

# 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.

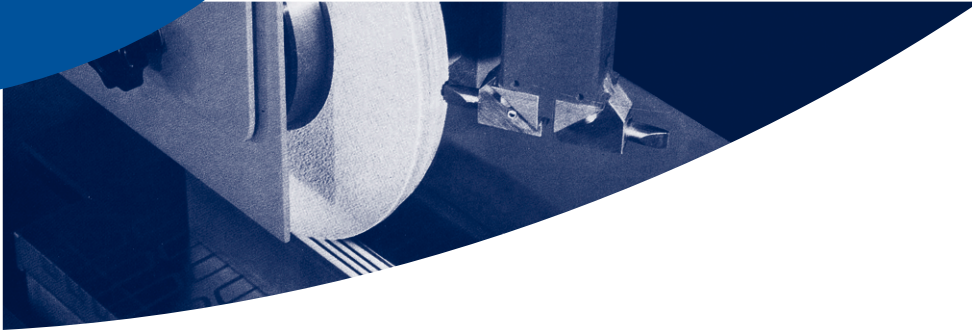


Grinding Techniques (Pty) Ltd. is an equal opportunity employer, committed to environmental protection and constant product improvement through ongoing research.



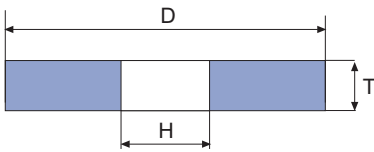
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## SPECIFICATIONS

### SHAPE 1

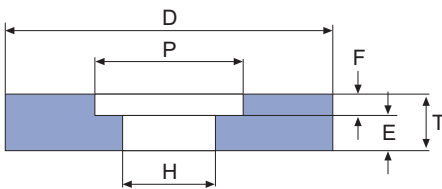


#### ORDERING DATA:

Diameter (D) x Thickness (T) x Height (H) - Shape 1  
These grinding wheels can also be supplied in shapes 20 and 21 (page 10) or with wheel faces as per page 11

D	T			H	
150	13			31,75/32	
175	13			31,75/32	
200	13	20		31,75/32	
250	20	25	32	50,8	76,2
300	20	25	32	50	80 76,2 127
350	32	40	50	127	
400	32	50	80	127	
500	50	80	100	160	203,2 304,8
600	50	80	100	160	304,8
750	50	80	100	160	304,8

### SHAPE 5 Recessed one side

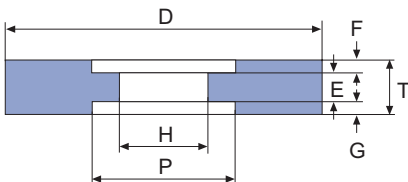


#### ORDERING DATA:

Diameter (D) x Thickness (T) x Height (H) - O/S P x F - Shape 5  
These grinding wheels can also be supplied in shapes 22, 23 and 25 (page 10) or with wheel faces as per page 11

D	T		H	P	F
300	50	80	76,2	150	1)
			127,0	190	
350	50	80	127,0	215	
400	50	80	100	127,0 215	
500	80	100	160	203,2 290	
				304,8 390	
600	80	100	160	304,8 390	
750	80	100	160	304,8 410	

### SHAPE 7 Recessed both sides



#### ORDERING DATA:

Diameter (D) x Thickness (T) x Height (H) - B/S P x F/G - Shape 7  
These grinding wheels can also be supplied in shapes 24 and 26 (page 10) or with wheel faces as per page 11

D	T		H	P	
300	50	80	76,2	150	1)
			127,0	190	
350	50	80	127,0	215	
400	50	80	100	127,0 215	
500	80	100	160	203,2 290	
				304,8 390	
600	80	100	160	304,8 390	
750	80	100	160	304,8 410	

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)

