66254422510	
75x4000	36+	10	66254422512	

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Wyl (mm)

#### NARROW BELTS FOR BACKSTAND MACHINES



- 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







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





- 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 such as, stainless steel, inconel, and titanium
- Higher material removal rate at low and medium pressure in fine grits
- Reduced heat generation reduces the risk of burn





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	
75x2500	60 80	10 10	66254433345 66254407537	

Dimensions Key: W = Width, L = Length

\* Made-to-order

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#### NARROW BELTS FOR BACKSTAND MACHINES

# 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, and no burn marks on the metal part
- X-weight polyester cloth is extremely durable, even on aggressive applications
- Excellent performance at low and medium pressure





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



# NORTON R895 ####



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





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

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#### NARROW BELTS FOR BACKSTAND MACHINES

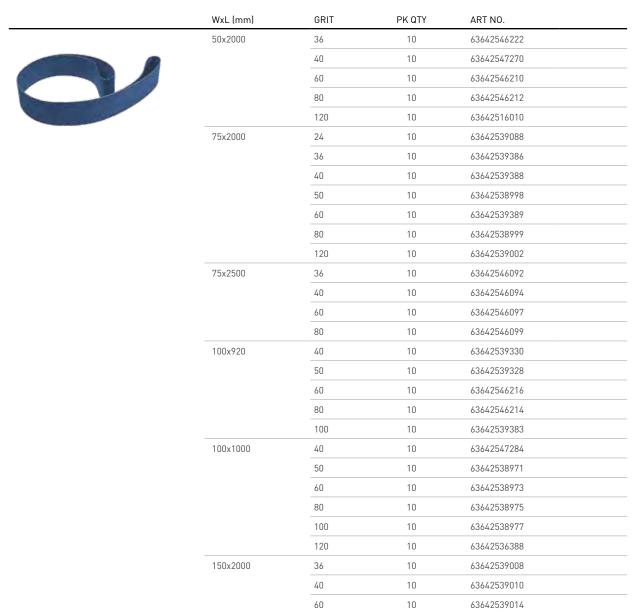
# NORZON R822 ####



- 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





80

10

Dimensions Key: W = Width, L = Length

63642539016



# 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





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



- 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





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
75×2000	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

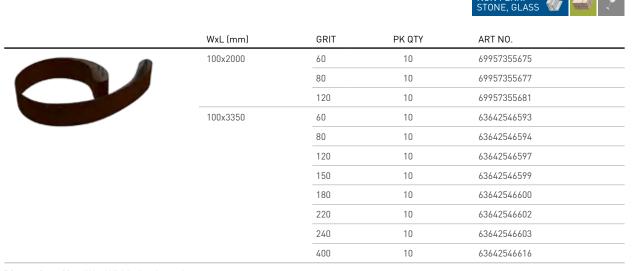
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#### NARROW BELTS FOR BACKSTAND MACHINES



- 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



Dimensions Key: W = Width, L = Length

# MADE-TO-ORDER PRODUCT AVAILABILITY

CAP CODE	GRAIN / GRIT		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		•	•	•	•	•	•	•		•	•	•	•	•
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



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. An 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, and flashing
- Rust, oxides and corrosion
- Paints and scale
- Blending mill marks
- Tool marks
- Uneven edges
- Appliying 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 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 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	63642576872*
13x457	Coarse	S2238	20	63642535980
	Medium	S2338	20	63642536113
	Fine	S2438	20	63642536141*
	Very fine	S2538	20	63642576871*
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*
<b>NEW</b> 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

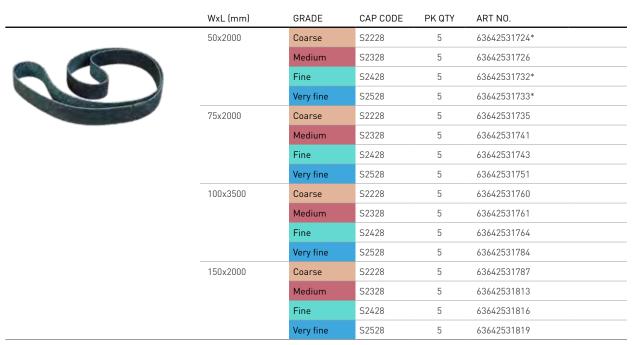
\* Made to order



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# RAPID PREP A/O RF SURFACE BLENDING NARROW BELTS





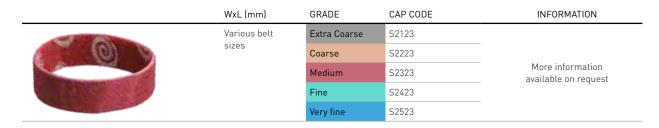
Dimensions Key: W = Width, L = Length

More sizes available on a Made-to-order

\* Made to order

# VORTEX RAPID PREP RF SURFACE BLENDING NARROW BELTS MADE-TO-ORDER









# RAPID PREP A/O RF SURFACE BLENDING PUMP SLEEVES



- Remove surface defects and generate the perfect finish in one operation
- Proprietary Clean Bond™ resin technology guarantees smear-free finish and minimises loading on aluminium and other soft metals
- Versatile cushioned material produces clean, smooth, deburred surfaces and reduces grind lines in fewer steps than coated abrasive products

 -

WxL (mm)	GRADE	CAP CODE	PK QTY	ART NO.
100x289	Coarse	S2238	5	69957313015*
	Medium	S2338	5	63642580807*
	Very fine	S2538	5	69957313016*
90x395	Coarse	S2238	5	69957313014*
	Medium	S2338	5	63642574218*
	Very fine	S2538	5	69957308822*
90x395	Medium	S2338	5	63642574218*

<sup>\*</sup> Made-to-order

# VORTEX RAPID PREP XF SURFACE BLENDING PUMP SLEEVES ####



• High-quality Vortex grain provides 20% higher cut rate and better performance than competitive aluminium oxide surface conditioning belts

	WxL (mm)	GRADE	CAP CODE	PK QTY	ART NO.
	100x289	Coarse	S2238	5	7660700658*
		Medium	S2338	5	7660700715*
		Very fine	S2538	5	7660700747*
- The state of the	90x395	Coarse	S2238	5	7660700748*
		Medium	S2338	5	7660700749*
		Very fine	S2538	5	7660700750*

<sup>\*</sup> Made-to-order

## FELT POLISHING PUMP SLEEVE ###



FOR DYNISHER AND SIMILAR FINISHING TOOLS



WxL (mm)	GRADE	CAP CODE	PK QTY	ART NO.
100x289	Coarse	F0003	6	66254401808*

<sup>\*</sup> Made-to-order

## PUMP SLEEVE DRUM

PNEUMATIC INFLATABLE DRUM FOR DYNISHER AND SIMILAR FINISHING TOOLS



WxL (mm)	GRADE	CAP CODE	MAX RPM	PK QTY	ART NO.
100x90x19	na	RUBBER	3700	1	63642574077

<sup>\*</sup> Made-to-order

## BELTS BY DIMENSION

GRIT	CAP CODE	PK QTY	ART NO.	
9x533r	mm			
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	++++
10x330	)mm			
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	++++
13x305				
60	R929	10	66261023616	+++++
80	R929	10	66261023617	+++++
120	R929	10	66261023618	+++++
13x457				
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	+++++
100	R822	10	66261141255	++++
120	R929	10	66261123525	+++++
10/10	R822	10	66261141256	++++
13x610	R929	10	//2/1122/2/	
		10	66261123636	+++++
60	R929	10	66261123638	+++++
45 (8)	R822	10	63642539830	++++
15x475		FO	/2//2520/77	
80	R445	50	63642539677	+++
19x457		4 -	//05//05:55	
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.	
20x520	)mm			
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	+++
30x530	3mm			
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	+++
34x435	ōmm			
24	R817	50	63642545273	++++
36	R817	50	63642568989	++++
40	R817	50	63642549470	++++
50x800	)mm			
60	R929	10	66261023832	++++
80	R929	10	66261023833	++++
120	R929	10	66261023834	++++
75x45	7mm			
40	R230	10	63642538877	+++
60	R230	10	63642539426	+++
80	R230	10	63642539422	+++
120	R230	10	63642539415	+++
75x530	3mm			
40	R230	10	63642546289	+++
60	R230	10	63642546257	+++
80	R230	10	63642534248	+++
100	R230	10	63642546273	+++
120	R230	10	63642530701	+++
75x610	)mm			
60	R230	10	63642546473	+++
80	R230	10	63642567329	+++
100x6	10mm			
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.	
100x6	20mm			
40	R230	10	63642546457	+++
60	R230	10	63642534465	+++
80	R230	10	63642529799	+++
100	R230	10	63642534770	+++
120	R230	10	63642546452	+++
100x6	90mm			
40	R230	10	63642537627	+++
60	R230	10	63642537544	+++
80	R230	10	63642537546	+++
100	R230	10	63642537548	+++
120	R230	10	63642537632	+++
200x7		10	03042337032	,,,
24	R230	10	63642521182	+++
36	R230	10	69957349006	+++
40	R817	10	69957355996*	
40				++++
/0	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	+++
50x16	00mm			
40	R929	10	66261023879	++++
50	R929	10	66261023880	++++
60	R929	10	66261023881	++++
80	R929	10	66261023882	+++++
50x20	00mm			
36+	NORTON RAZORSTAR®	10	66254427525	++++
36	R996	10	66254403822	++++
	R929	10	69957350787	+++++
	R822	10	63642546222	++++
	R293	10	63642546943	+++
40	R996	10	66254403847	++++
	R929	10	69957350790	+++++
	R929 R822	10 10	69957350790 63642547270	++++
	R822			
	R822 R293	10	63642547270 63642551489	++++
60	R822 R293 R929	10 10 10	63642547270 63642551489 69957350792	++++ +++ ++++
60	R822 R293 R929 R996	10 10 10 10	63642547270 63642551489 69957350792 66254411262	++++ +++ ++++
60	R822 R293 R929 R996 R976	10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458	++++ +++ +++++ +++++
60	R822 R293 R929 R996 R976 R929	10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793	++++ +++ +++++ +++++ +++++
60	R822 R293 R929 R996 R976 R929	10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210	**** *** **** **** **** ****
	R822 R293 R929 R996 R976 R929 R822 R293	10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878	**** *** **** **** **** ****
	R822 R293 R929 R996 R976 R929 R822 R293	10 10 10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878 66254449025	**** **** **** **** **** **** ****
80	R822 R293 R929 R996 R976 R929 R822 R293 R996 R929	10 10 10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878 66254449025 69957350794	****  ****  ****  ****  ****  ****  ****
80	R822 R293 R929 R996 R976 R929 R822 R293 R996 R929	10 10 10 10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878 66254449025 69957350794 63642546212	****  ****  ****  ****  ****  ****  ****
	R822 R293 R929 R996 R976 R929 R822 R293 R996 R929 R822 R976	10 10 10 10 10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878 66254449025 69957350794 63642546212 63642546212	****  ****  ****  ****  ****  ****  ****
80	R822 R293 R929 R996 R976 R929 R822 R293 R996 R929	10 10 10 10 10 10 10 10 10 10	63642547270 63642551489 69957350792 66254411262 66254401458 69957350793 63642546210 63642546878 66254449025 69957350794 63642546212	****  ****  ****  ****  ****  ****  ****

GRIT	CAP CODE	PK QTY	ART NO.	
50x250	00mm			
36+	NORTON RAZORSTAR®	10	66254422505	++++
40	R996	10	66254408229	++++
60	R996	10	66254416129	++++
50x350	00mm			
36+	NORTON RAZORSTAR®	10	66254422506	++++
36	R996	10	66254404039	++++
	R976	10	66254409222	+++++
40	R976	10	66623385396	++++
60	R976	10	66261071965	++++
80	R996	10	66254456931	+++++
50x400	00mm			
36+	NORTON RAZORSTAR®	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	+++++
75x200	00mm			
24	R996	10	69957364735	++++
	R822	10	63642539088	++++
36+	NORTON RAZORSTAR®	10	66254427271	+++++
36	R996	10	66254410065	++++
	R929	10	69957350796	++++
	R976	10	66623319745	++++
	R822	10	63642539386	++++
	R895	10	78072724738	++++
	R293	10	63642547942	+++
40	R996	10	66254407955	++++
	R976	10	66261067686	++++
	R929	10	69957350797	+++++
	R822	10	63642539388	++++
	R895	10	78072724739	++++
	R293	10	63642564728	+++
50	R929	10	69957350798	++++
	R822	10	63642538998	++++
60	R996	10	66254407954	++++
	R976	10	66261060879	++++
	R929	10	69957350799	++++
	R822	10	63642539389	++++
	R895	10	78072724741	++++
	R293	10	63642548528	+++
80	R996	10	66254456158	++++
	R976	10	66254403117*	++++
	R929	10	69957350800	++++
	R822	10	63642538999	++++
	R895	10	78072724742	++++
	R293	10	63642548275	+++
100	R929	10	66261024222	++++
120	R976	10	66254404255	++++
	R929	10	69957350801	++++
	R822	10	63642539002	++++

### **BELTS** BY DIMENSION

GRIT	CAP CODE	PK QTY	ART NO.	
75x250	00mm			
24	R996	10	69957364736	++++
36+	NORTON RAZORSTAR®	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	++++
75x300	00mm			
36+	NORTON RAZORSTAR®	10	66254422509	++++
75x350	00mm			
36+	NORTON RAZORSTAR®	10	66254422510	++++
		10	66254422510	++++
36+		10	66254422510 66254422512	++++
36+ 75x400	00mm NORTON RAZORSTAR®			
36+ 75x400 36+	00mm NORTON RAZORSTAR®			
36+ 75x400 36+ 100x92	00mm NORTON RAZORSTAR® 20mm	10	66254422512	++++
36+ 75x400 36+ 100x92	00mm NORTON RAZORSTAR® 20mm R822	10	66254422512	++++
36+ 75x400 36+ 100x92 40	NORTON RAZORSTAR® 20mm R822 R293	10 10 10	66254422512 63642539330 63642548306	++++ ++++ +++
36+ 75x400 36+ 100x92 40	NORTON RAZORSTAR®  20mm  R822 R293 R822	10 10 10 10	66254422512 63642539330 63642548306 63642539328	++++ ++++ +++
36+ 75x400 36+ 100x92 40	00mm  NORTON RAZORSTAR®  20mm  R822  R293  R822  R822	10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216	++++ +++ +++ +++
36+ 75×400 36+ 100×92 40 50	00mm  NORTON RAZORSTAR®  20mm  R822  R293  R822  R822  R822  R823	10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642548307	++++ +++ +++ +++ +++
36+ 75×400 36+ 100×92 40 50	00mm  NORTON RAZORSTAR®  20mm  R822  R293  R822  R822  R822  R823  R822  R822	10 10 10 10 10 10	63642539330 63642548306 63642548306 63642546216 63642548307 63642546214	++++ +++ +++ +++ +++ +++
36+ 75×400 36+ 100×92 40 50 60	00mm  NORTON RAZORSTAR® 20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293	10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642546214	***** **** *** *** *** *** ***
36+ 75×400 36+ 100×92 40 50 60	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822	10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642548307 63642546214 63642551544 63642539383	++++ +++ +++ +++ +++ +++ +++ +++
36+ 75x400 36+ 100x9; 40 50 60 80 100	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293	10 10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642551544 63642551546 63642551547	*****  ****  ****  ****  ****  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **
36+ 75×400 36+ 100×9: 40 50 60 80 100 120 180	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293	10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642539383 63642551546	++++ +++ +++ +++ +++ +++ +++ +++ +++
36+ 75×400 36+ 100×9: 40 50 60 80 100 120 180	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293	10 10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642551544 63642551546 63642551547	*****  ****  ****  ****  ****  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **
36+ 75×400 36+ 100×92 40 50 60 80 100 120 180 100×10	NORTON RAZORSTAR®  20mm  R822 R293	10 10 10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642551544 63642551546 63642551547 63642551549	++++ +++ +++ +++ +++ +++ +++ +++ +++ +
36+ 75×400 36+ 100×92 40 50 60 80 100 120 180 100×10	NORTON RAZORSTAR®  20mm  R822 R293 R829 R293 R829 R293 R293 R293	10 10 10 10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642551544 63642551546 63642551547 63642551549	*****  ****  ****  ****  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  ***  **
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36+ 75×400 36+ 100×92 40 50 60 80 100 120 180 100×10 40	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R293 R293 R293 R293 R293 R293 R2	10 10 10 10 10 10 10 10 10 10 10 10 10	66254422512 63642539330 63642548306 63642539328 63642546216 63642546214 63642551544 63642539383 63642551547 63642551547 63642551549 69957350903 63642547284 63642538971 69957350905	*****  ****  ****  **  ***  ***  ***  ***  ***  ***  ***  ***  ***  *
36+ 75×400 36+ 100×92 40  50 60  100 120 180 100×10 40  50 60	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293 R293 R293 R293 R293 R293 R293 R2	10 10 10 10 10 10 10 10 10 10 10 10 10 1	66254422512 63642539330 63642548306 63642548306 63642546216 63642546214 63642546214 63642551544 63642551546 63642551547 63642551549 69957350903 63642547284 63642538971 69957350905 63642538973 69957350906	++++  +++  +++  +++  +++  +++  +++  +++  +++  +++  +++  ++++
36+ 75×400 36+ 100×9: 40 50 60 80 100 120 180 100×10 40 50 60 80	NORTON RAZORSTAR®  20mm  R822 R293 R293 R293 R293 R293 R293 R293 R2	10 10 10 10 10 10 10 10 10 10 10 10 10 1	66254422512 63642539330 63642548306 63642548306 63642546216 63642546214 63642546214 63642551544 63642551546 63642551547 63642551547 63642551549 69957350903 63642547284 63642538971 69957350905 63642538973 69957350906 63642538975	++++ +++ +++ +++ +++ +++ +++ +++ +++ +
36+ 75×400 36+ 100×92 40  50 60  100 120 180 100×10 40  50 60	NORTON RAZORSTAR®  20mm  R822 R293 R822 R822 R293 R822 R293 R822 R293 R822 R293 R822 R293 R293 R293 R293 R293 R293 R293 R2	10 10 10 10 10 10 10 10 10 10 10 10 10 1	66254422512 63642539330 63642548306 63642548306 63642546216 63642546214 63642546214 63642551544 63642551546 63642551547 63642551549 69957350903 63642547284 63642538971 69957350905 63642538973 69957350906	++++ +++ +++ +++ +++ +++ +++ +++ +++ +

7777	0773733000	10	11/2/	40
50805 ++++	6995735080	10	R929	60
55675 +++	6995735567	10	R445	
50806 ++++	6995735080	10	R929	80
55677 +++	6995735567	10	R445	
50807 ++++	6995735080	10	R929	120
55681 +++	6995735568	10	R445	
30818 ++++	6364258081	10	W445	*
			0x3000mm	100x3
51511 +++	6364255151	10	R293	40
			0x3350mm	100x3
46593 +++	6364254659	10	R445	60
46594 +++	6364254659	10	R445	80
46597 <b>+++</b>	6364254659	10	D R445	120
46599 +++	6364254659	10	D R445	150
46600 +++	6364254660	10	D R445	180
46602 +++	6364254660	10	D R445	220
46603 +++	6364254660	10	D R445	240
46616 +++	6364254661	10	D R445	400
45206 <i>++++</i>	6364254520	10	W445	*
			0x3300mm	140x3
I5118 <i>++++</i>	6625441511	10	W445	*
			0x2000mm	150x2
50809 <i>++++</i>	6995735080	10	R929	36
39008 ++++	6364253900	10	R822	
50812 ++++	6995735081	10	R929	40
39010 ++++	6364253901	10	R822	
24755 ++++	7807272475	10	R895	
50813 ++++	6995735081	10	R929	60
39014 ++++	6364253901	10	R822	
24756* ++++	7807272475	10	R895	
50815 ++++	6995735081	10	R929	80
	6364253901	10	R822	
24757 ++++	7807272475	10	R895	
24758 ++++	7807272475	10	) R895	120
			0x2500mm	150x2
23984 ++++	6626102398	10	R929	40
	6626102399	10	R929	60
			 R929	80

PK QTY

10

10

ART NO.

69957350802

69957350804

+++++

CAP CODE

R929

R929

GRIT

36

40

<sup>\*</sup> 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	63642576872*	+++
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	63642576871*	+++
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	+++

	GRIT	CAP CODE	PK QTY	ART NO.	
	50x2000mm	1			
+++	Coarse	S2228	5	63642531724*	+++
+++	Medium	S2328	5	63642531726	+++
+++	Fine	S2428	5	63642531732*	+++
+++	Very Fine	S2528	5	63642531733*	+++
	75x2000mm	ı.			
+++	Coarse	S2228	5	63642531735	+++
+++	Medium	S2328	5	63642531741	+++
+++	Fine	S2428	5	63642531743	+++
+++	Very Fine	S2528	5	63642531751	+++
	90x395				
+++	Coarse	S2238	5	69957313014*	+++
+++	Medium	S2338	5	63642574218*	+++
+++	Very Fine	S2538	5	69957308822*	+++
	Coarse	S2238	5	7660700748*	++++
+++	Medium	S2338	5	7660700749*	++++
+++	Very Fine	S2538	5	7660700750*	++++
+++	100x289mm				
+++	Coarse	S2238	5	69957313015*	+++
	Medium	S2338	5	63642580807*	+++
+++	Very Fine	S2538	5	69957313016*	+++
+++	Coarse	S2238	5	7660700658*	++++
+++	Medium	S2338	5	7660700715*	++++
+++	Very Fine	S2538	5	7660700747*	++++
	100x3500mi	n			
+++	Coarse	S2228	5	63642531760	+++
+++	Medium	S2328	5	63642531761	+++
+++	Fine	S2428	5	63642531764	+++
+++	Very Fine	S2528	5	63642531784	+++
	150x2000mi	n			
+++	Coarse	S2228	5	63642531787	+++
+++	Medium	S2328	5	63642531813	+++
+++	Fine	S2428	5	63642531816	+++
+++	Very Fine	S2528	5	63642531819	+++

<sup>\*</sup> Made to order

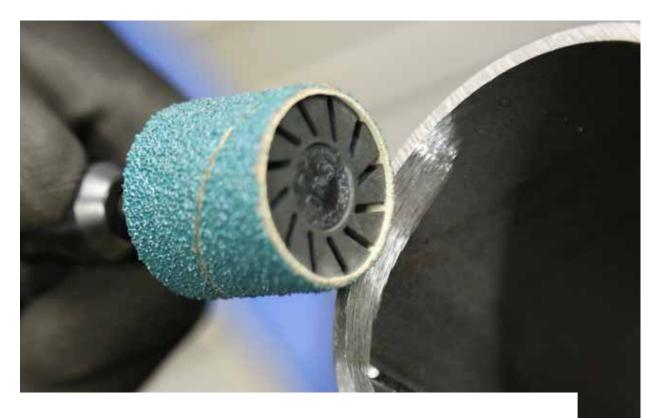
<sup>\*</sup> Made to order

NOTES			



# SPECIALTIES

Spirabands and cones	21
Cartridge and spiral rolls	21
Sanding stars	22
Safety advice	22



# **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 🗸

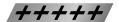




MATERIALS	BLAZE R920 / R996	NORZON R822
	++++	++++
Stainless steel, inox & duplex	<b>/</b> /	✓
Inconel, titanium & super alloys	<b>//</b>	✓
Carbon steel, construction steel & mild steel	<b>//</b>	<b>/</b> /
Cast iron	✓	<b>/</b> /
Non-ferrous metal (brass/aluminium)		✓
Hard & softwood		<b>/</b> /



# BLAZE R920 & R996 +++++



- 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 superalloys
- Works well in heavy-duty applications for maximum stock removal, reduced heat, loading and glazing



	DIM DIAxW (mm)	GRIT	PK QTY	ART NO.	RECOMMENDED SPEED (RPM)	MANDREL CODE
ABRASIVE SPIRABANDS						
	15x30	36	100	66254462195**	25000 - 31500	7660705182
		60	100	66623331569		
		80	100	66623331571*		
	22x20	36	100	66254455413**	17500 - 21000	63642562578
		60	100	66261192992		
		80	100	66623330997		
	25x25	36	100	66254462198**	15300 - 19000	7660705183
	30x30	36	100	66254455401**	12700 - 15800	7660707918
		60	100	66254493572		
	45x30	36	100	66254455410**	9250 - 10500	7660705196
		60	100	66261031600		

Dimensions Key: DIM = Dimensions, DIA = Diameter, W = Width Other dimensions available upon request \* Made-to-order

\*\* R996

## 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



	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 7	7660705182
		50	100	63642528509		
		60	100	66623386740		
		80	100	63642528496		
	22x20	36	100	63642539865	17500 - 21000 6	63642562578
		50	100	63642528497		
		60	100	63642539866		
		80	100	63642539867		)

Formerly X-Treme R822

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### SPIRABANDS & CONES FOR DIE GRINDERS

	DIM DIAxW (mm)	GRIT	PK QTY	ART NO.	RECOMMENDED SPEED (RPM)	MANDREL CODE
ABRASIVE SPIRABANDS						
	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		
6.0		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 ####

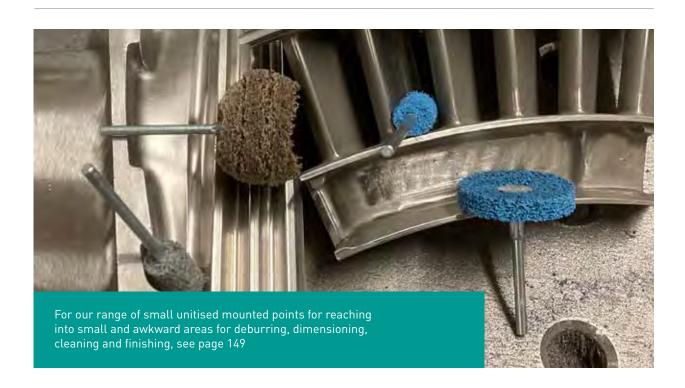
- The rubber expanding mandrel provides cushioning during use
- Shaft diameter 6mm

• Easy to mount and remove spiraband from serrated rubber holder by turning slightly to the right



	DIM DxWxS (mm)	PK QTY	ART NO.
SPIRABAND MANDRELS			
	13x25x6	1	7660705185
T	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			
4	20x14x63	1	7660740439
	36x22x60	1	7660740441



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# **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. Cartridge and spiral rolls are great for detail work on small parts, and perform best at a recommended speed of 6-9 m/s to optimise stock removal and surface finish, and avoiding thermal load of the workpiece and tool wear.

## PRODUCT SELECTION GUIDE

Highly recommended 🗸 🗸 Recommended 🗸





MATERIALS	BLAZE R920	METAL R265
	++++	+++
Stainless steel, inox & duplex	<b>//</b>	
Inconel, titanium & super alloys	<b>/</b> /	
Carbon steel, construction steel & mild steel	<b>/</b> /	✓
Cast iron	✓	<b>//</b>
Non-ferrous metal (brass/aluminium)		<b>//</b>
Hard & softwood		✓
Composite materials		✓
Stone, concrete		
Glass, plastic		

#### **CARTRIDGE & SPIRAL ROLLS** FOR DIF GRINDERS

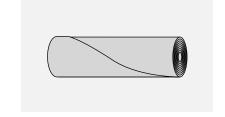
## SHAPE RECOMMENDATION GUIDE

#### 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 bonded, half-glued.

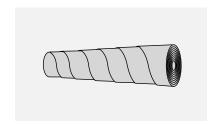


#### SPIRAL ZSPI

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, and channels

All spiral rolls are fully tapered, resin bonded, and half glued.





- of all rolls, with a 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
- Ceramic alumina grain for the highest productivity 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



	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
66		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
BAAA		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

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#### **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	3x19	6mm	1	63642556790	
with a 6mm shaft	3x25	6mm	1	63642556791	
Pilot Length					

Dimensions Key: DIM = Dimensions, DIA = Pilot diameter, L = Pilot length



Pilot



Shank Diameter

- 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





	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	_	
		Dimens	ions Kev: [	IM = Dimensions	s. BS = Base diameter.	L = Lenath. 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

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# **SANDING STARS**

Ideal for deburring and finishing difficult-to-access metal applications, irregular shaped components, holes, radii, grooves as small as 35mm, and removing sharp edges, which may cause manual handling problems on irregular or awkward-sized components. The perfect tool for applications requiring a perfect 360° 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	<b>√</b> √
Inconel, titanium & superalloys	<b>//</b>
Carbon steel, construction steel & mild steel	<b>//</b>
Cast iron	<b>✓</b>





- 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





	DIM DIAxS (mm)	GRIT	NUMBER OF PLYES	PK QTY	ART NO.	RECOMMENDED SPEED (RPM)
9 16	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



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# SAFETY ADVICE

#### **GENERAL PRECAUTIONS**

Safety instructions provided by 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

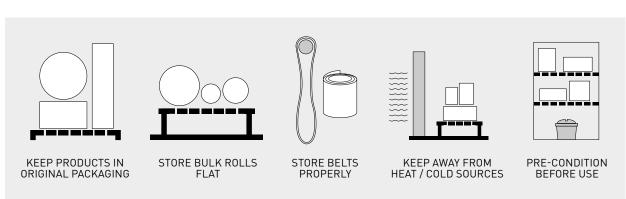
All coated abrasives should be handled carefully. Damage can be caused by mishandling, which should be avoided. Coated abrasives should be stored in dry, frost-free conditions. They should be kept away from heat sources, cold, damp walls, doors or windows and should not be in direct contact with the floor. Temperatures and humidity should be between 18°C and 22°C and 45%-65% relative humidity. Coated abrasives should not 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 the original packaging.
   The packaging 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. 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

#### D0'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:

- Bodily contact with the abrasive product at operating speed
- Injury resulting from product breakage during use
- Grinding debris, sparks, fumes and dust generated by the grinding process
- Noise
- 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

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#### 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)



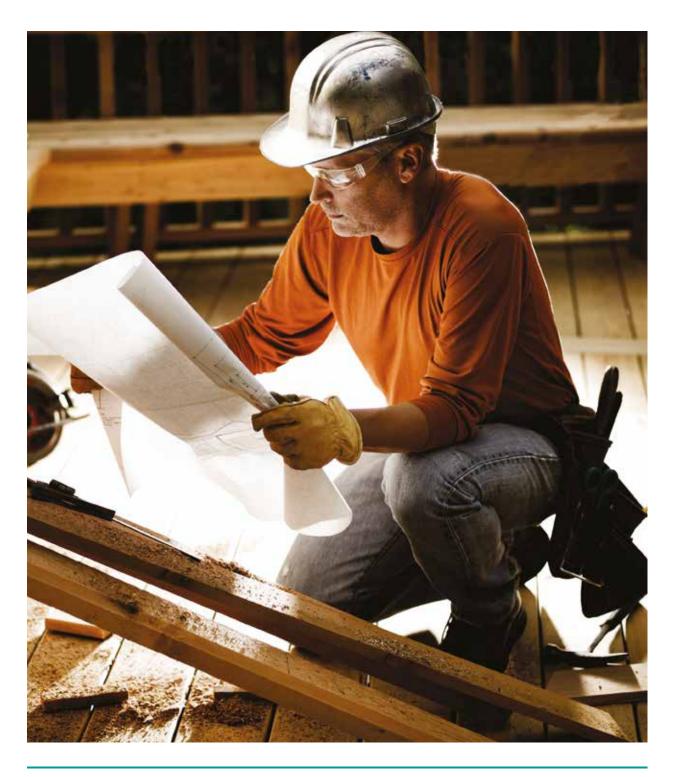
Refer to instruction manual/ booklet (ISO 7010)



Only suitable for wet grinding



Do not use for wet grinding (ISO 7010)





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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.

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# NON-REINFORCED & REINFORCED CUT-OFF WHEELS



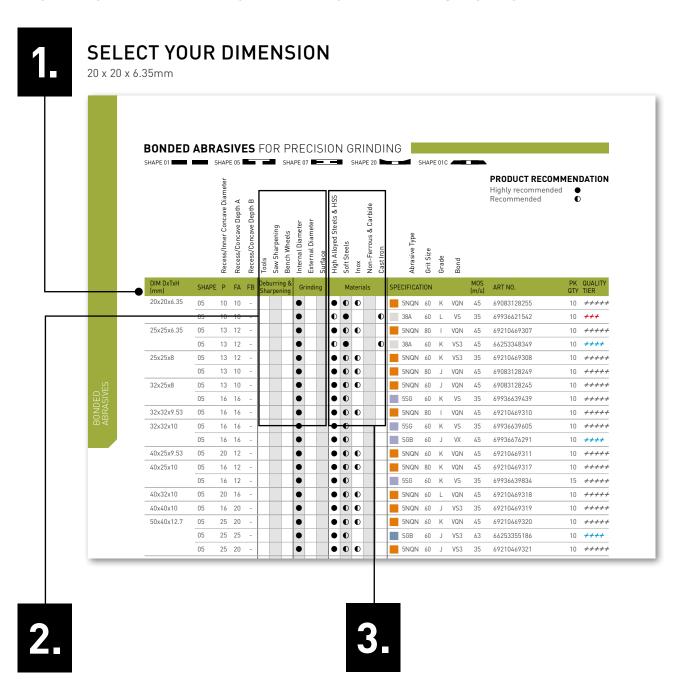
NON-REINFORCED WHEELS 294



REINFORCED WHEELS 294



# HOW TO READ THE GRINDING WHEEL SECTION



#### **CHOOSE YOUR APPLICATION**

#### **DEBURRING & SHARPENING**

- Tools
- Saw sharpening
- Bench grinding

#### GRINDING

- Internal
- External
- Surface

# 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.

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# 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, and 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 and 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**



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 microfracture and self-sharpen more efficiently.

This keeps the wheel sharper for longer, reducing heat, wear flats, and minimizing the need for dressing.

#### NQ Blends

Blends that include medium, high, and very high concentrations of premium abrasive NQ. NQ has improved selfsharpening properties allowing even cooler grinding action vs. SG. NQ blends are especially suited for low to medium pressure applications.

#### SG Blends

A blend of premium abrasives that include a medium, high, and 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, and used for surface, cylindrical, centreless and miscellaneous grinding on less heatsensitive steels.

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.

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



Green silicon carbide with the 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.



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#### **BONDED ABRASIVES PRODUCT SELECTION**

## **GRIT SIZE**

The number on the grinding wheel refers to grit size and represents the approximate number of grit particles per inch. The lower the number, the coarser the grit; the higher the number, the finer the grit.

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	Н	1	J	K	L	М	N	0	Р	Q	R	S	Т	U
				CYLIN	IDRICAL	/CENTRI	ELESS								
S	URFACE	GRINDIN	٧G												
	ID GRINDING														
			TOOL GRINDING												
		THREAD GRINE					NDING								
	NON-REINFORCED ORGANIC														
										RE	INFORCE	D ORGA	NIC		

# **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. Vitrified bonds are not affected by water, acid, oils or ordinary temperature variations.

#### THE MOST COMMON VITRIFIED BONDS ARE:



New innovative bond with improved versatility for multiple applications and alloys. Used for precision grinding operations with aluminium oxide abrasives.

# VITRIUM @

#### VITRIUM3 REVOLUTIONARY BOND TECHNOLOGY

VC2 0 VC2D

The Vitrium<sup>3</sup> bond platform features an exclusive chemistry that delivers an entirely new grain adhesion

V53 & V53P	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 W	/HEELS & 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-0F	F 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

#### 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.

- 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

#### 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.

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# SURFACE FINISH

Recommended

		<b>⋖</b> 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	METRIC (mm)	0.75	0.50	0.40	0.25	0.20	0.18	0.13	0.10					
RADIUS	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

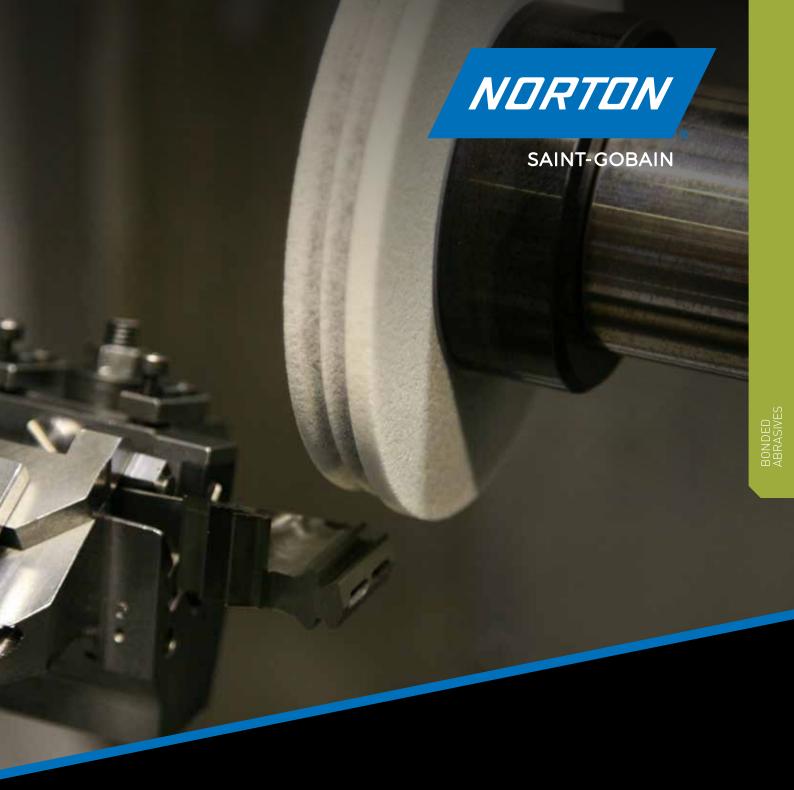
#### **ACHIEVING IMPROVED SURFACE FINISHES**

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

- Safety pictograms
- 2 Norton branding
- Product dimensions (mm)
- 4 Product specification
- Maximum operating speed
- 6 Article number; for use when re-ordering
- oSa certified
  The Organisation for Safety of Abrasives
- 8 European safety standard EN 12413





# PRECISION GRINDING

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## 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 vary 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

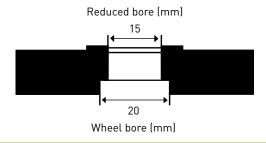
Bench and pedestal grinding application refers to offhand deburring and sharpening of parts and tools. The wheels are mounted on bench grinders or pedestal grinders and covers three types of abrasives to answer all deburring, shaping and sharpening needs: aluminium oxide for high speed tool steels and 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 borehole 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

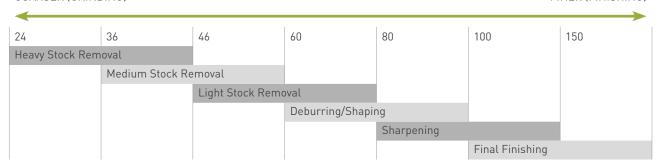


WHEEL BORE (mm)	REDUCED TO (mm)	ART NO.
50.8	35	7660704766
32	25	7660717540
32	20	7660717538
31.75	15,88	7660704757
31.75	12.7	7660704755
20	16	7660717530
20	15	7660717529
20	13	7660717527
20	12	7660717525
20	10	7660717524
16	6	510008919



# APPLICATION/GRIT RECOMMENDATION GUIDE & SAFETY ADVICE FOR BENCH WHEELS

COARSER (GRINDING) FINER (FINISHING)





- 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: 25x50x200 37C 24 TV Part #69936685072



#### 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 the centre line 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
- When using a new tool, three to five 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 three to five 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 the 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, explicitly engineered for Quantum vitrified wheel dressing

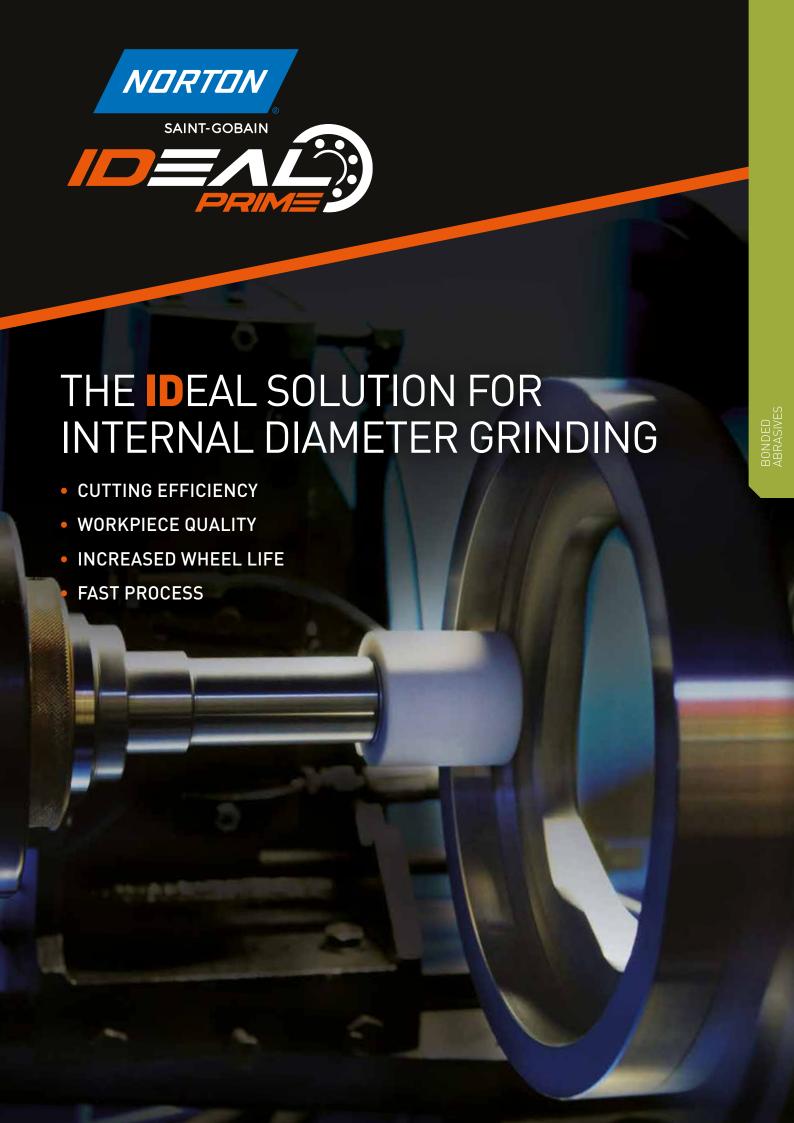
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# TROUBLESHOOTING GUIDE

Check the obvious first. Before changing the grinding wheel specification, investigate the following most common causes for most grinding problems:

