

5 | GRINDING

BURS



5.1

727-822

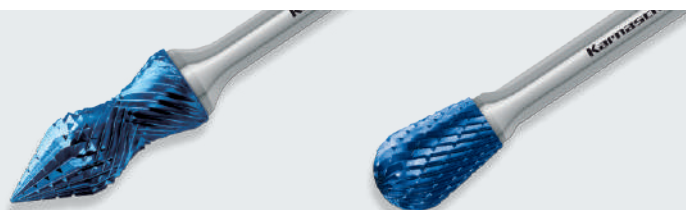
ROTARY BURS / HOLE SAWS FOR LOCKSMITHS



5.2

823-826

SPECIAL BURS



5.3

827-850

SETS · ACCESSORIES



5.4

851-864

1



2



3



4



5



6



7



8



9



10





TUNGSTEN CARBIDE BURS

Similar DIN 8032



5.1

CONTACT

ATA Garryson Ltd.
Spring Road
Ibstock
LE67 6LR
United Kingdom
sales@atagarryson.com

+44 (0) 1530 261 145

NOW ONLINE FOR YOU!

www.karnasch.co.uk

ONLINE



1



2



3



4



5



6



7



8



9



10

Index

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 
- 8 
- 9 
- 10 

HP-3

**BEST
SELLER**

738-751



The most widely used universal cutting style

- High cutting action through cross cutting style
 - Smooth operation
 - Short chips
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

HP-2

752-760

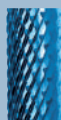


The most widely used single cutting style

- High cutting action with good surface finish
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

HP-6

762-768



Extremely rough cross cutting style

- Extremely fast metal removal (roughing)
- For all ferrous metals, such as:
 - Cast iron
 - Steel < 60 HRC
- Also for copper, brass, bronze
- Developed for use in tough roughing conditions, such as, e.g., on shipyards, foundries.

HP-7

770-777

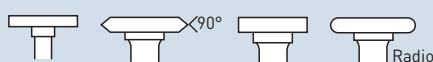


Especially for non-ferrous materials such as Aluminum, copper, brass. Also for all kinds of plastics.

- Aluminum alloy
- Light metals
- Soft copper and copper alloys (non-ferrous metals)
- Plastics
- Fibre-reinforced plastic (GFK/CFK)

Special burs

827-830



RIM shape

828



Mini-burs Ø 1 + 1.5 mm

830

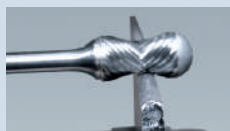


Burs + drills for locksmiths

824-826

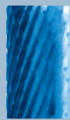
Combination-burs

831-850



HP-1

778-785



For super alloys. Extremely robust cross cutting style

- Impact resistance (tooth breakages, chipping, head breakages are minimised)
- Excellent control and quiet running
- Medium to high cutting action
- Especially for the most difficult super alloys + stainless steel, such as: Titanium, Inconel, Hastelloy, Waspaloy, Duplex, Amanox, etc. Application example: Working aeroplane turbine blades, gas turbines

HP-8

786-792



Especially for steel and cast steel. Extremely high machining output

- Up to 60% higher machining output as compared to conventional cross cut.
- High aggressiveness produces large chips with outstanding chip removal.
- No annealing colours at the workpiece due to low heat development.

HP-9

794-800



Especially for stainless steel. Extremely high machining output.

- Extremely high machining output and service life for all austenitic, rust- and acid-resilient steels.
- Nickel basis and titanium alloy (reduce speed to avoid sparking)
- High-quality surface.
- No annealing colours at the workpiece due to low heat development.

HP-4

802-809

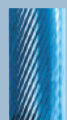


Fine cross cutting style

- Excellent control (also at difficult to reach positions)
 - Smooth operation · Short chips
 - Good surface finish
- Medium cutting action
- For all kinds of steel: Up to extra hard steel approx. 70 HRC · Cast iron · Stainless steel (INOX) · Heat-resistant substances, such as e.g. nickel based + cobalt based alloys

HP-5

810-816

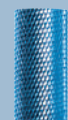


Extremely fine single cutting style

- Excellent surface finish
- Preferred for fine deburring all ferrous metals, such as:
 - Up to extra hard steel approx. 70 HRC
 - Cast iron
 - Stainless steel (INOX)
 - Heat resistant substances, such as, e.g. nickel based + cobalt based alloys

HP-11-Micro

818-822

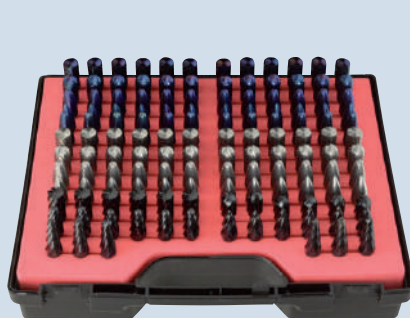


Extremely fine cross cutting style

- **Excellent for:** Finishing · Extremely fine cleaning work · Corrections in tool and mould construction · Grinding/sharpening of cutting tools
- **Characteristics:** Good stock removal · Low vibrations · Excellent control and guidance under handheld conditions. High surface quality
- **Advantages:** Micro-cut can be used for work on almost all materials up to a hardness of 70 HRC.
- **In this area usually mounted points are used.**
 - Unlike with mounted points, there is no change in geometry due to wear and tear.
 - Unlike with mounted points, there is much higher performance, surface quality and lifetime

Sets + Displays

851-864



Page 864



Page 858/859



Page 862-864

Technical data

1331



1



2



3



4



5



6



7



8



9



10



Index

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 
- 8 
- 9 
- 10 

HP-3



**BEST
SELLER**

738-751

The most widely used universal cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓		✓	✓		

- High cutting action through cross cutting style
 - Smooth operation
 - Short chips
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

Stockrange

✓ OPTIMAL

✓ GOOD

HP-2



752-760

The most widely used single cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓	✓	✓	✓		

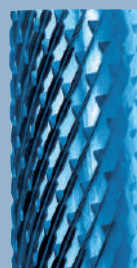
- High cutting action with good surface finish
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

Stockrange

✓ OPTIMAL

✓ GOOD

HP-6



762-768

Extremely rough cross cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓		✓	✓	✓		✓	✓		

- Extremely fast metal removal (roughing)
- For all ferrous metals, such as:
 - Cast iron
 - Steel < 60 HRC
- Also for copper, brass, bronze
- Developed for use in tough roughing conditions, such as, e.g., on shipyards, foundries.

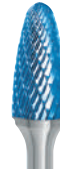
Stockrange

✓ OPTIMAL

✓ GOOD

HP-3

Stockrange + catalogue pages

ZYA	ZYB	ZYA	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	WKN	KSJ	KSK
A	B		C	D	E	F	G	H	L	M	N	J	K
Art. 11 5001	Art. 11 5011	Art. 11 6010	Art. 11 5021	Art. 11 5031	Art. 11 5041	Art. 11 5051	Art. 11 5061	Art. 11 5071	Art. 11 5081	Art. 11 5091	Art. 11 5096	Art. 11 5101	Art. 11 5111
													
740	741	743	744	745	746	747	748	749	749	750	750	751	751
Cylinder	Cylinder + end cut	Cylinder-Radius	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone	Countersink 60°	Countersink 90°

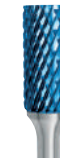
HP-2

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	WKN	KSJ	KSK
A	B	C	D	E	F	G	H	L	M	N	J	K
Art. 11 5000	Art. 11 5010	Art. 11 5020	Art. 11 5030	Art. 11 5040	Art. 11 5050	Art. 11 5060	Art. 11 5070	Art. 11 5080	Art. 11 5090	Art. 11 5099	Art. 11 5100	Art. 11 5110
												
754	754	755	755	756	756	757	757	758	758	759	759	760
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone	Countersink 60°	Countersink 90°

HP-6

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 5004	Art. 11 5014	Art. 11 5024	Art. 11 5034	Art. 11 5044	Art. 11 5054	Art. 11 5064	Art. 11 5074	Art. 11 5084	Art. 11 5094
									
764	764	765	765	766	766	767	767	768	768
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone

1

2

3

4

5

6

7

8

9

10

Index

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 
- 8 
- 9 
- 10 

HP-7



770-777

For coarse cutting and highest material removal from:

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

- Aluminum alloy
- Light metals
- Soft copper and copper alloys (non-ferrous metals)
- Plastics
- Fibre-reinforced plastic (GRP/CRP)

Stockrange

✓ OPTIMAL

✓ GOOD

HP-1



778-785

For super alloys. Extremely robust cross cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

- Impact resistance (tooth breakages, chipping, head breakages are minimised)
 - Excellent control and quiet running
 - Medium to high cutting action
 - Especially for the most difficult super alloys + stainless steel, such as: Titanium, Inconel, Hastelloy, Waspalloy, Duplex, Amanox, etc.
- Application example: Working aeroplane turbine blades, gas turbines

Stockrange

✓ OPTIMAL

✓ GOOD

HP-8



786-792

Especially for steel and cast steel. Extremely high machining output

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

- Up to 60% higher machining output as compared to conventional cross cut.
- High aggressiveness produces large chips with outstanding chip removal.
- No annealing colours at the workpiece due to low heat development.

Stockrange

✓ OPTIMAL

✓ GOOD

HP-7

Stockrange + catalogue pages

ZYA A	ZYB B	WRC C	KUD D	TRE E	RBF F	SPG G	- H	KEL L	SKM M	MINI-ALU
Art. 11 5005	Art. 11 5015	Art. 11 5025	Art. 11 5035	Art. 11 5045	Art. 11 5055	Art. 11 5065	Art. 11 5075	Art. 11 5085	Art. 11 5095	
										
772	772	773	773	774	774	775	775	776	776	777
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Mini-burs in Alu cutting style

HP-1

Stockrange + catalogue pages

ZYA A	ZYB B	WRC C	KUD D	TRE E	RBF F	SPG G	- H	KEL L	SKM M	Ø 3 mm
Art. 11 5007	Art. 11 5017	Art. 11 5027	Art. 11 5037	Art. 11 5047	Art. 11 5057	Art. 11 5067	Art. 11 5077	Art. 11 5087	Art. 11 5097	
										
780	780	781	781	782	782	783	783	784	784	785
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Ø 3 mm, shank 3 mm, for super alloys!

HP-8

Stockrange + catalogue pages

ZYA A	ZYB B	WRC C	KUD D	TRE E	RBF F	SPG G	- H	KEL L	SKM M
Art. 11 6041	Art. 11 6042	Art. 11 6043	Art. 11 6044	Art. 11 6045	Art. 11 6046	Art. 11 6047	Art. 11 6048	Art. 11 6049	Art. 11 6050
									
788	788	789	789	790	790	791	791	792	792
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 
- 8 
- 9 
- 10 

HP-9



794-800

Especially for stainless steel. Extremely high machining output

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

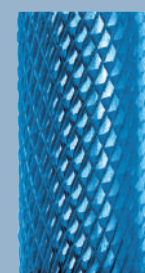
- Extremely high machining output and service life for all austenitic, rust- and acid-resilient steels.
- Nickel basis and titanium alloy (reduce speed to avoid sparking)
- High-quality surface.
- No annealing colours at the workpiece due to low heat development.

Stockrange

✓ OPTIMAL

✓ GOOD

HP-4



802-809

Fine cross cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

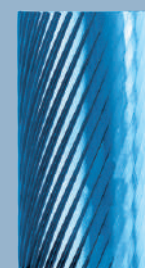
- Excellent control (also at difficult to reach positions)
 - Smooth operation
 - Short chips
 - Good surface finish
- Medium cutting action
- For all kinds of steel:
 - Up to extra hard steel approx. 70 HRC
 - Cast iron
 - Stainless steel (INOX)
 - Heat-resistant substances, such as e.g. nickel based + cobalt based alloys

Stockrange

✓ OPTIMAL

✓ GOOD

HP-5



810-816

Extremely fine single cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

- Excellent surface finish
- Preferred for fine deburring all ferrous metals, such as:
 - Up to extra hard steel approx. 70 HRC
 - Cast iron
 - Stainless steel (INOX)
 - Heat resistant substances, such as, e.g. nickel based + cobalt based alloys

Stockrange

✓ OPTIMAL

✓ GOOD

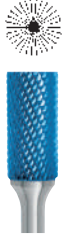
HP-9

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 6031	Art. 11 6032	Art. 11 6033	Art. 11 6034	Art. 11 6035	Art. 11 6036	Art. 11 6037	Art. 11 6038	Art. 11 6039	Art. 11 6040
									
796	796	797	797	798	798	799	799	800	800
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone

HP-4

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	WKN
A	B	C	D	E	F	G	H	L	M	N
Art. 11 5002	Art. 11 5012	Art. 11 5022	Art. 11 5032	Art. 11 5042	Art. 11 5052	Art. 11 5062	Art. 11 5072	Art. 11 5082	Art. 11 5092	Art. 11 5098
										
804	804	805	806	806	807	807	808	808	809	809
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone

HP-5

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 5003	Art. 11 5013	Art. 11 5023	Art. 11 5033	Art. 11 5043	Art. 11 5053	Art. 11 5063	Art. 11 5073	Art. 11 5083	Art. 11 5093
									
812	812	813	813	814	814	815	815	816	816
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone

HP-11

Extremely fine cross cutting style

Stockrange

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓	✓	✓	✓		

✓ OPTIMAL

✓ GOOD

• Excellent for:

- Finishing
- Extremely fine cleaning work
- Corrections in tool and mould construction
- Grinding/sharpening of cutting tools

• Characteristics:

- Good stock removal
- Low vibrations
- Excellent control and guidance under handheld conditions. High surface quality

• Advantages:

Micro-cut can be used for work on almost all materials up to a hardness of 70 HRC.

In this area usually mounted points are used.

- Unlike with mounted points, there is no change in geometry due to wear and tear.
- Unlike with mounted points, there is much higher performance, surface quality and lifetime

818-822

Quality products for metalworking.

Karnasch[®]
PROFESSIONAL TOOLS

VERSATILITY
FOR PERFECTION ON ANY SCALE

www.karnasch.co.uk

HP-11

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	RBF	SPG
A	B	C	D	F	G
Art. 11 6080	Art. 11 6081	Art. 11 6082	Art. 11 6083	Art. 11 6084	Art. 11 6085
					
820	820	821	821	822	822
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Ball nosed tree	Tree

The Karnasch technology and training facility.

Karnasch®
PROFESSIONAL TOOLS

EXPERTISE
FOR DEPENDABLE CUSTOMER
SERVICE

1



2



3



4



5



6



7



8



9



10



Index

HP-3

The most widely used universal cutting style

APPLICATION

									
✓	✓	✓	✓	✓		✓	✓		

✓ OPTIMAL

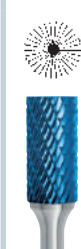
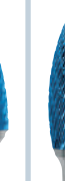
✓ GOOD

- High cutting action through cross cutting style
 - Smooth operation · Short chips
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

**BEST
SELLER**

VALUETOOL

Stockrange + catalogue pages

ZYA	ZYB	ZYA	WRC	KUD	TRE	RBF	SPG	–	KEL	SKM	WKN	KSJ	KSK
A	B		C	D	E	F	G	H	L	M	N	J	K
Art. 11 5001	Art. 11 5011	Art. 11 6010	Art. 11 5021	Art. 11 5031	Art. 11 5041	Art. 11 5051	Art. 11 5061	Art. 11 5071	Art. 11 5081	Art. 11 5091	Art. 11 5096	Art. 11 5101	Art. 11 5111
													
740	741	743	744	745	746	747	748	749	749	750	750	751	751
Cylinder	Cylinder + end cut	Cylinder-Radius	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone	Countersink 60°	Countersink 90°



BLUE-TEC-coated

Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.



sets + displays see page 852

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining with high stock removal	450-600
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		250-350
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining with high stock removal	250-350
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Coarse machining with high stock removal	250-350
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		300-450
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Coarse machining with high stock removal	450-600



Cutting speed (m/min)							
	250	300	350	400	450	500	600
Ø (mm)	Rotational speed (rpm)						
2	40,000	48,000	56,000	64,000	72,000	80,000	95,000
3	27,000	32,000	37,000	42,000	48,000	53,000	64,000
4	20,000	24,000	28,000	32,000	36,000	40,000	48,000
6	13,000	16,000	19,000	21,000	24,000	27,000	32,000
8	10,000	12,000	14,000	16,000	18,000	20,000	24,000
10	8,000	10,000	11,000	13,000	14,000	16,000	19,000
12	7,000	8,000	9,000	11,000	12,000	13,000	16,000
16	5,000	6,000	7,000	8,000	9,000	10,000	12,000
20	4,000	5,000	6,000	6,000	7,000	8,000	10,000
25	3,000	4,000	4,000	5,000	6,000	6,000	8,000

1



2



3



4



5



6



7



8



9



10



11 5001

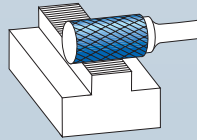


A SHAPE

ZYA



Cylinder without end cut



Cutting data

Movie



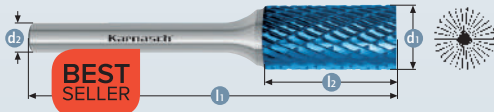
Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5001 015	• 1.5	6	3	38		✓
11 5001 025	• 2	11	3	38		✓
11 5001 027	• 2.5	11	3	38		✓
11 5001 030	• 3	14	3	38		✓
11 5001 035	• 3	14	3	50		✓
11 5001 040	• 3	14	3	65		✓
11 5001 045	• 3	14	3	75		✓
11 5001 050	• 3	14	3	100		✓
11 5001 052	• 3	12.7	6	50		✓
11 5001 055	• 4	14	6	50		✓
11 5001 057	• 5	12.7	3	38		✓
11 5001 058	• 5	16	6	50		✓
11 5001 059	• 6	5	3	37	✓	
11 5001 060	• 6	13	3	45	✓	
11 5001 065	• 6	18	6	50		✓
11 5001 067	• 6	25	6	50		✓
11 5001 070	• 6	18	6	100	✓	
11 5001 075	• 6	18	6	150	✓	
11 5001 080	• 8	20	6	65	✓	
11 5001 085	• 8	20	6	170	✓	
11 5001 087	• 10	13	6	58	✓	
11 5001 090	• 10	20	6	65	✓	
11 5001 095	• 10	20	6	172	✓	
11 5001 100	• 10	25	6	70	✓	
11 5001 103	• 12	20	6	64	✓	
11 5001 105	• 12	25	6	70	✓	
11 5001 107	• 12DIN	25	6	70	✓	
11 5001 110	• 12	25	6	175	✓	
11 5001 115	• 12	25	8	70	✓	
11 5001 120	• 16	25	6	70	✓	
11 5001 125	• 16	25	8	70	✓	
11 5001 130	• 20	25	6	70	✓	
11 5001 140	• 25	25	6	70	✓	
11 5001 145	• 25	25	8	70	✓	

The revolutionary cylinder-radius burr see page 742/743



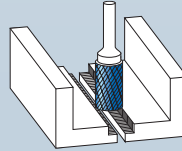
11 5011



B SHAPE

ZYB

Cylinder with end cut



Cutting data



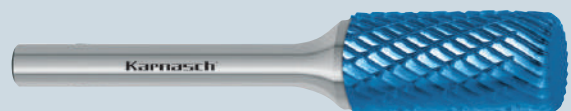
Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5011 005	• 1.5	6	3	38		✓
11 5011 010	• 2	11	3	38		✓
11 5011 012	• 2.5	11	3	38		✓
11 5011 015	• 3	14	3	38		✓
11 5011 020	• 3	14	3	50		✓
11 5011 025	• 3	14	3	65		✓
11 5011 030	• 3	14	3	75		✓
11 5011 035	• 3	14	3	100		✓
11 5011 037	• 3	12.7	6	50		✓
11 5011 040	• 4	14	6	50		✓
11 5011 042	• 5	16	6	50		✓
11 5011 043	• 6	5	3	37	✓	
11 5011 045	• 6	13	3	45	✓	
11 5011 050	• 6	18	6	50		✓
11 5011 055	• 6	18	6	75		✓
11 5011 060	• 6	18	6	100	✓	
11 5011 065	• 6	18	6	150	✓	
11 5011 070	• 6	25	6	50		✓
11 5011 075	• 8	20	6	65	✓	
11 5011 080	• 8	20	6	170	✓	
11 5011 082	• 10	13	6	58	✓	
11 5011 085	• 10	20	6	65	✓	
11 5011 090	• 10	20	6	172	✓	
11 5011 095	• 10	25	6	70	✓	
11 5011 097	% 11	25	6	70	✓	
11 5011 099	• 12	20	6	64	✓	
11 5011 100	• 12	25	6	70	✓	
11 5011 103	• 12DIN	25	6	70	✓	
11 5011 105	• 12	25	6	175	✓	
11 5011 110	• 12	25	8	70	✓	
11 5011 115	• 16	25	6	70	✓	
11 5011 120	• 16	25	8	70	✓	
11 5011 125	• 20	25	6	70	✓	
11 5011 130	• 20	25	8	70	✓	
11 5011 135	• 25	25	6	70	✓	
11 5011 140	• 25	25	8	70	✓	

The revolutionary cylinder-radius bur see page 742/743



1



2



3



4



5



6



7



8



9



10



1



2



3



4



5



6



7



8



9



10



The **CYLINDER+RADIUS** unique design transforms the conventional cylinder bur into a hightech tool.

