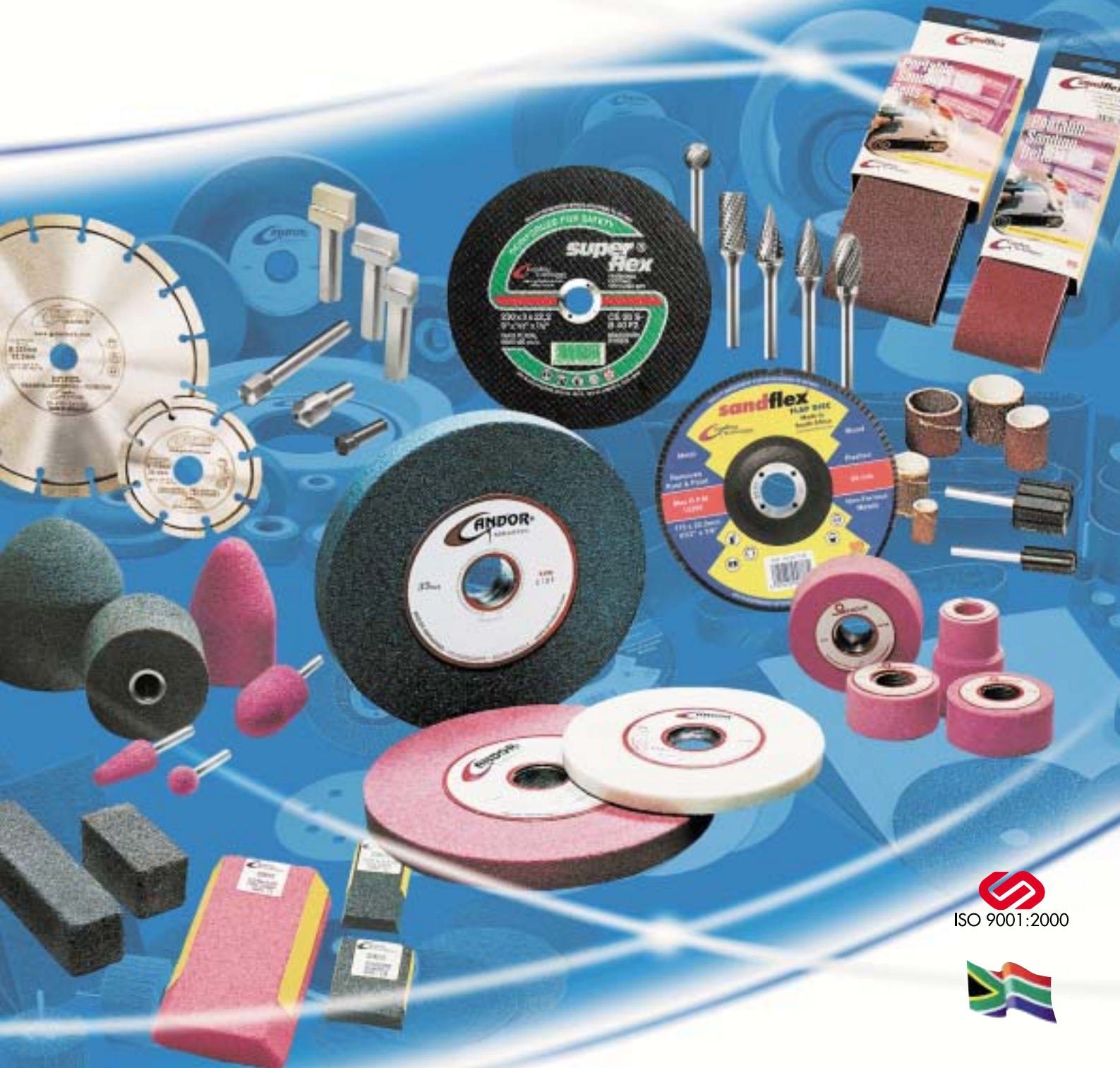


# Grinding Techniques (Pty) Ltd.

ON THE CUTTING EDGE OF TECHNOLOGY



  
ISO 9001:2000







Founded in 1981, Grinding Techniques (Pty) Ltd. is the largest privately owned abrasive manufacturer in Africa, operating under the principal business ethos of developing mutually beneficial business partnerships with our valued customers.



A wide spectrum of quality Bonded Abrasives are manufactured to ISO 9001:2000 standards; the company also converts Coated Abrasives, and markets Tungsten Carbide Burrs, diamond products and other ancillary items. In addition, Grinding Techniques (Pty) Ltd. is the Southern African agent for Tyrolit abrasives. The company distributes through a network of branches in South Africa, and exports extremely successfully on a worldwide basis.