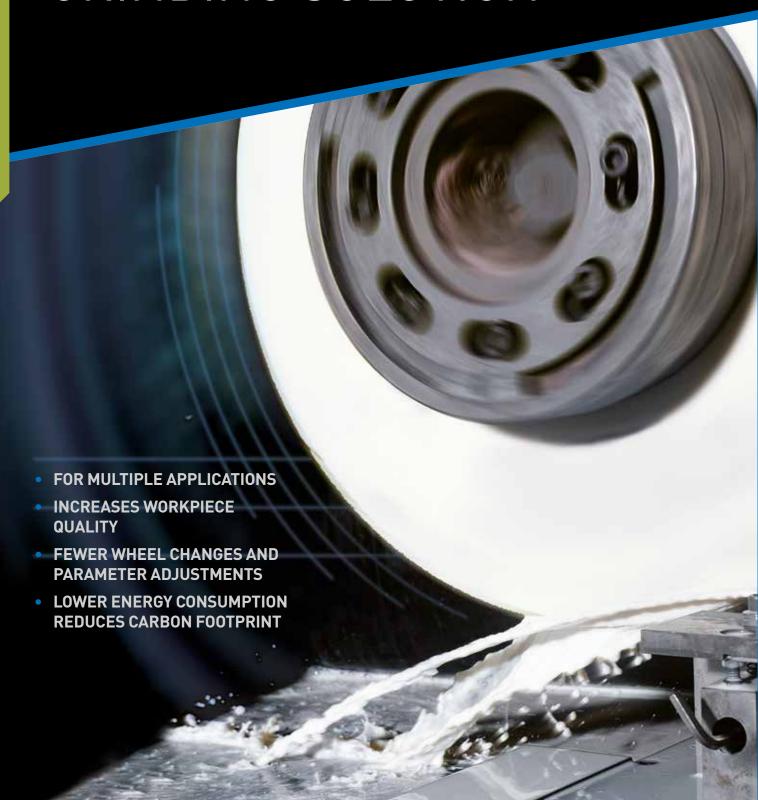
- 1. Diamond dressing tool condition (check if worn or dull, rotate tool or replace if necessary)
- 2. Coolant direction, volume and filtration
- 3. Wheel dressing procedures (dress more open to free up cut rate, dress more closed to improve finish)

PROBLEM	POSSIBLE CAUSE	CORRECTION
Workpiece burn	Poor coolant direction	Redirect coolant into the 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 true and end play
	Wheel out of true	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





# A VERSATILE GRINDING SOLUTION











# NQN INNOVATION

Norton's latest, innovative ceramic grain

- Unparalleled sharpness reducing cycle times
- Improved cutting efficiency results in reduced power draw
- Microfracturing grain leads to improved part quality and geometry
- Self-sharpening grain technology stays sharper for longer, lowering dress requirements and significantly improving wheel life



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



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

www.nortonabrasives.com Bonded Abrasives / 241







# 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









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 offhand bench and pedestal grinding applications
- Good good price vs. performance ratio



Highest purity green silicon carbide abrasive

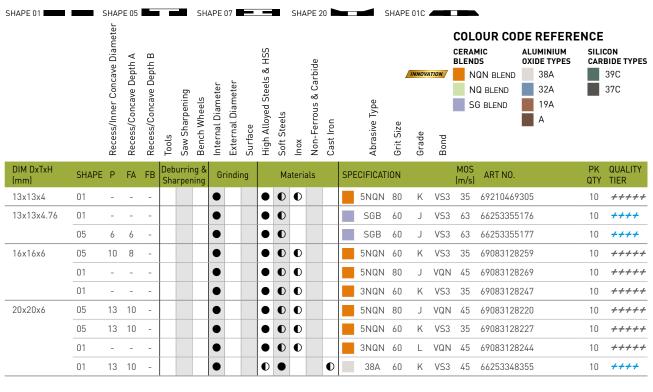
- The most friable conventional abrasive grain. Harder and more friable than aluminium oxide abrasive
- For all general-purpose bench and pedestal applications on non-ferrous materials and carbide tools
- Ideal for high-precision grinding and sharpening applications
- Good cut rate and finish on metal carbide and non-ferrous hard or heat sensitive materials



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





HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc

www.nortonabrasives.com Bonded Abrasives / 243

SHAPE 05 SHAPE 07 SHAPE 01C

> PRODUCT RECOMMENDATION Highly recommended Recommended

Recess/Inner Concave Diameter Recess/Concave Depth A Recess/Concave Depth B

High Alloyed Steels & HSS **External Diameter** Internal Diameter Saw Sharpening Bench Wheels

Jon-Ferrous & Carbide Soft Steels

Abrasive Type Grit Size

		Re	å	Se Be	은	Sa	Be	흐	ŭ	Su	Î	S	드	ž	Ö		Ab	ō	G	- B				
DIM DxTxH (mm)	SHAPE	Р	FA	FB		urrii arper		Gı	rindin	ng		M	ateri	als		SP	ECIFICA <sup>-</sup>	ΓΙΟΝ			MOS (m/s)	ART NO.		QUALITY TIER
20x20x6.35	05	10	10	-				•			•	•	0				5NQN	60	K	VQN	45	69083128255	10	++++
	05	10	10	-				•			0	•			•		38A	60	L	VS	35	69936621542	10	+++
25x25x6.35	05	13	12	-				•			•	•	0				5NQN	80	I	VQN	45	69210469307	10	++++
	05	13	12	-				•			0	•			•		38A	60	K	VS3	45	66253348349	10	++++
25x25x8	05	13	12	-				•			•	•	0				5NQN	60	Κ	VS3	35	69210469308	10	++++
	05	13	10	-				•			•	•	0				5NQN	80	J	VQN	45	69083128249	10	++++
32x25x8	05	13	10	-				•			•	•	0				5NQN	60	J	VQN	45	69083128245	10	++++
	05	16	16	-				•			•	•					5SG	60	K	VS	35	69936639439	10	++++
32x32x9.53	05	16	16	-				•			•	•	•				5NQN	80	I	VQN	45	69210469310	10	++++
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	-				•			•	•	0				5NQN	60	K	VQN	45	69210469311	10	++++
40x25x10	05	16	12	-				•			•	•	0				5NQN	80	K	VQN	45	69210469317	10	++++
	05	16	12	-				•			•	•					5SG	60	K	VS	35	69936639834	15	++++
40x32x10	05	20	16	-				•			•	•	0				5NQN	60	L	VQN	45	69210469318	10	++++
40x40x10	05	16	20	-				•			•	•	0				5NQN	60	J	VS3	35	69210469319	10	++++
50x40x12.7	05	25	20	-				•			•	0	0				5NQN	60	K	VQN	45	69210469320	10	++++
	05	25	25	-				•			•	0					SGB	60	J	VS3	63	66253355186	10	++++
	05	25	20	-				•			•	0	0				5NQN	60	J	VS3	35	69210469321	10	++++
63x10x20	01	-	-	-				•			0	•			•		38A	60	N	VS	45	66253050376	10	+++
63x40x12.7	05	32	20	-				•			•	0	0				5NQN	80	ı	VQN	45	69210469323	10	++++
	05	32	20	-				•			0	•			•		38A	60	L	VS	45	69936621565	10	+++
76x25x12.7	01	-	-	-				•					•	•			39C	80	ı	٧	45	66253052726	10	+++
76x32x20	05	42	16					•			•	0	0				5NQN	60	J	VQN	45	69210469324	10	++++
80x25x12.7	01	-	-	-				•					•	•			39C	60	М	٧	45	66253051624	10	+++
	01	-	-	-				•					•	•			39C	60	М	٧	45	66253051623	10	+++
	01	-	-	-				•							•		37C	60	N	V	35	69936668764	10	+++
100x10x20	01	-	-	-	•						0	•			0		38A	60	М	VS	35	69936640015	1	+++
100x10x32	01	-	-	-	•								•	•			39C	80	L	VS	45	66253050380	2	+++
100x13x32	01	-	-	-	•						0	•			•		38A	60	L	VS	45	66253050409	1	+++
100x20x32	01	-	-	-	•						0	•			0		38A	60	L	VS	45	66253050413	1	+++
125x6x32	01	-	-	-		•					0	•			0		38A	60	L	VS	45	66253050440	2	+++
125x10x32	01	-	-	-	•						0	•			0		38A	60	L	VS	45	69936675731	1	+++
125x13x32	01	-	-	-	•				П		•	•					3SG	60	J	VX	45	66253050290	2	++++
125x16x32	01	-	-	-	•						0	•			•		38A	60	М	VS	45	66253050237	1	+++
	01	-	-	-	•				П				•	•			39C	80	L	VS	45	66253050393	2	+++
	01	-	-	-	•				П				•	•			39C	80	L	VS	45	69936667443	2	+++
	01	-	-	-			•		П			•					А	46	N	VS	45	69936675558	1	+++
125x20x32	01	-	-	-	•				П		0	•			0		38A	60	L	VS	45	69936675736	1	+++

HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc



#### **COLOUR CODE REFERENCE**

	U	LOUK CO	UL	DE REFERENCE									
		RAMIC ENDS		JMINIUM DE TYPES		SILICON CARBIDE TYPES							
TION		NQN BLEND		38A		39C							
		NQ BLEND		32A		37C							
		SG BLEND		19A									
				٨									

Recess/Inner Concave Diameter
Recess/Concave Depth A
Recess/Concave Depth B
Tools
Saw Sharpening
Bench Wheels
Internal Diameter

nternal Diameter xternal Diameter ourface digh Alloyed Steels & HSS

Inox Non-Ferrous & Carbide Cast Iron

Non-Ferrous & Cast Iron Abrasive Type Grit Size Grade

		Re	Rec	Rec	T00	Sav	Be	Inte	Ext Ext	Ξ	Sof	luo	No	Cas		Abı	Gri	Gra	Bor				
DIM DxTxH (mm)	SHAPE	Р	FA	FB		urrin irpen		Gri	inding		М	ateri	als		SP	ECIFICA	ATION			MOS (m/s)	ART NO.		QUALITY TIER
150x4x20	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936675591	1	+++
	01	-	-	-	•					0	•			0		38A	100	М	VS	45	69936640219	1	+++
150x4x30	01	-	-	-	•					0	•			•		38A	80	Ν	VS	45	69936639730	1	+++
150x4x32	01	-	-	-		•				0	•			•		38A	80	L	VS3	63	66243541079	5	++++
	01	-	-	-		•					•					19A	60	М	VS	63	69936674920	2	+++
	01	-	-	-	•							•	•			39C	120	Κ	VS	45	66253050248	2	+++
150x6x31.75	01	-	-	-			•			0	•			•		38A	80	L	VS	35	69936621582	1	+++
150x6x32	01	-	-	-		•				•	0					3SG	60	L	VX	45	66253055040	2	++++
	01	-	-	-		•				0	•			0		38A	60	L	VS	35	69936675741	2	+++
	01	-	-	-		•					•					19A	60	М	VS	63	69936675964	2	+++
	01	-	-	-		•							•			39C	120	K	VS	45	69936675617	2	+++
150x8x32	01	-	-	-	•					•	0					3SG	60	J	VX	45	66253055041	2	++++
150x8x32	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936675743	1	+++
	01	-	-	-	•					0	•			0		38A	120	J	VS	45	69936675748	1	+++
150x10x32	01	-	-	-	•					•	0					3SG	60	L	VX	45	66253050280	2	++++
	01	-	-	-	•					0	•			0		38A	60	М	VS	45	69936641112	1	+++
	01	-	-	-	•					0	•			0		38A	80	М	VS	45	66253050373	1	+++
	01	-	-	-	•					0	•			0		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	-	-	-			•			•	0	0				3SG	60	K	VS	50	69936622862	1	++++
	01	-	-	-			•					•	•			39C	60	K	VS	35	69936621564	1	+++
150x13x32	01	-	-	-	•					•	0					3SG	60	L	VX	45	66253050142	2	++++
	01	-	-	-	•					0	•			0		38A	60	L	VS	35	69936675757	1	+++
	01	-	-	-	•					0	•			0		38A	80	L	VS	45	69936675759	1	+++
	01	-	-	-	•					0	•			0		38A	120	J	VS	45	69936675760	1	+++
150x16x32	01	-	-	-	•					•	0					3SG	60	L	VX	45	66253050367	2	++++
	01	-	-	-	•					•	0					3SG	60	H12	VXP	45	69936677177	2	++++
	01	-	-	-	•					0	•			0		38A	46	L	VS	45	69936675763	1	+++
	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936675764	1	+++
	01	-	-	-	•					0	•			0		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	-	-	-	•					0	•			0		38A	60	K	VS3	63	66253353966	1	++++
	01	-	-	-			•					•	•			39C	60	K	VS	35	69936623474	1	+++
	01	-	-	-			•					•	•			39C	100	K	VS	35	69936623221	1	+++

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SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

PRODUCT RECOMMENDATION

Highly recommended Recommended

cess/Inner Concave Diameter h Alloyed Steels & HSS cess/Concave Depth A cess/Concave Depth B ernal Diameter ernal Diameter v Sharpening nch Wheels

1-Ferrous & Carbide asive Type

		Rece	Rece	Rece	Tools	Saw 9	Benc	Interi	Exter	Surfa	High	Soft 9	Nox	Non-	Cast		Abra	Grit 9	Grad	Bond				
DIM DxTxH (mm)	SHAPE	Р	FA	FB		ourrir arper		Gr	indin	g		Ма	ateria	als		SPE	ECIFICA	TION			MOS (m/s)	ART NO.		QUALITY TIER
150x20x32	01	-	-	-	•	İ					•	0					3SG	60	K	VX	45	66253050155	2	+++++
	01	-	-	-	•						•	•					SGB	100	J	VX	45	66253049895	2	++++
	01	-	-	-	•						0	•			0		38A	46	М	VS	45	66253050372	1	+++
	01	-	-	-	•						0	•			0		38A	60	L	VS	45	69936641391	1	+++
	01	-	-	-	•						0	•			0		38A	80	L	VS	45	69936639416	1	+++
	01	-	-	-	•						0	•			0		38A	100	J	VS	45	66243570493	1	+++
	01	-	-	-			•					•					А	36	Р	VS	45	69936641366	1	+++
	01	-	-	-			•					•					А	60	Ν	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	-	-	-	•						0	•			0		38A	60	K	VS	45	66253050452	1	+++
	01	-	-	-			•					•					А	36	Q	VS	45	66253050265	1	+++
	01	-	-	-			•					•					А	46	Ν	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	М	VS	63	66253052709	6	+++
180x6x31.75	01	-	-	-		•					0	•			0		38A	60	K	VS3	63	66253353968	2	++++
180x6x32	01	-	-	-			•				•	•					3SG	120	K	VS	35	69936676015	1	+++++
	01	-	-	-		•					0	•			0		38A	60	L	VS	45	69936675784	2	+++
180x10x32	01	-	-	-	•						0	•			0		38A	80	J	VS	45	69936675781	1	+++
180x13x31.75	01	-	-	-			•				•	•	0				3SG	46	K	VS	50	69936623227	1	+++++
	01	-	-	-			•				•	•	0				3SG	60	K	VS	50	69936623231	1	+++++
	01	-	-	-			•				•	•					SGB	46	K	VX	50	69936623240	1	++++
	01	-	-	-			•				•	•					SGB	60	K	VX	50	69936623255	1	++++
	01	-	-	-	•						0	•			0		38A	46	K	VS3	63	66253353972	1	++++
	01	-	-	-	•						0	•			0		38A	60	K	VS3	63	66253353974	1	++++
	01	-	-	-			•				0	•			0		38A	100	L	VS	35	69936623220	1	+++
	01	-	-	-			•						•	•			39C	100	J	VS	35	69936623248	1	+++
180x13x32	01	-	-	-	•						•	•	0				2NQN	46	ı	VS3	45	69210469326	2	+++++
	01	-	-	-	•						•	0					3SG	80	J	VX	45	66253054892	2	+++++
	01	-	-	-	•						•	0					3SG	120	J	VX	45	66253054874	2	++++
	01	-	-	-	•						•	•					SGB	60	J	VX	45	69936639148	2	++++
	01	-	-	-	•						0	•			0		38A	60	L	VS	45	69936675797	1	+++
	01	-	-	-	•						0	•			0		38A	80	L	VS	45	69936675801	1	+++
	01	-	-	-	•						0	•			0		38A	120	J	VS	45	69936675802	1	+++
180x16x32	01	-	-	-			•				•	0	0				3SG	60	H12	VXP	35	69936677179	1	++++
	01	-	-	-			•				•	•			0		38A	46	J	VS	35	69936675806	1	+++
	01	-	-	-	•						0	•			0		38A	60	K	VS	45	66253050453	1	+++



**COLOUR CODE REFERENCE** Recess/Inner Concave Diameter CERAMIC BLENDS ALUMINIUM OXIDE TYPES SILICON CARBIDE TYPES High Alloyed Steels & HSS Recess/Concave Depth A Recess/Concave Depth B Non-Ferrous & Carbide NQN BLEND 38A 37C 32A NQ BLEND External Diameter nternal Diameter Saw Sharpening SG BLEND 19A **3ench Wheels** Abrasive Type Α Soft Steels Surface Grit Size Grade Bond

		Re	Re	Re	To	Sa	Be	i	ËX	Su	Ξ̈́	So	<u>n</u>	ž	Ca		Ab	Gri	Gr	Во				
DIM DxTxH (mm)	SHAPE	Р	FA	FB		ourrii arpei		Gr	rindii	ng		М	ateria	als		SPI	ECIFICA	NOITA			MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
180x20x31.75	01	-	-	-			•				•	0	0				3SG	46	K	VS	50	69936623242	1	+++++
	05	100	6	-			•				•	0	0				3SG	60	J	VS	35	69936639808	1	+++++
	01	-	-	-			•				•	•					SGB	60	K	VX	50	69936623480	1	++++
	01	-	-	-			•				0	•			0		38A	46	L	VS	35	69936623312	1	+++
	01	-	-	-			•				0	•			0		38A	60	L	VS	35	69936623472	1	+++
	01	-	-	-			•						•	•			39C	60	K	VS	35	69936623477	1	+++
180x20x32	01	-	-	-			•				•	•	0				3SG	60	H12	VXP	35	66243593654	1	+++++
	01	-	-	-	•						•	•					SGB	46	H10	VXP	45	69936638723	2	++++
	01	-	-	-	•						•	0					SGB	60	K	VX	45	66253049878	2	++++
	01	-	-	-			•					•					А	46	Ν	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	-			•				•	0	0				3SG	46	K	VS	50	69936621519	1	++++
	05	105	13	-			•				•	0	0				3SG	60	K	VS	50	69936621570	1	+++++
	05	105	12	-	•						0	•			•		38A	46	K	VS3	63	66253354036	1	++++
	05	105	12	-	•						0	•			0		38A	60	K	VS3	63	66253354035	1	++++
180x25x32	01	-	-	-	•						0	•			0		38A	60	L	VS	45	69936675812	1	+++
	01	-	-	-			•					•					А	46	Ν	VS	45	69936675564	1	+++
	01	-	-	-	•								•	•			39C	60	K	VS	45	69936675667	2	+++
	01	-	-	-	•								•	•			39C	80	L	VS	45	69936667101	2	+++
200x2x32	01	-	-	-		•					0	•			•		38A	80	L	VS3	50	66243541085	5	++++
200x3x32	01	-	-	-		•					•	0					SGB	80	K	VS3	50	66253354588	5	++++
200x4x32	01	-	-	-		•					•	0					SGB	80	K	VS3	63	66243541087	5	++++
200x6x31.75	01	-	-	-			•				0	•			0		38A	120	ı	VS	35	69936640156	1	+++
200x6x32	01	-	-	-		•					•	0					SGB	60	K	VS3	63	66243541086	5	++++
	01	-	-	-		•					•	0					SGB	120	J	VX	45	69936677029	2	++++
	01	-	-	-		•					0	•			0		38A	80	N	VS	45	69936639662	2	+++
	01	-	-	-		•								•			39C	120	K	VS	45	69936675636	2	+++
200x8x32	001C	-	-	-		•					0	•			0		38A	60	L	VS3	35	69210431430	5	++++
200x10x32	01	-	-	-	•						•	0					SGB	60	J	VX	45	69936639157	2	++++
	01	-	-	-	•						•	0					SGB	80	J	VX	45	69936639158	2	++++
	01	-	-	-	•						0	•			0		38A	60	L	VS3	63	66253348277	1	++++
	01	-	-	-	•						0	•			0		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	-	-	-			•				•	0	0				3SG	46	K	VS	50	69936623236	1	++++
	01	-	-	-			•				•	0	0				3SG	60	K	VS	50	69936623241	1	++++
	01	-	-	-	İ	•					0	•			0		38A	120	ı	VS	35	69936641286	4	+++

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SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

#### PRODUCT RECOMMENDATION

- Highly recommended Recommended
- 0

cess/Inner Concave Diameter cess/Concave Depth A cess/Concave Depth B

aw Sharpening iench Wheels nternal Diameter xternal Diameter urface ligh Alloyed Steels & HSS

High Alloyed Steels & HSS Soft Steels Inox
Non-Ferrous & Carbide Cast Iron

Abrasive Type Grit Size Grade

DIM DxTxH									Sur	High	Soft	You!	Non	Cast		Abra	Grit	Grad	Bond				
(mm)	SHAPE	Р	FA	FB		urring irpenin		Grinding	3		Mate	erial	ls	S	PE	CIFICAT	TION			MOS (m/s)	ART NO.		QUALITY TIER
200x13x32	01	-	-	-	•					•	D					SGB	60	J	VX	45	69936639160	2	++++
(	01	-	-	-	•					•	D					SGB	120	J	VX	45	69936676608	2	++++
(	01	-	-	-	•					0			•	D		38A	60	L	VS3	63	66253348352	1	++++
(	01	-	-	-	•					0			•	D		38A	60	J	VS	45	69936675821	1	+++
(	01	-	-	-	•						•	•	•			39C	80	J	VS	45	69936676152	2	+++
200x16x76.2	01	-	-	-	•					0			•	D		38A	60	L	VS	45	69936675827	1	+++
200x20x20 0	01	-	-	-	•						•	•	•			39C	80	K	VS	45	69936641417	2	+++
(	01	-	-	-	•						•	•	•			39C	80	М	VS	45	69936640220	2	+++
200x20x31.75	01	-	-	-		•				•	D	D				3SG	46	K	VX	50	69936623774	1	+++++
(	01	-	-	-		•				•	D					SGB	70	H12	VXP	50	69936623902	1	++++
(	01	-	-	-	•					0			(	D		38A	46	K	VS3	63	66253354039	1	++++
(	01	-	-	-	•					0			•	D		38A	60	K	VS3	63	66253354038	1	++++
200x20x32	01	-	-	-	•					•	D	D				3NQN	46	J	VQN	45	69210469327	2	++++
(	01	-	-	-	•					•	D	O				2NQN	60	I	VS3	45	69210469328	2	+++++
(	01	-	-	-	•					•	D					3SG	60	H12	VXP	45	69936677181	2	++++
(	01	-	-	-	•					•	D					SGB	60	H10	VXP	45	69936639172	2	++++
(	01	-	-	-	•					•	D					SGB	46	Н	VX	45	69936639171	2	++++
(	01	-	-	-	•				-	•	D					SGB	60	K	VX	45	66253049887	5	++++
(	01	-	-	-	•				-	0	•		(	D		38A	46	N	VS	45	69936641400	1	+++
(	01	-	-	-	•					0	•		(	D		38A	46	K	VS	45	66253051075	1	+++
(	01	-	-	-	•					0	•		(	D		38A	60	N	VS	45	69936667154	1	+++
(	01	-	-	-		•	•			0	•		(	D		38A	60	L	VS	35	69936641402	1	+++
(	01	-	-	-	•				-	0	•		(	D		38A	60	K	VS	45	66253051077	1	+++
(	01	-	-	-	•					0	•		•	D		38A	80	K	VS	45	66253051080	1	+++
(	01	-	-	-		•					•					А	46	N	VS	45	69936641375	1	+++
(	01	-	-	-		•					•					А	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	-	-	-	•					•	D					3SG	60	J	VX	45	66253050362	2	++++
(	01	-	-	-	•				-	0	•		•	D		38A	46	K	VS	45	69936641104	2	+++
(	01	-	-	-		•	•		-	0	•		•	D		38A	60	J	VS	35	69936639462	1	+++
200x20x50.8	01	-	-	-	•				-	•	D					3SG	60	H12	VXP	45	66243593696	2	++++
	01	-	-	-	•					•	D					3SG	46	112	VXP	45	66253052711	2	++++
(	01	-	-	-						•	D					3SG	46	K	VS	50	69936623654	2	++++
(	01	-	-	-	•					0	•		(	D		38A	46	J	VS	45	69936675832	1	+++
(	01	-	-	-	•					0				D		38A	60	Н	VS	45	69936675834	1	+++
(	01	-	-	-	•					0				D	Ī	38A	60	K	VS	45	66253049967	1	+++

HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc



**COLOUR CODE REFERENCE** 

ALUMINIUM OXIDE TYPES CERAMIC BLENDS SILICON CARBIDE TYPES 39C NQN BLEND 38A 37C NQ BLEND 32A SG BLEND 19A

Α

ecess/Inner Concave Diameter igh Alloyed Steels & HSS ecess/Concave Depth A ecess/Concave Depth B aw Sharpening

Ion-Ferrous & Carbide xternal Diameter iternal Diameter ench Wheels

brasive Type puo

		Re	Rec	Rec	700	Sav	Ber	Ex Ex	Sur	Hig	Sof	lno	Š	Cas		Abı	Gri	Gra	Вог				
DIM DxTxH (mm)	SHAPE	Р	FA	FB		urring arpeni		Grindi	ng		M	ateri	als		SPI	ECIFICA	ATION			MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
200x20x51	01	-	-	-	•					•	0					SGB	60	J	VX	45	69936639251	2	++++
	01	-	-	-	•							•	•			39C	60	K	VS	45	69936640176	2	+++
200x20x76.2	01	-	-	-	•					•	0					3SG	46	Н	VX	45	66253050156	2	+++++
	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936675836	1	+++
200x25x20	01	-	-	-			•			0	•			0		38A	60	М	VS	35	69936641405	1	+++
	01	-	-	-			•					•	•			39C	80	K	VS	35	69936641422	1	+++
200x25x31.75	05	110	10	-			•			•	•	0				3SG	60	G	VSPF	35	69936640304	1	+++++
	05	105	13	-			•			•	0	0				3SG	60	K	VS	50	69936621575	1	+++++
	01	-	-	-			•					•	•			39C	60	K	VS	35	69936623912	1	+++
	01	-	-	-			•				•					А	36	Р	VS	35	69936623910	1	+++
	01	-	-	-	•						•					А	60	N	VS	35	69936623913	2	+++
	01	-	-	-			•					•	•			39C	100	K	VS	35	69936623599	1	+++
200x25x32	01	-	-	-	•					•	0					3SG	60	J	VX	45	66253054889	2	+++++
	01	-	-	-	•					•	0					SGB	60	K	VX	45	66253049888	2	++++
	01	-	-	-	•					0	•			0		38A	46	N	VS	45	69936641406	1	+++
	01	-	-	-	•					0	•			0		38A	46	L	VS	45	69936627127	1	+++
	01	-	-	-	•					0	•			0		38A	60	М	VS	45	66253051079	1	+++
	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936641407	1	+++
	01	-	-	-	•					0	•			0		38A	80	N	VS	45	69936675847	1	+++
	01	-	-	-	•					0	•			0		38A	80	K	VS	45	66253051082	1	+++
	01	-	-	-			•				•					А	24	R	VS	45	69936676374	1	+++
	01	-	-	-			•				•					А	30	Р	VS	45	69936641382	1	+++
	01	-	-	-			•				•					А	36	Р	VS	45	69936641383	1	+++
	01	-	-	-			•				•					А	46	М	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	-	-	-	•					0	•			0		38A	100	J	VS	45	66243570496	1	+++
	01	-	-	-	•		П					•	•			39C	100	J	VS	45	66253050375	2	+++
	01	-	-	-	•							•	•			39C	120	K	VS	45	69936641428	2	+++
200x25x50	05	110	10	-					•	•	•					3SG	60	Т	VS	35	69936639454	2	+++++
200x25x50.8	01	-	-	-	•					•	0					SGB	46	K	VX	45	66253050183	2	++++
200x25x51	01	-	-	-	•					0	•			0		38A	46	K	VS	45	66253051086	1	+++
	01	-	-	-	•					0	•			0		38A	60	L	VS	45	69936640125	1	+++

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 20 SHAPE 01C

#### PRODUCT RECOMMENDATION

Highly recommended

Decommended

O

Recess/Inner Concave Diamete
Recess/Concave Depth A
Recess/Concave Depth B
Tools
Saw Sharpening
Bench Wheels
Internal Diameter
External Diameter
Surface
High Alloyed Steels & HSS
Soft Steels
lnox
Non-Ferrous & Carbide
Cast Iron

Abrasive Type

DIM DxTxH (mm)	SHAP	ΕP	FA	FB		ring & pening	Grinding		Ма	ateria	ıls	S	SPECIFICA	TION			MOS (m/s)	ART NO.		QUALITY TIER
200x25x76.2	01	-	-	-	•	Jaming		0	•			D	38A	46	N	VS	45	69936675841	1	+++
	01	-	-	-	•			0	•			D	38A	46	L	VS	35	69936675842	1	+++
	01	-	-	-	•			0	•			D	38A	60	L	VS	35	69936675845	1	+++
	01	-	-	-		•			•				A	46	N	VS	45	69936675568	1	+++
	01	-	-	-	•			0	•			D	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	-	-	-	•			•	0				SGB	60	K	VX	45	66253049892	2	++++
	01	-	-	-	•			0	•			D	38A	46	М	VS	45	66253052712	1	+++
	01	-	-	-	•			0	•			D	38A	60	L	VS	45	69936675855	1	+++
	01	-	-	-		•			•				A	36	Р	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	-	-	-	•			0	•			D	38A	60	L	VS	45	69936640245	1	+++
200x32x76.2	01	-	-	-	•			0	•			D	38A	46	N	VS	45	69936675849	1	+++
	01	-	-	-	•			0	•			D	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	-	-	-	•			0	•			D	38A	46	ı	VS	45	69936681707	1	+++
225x5x60	01	-	-	-	•			0	•			D	38A	54	J	VS	45	69936675859	1	+++
225x20x51	01	-	-	-	•			•	0				3SG	60	H12	VXP	45	69936676452	2	++++
	01	-	-	-	•			•	0				SGB	60	Н	VX	45	69936640943	2	++++
	01	-	-	-	•			0	•			D	38A	46	I	VS	45	69936640871	1	+++
225x25x76.2	01	-	-	-	•			•	0				3SG	46	Н	VX	45	66243570377	2	++++
	01	-	-	-	•			•	0				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	-	-	-	•			0	•			D	38A	60	Н	VS	45	69936639829	1	+++
250x10x32	01	-	-	-	•			0	•			D	38A	60	М	VS	63	69936675931	1	+++
	01	-	-	-		D		0	•			D	38A	60	L	VS3	35	69210431945	5	++++
250x13x32	01	-	-	-	•			0	•			D	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	-	-	-	•			0	•			D	38A	60	L5	VS	45	66253049927	1	+++
	01	-	-	-		•			•	П			A	46	N	VS	45	69936641386	1	+++
	01	-	_	_	•					•			39C	80	L	VS	45	69936675679	1	+++



**COLOUR CODE REFERENCE** 

CERAMIC BLENDS ALUMINIUM OXIDE TYPES SILICON CARBIDE TYPES 39C NQN BLEND 38A 37C

NQ BLEND SG BLEND

32A 19A

Α

High Alloyed Steels & HSS Recess/Concave Depth A Recess/Concave Depth B Non-Ferrous & Carbide **External Diameter** Internal Diameter Saw Sharpening Bench Wheels

Soft Steels Surface

Abrasive Type

**Grit Size** 

Grade Bond

Recess/Inner Concave Diameter

DIM DxTxH (mm)	SHAPE	Р	FA	FB	Deburring & Sharpening	Grinding		Ма	ateri	als	SF	PECIFICA	TION			MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
250x25x76	01	-	-	-		0	•	•	0			2NQN	60	G	VS3	35	69210469332	1	++++
	01	-	-	-		•		•				32A	60	- 1	VS	35	69936639898	2	+++
250x25x76.2	01	-	-	-		0	•	0	0			2NQN	46	G	VS3	35	69210469333	1	++++
	01	-	-	-	•		•	•				3SG	46	K	VS	45	69936623668	1	++++
	01	-	-	-	•		•	0				3SG	54	F11	VXP	45	69936676054	1	++++
	01	-	-	-	•		•	0				3SG	60	K	VX	45	66253055045	1	++++
	01	-	-	-	•		•	0				SGB	46	K	VX	45	66253050124	1	++++
	01	-	-	-	•			•				SGB	60	K	VX	45	66253050126	1	++++
	01	-	-	-	•		•	•				SGB	70	H12	VXP	45	69936623901	1	++++
	01	-	-	-			•	•			0	38A	46	Κ	VS3	63	66253354041	1	++++
	01	-	-	-			•	•			0	38A	60	K	VS3	63	66253354040	1	++++
	01	-	-	-	•		•	•			0	38A	80	L	VS	45	69936623651	1	+++
250x32x32	01	-	-	-	•		•	0				SGB	60	K	VX	45	66253050162	1	++++
	01	-	-	-	•		•	•			0	38A	60	Ν	VS	45	69936667158	1	+++
	01	-	-	-	•			•				А	36	Р	VS	45	69936666943	1	+++
	01	-	-	-	•			•				А	60	М	VS	45	69936642130	1	+++
	01	-	-	-	•				•	•		39C	60	K	VS	45	69936639837	1	+++
	01	-	-	-	•				•	•		39C	80	K	VS	45	69936640845	1	+++
250x32x76.2	01	-	-	-			•	0				3SG	46	Н	VX	45	66253055046	1	++++
250x40x32	01	-	-	-	•			•				А	36	Q	VS	45	69936666945	1	+++
	01	-	-	-	•			•				А	60	Ν	VS	45	69936666946	1	+++
250x40x51	01	-	-	-		0					•	37C	60	K	VK	35	69210431004	3	+++
250x40x76	01	-	-	-		0	0	•			O	38A	46	L	VS3	35	69210432025	3	++++
	01	-	-	-		0	0	•			O	38A	60	L	VS3	35	69210431657	3	++++
250x40x76.2	01	-	-	-	•		•	0				3SG	46	1	VX	45	66253050259	1	++++
	01	-	-	-	•		•	0				3SG	46	G12	VXPC	45	69936676056	1	++++
300x25x127	01	-	-	-		•	•	0	0			3NQN	60	K	VQN	45	69210469335	1	++++
	01	-	-	-		•	•	0	0			2NQN	60	J	VS3	45	69210469336	1	++++
	01	-	-	-		•	•	0				3SG	46	K	VV1	50	69210469422	1	++++
	01	-	-	-		•	•	•				3SG	60	H12	VV1P	45	69210469625	1	++++
	01	-	-	-		•	0	•				SGA	46	K	VV1	50	69210469425	1	++++
	01	-	-	-		•		•				SGA	60	K	VV1	50	69210469426	1	++++
	01	-	-	-		•	•	•				SGB	60	K	VV1	45	69210469427	1	++++
	01	-	-	-		•	0	•				SGA	80	L	VV1	50	69210469428	1	++++
	01	-	-	-		•	0	•			O	38A	60	K	VS3	63	66253354042	2	++++
	01	-	-	-		•	0	•			O	38A	60	K	VV1	50	69210469429	1	++++
				_			1				. 1_								

HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc

38A

39C

39C

39C

VV1

٧S 45

٧S

Κ ٧S

120 K

50

45

35

69210469521

69936623687

69936640343

69936675646

01

01

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 01C

#### PRODUCT RECOMMENDATION

- Highly recommended Recommended
  - eu •

Recess/Inner Concave Diameter
Recess/Concave Depth A
Recess/Concave Depth B
Tools
Saw Sharpening

Bench Wheels
Internal Diameter
External Diameter
Surface
High Alloyed Steels & HSS
Soft Steels

High Alloyed Steels & Hi Soft Steels Inox Non-Ferrous & Carbide Cast Iron

Abrasive Type Grit Size Grade Bond

DIMPLET		<u>~</u>	~	<u>~</u>	≟ انظ			=	Ш	S	I	0,	<u> </u>	. 0			∢	9	9	- Ф	MCC		517	OLIALITY
DIM DxTxH (mm)	SHAPE	Р	FA	FB		burrir arper		Gr	rindin	g		Ma	terials		SF	PECI	IFICAT	ION			MOS (m/s)	ART NO.	QTY	QUALITY TIER
300x32x127	01	-	-	-						•	•	•				3	SG	60	K	VV1	50	69210469437	1	++++
	01	-	-	-						•	•	•				S	GB	46	F12	W1P	45	69210469626	1	++++
	01	-	-	-						•	•	•				S	GB	60	K	VV1	50	69210469439	1	++++
	01	-	-	-						•	•	•		0		38	8A	46	Н	VV1	50	69210469442	1	++++
	01	-	-	-						•	•	•		0		38	8A	60	L	VV1	50	69210469443	1	++++
	01	-	-	-			•					•				А		36	0	VS	45	69936675580	1	+++
	01	-	-	-			•					•				А		46	Ν	VS	45	69936675581	1	+++
300x32x32	01	-	-	-			•				0	•		0		38	8A	60	Ν	VS	45	69936639618	1	+++
	01	-	-	-	•						0	•		0		38	8A	60	K	VS	45	66253051100	1	+++
	01	-	-	-			•					•				Α		36	0	VS	45	69936675575	1	+++
300x32x76.2	01	-	-	-					0	•	0	•		0		3	8A	46	Н	VV1	50	69210469444	1	+++
300x40x30	01	-	-	-			•					•				Α		36	Р	VS	45	69936681734	1	+++
300x40x31.75	01	-	-	-			•					•				Α		36	0	VS	35	69936623686	1	+++
	01	-	-	-			•					•				А		46	Ν	VS	35	69936623703	1	+++
	01	-	-	-			•					•				А		60	Ν	VS	35	69936623724	1	+++
	01	-	-	-			•			Ì			•	)		3	9C	60	L	VS	35	69936623682	1	+++
300x40x32	01	-	-	-			•					•				А		46	Ν	VS	45	69936639682	1	+++
	01	-	-	-			•					•				А		60	М	VS	45	69936640221	1	+++
	01	-	-	-	•					Ì			•	)		3	9C	60	K	VS	45	69936639362	1	+++
	01	-	-	-	•								•			3	9C	80	K	VS	45	69936676387	1	+++
300x40x76	01	-	-	-					0	•	0	•		0		38	8A	60	K	VV1	50	69210469445	1	+++
300x40x76.2	01	-	-	-			•					•				Α		36	0	VS	45	69936675607	1	+++
300x40x127	01	-	-	-						•	•	•				3	SG	46	Н	VV1	50	69210469446	1	++++
	01	-	-	-						•	•	0				3	SG	60	K	VV1	50	69210469447	1	++++
	01	-	-	-						•	•	•				S	GB	46	G10	W1P	45	69210469651	1	++++
	01	-	-	-						•	•	0				S	GB	60	K	VV1	50	69210469448	1	++++
	05	190	12	-						•	0	•				S	GA	60	K	VV1	50	69210469449	1	++++
	01	-	-	-						•	0	•		0		3	8A	46	J	VV1	50	69210469450	1	++++
	01	-	-	-						•	0	•		0		3	8A	60	L	VV1	50	69210469451	1	++++
	05	190	12	-						•	0	•		0		38	8A	60	L	VV1	50	69210469452	1	++++
	05	190	12	-						•		•				19	9A	60	М	VV1	50	69210469453	1	++++
	01	-	-	-			•					•				А		36	0	VS	45	69936675584	1	+++
	01	-	-	-			•			Ì		•				А		46	Ν	VS	45	69936675585	1	+++
	01	-	-	-						•			•	)		3	9C	60	K	VS	45	69936675684	1	+++
	01	-	-	-						•			• •			3	9C	80	K	VS	45	69936675649	1	+++
300x50x32	01	-	-	-			•					•				A		36	0	VS	45	69936681823	1	+++
	01	-	-	-			•					•				А		60	N	VS	45	66243570484	1	+++
300x50x76.2	07	160	10	10						•	•	•				3:	SG	46	Н	VV1	50	69210469454	1	++++
	01	-	-	-					0	•	0	•		0		3	8A	46	ı	VV1	50	69210469455	1	++++

HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc



**COLOUR CODE REFERENCE** Recess/Inner Concave Diameter CERAMIC BLENDS ALUMINIUM OXIDE TYPES SILICON CARBIDE TYPES High Alloyed Steels & HSS Recess/Concave Depth A Recess/Concave Depth B Non-Ferrous & Carbide NQN BLEND 38A 37C 32A NQ BLEND **External Diameter** Internal Diameter Saw Sharpening 19A SG BLEND Bench Wheels Abrasive Type Α Soft Steels Surface **Grit Size** Grade Bond

Month   Mont	DIM D. T. II		<u>~</u>	~	~	ις α	= 4	J (	) I	S	드	Z	S	l	₹	G	G	В	MCC		DIC	OLIALITY
1		SHAPE	Р	FA	FB		Grin	ding		Ν	1ateria	ls		SP	ECIFICA	TION				ART NO.		
1	300x50x127	01	-	-	-			•	•	•					SGB	46	H11	W1P	45	69210469652	1	+++++
Section   Sect		01	-	-	-			•	•	•					SGB	46	G10	W1P	45	69210469627	1	+++++
355x50x172		01	-	-	-			•	0	•			•		38A	46	J	VV1	50	69210469456	1	+++++
1	350x50x127	01	-	-	-		•		0	•			0		38A	80	L	VS3	35	69210431072	2	++++
	355x25x127	01	-	-	-		•		•	C	)				3SG	60	L	VV1	50	69210469457	1	+++++
1		01	-	-	-		•		•	C					3SG	60	K	VV1	50	69210469458	1	+++++
1		01	-	-	-		•		0	•					SGA	46	J	VV1	50	69210469459	1	+++++
355x32x127 01		01	-	-	-		•		•	C					SGB	60	L	VV1	50	69210469460	1	+++++
1		01	-	-	-		•		0	•			0		38A	60	L	VV1	50	69210469461	1	+++++
1	355x32x127	01	-	-	-		•		•	C	•				2NQ	60	J	VS3	45	66253348373	1	+++++
355x40x127		01	-	-	-			•	•	C	)				SGB	54	E12	W1P	45	69210469658	1	++++
01		01	-	-	-		•		0	•			•		38A	60	L	VV1	50	69210469462	1	+++++
05	355x40x127	01	-	-	-		•		•	C					2NQ	46	G	VS3	45	66253348367	1	+++++
1		01	-	-	-		•		•	•					3SG	60	L	VV1	50	69210469463	1	+++++
1		05	215	13	-		•		•	•					3SG	60	K	VV1	50	69210469464	1	+++++
1		01	-	-	-		•		•	C					3SG	60	Κ	VV1	50	69210469465	1	+++++
1		01	-	-	-		•		•	•					SGB	46	J	VV1	50	69210469466	1	+++++
01		01	-	-	-			•	•	C					SGB	46	G10	W1P	45	69210469628	1	+++++
01		05	215	13	-		•		0	•					38A	60	L	VV1	50	69210469467	1	+++++
01		01	-	-	-		•		0	•	•		0		38A	46	J	VV1	50	69210469468	1	+++++
01		01	-	-	-		•		0	•			0		38A	60	L	VV1	50	69210469469	1	+++++
01		01	-	-	-					•					А	24	Q	VS	45	69936675586	1	+++
355x50x127		01	-	-	-					•					А	46	Ν	VS	45	69936675587	1	+++
01		01	-	-	-		•					•			39C	60	K	VS	45	69936675685	1	+++
01 0	355x50x127	01	-	-	-		•		•	C	•				3NQ	46	Н	VQN	45	66253262049	1	+++++
01 0		01	-	-	-		•		•	C	•				2NQ	46	G	VS3	45	66253348366	1	++++
01 0		01	-	-	-		•		•	C	)				3SG	46	J	VV1	50	69210469470	1	++++
01 0		01	-	-	-			•	•	•	)				3SG	46	F12	W1P	45	69210469634	1	+++++
01 0		01	-	-	-		•		•	C	)				SGB	46	J	VV1	50	69210469471	2	+++++
01 0		01	-	-	-			•	0	•	•				SGA	54	G12	W1P	50	69210469635	1	+++++
01 0		01	-	-	-			•	•	•					SGB	54	G10	W1P	45	69210469632	1	+++++
01 0		01	-	-	-		•		•	C					SGB	60	K	VV1	50	69210469472	1	+++++
01 0		01	-	-	-		•		0	•			•		38A	46	K	VV1	50	69210469473	1	+++++
07 190 12 13		01	-	-	-		•		0	•			0		38A	46	- 1	VV1	50	69210469474	1	+++++
01 0		01	-	-	-		•		0	•			•		38A	60	L	VV1	50	69210469475	1	++++
01		07	190	12	13		•		0	•	)		•		38A	60	L	VV1	50	69210469476	1	++++
400x25x127 01 D ● D SGB 60 K W1 50 69210469478 1 +++++		01	-	-			•		0	•			•		38A	60	K	VV1	50	69210469477	1	+++++
		01	-	-	-					•					А	36	0	VS	45	69936675589	1	+++
400x50x127 01   <b>● ● ● ● ● ■</b> 38A 60 L VS3 45 69210431108 1 ++++	400x25x127	01	-	-	-		•		•	C					SGB	60	K	VV1	50	69210469478	1	++++
	400x50x127	01	-	-	-		•		0	•			•		38A	60	L	VS3	45	69210431108	1	++++