The new development meets the highest manufacturing standards for all kind of industries, especially the aerospace industry.

The **radius design** at the top of the cylinder provides an extended tool life avoiding teeth breakage.

This unique design with its **double cut** will improve operator control, reduce the size of chips and prevent damage to expensive parts.

Features and benefits:

Radius at the top of the cylinder results:

- Offers improved flute strength at the start of the bur.
- The radius provides better control of the bur.
- Prevents digging into work piece at the intersecting point.
- Produces a cylinder radius on the work piece.
- Reduces flute chipping at the intersecting point.

11 6010

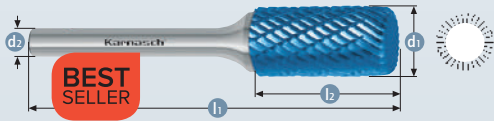


HP-3

A SHAPE

ZYA

Cylinder-Radius



Cutting data



Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 6010 005	• 3	14	3	38		✓
11 6010 010	• 6	18	6	50		✓
11 6010 015	• 8	19	6	64	✓	
11 6010 020	• 10	19	6	64	✓	
11 6010 025	• 12	25	6	70	✓	
11 6010 030	• 16	25	6	70	✓	

Application examples



1



2



3



4



5



6



7



8



9



10

Index

11 5021

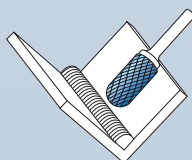


C SHAPE

WRC



Ball nosed cylinder



Cutting data

Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5021 020	2	11	3	38		✓
11 5021 022	2.5	11	3	38		✓
11 5021 025	3	14	3	38		✓
11 5021 030	3	14	3	50		✓
11 5021 032	3	14	3	60		✓
11 5021 035	3	14	3	75		✓
11 5021 040	3	14	3	100		✓
11 5021 042	3	12.7	6	50		✓
11 5021 043	3	30*[15]	6	60		✓
11 5021 045	4	16	6	50		✓
11 5021 046	4	30*[15]	6	60		✓
11 5021 047	5	12.7	3	38		✓
11 5021 049	5	16	6	50		✓
11 5021 050	6	12.7	3	44	✓	
11 5021 055	6	18	6	50		✓
11 5021 056	6	18	6	60		✓
11 5021 058	6	18	6	80		✓
11 5021 060	6	18	6	100	✓	
11 5021 065	6	18	6	150	✓	
11 5021 070	6	25	6	50		✓
11 5021 075	8	20	6	65	✓	
11 5021 080	8	20	6	170	✓	
11 5021 085	10	20	6	65	✓	
11 5021 090	10	20	6	170	✓	
11 5021 095	10	25	6	70	✓	
11 5021 097	11	25	6	70	✓	
11 5021 099	12	10	6	54	✓	
11 5021 100	12	20	6	65	✓	
11 5021 105	12	25	6	70	✓	
11 5021 107	12DIN	25	6	70	✓	
11 5021 110	12	25	6	175	✓	
11 5021 115	12	25	8	70	✓	
11 5021 120	16	25	6	70	✓	
11 5021 125	16	25	8	70	✓	
11 5021 130	20	25	6	70	✓	
11 5021 135	20	25	8	70	✓	

- Burs specially for locksmiths see page 824

* 11 5021 043



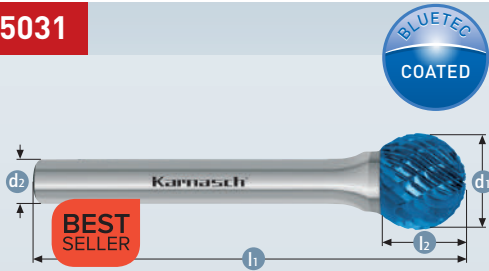
* 11 5021 046



* 15 mm by 30 mm are not machined



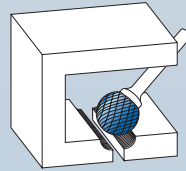
11 5031



D SHAPE

KUD

Ball



Cutting data

Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5031 020	• 2	1.8	3	38		✓
11 5031 022	• 2.5	2.3	3	38		✓
11 5031 025	• 3	2.5	3	38		✓
11 5031 030	• 3	2.5	3	50		✓
11 5031 035	• 3	2.5	3	75		✓
11 5031 040	• 3	2.5	6	50		✓
11 5031 045	• 4	3.4	3	38		✓
11 5031 046	• 4	3.4	6	50		✓
11 5031 047	• 5	4.7	3	38		✓
11 5031 048	• 5	5.0	6	50		✓
11 5031 050	• 6	5.0	3	38	✓	
11 5031 055	• 6	4.7	6	50		✓
11 5031 060	• 8	6.0	6	52	✓	
11 5031 065	• 8	6.0	6	180	✓	
11 5031 070	• 10	8.0	6	54	✓	
11 5031 075	• 10	8.0	6	185	✓	
11 5031 077	• 11	9.5	6	55	✓	
11 5031 080	• 12	11.4	6	56	✓	
11 5031 083	• 12DIN	11.0	6	56	✓	
11 5031 085	• 12	11.0	8	56	✓	
11 5031 090	• 12	11.0	6	162	✓	
11 5031 095	• 16	14.0	6	60	✓	
11 5031 100	• 16	14.0	8	60	✓	
11 5031 105	• 20	16.5	6	62	✓	
11 5031 110	• 20	16.5	8	62	✓	
11 5031 115	• 25	22.0	6	68	✓	
11 5031 120	• 25	22.0	8	68	✓	

1



2



3



4



5



6



7



8



9



10



Index

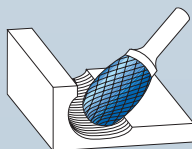
11 5041



E SHAPE

TRE

Oval



Cutting data

Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5041 010	• 3	6	3	38		✓
11 5041 011	• 3	6	3	75		✓
11 5041 012	• 5	7.1	3	38		✓
11 5041 015	• 6	10	3	42	✓	
11 5041 020	• 6	10	6	50		✓
11 5041 025	• 8	15	6	60	✓	
11 5041 030	• 10	16	6	60	✓	
11 5041 032	• 10	16	6	170	✓	
11 5041 035	• 12	22	6	67	✓	
11 5041 037	• 12DIN	21	6	66	✓	
11 5041 038	• 12	22	6	175	✓	
11 5041 040	• 12	22	8	67	✓	
11 5041 045	• 16	25	6	70	✓	
11 5041 050	• 16	25	8	70	✓	
11 5041 055	• 20	25	6	70	✓	
11 5041 060	• 20	25	8	70	✓	

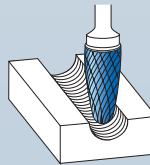
11 5051



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5051 007	• 3	6	3	38	✓	
11 5051 010	• 3	8	3	38		✓
11 5051 015	• 3	14	3	38		✓
11 5051 020	• 3	14	3	50		✓
11 5051 021	• 3	14	3	75		✓
11 5051 022	• 5	12.7	3	38		✓
11 5051 025	• 6	12	3	44	✓	
11 5051 030	• 6	18	6	50		✓
11 5051 033	• 6	18	6	168	✓	
11 5051 035	• 8	20	6	65	✓	
11 5051 040	• 10	20	6	65	✓	
11 5051 045	• 10	20	6	170	✓	
11 5051 047	• 11	25	6	70	✓	
11 5051 048	• 12	20	6	65	✓	
11 5051 050	• 12	25	6	70	✓	
11 5051 053	• 12DIN	25	6	70	✓	
11 5051 055	• 12	25	8	70	✓	
11 5051 060	• 12	25	6	175	✓	
11 5051 065	• 16	25	6	70	✓	
11 5051 070	• 16	25	8	70	✓	
11 5051 075	• 20	25	6	70	✓	
11 5051 080	• 20	25	8	70	✓	
11 5051 082	• 20	32	6	77	✓	
11 5051 085	• 20	38	6	83	✓	
11 5051 090	• 20	38	8	83	✓	

1



2



3



4



5



6



7



8



9



10



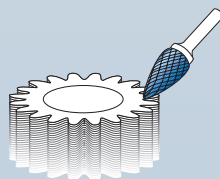
11 5061



G SHAPE

SPG

Tree



Cutting data

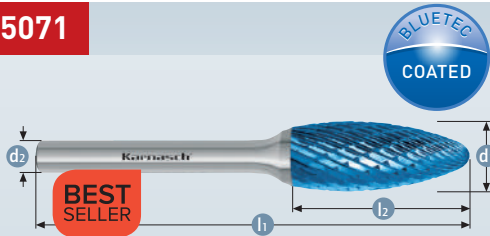
Movie



Bestseller – price reduced

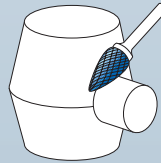
Art.	d1	l2	d2	l1	brazed	solid
11 5061 010	• 3	6	3	38		✓
11 5061 012	• 3	10	3	38		✓
11 5061 015	• 3	14	3	38		✓
11 5061 020	• 3	14	3	50		✓
11 5061 025	• 3	14	3	75		✓
11 5061 028	• 5	12.7	3	38		✓
11 5061 030	• 6	12	3	44	✓	
11 5061 035	• 6	18	6	50		✓
11 5061 040	• 8	20	6	65	✓	
11 5061 045	• 10	20	6	65	✓	
11 5061 050	• 10	20	6	170	✓	
11 5061 055	• 12	20	6	65	✓	
11 5061 060	• 12	25	6	70	✓	
11 5061 063	• 12DIN	25	6	70	✓	
11 5061 065	• 12	25	8	70	✓	
11 5061 070	• 12	25	6	175	✓	
11 5061 075	• 12	30	6	75	✓	
11 5061 080	• 12	30	8	75	✓	
11 5061 085	• 16	25	6	70	✓	
11 5061 090	• 16	25	8	70	✓	
11 5061 095	• 16	30	6	75	✓	
11 5061 100	• 16	30	8	75	✓	
11 5061 105	• 20	25	6	70	✓	
11 5061 110	• 20	25	8	70	✓	
11 5061 115	• 20	38	6	83	✓	
11 5061 120	• 20	38	8	83	✓	

11 5071



H SHAPE

Flame



Cutting data



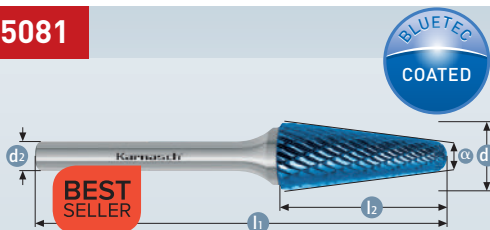
Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5071 003	• 3	6	3	50		✓
11 5071 005	• 3	6	3	38		✓
11 5071 006	• 3	6	3	75		✓
11 5071 007	• 5	9.5	3	38		✓
11 5071 010	• 6	14	6	50		✓
11 5071 015	• 8	20	6	65	✓	
11 5071 017	• 8	20	6	170	✓	
11 5071 020	• 10	20	6	65	✓	
11 5071 025	• 12	32	6	77	✓	
11 5071 027	• 12DIN	30	6	75	✓	
11 5071 028	• 12	32	6	180	✓	
11 5071 030	• 12	32	8	77	✓	
11 5071 035	• 16	36	6	82	✓	
11 5071 040	• 16	36	8	82	✓	
11 5071 045	• 20	41	6	86	✓	
11 5071 050	• 20	41	8	86	✓	

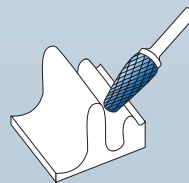
11 5081



L SHAPE

KEL

Ball nosed cone



Cutting data



Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid	α°
11 5081 005	• 3	10	3	38		✓	10°
11 5081 009	• 3	14	3	50	✓		8°
11 5081 010	• 3	14	3	38	✓	✓	8°
11 5081 011	• 3	14	3	75	✓		8°
11 5081 012	• 5	12.7	3	38		✓	14°
11 5081 015	• 6	16	3	48	✓		22°
11 5081 020	• 6	18	6	50		✓	14°
11 5081 025	• 8	25	6	70	✓		14°
11 5081 030	• 10	20	6	65	✓		14°
11 5081 035	• 10	30	6	75	✓		14°
11 5081 040	• 10	30	6	176	✓		14°
11 5081 045	• 12	32	6	77	✓		14°
11 5081 047	• 12DIN	25	6	70	✓		14°
11 5081 050	• 12	32	8	77	✓		14°
11 5081 055	• 12	32	6	182	✓		14°
11 5081 060	• 16	33	6	78	✓		14°
11 5081 065	• 16	33	8	78	✓		14°
11 5081 070	• 20	41	6	86	✓		14°
11 5081 075	• 20	41	8	86	✓		14°

☞ Sale item. While stocks last.

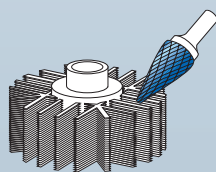
11 5091



M SHAPE

SKM

Cone



Cutting data

Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid	α°
11 5091 010	• 3	8	3	38		✓	18°
11 5091 015	• 3	11	3	38		✓	14°
11 5091 020	• 3	15	3	38		✓	10°
11 5091 025	• 6	12	3	48	✓		22°
11 5091 027	• 6	12.7	6	50		✓	14°
11 5091 030	• 6	20	6	50		✓	14°
11 5091 032	• 6	25	6	50		✓	11°
11 5091 035	• 8	18	6	63	✓		13°
11 5091 040	• 10	20	6	65	✓		28°
11 5091 045	• 12	25	6	70	✓		28°
11 5091 047	• 12DIN	25	6	70	✓		28°
11 5091 050	• 12	25	8	70	✓		28°
11 5091 055	• 16	26	6	74	✓		33°
11 5091 060	• 16	26	8	74	✓		33°

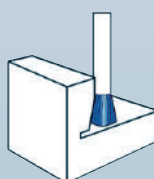
11 5096



N SHAPE

WKN

Inverted cone



Cutting data

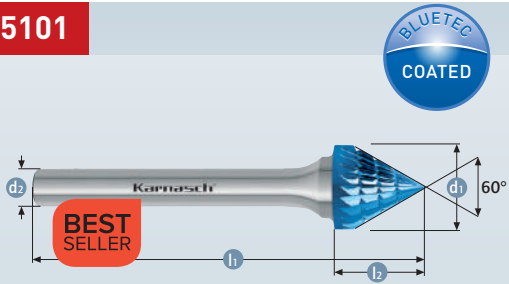
Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid	α°
11 5096 005	• 3	5	3	38		✓	10°
11 5096 010	• 6	7	3	39	✓		10°
11 5096 015	• 6	8	6	50		✓	10°
11 5096 020	• 10	10	6	55	✓		13°
11 5096 025	• 12	13	6	58	✓		30°
11 5096 030	• 12	13	8	58	✓		30°
11 5096 035	• 16	19	6	64	✓		18°
11 5096 040	• 16	19	8	64	✓		18°
11 5096 045	• 20	16	6	61	✓		30°

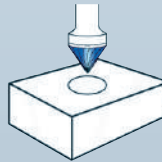
11 5101



J SHAPE

KSJ

Countersink 60°



Cutting data



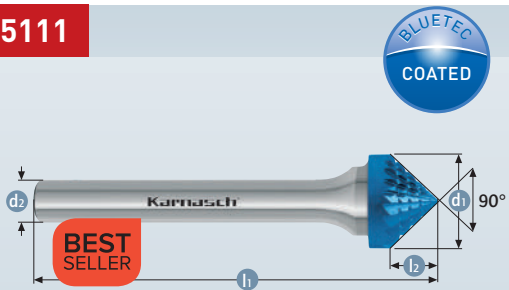
Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5101 005	• 3	3	3	38		✓
11 5101 010	• 6	6	6	50		✓
11 5101 015	• 10	8	6	56	✓	
11 5101 020	• 12	11	6	60	✓	
11 5101 025	• 16	15	6	62	✓	
11 5101 030	• 16	15	8	62	✓	
11 5101 035	• 20	17	6	65	✓	
11 5101 040	• 25	24.5	6	68	✓	

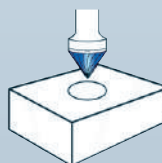
11 5111



K SHAPE

KSK

Countersink 90°



Cutting data



Movie



Bestseller – price reduced

Art.	d1	l2	d2	l1	brazed	solid
11 5111 005	• 3	3	3	38		✓
11 5111 010	• 6	3	6	50		✓
11 5111 015	• 10	5	6	53	✓	
11 5111 020	• 12	7	6	55	✓	
11 5111 025	• 12	7	8	55	✓	
11 5111 030	• 16	8	6	57	✓	
11 5111 035	• 16	8	8	57	✓	
11 5111 040	• 20	12	6	60	✓	
11 5111 045	• 25	12.7	6	60	✓	



HP-2

The most widely used single cutting style

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓	✓	✓	✓		

✓ OPTIMAL

✓ GOOD

- High cutting action with good surface finish
- For use on all ferrous metals such as:
 - Cast iron
 - Steel < 60 HRC
 - Stainless steel (INOX)
 - Nickel basis and titanium alloy
- Also copper, brass, bronze

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	–	KEL	SKM	WKN	KSJ	KSK
A	B	C	D	E	F	G	H	L	M	N	J	K
Art. 11 5000	Art. 11 5010	Art. 11 5020	Art. 11 5030	Art. 11 5040	Art. 11 5050	Art. 11 5060	Art. 11 5070	Art. 11 5080	Art. 11 5090	Art. 11 5099	Art. 11 5100	Art. 11 5110
												
754	754	755	755	756	756	757	757	758	758	759	759	760
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone	Countersink 60°	Countersink 90°



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining with high stock removal	450-600
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		250-350
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining with high stock removal	250-350
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Coarse machining with high stock removal	250-350
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		300-450
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Coarse machining with high stock removal	450-600



Cutting speed (m/min)							
	250	300	350	400	450	500	600
Ø (mm)	Rotational speed (rpm)						
2	40,000	48,000	56,000	64,000	72,000	80,000	95,000
3	27,000	32,000	37,000	42,000	48,000	53,000	64,000
4	20,000	24,000	28,000	32,000	36,000	40,000	48,000
6	13,000	16,000	19,000	21,000	24,000	27,000	32,000
8	10,000	12,000	14,000	16,000	18,000	20,000	24,000
10	8,000	10,000	11,000	13,000	14,000	16,000	19,000
12	7,000	8,000	9,000	11,000	12,000	13,000	16,000
16	5,000	6,000	7,000	8,000	9,000	10,000	12,000
20	4,000	5,000	6,000	6,000	7,000	8,000	10,000
25	3,000	4,000	4,000	5,000	6,000	6,000	8,000