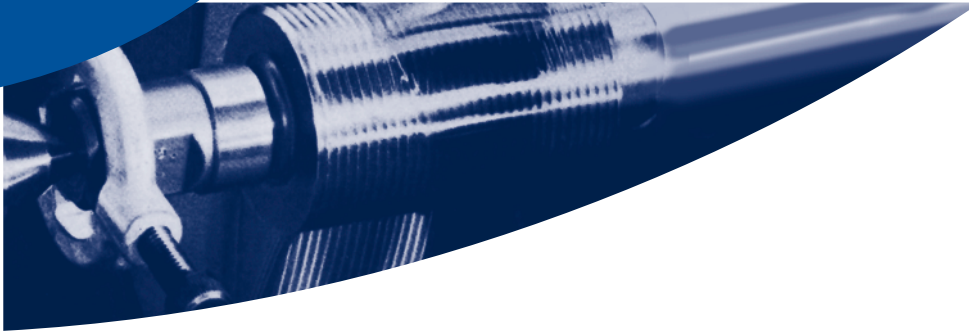


Grinding Techniques (Pty) Ltd. is an equal opportunity employer, committed to environmental protection and constant product improvement through ongoing research.



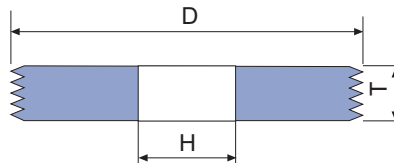
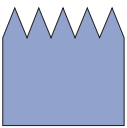
# INDEX

FOREWORD	2
TECHNICAL INFORMATION	
BONDED ABRASIVES	3
1. Abrasive Type	4/5
2. Grit Size	5/6
3. Grade	6/7
4. Structure	7/8
5. Bond Types	8
6. Additional Components	8
WHEEL MARKINGS/FLANGE SIZES	9
DIMENSIONS AND SHAPES	10
ISO METRIC STANDARDS FOR GRINDING WHEELS	11
SAFETY IN GRINDING/STORAGE/MOUNTING/RING TEST	12/13
COATED ABRASIVES/SUPERABRASIVES	13
SURFACE GRINDING:	
Straight Wheels	14/15
Cup Wheels and Cylinders	16/17
Segments	18/19
EXTERNAL CYLINDRICAL GRINDING	20 - 23
INTERNAL CYLINDRICAL GRINDING	24/25
CENTRELESS GRINDING	26 /27
TOOL & CUTTER GRINDING	28 - 31
MINING WHEELS	32
SAW SHARPENING	33
THREAD GRINDING WITH MULTI-RIB WHEELS	34
THREAD GRINDING WITH SINGLE-RIB WHEELS	35
GEAR GRINDING	36/37
BENCH & FLOORSTAND GRINDING	38
SNAGGING: BENCH, FLOORSTAND AND SWINGFRAME GRINDING	39
GRINDING ON PORTABLE MACHINES	40/41
CONES & PLUG WHEELS WITH INSERTED NUTS	42
SLIMLINE CUTTING WHEELS	43
CUTTING & GRINDING ON PORTABLE MACHINES	44/45
CUTTING OFF ON STATIONARY MACHINES	46/47
MOUNTED POINTS & WHEELS	48 - 50
HI-GLO POLISHING POINTS	51
OILSTONES, BRICKS, STICKS & GRAIN	52
BONDED MISCELLANEOUS	53
AUTOMOTIVE ENGINE RECONDITIONING	54 - 58
DRESSING TOOLS	59/60
DIAMOND DRESSERS	61/63
TUNGSTEN CARBIDE BURRS	64/65
SANDPAPER GUIDE	66
ABRASIVE ROLLS	67
ABRASIVE DISCS	68
FLAP DISCS FOR PORTABLE MACHINES	69
ABRASIVE SHEETS: BULK PACKS	70
ABRASIVE SHEETS: PRE-PACKS	71
ABRASIVE BELTS	72 - 74
EVENRUN BANDS/SPIRABANDS/NO LAP SLEEVES	75
SPINDLE MOUNTED/ARBOR MOUNTED FLAP WHEELS	76
COATED MISCELLANEOUS	77
DIAMOND SAWS/DIAMOND WHEEL SHAPES	78/79
DIAMOND & CBN ABRASIVES	80/81
NON-WOVEN ABRASIVES	82
SPEED CONVERSION TABLE	83
ORDER FORM	84