### **BONDED ABRASIVES FOR PRECISION GRINDING**

SHAPE 01 SHAPE 05 SHAPE 07 SHAPE 20 SHAPE 20 SHAPE 01C

cess/Inner Concave Diameter
cess/Concave Depth A
cess/Concave Depth B
sls
w Sharpening
nch Wheels
ernal Diameter
ternal Diameter
face
ih Alloyed Steels & HSS
tt Steels

External Diameter
Surface
High Alloyed Steels & H's
Soft Steels
Inox
Non-Ferrous & Carbide
Cast Iron
Abrasive Type
Grit Size
Grade

		Recess	Recess	Recess	Tools	Saw Sh	Bench	Interna	Externa	Surface	High Al	Soft Ste	nox	Non-Fe	Cast Iro		Abrasiv	Grit Siz	Grade	Bond				
DIM DxTxH (mm)	SHAP	PE P	FA	FB		urrin		Gr	indii	ng		Ma	ateria	als		SPE	ECIFICAT	ΓΙΟΝ			MOS (m/s)	ART NO.		QUALITY TIER
400x50x203	01	-	-	-					•		0	•			•		38A	60	L	VS3	45	69210431757	1	++++
406x25x127	01	-	-	-					•	•	•	0					3SG	60	L	VV1	50	69210469479	1	+++++
	01	-	-	-						•	0	•					SGA	80	110	VV1P	50	69210469637	1	++++
	01	-	-	-					0	•	0	•			•		38A	60	L	VV1	50	69210469480	1	++++
406x32x127	01	-	-	-					0	•	0	•			•		38A	60	L	VV1	50	69210469481	1	+++++
406x40x127	01	-	-	-					0	•	•	0					3SG	60	L	VV1	50	69210469482	1	++++
	01	-	-	-					•	•	•	0					SGB	60	K	VV1	50	69210469483	1	++++
	20	215	8	-					•	•	0	•					GF	60	K	VX	50	66243469015	1	++++
	01	-	-	-					•	•	0	•			•		38A	60	J	VS3	45	66253348356	1	++++
	20	215	13	-					•	•	0	•			•		38A	60	Ν	VS	35	66243448167	1	+++
	05	215	13						•	•	0	•			•		38A	60	М	VV1	50	69210469484	1	+++++
	05	215	13	-					•	•		•					32A	60	K	VV1	50	69210469485	1	+++++
	05	215	13	-					•	•			•	•			39C	60	J	VS	50	66243468572	1	+++
	01	-	-	-					0	•			•	•			39C	80	K	VS	45	66243466414	1	+++
406x50x127	01	-	-	-					0	•	•	•					3SG	46	Н	VV1	50	69210469486	1	+++++
	01	-	-	-						•	•	0					5SG	46	G12	VV1P	45	69210469677	1	+++++
	05	215	13	-					0	•	•	0					3SG	46	I	VV1	50	69210469487	1	+++++
	05	215	13	-						•	•	0					3SG	46	F12	VV1P	35	69210469679	1	+++++
	01	-	-	-						•	•	0					3SG	54	F12	VV1P	45	69210469681	1	+++++
	05	215	13	-						•	•	0					3SG	54	E12	VV1P	35	69210469682	1	+++++
	05	215	13	-						•	•	•					3SG	54	D12	VV1P	35	69210469683	1	+++++
	20	215	13	-					0	•	•	•					3SG	60	K	VS	35	66243448204	1	+++++
	05	215	13	-						•	0	•					SGB	54	E12	VV1P	35	69210469659	1	++++
	01	-	-	-						•	•	0					SGB	46	G10	VV1P	45	69210469645	1	++++
	01	-	-	-					0	•	•	0					SGB	46	Н	VV1	50	69210469488	1	++++
	05	215	13	-						•	•	0					SGB	46	F12	VV1P	35	69210469660	1	++++
	01	-	-	-					0	•	•	0					SGB	60	K	VV1	50	69210469489	1	++++
	01	-	-	-						•	0	•					SGA	80	110	VV1P	50	69210469661	1	++++
	05	215	13	-					0	•	0	•					SGB	46	I	VV1	50	69210469490	1	+++++
	05	215	13	-						•	0	•					SGB	46	F12	VV1P	45	69210469684	1	++++
	05	215	13	-					0	•	0	•					SGB	60	L	VV1	50	69210469491	1	++++
	20	215	8	-					0	•	0	•					GF	60	L	VX	50	66243468989	1	++++
	20	215	8	-					0	•	0	•					GF	60	K	VX	50	66243468991	1	++++
	01	-	-	-						•	0	•			•		38A	46	111	VV1P	45	69210469685	1	++++
	05	215	13	-					0	•	0	•			•		38A	46	I	VV1	50	69210469492	1	+++++
	05	215	13	-						•	0	•			•		38A	46	F12	VV1P	45	69210469663	1	++++
	20	215	13	-					0	•	0	•			0		38A	60	K	VS	35	66243448201	1	+++
	20	215	13	-					•	•	0	•			•		38A	60	М	VS	35	66243448116	1	+++
	05	215	13	-					•	•		•					32A	46	J	VV1	50	69210469493	1	++++
	05	215	13	-					•	•		•					32A	46	I	VV1	50	69210469494	1	+++++
	05	215	13	-						•		•					32A	46	F12	VV1P	45	69210469676	1	+++++
	01	-	-	-			•					•					Α	24	Q	VS	45	66243467496	1	+++



### **COLOUR CODE REFERENCE**

CERAMIC BLENDS

ALUMINIUM OXIDE TYPES

SILICON CARBIDE TYPES

NQN BLEND NQ BLEND SG BLEND

38A 32A 19A

Α

39C 37C

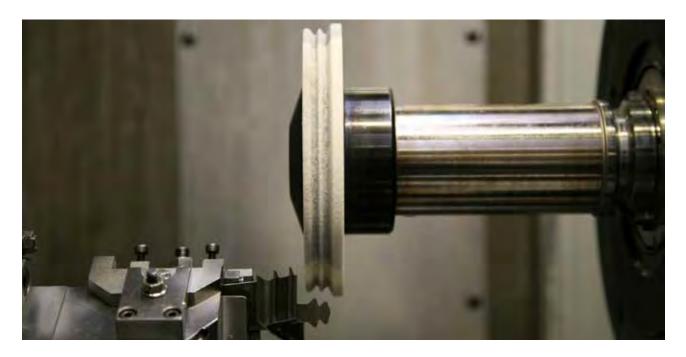
Recess/Inner Concave Diameter Recess/Concave Depth A Recess/Concave Depth B

**External Diameter** Internal Diameter Saw Sharpening Bench Wheels

High Alloyed Steels & HSS Non-Ferrous & Carbide Soft Steels Surface

Abrasive Type **Grit Size** Grade Bond

| SHAP | ΕP  | FA   | FB  |  |   | Grin   | ding   |   | Ma  
   
  | ateria   | als   | SP  | ECIF  
   | ICATIO  | NC  |  |  
  | MOS<br>(m/s)   | ART NO.   
   |  |   | QUALITY<br>TIER  |
|------|---|--|---|--|---|--|--|---
--
--|--|---|---
--
---|---|---|--
---|--
---|--|---|--|
| 07   | 215   | 12   | 12  |  |   |  | •  |   | •   
   
  |  |   |   | SG  
   | В   | 46  | F12  | W1P  
  | 45   | 69210469689   
   |  | 1   | ++++   |
| 20   | 215   | 13   | -   |  |   | •  | •  | •   | •   
   
  |  |   |   | GF  
   |   | 60  | L  | VX   
  | 50   | 66243468993   
   |  | 1   | ++++   |
| 07   | 215   | 12   | 25  |  |   |  | •  | •   | •   
   
  |  |   |   | 350   
   | G   | 54  | E12  | W1P  
  | 45   | 69210469690   
   |  | 1   | ++++   |
| 07   | 215   | 12   | 25  |  |   |  | •  | •   | •   
   
  |  |   |   | SG  
   | В   | 46  | F12  | W1P  
  | 45   | 69210469691   
   |  | 1   | ++++   |
| 07   | 215   | 13   | 25  |  |   | •  | •  | 0   | •   
   
  |  |   |   | SG  
   | В   | 46  | I  | VV1  
  | 35   | 69210469495   
   |  | 1   | ++++   |
| 07   | 215   | 13   | 25  |  |   |  | •  | 0   | •   
   
  |  |   |   | SG  
   | В   | 46  | F12  | W1P  
  | 45   | 69210469692   
   |  | 1   | ++++   |
| 07   | 215   | 12   | 25  |  |   |  | •  | 0   | •   
   
  |  | (   |   | 38/   
   | Δ .   | 46  | F  | VV1  
  | 50   | 69210469693   
   |  | 1   | ++++   |
| 07   | 215   | 12   | 25  |  |   | (  | •  |   | •   
   
  |  |   |   | 32/   
   | Д   | 46  | ı  | VV1  
  | 50   | 69210469687   
   |  | 1   | ++++   |
| 07   | 220   | 15   | 15  |  |   |  | •  | •   | •   
   
  |  |   |   | 350   
   | G   | 54  | E12  | VXP  
  | 35   | 66243449287   
   |  | 1   | ++++   |
| 07   | 220   | 15   | 15  |  |   |  | •  | 0   | •   
   
  |  |   |   | GF  
   |   | 46  | 1  | VX   
  | 35   | 66243449285   
   |  | 1   | ++++   |
| 20   | 215   | 8  | -   |  |   | •  | •  | 0   | •   
   
  |  |   |   | GF  
   |   | 60  | L  | VX   
  | 50   | 66243468995   
   |  | 1   | ++++   |
| 01   | -   | -  | -   |  |   | •  | •  | 0   | •   
   
  |  | •   |   | 38/   
   | Д   | 60  | L  | VS   
  | 45   | 66243466558   
   |  | 1   | +++  |
| 20   | 215   | 13   | -   |  |   | (  | •  | •   | •   
   
  |  | (   |   | 38/   
   | Д   | 60  | М  | VS   
  | 50   | 66243448676   
   |  | 1   | +++  |
| 01   | -   | -  | -   |  |   | •  | •  | 0   | •   
   
  |  |   |   | SG  
   | Α   | 60  | K  | VX   
  | 50   | 61463694560   
   |  | 1   | ++++   |
| 20   | 215   | 13   | -   |  |   | (  | •  | 0   | •   
   
  |  |   |   | GF  
   |   | 60  | L  | VX   
  | 50   | 66243468996   
   |  | 1   | ++++   |
| 07   | 290   | 13   | 13  |  |   |  | •  | •   | •   
   
  |  |   |   | SG  
   | В   | 46  | F12  | VXP  
  | 35   | 66243468578   
   |  | 1   | ++++   |
| 07   | 280   | 13   | 13  |  |   |  | •  | 0   | •   
   
  |  |   |   | GF  
   |   | 46  | F12  | VXP  
  | 35   | 66243469018   
   |  | 1   | ++++   |
| 01   | -   | -  | -   |  |   |  | •  | •   | •   
   
  |  |   |   | 350   
   | G   | 60  | K  | VX   
  | 45   | 66253055088   
   |  | 1   | ++++   |
| 01   | -   | -  | -   |  |   |  | •  | 0   | •   
   
  |  |   |   | SG  
   | Α   | 80  | 110  | VXP  
  | 50   | 61463699663   
   |  | 1   | ++++   |
| 01   | -   | -  | -   |  |   |  | •  | 0   | •   
   
  |  | (   |   | 38/   
   | Д   | 60  | L  | VS   
  | 35   | 66243466565   
   |  | 1   | +++  |
| 20   | 290   | 10   | -   |  |   |  |  | •   | •   
   
  |  |   |   | SG  
   | В   | 60  | K  | VX   
  | 50   | 66243468575   
   |  | 1   | ++++   |
|      | 07 20 07 07 07 07 07 07 07 07 20 01 20 01 20 07 07 07 01 01 | 07 215 20 215 07 215 07 215 07 215 07 215 07 215 07 215 07 220 07 220 20 215 01 - 20 215 07 290 07 280 01 - 01 - | 07         215         12           20         215         13           07         215         12           07         215         13           07         215         13           07         215         12           07         215         12           07         215         12           07         220         15           20         215         8           01         -         -           20         215         13           01         -         -           20         215         13           01         -         -           20         215         13           01         -         -           20         215         13           01         -         -           01         -         -           01         -         -           01         -         -           01         -         -           01         -         -           01         -         -           01         -         -  < | 20         215         13         -           07         215         12         25           07         215         12         25           07         215         13         25           07         215         12         25           07         215         12         25           07         220         15         15           20         215         8         -           01         -         -         -           20         215         13         -           01         -         -         -           20         215         13         -           01         -         -         -           20         215         13         -           07         290         13         13           07         280         13         13           07         280         13         13           01         -         -         -           01         -         -         -           01         -         -         -           01         -         - | SHAPE         FA         FB         Shar           07         215         12         12           20         215         13         -           07         215         12         25           07         215         12         25           07         215         13         25           07         215         13         25           07         215         12         25           07         215         12         25           07         220         15         15           07         220         15         15           20         215         8         -           01         -         -         -           20         215         13         -           01         -         -         -           20         215         13         -           07         290         13         13           07         280         13         13           07         280         13         13           01         -         -         -           01         -         < | SHAPE         FA         FB         Sharpening           07         215         12         12            20         215         13             07         215         12         25            07         215         12         25            07         215         13         25            07         215         12         25            07         215         12         25            07         220         15         15            07         220         15         15            20         215         8             01         -         -             20         215         13         -            01         -         -             20         215         13         -            07         290         13         13            07         280         13         13 | 07         215         12         12         12         12         12         12         12         12         13         14         14         15         14         15         14         15         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         17         17         17         17         17         17         17         17         17         17         17         17 | OT         215         12         12         Sharpening         Grinding           07         215         12         12         •         •         •           07         215         12         25         •         •         •           07         215         12         25         •         •         •           07         215         13         25         •         •         •           07         215         12         25         •         •         •           07         215         12         25         •         •         •           07         220         15         15         •         •         •           07         220         15         15         •         •         •         •           01         -         -         -         •         •         •         •           20         215         13         -         •         •         •           20         215         13         -         •         •         •           20         215         13         -         •         • | SHAPE         FA         FB         Sharpening         Grinding           07         215         12         12 <td< td=""><td>OT         215         12         12         Sharpening         Grinding         M           20         215         12         12  &lt;</td><td>O7         215         12         12         Sharpening         Grinding         Materia           20         215         12         12         ●</td><td>OT         215         12         12         Sharpening         Grinding         Materials           20         215         12         12         •</td><td>OT         215         12         12         12         0<!--</td--><td>OT         215         12         12         Sharpening         Grinding         Materials         SPECIFICATION           20         215         12         12         ■         ●         ●         ●         ■     
   ■         ■</td><td>OFFICIAL PRINCIPLE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         □</td><td>OT         215         12         12         12         12         0</td><td>OFFICIAL PRINCIPLE         FRATE         FRATE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         0         <td< td=""><td>O7         215         12         12         Image: square sq</td><td>O7         215         12         12         12         12         12         12         12         12         12         15         12         12         12         15         12         12         15         13         -         10         0<td>O7         215         12         12         12         12         12         12         13         2         10         &lt;</td><td>O7         215         12         12         12         12         12         13         -         1         6         0         6         1         SGB         46         F12         VVIP         45         69210469689           20         215         13         -         0</td><td>OTY         PA         PS         ART NO.         OTY           07         215         12         12         1         0      
  0         0         0         0         0         0         0         0         0</td></td></td<></td></td></td<> | OT         215         12         12         Sharpening         Grinding         M           20         215         12         12  < | O7         215         12         12         Sharpening         Grinding         Materia           20         215         12         12         ● | OT         215         12         12         Sharpening         Grinding         Materials           20         215         12         12         • | OT         215         12         12         12         0 </td <td>OT         215         12         12         Sharpening         Grinding         Materials         SPECIFICATION           20         215         12         12         ■         ●         ●         ●         ■</td> <td>OFFICIAL PRINCIPLE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         □</td> <td>OT         215         12         12         12         12         0</td> <td>OFFICIAL PRINCIPLE         FRATE         FRATE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         0         <td< td=""><td>O7         215         12         12         Image: square sq</td><td>O7         215         12         12         12         12         12         12         12    
    12         12         15         12         12         12         15         12         12         15         13         -         10         0<td>O7         215         12         12         12         12         12         12         13         2         10         &lt;</td><td>O7         215         12         12         12         12         12         13         -         1         6         0         6         1         SGB         46         F12         VVIP         45         69210469689           20         215         13         -         0</td><td>OTY         PA         PS         ART NO.         OTY           07         215         12         12         1         0</td></td></td<></td> | OT         215         12         12         Sharpening         Grinding         Materials         SPECIFICATION           20         215         12         12         ■         ●         ●         ●         ■ | OFFICIAL PRINCIPLE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         □ | OT         215         12         12         12         12         0 | OFFICIAL PRINCIPLE         FRATE         FRATE         Sharpening         Grinding         Materials         SPECIFICATION           07         215         12         12         0 <td< td=""><td>O7         215         12         12         Image: square
square sq</td><td>O7         215         12         12         12         12         12         12         12         12         12         15         12         12         12         15         12         12         15         13         -         10         0<td>O7         215         12         12         12         12         12         12         13         2         10         &lt;</td><td>O7         215         12         12         12         12         12         13         -         1         6         0         6         1         SGB         46         F12         VVIP         45         69210469689           20         215         13         -         0</td><td>OTY         PA         PS         ART NO.         OTY           07         215         12         12         1         0</td></td></td<> | O7         215         12         12         Image: square sq | O7         215         12         12         12         12         12         12         12         12         12         15         12         12         12         15         12         12         15         13         -         10         0 <td>O7         215         12         12         12         12         12         12         13         2         10         &lt;</td> <td>O7         215         12         12         12         12         12         13         -         1         6         0         6         1         SGB         46         F12         VVIP         45         69210469689           20         215         13         -         0     
   0         0         0         0         0         0         0         0</td> <td>OTY         PA         PS         ART NO.         OTY           07         215         12         12         1         0</td> | O7         215         12         12         12         12         12         12         13         2         10         < | O7         215         12         12         12         12         12         13         -         1         6         0         6         1         SGB         46         F12         VVIP         45         69210469689           20         215         13         -         0 | OTY         PA         PS         ART NO.         OTY           07         215         12         12         1         0 |



HSS = High Speed Steel

Steel hardened = Over 50Rc

Steel soft = Up to 50Rc



### **SHAPE KEY**

SHAPE 06 SHAPE 11

### PRODUCT RECOMMENDATION

Highly recommended Recommended

D

Rim Width
Back Thickness
Tools
Saw Sharpening
Bench Wheels
Internal Diameter
External Diameter
Surface
High Alloyed Steels & HSS
Soft Steels
Inox
Non-Ferrous & Carbide
Cast Iron
Abrasive Type
Grit Size

DIM DxTxH (mm)	SHAPE	W	Е	Deburring & Sharpening	Grinding		Mat	erials		SPI	ECIFI	CATI	ON		MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
63x40x20	6	10	10	•	•	0	•		0		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	•	•	0	•		0		38A	60	L	VS3	63	66253348323	6	++++
	6	8	8	•	•	0	•		0		38A	60	J	VS3	63	66253348289	6	++++
80x40x32	6	10	10		•	•	•		0		38A	46	J	VS3	45	66253348326	10	++++
100x40x20	11	8	10	•		•	•				3SG	60	K	VX	45	66253050110	2	++++
	11	8	10			0	•		0		38A	60	K	VS	45	69936686170	2	+++
	11	8	10	•		0	•		0		38A	60	L	VS	45	69936688495	2	+++
100x40x31.75	11	6	13	•		•	•				3SG	60	K	VS	32	69936624043	2	++++
	11	6	13	•		0	•		0		38A	46	J	VS3	35	66253358217	2	++++
	11	6	13	•		0	•		0		38A	60	J	VS3	35	66253358216	2	++++
	11	6	13	•		0	•		0		38A	60	J	VS3	32	66253348630	2	++++
100x40x32	11	13	13	•		•	•	0			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



gh Alloyed Steels & HSS **COLOUR CODE REFERENCE** on-Ferrous & Carbide CERAMIC BLENDS ALUMINIUM OXIDE TYPES SILICON CARBIDE TYPES
39C aw Sharpening tench Wheels nternal Diameter xternal Diameter NQN BLEND 38A rasive Type 32A 37C NQ BLEND SG BLEND 19A Α

			Rim	Back	Tool	Saw Bend	Inter	Exte	Surf	ngin o	Soft	X K	Cast		Abra	Grit	Grad	Bonc		A		
1		SHAPE	W	Е				rindin	g		Mate	erials		SP	ECIFI	CAT	ION			ART NO.		
1	100x50x20	6	10	13	•				0		D		Г		3SG	80	L	VX	45	66253049966	2	+++++
1   1   1   1   1   1   1   1   1   1		6	10	10	•				0		D				3SG	60	J	VX	45	66253050069	2	++++
1		6	8	10	•				0		D				SGB	60	K	VX	45	69936641284	2	++++
100.690.42   6   10   10   0   0   0   0   0   0   0		6	10	10	•				0	D	•		0		38A	60	J	VS3	45	66253348327	2	++++
100450x32		6	10	10	•				0	D	•		0		38A	60	I	VS3	45	66253348629	2	++++
1		6	10	13	•				0	D	•		0		38A	80	J	VS3	45	66253348324	2	++++
6		6	10	10	•				0	D	•		0		38A	120	18	VS3	45	66253358793	2	++++
6		6	10	10	•				0	D			0		38A	46	K	VS	45	69936644193	2	+++
100x50x32		6	10	13	•				0	D			0		38A	60	L	VS	45	69936639450	2	+++
6		6	10	13	•				0	D			0		38A	60	М	VS	45	69936639460	2	+++
100x50x32		6	10	10	•				0	D			0		38A	80	J	VS	45	69936639600	2	+++
125x40x31.75		6	10	13	•				•			•			39C	80	J	VS	45	69936640131	2	+++
125x40x31.75	100x50x32	6	10	10	•				0		D				3SG	60	K	VX	45	66253050073	2	+++++
11		6	10	10	•				0	D			0		38A	60	K	VS	45	69936674859	2	+++
125x40x32	125x40x31.75	6	13	13	•				0	D			0		38A	60	J8	VS3	45	66253358795	2	++++
11		11	8	10	•					D			0		38A	60	J6	VS3	35	66253358219	2	++++
11 8 10	125x40x32	11	8	10	•						D				SGB	46	J	VX	45	69936682429	2	++++
125x45x20 111 6 13		11	8	10	•				•	D	D		0		38A	46	K	VS	45	69936686175	2	+++
11 6 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		11	8	10	•					D	•		0		38A	60	K	VS	45	69936686176	2	+++
125x50x32	125x45x20	11	6	13	•						D				3SG	46	K	VX	45	66253055954	2	+++++
6 13 13 0 0 0 0 0 38A 46 K VS 45 6936674867 2 +++  125x63x32 6 10 13 0 0 0 0 0 38A 60 L VS 45 6936639992 2 +++  125x63x32 6 10 13 0 0 0 0 0 38A 60 L VS 45 6936640579 2 +++  150x40x32 6 16 13 0 0 0 0 0 38A 46 H VS 45 6936640579 2 +++  150x50x32 6 16 16 13 0 0 0 0 0 38A 60 K VS 45 6936674872 2 +++  150x50x32 6 16 16 16 0 0 0 0 38A 60 K VS 45 6936674875 2 +++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6936674875 2 +++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6936674875 2 +++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6625050068 2 ++++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6625050076 2 ++++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6625050076 2 ++++  11 10 13 0 0 0 0 0 38A 60 K VS 45 6936674879 2 ++++  150x50x65 6 16 16 0 0 0 0 38A 60 K VS 45 6936674879 2 ++++  150x60x32 6 10 16 0 0 0 0 38A 60 K VS 45 6936639480 2 ++++  150x60x32 6 10 16 0 0 0 0 38A 60 K VS 45 6936639798 2 ++++  150x60x32 6 10 16 0 0 0 0 38A 60 L VS 45 6936639798 2 ++++  150x60x32 6 10 16 0 0 0 0 38A 60 L VS 45 6936639798 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936639798 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936639798 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++  150x60x32 6 16 16 16 0 0 0 0 0 0 38A 60 L VS 45 6936640369 2 ++++		11	6	13	•						D				SGB	60	K	VX	45	69936686736	2	++++
6 10 13	125x50x32	6	13	13	•				0		D				SGB	60	J	VX	45	66253050075	2	++++
125x63x32		6	13	13	•				0	D	•		0		38A	46	K	VS	45	69936674867	2	+++
6 25 16 0 0 0 0 38A 46 H VS 45 69936674872 2 +++  150x50x32 6 16 13 0 0 0 0 38A 60 K VS 45 69936674875 2 +++  150x50x32 6 16 16 0 0 0 0 38A 60 K VX 45 66253050068 2 ++++  11 10 13 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		6	10	13	•				0	D (	•		0		38A	60	L	VS	45	69936639992	2	+++
150x40x32	125x63x32	6	10	13	•				0		D				SGB	60	K	VX	45	69936640579	2	++++
6 16 13		6	25	16	•				•			•			39C	60	J	V	45	69936668305	2	+++
150x50x32	150x40x32	6	16	13	•				0	D	D		0		38A	46	Н	VS	45	69936674872	2	+++
11 10 13		6	16	13	•				0	D	•		0		38A	60	K	VS	45	69936674875	2	+++
6 16 16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	150x50x32	6	16	16	•				0		D				3SG	46	K	VX	45	66253050068	2	++++
11 10 13		11	10	13	•						D				SGB	46	J	VX	45	66253050133	2	++++
11 10 13		6	16	16	•				0		D				SGB	60	K	VX	45	66253050076	2	++++
6 16 16		11	10	13	•						D				SGB	60	K	VX	45	66253050134	2	++++
11 10 13		11	10	13	•					D	•		0		38A	46	K	VS	45	69936686177	2	+++
150x50x65		6	16	16	•				0	D	•		0		38A	60	K	VS	45	69936674879	2	+++
6 20 16		11	10	13	•					D	•		0		38A	60	K	VS	45	69936682576	2	+++
150x60x32 6 10 16	150x50x65	6	20	16	•				0	D	•		0		38A	60	L	VS	45	69936639480	2	+++
150x63x32 6 13 13 ●		6	20	16	•				•		•	•	,		39C	80	J	VS	32	69936639798	2	+++
6 16 16	150x60x32	6	10	16	•				0		D				SGB	54	K	VX	45	66253050099	2	++++
6       16       16       0       0       0       0       38A       46       J       VS       45       69936674881       2       +++         150x63x50.8       6       16       16       0       0       0       0       SGB       36       H       VX       45       66253050080       2       ++++	150x63x32	6	13	13	•				0		D				SGB	46	J	VX	45	66253054727	2	++++
150x63x50.8 6 16 16 ● ● ● ● SGB 36 H VX 45 66253050080 2 ++++		6	16	16	•				0	D			0		38A	36	I	VS	45	69936640369	2	+++
		6	16	16	•				0	D			0		38A	46	J	VS	45	69936674881	2	+++
6 16 16 • • • • • • • SGB 60 J VX 45 66253050082 2 ++++	150x63x50.8	6	16	16	•				0		D				SGB	36	Н	VX	45	66253050080	2	++++
		6	16	16	•				0		D				SGB	60	J	VX	45	66253050082	2	++++

### **BONDED ABRASIVES FOR PRECISION GRINDING**

### PRODUCT RECOMMENDATION

Highly recommended Recommended

# Back Thickness

External Diameter nternal Diameter Saw Sharpening Bench Wheels

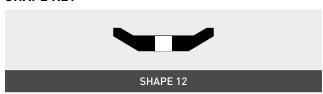
High Alloyed Steels & HSS Inox Non-Ferrous & Carbide Soft Steels

Abrasive Type Grit Size

		<u>~</u>	ä	Ss. A	E U S	王	Š	2	ٽ خ		¥	ō	Ģ	ĕ				
DIM DxTxH (mm)	SHAPE	W	Е	Deburring & Sharpening	Grinding		Ma	aterials	5	SP	ECIFI	CATI	ION		MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
150x80x32	6	20	20		•		•				SGB	46	Н	VX	45	66253050096	2	++++
	6	20	20		•		•				SGB	46	G10	VXP	45	69936676357	2	++++
	6	20	20	•	•	•	•		0		38A	46	Н	VS	45	69936674905	2	+++
	6	20	20	•	0	0	•		0		38A	46	I	VS	45	69936658606	2	+++
165x63x32	6	10	13	•	•	0	•		0		38A	46	F12	VXP	45	66253051529	2	+++
175x75x76.2	6	20	20	•	0	•	•				SGB	46	G11	VXP	45	66253050097	2	++++
	6	20	20	•	0	0	•		0		38A	36	I	VS	45	69936681747	2	+++
180x40x76.2	6	32	13	•	•	0	•		0		38A	46	М	VS	45	69936674884	2	+++
180x63x50.8	6	16	16	•	•	•	•				SGB	46	J	VX	45	66253050084	2	++++
	6	16	16	•	•	0	•		0		38A	36	Н	VS	45	69936674887	2	+++
180x76x32	6	16	16	•	0	0	•		0		38A	36	I	VS	45	69936639449	2	+++
180x76x78	6	16	16	•	•	•	•				3SG	36	1	VX	45	66253049962	2	+++++
	6	16	16	•	•	0	•		0		38A	36	ı	VS3	45	66253348321	2	++++
	6	16	16	•	•	0	•		0		38A	36	J	VS	45	69936639817	2	+++
	6	16	16	•	•	0	•		0		38A	46	Н	VS	45	69936639616	2	+++
180x80x32	6	16	16	•	0	0	•		0		38A	46	Н	VS	45	69936674889	2	+++
200x40x32	6	45	15	•	•	0	•		0		38A	46	L	VS	45	66243570536	2	+++
	6	45	15	•	•	0	•		0		38A	60	L	VS	45	66243570537	2	+++
200x40x76.2	6	40	13	•	•	•	•				SGB	60	L	VX	45	66253050087	2	++++
	6	40	13	•	•	0	•		0		38A	46	М	VS	45	69936674890	2	+++
	6	40	13	•	•			•			39C	60	J	V	45	69936668347	2	+++
200x63x50.8	6	20	20	•	•	0	•		0		38A	46	Н	VS	45	69936674898	2	+++
200x82x78	6	16	20	•	•	•	0				3SG	36	- 1	VX	45	66253049964	2	+++++
	6	16	20	•	•	•	0				SGB	36	H10	VXP	45	69936679013	2	++++
	6	16	20	•	•	0	•		0		38A	36	Н	VS3	45	66253348319	2	++++
	6	16	20	•	•	0	•		0		38A	46	Н	VS3	45	66253348325	2	++++
300x63x127	6	40	20	•	0			•			39C	60	J	V	45	69936668365	1	+++



#### **SHAPE KEY**



### PRODUCT RECOMMENDATION

Highly recommended Recommended

0

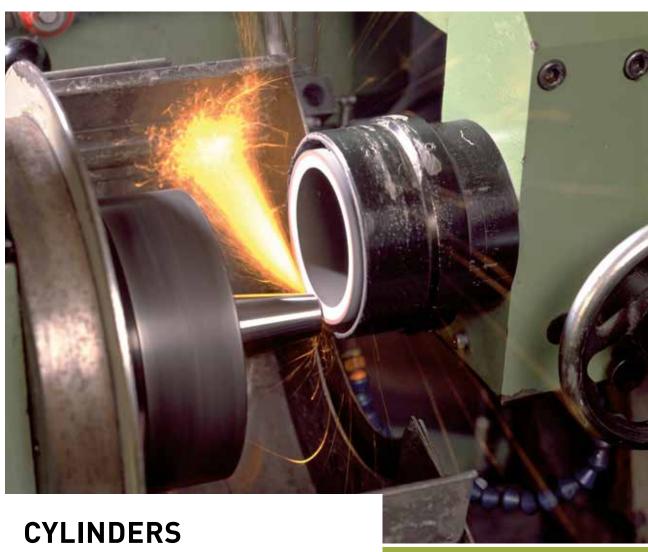
	·		COLOUR CO	DE REFERE	NCE
	HSS e		CERAMIC BLENDS	ALUMINIUM OXIDE TYPES	SILICON CARBIDE TYPES
ss Diameter Jiameter Diameter ng ng	⊗ bi	INNOVATION	NQN BLEND	38A	39C
s Diam iam iam og ster	Steels & Carl		NQ BLEND	32A	37C
ar t t		Туре	SG BLEND	19A	
	oye els			A	
	fac h Al t St k	- 8 S # F			
Rim V Back Exter Inter Rim [ Tools Saw ! Benc	Surf High Soft Inox Non	Cast Abra Grit ( Grad Bonc			

	ш	ш	ш	_	ш	— 0, ш	і — ш ()	_	0)				4 0		, ш				
DIM DxTxH (mm)	W	Ε	J	K	U	Deburring & Sharpening			Ма	terials	S	SP	ECIFICATI	ON		MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
100x13x12.7	5	7	45	50	2.5	•		0	•		0		38A 60	Κ	VS	45	69936624605	2	+++
100x13x20	5	7	41	41	3.2	•		•	•				3SG 60	K	VX	45	66253050236	2	+++++
	5	7	41	41	3.2	•		0	•		0		38A 60	J	VS3	45	66253348382	2	++++
125x13x20	6	7	61	61	3.2	•		•	•	0			2NQ60	J	VS3	45	66253348378	2	+++++
	6	7	61	61	3.2	•		•	•				3SG 60	J	VX	45	69936686768	2	+++++
	6	7	61	61	3.2	•		0	•		0		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	•		•	•				SGB46	K	VS3	45	66253348384	2	++++
	8	9	56	56	3.2	•		•	•				SGB60	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	•		0	•		0		38A 46	Κ	VS	45	69936686194	2	+++
	7	9	86	86	3.2	•		0	•		0		38A 60	J	VS3	45	66253348380	2	++++
150x20x32	8	9	87	87	3.2	•		•	•				SGB60	K	VX	45	66253050245	2	++++
200x20x32	10	12	90	90	3.2	•		0	•		0		38A 60	K	VS	45	69936686215	2	+++
200x32x32	10	12	92	92	3.2	•		•	0				SGB46	I	VX	45	66253050253	2	++++

HSS = High Speed Steel

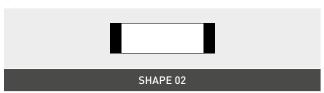
Steel hardened = Over 50Rc

Steel soft = Up to 50Rc



### FOR PRECISION GRINDING

#### **SHAPE KEY**



### PRODUCT RECOMMENDATION

Highly recommended Recommended

Bench Wheels

Internal Diameter External Diameter

High Alloyed Steels & HSS Non-Ferrous & Carbide Soft Steels

### **COLOUR CODE REFERENCE** CERAMIC

SILICON CARBIDE TYPES ALUMINIUM **BLENDS** OXIDE TYPES 38A 39C NQN BLEND 32A 37C NQ BLEND 19A SG BLEND

DIM DxTxH (mm)	1	urrir arper	.5	Gı	rindin	g		Ma	ateri	als		SP	ECIFICATI	ON		MOS (m/s)	ART NO.	PK QTY	QUALITY TIER
200x100x160						•	•	•					SGB46	Н	VX	45	69936686693	1	++++
						•	•	•			•		38A 46	G	VS3	45	66253348386	1	++++
254x100x204						•	•	•			•		38A 46	G	VS3	45	66253348387	1	++++

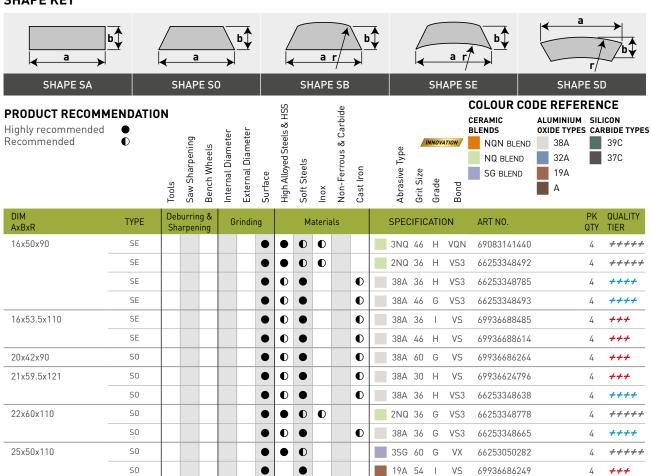
HSS = High Speed Steel

Steel hardened = 0ver 50Rc

Steel soft = Up to 50Rc



### SHAPE KEY



37C 30 H

38A 30

38A 36

38A 30

3NQ 36 H

3SG 36 H

38A 30 H

38A 36 H

•

•

0

3SG 36 E12 VXP

3SG 36 E12 VXP

٧S

VS3

VS

VQN

VS3

69936688426

69936688295

69936682296

69936682640

66253348783

69936688321

69936686253

69083141453

66253050287

66253348780

HSS = High Speed Steel

25x65x100

25x70x110

25x80x150

38x103x180

Steel hardened = Over 50Rc

SB

S0

S0

S0

S0

SA

S0

S0

S0

Steel soft = Up to 50Rc

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NOTES			
HOILS			



## BENCH WHEELS

Why choose Norton Starline	26
Bench wheel recommendation guide	26
The Starline range	26
Hand dresser	26



### 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, for all metal types.

### WHY CHOOSE NORTON STARLINE

Starline offers a good quality range with a wide range of sizes at a competitive price.

### STARLINE IS AVAILABLE IN THREE GRAIN TYPES



### BROWN ALUMINIUM OXIDE (A)

### +++

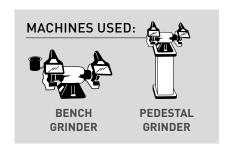
- High quality aluminium oxide with premium vitrified bond
- Precision-engineered grit size and hardness for maximum cut rate, finish and wheel life.



### 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)

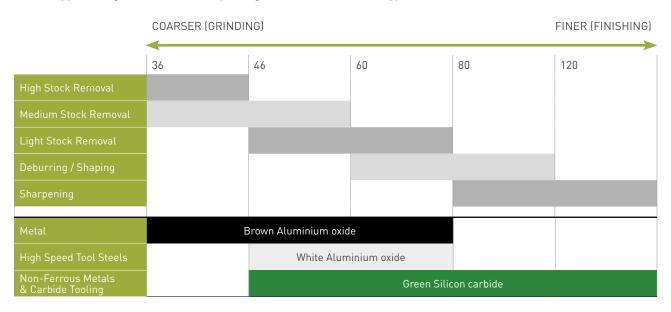
### +++

- 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.

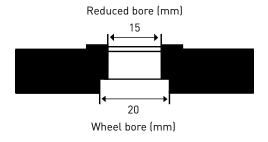


- For wheels diameter 200mm and smaller
- Before using the wheel for the first time, the face of the wheel needs to be 'opened' using a used wheel of a dressing stick
- All bench and pedestal wheels must be dressed to prevent loading. Loading can cause excessive heat, damage to the workpiece, and wheel breakage. Dressing exposes new cutting edges and provides chip clearance.
- Do not grind wood, plastic or any other non-metalic materia on a bench or pedestal grinder
- Unsecured machines can move, causing grinding breakage and injury. Fixed-based bench and pedestal grinders MUST he 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

### **BONDED ABRASIVES** BENCH WHEELS

### 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.



MACHINE TYPE	DIM DxTxH (mm)	ABRASIVE TYPE	GRIT	GRADE	BOND	MOS (m/s)	ART NO.	PK QTY
BENCH /	125x20x32	A	46	N	VS	45	66253195830	1
PEDESTAL WHEELS		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	0	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	К	VS	45	66253338041	1
		39C	80	K	VS	45	66253338042	1
		39C	120	К	VS	45	66253338191	1
	150x25x32	38A	60	N	VS	45	66253338092	1
		39C	60	К	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	К	VS	45	66253338050	1
	200x20x31.75	A	60	N	VS	45	61463626369	1
		39C	60	K	VS	45	61463626366	1
		39C	80	К	VS	45	61463626362	1
	200x20x32	A	36	0	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	К	VS	45	66253338053	1



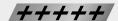
MACHINE TYPE	DIM DxTxH (mm)	ABRASIVE TYPE	GRIT	GRADE	BOND	MOS (m/s)	ART NO.	PK QTY
BENCH /	200x25x31.75	39C	60	K	VS	45	61463626370	1
PEDESTAL WHEELS	200x25x32	A	36	0	VS	45	66253338025	1
		A	46	N	VS	45	66253338026	1
		38A	46	Ν	VS	45	66253338142	1
		38A	60	Ν	VS	45	66253338065	1
		38A	80	Ν	VS	45	66253338066	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	0	VS	45	66253289887	1
		A	60	Ν	VS	45	66253338027	1
		38A	46	Ν	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	К	VS	45	66253338060	1
	300x25x127	39C	60	K	VS	45	61463626374	1
	300x32x127	A	60	N	VS	45	66253338188	1
	300x32x32	A	36	0	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	К	VS	45	66253338074	1
	300x40x127	A	60	N	VS	45	66253338032	1
	300x40x127	39C	60	К	VS	45	66253338077	1
	300x40x127	39C	80	К	VS	45	66253338078	1
	300x40x31.75	A	36	0	VS	45	66253386235	1
	350x50x127	A	36	0	VS	45	66253338102	1
		38A	46	N	VS	45	66253338072	1
		38A	60	N	VS	45	66253338073	1
		39C	46	К	VS	45	66253338079	1
		39C	60	К	VS	45	66253338080	1
		39C	80	К	VS	45	61463626361	1



**SPEC**Before using the wheel for the first time, the face of the wheel needs to be 'opened' using a used wheel or a dressing stick.