1



2



3



4



5



6



7



8



9



10



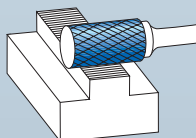
11 5000



A SHAPE

ZYA

Cylindrical without end cut



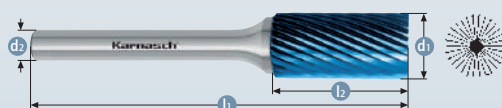
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5000 030	• 3	14	3	38		✓
11 5000 060	• 6	13	3	45	✓	
11 5000 065	• 6	18	6	50		✓
11 5000 080	• 8	20	6	65	✓	
11 5000 090	• 10	20	6	65	✓	
11 5000 105	• 12	25	6	70	✓	

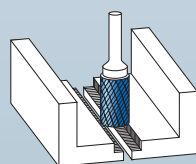
11 5010



B SHAPE

ZYB

Cylindrical with end cut



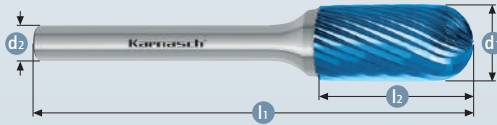
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5010 015	• 3	14	3	38		✓
11 5010 045	• 6	13	3	45	✓	
11 5010 050	• 6	18	6	50		✓
11 5010 070	• 6	25	6	50		✓
11 5010 075	• 8	20	6	65	✓	
11 5010 085	• 10	20	6	65	✓	
11 5010 100	• 12	25	6	70	✓	

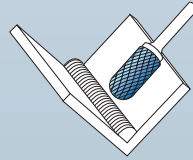
11 5020



C SHAPE

WRC

Ball nosed cylinder



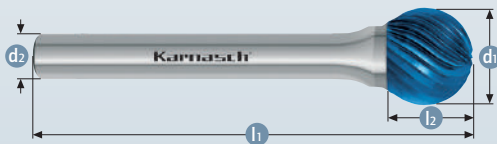
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5020 022	• 2.5	11	3	38		✓
11 5020 025	• 3	14	3	38		✓
11 5020 050	• 6	12.7	3	44	✓	
11 5020 055	• 6	18	6	50		✓
11 5020 075	• 8	20	6	65	✓	
11 5020 085	• 10	20	6	65	✓	
11 5020 105	• 12	25	6	70	✓	

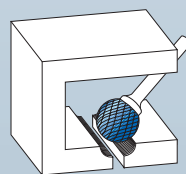
11 5030



D SHAPE

KUD

Ball



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5030 025	• 3	2.5	3	38		✓
11 5030 045	• 4	3.4	3	38		✓
11 5030 047	• 5	4.7	3	38		✓
11 5030 048	• 5	4.0	6	50		✓
11 5030 050	• 6	5.0	3	38	✓	
11 5030 055	• 6	4.7	6	50		✓
11 5030 060	• 8	7.0	6	52	✓	
11 5030 070	• 10	8.0	6	54	✓	
11 5030 080	• 12	11.0	6	56	✓	

1



2



3



4



5



6



7



8



9



10



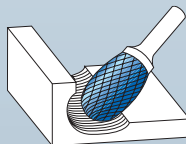
11 5040



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5040 010	• 3	6	3	38		✓
11 5040 015	• 6	10	3	42	✓	
11 5040 020	• 6	10	6	50		✓
11 5040 025	• 8	15	6	60	✓	
11 5040 030	• 10	16	6	60	✓	
11 5040 035	• 12	22	6	67	✓	

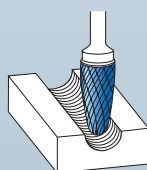
11 5050



F SHAPE

RBF

Ball nosed tree



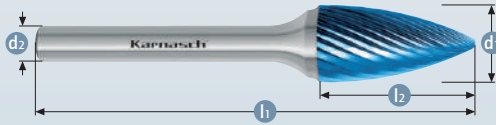
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5050 015	• 3	14	3	38		✓
11 5050 025	• 6	12	3	44	✓	
11 5050 030	• 6	18	6	50		✓
11 5050 035	• 8	20	6	65	✓	
11 5050 040	• 10	20	6	65	✓	
11 5050 050	• 12	25	6	70	✓	

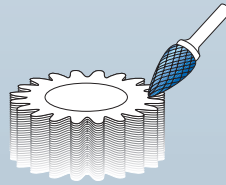
11 5060



G SHAPE

SPG

Tree



Cutting data

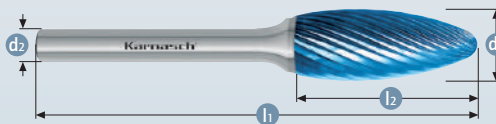


Movie



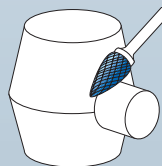
Art.	d1	l2	d2	l1	brazed	solid
11 5060 012	• 3	10	3	38		✓
11 5060 015	• 3	14	3	38		✓
11 5060 030	• 6	12	3	44	✓	
11 5060 035	• 6	18	6	50		✓
11 5060 040	• 8	20	6	65	✓	
11 5060 045	• 10	20	6	65	✓	
11 5060 060	• 12	25	6	70	✓	

11 5070



H SHAPE

Flame



Cutting data

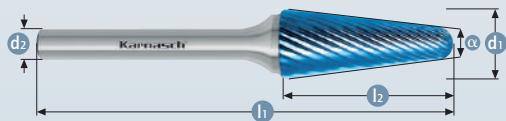


Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5070 005	• 3	6	3	38		✓
11 5070 015	• 8	20	6	65	✓	
11 5070 020	• 10	20	6	65	✓	
11 5070 025	• 12	32	6	77	✓	

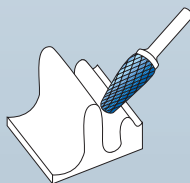
11 5080



L SHAPE

KEL

Ball nosed cone



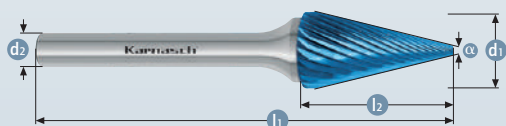
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5080 010	• 3	14	3	38		✓	8°
11 5080 015	• 6	16	3	48	✓		22°
11 5080 020	• 6	18	6	50		✓	14°
11 5080 025	• 8	25	6	70	✓		14°
11 5080 030	• 10	20	6	65	✓		14°
11 5080 045	• 12	32	6	77	✓		14°

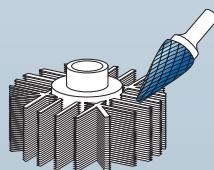
11 5090



M SHAPE

SKM

Cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5090 015	• 3	11	3	38		✓	14°
11 5090 025	• 6	12	3	48	✓		22°
11 5090 030	• 6	20	6	50		✓	14°
11 5090 040	• 10	20	6	65	✓		28°
11 5090 045	• 12	25	6	70	✓		28°

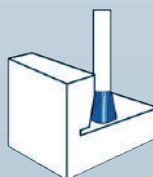
11 5099



N SHAPE

WKN

Inverted cone



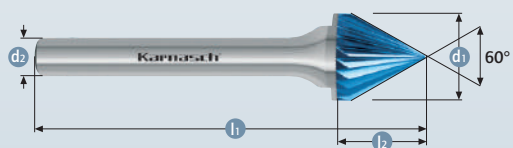
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5099 005	• 3	5	3	38		✓	10°
11 5099 010	• 6	7	3	39	✓		10°
11 5099 015	• 6	8	6	50		✓	10°
11 5099 020	• 10	10	6	55	✓		13°
11 5099 025	• 12	13	6	58	✓		30°

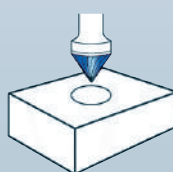
11 5100



J SHAPE

KSJ

Countersink 60°



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5100 005	• 3	3	3	38		✓
11 5100 010	• 6	6	6	50		✓
11 5100 015	• 10	8	6	56	✓	
11 5100 020	• 12	11	6	60	✓	

1



2



3



4



5



6



7



8



9



10



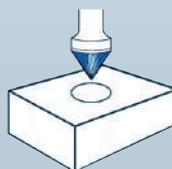
11 5110



K SHAPE

KSK

Countersink 90°



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5110 005	• 3	1.5	3	38		✓
11 5110 010	• 6	3	6	50		✓
11 5110 015	• 10	5	6	56	✓	
11 5110 020	• 12	7	6	60	✓	

Karnasch®
PROFESSIONAL TOOLS

Quality products for metalworking.

VERSATILITY
FOR PERFECTION ON ANY SCALE

www.karnasch.co.uk

Quality products for metalworking.

HIGH PERFORMANCE IN EVERY APPLICATION AREA

1



2



3



4



5



6



7



8



9



10

Index



To find out more, speak to a customer service representative
by contacting sales@atagarryson.com or visit www.karnasch.co.uk

HP-6

Extremely rough cross cutting style



APPLICATION

✓		✓	✓	✓		✓	✓		

✓ OPTIMAL

✓ GOOD

- Extremely fast metal removal (roughing)
- For all ferrous metals, such as:
 - Cast iron
 - Steel < 60 HRC
- Also for copper, brass, bronze
- Developed for use in tough roughing conditions, such as, e.g., on shipyards, foundries.

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 5004	Art. 11 5014	Art. 11 5024	Art. 11 5034	Art. 11 5044	Art. 11 5054	Art. 11 5064	Art. 11 5074	Art. 11 5084	Art. 11 5094
764	764	765	765	766	766	767	767	768	768
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high stock removal with impact load	250 - 600
	Hardened, heat treated steels exceeding 1200 N/mm ² (> 38 HRC)	tool steels, tempering steels, alloyed steels, cast steels		250 - 350
Non-Ferrous metals	High-temperature resistant materials	Nickel based alloys cobalt based alloys (aircraft engine and turbine construction)	Coarse machining = high stock removal with impact load	250 - 450
Cast iron	Grey cast iron, white cast iron	Cast-iron with flake graphite EN-GJL (GG), with nodular graphite cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	Coarse machining = high stock removal with impact load	250 - 600



Cutting speed (m/min)				
	250	500	600	900
Ø (mm)	Rotational speed (rpm)			
6	13,000	27,000	32,000	48,000
8	10,000	20,000	24,000	36,000
10	8,000	16,000	19,000	29,000
12	7,000	13,000	16,000	24,000
16	5,000	10,000	12,000	18,000

1



2



3



4



5



6



7



8



9



10

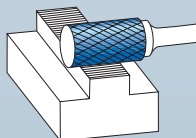
11 5004



A SHAPE

ZYA

Cylinder without end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5004 065	• 6	18	6	50		✓
11 5004 080	• 8	20	6	65	✓	
11 5004 090	• 10	20	6	65	✓	
11 5004 100	• 10	25	6	70	✓	
11 5004 105	• 12	25	6	70	✓	
11 5004 115	• 12	25	8	70	✓	
11 5004 120	• 16	25	6	70	✓	
11 5004 125	• 16	25	8	70	✓	

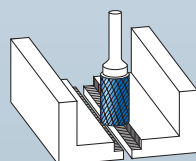
11 5014



B SHAPE

ZYB

Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5014 050	• 6	18	6	50		✓
11 5014 075	• 8	20	6	65	✓	
11 5014 085	• 10	20	6	65	✓	
11 5014 100	• 12	25	6	70	✓	
11 5014 110	• 12	25	8	70	✓	
11 5014 120	• 16	25	8	70	✓	

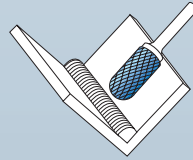
11 5024



C SHAPE

WRC

Ball nosed cylinder



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5024 055	• 6	18	6	50		✓
11 5024 075	• 8	20	6	65	✓	
11 5024 085	• 10	20	6	65	✓	
11 5024 105	• 12	25	6	70	✓	
11 5024 115	• 12	25	8	70	✓	
11 5024 120	• 16	25	6	70	✓	
11 5024 125	• 16	25	8	70	✓	

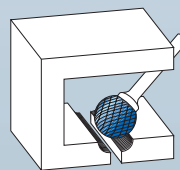
11 5034



D SHAPE

KUD

Ball



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5034 055	• 6	4.7	6	50		✓
11 5034 060	• 8	6.0	6	52	✓	
11 5034 070	• 10	8.0	6	54	✓	
11 5034 080	• 12	11.0	6	56	✓	
11 5034 085	% 12	11.0	8	56	✓	
11 5034 095	• 16	14.0	6	60	✓	
11 5034 100	% 16	14.0	8	60	✓	

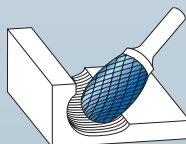
11 5044



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5044 020	• 6	10	6	50		✓
11 5044 025	• 8	15	6	60	✓	
11 5044 030	• 10	16	6	60	✓	
11 5044 035	• 12	22	6	67	✓	
11 5044 040	• 12	22	8	67	✓	
11 5044 045	• 16	25	6	70	✓	
11 5044 050	• 16	25	8	70	✓	

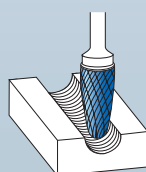
11 5054



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5054 030	• 6	18	6	50		✓
11 5054 035	• 8	20	6	65	✓	
11 5054 040	• 10	20	6	65	✓	
11 5054 050	• 12	25	6	70	✓	
11 5054 055	• 12	25	8	70	✓	
11 5054 065	• 16	25	6	70	✓	
11 5054 070	• 16	25	8	70	✓	

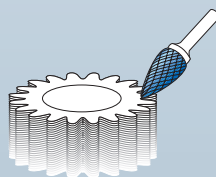
11 5064



G SHAPE

SPG

Tree



Cutting data

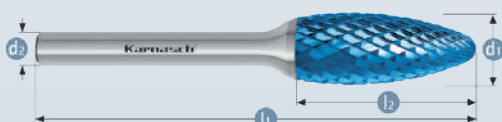


Movie



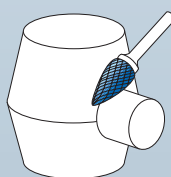
Art.	d1	l2	d2	l1	brazed	solid
11 5064 035	• 6	18	6	50		✓
11 5064 040	• 8	20	6	65	✓	
11 5064 045	• 10	20	6	65	✓	
11 5064 060	• 12	25	6	70	✓	
11 5064 065	• 12	25	8	70	✓	
11 5064 085	• 16	25	6	70	✓	
11 5064 090	• 16	25	8	70	✓	

11 5074



H SHAPE

Flame



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5074 010	• 6	14	6	50		✓
11 5074 015	• 8	20	6	65	✓	
11 5074 020	• 10	20	6	65	✓	
11 5074 025	• 12	32	6	77	✓	
11 5074 030	• 12	32	8	77	✓	
11 5074 035	• 16	36	6	82	✓	
11 5074 040	• 16	36	8	82	✓	

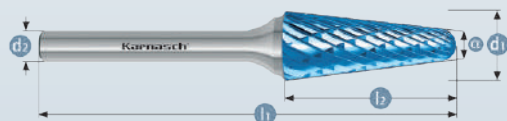


11 5084

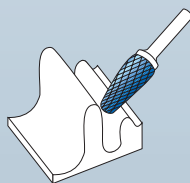


L SHAPE

KEL



Ball nosed cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5084 020	• 6	18	6	50		✓	14°
11 5084 025	• 8	25	6	70	✓		14°
11 5084 035	• 10	30	6	75	✓		14°
11 5084 045	• 12	32	6	77	✓		14°
11 5084 050	• 12	32	8	77	✓		14°
11 5084 060	• 16	33	6	78	✓		14°
11 5084 065	% 16	33	8	78	✓		14°

11 5094

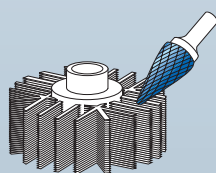


M SHAPE

SKM



Cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5094 030	• 6	20	6	50		✓	14°
11 5094 040	• 10	20	6	65	✓		13°
11 5094 045	• 12	25	6	70	✓		28°
11 5094 050	% 12	25	8	70	✓		28°
11 5094 055	• 16	26	6	74	✓		33°

% Sale item. While stocks last.



POWER.
PRECISION.
PERFORMANCE.

Karnasch®
PROFESSIONAL TOOLS

1



2



3



4



5



6



7



8



9



10



HP-7

For coarse cutting and highest material removal from:

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

✓ OPTIMAL

✓ GOOD

- Aluminum alloy
- Light metals
- Soft copper and copper alloys (non-ferrous metals)
- Plastics
- Fibre-reinforced plastic (GRP/CRP)

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	MINI-ALU
A	B	C	D	E	F	G	H	L	M	
Art. 11 5005	Art. 11 5015	Art. 11 5025	Art. 11 5035	Art. 11 5045	Art. 11 5055	Art. 11 5065	Art. 11 5075	Art. 11 5085	Art. 11 5095	
										
772	772	773	773	774	774	775	775	776	776	777
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Mini-burs in Alu cutting style



Karnasch BLACK-TEC coating is specifically designed for non-ferrous metals (Cut HP-7). Low friction and excellent chip clearance characteristics reduce clogging of the flutes.