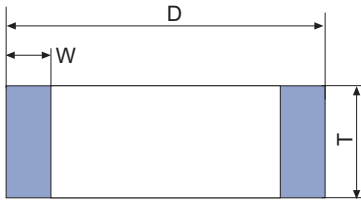
## APPLICATION TABLE

FIELD OF APPLICATION			SPECIFICATION		
With straight grinding wheels (shapes 1, 5, 7)			up to Ø 400	Ø 450 and above	
<b>Universal Use</b>	<b>Steel</b>	Soft	1A46J7V86	1A36/2J7V86	
		Hardened	11A46J8V86	11A46I8V86	
<b>Specific Use</b>	<b>Steel</b>	Soft	1A46J8V86 31A46J8V86	1A36J7V86 1A46J8V86	
		Hardened to 63 Rc	11A46J8V86 11A60G12V86P 31A60G12V86P	31A46F12V86P	
		Hardened over 63 Rc	31A60F12V86P 31A80F12V86P	11A46F12V86P 31A60F12V86P	
		Hardchrome plated	11A60F12V86P	31A60F12V86P	
		Stainless, acid and heat resistant - Soft	11A60G10V86P	11A46G10V86P	
			11A60F10V86P		
			- Hardened	11A46I8V86 11A60H8V86	
		Nitriding unprocessed	11A46J8V 11A60J7V		
		Nitride hardened	8C60I9V11 8C60I9V11	8C60I9V11 8C60I9V11	
		Cast	15A46J8V86	15A46I8V86	
			<b>Cast Iron</b>	Grey	8C46H10V11P
			Spheroid	31A46G12V86P 31A60G12V86P	8C46H10V11P 31A46G12V86P
		<b>Tungsten carbide</b>		8C60G10V11P 8C80G10V11P	
<b>Aluminium and non-ferrous metals, plastics</b>		8C60H10V11P	8C46H10V11P		
<b>Stellite</b>		11A46H10V86			
Profile surface grinding with straight grinding wheels (shapes 1, 5, 7)			Reciprocating Grinding Process	Creep Feed Grinding Process	
<b>High Alloyed CR-Steel</b>	Hardened (cold work steel for matrixes and stamp manufacture)		31A80 J9V86 31A80 I7V86 31A120 J9V86P8	8C220 H9V11 8C320 G9V11	
		Including FERRO-TIC - hardened	31A180 I8V86		
		Non-alloyed & Alloyed Carbirizing and tool steels - hardened	11A80 I8V86 11A120 J9V86P		
		High Speed Tool Steels - hardened	11A80 I8V86 11A120I7V86 8C120J8V11	8C120G8V11P8 8C180G8V11	
		Alloyed Tool Steels - hardened (on nickel-chromium-tungsten basis)		11A60 I10V86P5 11A80 H10V86P5	
		Low Alloyed Tool Steels, hardened or partially hardened	11A80 I8V86 11A120 J9V86P	11A60 I10V86P5 11A80 I10V86P5	
<b>Thread-Rolling Dies (12-13% CR-Steel - hardened)</b>					
Pitch	Min. Radius				
0,25 - 0,8	0,03		8C400 G9V11		
1 - 1,25	0,10		8C320 G9V11		
1,5 - 1,75	0,16	9A 220 J6V86	8C220 G9V11		
2 and above	0,22	9A 150 J6V86	8C180 G9V11		



## SPECIFICATIONS

### SHAPE 2 Grinding Cylinder

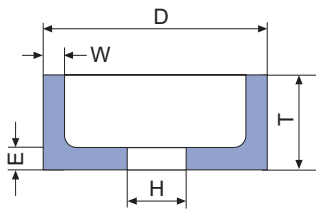


**ORDERING DATA:**

Diameter (D) x Thickness (T) x Rim width (W) - Specification - Shape 2

D	T		W	
150	50	80	13	16
180	80		13	16
200	50	100	20	25
250	100		25	
300	100		25	32
350	100	125	40	45
400	125		40	50
450	125		40	50
500	125		50	