Bonded Abrasives / 267 www.nortonabrasives.com

### HAND DRESSER ++++



- High diamond concentration
- Grit 18/25 SPC

- High wear resistance and long product life
- Suitable for face and side dressing



SPECIFICATION	PK QTY	ART NO.
HD-150	1	60157682852

NOTES		

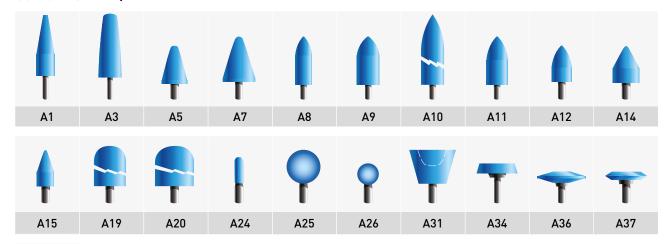


## MOUNTED POINTS

Vitrified mounted points Organic mounted points 272

### BONDED ABRASIVES MOUNTED POINTS & WHEELS

### CONICAL SHAPE / A





### **CONICAL SHAPE / B**





### CYLINDRICAL SHAPE / W CYLI

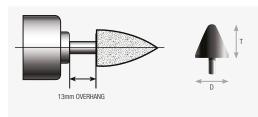








#### **MEASUREMENT GUIDE**



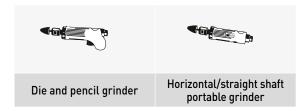
#### **Description of Overhang**

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**



#### PERSONAL PROTECTION



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). Maximum safe operating speeds of all mounted points is shown for each shape codes in the table. Max RPM is based on the shape and spindle combination with a maximum 13mm overhang. The recommended minimal clamping length for 40mm spindle is 25mm; maximum overhang value for this spindle length is therefore set to 13mm.



- 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.



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 downtime 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 are 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**

<u> </u>	86A	37C	38A	39C	NQ
<u> </u>					

SHAPE	T I DIM DxT (mm)	SPINDLE SxL (mm)	ABI TYF	RASIVE PE	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
A1	20x65	6x40		86A	36	Р	VS	66253055235	19800	10	+++
A1	20x65	6x40		38A	60	R	VM	69936635216	19800	10	+++
A1	20x65	6x40		86A	60	0	VS	66253055218	19800	10	+++
A3	22x70	6x40		5NQ	46	R	VS3	69078664025	16100	10	++++
A3	22x70	6x40		5NQ	60	R	VS3	69078663919	16100	10	++++
A3	22x70	6x40		38A	36	Т	VM	69936623827	16100	10	+++
A3	22x70	6x40		86A	36	0	VS	66253055021	16100	10	+++
А3	22x70	6x40		38A	60	R	VM	69936643931	16100	10	+++
A3	22x70	6x40		86A	60	0	VS	66253055212	16100	10	+++
A5	20x28	6x40		5NQ	46	R	VS3	69078664027	45000	10	++++
A5	20x28	6x40		5NQ	60	R	VS3	69078663924	45000	10	++++
A5	19x29	6x40		38A	60	R	VM	69936613862	45000	10	+++
A5	20x28	6x40		86A	60	0	VS	66253055094	45000	10	+++
A7	30x50	6x40		5NQ	36	R	VS3	69078664028	13000	10	++++
A7	30x50	6x40		5NQ	60	R	VS3	69078664029	13000	10	++++
A7	30x50	6x40		86A	36	0	VS	66253055022	13000	10	+++
A8	20x50	6x40		86A	36	0	VS	66253055308	19860	10	+++
А9	30x50	6x40		86A	36	0	VS	66253055395	19860	10	+++
A10	22x70	6x40		86A	36	0	VS	66253055237	19860	10	+++
A11	22x45	6x40		5NQ	60	R	VS3	69078663906	19860	10	++++
A11	22x45	6x40		38A	36	Т	VM	69936623830	19860	10	+++
A11	22x45	6x40		86A	36	0	VS	66253055095	19860	10	+++
A11	22x45	6x40		86A	36	0	VS	66253055307	19860	10	+++
A11	22x45	6x40		86A	60	0	VS	66253055214	19860	10	+++
A12	20x32	6x40		5NQ	60	R	VS3	69078663913	48000	10	+++++

### 25x25 **CONICAL SHAPE / B**

20x32

6x25

6x25

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16x16

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86A

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86A

86A

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A12

A15

A15

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66253055096

69078663914

66253055126

69078664031

69078663917

66253055128

66253055204

66253055129

66253054946

SHAPE	DIM DxT (mm)	SPINDLE SxL (mm)	ABRASIVE TYPE	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
B46	4x8	6x40	38A	90	S	VM	69936626240	83530	10	+++
B52	10x20	3x40	38A	90	S	VM	69936643938	45370	10	+++
B52	10x20	3x40	86A	90	0	VS	66253055232	45370	10	+++
B52	10x20	3x40	5NQ	60	R	VS3	69078664033	45370	10	+++++
B53	8x16	3x40	38A	90	S	VM	69936690891	60000	10	+++

\*Shape not available in the US ANSI code

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48000

72750

72750

35620

35620

35620

59680

23520

25000

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### **BONDED ABRASIVES** MOUNTED POINTS & WHEELS

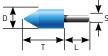
### CONICAL SHAPE / B





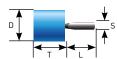
SHAPE	DIM DxT (mm)	SPINDLE SxL (mm)	ABRASIVE TYPE	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
B53	8x16	3x40	86A	90	0	VS	66253055305	60000	10	+++
B54	6x13	6x40	86A	90	0	VS	66253055139	71340	10	+++
B97	4x10	3x40	38A	90	Q	VM	69936623856	105000	10	+++
B97	4x10	3x40	86A	90	0	VS	66253055141	105000	10	+++
B97	4x10	3x40	5NQ	90	R	VS3	69078663941	105000	10	+++++
B121	Ø13	3x40	38A	90	S	VM	69936623857	45370	10	+++
B122	Ø10	3x40	38A	90	Q	VM	69936623858	61650	10	+++
B122	Ø10	3x40	5NQ	90	R	VS3	69078663926	61650	10	+++++
B123	Ø5	3x40	38A	90	R	VM	69936630653	104250	10	+++
B123	Ø5	3x40	86A	90	0	VS	66253055207	104250	10	+++

### SHAPE CYLINDRICAL (C)



SHAPE	DIM DxT (mm)	SPINDLE SxL (mm)	ABRASIVE TYPE	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
C262	16x32	6x40	38A	90	S	VM	69936634345	25000	10	+++

### CYLINDRICAL (W)



SHAPE	DIM DxT (mm)	SPINDLE SxL (mm)	ABRASIVE TYPE	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
W144	3x6	3x40	5NQ	80	R	VS3	66253478592	105000	10	+++++
W144	3x6	3x40	5NQ	100	R	VS3	66253478593	105000	10	+++++
W144	3x6	3x40	38A	90	S	VM	69936623859	105000	10	+++
W144	3x6	3x40	86A	90	0	VS	66253055147	105000	10	+++
W145	3x10	3x40	5NQ	100	R	VS3	66253478596	105000	10	+++++
W149	4x6	3x40	86A	90	Р	VS	66253055150	105000	10	+++
W153	5x10	3x40	5NQ	60	R	VS3	66253477243	80850	10	+++++
W153	5x10	6x40	5NQ	60	R	VS3	66253479001	80850	10	+++++
W153	5x10	3x40	38A	90	Q	VM	69936623863	80850	10	+++
W153	5x10	3x40	86A	90	0	VS	66253055160	80850	10	+++
W154	5x13	3x40	5NQ	100	R	VS3	66253477249	66580	10	+++++
W154	5x13	3x40	38A	90	Q	VM	69936623864	66580	10	+++
W154	5x13	3x40	86A	90	0	VS	66253055162	66580	10	+++
W162	6x10	6x40	5NQ	60	R	VS3	66253479004	68400	10	+++++
W162	6x10	3x40	86A	60	Р	VS	66253055166	68400	10	+++
W162	6x10	3x40	38A	90	S	VM	69936637877	68400	10	+++
W163	6x13	6x40	86A	60	0	VS	66253055210	60000	10	+++
W163	6x13	3x40	86A	90	0	VS	66253055167	60000	10	+++
W164	6x20	3x40	38A	90	S	VM	69936623869	45900	10	+++
W169	8x10	3x40	5NQ	80	R	VS3	66253478607	62010	10	+++++
W169	8x10	3x40	86A	60	0	VS	66253055398	62010	10	+++
W170	8x13	6x40	86A	60	0	VS	66253055248	54000	10	+++
W171	8x20	6x40	5NQ	60	R	VS3	66253477399	42890	10	+++++
W171	8x20	3x40	86A	60	0	VS	66253055171	41000	10	+++
W171	8x20	6x40	38A	90	S	VM	69936630875	42890	10	+++



39C

NQ

### CYLINDRICAL (W)

### **COLOUR CODE REFERENCE**

_	s	ı	86A	37C	38A
D	S S				

SHAPE	DIM DxT (mm)	SPINDLE SxL (mm)	ABR/ TYPE	ASIVE E	GRIT SIZE	GRADE	BOND	ART NO.	0-13 mm OVERHANG	PK QTY	QUALITY TIER
W175	10x10	3x40		5NQ	60	R	VS3	66253477402	54000	10	++++
W175	10x10	3x40		5NQ	80	R	VS3	66253478609	54000	10	++++
W175	10x10	3x40	8	86A	90	0	VS	66253055173	54000	10	+++
W176	10x13	3x40	3	38A	60	R	VM	69936623872	45370	10	+++
W176	10x13	6x40	8	86A	60	Р	VS	66253055315	45370	10	+++
W176	10x13	3x40	3	38A	90	R	VM	69936623873	45370	10	+++
W176	10x13	6x40	3	38A	90	S	VM	69936637874	45370	10	+++
W177	10x20	6x40		5NQ	46	R	VS3	66253477415	33750	10	++++
W177	10x20	6x40	5	5NQ	80	R	VS3	66253478612	33750	10	++++
W177	10x20	6x40	8	86A	60	Q	VBEM	66253055092	33750	10	+++
W177	10x20	3x40	3	38A	90	S	VM	69936626743	33750	10	+++
W179	10x32	6x40	8	86A	60	0	VS	66253055223	37210	10	+++
W179	10x32	6x40	3	38A	60	R	VM	69936637875	37210	10	+++
W17-*	13x3	3x40	5	5NQ	100	R	VS3	66253480329	28000	10	++++
W188	13x40	6x40	3	38A	46	S	VM	66243451690	30370	10	+++
W188	13x40	6x40	8	86A	90	Р	VS	66253055131	30370	10	+++
W195	16x20	6x40	8	86A	60	0	VS	66253055091	38220	10	+++
W195	16x20	6x40	3	38A	90	S	VM	69936623840	24530	10	+++
W196	16x25	6x40	3	86A	46	М	VBEM	69210449262	17620	20	+++
W196	16x25	6x40	3	86A	90	0	VS	66253054973	17620	10	+++
W197	16x50	6x40		5NQ	36	R	VS3	66253478269	21000	10	++++
W197	16x50	6x40	3	38A	46	S	VM	69936631541	21000	10	+++
W204	20x20	6x40	3	38A	60	R	VM	69936623841	18900	10	+++
W204	20x20	6x40	3	86A	60	0	VS	66253055134	18900	10	+++
W205	20x25	6x40		5NQ	46	R	VS3	66253478279	34500	10	++++
W205	20x25	6x40		5NQ	60	R	VS3	66253478280	34500	10	++++
W205	20x25	6x40	8	86A	36	0	VS	66253054948	34500	10	+++
W205	20x25	6x40	8	86A	46	Р	VM	66243538896	34500	-	+++
W205	20x25	6x40	8	86A	60	0	VS	66253055135	34500	10	+++
W206	20x30	6x40	8	86A	60	0	VS	66253055013	29810	10	+++
W207	20x40	6x40		5NQ	36	R	VS3	66253478404	24000	10	+++++
W218	25x13	6x40		5NQ	36	R	VS3	66253478412	38200	10	++++
W220	25x25	6x40		5NQ	36	R	VS3	66253478419	25500	10	+++++
W220	25x25	6x40	3	38A	36	Т	V	69936643936	25500	10	+++
W220	25x25	6x40	8	86A	36	0	VS	66253055231	25500	10	+++
W220	25x25	6x40	8	86A	60	0	VS	66253055136	25500	10	+++
W221	25x40	6x40	8	86A	36	0	VS	66253055016	19120	10	+++
W230	32x32	6x40		5NQ	36	R	VS3	66253478626	20400	10	++++
W230	32x32	6x40		5NQ	46	R	VS3	66253478443	20400	10	++++
W230	30x30	6x40	_	86A	36	0	VS	66253055221	20400	10	+++
W230	30x30	6x40		38A	36	T	VM	69936635225	20400	10	+++
W230	30x30	6x40		38A	60	R	VM	69936623849	20400	10	+++
W230	30x30	6x40		86A	60	0	VS	66253055138	20400	10	+++
W232	30x50	6x40	_	86A	60	0	VS	66253055300	14250	10	+++
W236	40x12	6x40	_	86A	60	0	VS	66253055304	25130	10	+++
W238	40x40	6x40		86A	36	P	VS	66253055019	15600	10	+++
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### **BONDED ABRASIVES MOUNTED POINTS & WHEELS**

### 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







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.







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



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



Use "A" shapes for medium to heavy-duty blending. Use "W" shapes for off-hand and precision grinding of medium to heavy stock.

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### **BONDED ABRASIVES MOUNTED POINTS & WHEELS**

### GRAIN COLOUR CODE

NZ



SHAPE	DIM DxT (mm)	SPINDLE DxT (mm)	ABRASIVE TYPE	GRIT SIZE	GRADE	BOND	ART NO.	MOS (RPM)	PK QTY	QUALITY TIER
A1	20x65	6x40	NZ	24	U	BXR1	61463689077	15000	10	++++
A3	22x70	6x40	NZ	24	U	BXR1	61463689079	14000	10	++++
A5	20x28	6x40	NZ	24	U	BXR1	61463689081	30000	10	++++
A11	21x45	6x40	NZ	24	U	BXR1	61463689082	18000	10	++++
W177	10x20	6x40	NZ	24	U	BXR1	61463689084	66000	10	++++
W178	10x25	6x40	NZ	24	U	BXR1	61463689085	55200	10	++++
W188	13x40	6x40	А	36	Q	В	66253053225	30370	20	+++
W188	13x40	6x40	NZ	24	U	BXR1	61463689090	30370	10	++++
W204	20x20	6x40	NZ	24	U	BXR1	61463689091	42750	10	++++
W205	20x25	6x40	NZ	24	U	BXR1	61463689093	34500	10	++++
W207	20x40	6x40	NZ	24	U	BXR1	61463689095	24000	10	++++
W220	25x25	6x40	A	46	Q	В	66253053237	25500	20	+++
W220	25x25	6x40	NZ	24	U	BXR1	61463689097	25500	10	++++
W221	25x40	6x40	А	46	Q	В	66253053243	19120	20	+++
W230	30x30	6x40	А	36	Q	В	66253053250	24000	20	+++
W230	30x30	6x40	NZ	24	U	BXR1	61463689099	24000	10	++++
W236	40x13	6x40	А	46	Q	В	66253053251	25130	20	+++
W236	40x12	6x40	NZ	24	U	BXR1	61463689100	25130	10	++++





# DRESSING STICKS & SHARPENING STONES

Dressing sticks	28
Bench & combination oil stones	28
Abrasive & precision files	28
Abrasive slips and specialties	28



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 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
- Ideal for dressing conventional vitrified grinding wheels
- Harder and more friable than aluminium oxide abrasive

SHAPE	DIM WxHxL/DIAxL (mm)	SPECIFICATION	PK QTY	ART NO.
DRESSING STI	CKS FOR SUPERABRA	SIVE GRINDING WE	HEELS	
SQUARE	13x13x150	37C 80 MV	10	69936685063
		37C 320 HV	10	66243453547
DRESSING STI	CKS FOR BONDED AB	RASIVE 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
- \_\_\_\_\_

• Ideal for dressing CBN superabrasive wheels

• Friable abrasive

SHAPE	DIM WxHxL (mm)	SPECIFICATION	PK QTY	ART NO.				
DRESSING STI	DRESSING STICKS FOR SUPERABRASIVE 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				





Usex 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 ST	ONES			
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 STO	DNES			
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





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







### 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 speciality 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 STON	NES				
SCYTHE STONE	240x35x13	TJ4	Scythe Stone	10	69936693133
	254x32x19	JT930	Scythe Stone	5	61463687675
RUBBER STICK	200x10x20	-	A240FR96	5	69936625667



### **BONDED ABRASIVES** ABRASIVE SLIPS & SPECIALTIES

### CRYSTOLON ###

- Premium silicon carbide abrasive
- Fast cutting stone; ideal for general sharpening of cutting tools

ПΙΜ

• Fast stock removal for quick edge shaping with minimal loading

SHAPE	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					
	203x51x51	BF28	Hand Crystolon	5	61463687845
RUBBING BRICK	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

DIM LxWxH (mm)	TYPE	SPECIFICATION	PK QTY	ART NO.
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
127x25x5	MT125	Medium India	5	61463687430
	102x25x11 114x44x6 114x44x10 114x44x13	TYPE  102x25x11 MS14 FS14  114x44x6 MS24 FS24  114x44x10 MS34 FS34  114x44x13 MS44 FS44	LxWxH (mm)         TYPE         SPECIFICATION           102x25x11         MS14         Medium India           FS14         Fine India           114x44x6         MS24         Medium India           FS24         Fine India           114x44x10         MS34         Medium india           FS34         Fine India           114x44x13         MS44         Medium India           FS44         Fine India	LxWxH (mm)         TYPE         SPECIFICATION         PK QTY           I D2x25x11         MS14         Medium India         5           FS14         Fine India         5           114x44x6         MS24         Medium India         5           FS24         Fine India         5           114x44x10         MS34         Medium india         5           FS34         Fine India         5           114x44x13         MS44         Medium India         5           FS44         Fine India         5



### ARKANSAS ###

- Natural premium Novaculite quarried in
   Near mirror finishes Arkansas and available in soft and hard

  - Use for finer honing after India stone
- Sharpest possible razor edges

SHAPE	DIM LxWxH (mm)	TYPE	SPECIFICATION	PK QTY	ART NO.
SLIP STONES					
ROUND EDGE	102x32x6	HS14	Hard Arkansas	5	61463687050





# ORGANIC WHEELS & CUPS FOR SNAGGING

Snagging wheels Snagging cups 290

#### BONDED ABRASIVES ORGANIC WHEELS & CUPS FOR SNAGGING

### 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 nonferrous 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 nonferrous metals
- Ideal for applications with no technical requirement



39C

High-purity green silicon carbide abrasive

- High cut rate/power on special alloys and titanium
- Extremely friable abrasive for better cutting efficiency and cut quality





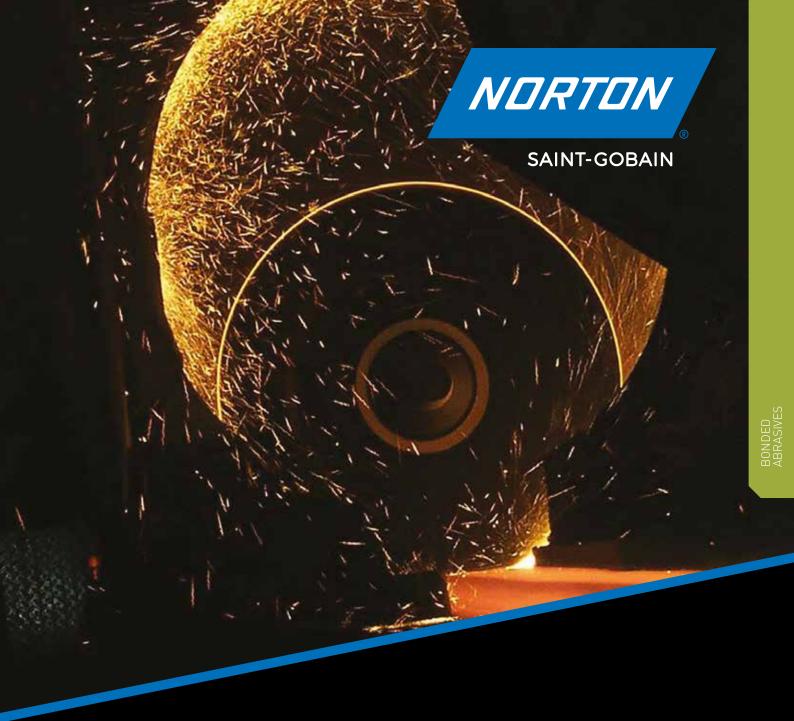
Ion-Ferrous Metals 3ack Thickness Cast Iron Abrasive Type

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		Ŗ	Ba	Ste	Š	Cas	Abı	Gri	Gra	Str	Boı			Recommended	U
	WHEELS														
SHAPE	DIM DxTxH (mm)	W	Е	М	ateria	als	SPEC	IFICAT	TION			MOS (m/s)	PK QTY	ART NO.	QUALITY TIER
01	50x13x10			0		•	А	24	Т	-	B28	50	10	66253057649	+++
01	100x20x20	-	-	0		•	А	24	R	-	B28	50	10	66253057660	+++
01	150x25x20	-	-	•		•	Α	24	Q	5	В3	50	5	69210432717	+++
01	150x32x20	-	-	•		•	А	24	Q	5	В3	50	5	69210433145	+++
01	200x20x32	-	-	•		•	А	24	Q	5	В3	50	5	69210431516	+++
01	300x30x32	-	-	•		•	А	24	Q	5	В3	50	1	69210433807	+++
01	400x50x127	-	-	•		•	А	24	Q	5	В3	50	1	69210431446	+++
01	500x50x127	-	-	•		•	Α	24	Q	5	В3	50	1	69210435391	+++
01	508x50x50	-	-	•		•	ZF7A	16	R	5	В3	50	1	66253057670	++++
01	508x60x127	-	-	•		•	ZF7A	16	Q	5	В3	50	1	66243453103	++++
01	508x60x127	-	-	•		•	ZF7A	16	R	5	В3	50	1	66253057671	++++
01	508x60x127	-	-	•		•	ZF7A	20	Q	-	В3	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	Е	М	ateria	ıls	SPEC	IFICAT	ΓΙΟΝ			MOS (m/s)	PK QTY	ART NO.	QUALITY TIER
11	125x50x5/8"	25	19	•		•	А		Р	5	B5	50	1	66253065737	+++
11	125x50x5/8"	25	19		•		39C	16	Р	5	В5	50	4	69083141415	++++
11	125x50xM14	25	20		•		37C	16	Ν	5	В5	50	1	69210432282	+++
11	150x50xM14	40	20		•		37C	16	Ν	5	В5	50	1	69210432287	+++

Bonded Abrasives / 291 www.nortonabrasives.com

NOTES			
HOILS			



## STRAIGHT CUT-OFF WHEELS

Non-reinforced wheels Reinforced wheels

#### BONDED ABRASIVES STRAIGHT NON-REINFORCED & REINFORCED CUT-OFF WHEELS

## 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

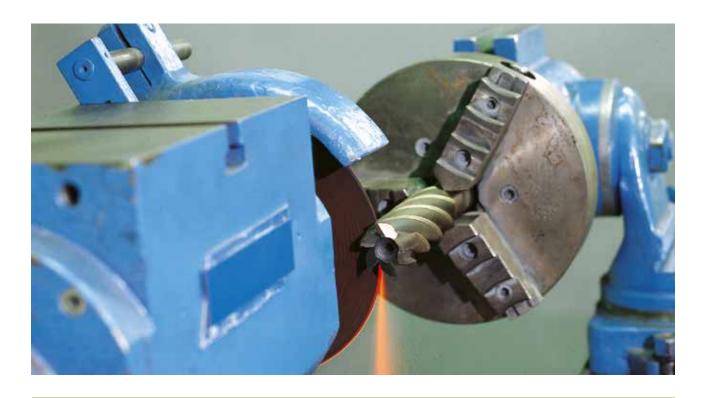
High concentration of zirconia oxide abrasive

- 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 at cutting titanium, aluminium, and bronze
- Extremely friable abrasive for better cutting efficiency and cut quality













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

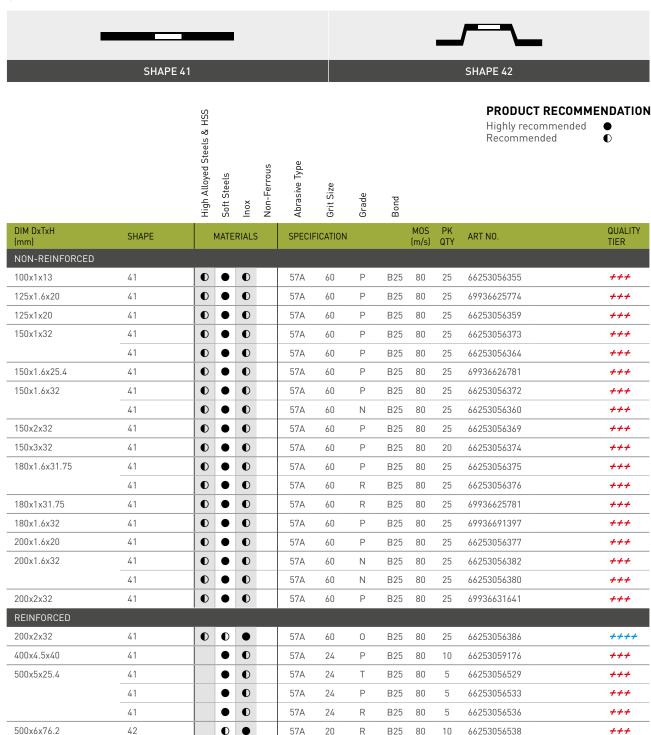
Semi-friable aluminium oxide abrasive

- 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

www.nortonabrasives.com Bonded Abrasives / 295

#### BONDED ABRASIVES STRAIGHT NON-REINFORCED & REINFORCED CUT-OFF WHEELS

#### **SHAPE KEY**



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57A

R

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B25 80

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## SUPER ABRASIVES

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DIAMOND & CBN GRINDING WHEELS	302-314	Diamond files	321
Machining round tools	302	Diamond dressers	322
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#### SUPER ABRASIVES PRODUCT SELECTION

#### 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. Superabrasive wheels use diamond and CBN technology to cut demanding materials such as carbide, high-speed steel, ceramics, and glass.

Norton provides ultimate, high-performance superabrasive 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 superabrasive 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 superabrasive grits in the wheel. For CBN wheels the concentration number is included in the grade (Q=50, T=75, W=100, Z=125), concentration  $100{\sim}4.4$  ct/cm³, and accordingly  $50{\sim}2.2$  ct/cm³. The optimum concentration depends upon the application.

#### **BOND**

The element in a grinding wheel that holds the diamond or CBN grains together.

 $GRIT\ SIZE\ \ \hbox{The grit size selection depends on the required stock removal rate and the required surface finish.}$ 

EUROPEAN (FEPA)	U.S. STANDARD	US NORTON GRIT SIZE [MESH]			
SIZE	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, and 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**

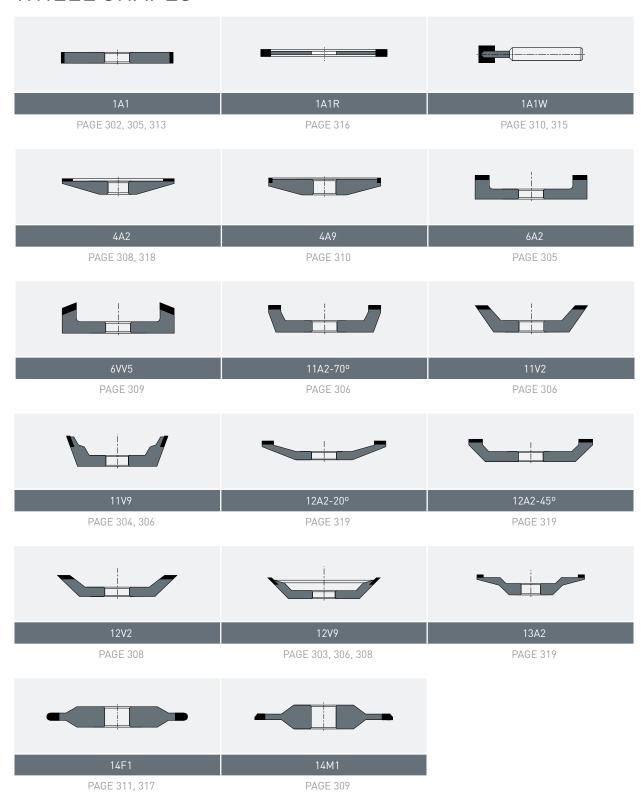
- Made with durable CBN abrasive, which cuts easily through hard-to-grind steels, HRC50 and harder, resisting wear
- Engineered B-99 resin bond for free cutting capability and superior form holding
- Aztec IV bond for larger cutting depth
- Used for dry tool resharpening when heavy stock removal is required

#### **APPLICATIONS**

- High-speed tool steels
- Die steels
- Hardened carbon steels
- Alloy steels
- Aerospace alloys
- Hard stainless steel
- Abrasion-resistant ferrous materials

#### SUPER ABRASIVES PRODUCT SELECTION

## WHEEL SHAPES





## **ROUND TOOLS**

#### DIAMOND AND CBN GRINDING WHEELS FOR THE MACHINING OF ROUND TOOLS

Norton offers a comprehensive 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 and re-sharpening. Please note that grinding wheels are ordered by FEPA code.



#### **BOND OVERVIEW DIAMOND**

BOND	WEAR RESISTANCE	RECOMMENDATION FOR USE						
R100 B99		For CNC grinding operations (wet)						
R75 B99	<b>†</b>	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)  Very free grinding dry grinding bond					
Aztec IV						
R75 B49		For universal grinding (dry)				



## 1A1 FLUTING



CB107 W B99

DxTxX

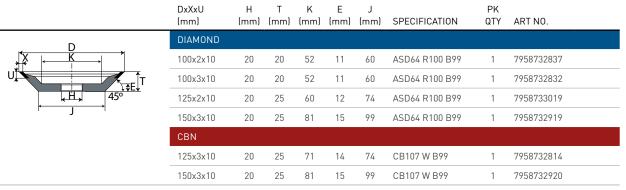
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PΚ



## 12V9 GASHING



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

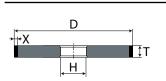
ADDITIONAL INFORMATION Stiffened body



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.

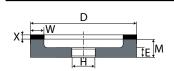
The lower the diamond or CBN concentration the more suited the product will be to grinding large contact areas. Aztec IV is a special free cutting resin bond which is designed for dry grinding operations and enables high material removal.

## 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.
D	DIAMOND								
XI TOO M	100x5x4	20	20	75	10	88	ASD151 R75 B99	1	60157682163
	CBN								
<del>←                                    </del>	100x5x4	20	20	75	10	88	CB126 T B99	1	60157682165

### 11V2 RE-SHARPENING

	DxWxX (mm)	H (mm)	M (mm)		E (mm)	J (mm)	SPECIFICATION	PK QTY	ART NO.
X D D TEM	DIAMOND								
	100x5x3	20	22	72	8	82	ASD91 R75 B99	1	7958733007
<u> </u>	100x5x3	20	22	72	8	82	ASD126 R75 B99	1	7958733011

## 11V9 RE-SHARPENING

I I V / RE-SHARPENING	DxXxU	Н	Т	K	Е	J		PK	
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	SPECIFICATION	QTY	ART NO.
D	DIAMOND								
70° T	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.
D	DIAMOND								
X K	75x2x10	20	25	34	10	39	ASD64 R75 B99	1	7958732816
U TABLE T	100x3x10	20	20	65	10	59	ASD46 R75 B99	1	7958732885

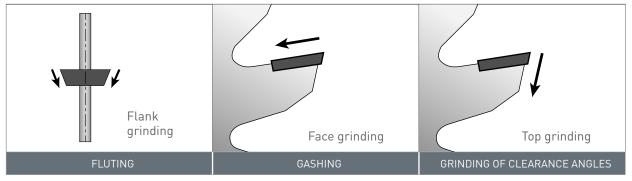


### SAW BLADES

#### 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	<b>A</b>	Face grinding of tungsten carbide tipped saw blades
ECO Flank	I	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	1	Universal resin bond for wet and dry grinding

#### **BOND OVERVIEW CBN**

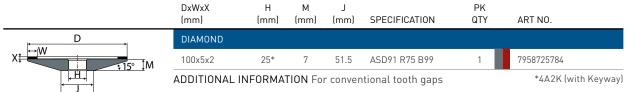
BOND	WEAR RESISTANCE	RECOMMENDATION FOR USE
ECO Curve		Profiling and re-sharpening of HSS saw blades



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



## 12V2 FACE GRINDING

	DxWxX (mm)	H (mm)	M (mm)	V (°)	E (mm)	SPECIFICATION	PK QTY	ART NO.
	DIAMOND							
XX XX XX XX XX XX XX XX XX XX XX XX XX	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

	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	SPECIFICATION	QTY	ART NO.
D K X X X X X X X X X X X X X X X X X X	DIAMOND								
	125x2.3x4	32	13	101	10	70	D46 <b>ECO</b> Face	1	69014148184
	150x2.3x4	32	13	126	10	95	D46 <b>ECO</b> Face	1	7958719191
	200x2.3x4	32	13	173	10	145	D46 <b>ECO</b> Face	1	69014148205

ADDITIONAL INFORMATION For conventional tooth gaps

#### COLOUR CODES FOR MACHINE MANUFACTURERS

Vollmer-Biberach	Vollmer-Dornhan	Woodtronic	Akemat	Widma
		·		·



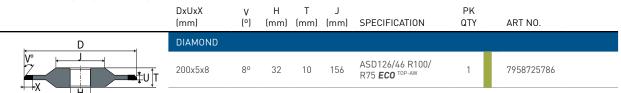
To ensure the circular nature of the saw and to define the wedge and clearance angles, the top of the saw blade needs to be ground. Vollmer and Widma machines normally require 6VV5 cup wheels. Akemat and Woodtronic machines require 14M1 state-of-the-art peripheral wheels.

### 6VV5 TOP GRINDING

	DxWxX (mm)	V (°)	H (mm)	T (mm)	E (mm)	SPECIFICATION	ADDITIONAL INFORMATION	PK QTY	ART NO.
	DIAMOND								
D V°Q Y	125x5x10	80	32	22	11	ASD126/46 R100/ R75 <b>ECO</b> TOP-P	For production, oil	1	7958725661
X	125x5x10	80	32	22	11	ASD126/46 R125/ R100 <b>ECO</b> TOP-R	For re-sharpening	1	7958725663

\*6VV5K (with keyway)

### 14M1 TOP GRINDING



ADDITIONAL INFORMATION D126/D46: U=2.5/2.5

#### COLOUR CODES FOR MACHINE MANUFACTURERS

Vollmer-Biberach Vollmer-Dornhan Woodtronic Akemat Widma	
--	--

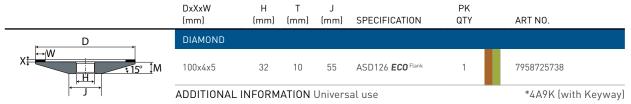


## FOR SHARPENING OF TUNGSTEN CARBIDE TIPPED SAW BLADES

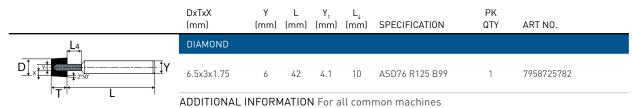
During the flank grinding process, the cutting width of the circular saw blade is defined. Therefore, typically, two 4A9 grinding wheels are simultaneously fed from both sides.

When manufacturing saw blades, there is a wide variety of tooth geometries and designs to chose 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



### 1A1W HOLLOW TOOTH GRINDING



#### COLOUR CODES FOR MACHINE MANUFACTURERS

Vollmer-Biberach Vollmer-Dornhan Woodtronic Akemat Widma

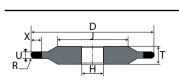


## FOR SHARPENING HSS SAW BLADES

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 economical and extremely wear-resistant.

## 14F1 INITIAL PROFILING AND RE-SHARPENING



ADDITIONAL INFORMATION For Loroch machines

(mm)	(mm)	(mm)	(mm)	(mm)	SPECIFICATION	QTY	ART NO.
CBN							
200x1.3x6.5	0.65	32	8	169	CB107 <b>ECO</b> Curve	1	7958706686
200x1.6x7	0.8	32	8	164	CB107 <b>ECO</b> Curve	1	7958714307
200x2x8	1	32	8	164	CB107 <b>ECO</b> Curve	1	7958706684
200x2.5x8	1.25	32	8	159	CB107 <b>ECO</b> Curve	1	7958716444
200x3x10	1.5	32	8	160	CB107 <b>ECO</b> Curve	1	7958718179
200x4x12.5	2	32	8	157	CB107 <b>ECO</b> 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	<b>A</b>	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	<b>A</b>	For universal grinding (wet or dry)
Q B99	T	For universal grinding (wet or dry)
R75 B49		For universal grinding (dry)
R50 B49		For universal grinding (dry)



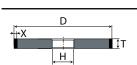
## **DIAMOND & CBN WHEELS**FOR GENERAL ENGINEERING

Norton offers a comprehensive stock programme for resin-bonded 1A1 standard grinding wheels designed for OD- and flat grinding tungsten carbide and steel parts.

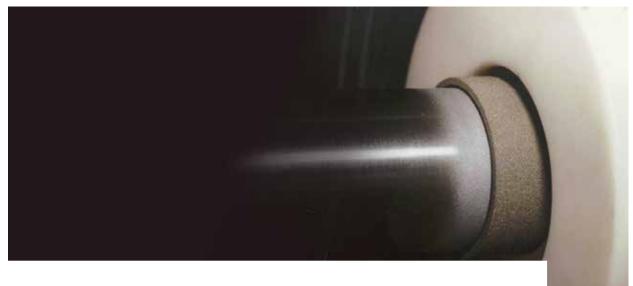
All specified grinding wheels can be used for OD- and flat grinding. However wheels (R50) with lower concentration have been specifically designed for flat grinding operations.

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.

DyTyX

### 1A1 ID GRINDING

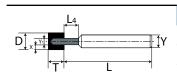


(mm)	(mm)	SPECIFICATION	QTY	ART NO.
DIAMOND				
15x12x2	6	ASD126 R100 B99	1	7958732728
20x10x2	6	ASD126 R100 B99	1	7958732950
30x10x3	10	ASD126 R75 B99	1	7958732956
40x15x3	10	ASD126 R75 B99	1	7958732971
CBN				
12x10x2	6	CB126 W B99	1	7958732722
15x12x2	6	CB126 W B99	1	7958732729
20x10x2	6	CB126 W B99	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

ΡK



## 1A1W IDF GRINDING



DxTxX (mm)	Y (mm)	L (mm)	Y <sub>1</sub> (mm)	L <sub>4</sub> (mm)	SPECIFICATION	PK QTY	ART NO.
DIAMOND							
3x6x0.65	3	60	1.7	8	ASD126 R100 B99	1	7958732949**
5x6	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

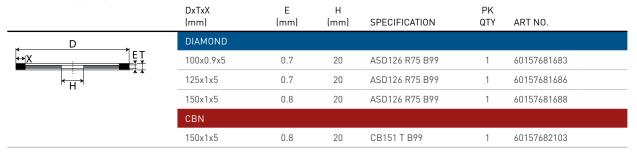
<sup>\*\*</sup> Available while stocks last



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



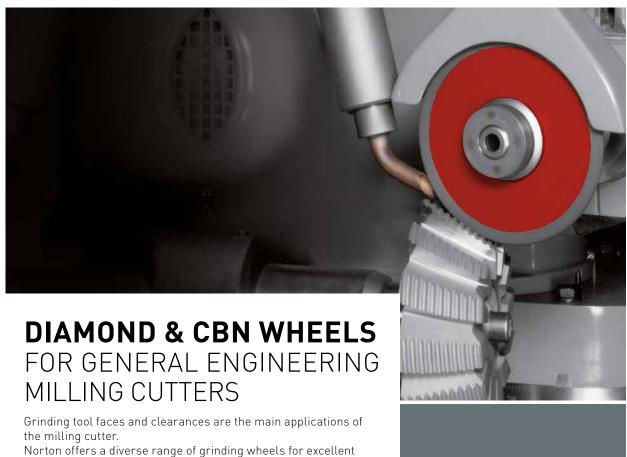


### 14F1 PROFILE GRINDING

profile knives for the wood industry.

	DxUxX (mm)	R (mm)	H (mm)	T (mm)	J (mm)	SPECIFICATION	PK QTY	ART NO.
VI← D	CBN							
	200x2x7	1	60	10	129	CB126 T B99	1	7958732990
R	200x4x7	2	60	10	134	CB151 W B99	1	7958732988
ADDITIONAL INFORMATION								
For Weinig machines								

The 14F1 grinding wheels are designed for use on Weinig machines for grinding



Norton offers a diverse range of grinding wheels for 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.