Material groups			Application	Cutting speed m/min
Non-ferrous metals	Soft non-ferrous metals	Alu alloys, brass copper, zinc	Coarse machining = high stock removal	600 - 1100
			Fine machining = low stock removal	900 - 1100
	Hard non-ferrous metals	Bronze, titanium, hard aluminum alloys, (high Si content)	Coarse machining = high stock removal	600 - 1100
			Fine machining = low stock removal	900 - 1100
Plastics, other materials	Fibre-reinforced plastic (GRP/CRP) thermoplastics, hard rubber		Coarse machining = high stock removal	500 - 1100
			Fine machining = low stock removal	500 - 1100



Cutting speed (m/min)				
	500	600	900	1100
Ø (mm)	Rotational speed (rpm)			
2	80,000	95,000	143,000	175,000
3	53,000	64,000	95,000	116,000
4	40,000	48,000	72,000	88,000
6	27,000	32,000	48,000	59,000
8	20,000	24,000	36,000	44,000
10	16,000	19,000	29,000	35,000
12	13,000	16,000	24,000	30,000
16	10,000	12,000	18,000	22,000
20	8,000	10,000	14,000	17,000
25	6,000	8,000	11,000	13,500

1



2



3



4



5



6



7



8



9



10

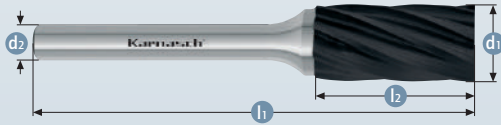
Index

11 5005

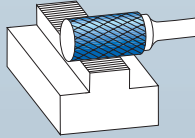


A SHAPE

ZYA



Cylinder without end cut



Cutting data

Movie



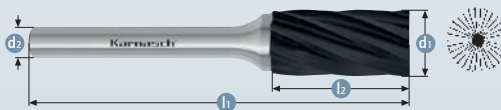
Art.	d1	l2	d2	l1	brazed	solid
11 5005 030	• 3	14	3	38		✓
11 5005 060	• 6	13	3	45	✓	
11 5005 065	• 6	18	6	50		✓
11 5005 080	• 8	20	6	65	✓	
11 5005 090	• 10	20	6	65	✓	
11 5005 105	• 12	25	6	70	✓	
11 5005 120	• 16	25	6	70	✓	
11 5005 125	• 16	25	8	70	✓	
11 5005 130	• 20	25	6	70	✓	
11 5005 135	• 20	25	8	70	✓	

11 5015

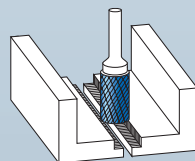


B SHAPE

ZYB



Cylinder with end cut



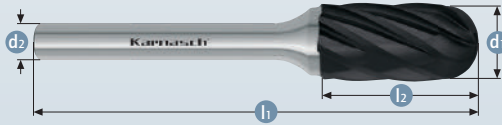
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5015 015	• 3	14	3	38		✓
11 5015 045	• 6	13	3	45	✓	
11 5015 050	• 6	18	6	50		✓
11 5015 075	• 8	20	6	65	✓	
11 5015 085	• 10	20	6	65	✓	
11 5015 100	• 12	25	6	70	✓	
11 5015 110	• 12	25	8	70	✓	
11 5015 115	• 16	25	6	70	✓	
11 5015 120	• 16	25	8	70	✓	
11 5015 125	• 20	25	6	70	✓	
11 5015 130	• 20	25	8	70	✓	
11 5015 135	• 25	25	6	70	✓	

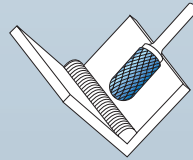
11 5025



C SHAPE

WRC

Ball nosed cylinder



Cutting data

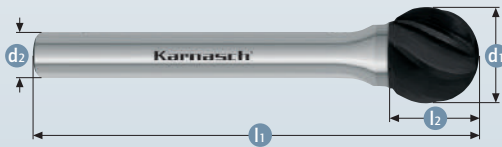


Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5025 020	• 2	11	3	38		✓
11 5025 025	• 3	14	3	38		✓
11 5025 050	• 6	12.7	3	44	✓	
11 5025 055	• 6	18	6	50		✓
11 5025 075	• 8	20	6	65	✓	
11 5025 085	• 10	20	6	65	✓	
11 5025 100	• 12	20	6	65	✓	
11 5025 105	• 12	25	6	70	✓	
11 5025 120	• 16	25	6	70	✓	
11 5025 125	• 16	25	8	70	✓	
11 5025 130	• 20	25	6	70	✓	
11 5025 135	% 20	25	8	70	✓	

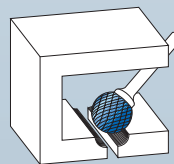
11 5035



D SHAPE

KUD

Ball



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5035 020	• 2	1.8	3	38		✓
11 5035 025	• 3	2.7	3	38		✓
11 5035 045	• 4	3.4	3	38		✓
11 5035 050	• 6	5.0	3	38	✓	
11 5035 055	• 6	4.7	6	50		✓
11 5035 060	• 8	6.0	6	52	✓	
11 5035 070	• 10	8.0	6	54	✓	
11 5035 080	• 12	11.0	6	56	✓	
11 5035 085	• 12	11.0	8	56	✓	
11 5035 095	• 16	11.0	6	60	✓	
11 5035 100	% 16	11.0	8	60	✓	
11 5035 105	• 20	16.5	6	62	✓	
11 5035 110	• 20	16.5	8	62	✓	
11 5035 115	• 25	22.0	6	68	✓	
11 5035 120	• 25	22.0	8	68	✓	

% Sale item. While stocks last.

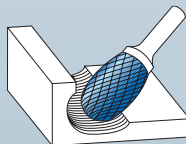
11 5045



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5045 010	• 3	6	3	38		✓
11 5045 015	• 6	10	3	42	✓	
11 5045 020	• 6	10	6	50		✓
11 5045 025	• 8	15	6	60	✓	
11 5045 030	• 10	16	6	60	✓	
11 5045 035	• 12	22	6	67	✓	
11 5045 045	• 16	25	6	70	✓	
11 5045 050	• 16	25	8	70	✓	
11 5045 055	• 20	25	6	70	✓	
11 5045 060	• 20	25	8	70	✓	

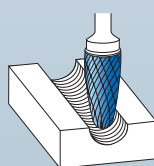
11 5055



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5055 015	• 3	14	3	38		✓
11 5055 025	• 6	12	3	44	✓	
11 5055 030	• 6	18	6	50		✓
11 5055 035	• 8	20	6	65	✓	
11 5055 040	• 10	20	6	65	✓	
11 5055 050	• 12	25	6	70	✓	
11 5055 055	• 12	25	8	70	✓	
11 5055 065	• 16	25	6	70	✓	
11 5055 070	• 16	25	8	70	✓	
11 5055 075	• 20	25	6	70	✓	
11 5055 080	• 20	25	8	70	✓	

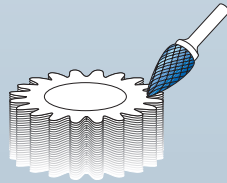
11 5065



G SHAPE

SPG

Tree



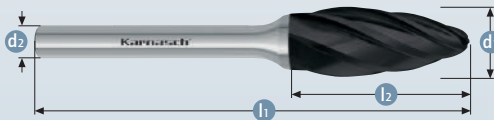
Cutting data

Movie



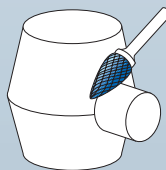
Art.	d1	l2	d2	l1	brazed	solid
11 5065 015	• 3	14	3	38		✓
11 5065 030	• 6	12	3	44	✓	
11 5065 035	• 6	18	6	50		✓
11 5065 040	• 8	20	6	65	✓	
11 5065 045	• 10	20	6	65	✓	
11 5065 060	• 12	25	6	70	✓	
11 5065 085	• 16	25	6	70	✓	

11 5075



H SHAPE

Flame



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5075 015	• 8	20	6	65	✓	
11 5075 020	• 10	20	6	65	✓	
11 5075 025	• 12	32	6	77	✓	
11 5075 035	• 16	36	6	82	✓	

1



2



3



4



5



6



7



8



9



10

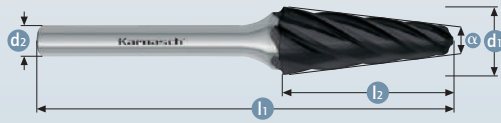


11 5085

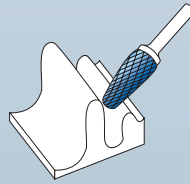


L SHAPE

KEL



Ball nosed cone



Cutting data

Movie



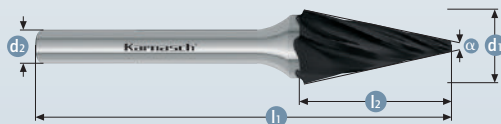
Art.	d1	l2	d2	l1	brazed	solid	α°
11 5085 010	• 3	14	3	38		✓	8°
11 5085 015	• 6	16	3	48	✓		22°
11 5085 020	• 6	18	6	50		✓	14°
11 5085 025	• 8	25	6	70	✓		14°
11 5085 035	• 10	30	6	75	✓		14°
11 5085 045	• 12	32	6	77	✓		14°
11 5085 050	• 12	32	8	77	✓		14°
11 5085 055	• 12	32	6	182	✓		14°
11 5085 060	• 16	33	6	78	✓		14°
11 5085 065	• 16	33	8	78	✓		14°

11 5095

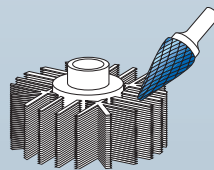


M SHAPE

SKM



Cone



Cutting data

Movie



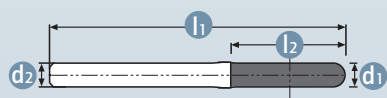
Art.	d1	l2	d2	l1	brazed	solid	α°
11 5095 015	• 3	11	3	38		✓	8°
11 5095 025	• 6	12	3	44	✓		22°
11 5095 030	• 6	20	6	50		✓	14°
11 5095 040	• 10	20	6	65	✓		14°
11 5095 045	• 12	25	6	70	✓		14°

Applications:

For use on:

Recommended operating speed:

Precision engineering, tool manufacture

Aluminum alloys, light metals, copper and copper alloys, plastics
approx. 70,000 RPM

Art.	d1	l2	d2	l1	Shape	DIN 8033	
11 5005 030	• 3	14	3	38	A	ZYA	
11 5015 015	• 3	14	3	38	B	ZYB	
11 5025 020	• 2	11	3	38	C	WRC	
11 5025 025	• 3	14	3	38	C	WRC	
11 5035 020	• 2	1.75	3	38	D	KUD	
11 5035 025	• 3	2.7	3	38	D	KUD	
11 5045 010	• 3	6	3	38	E	TRE	
11 5055 015	• 3	14	3	38	F	RBF	
11 5065 015	• 3	14	3	38	G	SPG	
11 5085 010	• 3	14	3	38	L	KEL	
11 5095 015	• 3	11	3	38	M	SKM	

1



2



3



4



5



6



7



8



9



10



Index

HP-1

For super alloys. Extremely robust cross cutting style

APPLICATION

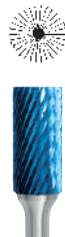
									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓		✓		✓			

✓ OPTIMAL

✓ GOOD

- Impact resistance (tooth breakages, chipping, head breakages are minimised)
 - Excellent control and quiet running
 - Medium to high cutting action
 - Especially for the most difficult super alloys + stainless steel, such as: Titanium, Inconel, Hastelloy, Waspaloy, Duplex, Amanox, etc.
- Application example: Working aeroplane turbine blades, gas turbines

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	Ø 3 mm
A	B	C	D	E	F	G	H	L	M	
Art. 11 5007	Art. 11 5017	Art. 11 5027	Art. 11 5037	Art. 11 5047	Art. 11 5057	Art. 11 5067	Art. 11 5077	Art. 11 5087	Art. 11 5097	
										
780	780	781	781	782	782	783	783	784	784	785
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Ø 3 mm, shank 3 mm, for super alloys!



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
difficult alloys superalloys	Titan, Inconel, Hastelloy, Waspaloy, Duplex, Amanox Udimet, Nicrofer, Conicro, René	Engines, aircraft engine and turbine construction, energy technology, aerospace oil and gas industry, gas turbines	Coarse machining = high to medium stock removal	250-350
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining = high to medium stock removal	250-350
Steel cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (<38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high to medium stock removal	450-600
	Hardened, heat treated steels exceeding 1200 N/mm ² (>38 HRC)	tool steels, tempering steels, alloyed steels, cast steels		250-350
Cast iron	Grey cast iron, white cast iron	Cast-iron with flake graphite EN-GJL (GG), with nodular graphite cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	Coarse machining = high to medium stock removal	450-600



Cutting speed (m/min)							
	250	300	350	400	450	500	600
Ø (mm)	Rotational speed (rpm)						
3	27,000	32,000	37,000	42,000	48,000	53,000	64,000
6	13,000	16,000	19,000	21,000	24,000	27,000	32,000
8	10,000	12,000	14,000	16,000	18,000	20,000	24,000
10	8,000	10,000	11,000	13,000	14,000	16,000	19,000
12	7,000	8,000	9,000	11,000	12,000	13,000	16,000
16	5,000	6,000	7,000	8,000	9,000	10,000	12,000

1



2



3



4



5



6



7



8



9



10

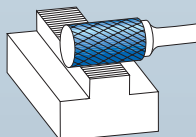
11 5007



A SHAPE

ZYA

Cylinder without end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5007 030	• 3	14	3	38		✓
11 5007 060	• 6	13	3	45	✓	
11 5007 065	• 6	18	6	50		✓
11 5007 080	• 8	20	6	65	✓	
11 5007 090	• 10	20	6	65	✓	
11 5007 100	• 10	25	6	70	✓	
11 5007 107	• 12DIN	25	6	70	✓	
11 5007 120	• 16	25	6	70	✓	

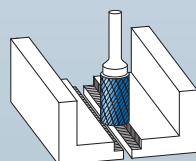
11 5017



B SHAPE

ZYB

Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5017 015	• 3	14	3	38		✓
11 5017 045	• 6	13	3	45	✓	
11 5017 050	• 6	18	6	50		✓
11 5017 075	• 8	20	6	65	✓	
11 5017 085	• 10	20	6	65	✓	
11 5017 103	• 12DIN	25	6	70	✓	
11 5017 115	• 16	25	6	70	✓	

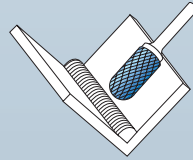
11 5027



C SHAPE

WRC

Ball nosed cylinder



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5027 025	• 3	14	3	38		✓
11 5027 050	• 6	12.7	3	44	✓	
11 5027 055	• 6	18	6	50		✓
11 5027 075	• 8	20	6	65	✓	
11 5027 085	• 10	20	6	65	✓	
11 5027 107	• 12DIN	25	6	70	✓	
11 5027 120	• 16	25	6	70	✓	

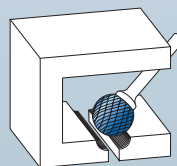
11 5037



D SHAPE

KUD

Ball



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5037 025	• 3	2.5	3	38		✓
11 5037 050	• 6	5.0	3	38	✓	
11 5037 055	• 6	5.4	6	50		✓
11 5037 060	• 8	6.0	6	52	✓	
11 5037 070	• 10	8.0	6	54	✓	
11 5037 083	• 12DIN	11.0	6	56	✓	
11 5037 095	• 16	14.0	6	60	✓	



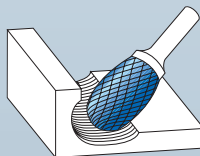
11 5047



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5047 010	• 3	6	3	38		✓
11 5047 015	• 6	10	3	42	✓	
11 5047 020	• 6	10	6	50		✓
11 5047 025	• 8	15	6	60	✓	
11 5047 030	• 10	16	6	60	✓	
11 5047 037	• 12DIN	21	6	66	✓	
11 5047 045	• 16	25	6	70	✓	

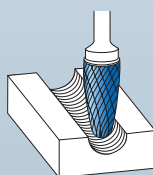
11 5057



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5057 015	• 3	14	3	38		✓
11 5057 025	• 6	12	3	44	✓	
11 5057 030	• 6	18	6	50		✓
11 5057 035	• 8	20	6	65	✓	
11 5057 040	• 10	20	6	65	✓	
11 5057 053	• 12DIN	25	6	70	✓	
11 5057 065	• 16	25	6	70	✓	

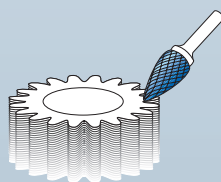
11 5067



G SHAPE

SPG

Tree



Cutting data



Movie



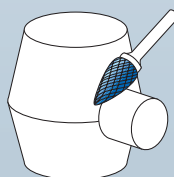
Art.	d1	l2	d2	l1	brazed	solid
11 5067 015	• 3	14	3	38		✓
11 5067 030	• 6	12	3	44	✓	
11 5067 035	• 6	18	6	50		✓
11 5067 040	• 8	20	6	65	✓	
11 5067 045	• 10	20	6	65	✓	
11 5067 063	• 12DIN	25	6	70	✓	
11 5067 085	• 16	25	6	70	✓	

11 5077



H SHAPE

Flame



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5077 005	• 3	6	3	38		✓
11 5077 009	• 6	10	3	43		✓
11 5077 010	• 6	14	6	50		✓
11 5077 015	• 8	20	6	65	✓	
11 5077 020	• 10	20	6	65	✓	
11 5077 027	• 12DIN	30	6	75	✓	
11 5077 035	• 16	36	6	82	✓	

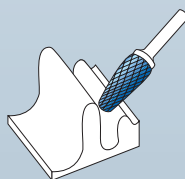
11 5087



L SHAPE

KEL

Ball nosed cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5087 010	• 3	14	3	38		✓	8°
11 5087 015	• 6	16	3	48	✓		22°
11 5087 020	• 6	18	6	50		✓	14°
11 5087 025	• 8	25	6	70	✓		14°
11 5087 030	• 10	20	6	65	✓		14°
11 5087 047	• 12DIN	25	6	70	✓		14°
11 5087 060	% 16	33	6	78	✓		14°

% Sale item. While stocks last.

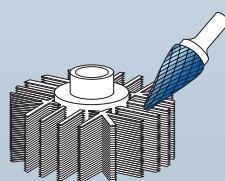
11 5097



M SHAPE

SKM

Cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5097 015	• 3	11	3	38		✓	14°
11 5097 025	• 6	12	3	48	✓		22°
11 5097 030	• 6	20	6	50		✓	14°
11 5097 040	• 10	20	6	65	✓		28°
11 5097 047	• 12DIN	25	6	70	✓		28°
11 5097 055	• 16	26	6	74	✓		33°

% Sale item. While stocks last.

Specially optimized HP-1 cut for burs 3 mm



Art.	d1	l2	d2	l1	Shape	DIN 8033	
11 5007 030	• 3	14	3	38	A	ZYA	
11 5017 015	• 3	14	3	38	B	ZYB	
11 5027 025	• 3	14	3	38	C	WRC	
11 5037 025	• 3	2.7	3	38	D	KUD	
11 5047 010	• 3	6.0	3	38	E	TRE	
11 5057 015	• 3	14	3	38	F	RBF	
11 5067 015	• 3	14	3	38	G	SPG	
11 5077 005	• 3	6	3	38	H	-	
11 5087 010	• 3	14	3	38	L	KEL	
11 5097 015	• 3	15	3	38	M	SKM	

1



2



3



4



5



6



7



8



9



10



HP-8

Especially for steel and cast steel. Extremely high machining output

APPLICATION

 Steel	 Hardened steel	 Stainless	 Cast iron	 Titanium	 Cermet	 Nickel	 Copper, copper alloys	 Alu	 Plastics GRP/CRP
✓	✓		✓						

✓ OPTIMAL

✓ GOOD

- Up to 60% higher machining output as compared to conventional cross cut.
- High aggressiveness produces large chips with outstanding chip removal.
- No annealing colours at the workpiece due to low heat development.