### SHAPE 6 Straight Cup Wheel

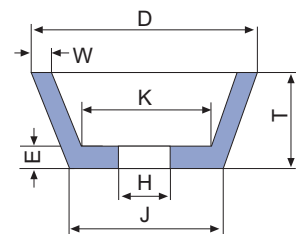


**ORDERING DATA:**

Diameter (D) x Thickness (T) x Hole size (H) - Specification - Rim width (W) x Back thickness (E) - Shape 6

D	T	H		W		E	
100	50	31,75/32			10	10	
125	40	31,75/32		50,8	10	10	
	50	31,75/32		50,8	13	13	
	60	31,75/32		50,8	13	16	16
	65	31,75/32		50,8	13	16	16
	80	31,75/32		50,8	20	20	
150	40	31,75/32		50,8	10	13	10 13
	50	31,75/32		50,8 65,0	13	20	13 20
	65	31,75/32		50,8 65,0 76,2	20	20	
	80	31,75/32		50,8 65,0 76,2	20	25	20 25
165	65	31,75/32		50,8	20	20	
	80	31,75/32		50,8	20	20	
180	65	31,75/32		50,8 65,0 76,2	20	20	
	80	31,75/32		50,8 65,0 76,2	20	20	
	100	31,75/32		50,8 65,0 76,2	20	25	20 25
200	80	31,75/32		50,8 65,0 76,2	20	20	
	100	31,75/32		50,8 65,0 76,2	20	25	20 25
250	80	50,8	76,2		20	25	20 25
	100	50,8	76,2		25	25	
300	100	76,2			25	25	

### SHAPE 11 Flaring Cup Grinding Wheel



**ORDERING DATA:**

Standard sizes:

Diameter (D)/Diameter (J) x Thickness (T) x Hole size (H) - Specification - Shape 11

Non-standard sizes:

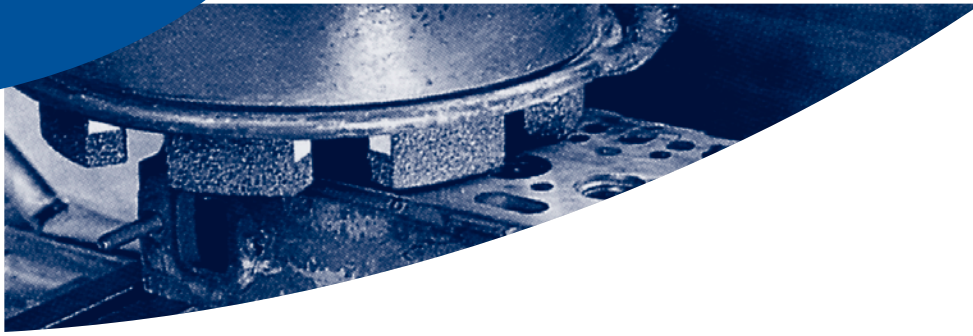
All above information plus dimensions W, E and K

D	T	H		W	E	J	K
65	40	20,00		6	10	45	32
90	40	31,75/32		8	10	70	56
100	40	31,75/32		8	13	80	66
115	50	31,75/32		8	13	95	78
125	40	31,75/32		8	13	95	76
	45	31,75/32		8	13	95	76
	50	31,75/32		8	13	95	78
150	50	31,75/32 50,8		10	13	92	67
	50	31,75/32 50,8		10	13	114	96
	60	31,75/32 50,8		10	13	114	96
	65	31,75/32 50,8		10	15	120	100

All dimensions in millimetres.