DxWxX

150x5x4

## 4A2 FACE GRINDING



20

Н

М

9

94

7958732852

PΚ

CB107 T B99



## 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
	(mm) DIAMOND 125x6x4 150x5x2 150x5x2 CBN	(mm)     (mm)       DIAMOND	(mm)     (mm)     (mm)       DIAMOND	(mm)         (mm)         (mm)         (mm)           DIAMOND	(mm)         (mm)         (mm)         (mm)         (mm)           DIAMOND         V         V         V         V         V         N         8         N         150x5x2         32         14         54         8         9         150x5x2         20         16         68         9         9         CBN         CBN         V <th>(mm)         (mm)         (mm)         (mm)         (mm)         (mm)           DIAMOND         V         V         V         V         V         V         V         S4         54         S4         54         150x5x2         20         16         68         9         68         68         150x5x2         32         16         68         9         68         68         CBN         CB</th> <th>(mm)         (mm)         (mm)         (mm)         (mm)         specification           DIAMOND           125x6x4         32         14         54         8         54         ASD91 R75 B99           150x5x2         20         16         68         9         68         ASD64 R50 B99           150x5x2         32         16         68         9         68         ASD126 R75 B99           CBN</th> <th>(mm)         (mm)         (mm)         (mm)         (mm)         specification         QTY           DIAMOND           125x6x4         32         14         54         8         54         ASD91 R75 B99         1           150x5x2         20         16         68         9         68         ASD64 R50 B99         1           150x5x2         32         16         68         9         68         ASD126 R75 B99         1           CBN</th>	(mm)         (mm)         (mm)         (mm)         (mm)         (mm)           DIAMOND         V         V         V         V         V         V         V         S4         54         S4         54         150x5x2         20         16         68         9         68         68         150x5x2         32         16         68         9         68         68         CBN         CB	(mm)         (mm)         (mm)         (mm)         (mm)         specification           DIAMOND           125x6x4         32         14         54         8         54         ASD91 R75 B99           150x5x2         20         16         68         9         68         ASD64 R50 B99           150x5x2         32         16         68         9         68         ASD126 R75 B99           CBN	(mm)         (mm)         (mm)         (mm)         (mm)         specification         QTY           DIAMOND           125x6x4         32         14         54         8         54         ASD91 R75 B99         1           150x5x2         20         16         68         9         68         ASD64 R50 B99         1           150x5x2         32         16         68         9         68         ASD126 R75 B99         1           CBN

## 13A2 FACE GRINDING

	DxWxX (mm)	H (mm)	M (mm)	K (mm)	E (mm)	J (mm)	SPECIFICATION	PK QTY	ART NO.
W D	DIAMOND								
X TE M	125x5x4	20	19	50	9	73	ASD126 R75 B99	1	7958732991**

<sup>\*\*</sup> Available while stocks last

## 12A2-45° TOP GRINDING DXWXX

	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	SPECIFICATION	QTY	ART NO.
D D	DIAMOND								
X K	100x5x2	20	23	54	10	56	ASD107 R50 B99	1	7958732999
# 45° M	100x6x3	20	20	64	10	62	ASD76 R75 B99	1	7958732968
$\downarrow \qquad \downarrow \qquad \downarrow$	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



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**

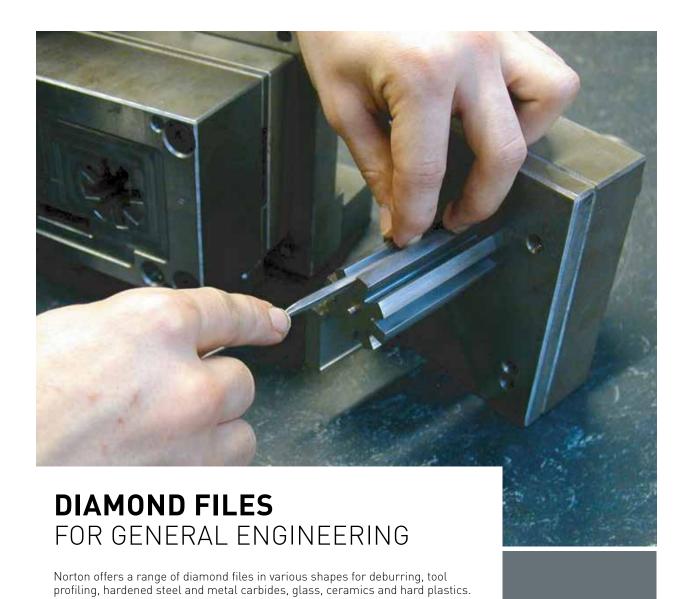
- Used for lapping an extremely wide range of parts by hand
- Superfinishing of electronic components, semi-conductors, magnetic heads, rigid discs and optical discs
- Finishing for routine operations
- Preparatory lapping
- Fast removal of material, roughing

### 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	





## **FILES**

• Free cutting and very high wear-resistant, requiring only low contact pressure

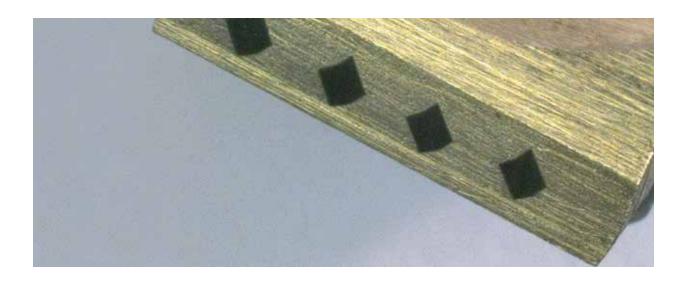
SHAPE	BASE BODY CROSSSECTION	LENGTH OF DIAMOND LAYER	TOTAL LENGTH	SHAFT Ø	GRIT SIZE	PK QTY	ART NO.	_
	5×1	70	140	3	D91	1	66260134227	_
	5×1	70	140	3	D126	1	66260134228	_
	3.5	70	140	3	D126	1	66260134231	_
	5x2	70	140	3	D91	1	66260110230	
	5x2	70	140	3	D126	1	66260134235	
	Ø 3	70	140	3	D126	1	66260134237	



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				U		
Blade tool with CVD		•				•
Blade tool with natural grains	•	•	•			•
Profile dresser					•	
Multi point	•		•			
Single point				•		
				Highly reco	mmended	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 operations using blade tools are done either using natural diamonds or synthetic diamons in needle form, such form allows better rentention of the diamonds to the bond, avoiding shortage on lifetime of the blades.

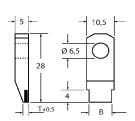
## BLADE TOOL DRESSERS +++++

• Synthetic multi-crystalline diamond

 The most consistent dresser for demanding profiling and straight dressing

	UPC	DESCR.	BEST	BETTER	GOOD
	66260336093	3584-0C/4	4 CVD logs		
Coarse (T=1.1mm)	66260337292	3584-0C/3		3 CVD logs	
	66260337491	3584-0C/2			2 CVD logs
Fine (T=0.8mm)	66260195223	3564-0C/4	4 CVD logs		
	66260337624	3564-0C/3		3 CVD logs	
	66260337490	3564-OC/2	-		2 CVD logs





#### **DIAMOND DRESSERS**

## BLADE TOOL DRESSERS ####



- An economical dressing solution for all Alox and SiC wheels
- Natural diamond

• Needles are recommended for profile dressing



	UPC	DESCR.	BEST	GOOD
Profile Grinding	69014185756	TFC180-20-10-28*N1100 T645 E	20x28mm	
(Needle)	69014185757	TFD180-10-12-28*N1000 T645 E		10x28mm
Coarse	69014185716	TFCS140-20-10-28*D1181 T645 E	20x28mm	
Coarse	69014185737	TFDS140-10-12-28*D1181 T645 E		10x28mm
Medium	69014185718	TFCS115-20-10-28*D1001 T645 E	20x28mm	
меашт	69014185736	TFDS115-10-12-28*D1001 T645 E		10x28mm
Fine	69014185732	TFCS90-20-10-28*D711 T645 E	20x28mm	
1 1116	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, especially at production grinding stations

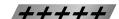


- Standard diamonds
- Ideal for applications where it is difficult to measure the performance of the dressing
- Economy product
- Suitable for dressing conventional abrasive wheels



			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 11mm	7	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	MKO 25 25,5 31,5	69014119600	SP15-MK0	1.5 ct	69014119599	SP10-MK0	1.0 ct	
MK1	MK1 SW11	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



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#### MULTI-POINT DRESSER +++++

- Economical and robust too
- Ideal for straight dressing at high speed with low technical demands



			COARSE		FINE			
SHANK		UPC	DESCR.	CARAT	UPC	DESCR.	CARAT	
Cyl. 8mm	, × ×	66260329350	HIG5-11-11-Z8-40 <sup>2</sup> D1001 H710	* 5.0 ct	66260386425	HPR058-5-8-Z8-20* D426 H710	1.0 ct	
Cyl. 10mm		7958773912	HIG5-11-11-45- Z10/K-30 *D711 H710	5.0 ct	66260196236	HPR088-8-0- 8-Z10-50* D426 H710	2.4 ct	
Cyl 11.11		69014172027	HIG5-11-11-Z11-30 *D711 H710	5.0 ct	66260154289	HPR048-4-8- 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

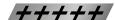
- High wear resistance and long product life time
- Suitable for face and side dressing







#### 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
- Ideal for dressing CBN superabrasive wheels

Friable abrasive

DIA (mm)	SPECIFICATION	PK QTY	ART NO.	APPLICATION
	38A 150 HVBE	10	61463605565	For SA wheels ≥D54
13x25x150	38A 220 HVBE	10	61463605066	-
	38A 320 HVBE	10	69936684889	For SA wheels ≤D46





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.

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#### **TECHNICAL INFORMATION**

#### **DESIGNATION OF GRIT SIZES**

DESIGN	DESIGNATION OF ORTH SIZES											
FEPA	US	IIC	DWAI	DIAMOND	CDN		RA (mm) SURFACE FIN	ISH				
MICRONS	MESH	JIS	DWMI	DIAMOND	CBN	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  $1 \text{cm}^3$  of abrasive strip – 1 carat = 0.2 grams.

CONCE	NTRA	TION*	NUMBER OF		ABRASIVE WEIGHT
DIAMOND ABRASIVE		CBN ABRASIVE*	CARATS/cm <sup>3</sup>		PER cm <sup>3</sup>
100	=	W	4.4	=	0.88g/cm <sup>3</sup>
75	=	Т	3.3	=	0.66g/cm <sup>3</sup>
50	=	Q	2.2 =		0.44g/cm <sup>3</sup>

<sup>\*</sup> Other concentrations available upon request

#### **SELECTION OF CONCENTRATION**

The choice of concentration depends on the machining parameters:

The choice of concentration depends on the machining parameters.												
HIGH	I CONCENTRATION		MEDIUM OR LOW CONCENTRATION									
Rou	ughing operations	,	Finishing operation									
Po	owerful machine		Low power machine									
Sr	mall contact area		Large contact area									
Retention of pr	ofile or sharp edges of whe	eel	Cutting without temperature rise									
OPERATION	INTERNAL GRINDING	EXTERNAL GI	RINDING	SURFACE GRINDING	SHARPENING							
Diamond	100	75		50	50/75							
CBN	W	Т		Q	Q/T							

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NOTES			
NOILS			



# DIAMOND TOOLS

Introduction	332		
DIAMOND BLADES	336-377	DRILLING CORE BITS	378-390
for concrete & reinforced concrete	336	for concrete	379
for universal building materials	342	for universal building materials	385
for multi materials	355	for natural stone & tiles	387
for ceramic & porcelain tiles	358		
for granite, marble & stone	364	NORTON CLIPPER SAW BLADES	391-416
for asphalt & abrasive materials	368		
for refractory materials	373		

#### 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**

**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



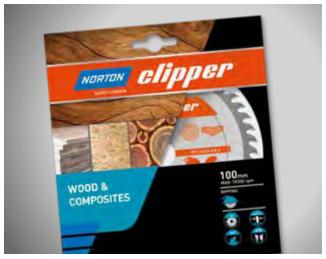
#### **ORANGE** for:

 Refractory Materials

### CARBIDE TIPPED BLADE (TCT) RANGE

When our customers demanded a high-quality alternative saw blade range, Norton Clipper answered the call. Flawless cutting every time, reliable quality, clear and easy to choose ranges.

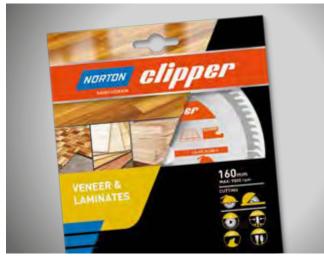
# FOUR APPLICATIONS, FOUR GREAT RANGES, FOR PROFESSIONALS. WE HAVE THE BLADE YOU'RE LOOKING FOR.





#### **WOOD & COMPOSITES**

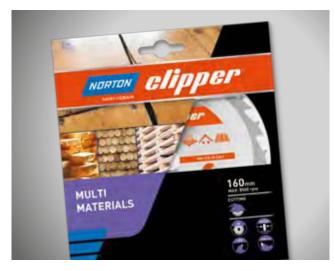
Encompassing solutions for hard and soft wood, wooden panels, OSB, MDF, and HDF, these blades are built for power, precision and durability.





#### **VENEER & LAMINATES**

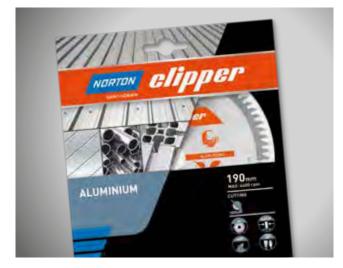
Whether you need to cut melamine-faced boards, plywood, laminated panels or sheets of HPL, we have a professional blade to suit.





#### **MULTI-MATERIALS**

Designed with cutting construction timbers, pallets, nails and non-ferrous metals in mind. Concerns about damaging these blades are a thing of the past.





#### **ALUMINIUM**

This is Norton Clipper's specialist range of blades suited to cutting aluminium, brass, and copper.

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# DIAMOND BLADE RECOMMENDATION GUIDE

	Extreme Beton	Pro Beton	Classic Beton	Standard Beton	Extreme Universal Laser	Pro Universal Laser	Classic lUniversal Laser	Classic Universal	Standard l Universal	Extreme Universal Turbo	Pro Universal Turbo	Classic Universal Turbo	Standard Universal Turbo	Extreme Cut 'n' Grind	Pro Cut 'n' Grind	Pro Universal Ductile
QUALITY	***	<b>~~~</b>	<b>\$\$\$</b>		<b>********</b>	<b>0000</b>	<b>##</b>	999		<b>*********</b>	<b>0000</b>	<b>##</b>		***	<b>0000</b>	••••• «
WET OR DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY
MACHINES	<b>%</b>	<b>→</b>	<b>→</b>	<b>→ → →</b>	A A	<b>→ → →</b>		<del>*</del>				<b>—</b>	<b>*</b>	<b>*</b>	<b>*</b>	THE !
DIAMETER (mm)	115-1200	230-600	115-400	115-350	300-1000	115-1000	115-1000	115-350	115-350	115-350	115-350	115-230	115-230	100-125	100-125	115-350
TECHNOLOGY	i-HD™	LASER	LASER	SINTERED	) LASER	LASER	LASER	SINTERED	SINTERED	SINTERED	SINTERED	SINTERED	SINTERED	i-HD™	SINTERED	) VACUUM
REINFORCED CONCRETE																
Hard concrete, kerbs & gutters	• •	• •	•	•												
Reinforced concrete, con- crete lintels	• •	•	•	•												
UNIVERSAL																
Concrete block (3,6-7,3N)	• •	••	•		• •	••	•	•	•	••	• •	•	•	••	•	•
Calcium silicate blocks	• •	• •	•		• •	••	•	•	•	••	• •	•	•	• •	•	•
Concrete pavers	• •	• •	•		• •	••	•	•	•	• •	• •	•	•	• •	•	•
Concrete with gravels	• •	• •	•		• •	••	•	•	•	• •	• •	•	•	• •	•	•
Clay bricks/ceramic porous blocks	• •	• •	•		• •	• •	•	•	•	• •	• •	•	•	• •	•	•
Clinker bricks/facing tiles/ terracota	• •	• •	•		• •	••	•	•	•	••	••	•	•	••	•	•
Vitrified clay pipes	• •	• •	•		• •	• •	•	•	•	• •	• •	•	•	• •	•	•
ASPHALT / ABRASIVE MA	TERIALS															
Asphalt																
Asphalt over concrete																
Green concrete																
CERAMICS																
Porcelain tiles																
Ceramic and porcelain tiles																
NATURAL STONE																
Granite														•	•	•
Marble														•	•	
Sandstone														•	•	•
Limestone														•	•	•
OTHER MATERIALS																
Cast iron																•
Fiberglass, PVC, rubber																•

#### PERFORMANCE KEY

• • RECOMMENDED

Ideally suited for this application

**ACCEPTABLE**Either the blade life or cutting speed could be affected

xtreme CG	Pro CG	Classic CG	Pro 4x4 Explorer	Invincible	All mate- rials 4x4 standard	Extreme Asphalt	Pro Asphalt	Classic Asphalt	Extreme Green concrete	Green	Extreme Ceramic Turbo	Extreme	Pro Ceramic		Standard Ceramic		Pro Granite Turbo	Pro Granite	Pro Marmo
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WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET	WET	WET & DRY	WET	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY	WET & DRY
<del>-</del>	<del>-</del>	<del>-</del>		<b>-</b>		**	**	% **	*	*								Ħ	
100-180	100-180	100-180	115-500	115-150	115-350	300-1000	300-600	300-600	300-350	300-350	115-300	200-350	115-350	115-350	115-230	230-900	115-400	300-600	50-350
i-HD™	i-HD™	i-HD™	LASER	i-HD™	LASER	i-HD™	LASER	LASER	LASER	LASER	SINTERED	SINTERED	SINTERED	SINTERED	SINTERED	i-HD™	LASER	LASER	E/PLAT- ED
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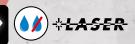
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DIAMOND TOOLS FOR

# CONCRETE & REINFORCED CONCRETE



## EXTREME BETON SILENCIO \*\*\*





Residential areas, city centres, schools and hospitals are 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.

#### What makes Silencio different?

Winner of 10 innovation and safety awards, Silencio's patented technology relies on the following features:

- 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 airflow 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	230	22.23	17/2.8	70184601168**	5450248702498
<b>%</b>	300	20	15/3.2	70184629000	5450248398226
<b>%</b>	300	25.4	15/3.2	70184642421	5450248498308
<b>%</b>	350	20	15/3.2	70184647780**	5450248570998
<b>%</b>	350	25.4	15/3.2	70184628999**	5450248398219
₩	350	25.4	15/3.2	70184628997	5450248398196
<b>%</b>	400	20	15/3.2	70184694504	5450248688518
<b>%</b>	400	25.4	15/3.2	70184643510	5450248510604
*	450	25.4	15/3.2	70184631020	5450248450597
*	500	25.4	15/3.2	70184630416	5450248440901



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<sup>\*\*</sup> IHD technology





MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>&amp;</b>	115	22.23	12/2.2	70184630301	5450248414193
<del>-</del>	125	22.23	12/2.2	70184630302	5450248414209
<b>+</b>	230	22.23	15/3.0	70184647723	5450248569299
<b>%</b>	300	20	15/3.0	70184647787	5450248570745
<b>%</b>	300	25.4	15/3.0	70184647788	5450248570752
<b>%</b>	350	20	15/3.2	70184647789	5450248570769
<b>%</b>	350	25.4	15/3.2	70184647790	5450248570776
<b>%</b>	400	20	15/3.2	70184693353	5450248572657
<b>%</b>	400	25.4	15/3.2	70184693354	5450248572664
*	450	25.4	15/3.8	70184602363	5450248727361
*	500	25.4	15/3.8	70184601690	5450248709626
*	600	25.4	15/4.4	70184601691	5450248709633
1	700	25.4	15/4.4	70184601692*	5450248709640
₩	800	25.4	15/4.4	70184601693	5450248709657



<ul> <li>Available on request</li> </ul>	*	Available	on	request
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NAME	MACHINE	POWER	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
	*	20 - 30 hp	500	25.4	15/3.8	70184601696	5450248709701
Beton 10	*	20 - 30 hp	600	25.4	15/4.4	70184601735	5450248710691
	*	20 - 30 hp	700	25.4	15/4.4	70184601999*	5450248717898
	*	35 - 54hp	600	25.4	15/4.4	70184694212*	5450248594475
Beton 20	*	35 - 54hp	700	25.4	15/4.4	70184694733	5450248693093
	*	35 - 54hp	800	25.4	15/4.4	70184694735*	5450248693116
	*	55 - 90 hp	600	25.4	15/4.4	70184694719*	5450248692966
Beton 30	*	55 - 90 hp	700	25.4	15/4.4	70184694718*	5450248692959
	*	55 - 90 hp	800	25.4	15/4.4	70184694721*	5450248692980





## BLADES FOR CONCRETE & REINFORCED CONCRETE FOR ANGLE GRINDERS, CUT-OFF SAWS, MASONRY & FLOOR SAWS



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
₩.	300	25.4	12/2.5	70184632960	5450248830597
*	350	25.4	12/2.5	70184632962	5450248830610



#### PRO BETON SILENCIO

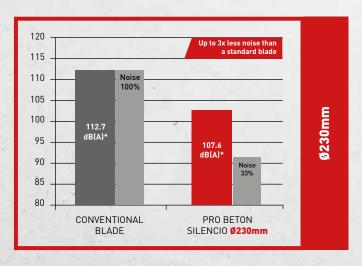


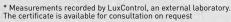




- The Norton Clipper Pro Beton Silencio blade reduces noise by up to three times (-5 dB(A)) compared to conventional blades when used on an angle grinder thanks to a special steel core.
- Features 12mm high segments for longer life.
- It is specialised for use on reinforced concrete and building materials, 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.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<u>*</u>	230	22.23	12/2.6	70184602810	5450248741381
<b>+</b>	350	25.4	12/2.8	70184603274	5450248753896











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#### PRO BETON





- Laser welded blade for intensive use on a wide range of construction materials and reinforced concrete.
- Narrow gullet for great results on hard materials.

· For dry or wet cutting.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	230	22.23	12/2.8	70184612117*	5450248210498
<b>%</b>	300	20	10/2.5	70184627058**	5450248372554
*	350	20	10/2.8	70184627060**	5450248372578
<b>%</b> ₹ <b>*</b>	350	25.4	10/2.8	70184627061**	5450248372585
<b>%</b> ₹ <b>*</b>	400	25.4	10/3.2	70184627062**	5450248372592
7 🐪	450	25.4	10/3.2	70184627063**	5450248372608
7 1	500	25.4	10/3.8	70184627064**	5450248372615
A 🐪	600	25.4	10/4.0	70184627065**	5450248372622



#### 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 centre helps to mount the blade on the machine.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
36	300	20	12/2.8	70184631807	5450248815334
36 V	300	25.4	12/2.8	70184631808	5450248815341
<b>%</b>	350	20	12/2.8	70184631809	5450248815358
<b>%</b>	350	25.4	12/2.8	70184631590	5450248815303
<b>%</b>	400	20	12/3.2	70184631810	5450248815365
<b>%</b>	400	25.4	12/3.2	70184631591	5450248815310
₩	450	25.4	12/3.2	70184631602	5450248815327
₩	500	25.4	12/3.8	70184632393	5450248815372
*	600	25.4	12/4.4	70184632394	5450248815389
₩	700	25.4	12/4	70184633217	5450248835295



#### CLASSIC BETON TURBO







- Laser welded diamond blade.
- · For dry or wet cutting.

Corrugated segments.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>+</b>	115	22.23	10/2.4	70184694465	5450248687993
<u>-</u>	125	22.23	10/2.4	70184694466	5450248688006
<u> </u>	230	22.23	10/2.6	70184694467	5450248688013
C)L	300	20	10/3.2	70184694468	5450248688020
36	300	22.23	10/3.2	70184602486	5450248730606
C)L	350	20	10/3.2	70184694469	5450248688037
36 Th	350	25.4	10/3.2	70184694470	5450248688044
C)L	400	20	10/3.2	70184601392	5450248707493
36 Th	400	25.4	10/3.2	70184694471	5450248688051



#### **CLASSIC BETON**



· Dry or wet cutting.



- An economical solution.
- · Laser welded blade.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>%</b>	300	20	10/2.8	70184626869	5450248353621
36 Th	300	25.4	10/2.8	70184626870	5450248353638
<b>%</b>	350	20	10/2.8	70184626871	5450248353645
<b>%</b>	350	25.4	10/2.8	70184626872	5450248353652
<b>%</b>	400	25.4	10/3.2	70184626873	5450248353669
₩	450	25.4	10/3.2	70184626874	5450248353676
*	500*	25.4	10/3.4	70184694416*	5450248687429
*	600*	25.4	10/3.6	70184694417*	5450248687436

<sup>\* 500-600</sup>mm 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.

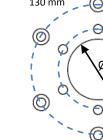
MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<del>_</del>	115	22.23	8/2.6	70184608578	5450248776277
<b>*</b>	125	22.23	8/2.8	70184608579	5450248776284
<del>-</del>	230	22.23	9/3.4	70184608580	5450248776291
<b>%</b>	300	20	10/3.7	70184608581	5450248776307
<b>%</b> A	350	25.4/20	10/4	70184608582	5450248776314



# Clipper's Tip

#### **BORE PATTERNS**

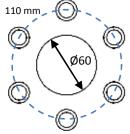




#### **HYDROSTRESS**

6 conical holes for countersunk M8 screws on a 130mm circle 6 holes ø9mm on a 80mm circle Bore 60mm





6 conical holes for countersunk M10 screws on a 110mm circle Bore 60mm



3 conical holes for countersunk M10 screws on a 90mm circle. Bore 25.4mm



DIAMOND TOOLS FOR

# UNIVERSAL BUILDING MATERIALS

Discover our diamond blades specially designed for cutting cured concrete, kerb stones, concrete pipes, bricks, block paving, flagstones and paving stones, washed gravel concrete slabs, clift per Jumbo 651

## EXTREME UNIVERSAL TURBO





#### WHEN PERFORMANCE MEETS DESIGN

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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	115	22.23	12/1.8	70184623598	5450248236863
<del>_</del>	125	22.23	12/2.0	70184623599	5450248330868
<del>_</del>	230	22.23	12/2.8	70184623180	5450248234692
<b>%</b>	300	20	12/2.8	70184611230	5450248174042
<b>%</b> A	300	25.4	12/2.8	70184611236	5450248174417
Cha.	350	20	12/3.2	70184611427	5450248183907
<b>%</b> A	350	25.4	12/3.2	70184611561	5450248186960
<del>-</del>	230	70/22.23 + Flange	12/2.8	70184623448	5450248329336





#### PRODUCT FEATURES







ROTATIONAL DIRECTION

#### 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)	ITEM NO.	EAN
<b>%</b>	25.4	22.23	70184623894	5450248236528
36	25.4/22.23	20	70184622589	5450248233176



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#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	12/2.1	70184610314	5450248007616
<del>_</del>	125	22.23	12/2.1	70184610315	5450248007623
<del>-</del>	150	22.23	12/2.5	70184610316	5450248007630
<del>-</del>	180	22.23	12/2.5	70184610317	5450248007647
<del></del>	230	22.23	12/2.8	70184610267	5450248005223
	300	20	12/3.2	70184610259	5450248004905
<b>%</b>	350	20	12/3.2	70184610334*	5450248007982
<b>%</b> A	350	25.4	12/3.2	70184610336	5450248008002



\* Available on request

#### 





- An economical solution.
- Continuous rimmed blade.
- Use dry or wet.
- BORE (mm) SEGMENT H/W (mm) MACHINES ITEM NO. 115 22.23 5450248353188 10/2.2 70184626814

70/22.23 + Flange

125 22.23 10/2.2 70184626815 5450248353195 22.23 10/2.4 70184626816 5450248353201 180 22.23 10/2.6 70184626818 5450248353225 300 20 10/3.2 70184626822 5450248353263 10/3.2 70184626824 5450248353294 350 25.4 125 M14 10/2.0 70184629695 5450248405832 10/2.6 70184626819 5450248353232





#### STANDARD UNIVERSAL TURBO

230



- · 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<u></u>	115	22.23	10/2.5	70184608560	5450248776154
<u> </u>	125	22.23	10/2.8	70184608561	5450248776161
<del>_</del>	230	22.23	10/3.2	70184608563	5450248776185
<del>_</del>	300	20	10/3.2	70184608570	5450248776192



## EXTREME UNIVERSAL SILENCIO







**A PREMIUM CUTTING** SILENT DIAMOND BLADE

Residential areas, city centres, schools and hospitals are 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 building materials, while achieving a fast, efficient cut.

#### What makes Silencio different?

Winner of 10 innovation and safety awards, Silencio's patented technology relies on the following features:

- A noise-dampening layer is sandwiched between two sheets of steel which absorbs the cutting vibrations and sound of the product when
- 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



MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	300	25.4	15/2.8	70184640269	5450248456209
A	350	25.4	15/2.8	70184628998	5450248398202
A	400	25.4	15/3.1	70184640270	5450248456216
A	450	25.4	15/3.1	70184694368*	5450248686699
A	500	25.4	15/3.2	70184630309	5450248414155





#### 







- Our best quality for your masonry saw.
- Reduction of noise up to 30x.

•	Laser welded blade for optimum safety
	and performance.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>P</del> ,	650	25.4	15/4.4	70184694227	5450248594697
Ħ.	900	60/55	15/4.4	70184694030	5450248587309
<b>₽₽</b> .	1000	60/55	15/4.4	70184694595	5450248689898







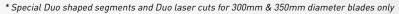


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MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
Ą	300*	30/25.4	15/2.8	70184612282	5450248218777
A	350*	30/25.4	15/2.8	70184612283	5450248218784
A	400	25.4	10/3.2	70184611438	5450248184782
A	450	25.4	10/3.2	70184611439	5450248184799
A	500	25.4	7/3.8	70184611440	5450248184805





#### PRODUCT FEATURES



15mm HIGH SEGMENTS ON DIAMETER 300mm AND 350mm



ROTATIONAL DIRECTION



FOR BEST RESULTS USE ON NORTON CLIPPER MASONRY SAWS - SEE NORTON CLIPPER CATALOGUE

#### BLADES FOR UNIVERSAL BUILDING MATERIALS FOR ANGLE GRINDERS, HANDHELD CUT-OFF SAWS AND MASONRY SAWS



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	115	22.23	12/2.2	70184607952	5450248766988
<del>-</del>	125	22.23	12/2.2	70184607953	5450248767190
<del>-</del>	230	22.23	12/2.2	70184608410	5450248772491
A	350*	25.4	12/3.1	70184602811	5450248741398





#### PRO UNIVERSAL LASER ♥♥♥







- Fast cutting.
- For use on concrete slabs and general purpose building materials.
- Use dry or wet cutting on masonry saws.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<del>-</del>	115	22.23	12/2.2	70184607493	5450248763192
<del>-</del>	125	22.23	12/2.3	70184607684	5450248763208
<del>_</del>	150	22.23	12/2.2	70184607685	5450248763215
<b>A</b>	150	30	12/2.2	70184607693	5450248763284
<del>_</del>	180	22.23	12/2.5	70184607686	5450248763222
<b>A</b>	180	30	12/2.5	70184607687	5450248763239
<del>_</del>	230	22.23	12/3.0	70184603038	5450248747291
<b>%</b>	300	20	12/3.1	70184607689	5450248763246
<b>%</b>	300	25.4	12/3.1	70184607690	5450248763253
<b>%</b>	350	20	12/3.20	70184607691	5450248763260
<b>%</b>	350	25.4	12/3.2	70184607692	5450248763277
<b>%</b> 🛪	350	25.4	10/2.8	70184611209	5450248173236
A	400	25.4	10/2.5	70184610679	5450248015277
<b>%</b>	400	20	12/3.2	70184631497	5450248799917
A	450	25.4	12/3.2	70184609093	5450248788492
A	500	25.4	10/3.2	70184625953	5450248348016







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#### 







- 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	115	22.23	7/2.2	70184626834	5450248353409
<del>_</del>	125	22.23	7/2.2	70184626835	5450248353416
<del>_</del>	150	22.23	7/2.2	70184626836	5450248353423
<del>_</del>	180	22.23	7/2.5	70184626837	5450248353447
<del>_</del>	230	22.23	10/2.5	70184626838	5450248353454
<b>%</b>	300	20	10/2.5	70184626839	5450248353461
<b>%</b> 🔼	300	25.4	10/2.5	70184626840	5450248353478
<b>%</b>	350	20	10/2.8	70184626841	5450248353485
<b>%</b> 🔼	350	25.4	10/2.8	70184626842	5450248353492



#### CLASSIC UNIVERSAL





- An economical solution
- Si

n economical solution.	• Use dry or wet.
intered blade.	

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	10/1.8	70184626806	5450248353096
<del>-</del>	125	22.23	10/1.8	70184626807	5450248353102
<del>-</del>	180	22.23	10/2.2	70184626809	5450248353126
<del>-</del>	230	22.23	10/2.4	70184626810	5450248353133
<b>%</b>	300	20	10/3.0	70184626811	5450248353157
<b>%</b> 🛪	350	25.4	10/3.2	70184626813	5450248353171



#### STANDARD UNIVERSAL



• Sintered segmented blade.

• For universal building materials such as bricks, pavers and building blocks.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<b>—</b>	115	22.23	10/1.9	70184608572	5450248776215
<b>+</b>	125	22.23	10/2.2	70184608573	5450248776222
<u> </u>	230	22.23	10/2.6	70184608575	5450248776246
<b>%</b>	300	20	10/3	70184608576	5450248776253
<b>%</b> 7	350	25.4/20	10/3.4	70184608577	5450248776260



#### 

materials from soft to hard.





• Super fast cutting and very long life on all • Up to 15mm high segments.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>₽₽</b> .	900	60	15/4.8	70184647651	5450248564287



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>Æ</b> .	600	25.4	12/4.4	70184647258*	5450248564195
<b></b>	625	60	12/4.4	70184693972	5450248586593
<b>.</b> ₽.	650	25.4	12/4.4	70184647265	5450248564225
<b>P</b> .	700	25.4	12/4.4	70184603061**	5450248748793
<b></b>	700	60	12/4.4	70184647264	5450248564218
<u>F</u>	900	60	12/4.4	70184647266	5450248564232
<b></b>	1000	60	12/4.4	70184647263	5450248564201

<sup>\*\*</sup> Specially designed for your CM70 ALU

#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<u>ir</u>	650	25.4	10/4.4	70184647267	5450248564249
	900	60	10/4.4	70184647269	5450248564256
	1000	60	10/4.4	70184647650	5450248564263



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<sup>\*</sup> Available on request

# PRO UNIVERSAL DUCTILE

 $\bigoplus \bigoplus \bigoplus \bigoplus$ 



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 fibreglass-reinforced resin, small amount of wood, ductile iron and metals.



MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>•</del>	115	22.23	2.8	70184694459	5450248687894
<del>*</del>	125	22.23	2.8	70184694460	5450248687900
<del>-</del>	180	22.23	2.8	70184694461	5450248687917
<del></del>	230	22.23	3.1	70184694462	5450248687924
<b>%</b>	300	20	3.4	70184694463	5450248687931
Charles A	350	25.4	3.4	70184694464	5450248687948
C)(L)	400	20	3.3	70184694691	5450248691518



#### PRO PIPE CUTTER





• Can be used on all materials.

- For cutting and grinding plastic pipes.
- Allows to cut and grind a plastic pipe in only one step.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN	
<del>_</del>	125	22.23	2.5	70184601374	5450248707189	









#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	7/6.5	70184601130	5450248704553
<del>_</del>	125	22.23	7/6.5	70184641691	5450248492801



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	6.5/4.5	70184610712	5450248047063
<del>-</del>	125	22.23	6.5/4.5	70184610713	5450248047070
<del>-</del>	115	22.23	6.5/6.5	70184610305	5450248006466
<del>-</del>	125	22.23	6.5/6.5	70184610307	5450248006534
<del>-</del>	115	22.23	6.5/8.0	70184610715	5450248047094
<b>—</b>	125	22.23	6.5/8.0	70184610716	5450248047100



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>+</b>	115	22.23	13/6.5	70184624198	5450248235477
<del>_</del>	125	22.23	13/6.5	70184624199	5450248235484



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## EXTREME CG



Norton Clipper Extreme Cup Grinders provide the ultimate surface grinding performance.

- i-HD segments provide the best finish, high material removal rates and longest life thanks to the uniform density of diamonds across each whole segment.
- The unique large segment design enables faster grinding of large surfaces.
- Low vibrations provide better comfort during use.
- Large ventilation holes mean better cooling and less heat generation.
- Flat 125mm cup grinder is suitable for use on all vacuum grinders.
- For use on building materials, concrete, natural stone and abrasive materials.
- For tilers, general builders, concrete flooring contractors, and swimming pool installers.





MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	100	19	22.23	4.5	70184694991	5450248697343
<del>-</del>	125	24	22.23	4.5	70184694993	5450248697367
<b>+</b>	180	29	22.23	4.5	70184694994	5450248697374
<del></del>	125 FLAT	19	22.23	4.5	70184694992	5450248697350

#### 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).

O	I I a Carla k
L.IIn	Height



MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<u> </u>	100	19	22.23	4.5	70184694988	5450248697312
<u> </u>	125	24	22.23	4.5	70184694989	5450248697329
<del>_</del>	180	29	22.23	4.5	70184694990	5450248697336



#### CLASSIC CG







- An economical solution.
- For surfacing and grinding hard construction and building materials (concrete, reinforced concrete, and natural stone).
- Smaller segments have excellent performance on hard materials.

 Flat sides avoid damaging walls or ceilings during flush grinding.





MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	100	19	22.23	4.5	70184694995	5450248697381
<u>+</u>	125	24	22.23	4.5	70184694996	5450248697398
<u> </u>	180	29	22.23	4.5	70184601079	5450248699293



## EXTREME CG COMFORT



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
- $\bullet$  i-HD  $^{\text{\tiny TM}}$  Technology for high material removal and long life



#### Clipper's Tip

Hand-Arm vibrations provokes painful and disabling disorders of the blood vessels and nerves, leading to a disease called Vibration White Finger. We have developed a product that minimises the vibration and optimises your comfort.



MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>*</del>	100	20	22.23	4.5	70184607656	5450248762690
<u>+</u>	125	25	22.23	4.5	70184602648	5450248735106
-	180	30	22.23	4.5	70184607657	5450248762706



#### PRO CG-PCD COMFORT





- PolyCrystalline Diamond (PCD) cup wheel, 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.

Cup Height	-
	-

MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	PCD ELEMENTS	ITEM NO.	EAN
<del>*</del>	125	18	22.23	12pcs	70184645886	5450248535492



#### CLASSIC CG-PCD





Use a concrete cup wheel after using

PCD wheels to ensure a great finish.

- Cost-effective PolyCrystalline Diamond (PCD) cup wheel.
- Designed for the fast removal of glue, epoxy resins and paint.

				DI V			
MACHINES	Ø (mm)	CUP HEIGHT (mm)	BORE (mm)	PCD ELEMENTS	ITEM NO.	EAN	
<del>*</del>	125	19	22.23	12pcs	70184693445	5450248577317	

Cup Height



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#### EXTREME CUT'N'GRIND







- Multi-purpose tool for cutting and grinding 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	Ø (mm)	BORE	SEGMENT H/W (mm)	ITEM NO.	EAN	
<del>_</del>	125	M14	25 / 3.9	70184602036	5450248719182	



**CUTTING AND GRINDING** 

#### PRO cut'n'GRIND





- Sintered turbo shape, for fast material removal and good finishing quality in cutting
- 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	Ø (mm)	BORE	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>*</del>	100	M14	25 / 3.9	70184641171	5450248465591
<b>+</b>	125	M14	25 / 3.9	70184641172	5450248465607



# 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.





For cutting off all the following materials:

- 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>(-</b>	115	22.23	10/2.2	70184602018	5450248720997
<del>_</del>	125	22.23	10/2.2	70184602019	5450248721000
<del>_</del>	180	22.23	10/2.5	70184602020	5450248721000
<del></del>	230	22.23	12/2.5	70184602021	5450248721024
<b>%</b>	300	20	12/3.0	70184602022	5450248721031
<b>*</b> 7 <b>*</b>	300	25.4	12/3.0	70184602023	5450248721048
<b>%</b>	350	20	12/3.2	70184602091	5450248721055
<b>%</b> A <b>%</b>	350	25.4/20	12/3.2	70184602092	5450248721062
<b>%</b> A <b>%</b>	350	25.4	12/3.2	70184602093	5450248721079
<b>%</b> A <b>%</b>	400	25.4	12/3.2	70184602095	5450248721093
<b>%</b>	400	20	12/3.2	70184602094	5450248721086
<b>7</b>	450	25.4	12/3.2	70184602096	5450248721109
<b>A </b>	500	25.4	10/3.8	70184602097	5450248721116

#### PRODUCT FEATURES







SEGMENT WEAR INDICATOR



PATENTED CUTTING DEPTH INDICATOR

#### 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)	ITEM NO.	EAN
C)L	25.4	22.23	70184623894	5450248236528
Ch	25.4/22.23	20	70184622589	5450248233176



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<del>-</del>	115	22.23	10/2.2	70184609627	5450248790990
<u>*</u>	125	22.23	10/2.2	70184609628	5450248791003
<del>-</del>	230	22.23	10/2.5	70184609629	5450248791010
<b>%</b>	300	20	10/2.5	70184609630	5450248791027
<b>%</b> ∺ <b>∜</b>	350	25.4/20	10/2.8	70184609633	5450248791058
<b>%</b> # <b>*</b>	400	25.4/20	10/3	70184632527	5450248825906



#### INVINCIBLE BLADES

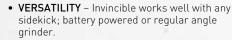
• Invincible blades are designed specifically to

required, you can rely on Invincible to cut

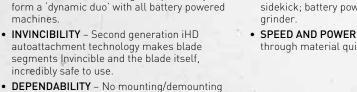
through all building materials.



TEASER



 SPEED AND POWER – Our 'Man of Steel' cuts through material quickly and easily.



MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	QTY	ITEM No.	EAN
<del>_</del>	115	22.23	12/2.2	1	70184603342	5450248756590
<b>—</b>	125	22.23	12/2.2	1	70184603343	5450248756606



#### BLADES IN A KIT OF 10 PIECES + 1 CARDBOARD COUNTER DISPLAY

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	QTY	ITEM No.	EAN	
<del>-</del>	115	22.23	22.23	1	70184607642	5450248762409	
<u></u>	125	22.23	22.23	1	70184607643	5450248762416	





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DIAMOND TOOLS FOR

# CERAMIC AND PORCELAIN TILES

Discover our diamond blades specially designed for cutting ceramic and porcelain tiles, vitrified reconstituted stone, glass, textured glass, glazed ceramic tiles, granite, marble, slate and hard natural stone



## EXTREME CERAMIC TURBO \*\*\*



# QUALITY CUTTING OF HARD CERAMIC TILES.

- 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 ceramic, porcelain, walls and floor tiles

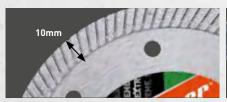


MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>-</del>	115	22.23	10/1.4	70184644759	5450248523994
<del>-</del>	125	22.23	10/1.4	70184644760	5450248524007
<b>+</b>	180	22.23	10/1.4	70184621970	5450248232193
F	200	25.4	10/2	70184625427	5450248345756
<del>_</del>	230	22.23	10/2	70184621973	5450248232186
P	230	25.4	10/2	70184627653	5450248385813
<b>戸</b> 為	250	25.4	10/2	70184625428	5450248345763
<b>戸</b> 為	250	30	10/2	70184645565*	5450248531586
C)	300	20	10/2.2	70184633159	5450248834601
<b>戸</b>	300	25.4	10/2.2	70184625429	5450248345787
FF	300	30	10/2.2	70184645566	5450248531593



\*Available on request

#### PRODUCT FEATURES







1.4mm THICK BLADE



FAST CUTTING CONTINUOUS RIM

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#### EXTREME CERAMIC



marble, slate, and quarry tiles.

• For use on glazed ceramic tiles, granite,



- Continuous rim sintered diamond blade for wet cutting on masonry saws.
- Thin laser-cut slots to allow blade cooling and smoother cut.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
Ħ	200	25.4	9/1.6	70184647047	5450248554608
Ħ	230	25.4	9/1.6	70184644431	5450248522409
77 15	250	25.4	9/1.6	70184644432	5450248522416
Ħ	300	25.4	9/2.0	70184630334	5450248414599

25.4

9/2.0



#### EXTREME CERAMIC SOFT\*

350





5450248414605

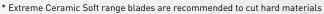
- · Continuous rim sintered diamond blade for wet cutting on masonry saws.
- Thin laser-cut slots to allow blade cooling
- and smoother cut.

•	LOI	use	UH	glazet	ı cei	alliic	lites

• Offers a very good finish on the hardest tiles.

70184630335

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
	200	25.4	2/9	70184603234	5450248753445
<del>-</del>	230	25.4	2 /9	70184603235	5450248753452
<b>P P</b>	250	25.4	2 /9	70184603236	5450248753469
<b>严</b> அ	300	25.4	2 /9.5	70184602483	5450248730422
A	350	25.4	2 /9.5	70184602484	5450248730439
A	400	25.4	2.4 /10	70184603237	5450248753476







#### 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 making up to 8x less noise than a non silent blade (in Ø 350mm).
- These blades are THE solution for cutting hard and thick tiles.





MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
Wet & dry cutting					
<u>+</u>	115	22.23	10/1.3	70184602447	5450248729419
<u>*</u>	125	22.23	10/1.3	70184602448	5450248729426





Wet cutting only					
<del>-</del>	250	25.4	12/2.2	70184632632	5450248825609
SIL-NCIO	250	25.4	12/2.2	70184632631	5450248825593
7 1	300	25.4	15/2.2	70184632896	5450248829126
A P SILENCIO	300	25.4	15/2.2	70184632897	5450248829133
7 1	350	25.4	15/2.2	70184632569	5450248822493
A P SILENCIO	350	25.4	15/2.2	70184632570	5450248822509





#### PRO CERAMIC





- Continous diamond rim.
- Good value for money.

<ul> <li>Can be used for dry or wet cutting</li> </ul>	١g
--	----

• For use on ceramics, granite, marble, slate, quarry tiles.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
Wet & dry cutting					
<del>-</del>	115	22.23	9/1.6	70184625942	5450248347927
<del>-</del>	125	22.23	9/1.6	70184625940	5450248347897
<u> </u>	180	22.23	9/1.7	70184625944	5450248347941
<del>-</del>	230	22.23	9/2.2	70184625946	5450248347965



Wet cutting only					
	150	25.4/22.23	10/1.6	70184625560	5450248346319
-	180	25.4/22.23	10/1.9	70184625561	5450248346326
	200	25.4	10/1.9	70184625093	5450248343998
	200	30	10/1.9	70184625094	5450248344001
	230	25.4	10/1.9	70184625096	5450248344025
	250	25.4	10/2	70184625097	5450248344032
門為	300	25.4	10/2	70184625098	5450248344049
<b>严</b> அ	350	25.4	10/2	70184625100	5450248344063



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	7/1.6	70184627645	5450248385745
<del>-</del>	125	22.23	7/1.6	70184627646	5450248385752



#### BLADES FOR CERAMIC & PORCELAIN TILES FOR ANGLE GRINDERS, TILE SAWS & MASONRY SAWS



#### CLASSIC CERAMIC





- Continous diamond rim.
- Good value for money.

•	Suitable	for	dry o	or۱	wet	cutting	hard	and	cerar	nic
	tiles.									

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	22.23	5/1.6	70184626825	5450248353317
<b>+</b>	125	22.23	5/1.6	70184626826	5450248353324
<del></del>	180	25.4/22.23	5/1.7	70184626828	5450248353348
	200	30/25.4	5/1.7	70184626829	5450248353355
	230	22.23	5/1.8	70184626830	5450248353362
<b>=</b>	230	25.4	5/1.8	70184628734	5450248396499
	250	25.4	5/1.8	70184626831	5450248353379
<b>严</b> அ	300	25.4	5/2.1	70184626832	5450248353386
<b>严</b> அ	350	25.4	5/2.1	70184626833	5450248353393



#### STANDARD CERAMIC



- Sintered continuous rim blade.
- For ceramic, glazed ceramic and porcelain tiles
- This blade is suitable for all comparable materials that require a high-quality cut provided by its continuous rim.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM No.	EAN
<del>_</del>	115	22.23	7/1.6	70184608555	5450248776109
<del>_</del>	125	22.23	7/1.6	70184608556	5450248776116
<b>←</b> →	180	22.23/25.4	7/1.8	70184608557	5450248776123
	200*	30/25.4	7/2	70184608558	5450248776130
<b>→</b> 🖰	230	22.23/25.4	8/2	70184608559	5450248776147







DIAMOND BLADES FOR

## GRANITE, MARBLE & NATURAL STONE





MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN	
<b>—</b>	230	22.23	15/2.6	70184601172	5450248702702	
<b>%</b>	300	20	15/3	70184601173	5450248702719	
NEW NEW	350	20	15/3	70184632363	5450248814207	
<b>%</b>	350	25.4	15/3	70184601174	5450248702726	
A	350	25.4	15/2.8	70184603311	5450248755210	
A	500	25.4	15/3.2	70184603312	5450248755227	
NEW NEW	650	25.4	12/4.6	70184632587	5450248823094	
<u>jac</u> i	900	60	12/4.6	70184603313	5450248755234	







Clipper's **Tip** 

USE QUICKFIX SYSTEM FOR THE BLADE TO FIT MACHINES WITH DIFFERENT ARBOR/SHAFT DIAMETER

#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	350	25.4	10/2.5	70184621132	5450248231394
A	400	25.4	10/2.5	70184623047	5450248326014



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN	
<del>_</del>	115	22.23	12/2.2	70184626525	5450248350859	
<del>-</del>	125	22.23	12/2.2	70184626526	5450248350866	
<del>•</del>	180	22.23	12/2.4	70184626527	5450248350873	
<del>-</del>	230	22.23	12/2.6	70184626528	5450248350996	
<del>_</del>	230	70/22.23 + Flange	12/2.6	70184629653	5450248405436	
<b>%</b>	300	20	12/3.2	70184626530	5450248351016	
<b>%</b> 7	300	25.4	12/3.2	70184626529	5450248351009	
<b>%</b>	350	20	12/3.2	70184626531	5450248351023	
<b>%</b> A	350	25.4	12/3.2	70184626532	5450248351047	
<b>Sh</b> ∄	400	25.4	12/3.2	70184626533	5450248351054	





#### PRO GRANITE







- Great value for money blade.
- Designed for use on granite, marble and natural stone.

MACHINES	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	350	25.4	10/3.0	70184610385	5450248009047
A	400	25.4	10/3.2	70184610386	5450248009054
$\overline{A}$	450	25.4	10/3.4	70184610436	5450248010142
A	500	25.4	7/3.2	70184610437	5450248230755
A	600	25.4	7/4.4	70184610438*	5450248230748





#### BLADES FOR GRANITE & NATURAL STONE

#### FOR ANGLE GRINDERS, HANDHELD CUT OFF SAWS & MASONRY SAWS

#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>*</del>	50	6	2.4	70184629965	5450248408567
<del>_</del>	115	22.23	2.4	70184626663	5450248351498
<del>-</del>	125	22.23	2.4	70184626666	5450248351528
<del>*</del>	150	20	2.4	70184601282	5450248705017
<del>-</del>	230	22.23	2.8	70184626668	5450248351542
<b>%</b> 7	300	25.4	2.9	70184620243	5450248298533
<b>A</b>	350	25.4	2.9	70184620244	5450248298557



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<del>_</del>	115	M14	2.4	70184640590	5450248460022
<del>-</del>	125	M14	2.4	70184640591	5450248460039
<u> </u>	230	70/22.23 + Flange	2.8	70184640592	5450248460046



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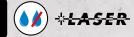


## ASPHALT & ABRASIVE MATERIALS

Discover our blades especially designed for cutting asphalt, asphalt over concrete, green concrete, bitumen, cement joints, breeze blocks and Lignacite blocks



#### EXTREME ASPHALT \*\*\*



The Extreme Asphalt blade delivers extremely fast cutting performance and accuracy. The ideal diamond blade for all high speed saws and floor saws when cutting asphalt, asphalt over concrete, green concrete and abrasive building materials.

- 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.



\* Only on blades for <20 hp machines

MACHINE	POWER	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
36	< 20 hp	300	20	15/3	70184694907	5450248695608
<b>%</b>	< 20 hp	350	25.4	15/3.2	70184694537	5450248689393
<b>%</b>	< 20 hp	400	25.4	15/3.2	70184694911	5450248695615
*	< 20 hp	450	25.4	15/3.2	70184694912	5450248695622
*	< 20 hp	500	25.4	15/3.6	70184694913	5450248695639



NAME	MACHINE	POWER	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
	₩.	20 - 30 hp	500	25.4	10/4.3	70184640191	5450248454953
	*	20 - 60 hp	600	25.4	12/4.4	70184603293	5450248754695
Asphalt 10	₩	20 - 60 hp	700	25.4	12/4.4	70184603354	5450248757023
	*	20 - 60 hp	800	25.4	12/4.4	70184603355	5450248757030
	*	20 - 30 hp	900	25.4	10/4.3	70184640195	5450248455103
	*	20 - 60 hp	600	25.4	12/4.4	70184603293	5450248754695
Asphalt 20	*	20 - 60 hp	700	25.4	12/4.4	70184603354	5450248757023
	1	20 - 60 hp	800	25.4	12/4.4	70184603355	5450248757030







#### 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.

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	for a long life.			
_	A natantad danth	indicator	halne	+h

 A patented depth indicator helps the operator to monitor the cutting depth and indicates the rotation direction (up to Ø450mm).

MACHINES	POWER	Ø I WER (mm)		SEGMENT H/W (mm)	ITEM NO.	EAN	
<b>S</b>	< 20 HP	300	20	12/2.8	70184631578	5450248802396	
<b>ॐ</b>	< 20 HP	300	25.4	12/2.8	70184631579	5450248802402	
<b>S</b>	< 20 HP	350	20	12/3.2	70184631580	5450248802419	
<b>ॐ</b> ₩	< 20 HP	350	25.4	12/3.2	70184631995	5450248802426	
<b>ॐ</b> ₩	< 20 HP	400	25.4	12/3.2	70184631582	5450248802433	
₩.	< 20 HP	450	25.4	12/3.2	70184631583	5450248802440	
<b>₩</b>	< 20 HP	500	25.4	12/3.8	70184631995	5450248810216	
₩	< 20 HP	600	25.4	12/3.8	70184631996	5450248810223	
*	< 20 HP	700	25.4	12/4.4	70184632649	5450248825890	



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
<b>S</b>	< 20 hp	300	20	10/2.5	70184626876	5450248353706
<b>ॐ</b>	< 20 hp	300	25.4	10/2.5	70184626877	5450248353713
<b>%</b>	< 20 hp	350	20	10/2.8	70184626878	5450248353737
<b>ॐ</b>	< 20 hp	350	25.4	10/2.8	70184626879	5450248353744
<b>☼</b>	< 20 hp	400	20	10/3.2	70184645242	5450248528043
<b>७</b> ₽₩	< 20 hp	400	25.4	10/3.2	70184626880	5450248353751
<b>♣</b>	< 20 hp	450	25.4	10/3.2	70184626881	5450248353768
₩	< 20 hp	500*	25.4	10/3.2	70184601944	5450248716228
*	< 20 hp	600*	25.4	10/3.2	70184601945	5450248716235



<sup>\* 500-600</sup>mm with undercutting protection segments

#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
*	300	25.4	14/3	70184602877	5450248742906
*	350	25.4	14/3	70184602876	5450248743095



#### 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	4	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
₩		300	25.4	10/2.5	70184624684	5450248237815
*		350	25.4	10/2.8	70184624685	5450248237822





DIAMONE TOOLS

# 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	Ø (mm)	BORE (mm)	SEGMENT WIDTH (mm)	ITEM NO.	EAN
₩	350	25.4	8	70184618296*	5450248295396
*	350	25.4	10	70184615813*	5450248269052

\* Available on request



DIAMOND BLADES FOR

#### REFRACTORY MATERIALS



RECOMMENDATION GUIDE	RC400	RC465	RC525	RC540	RC575	PRO BETON	PRO ZDM200	PRO ZMD944T
NON OXYDES (C 80-90%) (SiC 40-70%)		,						'
Silicon Carbide, Carborundum, Graphite								
OXIDES								
Dolomite, Tar (MgO 40% CaO 60%)								
Magnesite (MgO 80-95%)								
Chromite, Chrome (Cr <sub>2</sub> O <sub>3</sub> 30-10% MgO 40-80%)			•				•	•
Zirconia, Silica (ZrO <sub>2</sub> 65-95%) (SiO <sub>2</sub> )				•		•		
LOW CONTENT ALUMINA (AL <sub>2</sub> O <sub>3</sub> 25-70%)								
Fireclay								
HIGH CONTENT ALUMINA (AL <sub>2</sub> O <sub>3</sub> 70-95%)								
Mulite, Beauxite, Durital, Rocal, Zirmul								
ELECTROFUSED								
Corhart ZAC, Corhart 104, Zirconia, Jargal								
Mulite, Alumina, Basalt	•							
INSULATION								



#### **EXTREME RC465**







• Laser-welded diamond blade with key-hole geometry.

• For use on oxides - dolomite, tar and magnesite.

MACHINES	Ø (mm)	BORE (mm)	STEEL TYPE	SEGMENT H/W (mm)	ITEM NO.	EAN
×	400	25.4	Standard	10/3.2	70184626316*	5450248393146
A	450	25.4	Standard	10/3.8	70184626317*	5450248372158
A SILENCIO	450	25.4	Silencio	10/3.8	70184630620	5450248443292
A	500	25.4	Standard	10/3.8	70184626318	5450248372165
Ħ	600	25.4	Standard	10/3.8	70184626319*	5450248393153
A	650	25.4	Standard	10/3.8	70184629314*	5450248466345



\* Available on request

#### **EXTREME RC525**



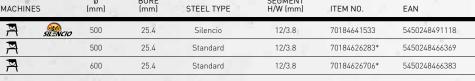




- Laser-welded diamond blade with key-hole geometry.

• Fireclay insulation brick.

- For use on oxides magnesite, chromite, and chrome. Low content alumina < 70%.
- SEGMENT H/W (mm) BORE (mm) Ø (mm) MACHINES STEEL TYPE ITEM NO. EAN SILENCIO 500 25.4 Silencio 12/3.8 70184641533 5450248491118







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#### DIAMO TOOLS

#### 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		Ø (mm)	BORE (mm)	STEEL TYPE	SEGMENT H/W (mm)	ITEM NO.	EAN
Ą		350	25.4	Standard	10/2.8	70184626285	5450248393108
$\overline{A}$		400	25.4	Standard	10/3.2	70184626286*	5450248393115
A		450	25.4	Standard	10/3.8	70184626287	5450248393122
A		500	25.4	Standard	10/3.8	70184626288	5450248393139
A	SILENCIO	500	25.4	Silencio	10/3.8	70184626693	5450248547273
A		600	25.4	Standard	10/3.8	70184626707*	5450248393177





#### EXTREME RC575

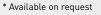






- Laser-welded diamond blade with wide-gullet geometry.
- For use on non-oxides silicon carbide, carborundum, and graphite.

MACHINES	Ø (mm)	BORE (mm)	STEEL TYPE	SEGMENT H/W (mm)	ITEM NO.	EAN
A	400	25.4	Standard	10/3.2	70184626321*	5450248466437
A	450	25.4	Standard	10/3.8	70184626322*	5450248466444
SILENCIO	450	25.4	Silencio	10/3.8	70184647831	5450248571223
SILENCIO	500	25.4	Silencio	10/3.8	70184631081	5450248451402
A	500	25.4	Standard	10/3.8	70184626323*	5450248466451
A	600	25.4	Standard	10/3.8	70184626324*	5450248466468









#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	350	25.4	10/2.8	70184627061	5450248372585
A	400	25.4	10/3.2	70184627062	5450248372592
A	450	25.4	10/3.2	70184627063	5450248372608
A	500	25.4	10/3.8	70184627064	5450248372615
A	600	25.4	10/4.0	70184627065	5450248372622



#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	350	25.4	7/2.4	70184610238	5450248004424
Ħ	450	25.4	7/3.2	70184610239	5450248004431
A	500	25.4	7/3.2	70184610240*	5450248242505





#### 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	Ø (mm)	BORE (mm)	SEGMENT H/W (mm)	ITEM NO.	EAN
A	350	25.4	7/2.4	70184610284	5450248005582
R	450	25.4	7/3.2	70184610285	5450248005599
A	500	25.4	7/3.2	70184610286	5450248230151



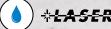
## DRILLING CORE BITS FOR CONCRETE

Discover our core bits specially designed for drilling 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, limestone.



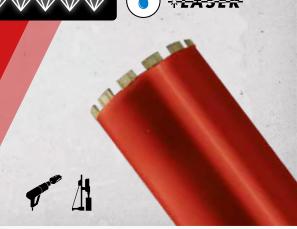
#### EXTREME CB BETON ♥♥♥♥





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.



0D / ID* (mm)	SEGMENT L/W/H (mm)	No. SEGMENTS	ITEM No.	EAN
48/41	24/3.6/12	4	70184629370	5450248414544
52/45	24/3.6/12	4	70184629161	5450248403296
62/55	24/3.6/12	5	70184629338	5450248414551
67/60	24/3.6/12	5	70184629162	5450248403302
77/70	24/3.6/12	6	70184629163	5450248403319
82/75	24/3.6/12	6	70184629174	5450248403364
87/80	24/3.6/12	7	70184630450	5450248441397
92/85	24/3.6/12	7	70184629167	5450248403234
102/95	24/3.6/12	8	70184629176	5450248403388
107/100	24/3.6/12	9	70184629091	5450248403265
112/105	24/3.6/12	9	70184629052	5450248403258
117/110	24/3.6/12	9	70184629685**	5450248566458
122/114	24/4/12	9	70184629455	5450248414568
127/119	24/4/12	10	70184629175	5450248403371
132/124	24/4/12	10	70184629339	5450248414575
142/134	24/4/12	10	70184629866	5450248557296
152/144	24/4/12	11	70184629104	5450248403272
162/154	24/4/12	12	70184629165	5450248403326
178/170	24/4/12	13	70184629166	5450248403333
182/174	24/4/12	13	70184629349	5450248403418
202/192	24/5/12	14	70184629178	5450248403401
230/220	24/5/12	15	70184630442	5450248441311
250/240	24/5/12	16	70184629180	5450248414698
300/290	24/5/12	18	70184629534	5450248547198
350/340	24/5/12	19	70184629701	5450248556497
400/390	24/5/12	20	70184629902	5450248521914





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<sup>\*</sup> OD / ID: Outer Diameter / Inner Diameter.

#### PRO CB BETON









A: 1/2" M B: 300mm

- Ideal for concrete, reinforced concrete, masonry blocks, and also suitable for asphalt and abrasive materials.
- Replacement segments are also available.

• Useful length: 300mm.

<ul> <li>Connection: ½" male th</li> </ul>	reac
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7/2.0			
	1 Crown	70184612947	5450248020585
7/2.0	1 Crown	70184612823	5450248015901
7/2.0	1 Crown	70184612824	5450248015918
7/2.0	1 Crown	70184612825	5450248015925
7/2.0	1 Crown	70184612826	5450248015932
7/2.0	1 Crown	70184612827	5450248015949
7/2.0	1 Crown	70184612828	5450248015956
7/2.0	1 Crown	70184612829	5450248015963
7/2.0	1 Crown	70184612830	5450248015970
7/2.0	1 Crown	70184612831	5450248015987
7/2.0	1 Crown	70184612833	5450248016007
7/2.0	1 Crown	70184612834	5450248016014
7/2.0	1 Crown	70184612835	5450248016021
	7/2.0 7/2.0 7/2.0 7/2.0 7/2.0 7/2.0 7/2.0 7/2.0 7/2.0 7/2.0	7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown 7/2.0 1 Crown	7/2.0     1 Crown     70184612824       7/2.0     1 Crown     70184612825       7/2.0     1 Crown     70184612826       7/2.0     1 Crown     70184612827       7/2.0     1 Crown     70184612828       7/2.0     1 Crown     70184612829       7/2.0     1 Crown     70184612830       7/2.0     1 Crown     70184612831       7/2.0     1 Crown     70184612833       7/2.0     1 Crown     70184612834       7/2.0     1 Crown     70184612834       7/2.0     1 Crown     70184612835



• Useful length: 450mm.

1: 1 ¼" UNC female thread.
1: 1 ¼" UNC female thread

0D / ID* (mm)	SEGMENT L/W/H (mm)	No. SEGMENTS	ITEM No.	EAN
52/45	24/3.5/10	4	70184624870	5450248239123
57/50	24/3.5/10	4	70184624871	5450248239147
62/55	24/3.5/10	5	70184624872	5450248239154
67/60	24/3.5/10	5	70184624873	5450248239161
72/65	24/3.5/10	5	70184624874	5450248239178
77/70	24/3.5/10	6	70184624875	5450248239185
82/75	24/3.5/10	6	70184624876	5450248239192
87/80	24/3.5/10	6	70184624878	5450248239215
92/85	24/3.5/10	7	70184624879	5450248239222
102/95	24/3.5/10	8	70184624880	5450248239239
107/100	24/3.5/10	8	70184624881	5450248239246
112/105	24/3.5/10	8	70184624882	5450248239253
122/114	24/4.0/10	9	70184624883	5450248239277
127/119	24/4.0/10	9	70184624884	5450248239284
132/124	24/4.0/10	9	70184624885	5450248239291
142/134	24/4.0/10	10	70184624886	5450248239307
152/144	24/4.0/10	11	70184624887	5450248239314
162/154	24/4.0/10	11	70184624888	5450248239321
172/164	24/4.0/10	12	70184624889	5450248239338
182/174	24/4.0/10	12	70184624890	5450248239345
202/194	24/4.0/10	14	70184624892	5450248239369
227/218	24/4.5/10	15	70184624894	5450248239383
252/243	24/4.5/10	16	70184624895	5450248239406
300/290	24/5.0/10	19	70184624897	5450248239437
350/340	24/5.0/10	21	70184624900	5450248239468

A: 1 1/4" UNC F B: 450mm B



<sup>\*</sup> OD / ID: Outer Diameter / Inner Diameter.

<sup>\*</sup> OD / ID: Outer Diameter / Inner Diameter.

#### CLASSIC CB BETON

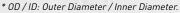


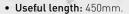


- Core drill with brazed segments.
- Ideal for concrete, reinforced concrete, masonry blocks, and also suitable for asphalt and abrasive materials.
- Useful length: 400mm.

- Good value for money.
- Replacement segments are also available.
- Connection: ½" male thread.

0D / ID* (mm)	SEGMENT L/W/H (mm)	No. SEGMENTS	ITEM No.	EAN
32/26	16/3.0/7	3	70184694514	5450248689195
42/36	16/3.0/7	3	70184694516	5450248689218
52/46	24/3.0/10	4	70184694517	5450248689225
62/46	24/3.0/10	5	70184694518	5450248689232
72/65	24/3.5/10	6	70184694519	5450248689249
82/75	24/3.5/10	7	70184694520	5450248689256
92/85	24/3.5/10	8	70184694521	5450248689263
102/95	24/3.5/10	9	70184694522	5450248689270
112/105	24/3.5/10	9	70184694523	5450248689287
122/115	24/3.5/10	10	70184694524	5450248689294
132/124	24/4.0/10	10	70184694525	5450248689300
152/144	24/4.0/10	11	70184694526	5450248689317

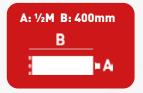




• Connection: 1 1/4" UNC female.

	DD / ID* (mm)	SEGMENT L/W/H(mm)	SE	No. GMENTS	ITEM No.	EAN
ž vo	51/45	24/3.0/10		5	70184613201	5450248184355
	56/50	24/3.0/10		5	70184613202	5450248184119
	61/55	24/3.5/10		5	70184613203	5450248184126
	66/59	24/3.5/10		6	70184613204	5450248184133
	71/64	24/3.5/10		6	70184613205	5450248184140
	76/69	24/3.5/10	16,	6	70184613206	5450248184157
	81/74	24/3.5/10		7	70184613207	5450248184164
	86/79	24/3.5/10		7	70184613208	5450248184171
3 11	91/84	24/3.5/10		8	70184613209	5450248184188
	101/94	24/3.5/10		8	70184613210	5450248184195
	106/99	24/3.5/10		9	70184613211	5450248184201
1	11/104	24/3.5/10		9	70184613212	5450248184218
1	21/114	24/3.5/10		10	70184613213	5450248184225
1	26/118	24/4.0/10		10	70184613214	5450248184232
1	31/123	24/4.0/10		10	70184613215	5450248184249
1	41/133	24/4.0/10		11	70184613216	5450248184256
1	51/143	24/4.0/10		12	70184613217	5450248184263
1	61/153	24/4.0/10		12	70184613218	5450248184270
-1	71/163	24/4.0/10		13	70184613219	5450248184287
1	81/173	24/4.0/10		13	70184613220	5450248184294
1	86/178	24/4.0/10		13	70184630513	5450248442585
2	201/193	24/4.0/10		14	70184613222	5450248184317
2	211/203	24/4.0/10	74.	14	70184613223	5450248184324
2	225/215	24/5.0/10	4	15	70184613252	5450248184911
2	251/241	24/5.0/10		16	70184613224	5450248184331
2	271/261	24/5.0/10		18	70184613253	5450248184928
3	300/290	24/5.0/10		20	70184613225	5450248184348

<sup>\*</sup> OD / ID: Outer Diameter / Inner Diameter.











• Applications: for concrete, reinforced concrete,

• Specially adapted for use on

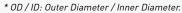
ROBO core drilling machine.



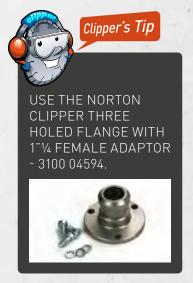
- concrete pipes, and ductile iron pipes.
- Usefu
- Conn

ful length: 300mm.	• Replacement segments are also available.
nection: three hole flange.	
OD /ID*	NI-

0D / ID* (mm)	SEGMENT L/W/H(mm)	No. SEGMENTS	ITEM No.	EAN
137/129	24/4.0/10.0	9	70184613170	5450248171522
152/144	24/4.0/10.0	10	70184612883	5450248018247
166/158	24/4.0/10.0	10	70184620436	5450248300304
182/174	24/4.0/10.0	12	70184613316	5450248208921
187/179	24/4.0/10.0	12	70184613075	5450248131663
196/187	24/4.0/10.0	12	70184612882	5450248018230
201/192	24/4.0/10.0	12	70184612956	5450248194255
225/216	24/4.0/10.0	12	70184612958	5450248021551
248/238	24/5.0/10.0	13	70184612884	5450248018254
251/241	24/5.0/10.0	13	70184612959	5450248021568
257/247	24/5.0/10.0	13	70184612960	5450248021575
277/267	24/5.0/10.0	14	70184613080	5450248133940
299/289	24/5.0/10.0	16	70184613076	5450248131670







#### PRO CB BETON ROBO SOFT







concrete pipes, natural stone and granite.

• Applications: for concrete, reinforced concrete,

- 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.
- Replacement segments are also available.

OD / ID* (mm)	SEGMENT L/W/H (mm)	No. SEGMENTS	ITEM No.	EAN	
	311				-
355/345	24/5.0/10.0	18	70184603099	5450248749707	

\* OD / ID: Outer Diameter / Inner Diameter.









#### EXTREME CB BETON SEGMENTS





<u>/</u>1

- Applications: concrete and reinforced concrete.
- Retipping segments for Extreme Beton corebits.

<u> </u>	RANGE (mm)	SEGMENT L/W/H(mm)	ITEM No.	EAN
	42-57	24/2.8/10	310390374	5450248537267
	58-72	24/2.8/10	310390375	5450248537274

Formerly X3 Segments



#### PRO CB BETON CROWNS

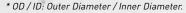






- **Applications:** concrete and reinforced concrete, masonry.
- Retipping crowns for Pro CB Beton crownbits.

	0D / ID* (mm)	CROWN H/W(mm)	ITEM No.	EAN	
Ī	14/10	7/2.0	310328465	5450248457084	
Ī	16/12	7/2.0	310328467	5450248457107	
	22/18	7/2.0	310328470	5450248457138	
_	30/26	7/2.0	310328486	5450248457282	
	32/28	7/2.0	310328487	5450248457299	

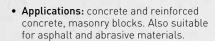




#### PRO CB BETON SEGMENTS







• Retipping segments for Pro CB Beton segmented corebits.

RANGE (mm)	SEGMENT L/W/H(mm)	ITEM No.	EAN	
291-490	24/5 በ/10	310377888	5450248498124	



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#### PRO CB BETON SOFT SEGMENTS







RANGE (mm)	SEGMENT L/W/H(mm)	ITEM No.	EAN	
42-57	24/3.5/10	310461243	5450248720836	
58-72	24/3.5/10	310461244	5450248720843	
73-87	24/3.5/10	310459189	5450248720799	
88-102	24/3.5/10	310459337	5450248720812	
118-146	24/4.0/10	310461266	5450248720867	10
147-190	24/4.0/10	310459338	5450248720829	
191-290	24/4.5/10	310459336	5450248720805	
500-1000	24/5.0/10	310461359	5450248720881	



Formerly X14

#### CLASSIC CB BETON SEGMENTS







- Applications: concrete and concrete products.
- Retipping segments for Classic CB Beton corebits.

RANGE (mm)	SEGMENT L/W/H(mm)	ITEM No.	EAN
66-76	24/3.5/10	310002555	5450248167938
96-116	24/3.5/10	310002557	5450248167952
121-151	24/4.0/10	310002558	5450248167969
156-186	24/4.0/10	310002559	5450248167976
191-221	24/4.0/10	310002560	5450248167983



## DRILLING CORE BITS FOR UNIVERSAL BUILDING MATERIALS



#### STANDARD CB UNIVERSAL







- Useful length: 150mm.
- Connection: 1/2" 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.
- sp
- La ре

ptimised for the best balance between drilling beed, product life and comfort.  aser-welded segments ensure optimal erformance.	
ITEM No. EAN	A: 1/2" BSP F

(mm)	SEGMENT L/W/H(mm)	Q I Y SEGMENTS	ITEM No.	EAN
28 / 21	13 / 3.5 / 8	3	70184633379	5450248837893
35 / 28	17 / 3.5 / 8	3	70184633380	5450248837909
38 / 31	17 / 3.5 / 8	3	70184633381	5450248837916
45 / 38	24 / 3.5 / 8	3	70184633382	5450248837923
52 / 45	24 / 3.5 / 8	4	70184633383	5450248837930
55 / 48	24 / 3.5 / 8	4	70184633384	5450248837947
65 / 58	24 / 3.5 / 8	4	70184633385	5450248837954
68 / 61	24/3.5/8	4	70184633386	5450248837961
78 / 71	24 / 3.5 / 8	5	70184633387	5450248837978
105 / 97	24 / 4 / 8	5	70184633388	5450248837985
107 / 99	24 / 4 / 8	5	70184633389	5450248837992
117 / 109	24 / 4 / 8	5	70184633390	5450248838005
127 / 119	24 / 4 / 8	6	70184633391	5450248838012
152 / 144	24 / 4 / 8	7	70184633392	5450248838029
_				





#### PRO DS



• Connection: M16 female.

• Applications: medium-hard building materials.









A: M16 F B: 60mm

electrical sockets and switches.

0D* (mm)	ITEM No.	EAN	
68	70184612873	5450248017592	П
82	70184612874	5450248017608	

\* OD: Outer Diameter

• High-quality laser-welded, segmented drill bit for handheld drilling. This professional standard tool is suitable for dry drilling of



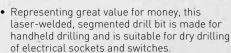
#### Formerly Pro Arid DS

#### CLASSIC DS



• Connection: M16 female.

• Application: medium-hard building materials.



0D* (mm)	ITEM No.	EAN	- "
68	70184620422	5450248230311	1 CV
82	70184620423	5450248230335	

\* OD: Outer Diameter







#### CORE BITS FOR UNIVERSAL BUILDING MATERIALS



#### 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  $\frac{1}{2}$ " 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 ITEM No. EAN



STANDARD CB UNIVERSAL DRY DIAMOND CORE 5-SET containing : 38mm, 52mm, 65mm, 117mm, 127mm cores,  $2 \times \text{HEX}$ ,  $2 \times \text{SDS}$  adaptors,  $1 \times \text{ejector drift}$ ,  $1 \times \text{pilot drill}$ 

70184633396

5450248838241

nale 150mm nale 150mm		-
nale 150mm	_	
		- No.
nale 150mm	-	
nale 150mm	-	- 1
nale 150mm	-	-
	310011349	5450248230397
-		-
-	310012391	5450248238782
-	- 1	-
-	310011347	5450248372776
-	310011351	5450248372721
	nale 150mm nale 150mm	nale 150mm - nale 150mm 310011349 310012391 310011347

MACHINES DESCRIPTION ITEM No. EAN



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

5450248838258

DESCRIPTION	DIAMETER	CONNECTION	LENGTH	ITEM No.	EAN
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	5450248230397
Adaptor HEX - 1/2"M x 240mm			D 0 - 6	29	V
Adaptor SDS - 1/2"M x 115mm				310012391	5450248238782
Adaptor SDS - 1/2"M x 240mm	10 1 10 20		. 6.2		
Pilot drill Ø10mm		E- 30	-	310011347	5450248372776
Ejector drift			-	310011351	5450248372721

All above dry core bits have 1/2" BSP female back end fitting.











TAPER MASONRY DRILL 240

240mm HEX AND SDS -½"F ADAPTORS

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#### 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.

	0D* (mm)	ITEM No.	EAN
	6 x M14	70184647338	545024855869
	8 x M14	70184647339	545024855870
	10 x M14	70184647340	545024855871
	12 x M14	70184647341	545024855872
	14 x M14	70184602901	545024874463
	18 x M14	70184602902	545024874464
	20 x M14	70184645760	545024853409
	28 x M14	70184645761	545024853410
	30 x M14	70184602903	545024874465
	32 x M14	70184602904	545024874466
	35 x M14	70184645762	54502485341
	40 x M14	70184602905	545024874467
	45 x M14	70184645763	545024853412
	50 x M14	70184694357	545024868559
	55 x M14	70184646255	545024854047
	60 x M14	70184602906	545024874468
	65 x M14	70184602907	545024874469
4	68 x M14	70184645764	545024853413
	70 x M14	70184602908	545024874470
	75 x M14	70184602909	545024874471
TO NOTE 1	82 x M14	70184645765	545024853414
	102 x M14	70184602119	545024872167
	107 x M14	70184602120	545024872168
	132 x M14	70184602121	545024872169
Suitcase pack conta	aining dia. 20, 28, 35, 50, 68mm + mounting wrench	70184694328	545024868502
Suitcase pack cor	staining dia. 6/8/10/12/35/45/68 + centering device	70184694419	545024868745





#### CLASSIC VB DRY



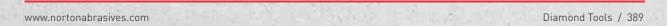


• Application: For dry or wet drilling.

 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.

	0D* (mm)	ITEM No.	EAN
1 1 1 2 100	6	310305776	5450248344896
	8	31030577	7 5450248344902
A 1 (=) (t)	10	310305778	3 5450248344919
an est. Sitoline	12	310305780	5450248344933
	14	310305792	2 5450248345077
THE REAL PROPERTY.	28	310305793	3 5450248345084
	35	310305794	4 5450248345091
TOUGHT X	45	310316728	3 5450248350118
DATE BY THE REAL PROPERTY.	68	310316729	5450248350125
TO A SECUME	82	310316730	5450248350132
	3-Pack 6/8/10	310301580	5450248348498

<sup>\*</sup> OD: Outer Diameter



<sup>\*</sup> OD: Outer Diameter

#### ACCESSORIES

DESCRIPTION	ITEM No.	EAN
Centering device for small diameters up to 28mm	310491177	5450248716297
Centering device for diameters up to 90mm	70184645766	5450248534167
M14-Hex adaptor	310464939	5450248685708



#### ACCESSORIES











#### NORTON CLIPPER SAW BLADES



### GETTING TO KNOW OUR PRODUCT RANGES

The Norton Clipper product lineup provides solutions for four primary material applications, offering various options tailored to your specific machine and cutting needs. Whether you're cutting wood and composites on a table saw or using a reciprocating saw, we've got you covered.

#### **RECIPROCATING SAWS**



REFERENCE NUMBER	PRODUCT NAME	DESCRIPTION	WORKING LENGTH (MM)	OVERALL LENGTH (MM)	WOOD & COMPOSITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
70184608354	S1543HM	RECIP BLADE TCT 240 S1543HM	220	240		Δ		
70184608355	S 1243 HM	RECIP BLADE TCT 304 S1243HM	260	304		Δ		
70184608356	S 2243 HM	RECIP BLADE TCT 455 S2243HM	415	455		Δ		
70184608357	S 1122 HF	RECIP BLADE BIM 228 S1122HF	208	228		ΔΙ		
70184608358	S 1411 DF	RECIP BLADE BIM 300 S1411DF	280	300		ΔΟ		
70184608359	S 1111 DF	RECIP BLADE BIM 228 S1111DF	208	228		Δ		
70184608360	S 1542 K	RECIP BLADE HCS 240 S1542K	220	240	Δ			
70184608361	S 1131 L	RECIP BLADE HCS 240 S1131L	220	240	Δ			
70184608362	S 2345 X	RECIP BLADE HCS 200 S2345X	180	200	+			
70184608363	S 644 D	RECIP BLADE HCS 152 S644D	132	152	+0			
70184608364	S 922 HF	RECIP BLADE BIM 152 S922HF	132	152		Δ		
70184608365	S610VF	RECIP BLADE BIM/C0 152 S610VF	132	152		Δ		
70184608366	S1210VF	RECIP BLADE BIM/CO 300 S1210VF	280	300		Δ		

KIT	KIT						<u>}</u>	S:
REFERENCE NUMBER	PRODUCT NAME	DESCRIPTION	WORKING LENGTH (MM)	OVERALL LENGTH (MM)	WOOD & COMPOSITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
	T144DP (2x)		76	100	Δ١			
	T144D (2x)		76	100	Δ۱			
70184608383	T101B (2x)	KIT 10 HCS JIGSAW BLADES	76	100	++			
	T244D (2x)		76	100	Δο			
	T101A0 (2x)		50	76	+0			
70184608384		KIT 2 TCT PLANNER KNIFES 82mm		82	+			

#### **KEY**









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X

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+ +

Ripping

Fast Cut

**Curved Cut** 

Clean Cut

Straight Cut

**Cross Cutting** 

Extra Clean Cut

#### **JIGSAW**



REFERENCE NUMBER	PRODUCT NAME	DESCRIPTION	WORKING LENGTH (MM)	OVERALL LENGTH (MM)	WOOD & COMPOSITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
70184608367	T 344 D	JIGSAW BLADE HCS 132 T344D	110	132	ΔΙ			
70184608368	T 234 X	JIGSAW BLADE HCS 116 T234X	90	116	∆+			
70184608369	T 301 CD	JIGSAW BLADE HCS 116 T301CD	90	116	10+			
t70184608370	T 308 BF	JIGSAW BLADE BIM 117 T308BF	91	117	++			
70184608371	T 101 B	JIGSAW BLADE HCS 100 T101B	76	100	++			
70184608372	T 144 DP	JIGSAW BLADE HCS 100 T144DP	76	100	∆+			
70184608373	T 101 A0	JIGSAW BLADE HCS 76 T101A0	50	76	+0			
70184608374	T 101 BR	JIGSAW BLADE HCS 100 T101BR	76	100	++			
70184608375	T 244 D	JIGSAW BLADE HCS 100 T244D	76	100	ΔΟ			
70184608376	T 119 BO	JIGSAW BLADE HCS 76 T119B0	50	76	Δο			
70184608377	T 308 BFP	JIGSAW BLADE BIM 100 T308BFP		100	++			
70184608378	T 119 B	JIGSAW BLADE HCS 76 T119B	50	76	Δ۱			
70184608379	T 101 BIF	JIGSAW BLADE BIM 82 T101BIF	56	82			++	
70184608380	T 218 A	JIGSAW BLADE HCS 76 T218A	50	76				+0
70184608381	T 118 B	JIGSAW BLADE HCS 76 T118B	50	76				+1
70184608382	T 127 D	JIGSAW BLADE HCS 100 T127D	76	100				Δ+Ι

#### MITRE SAW



REFERENCE NUMBER	DIAMETER (MM)	DIAMETER X TOOTH DIAMETER X BORE (MM)	TOOTH NUMBER / TOOTH SHAPE		WOOD & MPOSITE	ES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
70184608088	160	160 x 2.6/1.6 x 20	48/ATB Neg		+	X			
70184608096	190	190 x 2.8/1.8 x 30	48/ATB Neg	Δ-	+	x			
70184608135	190	190 x 2.6/1.8 x 30	60/TCG Neg						++
70184608099	216	216 x 2.8/1.8 x 30	48/ATB Neg	Δ-	+	x			
70184608056	216	216 x 2.8/1.8 x 30	24/ATB Neg	Δ-					
70184608057	216	216 x 2.3/1.8 x 30	36/ATB Neg	Δ-		x			
70184608136	216	216 x 2.6/1.8 x 30	80/TCG Neg						++
70184608137	230	230 x 2.8/2.0 x 30	80 TCG Neg						++
70184608065	250	250 x 3.2/2.2 x 30	24/ATB Neg	Δ-					
70184608138	250	250 x 2.8/2.0 x 30	80/TCG Neg						++
70184608114	255	255 x 3.2/2.2 x 30	60/ATB Neg	Δ-	+	x			
70184608067	255	255 x 3.2/2.2 x 30	24/ATB Neg	Δ-					
70184608068	255	255 x 2.6/1.8 x 30/16	24/ATB Neg	Δ-					
70184608139	255	255 x 3.0/2.2 x 30	80/TCG Neg						++
70184608115	260	260 x 2.6/1.8 x 30	48/ ATB Neg	Δ-	+	X			
70184608116	260	260 x 2.6/1.8 x 30	60/ATB Neg	Δ-	+	X			
70184608124	305	305 x 3.2/1.2 x 30	60/ATB Neg	Δ-	+	X			
70184608072	305	305 x 3.2/2.2 x 30	36/ATB Neg	Δ-					
70184608140	305	305 x 3.0/2.2 x 30	96/TCG Neg						++

#### **CIRCULAR & TABLE SAW**



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REFERENCE NUMBER	DIAMETER (MM)	DIAMETER X TOOTH DIA X BORE (MM)	TOOTH N° /TOOTH SHAPE	W00D & C0	MPOSITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
70184608030	100	100 x 2.6/1.6 x 20	24/ATB	Δ-	x			
70184608032	120	120 x 1.8/1.2 x 20	24/ATB	Δ-	X			
70184608033	125	125 x 2.6/1.6 x 20	24/ATB	Δ-	X			
70184608034	130	130 x 2.6/1.6 x 20/16	24/ATB	Δ-	X			
70184608035	150	150 x 2.6/1.6 x 30/20	24/ATB	Δ-	x			
70184608036	150	150 x 3.6/2.6 x 20	24/ATB	Δ-	X			
70184608037	150	150 x 3.6/2.6 x 30	24/ATB	Δ-	X			
70184608038	160	160 x 2.6/1.6 x 20	16/ATB	Δ-				
70184608039	160	160 x 2.6/1.6 x 16	24/ATB	Δ-	X			
70184608040	160	160 x1.8/1.2 x 20	24/ATB	Δ-	X			
70184608041	160	160 x 2.2/1.6 x 30/20	24/ATB	Δ-	х			
70184608042	160	160 x 2.6/1.6 x 20	24/ATB	Δ-	X			
70184608043	160	160 x 2.6/1.6 x 30/20	24/ATB	Δ-	X			
70184608044	160	160 x 2.8/1.8 x 20	24/ATB	Δ-	X			
70184608045	165	165 x 1.8/1.2 x 20	24/ATB	Δ-	x			
70184608046	165	165 x 2.6/1.6 x 20	24/ATB	Δ-	X			
70184608047	170	170 x 2.6/1.6 x 30/20/16	24/ATB	Δ-	X			
70184608048	170	170 x 2.8/1.8 x 30	24/ATB	Δ-	X			
70184608049	180	180 x 2.8/1.8 x 30/20/16	24/ATB	Δ-	x			
70184608050	180	180 x 2.8/1.8 x 30	30/ATB	Δ-	X			
70184608051	185	185 x 1.8/1.2 x 30/20/16	24/ATB	Δ-	X			
70184608052	190	190 x 2.8/1.8 x 30/20/16	24/ATB	Δ-	X			
70184608054	210	210 x 2.8/1.8 x 30	24/ATB	Δ-				
70184608055	210	210 x 2.8/1.8 x 30	36/ATB	Δ-	X			
70184608142	216	216 x 2.6/1.8 x 30	60/TCG				++	
70184608143	216	216 x 2.3/1.8 x 30	60/TCG				++	
70184608058	220	220 x2.8/1.8 x 30	24/ATB	Δ-				
70184608059	225	225 x 2.6/1.6 x 30	32/ATB	Δ-	X			
70184608061	230	230 x 2.8/1.8 x 30	36/ATB	Δ-	x			
70184608060	230	230 x 2.8/1.8 x30	24/ATB	Δ-				
70184608063	235	235 x 2.8/1.8 x 30	36/ATB	Δ-	X			
70184608062	235	235 x 2.8/1.8 x 30/16	24/ATB	Δ-				