### SPECIFICATIONS

#### SHAPE 1



**Shape 1 with multi-rib profile.**  
(Wheels are crushed on the machine)

#### ORDERING DATA:

Example: 350 x 40 x 160 – 8C320 J6V – Shape 1

### APPLICATION TABLE

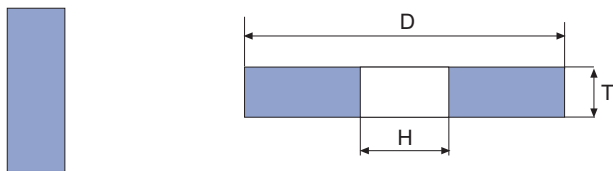
FIELD OF APPLICATION		RANGE OF PITCHES		GRINDING WHEEL SIZE	SPECIFICATIONS
		Metric ISO-Profiles mm	UN, BSW t.p.i	$\frac{350 \times (T) \times 160}{T}$	
<b>Traverse Grinding</b>	Construction, tool and high speed steel	0,60-0,90	26-488	8,12 12,16 12,16,20 8,12 16,20 20,25 25 30	9A400 K6V
		1,0-1,25	20-25		9A320 K6V
		1,50-1,75	14-19		9A220 J6V
		2,0	11-13		9A220 J6V
		1,0-1,25	20-25		9A320 K6V
		2,5	10		9A180 J6V
		3,0	8-9		9A150 J6V
		3,50-4,50	6-7		9A120 J6V
		5,0-6,0	4-5		9A100 J6V
<b>Plunge Cut Grinding</b>	Tool and high speed steel	0,40-0,50	50-60	20,30,40	8C400 K6V
		0,60-0,80	36-48		8C400 K6V
		0,90-1,50	19-32		8C320 J6V
		1,75-2,50	10-18		8C280 J6V
		2,75-6,0	4-9		8C220 J6V

All dimensions in millimetres.

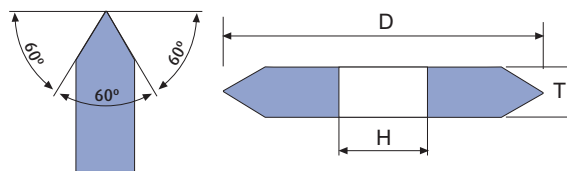
The specifications in this catalogue are recommendations only. For further information or special application specifications, please contact Grinding Techniques Technical Department (011) 271 6400 or email: [info@grindtech.com](mailto:info@grindtech.com)

### SPECIFICATIONS

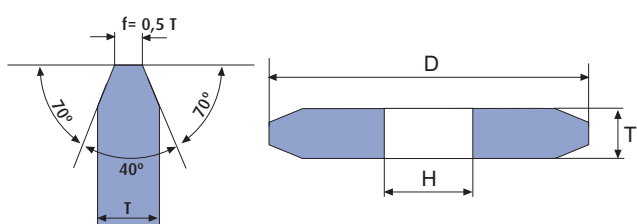
#### SHAPE 1



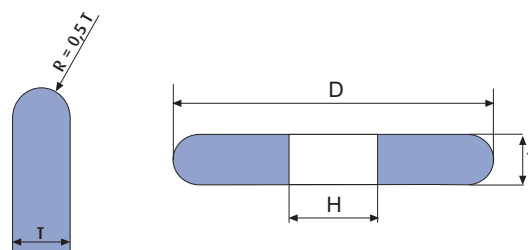
#### SHAPE 1E



#### SHAPE 1 Esp.



#### SHAPE 1F



All dimensions in millimetres.

### APPLICATION TABLE

FIELD OF APPLICATION					
Traversal Grinding	RANGE OF PITCHES		GRINDING WHEEL SIZE	SPECIFICATIONS	
	Metric ISO-Profiles mm	UN, BSW t.p.i	$\frac{350 \times (T) \times 160}{T}$		
Construction steel	0,30 - 0,45	56 - 80	250x6x155 9A220 L6V 350x8x160	9A400 M6V	
	0,50 - 0,80	32 - 48		9A400 M6V	
	0,90 - 1,0	24 - 28		9A320 L6V	
	1,25	20 - 22		9A280 K6V	
	1,50	18 - 19		9A220 L6V	
	1,75 - 2,0	12 - 16		350x8x160	9A220 L6V
	2,50 - 3,0	8 - 11			9A180 K6V
	3,50 - 4,0	6 - 7			9A150 J5V
Tool steel and high speed seel	0,30 - 0,45	56 - 80	250x6x155 350x8x160	9A120 J5V	
	0,50 - 0,80	32 - 48		8C400 N6V	
	0,90 - 1,0	24 - 28		8C400 N6V	
	1,25	20 - 22		8C320 K6V	
	1,50	18 - 19		8C320 K6V	
	1,75 - 2,0	12 - 16		8C280 K6V	
	2,50 - 3,0	8 - 11		350x8x160	8C220 J6V
					8C180 J5V

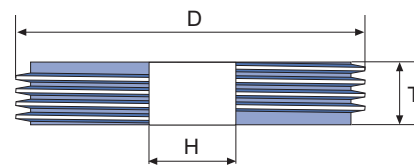
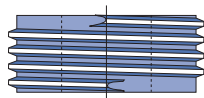


## SPECIFICATIONS

### REISHAUER SYSTEM

Pre-profiled grinding wheels

### SHAPE 1sp.



#### ORDERING DATA:

For straight grinding wheels Shape 1:

Example: Shape 1 - 350 x 84 x 160 - 67A120 G/H10V

For pre-profiled grinding wheels Shape 1sp:

Example: Shape 1sp. - 350 x 84 x 160 67A120 G/H10V

pre-profiled - module 4 - pressure angle 20°

#### POPULAR SIZES

POPULAR SIZES	
350 x 62 x 160	400 x 74 x 160
350 x 84 x 160	400 x 104 x 160
350 x 104 x 160	

## APPLICATION TABLE

FIELD OF APPLICATION			
Case hardening and heat treatable steels	RANGE OF MODULES		SPECIFICATIONS
	Grinding wheels ø350	Grinding wheels ø400	
	2,0 - 2,25	1 - 1,75	9A18016V
	2,5 - 3,5	2 - 2,75	9A15016V
	3,75 - 5	3 - 3,75	9A12016V
		4 - 4,75	9A10016V
	5 - 6	5 - 6	9A10016V
		6 - 7	9A8016V

In practice variations in the wheel selection (grain size finer or coarser) are dependant on the grindability of the material, the dressing device or the surface finish required. In order to achieve an economical grinding the wheel has to be selected as coarse as possible. For grinding wheels dressed with diamond tools (up to module 6) take the next coarser grain size. Grinding wheels for other tooth flank grinding machines are available on request.

Please forward a completed questionnaire together with the following additional data: Module, number of teeth, P.C.D., tooth width, pressure angle, spiral tooth angle.

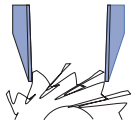
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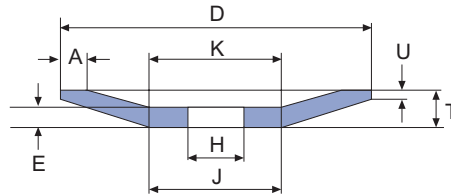


## SPECIFICATIONS

### MAAG SYSTEM Dish grinding wheels



### SHAPE 12sp.



Grinding wheel ø (according to machine)	Most frequent range of modules
220	2 - 4
280	3 - 6
340	3,5 - 9
400 - 500	4 - 15

#### ORDERING DATA:

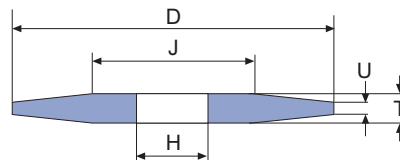
Example: Dish grinding wheel Shape 12sp.  
280 x 32 x 90 - 11A60 19V86 - U6

All dimensions in millimetres.

## APPLICATION TABLE

FIELD OF APPLICATION	SPECIFICATIONS	
Heat treatable steel - 90-100 kg/mm <sup>2</sup>	11A46 I8V86 11A54 J9V86 11A54 I9V86	<b>Recommendations for wheel selection:</b> Coarser grains for larger modules, finer grains for smaller modules. Select wheels 1 to 2 grades softer for special 'burn-free' grinding.  Grinding wheels for other tooth flank grinding machines on request.  Please forward a completed questionnaire together with the following additional data: Module, number of teeth, P.C.D., tooth width, pressure angle, spiral tooth angle.
Case-hardening steel - 55-60Rc	11A54 H8V86 11A60 E12V86P	
Tool steel, high speed - approx. 63Rc	11A60 E12V86P 11A60/2K6V86	
Nitriding steel - hardened over 65Rc	8C60 I9V1	
General Purpose	9A46/2K6V86	

### NILES & HÖFLER SYSTEM



## APPLICATION TABLE

FIELD OF APPLICATION	SPECIFICATIONS				
	Wheel Diameter	Module 0,75-2	Module 2,5-4	Module 4-7	Module 8 PLUS
Niles & Höfler System					
Heat Treatable Steel 90-100Kg/mm <sup>2</sup>	240mm 350mm	11A100K5V86	11A70L6V86 11A60J5V86	11A54L6V86 11A46J5V86	
Tool Steel - Soft 35-50Rc	240mm 350mm		11A60K8V86 9A70/2K6V86	11A60K8V86 9A60/2KV86	
Case-hardening Steel - 55-60Rc	240mm 350mm 350x30mm 350x35mm	11A100J5V86	11A70/2K5V86 11A60I5V86	11A54K5V86 11A46J5V86	31A46I7V86 11A36/4J8V86
Tool Steel - High speed 58-63Rc	240mm 350mm 350x30mm 350x35mm	11A120H6V86	11A70I5V86 11A60J5V86	11A54J5V86 11A54I7V86	31A46I7V86 11A36/4J8V86
Tool Steel - High speed 64-65Rc	240mm 350mm		11A60H8V86	11A60H8V86	
Nitriding Steel - Hardened over 65Rc		8C100J5V1			