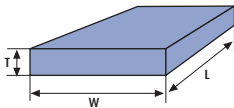
## APPLICATION TABLE

FIELD OF APPLICATION			SPECIFICATION	
<b>Universal Use</b>	<b>Steel</b>	Soft	11A36 H8V86	
		Hardened	11A36 G9V86	
<b>Specific Use</b>	<b>Steel</b>	Soft	11A36 H8V86 9A36 G9V86	
		Hardened to 63Rc	9A36 G9V86 11A46 G12V86P	
		Hardened to 63Rc	11A46 F12V86P 9A46 J8B2	
		Hard chrome plated	9A46 F12V86	
		Stainless, acid and heat resistant	- Soft	9A36 H8V86
			- Hardened	11A46 F12V86P
		Nitride unprocessed	9A36 G8V86	
		Nitride hardened	8C46 H8V11	
		Cast	11A46 F12V86P	
		<b>Cast Iron</b>	Grey	8C46 H8V11
			Spheroid	31A46 G12V86P
		<b>Tungsten Carbide</b>		8C46 G10V11P
		<b>Aluminium and non-ferrous metals, plastics</b>		8C46 H10V11P
<b>Ceramics</b>		6C36 I8B2		
<b>Stellite</b>		11A46 H9V86		



## SPECIFICATIONS

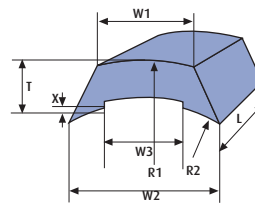
### TYPE F1



**Popular sizes:** 50 x 25 x 150  
80 x 25 x 160  
90 x 35 x 200  
110 x 40 x 160  
120 x 30 x 160  
120 x 40 x 180

**ORDERING DATA:**  
Width (W) x Thickness (T) x Length (L)  
- Specification - Type F1

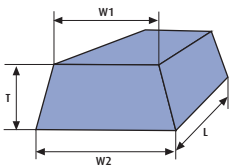
### TYPE F5



**ORDERING DATA:**  
Widths (W2/W1) x Thickness (T) x Length (L)  
- Specification - Type F5

**Additional information required:**  
Radii (R1) and (R2)  
Recess depth (X)  
Dimension (W3)

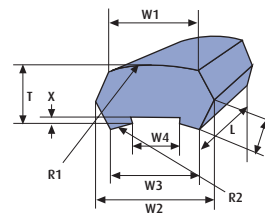
### TYPE F2



**Popular sizes:** 53/45 x 16 x 80  
53/45 x 16 x 100  
59/48 x 21 x 120  
63,5/44 x 20 x 100  
65/58 x 20 x 60  
65/58 x 20 x 80  
70/64 x 25 x 150  
80/70 x 40 x 150

**ORDERING DATA:**  
Width (W2/W1) x Thickness (T) x Length (L)  
- Specification - Type F2

### TYPE F6

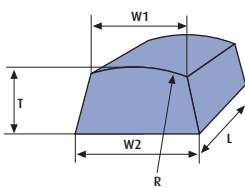


**Popular sizes:** 90/75/90 x 35 x 175 F6a  
170/146/150 x 50 x 200

**ORDERING DATA:**  
Widths (W2/W1/W3) x Thickness (T) x Length (L) - Specification - Type F6

**Additional information required:**  
Radii (R1) and (R2)  
Recess depth (X)  
Dimensions (W4), (Y), and (X)

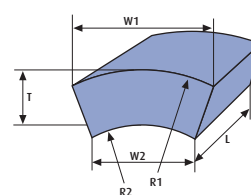
### TYPE F3



**Popular sizes:** 63,5/55 x 27 x 127  
65/62 x 20 x 80 F3a  
65,4/57 x 25,4 x 100  
80/66 x 31 x 129  
90/76 x 30 x 127  
101,5/83 x 38 x 130  
101,5/83 x 38 x 203  
118/90 x 44 x 204