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 6041	Art. 11 6042	Art. 11 6043	Art. 11 6044	Art. 11 6045	Art. 11 6046	Art. 11 6047	Art. 11 6048	Art. 11 6049	Art. 11 6050
									
788	788	789	789	790	790	791	791	792	792
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Coarse machining = high stock removal with impact load	450 - 750
	Hardened, heat treated steels exceeding 1200 N/mm ² (> 38 HRC)	tool steels, tempering steels, alloyed steels, cast steels		



Cutting speed (m/min)		
	450	750
Ø (mm)	Rotational speed (rpm)	
3	48,000	80,000
6	24,000	40,000
8	18,000	30,000
10	14,000	24,000
12	12,000	20,000
16	9,000	17,000

1



2



3



4



5



6



7



8



9



10



11 6041

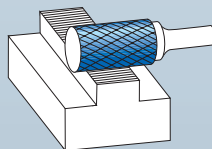


A SHAPE

ZYA



Cylinder without end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6041 010	• 6	18	6	50		✓
11 6041 015	• 8	20	6	65	✓	
11 6041 020	• 10	20	6	65	✓	
11 6041 025	• 12	25	6	70	✓	
11 6041 030	○ 16	25	6	70	✓	

11 6042

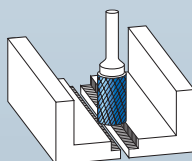


B SHAPE

ZYB



Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6042 010	• 6	18	6	50		✓
11 6042 015	• 8	20	6	65	✓	
11 6042 020	• 10	20	6	65	✓	
11 6042 025	• 12	25	6	70	✓	
11 6042 030	○ 16	25	6	70	✓	

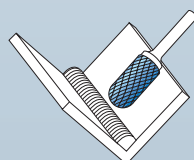
11 6043



C SHAPE

WRC

Ball nosed cylinder



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6043 010	• 6	18	6	50		✓
11 6043 015	• 8	20	6	65	✓	
11 6043 020	• 10	20	6	65	✓	
11 6043 025	• 12	25	6	70	✓	
11 6043 030	○ 16	25	6	70	✓	

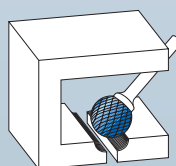
11 6044



D SHAPE

KUD

Ball



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6044 010	• 6	4.7	6	50		✓
11 6044 015	• 8	6.0	6	52	✓	
11 6044 020	• 10	8.0	6	54	✓	
11 6044 025	• 12	11.0	6	56	✓	
11 6044 030	○ 16	11.0	6	60	✓	

1



2



3



4



5



6



7



8



9



10



Index

11 6045

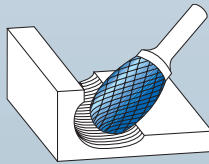


E SHAPE

TRE



Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6045 015	○ 8	15	6	60	✓	
11 6045 020	○ 10	16	6	60	✓	
11 6045 025	● 12	22	6	67	✓	
11 6045 030	○ 16	25	6	70	✓	

11 6046

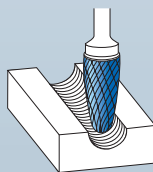


F SHAPE

RBF



Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6046 010	● 6	18	6	50		✓
11 6046 015	● 8	20	6	65	✓	
11 6046 020	● 10	20	6	65	✓	
11 6046 025	● 12	25	6	70	✓	
11 6046 030	○ 16	25	6	70	✓	

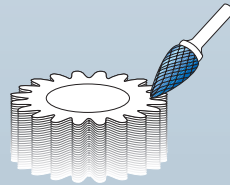
11 6047



G SHAPE

SPG

Tree



Cutting data



Movie



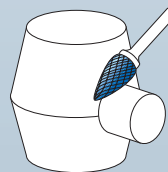
Art.	d1	l2	d2	l1	brazed	solid
11 6047 010	• 6	18	6	50		✓
11 6047 015	• 8	20	6	65	✓	
11 6047 020	• 10	20	6	65	✓	
11 6047 025	• 12	25	6	70	✓	
11 6047 030	○ 16	25	6	70	✓	

11 6048



H SHAPE

Flame



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6048 015	• 8	20	6	65	✓	
11 6048 020	○ 10	20	6	65	✓	
11 6048 025	• 12	32	6	77	✓	
11 6048 030	○ 16	36	6	82	✓	

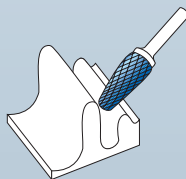
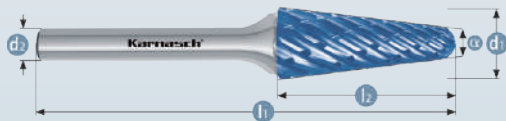
11 6049



L SHAPE

KEL

Ball nosed cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 6049 015	8	25	6	70	✓		14°
11 6049 017	10	20	6	65	✓		14°
11 6049 020	10	30	6	75	✓		14°
11 6049 025	12	32	6	77	✓		14°
11 6049 030	16	33	6	78	✓		14°

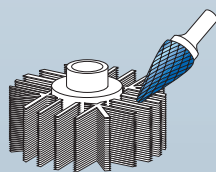
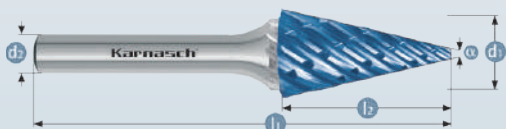
11 6050



M SHAPE

SKM

Cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 6050 020	10	20	6	65	✓		14°
11 6050 025	12	25	6	70	✓		14°

Visit our international exhibitions



YOUR PARTNER FOR: Metal industry | Automotive industry | Aircraft industry | Shipbuilding | Railways | Mold | Research and development

Visit us at our booth and convince yourself on site of our trend-setting products and innovations. Get expert advice from our specialist staff in a pleasant atmosphere. Our international trade fair dates can be found on our website at www.karnasch.co.uk.



CURRENT TRADE FAIR DATES

www.karnasch.co.uk

Karnasch®
PROFESSIONAL TOOLS

1

2

3

4

5

6

7

8

9

10

Index

HP-9

Especially for stainless steel. Extremely high machining output.

APPLICATION

									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP

✓ OPTIMAL
✓ GOOD

- Extremely high machining output and service life for all austenitic, rust- and acid-resilient steels.
- Nickel basis and titanium alloy (reduce speed to avoid sparking)
- High-quality surface.
- No annealing colours at the workpiece due to low heat development.

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 6031	Art. 11 6032	Art. 11 6033	Art. 11 6034	Art. 11 6035	Art. 11 6036	Art. 11 6037	Art. 11 6038	Art. 11 6039	Art. 11 6040
									
796	796	797	797	798	798	799	799	800	800
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Stainless steel INOX	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining = high stock removal	450 - 600
			Fine machining = low stock removal	



Cutting speed (m/min)		
	450	600
Ø (mm)	Rotational speed (rpm)	
3	48,000	64,000
6	24,000	32,000
8	18,000	24,000
10	14,000	19,000
12	12,000	16,000
16	9,000	12,000

1



2



3



4



5



6



7



8



9



10

Index

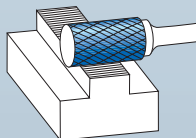
11 6031



A SHAPE

ZYA

Cylinder without end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6031 005	• 3	14	3	38		✓
11 6031 007	• 6.3	12.7	3	45		✓
11 6031 010	• 6	18	6	50		✓
11 6031 015	• 8	20	6	65	✓	
11 6031 020	• 10	20	6	65	✓	
11 6031 025	• 12	25	6	70	✓	
11 6031 030	○ 16	25	6	70	✓	

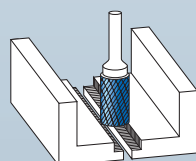
11 6032



B SHAPE

ZYB

Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6032 015	○ 8	20	6	65	✓	
11 6032 020	○ 10	20	6	65	✓	
11 6032 025	○ 12	25	6	70	✓	
11 6032 030	○ 16	25	6	70	✓	

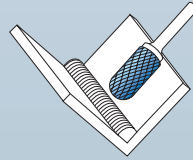
11 6033



C SHAPE

WRC

Ball nosed cylinder



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6033 005	• 3	14	3	38		✓
11 6033 007	• 6.3	12.7	3	45		✓
11 6033 010	• 6	18	6	50		✓
11 6033 015	• 8	20	6	65	✓	
11 6033 020	• 10	20	6	65	✓	
11 6033 025	• 12	25	6	70	✓	
11 6033 030	○ 16	25	6	70	✓	

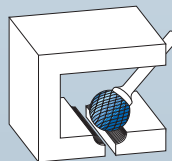
11 6034



D SHAPE

KUD

Ball



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6034 005	• 3	2.5	3	38		✓
11 6034 007	• 6.3	5.0	3	38		✓
11 6034 010	% 6	4.7	6	50		✓
11 6034 015	• 8	6.0	6	52	✓	
11 6034 020	• 10	8.0	6	54	✓	
11 6034 025	• 12	11.0	6	56	✓	
11 6034 030	○ 16	11.0	6	60	✓	

1



2



3



4



5



6



7



8



9



10



11 6035

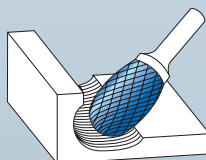


E SHAPE

TRE



Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6035 015	• 8	15	6	60	✓	
11 6035 020	• 10	16	6	60	✓	
11 6035 025	• 12	22	6	67	✓	
11 6035 030	○ 16	25	6	70	✓	

11 6036

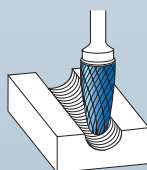


F SHAPE

RBF



Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6036 005	• 3	14	3	38		✓
11 6036 007	• 6.3	12.7	3	45		✓
11 6036 010	• 6	18	6	50		✓
11 6036 015	• 8	20	6	65	✓	
11 6036 020	• 10	20	6	65	✓	
11 6036 025	• 12	25	6	70	✓	
11 6036 030	○ 16	25	6	70	✓	

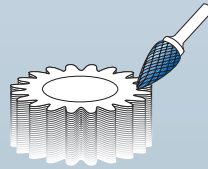
11 6037



G SHAPE

SPG

Tree



Cutting data

795

Movie

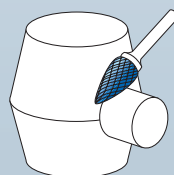
Art.	d1	l2	d2	l1	brazed	solid
11 6037 010	• 6	18	6	50		✓
11 6037 015	• 8	20	6	65	✓	
11 6037 020	• 10	20	6	65	✓	
11 6037 025	• 12	25	6	70	✓	
11 6037 030	○ 16	25	6	70	✓	

11 6038



H SHAPE

Flame



Cutting data

795

Movie

Art.	d1	l2	d2	l1	brazed	solid
11 6038 015	• 8	20	6	65	✓	
11 6038 020	• 10	20	6	65	✓	
11 6038 025	• 12	32	6	77	✓	
11 6038 030	○ 16	36	6	82	✓	

1



2



3



4



5



6



7



8



9



10



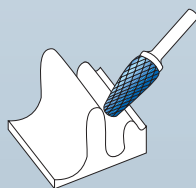
11 6039



L SHAPE

KEL

Ball nosed cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 6039 015	• 8	25	6	70	✓		14°
11 6039 020	• 10	30	6	65	✓		14°
11 6039 025	• 12	32	6	77	✓		14°
11 6039 030	○ 16	33	6	78	✓		14°

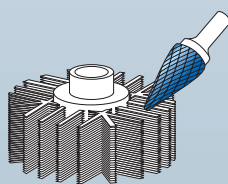
11 6040



M SHAPE

SKM

Cone

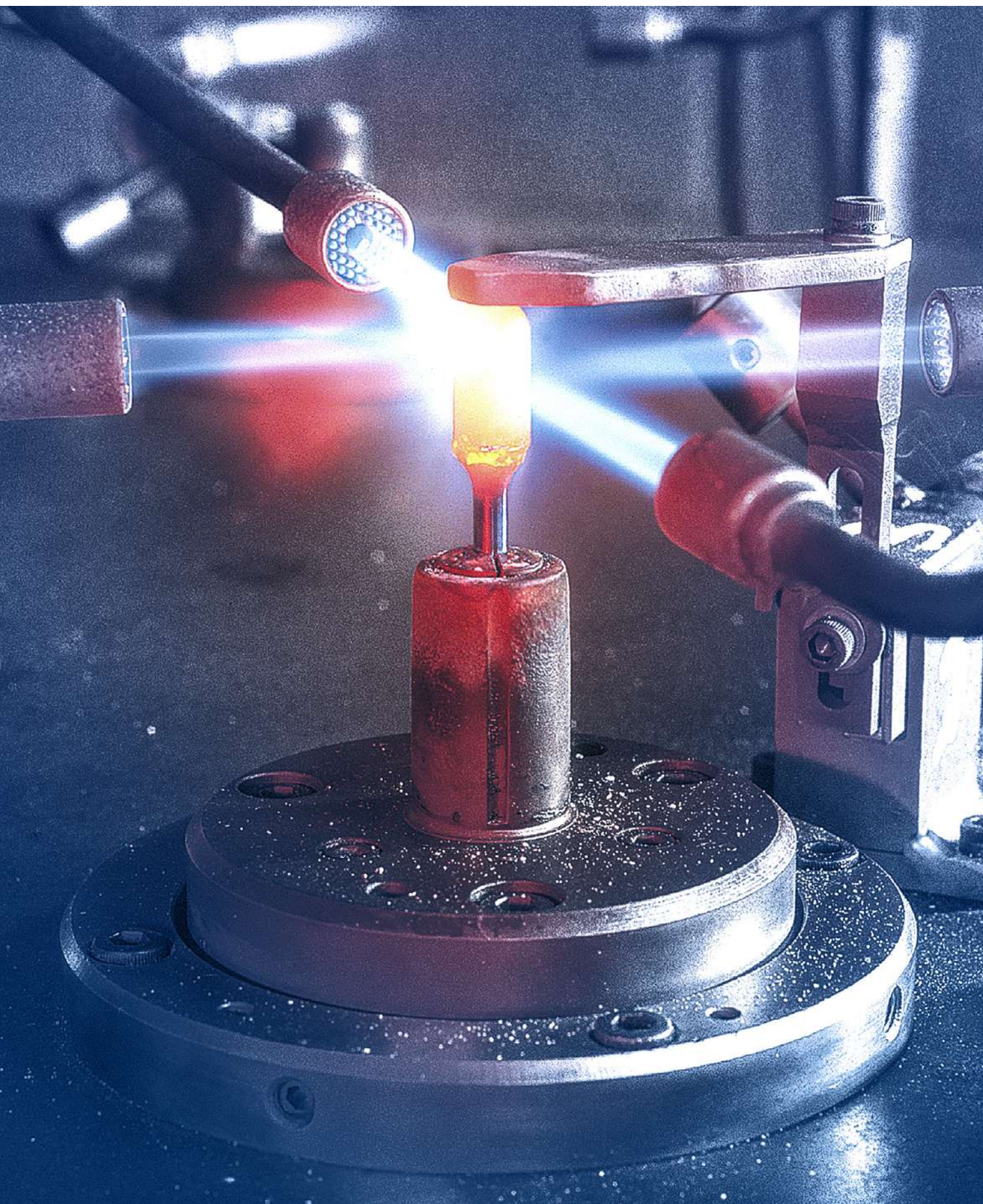


Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 6040 020	○ 10	20	6	65	✓		14°
11 6040 025	○ 12	25	6	70	✓		14°



POWER.
PRECISION.
PERFORMANCE.

Karnasch®
PROFESSIONAL TOOLS

1



2



3



4



5



6



7



8



9



10

Index

HP-4

Fine cross cutting style

APPLICATION

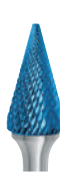
									
Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓	✓	✓	✓		

✓ OPTIMAL

✓ GOOD

- Excellent control (also at difficult to reach positions)
- Smooth operation
- Short chips
- Good surface finish
- Medium cutting action
- For all kinds of steel:
 - Up to extra hard steel approx. 70 HRC
 - Cast iron
 - Stainless steel (INOX)
 - Heat-resistant substances, such as e.g. nickel based + cobalt based alloys

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM	WKN
A	B	C	D	E	F	G	H	L	M	N
Art. 11 5002	Art. 11 5012	Art. 11 5022	Art. 11 5032	Art. 11 5042	Art. 11 5052	Art. 11 5062	Art. 11 5072	Art. 11 5082	Art. 11 5092	Art. 11 5098
										
804	804	805	806	806	807	807	808	808	809	809
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone	Inverted cone



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Fine machining = medium stock removal	650-750
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		450-600
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Fine machining = medium stock removal	450-600
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Fine machining = medium stock removal	450-600
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Fine machining = medium stock removal	650-750



Cutting speed (m/min)				
	450	600	650	750
Ø (mm)	Rotational speed (rpm)			
2	72,000	95,000	104,000	120,000
3	48,000	64,000	68,000	80,000
4	36,000	48,000	52,000	60,000
6	24,000	32,000	34,000	40,000
8	18,000	24,000	26,000	30,000
10	14,000	19,000	21,000	24,000
12	12,000	16,000	18,000	21,000
16	9,000	12,000	14,000	17,000

1



2



3



4



5



6



7



8



9



10



11 5002

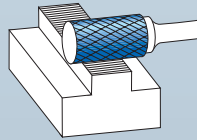


A SHAPE

ZYA



Cylinder without end cut



Cutting data

Movie



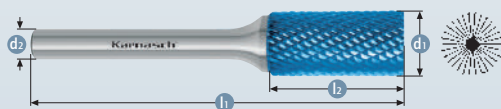
Art.	d1	l2	d2	l1	brazed	solid
11 5002 015	• 1.5	6	3	38		✓
11 5002 025	• 2	11	3	38		✓
11 5002 030	• 3	14	3	38		✓
11 5002 035	• 3	14	3	50		✓
11 5002 040	• 3	14	3	65		✓
11 5002 045	• 3	14	3	75		✓
11 5002 050	• 3	14	3	100		✓
11 5002 055	• 4	14	6	50		✓
11 5002 060	• 6	13	3	45	✓	
11 5002 065	• 6	18	6	50		✓
11 5002 080	• 8	20	6	65	✓	
11 5002 090	• 10	20	6	65	✓	
11 5002 095	• 10	20	6	172	✓	
11 5002 100	• 10	25	6	70	✓	
11 5002 105	• 12	25	6	70	✓	
11 5002 115	• 12	25	8	70	✓	
11 5002 120	• 16	25	6	70	✓	
11 5002 125	• 16	25	8	70	✓	

11 5012

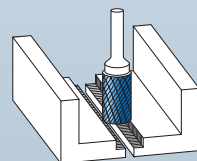


B SHAPE

ZYB



Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5012 005	• 1.5	6	3	38		✓
11 5012 010	• 2	11	3	38		✓
11 5012 015	• 3	14	3	38		✓
11 5012 020	• 3	14	3	50		✓
11 5012 025	• 3	14	3	65		✓
11 5012 030	• 3	14	3	75		✓
11 5012 035	• 3	14	3	100		✓
11 5012 040	• 4	14	6	50		✓
11 5012 045	• 6	13	3	45	✓	
11 5012 050	• 6	18	6	50		✓
11 5012 060	• 6	18	6	100	✓	
11 5012 075	• 8	20	6	65	✓	
11 5012 080	• 8	20	6	170	✓	
11 5012 085	• 10	20	6	65	✓	
11 5012 090	• 10	20	6	172	✓	
11 5012 100	• 12	25	6	70	✓	
11 5012 105	• 12	25	6	175	✓	
11 5012 110	• 12	25	8	70	✓	
11 5012 115	• 16	25	6	70	✓	
11 5012 120	• 16	25	8	70	✓	

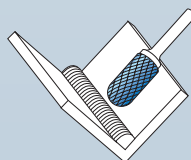
11 5022



C SHAPE

WRC

Ball nosed cylinder



Cutting data

Movie



803

803

Art.	d1	l2	d2	l1	brazed	solid
11 5022 020	• 2	11	3	38		✓
11 5022 025	• 3	14	3	38		✓
11 5022 030	• 3	14	3	50		✓
11 5022 032	• 3	14	3	60		✓
11 5022 035	• 3	14	3	75		✓
11 5022 040	• 3	14	3	100		✓
11 5022 043	• 3	30*(15)	6	60		✓
11 5022 045	• 4	16	6	50		✓
11 5022 046	• 4	30*(15)	6	60		✓
11 5022 050	• 6	12.7	3	44	✓	
11 5022 055	• 6	18	6	50		✓
11 5022 056	• 6	18	6	60		✓
11 5022 058	• 6	18	6	80		✓
11 5022 060	• 6	18	6	100	✓	
11 5022 065	• 6	18	6	150	✓	
11 5022 070	• 6	25	6	50		✓
11 5022 075	• 8	20	6	65	✓	
11 5022 080	• 8	20	6	170	✓	
11 5022 085	• 10	20	6	65	✓	
11 5022 090	• 10	20	6	170	✓	
11 5022 095	• 10	25	6	70	✓	
11 5022 100	• 12	20	6	65	✓	
11 5022 105	• 12	25	6	70	✓	
11 5022 110	• 12	25	6	175	✓	
11 5022 115	• 12	25	8	70	✓	
11 5022 120	• 16	25	6	70	✓	
11 5022 125	• 16	25	8	70	✓	