#### **KEY**

0

+

X

+ +

Ripping

Fast Cut

Curved Cut

Clean Cut

Straight Cut

Cross Cutting

Extra Clean Cut

#### CIRCULAR & TABLE SAW



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REFERENCE NUMBER	DIAMETER (MM)	DIAMETER X TOOTH DIA X BORE (MM)	TOOTH N° /TOOTH SHAPE	W00D 8	k COMPOSITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUI
70184608064	240	240 x 3.0/2.0 x 30	24/ATB	Δ-				
70184608066	250	250 x 3.2/2.2 x 30	36/ATB	Δ-	х			
70184608145	250	250 x2.8/2.0 x 30	60/TCG				++	
70184608069	260	260 x 3.2/2.2 x 30	24/ATB	Δ-				
70184608070	280	280 x 3.2/2.2 x 30	24/ATB	Δ-				
70184608071	305	305 x 3.2/2.2 x 30	24/ATB	Δ-				
70184608073	315	315 x 3.2/2.2 x 30	24/ATB	Δ-				
70184608074	330	330 x 3.2/2.2 x 30	40/ATB	Δ-				
70184608075	355	355 x 3.2/2.4 x 30	24/ATB	Δ-				
70184608076	355	355 x 3.2/2.4 x 30	40/ATB	Δ-				
70184608081	125	125 x 2.6/1.6 x 20	36/ATB		+ x			
70184608082	130	130 x 2.6/1.6 x 20	36/ATB		+ x			
70184608083	150	150 x2.6/1.6 x 30/20	48/ATB		+ x			
70184608084	160	160 x 2.6/1.6 x 20	40/ATB		+ x			
70184608085	160	160 x 2.6/1.6 x 30/16	48/ATB		+ x			
70184608086	160	160 x 1.8/1.2 x 20	48/ATB		+ x			
70184608087	160	160 x 2.6/1.6 x 20	48/ATB		+ x			
70184608089	160	160 x 2.2/1.6 x 20	60/ATB		+ x			
70184608090	160	165 x 2.6/1.6 x 20	48/ATB		+ x			
70184608091	165	165 x 2.6/1.6 x 20	64/ATB		+ x			
70184608092	170	170 x 2.6/1.6 x 30/16	48/ATB		+ x			
70184608093	180	180 x 2.8/1.8 x 30/20/16	48/ATB		+ x			
70184608094	190	190 x 2.8/1.8 x 30	40/ATB		+ x			
70184608095	190	190 x 2.8/1.8 x 30/20/16	48/ATB		+ x			
70184608097	210	210 x 2.8/1.8 x 30	48/ATB		+ x			
70184608098	210	210 x 2.8/1.8 x 30	64/ATB		+ x			
70184608100	220	220 x 2.8/1.8 x 30	48/ATB		+ x			
70184608101	225	225 x 2.8/1.8 x 30	48/ATB		+ x			
70184608102	225	225 x 2.6/1.6 x 30	64/ATB		+ x			
70184608103	230	230 x 2.8/1.8 x 30	48/ATB		+ x			
70184608104	230	230 x 2.8/1.8 x 30	64/ATB		+ x			

#### **KEY**

-  $\triangle$ Ripping Fast Cut

0

**Curved Cut** 

+

X

+ +

Clean Cut Straight Cut Cross Cutting

Extra Clean Cut

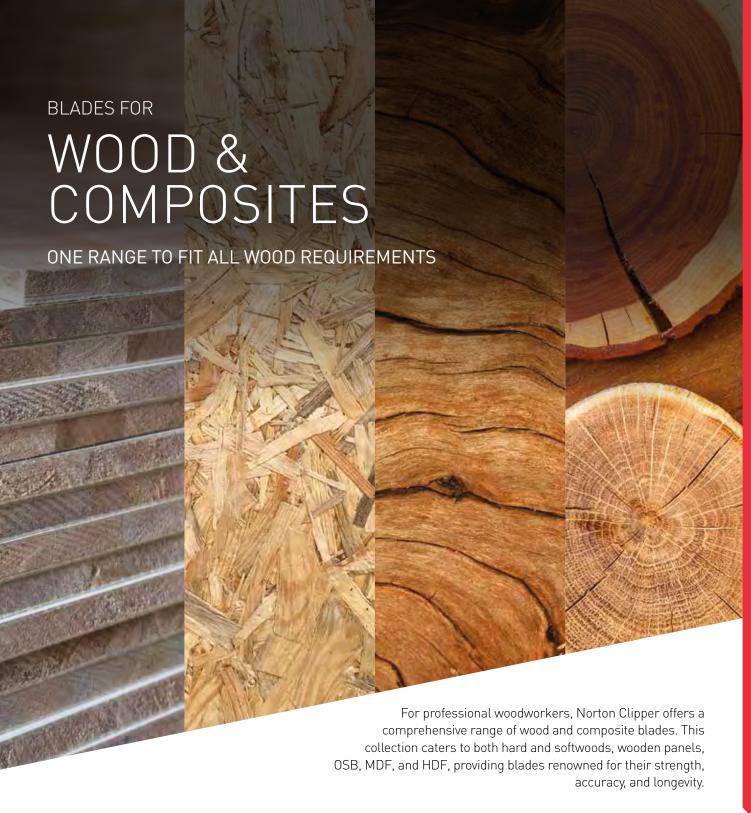
#### **CIRCULAR & TABLE SAW**





REFERENCE NUMBER	DIAMETER (MM)	DIAMETER X TOOTH DIA X BORE (MM)	TOOTH N° /TOOTH SHAPE	WOOD & COMPO	SITES	MULTI- MATERIALS	VENEER & LAMINATE	ALUMINIUM
70184608105	235	235 x 2.8/1.8 x 30/16	48/ATB	+	X			
70184608106	235	235 x 2.8/1.8 x 30	64/ATB	+	x			
70184608107	235	235 x 2.8/1.8 x 30	80/ATB	+	X			
70184608108	240	240 x 3.0/2.0 x 30	48/ATB	+	X			
70184608109	250	250 x 3.2/2.2 x 30	48/ATB	+	x			
70184608110	250	250 x 3.2/2.2 x 30	60/ATB	+	x			
70184608111	250	250 x 3.2/2.2 x 30	96/ATB	+	X			
70184608112	255	255 x 3.2/2.2 x 30	40/ATB	+	x			
70184608113	255	255 x 3.2/2.2 x 30	40/ATB	+	X			
70184608117	260	260 x 3.2/2.2 x 30	40/ATB	+	x			
70184608118	260	260 x 3.2/2.2 x 30	60/ATB	+	x			
70184608119	280	280 x 3.2/2.2 x 30	48/ATB	+	X			
70184608120	280	280 x 3.2/2.2 x 30	60/ATB	+	x			
70184608121	300	300 x x3.2/2.2 x 30	48/ATB	+	x			
70184608122	300	300 x 3.2/2.2 x 30	60/ATB	+	X			
70184608123	305	305 x 3.2/2.2 x 30	48/ATB	+	x			
70184608125	305	305 x 3.2/2.2 x 30	96/ATB	+	x			
70184608124	305	305 x 3.2/2.2 x 30	60/ATB Neg	+	x			
70184608126	355	355 x 3.2/2.4 x 30	60/ATB	+	x			
70184608127	355	355 x 3.2/2.4 x 30	80/ATB	+	x			
70184608132	300	300 x 3.2/2.2 x 30	20/Demolition			Δ-		
70184608144	225	225 x 2.6/1.6 x 30	60/TCG				++	
70184608146	305	305 x 3.0/2.2 x 30	80/TCG				++	
70184608128	160	160 x 3.0/2.0 x 20	18/Demolition			Δ-		
70184608129	190	190 x 3.0/2.0 x 30	20/Demolition			Δ-		
70184608130	216	216 x 3.0/2.0 x 30	24/Demolition			Δ-		
70184608131	230	230 x 3.0/2.0 x30	24/Demolition			Δ-		
70184608133	315	230 x 2.8/1.8 x 30	20/Demolition			Δ-		
70184608134	350	350 x 3.5/2.5 x 30	24/Demolition			Δ-		
70184608141	160	160 x 2.2/1.6 x 20	48/TCG				++	
70184608053	190	190 x 2.8/1.8 x 30	30/ATB	Δ-	x			

#### **KEY**



## CORE BITS



Perfectly round holes every time; the Norton Clipper Hole Saw is a 'cut' above the rest in wood and composites.







 Diameters available
 Application
 Pack Quantity
 Item No.
 EAN

 TCT: 22 / 25 / 32 / 35 / 40 / 44 / 51 / 60 / 65 / 68 / 76 / 102
 Softwood & composites
 12 + 2 Arbors
 70184608385
 5450248772200

\*1PC ARBOR 9.5mm (3/8") hex shank with 1pc HSS pilot drill + 1PC ARBOR 11mm (7/16") hew shank with 1pc HSS pilot drill



## JIGSAWS



Whatever the application, Norton Clipper have a jigsaw blade for it. This range always delivers fast, clean cutting performance for a variety of different natural and man-made wood materials.

Max Material Height (mm)	Working Length (mm)	Overall Length (mm	Cut (fine, fast,   straight, curved)	Teeth Material	TPI	Pack Quantity	Product Name	Item No.	EAN
Thick construction timber, softwood(5-65mm), chipboards, wood core plywood, fibre boards	110	132	Fast & straight cut	HCS	6T	3	T 344 D	70184608367	5450248772026
Softwood (2-65mm),chipboards,wood core plywood,fibre boards	90	116	Clean & straight cut	HCS	8/12T	3	T 234 X	70184608368	5450248772033
Softwood, chipboards, wood core plywood, fibre boards (10-65 mm)	90	116	Clean, straight & curved cut	HCS	8T	3	T 301 CD	70184608369	5450248772040
Laminated panels, plastic and fibre boards (5-50mm)	91	117	Extra clean & straight cut	BIM	10T	3	T 308 BF	70184608370	5450248772057
Softwood, chipboard, wood core plywood, fibre boards [3-30 mm], plastics/epoxy (diameter <30 mm)	76	100	Clean & straight cut	HCS	10T	3	T 101 B	70184608371	5450248772064
Softwood, chipboards, wood core plywood, fibre boards (5-50 mm), doors, kitchen worktops (<50 mm)	76	100	Fast & straight cut	HCS	6T	3	T 144 DP	70184608372	5450248772071
Softwood, plywood, laminated panels (1.5-15 mm), especially for curve cuts	50 76		Clean curved cut	HCS	20T	3	T 101 A0	70184608373	5450248772088
Softwood, chipboard, wood core plywood, fibre boards (3-30 mm), laminated panels	76	100	Extra clean & straight cut	HCS	10T	3	T 101 BR	70184608374	5450248772095
Softwood (5-50 mm), chipboards, wood core plywood, fibre boards, especially for curve cuts	76	100	Fast & curved cut	HCS	6T	3	T 244 D	70184608375	5450248772101
Softwood (2-15 mm), plywood, chipboard, wood core plywood, fibre boards, especially for curve cuts	50	76	Fast & curved cut	HCS	12T	3	T 119 BO	70184608376	5450248772118
Laminated panels, plastic and fibre boards (5-50mm)		100	Extra clean & straight cut	BIM	12T	3	T 308 BFP	70184608377	5450248772125
Softwood (2-15 mm), plywood, chipboards, wood core plywood, fibre boards	50	76	Fast & straight cut	HCS	12T	3	T 119 B	70184608378	5450248772132
5 - 50 3 - 30 1,5 - 15	76	100	Fast cut / Clean cut / Nor- mal cut	T144DP:HCS T144D:HCS T101B:HCS T244D:HCS T101AO:HCS	T144DP:6T T144D:6T T101B:10T T244D:6T T101AO:20T	10		70184608383	5450248772187

## RECIPROCATING SAW BLADES



All Norton Clipper reciprocating saw blades for wood and composites offer the user outstanding performance whether it be fast and straight or clean, curved cutting.

Max Material Height (mm)	Working Length (mm)	Overall Length (mm)	Cut Type	Teeth Material	TPI	Pack Quantity	Product Name	Item No.	EAN
Fuel wood,damp wood(dia.15-190mm)	220	240	Fast cut	HCS	3T	2	S 1542 K	70184608360	5450248771951
Coarse, fast cuts in wood(tree cutting and pruning)	220	240	Fast cut	HCS	5T	2	S 1131 L	70184608361	5450248771968
Timber 6 - 150 mm Plastic 6-150 Wooden panels <175mm	180	200	Clean cut	HCS	6-10T	2	S 2345 X	70184608362	5450248771975
Construction timber[ 6-100mm], wooden panels (<75mm],boards; chip, MDF[6-60mm], plywood, plastic (6-100mm].*Especially for plunge cuts	132	152	Curved & clean cut	HCS	6T	2	S 644 D	70184608363	5450248771982



## CIRCULAR SAW / TABLE SAW

This range of circular and table saw blades is optimized for **ripping** and **fast cutting** of all kinds of wood and composite materials. They have less teeth than the finishing blades. The larger diameter blades have an anti-kickback design to ensure the highest safety for the user. These blades can also be professionally resharpened to extend their life.



							20 10 1	
Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
100	2.6 / 1.6	20	24T	ATB	15300	WR.100.20.Z24.1	70184608030	5450248769262
120	1.8 / 1.2	20	24T	ATB	12800	WR.120.20.Z24.1	70184608032	5450248769279
125	2.6 / 1.6	20	24T	ATB	12000	WR.125.20.Z24.1	70184608033	5450248769286
130	2.6 / 1.6	20/16	24T	ATB	11800	WR.130.20.Z24.1	70184608034	5450248769293
150	2.6 / 1.6	30/20	24T	ATB	10000	WR.150.30.Z24.1	70184608035	5450248769309
150	2.8 / 1.8	20	24T	ATB	10000	WR.150.20.Z24.1	70184608036	5450248769316
150	3.6 / 2.6	30	24T	ATB	10000	WR.150.30.Z24.2	70184608037	5450248769323
160	2.6 / 1.6	16	24T	ATB	9500	WR.160.16.Z24.1	70184608039	5450248769347
160	2.6 / 1.6	20	16T	ATB	9500	WR.160.20.Z16.1	70184608038	5450248769330
160	1.8 / 1.2	20	24T	ATB	9500	WR.160.20.Z24.1	70184608040	5450248769354
160	2.6 / 1.6	20	24T	ATB	9500	WR.160.20.Z24.2	70184608042	5450248769378
160	2.8 / 1.8	20	24T	ATB	9500	WR.160.20.Z24.3	70184608044	5450248769392
160	2.2 / 1.6	30/20	24T	ATB	9500	WR.160.30.Z24.1	70184608041	5450248769361
160	2.6 / 1.6	30/20	24T	ATB	9500	WR.160.30.Z24.2	70184608043	5450248769385
165	1.8 / 1.2	20	24T	ATB	9500	WR.165.20.Z24.1	70184608045	5450248769408
165	2.6 / 1.6	20	24T	ATB	9500	WR.165.20.Z24.2	70184608046	5450248769415
170	2.6 / 1.6	30/20/16	24T	ATB	9000	WR.170.30.Z24.1	70184608047	5450248769422
170	2.8 / 1.8	30	24T	ATB	9000	WR.170.30.Z24.2	70184608048	5450248769439
180	2.8 / 1.8	30/20/16	24T	ATB	8500	WR.180.30.Z24.1	70184608049	5450248769446
180	2.8 / 1.8	30	30T	ATB	8500	WR.180.30.Z30.1	70184608050	5450248769453
185	1.8/1.2	30/20/16	24T	ATB	8500	WR.185.30.Z24.1	70184608051	5450248769460
190	2.8 / 1.8	30/20/16	24T	ATB	8000	WR.190.30.Z24.1	70184608052	5450248769477
190	2.8 / 1.8	30	30T	ATB	8000	WR.190.30.Z30.1	70184608053	5450248769484
210	2.8 / 1.8	30	24T	ATB	7200	WR.210.30.Z24.1	70184608054	5450248769491
210	2.8 / 1.8	30	36T	ATB	7200	WR.210.30.Z36.1	70184608055	5450248769507
220	2.8 / 1.8	30	24T	ATB	7000	WR.220.30.Z24.1	70184608058	5450248769538
225	2.6 / 1.6	30	32T	ATB	6500	WR.225.30.Z32.1	70184608059	5450248769545
230	2.8 / 1.8	30	24T	ATB	6500	WR.230.30.Z24.1	70184608060	5450248769552
230	2.8 / 1.8	30	36T	ATB	6500	WR.230.30.Z36.1	70184608061	5450248769569
235	2.8 / 1.8	30/16	24T	ATB	6500	WR.235.30.Z24.1	70184608062	5450248769576
235	2.8 / 1.8	30	36T	ATB	6500	WR.235.30.Z36.1	70184608063	5450248769583
240	3.0 / 2.0	30	24T	ATB	6300	WR.240.30.Z24.1	70184608064	5450248769590
250	3.2 / 2.2	30	36T	ATB	6000	WR.250.30.Z36.1	70184608066	5450248769613
260	3.2 / 2.2	30	24T	ATB	5800	WR.260.30.Z24.1	70184608069	5450248769644
280	3.2 / 2.2	30	24T	ATB	5400	WR.280.30.Z24.1	70184608070	5450248769651
305	3.2 / 2.2	30	24T	ATB	5000	WR.305.30.Z24.1	70184608071	5450248769668
315	3.2 / 2.2	30	24T	ATB	4800	WR.315.30.Z24.1	70184608073	5450248769682
330	3.2 / 2.2	30	40T	ATB	4600	WR.330.30.Z40.1	70184608074	5450248769699
355	3.2 / 2.4	30	24T	ATB	4300	WR.355.30.Z24.1	70184608075	5450248769705
355	3.2 / 2.4	30	40T	ATB	4300	WR.355.30.Z40.1	70184608076	5450248769712
400 <b>NEW</b>	3.5 / 2.5	30	28T	ATB	3800	WR.400.30.Z28.1	70184632528	5450248820291
400	4.0 / 3.8	30	36T	ATB	3800	WR.400.30.Z36.1	70184631829	5450248806493
450 <b>NEW</b>	3.8 / 2.8	30	32T	ATB	3400	WR.450.30.Z32.1	70184632529	5450248820307
450	4.4 / 3.0	30	36T	ATB	3400	WR.450.30.Z36.1	70184631830	5450248806509



## CIRCULAR SAW / TABLE SAW

This range of circular and table saw blades is optimsed for cross-cutting and finishing all kinds of wood and composite materials. They have more teeth than the ripping blades and offer the best quality of cut. These blades can also be professionally resharpened to extend their life.



Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
125	2.6 / 1.6	20	36T	ATB	12000	WF.125.20.Z36.1	70184608081	5450248768791
130	2.6 / 1.6	20	36T	ATB	11800	WF.130.20.Z36.1	70184608082	5450248768807
150	2.6 / 1.6	30/20	48T	ATB	10000	WF.150.30.Z48.1	70184608083	5450248768814
160	2.6 / 1.6	20	40T	ATB	9500	WF.160.20.Z40.1	70184608084	5450248768821
160	1.8 / 1.2	20	48T	ATB	9500	WF.160.20.Z48.1	70184608086	5450248768845
160	2.6 / 1.6	20	48T	ATB	9500	WF.160.20.Z48.2	70184608087	5450248768852
160	2.2 / 1.6	20	60T	ATB	9500	WF.160.20.Z60.1	70184608089	5450248768876
160	2.6 / 1.6	30/16	48T	ATB	9500	WF.160.30.Z48.1	70184608085	5450248768838
165	2.6 / 1.6	20	48T	ATB	9500	WF.165.20.Z48.1	70184608090	5450248768883
165	2.6 / 1.6	20	64T	ATB	9500	WF.165.20.Z64.1	70184608091	5450248768890
170	2.6 / 1.6	30/16	48T	ATB	9000	WF.170.30.Z48.1	70184608092	5450248768906
180	2.8 / 1.8	30/20/16	48T	ATB	8500	WF.180.30.Z48.1	70184608093	5450248768913
190	2.8 / 1.8	30	40T	ATB	8000	WF.190.30.Z40.1	70184608094	5450248768920
190	2.8 / 1.8	30/20/16	48T	ATB	8000	WF.190.30.Z48.1	70184608095	5450248768937
210	2.8 / 1.8	30	48T	ATB	7200	WF.210.30.Z48.1	70184608097	5450248768951
210	2.8 / 1.8	30	64T	ATB	7200	WF.210.30.Z64.1	70184608098	5450248768968
220	2.8 / 1.8	30	48T	ATB	7000	WF.220.30.Z48.1	70184608100	5450248768982
225	2.8 / 1.8	30	48T	ATB	6500	WF.225.30.Z48.1	70184608101	5450248768999
225	2.6 / 1.6	30	64T	ATB	6500	WF.225.30.Z64.1	70184608102	5450248769002
230	2.8 / 1.8	30	48T	ATB	6500	WF.230.30.Z48.1	70184608103	5450248769019
230	2.8 / 1.8	30	64T	ATB	6500	WF.230.30.Z64.1	70184608104	5450248769026
235	2.8 / 1.8	30/16	48T	ATB	6500	WF.235.30.Z48.1	70184608105	5450248769033
235	2.8 / 1.8	30	64T	ATB	6500	WF.235.30.Z64.1	70184608106	5450248769040
235	2.8 / 1.8	30	96T	ATB	6500	WF.235.30.Z96.1	70184608107	5450248769057
240	3.0 / 2.0	30	48T	ATB	6300	WF.240.30.Z48.1	70184608108	5450248769064
250	3.2 / 2.2	30	48T	ATB	6000	WF.250.30.Z48.1	70184608109	5450248769071
250	3.2 / 2.2	30	60T	ATB	6000	WF.250.30.Z60.1	70184608110	5450248769088
250	3.2 / 2.2	30	96T	ATB	6000	WF.250.30.Z96.1	70184608111	5450248769095
255	3.2 / 2.2	30	40T	ATB	6000	WF.255.30.Z40.1	70184608112	5450248769101
255	3.2 / 2.2	30	60T	ATB	6000	WF.255.30.Z60.1	70184608113	5450248769118
260	3.2 / 2.2	30	40T	ATB	5800	WF.260.30.Z40.1	70184608117	5450248769156
260	3.2 / 2.2	30	60T	ATB	5800	WF.260.30.Z60.2	70184608118	5450248769163
280	3.2 / 2.2	30	48T	ATB	5400	WF.280.30.Z48.1	70184608119	5450248769170
280	3.2 / 2.2	30	60T	ATB	5400	WF.280.30.Z60.1	70184608120	5450248769187
300	3.2 / 2.2	30	48T	ATB	5000	WF.300.30.Z48.1	70184608121	5450248769194
300	3.2 / 2.2	30	60T	ATB	5000	WF.300.30.Z60.1	70184608122	5450248769200
305	3.2 / 2.2	30	48T	ATB	5000	WF.305.30.Z48.1	70184608123	5450248769217
305	3.2 / 2.2	30	96T	ATB	5000	WF.305.30.Z96.1	70184608125	5450248769231
355	3.2 / 2.4	30	60T	ATB	4300	WF.355.30.Z60.1	70184608126	5450248769248
355	3.2 / 2.4	30	80T	ATB	4300	WF.355.30.Z80.1	70184608127	5450248769255



## MITRE SAW

This durable range of mitre saw blades cut through wood and composite materials effortlessly, providing high levels of precision.



	Product Name	Blade Diameter (mm)	Bore (mm)	No' of Teeth	Thickness (mm)	Teeth Design	RPM	Item No.	EAN
	WR.216.30.Z24.1	216	30	24T	2.8 / 1.8	ATB Neg	7000	70184608056	5450248769514
	WR.216.30.Z36.1	216	30	36T	2.3 / 1.8	ATB Neg	7000	70184608057	5450248769521
RIPPING	WR.250.30.Z24.1	250	30	24T	3.2 / 2.2	ATB Neg	6000	70184608065	5450248769606
E I	WR.255.30.Z24.1	255	30	24T	3.2 / 2.2	ATB Neg	6000	70184608067	5450248769620
	WR.255.30.Z24.2	255	30/16	24T	2.6 / 1.8	ATB Neg	6000	70184608068	5450248769637
	WR.305.30.Z36.1	305	30	36T	3.2 / 2.2	ATB Neg	5000	70184608072	5450248769675
	WF.160.20.Z48.3	160	20	48T	2.6 / 1.6	ATB Neg	9500	70184608088	5450248768869
	WF.190.30.Z48.2	190	30	48T	2.8 / 1.8	ATB Neg	8000	70184608096	5450248768944
	WF.216.30.Z40.1	216	30	40T	2.8 / 1.8	ATB Neg	7000	70184608498	5450248774792
Ď	WF.216.30.Z48.1	216	30	48T	2.8 / 1.8	ATB Neg	7000	70184608099	5450248768975
FINISHING	WF.254.30.Z48.1	254	30	48T	2.8 / 1.8	ATB Neg	6000	70184608499	5450248774808
Ē	WF.255.30.Z60.2	255	30	60T	3.2 / 2.2	ATB Neg	6000	70184608114	5450248769125
	WF.260.30.Z48.1	260	30	48T	2.6 / 1.8	ATB Neg	5800	70184608115	5450248769132
	WF.260.30.Z60.1	260	30	60T	2.6 / 1.8	ATB Neg	5800	70184608116	5450248769149
	WF.305.30.Z60.1	305	30	60T	3.2 / 2.2	ATB Neg	5000	70184608124	5450248769224

## REDUCTION RINGS

Bore sizes (mm)	Description	Item No.
20 to 16	BAGUE/REDUCTION 20X16X2	510004702
30 to 16	BAGUE/REDUCTION 30X16X1.6	510006938
30 to 20	BAGUE/REDUCTION 30X20X1.4	510007983
30 to 25.4	BAGUE/REDUCTION 30X25.4X1.8	510003057
	BAGUE/REDUCTION 30X25.4X2.2	510007566

## CORE PLANER BLADE BITS

Made with a high quality brazed carbide insert, these planer blades always deliver excellent cutting performance and the reversibility of the blade adds to its durability.

Application	Length	Cut Type	Pack Quantity	Teeth Material	Item No.	EAN
Natural wood	82mm	Extra clean cut	2	TCT	70184608384	5450248772194

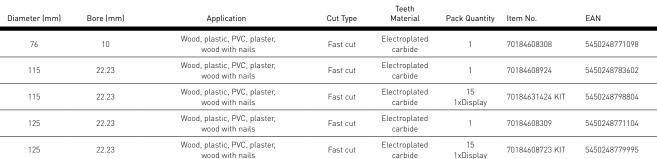


Concerns about damaging the blade between processes are a thing of the past, as this range has been designed with cutting construction timbers,

pallets, nails and non-ferrous metals in mind.



Fast cutting angle grinder blades with electroplated carbide teeth, a great choice for all types of wood (with or without nails), plastic, PVC, and plaster.



# 1xDisplay

## CONVEX TUNGSTEN CARBIDE SANDING CUP

- For re-surfacing and sanding soft materials
- Re-surfacing sanding, deburring of soft materials such as wood (sculpture), plastic, fibreglass, soft stone, epoxy painting, plaster

Art.Nr.

- High grit density
- Two grits : fine and medium for Ø125 angle grinder
- Excellent wear resistance, perfect finishing



#### **CLIPPER TCT CUP WOOD GRIT 23**

70184609693

5450248791997
Wood
125
Ø 22.23
23
Electroplated carbide
1



#### **CLIPPER TCT CUP WOOD GRIT 36**

Art.Nr.	70184609694
EAN 13 code	5450248792000
Application	Wood
Diametre (mm)	125
Bore (mm)	Ø 22.23
Grit	36
Teeth materials	Electroplated carbide
Pack quantity	1



## **CORE BITS**



Norton Clipper hole saws/drill corebits work perfectly with aluminium, wood, plaster, copper, and brass materials



Diameters Available Application Pack Quantity Item No. EAN

BIM: 22 / 25 / 32 / 35 / 40 / 44 / 51 / 60 / 65 / 68 / 76 / 102

Multi-materials

12 + 2 Arbors

70184608386

5450248772217

\*1PC ARBOR 9.5mm (3/8") hex shank with 1pc HSS pilot drill + 1PC ARBOR 11mm (7/16") hew shank with 1pc HSS pilot drill

## RECIPROCATING SAW BLADES



Multi-material reciprocating saw blades offer the user super-fast cutting performance and are available in three different material types – TCT, BIM and BIM+. With this versatile range, you can cut an array of materials ranging from small bricks to reinforced plastic and pallets.

Max Material Height (mm)	Working Length (mm)	Overall Length (mm)	Cut Type	Teeth Material	TPI	Pack Quantity	Product Name	Item No.	EAN
For small bricks up to a material thickness of 150mm (poroton, fibre cement, porous concrete, red brick)	220	240	Fast cut	Carbide	2T	2	S1543HM	70184608354	5450248771890
For medium-sized bricks up to a material thickness of 215mm (poroton, fibre cement, porous concrete, red brick)	260	304	Fast cut	Carbide	2T	1	S 1243 HM	70184608355	5450248771906
For large bricks up to a material thickness of 365mm (poroton, fibre cement, porous concrete, red brick)	415	455	Fast cut	Carbide	2T	1	S 2243 HM	70184608356	5450248771913
Pallet / metal sheet 5 - 175mm aluminium profiles 3 - 12mm	208	228	Straight & fast cut	BIM	10T	2	S 1122 HF	70184608357	5450248771920
Wood with nails, metal, chipboard (10 - 250mm), aerated concrete (10 - 250mm), plastics, glass fibre, reinforced plastics and profiles (5 - 60mm)	280	300	Curved + fast cut	BIM	6T	2	S 1411 DF	70184608358	5450248771937
Pallet 10 - 100mm Plastic 8 - 50mm	208	228	Fast cut	BIM	6T	2	S 1111 DF	70184608359	5450248771944
Wood with nails, metal (5 - 100mm), sheet metal, pipes, aluminium profiles (3 - 12mm), and pallets	132	152	Fast cut	BIM	10T	2	S 922 HF	70184608364	5450248771999
Milled wood with nails, metal, wood, chipboard (<100mm), glass fibre, reinforced plastic, epoxy (<100mm), wall cut- outs - wood and metal (<100mm)	132	152	Fast cut	BIM CO8%	5-8T	2	S610VF	70184608365	5450248772002
Wood with nails and metal, wood, chipboard (<250mm), glass fibre reinforced plastic, epoxy (<250mm), wall cut-outs - wood and metal (<250mm), and rescue and demolition work	280	300	Fast cut	BIM CO8%	5-8T	2	S1210VF	70184608366	5450248772019

Diamond Tools / 403 www.nortonabrasives.com







## **DEMOLITION CIRCULAR SAWS**

This robust range of demolition circular saws is designed to power through a wide variety of different materials. These blades can also be professionally resharpened to extend their life.

Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
160	3,0 / 2,0	20	18T	Demolition	9500	MM.160.20.Z18.1	70184608128	5450248769736
190	3,0 / 2,0	30	20T	Demolition	8000	MM.190.30.Z20.1	70184608129	5450248769743
216	3,0 / 2,0	30	24T	Demolition	7000	MM.216.30.Z24.1	70184608130	5450248769750
230	3,0 / 2,0	30	24T	Demolition	6500	MM.230.30.Z24.1	70184608131	5450248769767



## **DEMOLITION TABLE SAW**

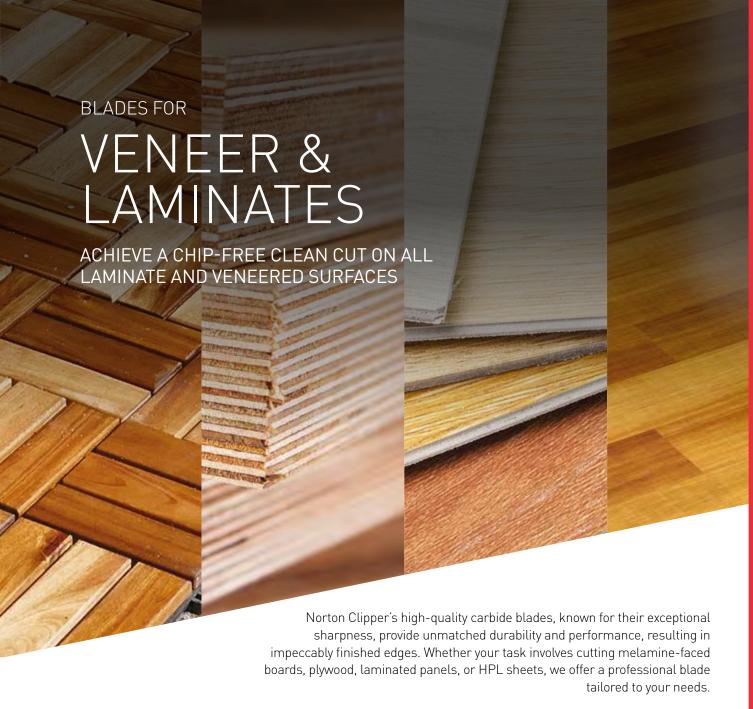
Demolition table saw blades that make light work of various materials including pallets and construction timbers.



Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
300	3.2 / 2.2	30	20T	Demolition	5000	MM.300.30.Z20.1	70184608132	5450248769774
315	3.2 / 2.2	30	20T	Demolition	4800	MM.315.30.Z20.1	70184608133	5450248769781
350	3.5 / 2.5	30	24T	Demolition	4300	MM.350.30.Z24.1	70184608134	5450248769798

## REDUCTION RINGS

Bore sizes (mm)	Description	Item No.
20 to 16	BAGUE/REDUCTION 20 x 16 x 2	510004702
30 to 16	BAGUE/REDUCTION 30 x 16 x 1.6	510006938
30 to 20	BAGUE/REDUCTION 30 x 20 x 1.4	510007983
30 to 25.4	BAGUE/REDUCTION 30 x 25.4 x 1.8	510003057
3U TO 25.4	BAGUE/REDUCTION 30 x 25.4 x 2.2	510007566



## CIRCULAR SAW / TABLE SAW

The Triple Chip Grind (TCG) teeth on these circular saw blades make them the ideal choice for cutting veneer and laminate quickly and cleanly. These blades can also be professionally resharpened to extend their life.



Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
160	2.2 / 1.6	20	48T	TCG	9500	LA.160.20.Z48.1	70184608141	5450248769866
216	2.6 / 1.8	30	60T	TCG	7000	LA.216.30.Z60.1	70184608142	5450248769873
216	2.3 / 1.8	30	60T	TCG	7000	LA.216.30.Z60.2	70184608143	5450248769880
225	2.6 / 1.6	30	60T	TCG	6500	LA.225.30.Z60.1	70184608144	5450248769897
250	2.8 / 2	30	60T	TCG	6000	LA.250.30.Z60.1	70184608145	5450248769903
305	3.0 / 2.2	30	80T	TCG	5000	LA.305.30.Z80.1	70184608146	5450248769910



## JIGSAWS

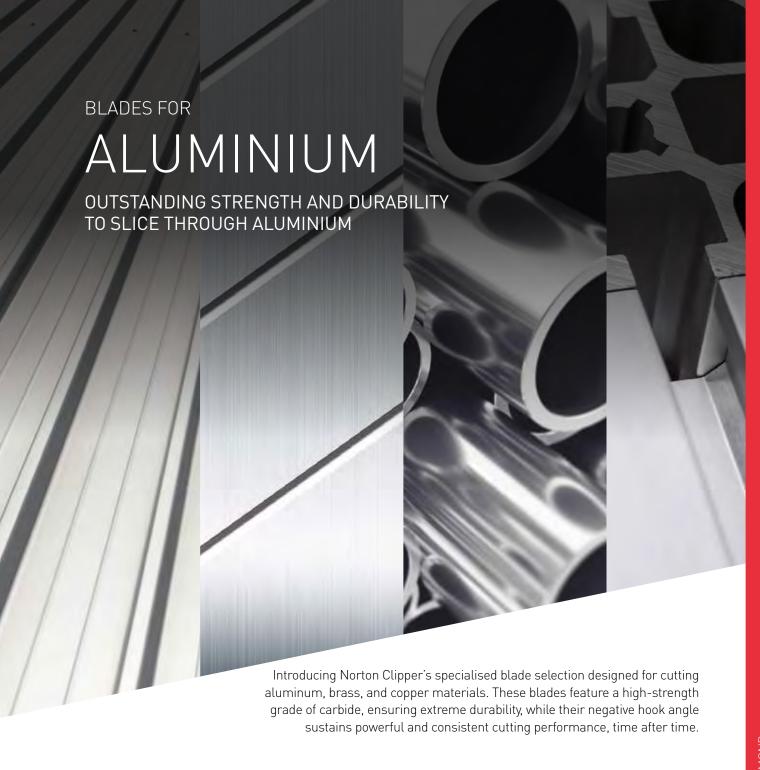


The perfect jigsaw blade for cutting laminates and veneer with its sharp, straight, burr-free cutting performance with teeth sharpened to precision.

Max Material Height (mm)	Working Length (mm)	Overall Length (mm)	Cut (fine, fast, straight, curved)	TPI	Pack Quantity	Teeth Material	Product Name	Item No.	EAN
Laminates and laminated panels 1.5 - 15mm	56	82	Extra clean & straight cut	14T	3	ВІМ	T 101 BIF	70184608379	5450248772149

## REDUCTION RINGS

Bore Sizes (mm)	Description	Item No.
20 to 16	BAGUE/REDUCTION 20x16x2	510004702
30 to 16	BAGUE/REDUCTION 30x16x1.6	510006938
30 to 20	BAGUE/REDUCTION 30x20x1.4	510007983
30 to 25.4	BAGUE/REDUCTION 30x25.4x1.8	510003057
30 (0 25.4	BAGUE/REDUCTION 30x25.4x2.2	510007566



## JIGSAWS



Jigsaw blades for cutting aluminium. A combination of corrugated and milled teeth and hardened steel blade make these blades perfect for clean, precise cutting.

Product Name	Max Material Height (mm)	Working Length (mm)	Overall Length (mm)	Cut Type	TPI	Pack Quantity	Teeth Material	Item No.	EAN
T 218 A	Thin sheet metals (1-3 mm), especially for curve cuts	50	76	Clean & curved cuts	21T	3	HSS	70184608380	5450248772156
T 118 B	Medium-thick sheet metals (2.5-6 mm)	50	76	Clean & straight cuts	12T	3	HSS	70184608381	5450248772163
T 127 D	Thin to thick sheet metals (3-15 mm), pipes and profiles, (diameter <30 mm)	76	100	Fast, clean & straight cut	8T	3	HSS	70184608382	5450248772170



## MITRE SAW / TABLE SAW

High-quality mitre saw blades with TCG negative angled teeth specifically designed for cutting aluminium.



Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of Teeth	Teeth Design	RPM	Product Name	Item No.	EAN
190	2.6 / 1.8	30	60T	TCG Neg	5000	AL.190.30.Z60.1	70184608135	5450248769804
216	2.6 / 1.8	30	80T	TCG Neg	4400	AL.216.30.Z80.1	70184608136	5450248769811
240	2.8 / 2.0	30	80T	TCG Neg	4000	AL.230.30.Z80.1	70184608137	5450248769828
250	2.8 / 2.0	30	80T	TCG Neg	3800	AL.250.30.Z80.1	70184608138	5450248769835
255	3.0 / 2.2	30	80T	TCG Neg	3800	AL.255.30.Z80.1	70184608139	5450248769842
305	3.0 / 2.2	30	96T	TCG Neg	3000	AL.305.30.Z96.1	70184608140	5450248769859

## REDUCTION RINGS

Bore Sizes (mm)	Description	Item No.
20 to 16	BAGUE/REDUCTION 20x16x2	510004702
30 to 16	BAGUE/REDUCTION 30x16x1.6	510006938
30 to 20	BAGUE/REDUCTION 30x20x1.4	510007983
30 to 25 4	BAGUE/REDUCTION 30x25.4x1.8	510003057
30 t0 23.4	BAGUE/REDUCTION 30x25.4x2.2	510007566

IVU			

## UNDERSTANDING OUR PICTOS

All our products feature key pictograms on the product to ensure that, even when the packaging is gone and these products are a firm favourite in your tool store, you can still be sure when to use each item.

#### **MACHINES:**



Mitre Saw



Circular Saw



Table Saw



Reciprocating



Jigsaw



Planer

#### TEETH DESIGN (CIRCULAR, TABLE AND MITRE SAWS)











#### TOOTH MATERIALS (JIGSAW/RECIPROCATING SAW)











### CUT TYPES (JIGSAW/ RECIPROCATING SAWS)









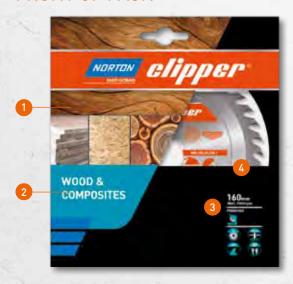


## NAMOND OOLS

## UNDERSTANDING OUR PRODUCT

MITRE SAW, CIRCULAR SAW AND TABLE SAW

#### FRONT OF PACK



- 1 Material images
- 2 Material family
- 3 Product specification & machine compatibility
- 4 Product window

#### BACK OF PACK



- **5** Other products in the range
- 6 Safety information
- 7 Recycling information
- 8 Head office & web address

#### FRONT OF BLADE



- 1 Material application
- 2 Stage of application
- 3 Dimensions/RPM
- 4 Product specification
- **5** Safety pictos

- **6** Suitable materials
- 7 Article number
- 8 Machine usage
- 9 Directional arrow

#### **BACK OF BLADE**



- 1 Application
- 2 EN Normn
- 3 Product specification
- 4 Resharpening data
- **5** Suitable materials
- **6** Article number
- 7 Machine usage
- 8 Directional arrow

#### **RECIPROCATING SAW/JIGSAW**



- 1 Material images
- 2 Material family
- 3 Product specification & machine compatibility
- **4** Product window
- **5** Other products in the range
- **6** Safety information
- **7** Recycling information
- 8 Head office & web address

#### **HOLE SAWS**



- 1 Material images
- 2 Material family
- 3 Product specification
- 4 Safety information
- **5** Article number



## MAMOND TOOLS

#### **ANGLE GRINDER**



- 1 Material images
- 2 Material family
- 3 Product specification & machine compatibility
- **4** Safety & recycling information
- **5** Head office & web address
- 6 Article number

#### PLANER BLADE





- 1 Material images
- 2 Material family
- 3 Product specification & machine compatibility
- 4 Product window
- **5** Safety information
- **6** Recycling information
- **7** Head office & web address
- 8 Article number

## AT A GLANCE PACKAGING DESIGN

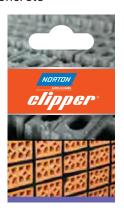
Norton Clipper has put in significant effort to make blade selection straightforward. Through the use of application-specific colour codes, material images, and informative pictograms, identifying the ideal blade for your task has never been more convenient.