**ORDERING DATA:**  
Widths (W2/W1) x Thickness (T) x Length (L)  
- Specification - Type F3

### TYPE F7

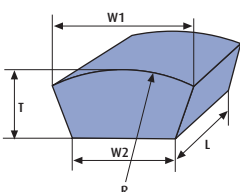


**Popular sizes:** 72/44 x 25 x 100  
115/80 x 30 x 180  
114/71 x 40 x 140  
143/103,5 x 38 x 200

**ORDERING DATA:**  
Widths (W1/W2) x Thickness (T) x Length (L)  
- Specification - Type F7

**Additional information required:**  
Radii (R1) and (R2)

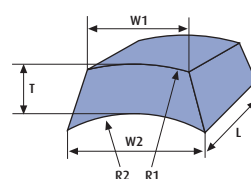
### TYPE F4



**Popular sizes:** 106/85 x 44,5 x 255  
113/80 x 42 x 190  
116/77 x 44,5 x 150  
157/114 x 57 x 305

**ORDERING DATA:**  
Widths (W1/W2) x Thickness (T) x Length (L)  
plus Radius (R) - Specification - Type F4

### TYPE F8



**Popular sizes:** 50/45 x 16 x 90  
51/46 x 20 x 90  
53,5/47 x 16 x 110  
80/72 x 20 x 90

**ORDERING DATA:**  
Widths (W2/W1) x Thickness (T) x Length (L) - Specification - Type F8

**Additional information required:**  
Radii (R1) and (R2)

All dimensions in millimetres.

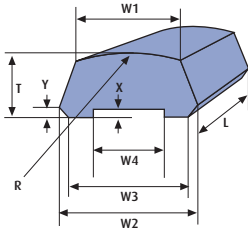
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## SPECIFICATIONS

### TYPE F9

**Popular sizes:** 117/89/95 x 44 x 155 F9a  
118/90/95 x 44 x 204 F9a



**ORDERING DATA:**

Widths (W2/W1) x Thickness (T) x Length (L)  
- Specification - Type F9

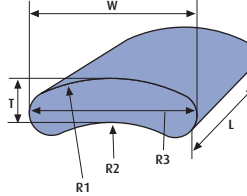
**Additional information required:**

Radius (R)  
Recess depth (X)  
Dimension (W3), (W4) and (Y)

### TYPE F11

**ORDERING DATA:**

Width (W) x Thickness (T) x Length (L)  
- Specification - Type F11



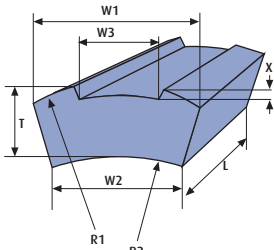
**Additional information required:**

Radii (R1), (R2) and (R3)

### TYPE F10

**ORDERING DATA:**

Widths (W1/W2) x Thickness (T)  
x Length (L) - Specification - Type F10



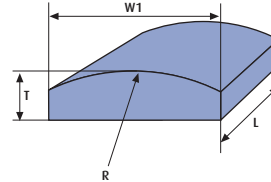
All dimensions in millimetres.

**Additional information required:**

Radii (R1) and (R2)  
Recess depth (X)  
Dimension (W3)

### TYPE F12

**Popular sizes:** 84 x 33 x 130  
285 x 57 x 150



**ORDERING DATA:**

Width (W) x Thickness (T) x Length (L)  
- Specification - Type F12

**Additional information required:**

Radius (R)

## APPLICATION TABLE

FIELD OF APPLICATION		SPECIFICATION
<b>Aluminium &amp; non-ferrous metals</b>		6C24 H8V1
<b>Cast Iron</b>	Large Contact Area	11A30 F12V86P
	Small Contact Area	11A30 G12V86P
		6C36 I5V1
		6C46 K8B3-Z
<b>Cemented Carbide</b>		8C60 I8V1
<b>Steel - Soft</b>	Large Contact Area	15A24 J8B3-Z
	Small Contact Area	11A30 G12V86P
		15A30 K8B3-Z
		9A46 J8B3-Z
<b>Steel - Hardened to 63RC</b>	Large Contact Area	11A30 E12V86P
	Small Contact Area	11A30 F12V86P
		11A30 G12V86P
<b>Steel - Stainless</b>	Austenitic	11A30 I8V86
	Ferritic	11A30 H8V86
<b>Stellite</b>		11A36 H10V86
<b>Titanium</b>		11A30 G12V86P