• Burs specially for locksmiths
see page 824

* 15 mm by 30 mm are not machined

* 11 5022 043



* 11 5022 046



1



2



3



4



5



6



7



8



9



10



Index

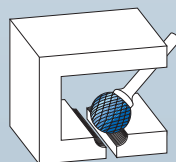
11 5032



D SHAPE

KUD

Ball



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5032 020	• 2	1.8	3	38		✓
11 5032 025	• 3	2.5	3	38		✓
11 5032 030	• 3	2.5	3	50		✓
11 5032 035	• 3	2.5	3	75		✓
11 5032 040	• 3	2.5	6	50		✓
11 5032 045	• 4	3.4	3	38		✓
11 5032 050	• 6	5.0	3	38	✓	
11 5032 055	• 6	4.7	6	50		✓
11 5032 060	• 8	6.0	6	52	✓	
11 5032 065	• 8	6.0	6	180	✓	
11 5032 070	• 10	8.0	6	54	✓	
11 5032 075	• 10	8.0	6	185	✓	
11 5032 080	• 12	11.0	6	56	✓	
11 5032 085	• 12	11.0	8	56	✓	
11 5032 090	• 12	11.0	6	162	✓	
11 5032 095	• 16	14.0	6	60	✓	
11 5032 100	• 16	14.0	8	60	✓	

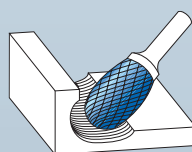
11 5042



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5042 010	• 3	6	3	38		✓
11 5042 015	• 6	10	3	42	✓	
11 5042 020	• 6	10	6	50		✓
11 5042 025	• 8	15	6	60	✓	
11 5042 030	• 10	16	6	60	✓	
11 5042 035	• 12	22	6	67	✓	
11 5042 040	• 12	22	8	67	✓	
11 5042 045	• 16	25	6	70	✓	
11 5042 050	• 16	25	8	70	✓	

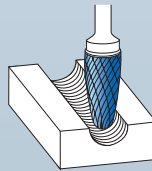
11 5052



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5052 010	• 3	8	3	38		✓
11 5052 015	• 3	14	3	38		✓
11 5052 020	• 3	14	3	50		✓
11 5052 025	• 6	12	3	44	✓	
11 5052 030	• 6	18	6	50		✓
11 5052 035	• 8	20	6	65	✓	
11 5052 040	• 10	20	6	65	✓	
11 5052 045	• 10	20	6	170	✓	
11 5052 050	• 12	25	6	70	✓	
11 5052 055	• 12	25	8	70	✓	
11 5052 060	• 12	25	6	175	✓	
11 5052 065	• 16	25	6	70	✓	
11 5052 070	% 16	25	8	80	✓	

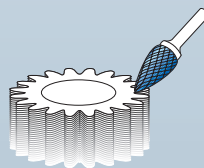
11 5062



G SHAPE

SPG

Tree



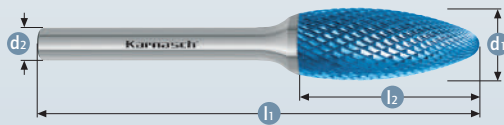
Cutting data

Movie



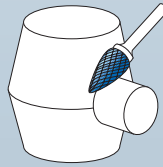
Art.	d1	l2	d2	l1	brazed	solid
11 5062 010	• 3	6	3	38		✓
11 5062 015	• 3	14	3	38		✓
11 5062 020	• 3	14	3	50		✓
11 5062 025	• 3	14	3	75		✓
11 5062 030	• 6	12	3	44	✓	
11 5062 035	• 6	18	6	50		✓
11 5062 040	• 8	20	6	65	✓	
11 5062 045	• 10	20	6	65	✓	
11 5062 050	% 10	20	6	170	✓	
11 5062 055	• 12	20	6	65	✓	
11 5062 060	• 12	25	6	70	✓	
11 5062 065	• 12	25	8	70	✓	
11 5062 070	• 12	25	6	175	✓	
11 5062 075	% 12	30	6	75	✓	
11 5062 080	% 12	30	8	75	✓	
11 5062 085	• 16	25	6	70	✓	
11 5062 090	% 16	25	8	70	✓	

11 5072



H SHAPE

Flame



Cutting data

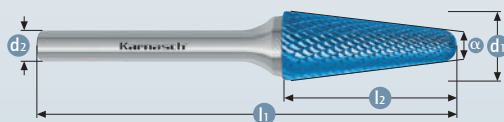


Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5072 005	• 3	6	3	38		✓
11 5072 010	• 6	14	6	60		✓
11 5072 015	• 8	20	6	65	✓	
11 5072 020	• 10	20	6	65	✓	
11 5072 025	• 12	32	6	77	✓	
11 5072 030	• 12	32	8	77	✓	
11 5072 035	• 16	36	6	82	✓	
11 5072 040	• 16	36	8	82	✓	

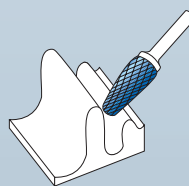
11 5082



L SHAPE

KEL

Ball nosed cone



Cutting data

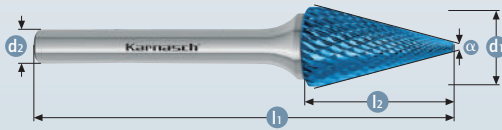


Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5082 005	• 3	10	3	38		✓	10°
11 5082 010	• 3	14	3	38		✓	8°
11 5082 015	• 6	16	3	48	✓		22°
11 5082 020	• 6	18	6	50		✓	14°
11 5082 025	• 8	25	6	70	✓		14°
11 5082 030	• 10	20	6	65	✓		14°
11 5082 035	• 10	30	6	75	✓		14°
11 5082 040	• 10	30	6	176	✓		14°
11 5082 045	• 12	32	6	77	✓		14°
11 5082 050	• 12	32	8	77	✓		14°
11 5082 055	• 12	32	6	182	✓		14°
11 5082 060	• 16	33	6	78	✓		14°
11 5082 065	• 16	33	8	78	✓		14°

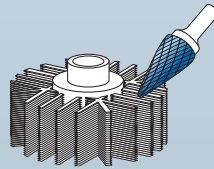
11 5092



M SHAPE

SKM

Cone



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5092 010	• 3	8	3	38		✓	18°
11 5092 015	• 3	11	3	38		✓	14°
11 5092 020	• 3	15	3	38		✓	10°
11 5092 025	• 6	12	3	48	✓		22°
11 5092 030	• 6	20	6	50		✓	14°
11 5092 035	• 8	18	6	63	✓		13°
11 5092 040	• 10	20	6	65	✓		28°
11 5092 045	• 12	25	6	70	✓		28°
11 5092 055	• 16	26	6	74	✓		33°
11 5092 060	• 16	26	8	74	✓		33°

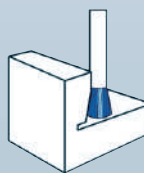
11 5098



N SHAPE

WKN

Inverted cone



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5098 015	• 6	8	6	50		✓	10°
11 5098 020	• 10	10	6	55	✓		13°
11 5098 025	• 12	13	6	58	✓		30°



HP-5

Extremely fine single cutting style



APPLICATION

✓	✓	✓	✓	✓	✓	✓	✓		

✓ OPTIMAL

✓ GOOD

- Excellent surface finish
- Preferred for fine deburring all ferrous metals, such as:
 - Up to extra hard steel approx. 70 HRC
 - Cast iron
 - Stainless steel (INOX)
 - Heat resistant substances, such as, e.g. nickel based + cobalt based alloys

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	TRE	RBF	SPG	-	KEL	SKM
A	B	C	D	E	F	G	H	L	M
Art. 11 5003	Art. 11 5013	Art. 11 5023	Art. 11 5033	Art. 11 5043	Art. 11 5053	Art. 11 5063	Art. 11 5073	Art. 11 5083	Art. 11 5093
812	812	813	813	814	814	815	815	816	816
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Oval	Ball nosed tree	Tree	Flame	Ball nosed cone	Cone



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Fine machining = medium stock removal	650-750
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		450-600
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Fine machining = medium stock removal	450-600
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Fine machining = medium stock removal	450-600
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Fine machining = medium stock removal	650-750



Cutting speed (m/min)				
	450	600	650	750
Ø (mm)	Rotational speed (rpm)			
2	72,000	95,000	104,000	120,000
3	48,000	64,000	68,000	80,000
4	36,000	48,000	52,000	60,000
6	24,000	32,000	34,000	40,000
8	18,000	24,000	26,000	30,000
10	14,000	19,000	21,000	24,000
12	12,000	16,000	18,000	21,000
16	9,000	12,000	14,000	17,000

1



2



3



4



5



6



7



8



9



10



11 5003

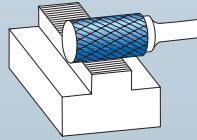


A SHAPE

ZYA



Cylinder without end cut



Cutting data

Movie



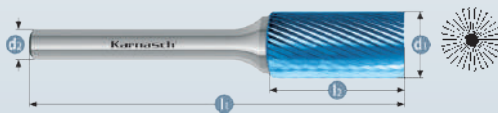
Art.		d1	l2	d2	l1	brazed	solid
11 5003 015	•	1.5	6	3	38		✓
11 5003 025	•	2	11	3	38		✓
11 5003 030	•	3	14	3	38		✓
11 5003 035	•	3	14	3	50		✓
11 5003 040	•	3	14	3	65		✓
11 5003 045	•	3	14	3	75		✓
11 5003 050	•	3	14	3	100		✓
11 5003 055	•	4	14	6	50		✓
11 5003 060	•	6	13	3	45	✓	
11 5003 065	•	6	18	6	50		✓
11 5003 070	•	6	18	6	100	✓	
11 5003 080	•	8	20	6	65	✓	
11 5003 090	•	10	20	6	65	✓	
11 5003 095	•	10	20	6	172	✓	
11 5003 100	•	10	25	6	70	✓	
11 5003 105	•	12	25	6	70	✓	
11 5003 110	•	12	25	6	175	✓	
11 5003 115	•	12	25	8	70	✓	
11 5003 120	•	16	25	6	70	✓	
11 5003 125	•	16	25	8	70	✓	

11 5013

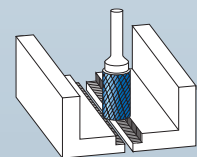


B SHAPE

ZYB



Cylinder with end cut



Cutting data

Movie



Art.		d1	l2	d2	l1	brazed	solid
11 5013 005	•	1.5	6	3	38		✓
11 5013 010	•	2	11	3	38		✓
11 5013 015	•	3	14	3	38		✓
11 5013 020	•	3	14	3	50		✓
11 5013 030	•	3	14	3	75		✓
11 5013 035	•	3	14	3	100		✓
11 5013 040	•	4	12	6	50		✓
11 5013 045	•	6	13	3	45	✓	
11 5013 050	•	6	18	6	50		✓
11 5013 060	•	6	18	6	100	✓	
11 5013 075	•	8	20	6	65	✓	
11 5013 080	•	8	20	6	170	✓	
11 5013 085	•	10	20	6	65	✓	
11 5013 090	•	10	20	6	172	✓	
11 5013 100	•	12	25	6	70	✓	
11 5013 105	•	12	25	6	175	✓	
11 5013 110	•	12	25	8	70	✓	
11 5013 115	•	16	25	6	70	✓	
11 5013 120	•	16	25	8	70	✓	

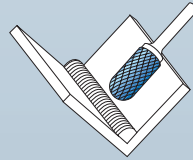
11 5023



C SHAPE

WRC

Ball nosed cylinder



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5023 020	• 2	11	3	38		✓
11 5023 025	• 3	14	3	38		✓
11 5023 030	• 3	14	3	50		✓
11 5023 035	• 3	14	3	75		✓
11 5023 040	• 3	14	3	100		✓
11 5023 045	• 4	16	6	50		✓
11 5023 050	• 6	12.7	3	44	✓	
11 5023 055	• 6	18	6	50		✓
11 5023 060	• 6	18	6	100	✓	
11 5023 065	• 6	18	6	150	✓	
11 5023 070	% 6	25	6	50		✓
11 5023 075	• 8	20	6	65	✓	
11 5023 080	• 8	20	6	170	✓	
11 5023 085	• 10	20	6	65	✓	
11 5023 090	% 10	20	6	170	✓	
11 5023 095	% 10	25	6	70	✓	
11 5023 100	% 12	20	6	65	✓	
11 5023 105	• 12	25	6	70	✓	
11 5023 110	% 12	25	6	175	✓	
11 5023 115	% 12	25	8	70	✓	
11 5023 120	% 16	25	6	70	✓	
11 5023 125	% 16	25	8	70	✓	

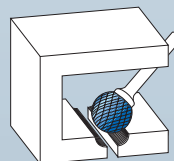
11 5033



D SHAPE

KUD

Ball



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5033 020	• 2	1.8	3	38		✓
11 5033 025	• 3	2.5	3	38		✓
11 5033 030	• 3	2.5	3	50		✓
11 5033 035	• 3	2.5	3	75		✓
11 5033 040	% 3	2.5	6	50		✓
11 5033 045	• 4	3.0	3	38		✓
11 5033 050	• 6	5.0	3	38	✓	
11 5033 055	• 6	4.7	6	50		✓
11 5033 060	• 8	6.0	6	52	✓	
11 5033 065	• 8	6.0	6	180	✓	
11 5033 070	• 10	8.0	6	54	✓	
11 5033 075	• 10	8.0	6	185	✓	
11 5033 080	• 12	11.0	6	56	✓	
11 5033 085	% 12	11.0	8	56	✓	
11 5033 090	• 12	11.0	6	162	✓	
11 5033 095	• 16	14.0	6	60	✓	
11 5033 100	• 16	14.0	8	60	✓	

% Sale item. While stocks last.



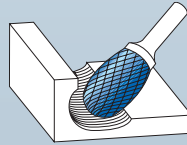
11 5043



E SHAPE

TRE

Oval



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5043 010	• 3	6	3	38		✓
11 5043 015	• 6	10	3	42	✓	
11 5043 020	• 6	10	6	50		✓
11 5043 025	• 8	15	6	60	✓	
11 5043 030	• 10	16	6	60	✓	
11 5043 035	• 12	22	6	67	✓	
11 5043 040	• 12	22	8	67	✓	
11 5043 050	• 16	25	8	70	✓	

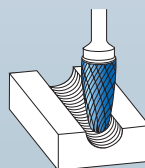
11 5053



F SHAPE

RBF

Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5053 010	• 3	8	3	38		✓
11 5053 015	• 3	14	3	38		✓
11 5053 020	• 3	14	3	50		✓
11 5053 025	• 6	12	3	44	✓	
11 5053 030	• 6	18	6	50		✓
11 5053 035	• 8	20	6	65	✓	
11 5053 040	• 10	20	6	65	✓	
11 5053 045	• 10	20	6	170	✓	
11 5053 050	• 12	25	6	70	✓	
11 5053 055	• 12	25	8	70	✓	
11 5053 060	• 12	25	6	175	✓	
11 5053 070	• 16	25	8	80	✓	

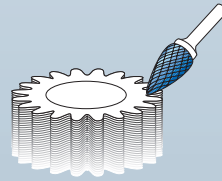
11 5063



G SHAPE

SPG

Tree



Cutting data



Movie



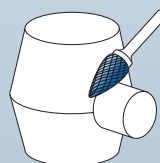
Art.	d1	l2	d2	l1	brazed	solid
11 5063 010	• 3	6	3	38		✓
11 5063 015	• 3	14	3	38		✓
11 5063 020	• 3	14	3	50		✓
11 5063 025	• 3	14	3	75		✓
11 5063 030	• 6	12	3	44	✓	
11 5063 035	• 6	18	6	50		✓
11 5063 040	• 8	20	6	65	✓	
11 5063 045	• 10	20	6	65	✓	
11 5063 050	% 10	20	6	170	✓	
11 5063 055	% 12	20	6	65	✓	
11 5063 060	• 12	25	6	70	✓	
11 5063 065	• 12	25	8	70	✓	
11 5063 070	• 12	25	6	175	✓	
11 5063 075	• 12	30	6	75	✓	
11 5063 080	% 12	30	8	75	✓	
11 5063 085	% 16	25	6	70	✓	
11 5063 090	% 16	25	8	70	✓	

11 5073



H SHAPE

Flame



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 5073 005	• 3	6	3	38		✓
11 5073 010	• 6	14	6	60		✓
11 5073 015	• 8	20	6	65	✓	
11 5073 020	• 10	20	6	65	✓	
11 5073 025	• 12	32	6	77	✓	
11 5073 030	% 12	32	8	77	✓	
11 5073 035	% 16	36	6	82	✓	
11 5073 040	% 16	36	8	82	✓	

1



2



3



4



5



6



7



8



9



10

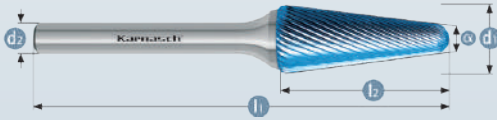


11 5083

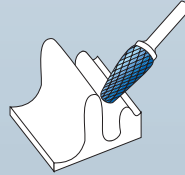


L SHAPE

KEL



Ball nosed cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5083 005	• 3	10	3	38		✓	10°
11 5083 010	• 3	14	3	38		✓	8°
11 5083 015	• 6	16	3	48	✓		22°
11 5083 020	• 6	18	6	50		✓	14°
11 5083 025	• 8	25	6	70	✓		14°
11 5083 030	• 10	20	6	65	✓		14°
11 5083 035	• 10	30	6	75	✓		14°
11 5083 040	% 10	30	6	176	✓		14°
11 5083 045	• 12	32	6	77	✓		14°
11 5083 050	% 12	32	8	77	✓		14°
11 5083 055	% 12	32	6	182	✓		14°
11 5083 060	• 16	33	6	78	✓		14°
11 5083 065	• 16	33	8	78	✓		14°

11 5093

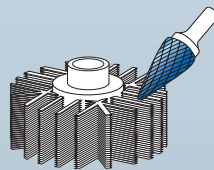


M SHAPE

SKM



Cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid	α°
11 5093 010	• 3	8	3	38		✓	18°
11 5093 015	• 3	11	3	38		✓	14°
11 5093 020	• 3	15	3	38		✓	10°
11 5093 025	• 6	12	3	48	✓		22°
11 5093 030	• 6	20	6	50		✓	14°
11 5093 035	• 8	18	6	63	✓		13°
11 5093 040	• 10	20	6	65	✓		28°
11 5093 045	• 12	25	6	70	✓		28°
11 5093 050	% 12	25	8	70	✓		28°
11 5093 055	• 16	26	6	74	✓		33°

% Sale item. While stocks last.

Quality products for metalworking.



→ AUTOMOTIVE

→ AEROSPACE INDUSTRY

→ OUTER SPACE INDUSTRY



ROTARY BURS SPECIALLY DESIGNED FOR ABRASIVE MATERIALS
SUCH AS GRP AND CRP AND AL > 30% SI/MAGNESIUM SEE HP-7 CUT
ON PAGE 770-777

1



2



3



4



5



6



7



8



9

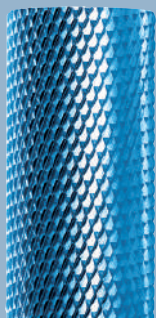


10

Index

HP-11

Extremely fine cross cutting style



APPLICATION

Steel	Hardened steel	Stainless	Cast iron	Titanium	Cermet	Nickel	Copper, copper alloys	Alu	Plastics GRP/CRP
✓	✓	✓	✓	✓	✓	✓	✓		

✓ OPTIMAL

✓ GOOD

- Excellent for: Finishing · Extremely fine cleaning work · Corrections in tool and mould construction · Grinding/sharpening of cutting tools
- Characteristics: Good stock removal · Low vibrations · Excellent control and guidance under handheld conditions. High surface quality
- Advantages: Micro-cut can be used for work on almost all materials up to a hardness of 70 HRC.
In this area usually mounted points are used.
 - Unlike with mounted points, there is no change in geometry due to wear and tear.
 - Unlike with mounted points, there is much higher performance, surface quality and lifetime

Stockrange + catalogue pages

ZYA	ZYB	WRC	KUD	RBF	SPG
A	B	C	D	F	G
Art. 11 6080	Art. 11 6081	Art. 11 6082	Art. 11 6083	Art. 11 6084	Art. 11 6085
820	820	821	821	822	822
Cylinder	Cylinder + end cut	Ball nosed cylinder	Ball	Ball nosed tree	Tree



Patented BLUE-TEC coating, specifically designed for burs, gives outstanding tool life and excellent performance on all metals.