Our packaging is designed to be transparent, concise, and instantly recognisable, enabling end-users to swiftly and effortlessly pinpoint the perfect product for their requirements.



#### **Multi-materials**

Poroton, honeycomb bricks, and aerated concrete



Hardwood aluminium and metal

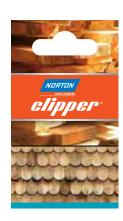






#### **Wood & Composites**

Softwood and building wood



Hardwood and branches







#### **Veneer & Laminates**

#### Aluminium

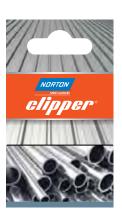
Metal, wood with nails and plastics etc.







Aluminium







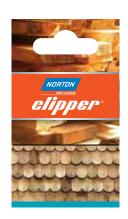




Natural wood



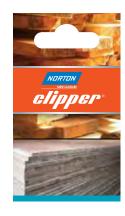
Thick and thin wood



Softwood and composites















## OUR 4-STEP GUIDE TO CHOOSING THE RIGHT BLADE

## 1. Identify the material being cut?

From this you will know which of the colour coded catalogue sections contains your ideal product

Example: Natural Wood

WOOD & COMPOSITES

MULTI-MATERIALS

VENEERS &

**ALUMINIUM** 

## 2. Which machine will the product be fitted to?

All our product information is grouped together by machine type

Example: Circular Saw

## CIRCULAR SAW / TABLE SAW

Reliable and hard wearing, this range of circular saw blades is optimised for all kinds of hardwood, softwood and composite materials. These blades can also be professionally resharpened to extend their life.

## 3. Which size product is required?

Every product line is listed alongside key specification data

#### Example: 165mm diameter with 20mm bore

Item No.	Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of teeth	Teeth Design	RPM
WF.160.20.Z60.1	160	2.2 / 1.6	20	60T	ATB	9500
WF.165.20.Z48.1	165	2.6 / 1.6	20	48T	ATB	9500
WF.165.20.Z64.1	165	2.6 / 1.6	20	64T	ATB	9500

## 4. Which type of cut do you need to achieve?

A variety of cut types are available such as ripping and finishing.

#### Example: Finishing

Item No.	Blade Diameter (mm)	Thickness (mm)	Bore (mm)	No' of teeth	Teeth Design	RPM
<b>WF.</b> 165.20.Z48.1	165	2.6 / 1.6	20	48T	ATB	9500
WF.165.20.Z64.1	165	2.6 / 1.6	20	64T	ATB	9500



WF.165.20.Z48.1

WF - Wood Finishing\*

**165** - Diameter

**20** - 20mm bore

**Z48** - 48 teeth

**1** - Range count

\*Material Abbreviations

WR - Wood Ripping

WF - Wood Finishing

MM - Multi Materials

**AL** - Aluminium

**LA** - Laminates



## STEP DRILLS

Introduction Step drills 418

419

#### 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 TIAIN COATED HSSM2 **TIN** COATED





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TiAIN (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.

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.

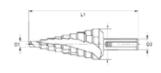
## RECOMMENDED CUTTING SPEEDS

Material	Carbon steel <700 N/mm²	Carbon steel >700 N/mm²	Alloy steel <1000 N/mm²	Stainless steel <1400 N/mm²	Casl iron <250 N/mm²	Casl iron >250 N/mm²	CuZn (Brittle)	CuZn (Tough)	AI-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 used on stainless steel and bronze



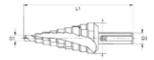
L <sub>1</sub> xD <sub>1</sub> xD <sub>2</sub> xD <sub>3</sub> (mm) STEPS		HOLE DIAMETERS (mm)	MAX HOLE DEPTH (mm)	PK QTY	ART NO.
65x4x12x6	5	4-6-8-10-12	5	1	66261140028
65x4x12x6	9	4-5-6-7-8-9-10-11-12	3	1	78072765476
75x4x20x8	9	4-6-8-10-12-14-16-18-20	4	1	5539553840
100x4x30x10	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	) 4	1	5539553845



## STEP DRILL HSSM2-TIAIN ++++



- 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



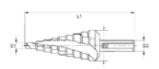
$L_1 x D_1 x D_2 x D_3$ (mm)	STEPS	HOLE DIAMETERS (mm)	MAX HOLE DEPTH (mm)	PK QTY	ART NO.	
82x5x35x12.7	13	5-13-15-17-19-21-23-25-27-29-31-33-35	3	1	5539553846	



## 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 used on stainless steel and bronze
- TiN step drill kit cover most common materials and hole dimensions





		HOLE	MAX HOLE			31.
$L_1 x D_1 x D_2 x D_3$ (mm	) STEPS	DIAMETERS (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	_

<b>NOTES</b>			



## CORE DRILLS

Introduction
Core Drills

## HIGH PERFORMANCE CORE DRILLS (ANNULAR CUTTERS)



Norton core drills are best used with 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.





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.



**SAVE MONEY**Core drills stay sharp longer and car

Materials like cast iron produce a lot of powder, compressed air is recommended instead of cuttin oil or coolant



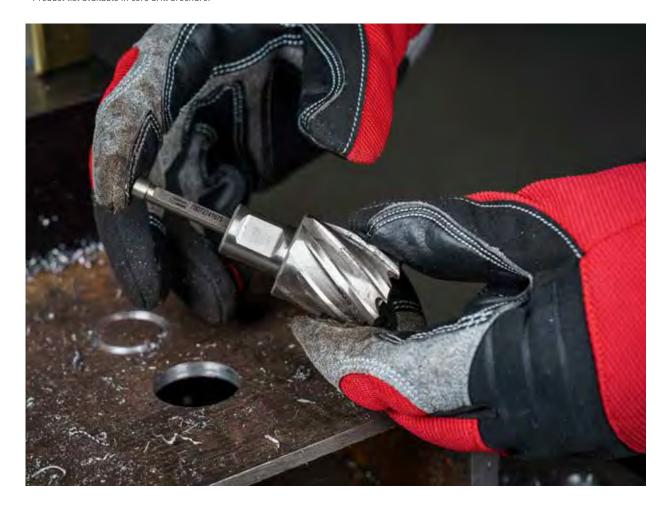
To keep your core drill at its optimum efficiency, always use it with suitable cutting oil.



## PRODUCT RECOMMENDATION GUIDE

	HSSM2	HSS-E (Co alloy)*	TCT
MATERIAL (Tensile strength in N/mm²)	+++	++++	++++
Aluminium < 10% Si < 600 N/mm²	**	***	***
Aluminium > 10% Si < 600 N/mm <sup>2</sup>	*	**	***
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		*	***

<sup>\*</sup> 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
		MTC M I I CO I

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

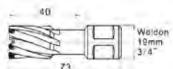
DESCRIPTION	ART NO.
STEEL PIN 6.35 / 5.3 x 102mm	78072741722 MTS
STEEL PIN 6.35 / 5.3 x 77mm	78072741675 MTS
STEEL PIN 7,.98 x 90mm	78072748026 MTS





## 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



73		
CUT DIAM	CUTTING DEPTH 35mm ART NO.	
12	78072751462	
13	78072751891	
14	78072751899	
15	78072751904	
16	78072751906	
17	78072751905	
CENTRE PIN		
CENTRE FIN	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		
CLIVITALITIN	7.00 v.00 mm	

7.98 x 90 mm

MTS; Made to Stock

## TCT CORE DRILLS WELDON SHANK\*\*\*

CUT DIAM	CUTTING DEPTH 35mm 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	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



<sup>\*</sup>  $6.35\ x$  77 mm and  $6.35\ x$  102 mm not included

<sup>\*\* 7.98</sup> 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			



## M42 BI-METAL HOLE SAWS

Introduction M42 BI-METAL Hole Saws 430

/, 3







## HIGH-PERFORMANCE #### M42 BI-METAL HOLE SAWS

Our M42 bi-metal (8% Cobalt) hole saws feature variable pitch geometry for enhanced cutting action, making them suitable for a wide range of materials, including steel, stainless steel, aluminium, PVC, wood, cast iron, and more. These hole saws are easy to use with most drilling machines, including portable drills, bench drills, and vertical drills. Supplied in a recyclable carton that can be hung on a display hook.

	Correction of the same	154 1000
		Milder 11
		AZIAGW
E	.E ART NO.	

PRODUCT DESCRIPTION	DIAMETER (mm)	MAX DEPTH (mm)	COMPATIBLE POINT DRILL	ART NO.
HS001-BMETAL-M42 VPITCH HSAW16x38A1-NOR	16	38	A1	78072773033
HS001-BMETAL-M42 VPITCH HSAW17x38A1-NOR	17	38	A1	78072773034
HS001-BMETAL-M42 VPITCH HSAW19x38A1-NOR	19	38	A1	78072773035
HS001-BMETAL-M42 VPITCH HSAW20x38A1-NOR	20	38	A1	78072773036
HS001-BMETAL-M42 VPITCH HSAW21x38A1-NOR	21	38	A1	78072773054
HS001-BMETAL-M42 VPITCH HSAW22x38A1-NOR	22	38	A1	78072773058
HS001-BMETAL-M42 VPITCH HSAW25x38A1-NOR	25	38	A1	78072773060
HS001-BMETAL-M42 VPITCH HSAW27x38A1-NOR	27	38	A1	78072773061
HS001-BMETAL-M42 VPITCH HSAW29x38A1-NOR	29	38	A1	78072773063
HS001-BMETAL-M42 VPITCH HSAW30x38A1-NOR	30	38	A1	78072773065
HS001-BMETAL-M42 VPITCH HSAW32x38A10-NOR	32	38	A10	78072773066
HS001-BMETAL-M42 VPITCH HSAW33x38A10-NOR	33	38	A10	78072773068
HS001-BMETAL-M42 VPITCH HSAW35x38A10-NOR	35	38	A10	78072773069
HS001-BMETAL-M42 VPITCH HSAW38x38A10-NOR	38	38	A10	78072773123
HS001-BMETAL-M42 VPITCH HSAW40x38A10-NOR	40	38	A10	78072773126
HS001-BMETAL-M42 VPITCH HSAW41x38A10-NOR	41	38	A10	78072773127
HS001-BMETAL-M42 VPITCH HSAW44x38A10-NOR	44	38	A10	78072773129
HS001-BMETAL-M42 VPITCH HSAW48x38A10-NOR	48	38	A10	78072773131
HS001-BMETAL-M42 VPITCH HSAW51x38A10-NOR	51	38	A10	78072773132
HS001-BMETAL-M42 VPITCH HSAW54x38A10-NOR	54	38	A10	78072773134
HS001-BMETAL-M42 VPITCH HSAW57x38A10-NOR	57	38	A10	78072773135
HS001-BMETAL-M42 VPITCH HSAW60x38A10-NOR	60	38	A10	78072773137
HS001-BMETAL-M42 VPITCH HSAW64x38A10-NOR	64	38	A10	78072773138
HS001-BMETAL-M42 VPITCH HSAW65x38A10-NOR	65	38	A10	78072773140
HS001-BMETAL-M42 VPITCH HSAW67x38A10-NOR	67	38	A10	78072773142
HS001-BMETAL-M42 VPITCH HSAW70x38A10-NOR	70	38	A10	78072773143
HS001-BMETAL-M42 VPITCH HSAW73x38A10-NOR	73	38	A10	78072773145
HS001-BMETAL-M42 VPITCH HSAW76x38A10-NOR	76	38	A10	78072773147
HS001-BMETAL-M42 VPITCH HSAW79x38A10-NOR	79	38	A10	78072773149
HS001-BMETAL-M42 VPITCH HSAW83x38A10-NOR	83	38	A10	78072773150
HS001-BMETAL-M42 VPITCH HSAW86x38A10-NOR	86	38	A10	78072773151
HS001-BMETAL-M42 VPITCH HSAW89x38A10-NOR	89	38	A10	78072773155
HS001-BMETAL-M42 VPITCH HSAW95x38A10-NOR	95	38	A10	78072773161
HS001-BMETAL-M42 VPITCH HSAW105x38A10-NOR	R 105	38	A10	78072773239
HS001-BMETAL-M42 VPITCH HSAW114x38A10-NOR	R 114	38	A10	78072773245
HS001-BMETAL-M42 VPITCH HSAW127x38A10-NOF	R 127	38	A10	78072773248
HS001-BMETAL-M42 VPITCH HSAW152x38A10-NOR	R 152	38	A10	78072773251

#### **HSS PILOT DRILLS**

Featuring an anti-slipping hexagonal shank, our HSS pilot drills are designed for optimal performance. The A1 model is suitable for diameters ranging from 16 to 31 mm, while the A10 model is ideal for diameters from 32 to 152 mm

#### PRODUCT DESCRIPTION

HS001- HSS ARBOR 3/8" HEX SHANK A1 NORTON

#### ART NO.

78072773254



#### PRODUCT DESCRIPTION

HS001- HSS ARBOR 1/2" HEX SHANK A10 NORTON

#### ART NO.

78072773258



#### PRO TIP!

Always use a cutting oil when drilling metal (except cast-iron) to reduce friction and prevent overheating.

OneBond CO 500 is a high power synthetic lubricant and cutting oil designed for professional drilling operations.



SIZE	BOX QTY	ART NO.
1 Litre	12 pcs	78072763659

## SAFETY AND WORK RECOMMENDATIONS

For the best performance and safety work, wear safety glasses. Keep hands, hair and loose clothing away from all rotating tools. Hold the saw firmly and drill perpendicular to the work surface. Apply enough pressure to let the saw cut freely, avoid excessive heat generation on the cutting surface. Always operate the saw at the right speed for the material and saw diameter. Never exceed the recommended speed.

DIAMETER (mm)		NORTON BI-METAL M42 HOLE SAWS RECOMMENDED OPERATING SPEED (RPM)							
17         500         250         330         465         750         3000           19         440         220         300         400         490         3000           20         440         220         290         580         460         3000           21         420         205         275         540         420         3000           22         390         195         20         520         585         3000           25         350         175         235         470         525         2700           27         330         160         215         435         485         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         394         240           33         265         130         175         340         394         240           33         265         125         1455         330         375         240           40         220	DIAMETER (mm)	(LOW CARBON		CAST IRON	BRASS	ALUMINIUM	WOOD		
19	16	580	300	400	790	900	3000		
20         440         220         290         580         660         3000           21         420         205         275         540         620         3000           22         390         195         260         520         585         3000           25         350         175         235         470         525         2700           27         330         160         215         435         485         2700           29         300         150         200         400         450         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           33         265         130         175         340         396         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210	17	500	250	330	665	750	3000		
21         420         205         275         \$40         620         3000           22         390         195         260         \$20         \$85         3000           25         350         175         235         470         \$25         2700           27         330         160         215         435         448         2700           29         300         150         200         400         480         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195	19	460	230	300	600	690	3000		
22         390         195         260         520         585         3000           25         350         175         235         470         525         2700           27         330         160         215         435         485         2700           29         300         150         200         400         450         2700           30         285         145         190         380         425         2400           32         275         140         180         340         410         2400           33         265         130         175         340         396         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180	20	440	220	290	580	660	3000		
25         350         175         235         470         \$25         2700           27         330         160         215         435         485         2700           29         300         150         200         400         450         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         394         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           44         195         95         130         260         295         2100           48         180	21	420	205	275	540	620	3000		
27         330         160         215         435         485         2700           29         300         150         200         400         450         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           38         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160	22	390	195	260	520	585	3000		
29         300         150         200         400         450         2700           30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           35         250         125         145         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         200         225         2000	25	350	175	235	470	525	2700		
30         285         145         190         380         425         2400           32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         200         225         2000           57         150         75         100         200         225         2000         60	27	330	160	215	435	485	2700		
32         275         140         180         360         410         2400           33         265         130         175         340         396         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         200           57         150         75         100         20         225         2000           60         140 <t< td=""><td>29</td><td>300</td><td>150</td><td>200</td><td>400</td><td>450</td><td>2700</td></t<>	29	300	150	200	400	450	2700		
33         265         130         175         340         396         2400           35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         200           64         135         65         85         180         205         1800           65         130	30	285	145	190	380	425	2400		
35         250         125         165         330         375         2400           38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         200           57         150         75         100         200         225         2000           60         140         70         90         190         220         200           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65<	32	275	140	180	360	410	2400		
38         230         115         150         300         345         2400           40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         200           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65 </td <td>33</td> <td>265</td> <td>130</td> <td>175</td> <td>340</td> <td>396</td> <td>2400</td>	33	265	130	175	340	396	2400		
40         220         110         145         330         325         2100           41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65 <td>35</td> <td>250</td> <td>125</td> <td>165</td> <td>330</td> <td>375</td> <td>2400</td>	35	250	125	165	330	375	2400		
41         210         105         140         280         315         2100           44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55	38	230	115	150	300	345	2400		
44         195         95         130         260         295         2100           48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55	40	220	110	145	330	325	2100		
48         180         90         120         240         270         2100           51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50	41	210	105	140	280	315	2100		
51         170         85         115         230         255         2000           54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50	44	195	95	130	260	295	2100		
54         160         80         105         210         240         2000           57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         130         150         150           86         100         50         65         130         145         1200           95         90         45	48	180	90	120	240	270	2100		
57         150         75         100         200         225         2000           60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           74         115         55         70         150         170         1800           76         115         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45	51	170	85	115	230	255	2000		
60         140         70         90         190         220         2000           64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40	54	160	80	105	210	240	2000		
64         135         65         85         180         205         1800           65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35	57	150	75	100	200	225	2000		
65         130         65         85         175         200         1800           67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         <	60	140	70	90	190	220	2000		
67         130         65         85         170         195         1800           70         125         60         80         160         185         1800           73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         45         90         90         800	64	135	65	85	180	205	1800		
70       125       60       80       160       185       1800         73       130       65       75       175       200       1800         76       115       55       70       150       170       1800         79       110       55       70       140       165       1500         83       105       50       65       140       155       1500         86       100       50       65       130       150       1500         89       95       45       60       130       145       1200         95       90       45       60       120       135       1200         105       80       40       55       110       120       1000         114       75       35       50       100       105       900         127       65       30       45       90       90       800	65	130	65	85	175	200	1800		
73         130         65         75         175         200         1800           76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         45         90         90         800	67	130	65	85	170	195	1800		
76         115         55         70         150         170         1800           79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         45         90         90         800	70	125	60	80	160	185	1800		
79         110         55         70         140         165         1500           83         105         50         65         140         155         1500           86         100         50         65         130         150         1500           89         95         45         60         130         145         1200           95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         45         90         90         800	73	130	65	75	175	200	1800		
83     105     50     65     140     155     1500       86     100     50     65     130     150     1500       89     95     45     60     130     145     1200       95     90     45     60     120     135     1200       105     80     40     55     110     120     1000       114     75     35     50     100     105     900       127     65     30     45     90     90     800	76	115	55	70	150	170	1800		
86     100     50     65     130     150     1500       89     95     45     60     130     145     1200       95     90     45     60     120     135     1200       105     80     40     55     110     120     1000       114     75     35     50     100     105     900       127     65     30     45     90     90     800	79	110	55	70	140	165	1500		
89     95     45     60     130     145     1200       95     90     45     60     120     135     1200       105     80     40     55     110     120     1000       114     75     35     50     100     105     900       127     65     30     45     90     90     800	83	105	50	65	140	155	1500		
95         90         45         60         120         135         1200           105         80         40         55         110         120         1000           114         75         35         50         100         105         900           127         65         30         45         90         90         800	86	100	50	65	130	150	1500		
105     80     40     55     110     120     1000       114     75     35     50     100     105     900       127     65     30     45     90     90     800	89	95	45	60	130	145	1200		
114     75     35     50     100     105     900       127     65     30     45     90     90     800	95	90	45	60	120	135	1200		
127 65 30 45 90 90 800	105	80	40	55	110	120	1000		
	114	75	35	50	100	105	900		
152 55 25 35 75 75 700	127	65	30	45	90	90	800		
	152	55	25	35	75	75	700		



# WIRE BRUSHES & CARBIDE BURRS

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# 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.

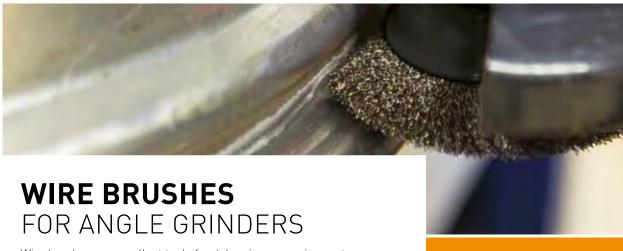
A number of different types of wire are available, which have been specifically selected to give the best results in any specific application.

#### **WIRE TYPES**

	TEMPER	ED QUALITY ST	EEL WIRE	STAINLESS STEEL WIRE				BRASS WIRE
	CRIMPED		STRAIGHT	CRIMPE	)	S	TRAIGHT	CRIMPED
The state of the s								
	Removing dust and smoothing low-grade and non-alloy steels		Brushing and smoothing ch including stainle				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	STS STainles Knotte	ss Steel	STSSW STainless Steel Straight Wire	BRACW BRAss Crimped Wire

#### **SHAPE KEY**

CODE	PRODUCT TYPE	TOOL	APPLICATION
WHB	Crimped Wheel Brushes	<b>2</b>	Supplied as standard with arbour hole as indicated. The size of the arbour hole can be reduced with reduction rings. Wheel brushes with short wire are more aggressive. 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.
	Crimped Cup Brushes		Use for cleaning jobs, especially on larger surfaces. Ideal for removing rust, corrosion, paint and primers. Removal of rust, corrosion, paint and primers.
CPB	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. All shaft mounted brushes are equipped with a 6mm shank.
HCB/SPB	Hand Brushes	The Manuary	With wooden core. Available in different widths. For use on narrow workpieces. Ideal for light deburring and cleaning profiled surfaces.
TUB	Pipe Brushes		With handle or thread. For deburring and cleaning tubes.



Wire brushes are excellent tools for deburring, removing rust, paint, corrosion and weld spatter from metal surfaces.

They're almost spark free and with lower thermal impact, and 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	

<sup>\*</sup> 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

Normal steel
Stainless steel

PRODUCT AVAILABILITY ON:

2



# PIPELINE HIGH PERFORMANCE TWIST KNOTTED WHEEL BRUSHES #++++

- This brush can be used for highspeed work, and still offer long life and high material removal
- 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



# 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	-
<b>DIMENSION KEY:</b> D = Diameter	B = Width	A = Bore min L	= Wire Length	





# TWIST KNOTTED CUP BRUSHES WITH GUARD +++++

- Aggressive brush for removing rust, paint Includes a guard for added protection and weld spatter on large surfaces
  - from dust and particles when in use

DxA L (mm)	GRINDER SIZE (mm)	PK QTY	STEEL
0.50 mm			
65xM14 T20	115 & 125	1	66261103046







## 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*

\*Made to order



# 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
0.50 mm			
100xM14 T22	115	1	66261103055



# 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

\*Made to order



# CRIMPED WIRE BEVEL BRUSHES ####

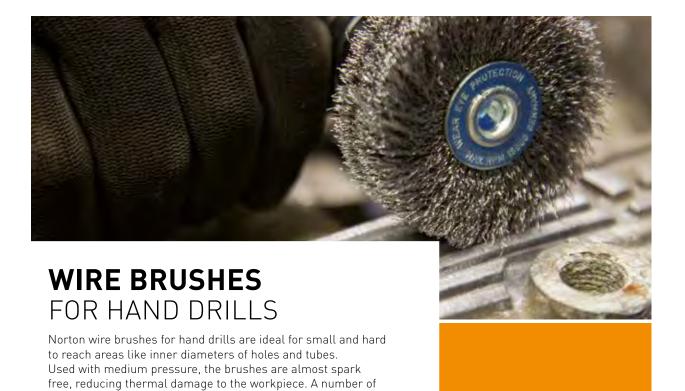
- Crimped wire is thinner and more flexible than knotted wire
- Bevel shape is designed for hard to reach areas including edges and corners

DxBxA L (mm)	GRINDER SIZE (mm)	PK QTY	STEEL
0.50 mm			
100x13xM14 T20	115	1	66254406142
115x15xM14 T27.5	125	1	66254406109









# PRODUCT SELECTION GUIDE

brush types are available for different application needs.

#### 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	SOFT WOOD	НАКБ МООБ
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
0.30 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	-









# 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*	-
60x12 T17.5	6	10	66254404884	-	-
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	



# PRODUCT SELECTION GUIDE

#### BY APPLICATION

Highly recommended

WIRE DIAMETER (	mm)
-----------------	-----

APPLICATIONS		0.2		0.3		0.5	5
Roughing	·		·			•	)
Surface preparation		•		•			
De-burring		•		•			
Edge honing		•		•			
Descaling/paint stripping		•		•		•	)
Weld seams		•		•		•	)
BY TYPE & MATERIAL				10			
Highly recommended •	STEEL	CARBON STEEL	STAINLESS STEEL	NON-FERROUS METAL	ALUMINIUM	SOFT WOOD	HARD WOOD
PRODUCT AVAILABILITY ON:	STE	CAI	STA	NΣ	ALI	201	H
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
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





# PRODUCT SELECTION GUIDE

#### BY APPLICATION

Highly recommended

TYPE OF WIRE

APPLICATIONS		BRASS	CRIM	PED	STRAIGHT	N	YLON/PVC
Descaling/paint stripping	'		•				
Weld seams			•				
Brushing/dust removal					•		•
Light cleaning		•					•
BY TYPE & MATERIAL Highly recommended ●	STEEL	CARBON STEEL	STAINLESS STEEL	NON-FERROUS METAL	ALUMINIUM	SOFT WOOD	HARD WOOD
PRODUCT AVAILABILITY ON:	ST	CA	ST	ZΣ	AL	80	Η
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 \			
290x140x25	2R	12	66254405432
WOOD HANDLE STAINLESS STEEL CRIMPED	WIRE 0.30 mm		
290x140x25	4R	12	66254405461
WOOD HANDLE BRASS CRIMPED WIRE 0.30			
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 W						
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				
18x90x140	0.25	W 1/4	20	78072753605*
25x120x190	0.4	W 1/2	20	78072753616*
30x120x190	0.4	W 1/2	20	78072753620*
50x120x190	0.4	W 1/2	20	78072753634*
75x120x190	0.4	W 1/2	10	78072753635*







# **OPERATING SPEED**

Peripheral speed is a decisive factor in achieving optimum performance from a brush. The table below enables you to determine the relevant peripheral speed by simply reading down and across the appropriate diameter and drive shaft operating speed columns.

227		BRUSH DIAMETER (mm)										
RPM	20	40	50	80	100	125	150	180	200	250	300	350
min <sup>-1</sup>	-	-	-	-	-	-	-	-	-	-	-	-
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 449 the maximum operating speed per type of brush.



## MAXIMUM OPERATING SPEED

TYPE	DIAMETER (mm)	MAX RPM
	80	10000
	100	8000
	125	6000
	150	6000
	180	6000
WHEEL BRUSHES	200	4500
	250	3600
	250 - 1 row	3500
	300	3000
	60/65/75	11000
•	60/65/75	11000
CUP BRUSHES	60/65/75	10000
	75	9300
	80/100	8500
	125/150	6500

DIAMETER (mm)	MAX RPM
100	11000
100/115	11000
115	10000
100	11000
115	11000
125	10000
150/180	8500
200	6500
20	20000
30	20000
40	18000
50	15000
60	15000
70	15000
80	12000
	115 100 115 125 150/180 200 20 30 40 50 60 70

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:

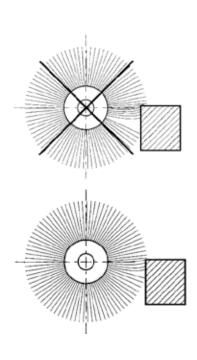
APPLICATION	CRIMPED WIRE	TWIST KNOTTED
STEEL	30m/s	35-40m/s
NON FERROUS	18-20m/s	-
PLASTIC	15m/s	-

#### **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		
	Increase trim length		
Brush is too aggressive	Reduce wire diameter		
	Reduce operating speed		
	Reduce trim length		
Brush is not aggressive enough	Increase wire diameter		
	Increase operating speed		
A.E. (1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	Reduce trim length		
Action of brush does not totally remove scale	Increase wire diameter		
	Increase trim length		
Finish is too coarse	Reduce wire diameter		
Finish is too coarse	Increase operating speed		
	Choose a nylon abrasive brush		
Finish is too smooth	Reduce trim length		
Finish is too smooth	Increase wire diameter		
Action of brush is not uniform	Reduce brushing pressure		
Action of brush is not uniform	Automate operations to avoid human inaccuracy		
	Reduce brushing pressure		
Wire breaks more than usual	Reduce wire diameter		
	Reduce operating speed		
	Reduce wire diameter		
Life of the brush is too short	Increase brush diameter		
	Reduce brushing pressure		

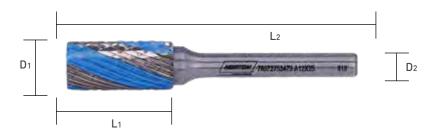
## **SAFETY & STORAGE**

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 the 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



#### UNDERSTANDING THE PRODUCT



#### **BURR DIMENSIONS & DESCRIPTION**

А	16.0	X	25.0	6	X	65	X-TREM
SHAPE	HEAD DIAMETER	Х	HEAD LENGTH	SHANK DIAMETER	Х	OVERALL BURR LENGTH (OL)	CUT STYLE
	D <sub>1</sub>		L <sub>1</sub>	$D_{2}$		L <sub>2</sub>	

# **CUT STYLES**



Glossy & smooth finish

# PRODUCT RECOMMENDATION GUIDE

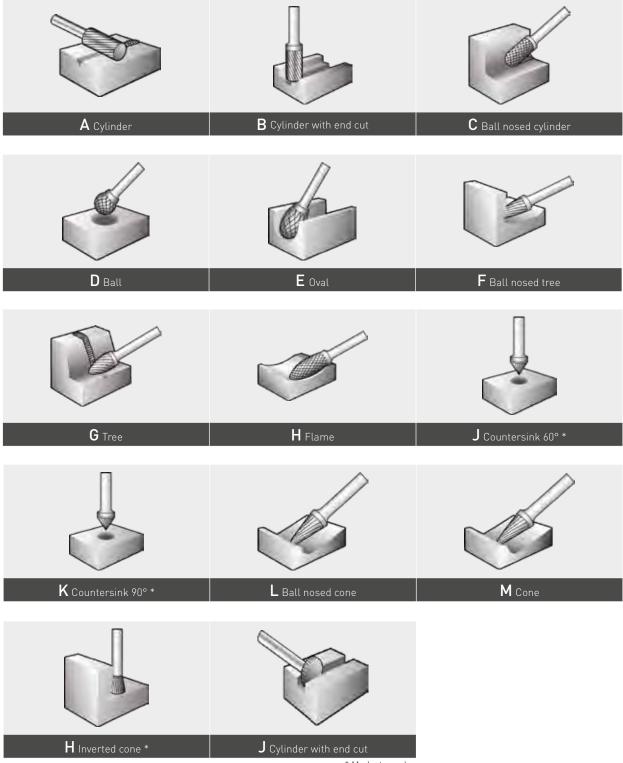
	X-TREM CUT	DC X-TIAIN	DC	ALU X-TIAIN	ALU
MATERIALS	++++	+++++	++++	++++	++++
Steel<40HRc, carbon steel, non-alloy steel	****	****	****		
Steel (40-60HRc), alloyed steel	****	****	****		
Stainless steel	****	****	****		
Cast iron	****	****	***		
Nickel alloys, cobalt alloys	****	****	****		
Soft aluminium, aluminium alloys, brass, copper, zinc				****	****
Bronze, titanium, titanium alloys, very hard aluminium alloys	***	***	***	****	***
Plastic/wood				****	****



<sup>\*</sup> than double cut (DC)



# APPLICATION BY SHAPE

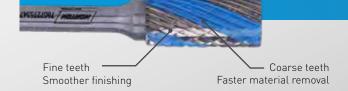


# X-TREM CUT +++++

## A LEAP IN PERFORMANCE



- 40% faster stock removal\*
- 40% longer life\*
- Glossy and smooth finish





#### 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.

#### FOR ALUMINIUM AND NON-FERROUS METALS

#### ALU X-TIAIN #####

- 'ALU' cut style, coated with TiAIN (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
1	12x25x6x70	1	-	63642586517

B CYLINDER WITH END CUT				
	10x19x6x65	1 .	-	07660739845

C BALL NOSED CYLINDER				
	10x19x6x65	1	-	60157638182
	12x25x6x70	1	-	07660707846

<sup>\*</sup> than double cut (DC)



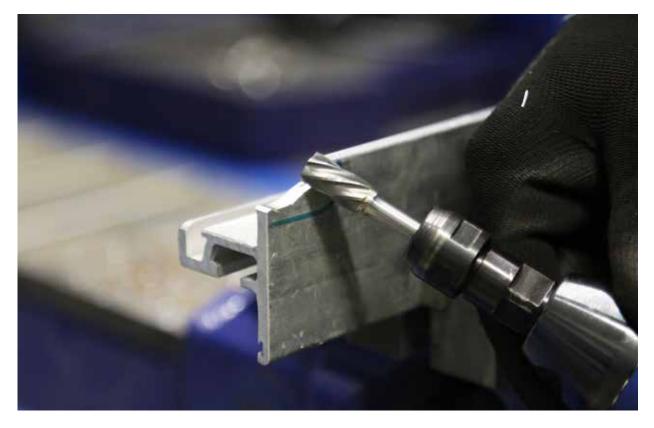
# FOR ALUMINIUM AND NON-FERROUS METALS

PRODUCT SHAPE	$D_1xL_1xD_2xL_2$ (mm)	PK QTY	ALU X-TIAIN +++++	ALU ++++
F BALL NOSED TREE				
	10x19x6x65	1	-	63642586951
120	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.
С	12x25 6x70	07660707846	1	
D	10x9 6x53	63642586824	1	- 66254428260
F	12x25 6x70	60157638181	1	00234428200
L	12x30 6x75	63642587101	1	-



# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

#### 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

RODUCT SHAPE	$D_1xL_1xD_2xL_2$ (mm)	PK QTY	X-TREM CUT	DOUBLE CUT DC X-TIAIN	DOUBLE CUT DC
CYLINDER					
	3x13x3x38	1	-	-	63642586518*
	4x12.7x3x38	1	-	-	78072756859*
	5x16x6x50	1	-	-	78072756912
	8x19x6x65	1	-	-	66261146396
4 B3763455	9.5x19x6x65	1	-	-	66261146496
The second	10x19x6x65	1	-	-	60157638144
	10x25x6x162	1	-	-	63642535764
	12x25x6x70	1	78072753479	-	07660707808
	12x25x8x70	1	78072756634*	-	-
	12.7x9x6x70	1	-	-	66261146497
CYLINDER WITH END	CUT				
	4x16x6x50	1	-	-	78072756915*
	5x16x6x50	1	-	-	78072756935*
	6x19x6x50	1	-	-	63642586641
STATE OF THE PARTY.	8x19x6x65	1	-	-	7660707804
Hattatatat	9.5x19x6x65	1	-	-	66261146498
	10x19x6x65	1	-	-	60157638145
	12x25x6x70	1	78072756677	-	66261146499
	16x25x6x70	1	-	-	66261146500
BALL NOSED CYLINDE	ER				
	3x13 3x38	1	78072756678	-	-
	6x13x6x162	1	-	-	63642535773
	6x19x6x80	1	-	-	66261197806
	6x19x6x50	1	78072756707	-	66261146521
**************************************	8x19x6x64	1	78072756708	-	66261146524
	9.5x19x6x64	1	78072756709	-	66261146526
1	10x19x6x65	1	-	-	60157638152
	12x19x6x65	1	-	-	60157638153
	12x25x6x70	1	78072753481	69957383241	60157638154
	12.7x25x6x70	1	-	-	66261146531
	16x25x6x70	1	_		60157638191



# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

PRODUCT SHAPE	D <sub>1</sub> xL <sub>1</sub> xD <sub>2</sub> xL <sub>2</sub> (mm)	PK QTY	X-TREM CUT	DOUBLE CUT DC X-TIAIN	DOUBLE CUT DC
D BALL	4.8x4.3x3x38	1	-		63642586854
	6x5x6x50	1		-	66261146533
		1		-	
	9.5x8x6x54	1	-	-	66261146534
	10x9x6x53	1			07660707832
	12x10.8x6x55	1	-		69957383148
	12x11x6x56	1	78072756783		-
	16x4x6x59	1	-		78072756936
E OVAL	103430337				70072730730
LOVAL	5x7.1x3x38	1	-	-	78072756954*
	10x16x6x60	1	-	-	60157638159
The same of	12x22x6x67	1	-	-	60157638162
	16x25x6x70	1	-	-	78072756958*
F BALL NOSED TREE					
	3x12.7x3x38	1	-	-	78072757016*
	6x16x6x50	1	78072756792	-	-
	6x18x6x50	1	-	-	66261146537
	6x18x6x150	1	-	-	66623391628
1	8x20x6x150	1	-	-	66623382151
A STATE OF THE PARTY OF THE PAR	9.5x19x6x65	1	-	-	66261146539
	10x19x6x65	1	-	-	60157638170
	12x25x6x70	1	78072753486	-	66261146540
	12x25x8x70	1	78072756793	-	78072701447
	16x25x6x70	1	-	-	66261146541
G TREE					
	3x14x3x38	1	-	-	60157638163
	6x16x6x50	1	-	69957383305	-
	6x18x6x50	1	-	-	66261146542
45000	8x19x6x64	1	-	-	66261146544
-	9.5x19x6x64	1	-	-	66261146545
	12.7x19x6x64	1	78072756839	-	-
	12x25x8x70	1	78072756840*	-	-
	12.7x25x6x70	1	-	-	66261146547
	19x25x6x70	1	-	-	78072757018*
H FLAME					
	5x9.5x4x38	1	-	-	78072757019*
The state of the s	8x19x6x64	1	78072756845	-	-
The state of the s	12x32x6x77	1	78072756850*	-	63642587971
	16x36x6x81	1	-	-	78072757007*

#### **CARBIDE BURRS**

# FOR STEEL, STAINLESS STEEL, CAST STEEL, COPPER, CAST IRON, NICKEL ALLOYS, ALLOYED STEEL, FERROUS METALS

PRODUCT SHAPE	D <sub>1</sub> xL <sub>1</sub> xD <sub>2</sub> xL <sub>2</sub> (mm)	PK QTY	X-TREM CUT	DOUBLE CUT DC X-TIAIN	DOUBLE CUT DC
J CYLINDER WITH END CUT					
	12.7x11x6x61	1	-	-	78072757020*
	16x14x6x64	1	-		78072757021*
K COUNTERSINK 90°					
	12.7x6x6x58	1	-	-	78072757063*
	16x8 6x58	1	-	-	78072757064*
L BALL NOSED CONE					
	6x16x6x50	1	-	-	60157638156
	8x22 6x70	1	-	-	66261146549
- Million	9.5x27 6x75	1	-	-	66261146550
	10x30x6x75	1	-	-	63642587100
	12x30x6x75	1	78072756853	-	63642587102
	12.7x28 6x77	1	-	-	66261146552
M CONE					
	3x11x3x38	1	-	-	78072757066*
- Comment	6x19x6x50	1	-	-	63642587137
	10x16x6x65	1	-	-	63642587133
	12x22x6x70	1	-	-	60157638149



# X-TREM CUT 5 ##### CARBIDE BURR KIT

2 12x25x6x70 78072753481 1	SHAPE	$D_1xL_1xD_2xL_2$ (mm)	ART NO.	PK QTY	ART NO.
12.7x10.8x6x56 78072756783 1 78072756854 12x25x6x70 78072753486 1	А	12x25x6x70	78072753479	1	
12x25x6x70 78072753486 1	С	12x25x6x70	78072753481	1	
	D	12.7x10.8x6x56	78072756783	1	78072756854
12x30x6x75 78072756853 1	F	12x25x6x70	78072753486	1	
	L	12x30x6x75	78072756853	1	



# RECOMMENDED OPERATING SPEEDS (RPM)

MATERIAL TYPE	PRODUCT DIAMETER					
MATERIAL TIPE	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 fibre	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



# **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. Discolouration 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.

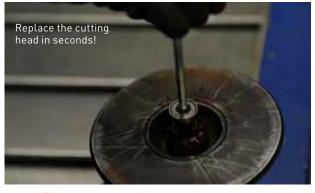


The Norbevel 12 cutting heads have been designed for heavy-duty bevelling and radius work up to a depth of 12mm. All heads can be used on the Norton Norbevel EBA-12 and ABA-12 machines, which are adjustable for adapting bevelling depth.

# HEADS FOR NORBEVEL-12 FOR ELECTRIC AND PNEUMATIC MACHINES

MAX DEPTH (mm)	RADIUS / ANGLE	PK QTY	HIGH PERFORMANCE HEAD; STEEL, LASER-CUT STEEL & STAINLESS STEEL	INOX	ALUMINIUM, PLASTIC, BRASS & SOFT METALS
8mm	R2	1	78072742984	66254426828	66261113318*
STATE OF THE PARTY	R3	1	78072742983	66254426827	66261113319*
	R4	1	78072743003	-	66261113320*
	R8	1	-	-	66261152484*
8mm	30°	1	78072743015	-	66261113321
471	37°	1	78072743013*	-	
	45°	1	78072743010	66254426808	66261113323
10 mm	R6	1	78072743008	-	-
12mm	R8	1	78072743009*	-	-
	30°	1	78072743020	-	66261146169
	37°	1	78072743019*	-	-
	45°	1	78072743017	-	66261146171
	60°	1	78072743021	-	-

\* Made-to-order





Recommended maximum cut depth is 4mm per pass





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	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

\* Made-to-order



Recommended maximum cut depth is 4mm per pass



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



WEIGHT	GRADE	PK QTY	ART NO.
175gr	"000" Super Fine	1	07660739056
	"00" Very Fine	1	07660739055
	"0" Fine	1	07660739054
1kg	"0000" Extra Fine	12	63642593149
	"000" Super Fine	12	63642593151
	"00" Very Fine	12	63642593153
	"0" Fine	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)

(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

(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

(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.

(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.

(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.

(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.

(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

(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.

(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

(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.

 $\mbox{[III]}$  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 (iii) 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

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.

Saint-Gobain High Performance Solutions UK Ltd (trading as Saint-Gobain Abrasives). Unicorn House, Unit 1, Amison Close, Redhill Business Park, Stafford. England. ST16 1WB.

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