Material groups			Application	Cutting speed m/min
Steel, cast steel	Non-hardened, non-heat treated-steels up to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, non-alloyed steels, case-hardened steels, cast steels	Fine machining = medium stock removal	650-750
	Hardened, heat-treated steels exceeding 1200 N/mm ² (> 38 HRC)	Tool steels, tempering steels, alloyed steel, cast steels		450-600
Stainless steel (INOX)	Rust and acid-resistant steels	Austenitic and ferritic stainless steels	Fine machining = medium stock removal	450-600
Non-ferrous metals	Hard-non-ferrous metals	Bronze, titanium/titanium alloys, hard alu-alloys (high Si content)	Fine machining = medium stock removal	450-600
	High-temperature resistant materials	Nickel based alloys, cobalt based alloys (aircraft engine and turbine construction)		
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL, with nodular graphite cast iron EN-GJS, white annealed cast iron EN-GJMW, black cast iron EN-GJMB	Fine machining = medium stock removal	600-750



Cutting speed (m/min)				
	450	600	650	750
Ø (mm)	Rotational speed (rpm)			
2	72,000	95,000	104,000	120,000
3	48,000	64,000	68,000	80,000
4	36,000	48,000	52,000	60,000
6	24,000	32,000	34,000	40,000
8	18,000	24,000	26,000	30,000
10	14,000	19,000	21,000	24,000
12	12,000	16,000	18,000	21,000

1



2



3



4



5



6



7



8



9



10

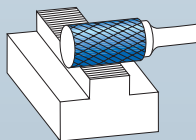
11 6080



A SHAPE

ZYA

Cylinder without end cut



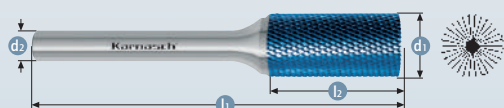
Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6080 010	• 2	11	3	38		✓
11 6080 020	• 3	14	3	38		✓
11 6080 030	• 4	7	3	38		✓
11 6080 040	• 6	5	3	37	✓	
11 6080 050	• 6	18	6	50		✓
11 6080 060	• 8	20	6	65	✓	
11 6080 070	• 10	20	6	65	✓	
11 6080 080	• 12	25	6	70	✓	

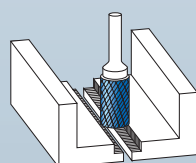
11 6081



B SHAPE

ZYB

Cylinder with end cut



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6081 010	• 6	18	6	50		✓
11 6081 020	• 8	20	6	65	✓	
11 6081 030	• 10	20	6	65	✓	
11 6081 040	• 12	25	6	70	✓	

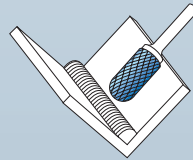
11 6082



C SHAPE

WRC

Ball nosed cylinder



Cutting data



Movie



Art.		d1	l2	d2	l1	brazed	solid
11 6082 010	• 2	11	3	38			✓
11 6082 020	• 3	14	3	38			✓
11 6082 030	• 6	12.7	3	44		✓	
11 6082 040	• 6	18	6	50			✓
11 6082 050	• 8	20	6	65		✓	
11 6082 060	• 10	20	6	65		✓	
11 6082 070	• 12	25	6	70		✓	

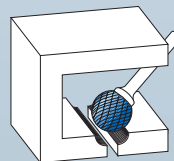
11 6083



D SHAPE

KUD

Ball



Cutting data



Movie



Art.		d1	l2	d2	l1	brazed	solid
11 6083 010	• 2	1.8	3	38			✓
11 6083 020	• 3	2.5	3	38			✓
11 6083 030	• 4	3.4	3	38			✓
11 6083 040	• 6	5	3	38		✓	
11 6083 050	• 6	4.7	6	50			✓
11 6083 060	• 8	6	6	52		✓	
11 6083 070	• 10	8	6	54		✓	
11 6083 080	• 12	11	6	56		✓	

1



2



3



4



5



6



7



8



9



10



Index

11 6084

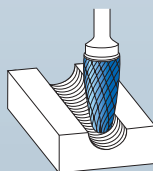


F SHAPE

RBF



Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6084 010	• 3	8	3	38		✓
11 6084 020	• 3	14	3	38		✓
11 6084 030	• 6	12	3	44	✓	
11 6084 040	• 6	18	6	50		✓
11 6084 050	• 8	20	6	65	✓	
11 6084 060	• 10	20	6	65	✓	
11 6084 070	• 12	25	6	70	✓	

11 6085

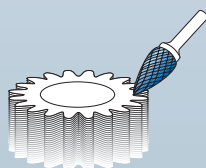


G SHAPE

SPG



Tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6085 010	• 3	6	3	38		✓
11 6085 020	• 3	14	3	38		✓
11 6085 030	• 6	12	3	44	✓	
11 6085 040	• 6	18	6	50		✓
11 6085 050	• 8	20	6	65	✓	
11 6085 060	• 10	20	6	65	✓	
11 6085 070	• 12	25	6	70	✓	

ROTARY BURS / HOLE SAWS FOR LOCKSMITHS



5.2

CONTACT

ATA Garryson Ltd.
Spring Road
Ibstock
LE67 6LR
United Kingdom
sales@atagarryson.com

+44 (0) 1530 261 145

NOW ONLINE FOR YOU!

www.karnasch.co.uk

ONLINE



1



2



3



4



5



6



7



8



9



10

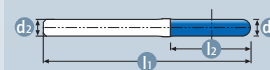
11 5021 11 5022 11 5025



C SHAPE

WRC

Ball nosed cylinder

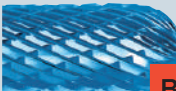
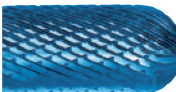


Movie



Movie

Bestseller – price reduced

Art.	d1	l2	d2	l1	Cut
11 5021 030	• 3.0	14	3	50	 BEST SELLER Cutting data i 739
11 5021 032	• 3.0	14	3	60	
11 5021 035	• 3.0	14	3	75	
11 5021 040	• 3.0	14	3	100	
11 5021 043	• 3.0	30*	6	60	
11 5021 046	• 4.0	30*	6	60	
11 5021 055	• 6.0	18	6	50	
11 5021 056	• 6.0	18	6	60	
11 5021 058	• 6.0	18	6	80	
11 5021 060	• 6.0	18	6	100	
11 5021 065	• 6.0	18	6	150	
11 5022 030	• 3.0	14	3	50	 Cutting data i 803
11 5022 032	• 3.0	14	3	60	
11 5022 035	• 3.0	14	3	75	
11 5022 040	• 3.0	14	3	100	
11 5022 043	• 3.0	30*	6	60	
11 5022 046	• 4.0	30*	6	60	
11 5022 055	• 6.0	18	6	50	
11 5022 056	• 6.0	18	6	60	
11 5022 058	• 6.0	18	6	80	
11 5022 060	• 6.0	18	6	100	
11 5022 065	• 6.0	18	6	150	
11 5025 055	• 6.0	18	6	50	 Cutting data i 771

HP-3

The most widely used universal cutting style < 60 HRC

HP-4

Extra fine cross cutting style up to extra hard steel 70 HRC

HP-7

For coarse cutting and highest material removal of aluminum alloys

*11 5021 043 / 11 5022 043



*11 5021 046 / 11 5022 046



* Of which 15 mm teathed

- * By tapering of a 6 mm bur to $\varnothing 3$ mm or $\varnothing 4$ mm working time is reduced by about half, because less material needs to be machined.
- Because of its 6 mm shank, significantly less susceptible to breakage than continuous $\varnothing 3$ mm or $\varnothing 4$ mm shank
- At $\varnothing 3$ mm, $\varnothing 4$ mm the same collet can be used for $\varnothing 6$ mm
- Because of the limited diameter of the bur head, the core drawing tray may not be disturbed

Quality products for metalworking.

UP TO
400% INCREASE
IN TOOL LIFE THROUGH
HIGH-TECH COATINGS

1



2



3



4



5



6



7



8



9



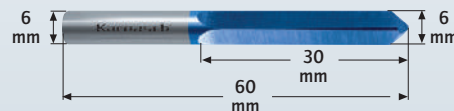
10

Index



www.karnasch.co.uk

11 4701



Cutting data

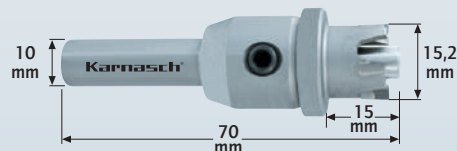
Movie



Solid carbide drill of the newest generation. Opens locking cylinders in record time. Best results are achieved with straight grinders. Also drilling with drilling/battery drills. Together with burs (page 824), the ideal tool combination is achieved. With the drill, the cylinder is drilled in a straight line in the shortest possible time. Usually, the locking cylinder can already be closed now. If not, e.g., in case of special drill prevention, the borehole is sideways expanded with a bur.

11 4702

T.C.T. HOLESAWS FOR ABLOY PROTEC LOCKING CYLINDERS



Cutting data

Movie



To be used with a drilling machine/strong battery drill. With this holesaw it is possible to penetrate the hardened front plate of this special high security locking cylinder that sits in front of the core and then to retrieve the core.

Properties of the tool:

- 4 x T.C.T. teeth $\varnothing 15.2$
- Sprung pin guide (6.8 mm) for centring in the locking channel
- Depth stop

SPECIAL BURS



5.3

CONTACT

ATA Garryson Ltd.
Spring Road
Ibstock
LE67 6LR
United Kingdom
sales@atagarryson.com

+44 (0) 1530 261 145

NOW ONLINE FOR YOU!

www.karnasch.co.uk

ONLINE



1



2



3



4



5



6



7



8



9



10

Index

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10



Mini-burs $\varnothing 1 + 1.5$ mm

830



Burs + drills for locksmiths

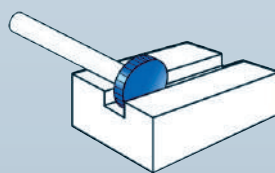
824-826

11 6011



HP-2 CUT

RIM shape



Cutting data

1331

Movie

Art.	d1	l2	d2	l1	brazed	Shape
11 6011 005	• 10	1.6	3	34	✓	
11 6011 010	• 12	2.6	6	48	✓	
11 6011 015	• 25	5.2	8	50	✓	
11 6011 020	• 25	6.3	8	51	✓	

Quality products for metalworking.

OUTSTANDING RANGE

ONE OF THE LARGEST
IN THE WORLD



1



2



3



4



5



6



7



8



9



10

Index

MINI-UNI

Applications:

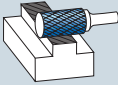
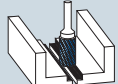
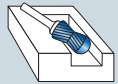
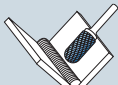
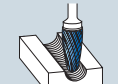
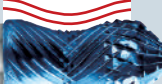
For use on:

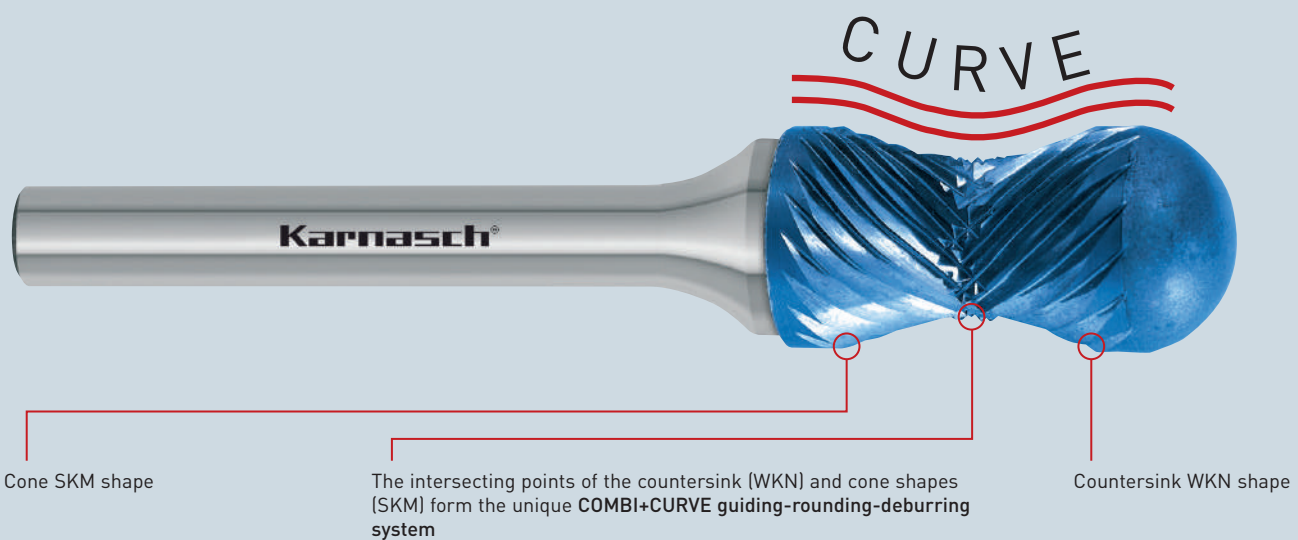
Recommended operating speed:

Precision engineering, jewellery industry, turbine manufacture, tool manufacture
stainless steel, copper and copper alloys, zinc pressure die castings soft ceramics, titanium alloys
+/- 70,000 RPM



Art.	d1	l2	d2	l1	Shape	DIN 8033	
11 5006 005	• 1	4	3	38	A	ZYA	
11 5006 010	• 1.5	4	3	38	A	ZYA	
11 5006 020	• 2	4	3	38	A	ZYA	
11 5026 005	• 1	4	3	38	C	WRC	
11 5026 010	• 1.5	4	3	38	C	WRC	
11 5026 015	• 2	4	3	38	C	WRC	
11 5036 005	• 1	1	3	38	D	KUD	
11 5036 010	• 1.5	1	3	38	D	KUD	
11 5036 015	• 2	2	3	38	D	KUD	
11 5046 005	• 1.5	4	3	38	E	TRE	
11 5056 005	• 1.5	4	3	38	F	RBF	
11 5066 005	• 1.5	4	3	38	G	SPG	
11 5196 005	• 1.5	4	3	38	M	SKM	

	COMBI		CURVE	
ZYA				834
ZYB			 	835
WRC				836
WRC			 	837
RBF				838
SKM				839
KEL				840
KSJ				841
KSK				842



1



2



3



4



5



6



7



8



9



10

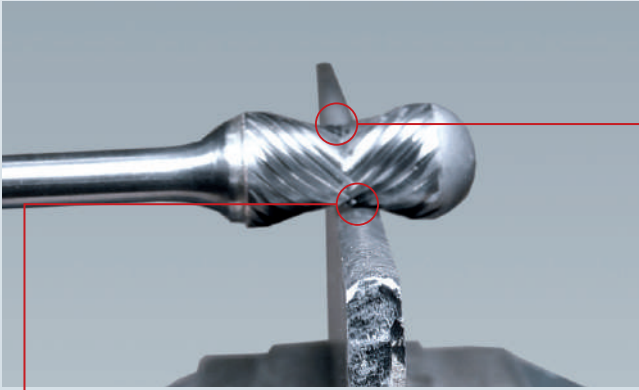


CURVE

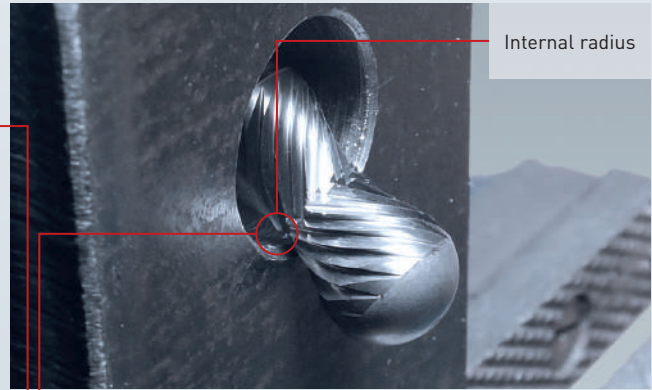
The combination of the most used head shapes as cylinder ZYA + ZYB, ball nosed cylinder WRC, ball nosed tree RBF, tree SPG, ball nosed cone KEL, countersink KSJ + KSK with the unique COMBI+CURVE guiding-rounding-deburring system result in the following advantages:

- The ideal tool for extremely fast chamfering. The edges are not simply bevelled, but by the unique guiding-rounding-deburring system smoothly rounded.
- COMBI+CURVE guiding-rounding-deburring system always centres itself on the centre of the edge.
- Slipping off the edge is almost impossible. This gives best control and guarantees faster and easier removal of material.

Can be used on a wide variety of material e.g. cast iron, steel < 60 HRC, stainless steel (INOX), nickel-based and titanium alloys, copper, brass and bronze.

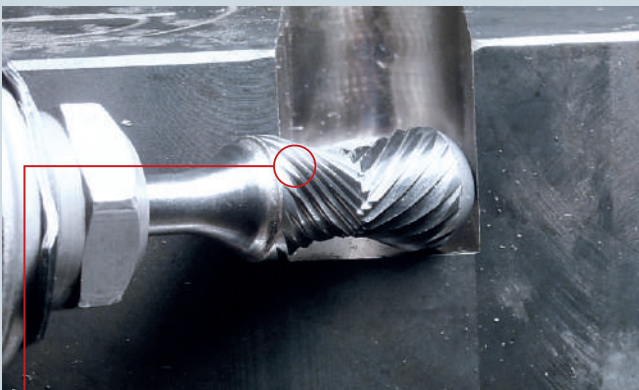


External radius

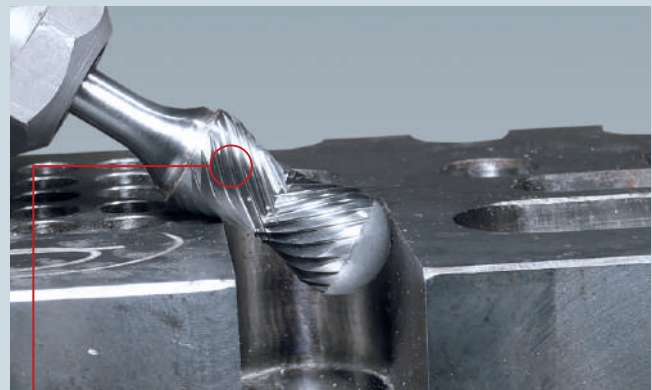


Internal radius

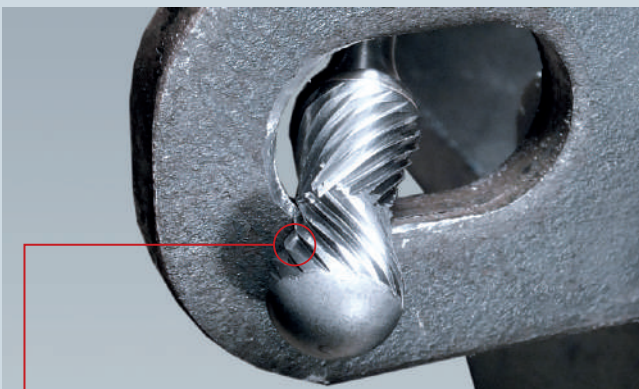
The intersecting points of the countersink (WKN) and cone shapes (SKM) form the unique **COMBI+CURVE** guiding-rounding-deburring system



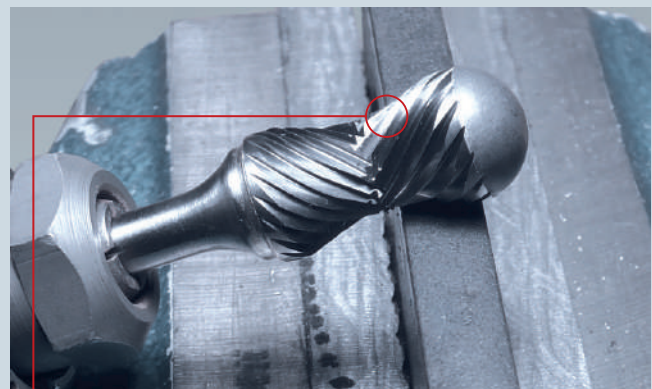
Internal chamfer with SKM shape



External chamfer with SKM shape



Internal chamfer with WKN shape



External chamfer with WKN shape

1



2



3



4



5



6



7



8



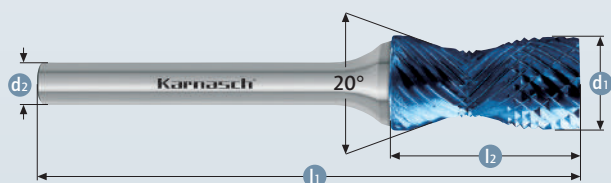
9



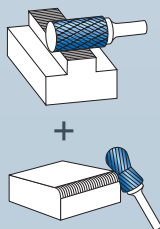
10

Index

11 6019



Curve + Cylinder



Cutting data

Movie

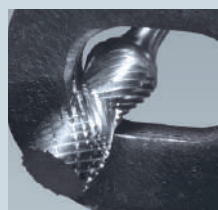
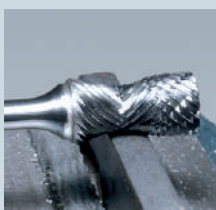
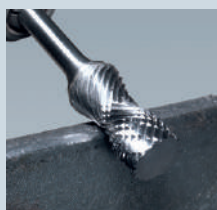
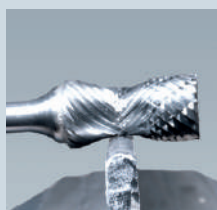


Art.	d1	l2	d2	l1	brazed	solid
11 6019 100	• 12	25	6	70	✓	-

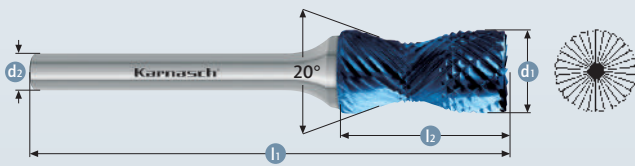
Application examples

COMBI →

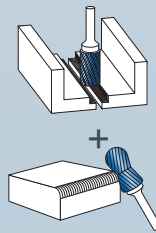
+

CURVE
↓

11 6020



Curve + Cylinder with end cut



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6020 100	• 12	25	6	70	✓	-

Application examples

COMBI →



CURVE



1



2



3



4



5



6



7



8



9

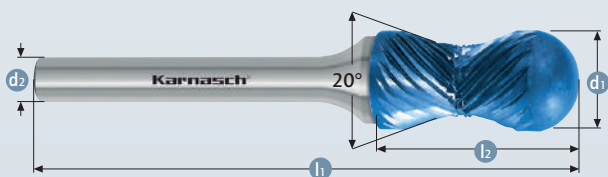


10

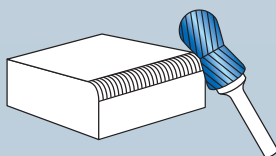


Index

11 6021



Curve + Ball nosed cylinder



Cutting data

Movie



739

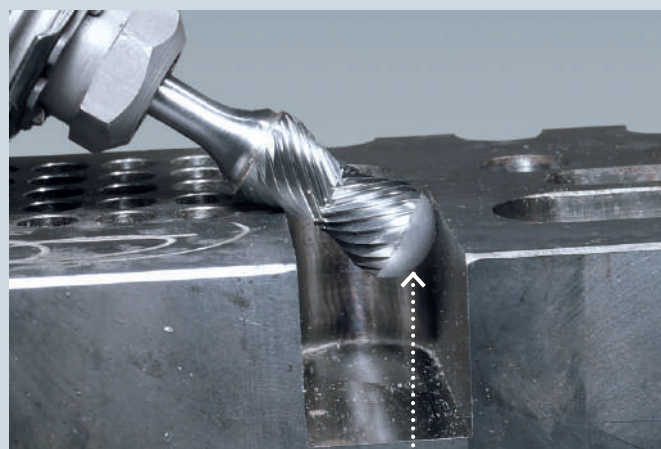
739

Art.	d1	l2	d2	l1	brazed	solid
11 6021 100	• 12	25	6	70	✓	-

Application examples

COMBI →

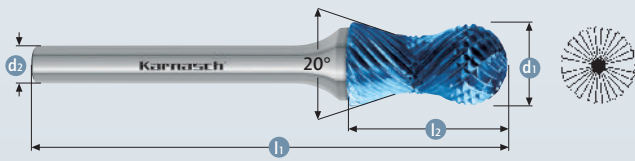
+

CURVE
↓

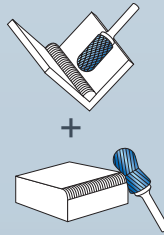
The radius at the front of the bur serves as a guide and a support.
Damage to the workpiece can thus be avoided.



11 6022



Curve + Ball nosed cylinder



Cutting data



739

Movie



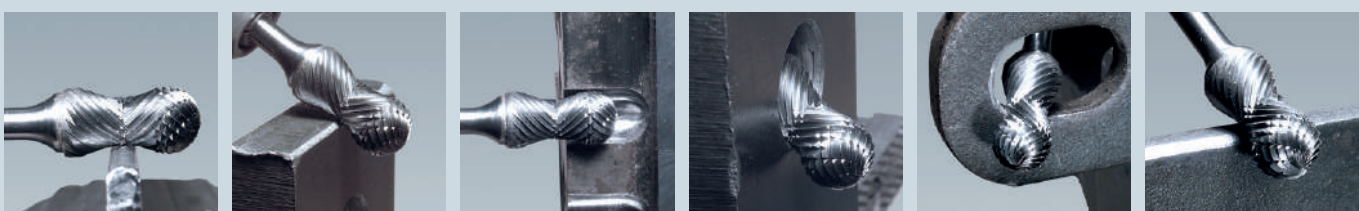
Art.	d1	l2	d2	l1	brazed	solid
11 6022 100	• 12	25	6	70	✓	-

Application examples

COMBI →

+

CURVE



1



2



3



4



5



6



7



8



9

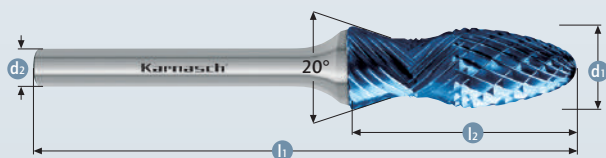


10

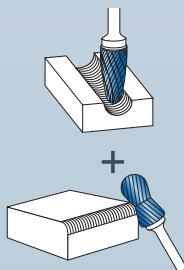


Index

11 6023



Curve + Ball nosed tree



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6023 100	• 12	35	6	80	✓	-

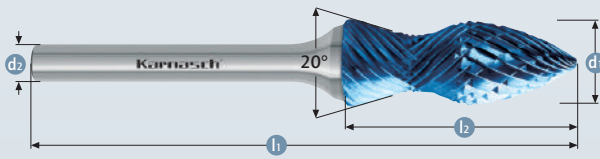
Application examples

COMBI →

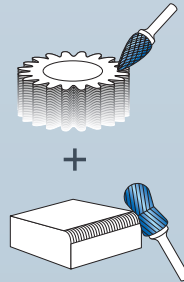
+

CURVE
↓

11 6024



Curve + Tree



Cutting data



Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6024 100	• 12	35	6	80	✓	-

Application examples

COMBI →

+

CURVE



1



2



3



4



5



6



7



8



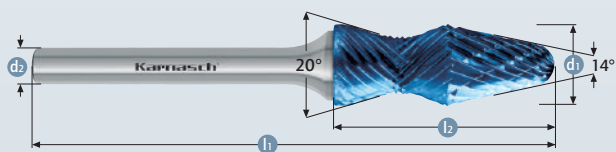
9



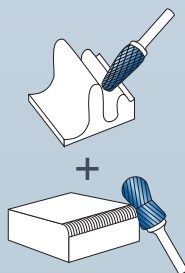
10

Index

11 6025



Curve + Ball nosed cone

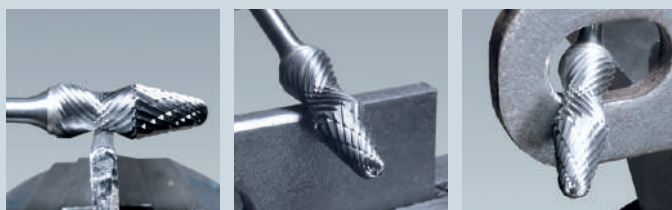


Art.	d1	l2	d2	l1	brazed	solid
11 6025 100	• 12	35	6	80	✓	-

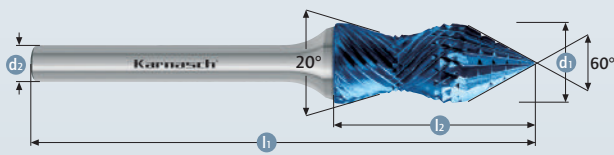
Application examples

COMBI →

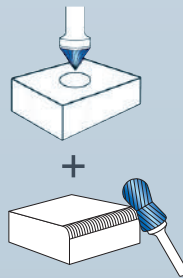
+

CURVE
↓

11 6026



Curve + Countersink 60°



Cutting data



Movie



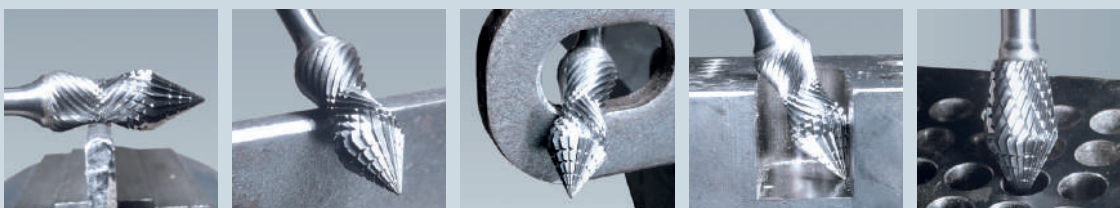
Art.	d1	l2	d2	l1	brazed	solid
11 6026 100	• 12	28	6	73	✓	-

Application examples

COMBI →

+

CURVE



1



2



3



4



5



6



7



8



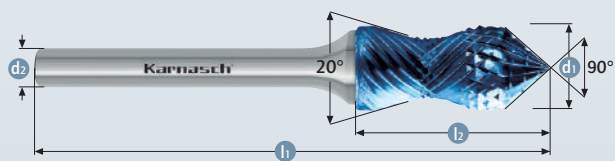
9



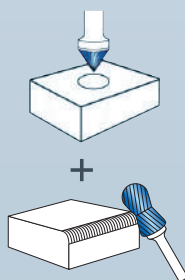
10

Index

11 6027



Curve + Countersink 90°



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6027 100	• 12	31	6	76	✓	-

Application examples

COMBI →

+

CURVE
↓

KARNASCH PROFESSIONAL TOOLS WORLDWIDE

The rapid progress of technology always poses new challenges to companies from the metal-processing industry. It is more important for these companies to have future-orientated and reliable partner by their side who will not settle for targets achieved but provides impulses for new developments.

KARNASCH Professional Tools has offered an innovative and diverse product range and professional service towards its customers for more than 50 countries. The amount of know-how in our products becomes evident in daily use. Equipped with an extraordinary performance capacity, our products convince customers from all industries and around the world. Our past distinction will continue into the future with ever-new product innovations as well. You may continue to count on our excellent service.

KARNASCH – Made for Professionals



EUROPE AUSTRIA · BELGIUM · BOSNIA HERZEGOVINA · BRITISH VIRGIN ISLANDS · BULGARIA · CROATIA · CYPRUS · CZECH REPUBLIC · DENMARK · ESTONIA · FAROE ISLANDS · FINLAND · FRANCE · GEORGIA · GERMANY · GREECE · HUNGARY · ICELAND · IRELAND · ITALY · KOSOVO · LATVIA · LITHUANIA · LUXEMBOURG · MALTA · MOLDOVA · MONACO · MONTENEGRO · NETHERLANDS · NORWAY · POLAND · PORTUGAL · REPUBLIC OF MOLDOVA · REPUBLIC OF MACEDONIA · ROMANIA · RUSSIA · SAN MARINO · SLOVAKIA · SLOVENIA · SPAIN · SWEDEN · SWITZERLAND · TURKEY · UKRAINE · UNITED KINGDOM · WHITE RUSSIA/BELARUS · **AFRICA** ANGOLA · EGYPT · EQUATORIAL GUINEA · LYBIA · MOROCCO · NIGERIA · REPUBLIC OF MAURITIUS · SAUDI ARABIA · SOUTH AFRICA · UAE/UNITED ARAB EMIRATES · **ASIA** ARMENIA · AZERBAIJAN · CHINA · SOUTH KOREA · GEORGIA · HONG KONG · INDIA · INDONESIA · ISRAEL · JAPAN · JORDAN · KAZAKHSTAN · KUWAIT · LEBANON · MALAYSIA · PHILIPPINES · QATAR · SINGAPORE · TAIWAN · THAILAND · TUNESIEN REPUBLIC · VIETNAM · **SOUTH AMERICA** ARGENTINIA · BRAZIL · CHILE · COLOMBIA · EQUADOR · PERU · **AMERICA** AMERICAN SAMOA · CANADA · USA · **MIDDLE AMERICA** COSTA RICA · EL SALVADOR · MEXICO · **AUSTRALIA** · **OCEANIA** CALEDONIA · NEW ZEALAND

1



2



3



4



5



6



7



8

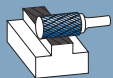
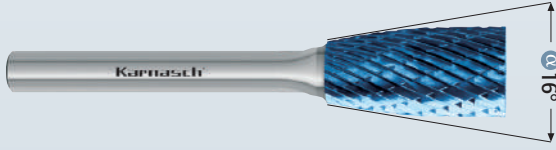
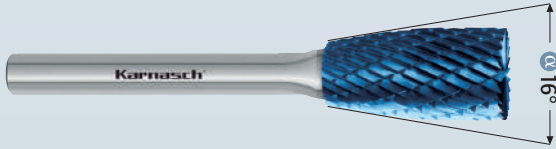
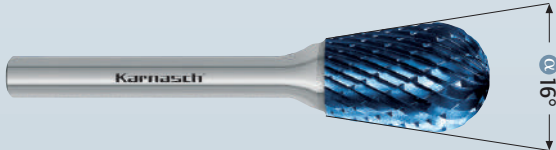
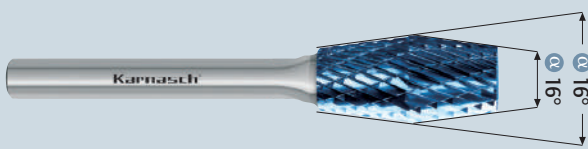
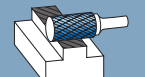


9

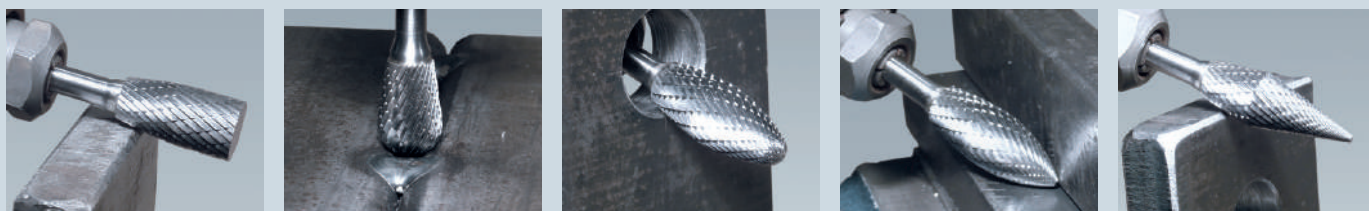


10

Index

COMBI	FORM		
ZYA  + WKN 		Cylinder without end cut + inverted cone	 846
ZYB  + WKN 		Cylinder with end cut + inverted cone	 846
WRC  + WKN 		Ball nosed cylinder + inverted cone	 847
WKN  + WKN 		Inverted cone + inverted cone	 847
KSJ  + ZYA 		Countersink 60° + cylinder	 848

Application examples



PRODUCT DESCRIPTION:

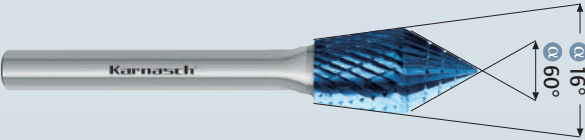
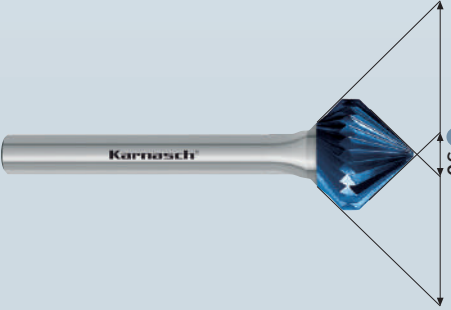
COMBI+FORM versatility to suit almost any application

Just like any multi-tool in the DIY sector, there is now high performance multipurpose burs for the industry. The COMBI+FORM line has been developed to reduce downtime and cover multi-application processes for metal removal. These exclusive new shapes will cover your deburring, edging and blending work in one simple bur solution. This range is ideal for complex parts where different shapes are required. The COMBI+FORM will maximise your productivity.

Features and benefits

- Reduced downtime for end user
- Special tooth geometry manufactured using the latest CNC machines
- The highest quality sintered tungsten carbide is used to ensure consistent performance
- A versatile bur to be used on a wide range of materials and processes

Can be used on a wide variety of material e.g. cast iron, steel <60 HRC, stainless steel (INOX), nickel-based and titanium alloys, copper, brass and bronze

COMBI		FORM		
KSK	ZYA		Countersink 90° + cylinder	848
KSJ	WKN		Countersink 60° + inverted cone	849
-	-		Countersink + Countersink	850

Application examples



PRODUCT DESCRIPTION:

COMBI+FORM versatility to suit almost any application

Just like any multi-tool in the DIY sector, there is now high performance multipurpose burs for the industry. The COMBI+FORM line has been developed to reduce downtime and cover multi-application processes for metal removal. These exclusive new shapes will cover your deburring, edging and blending work in one simple bur solution. This range is ideal for complex parts where different shapes are required. The COMBI+FORM will maximise your productivity.

Features and benefits

- Reduced downtime for end user
- Special tooth geometry manufactured using the latest CNC machines
- The highest quality sintered tungsten carbide is used to ensure consistent performance
- A versatile bur to be used on a wide range of materials and processes

Can be used on a wide variety of material e.g. cast iron, steel <60 HRC, stainless steel (INOX), nickel-based and titanium alloys, copper, brass and bronze

1



2



3



4



5



6



7



8



9



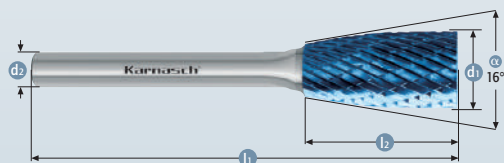
10



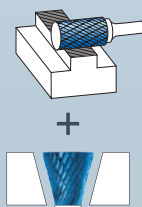
Index

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

11 6051



SHAPE

ZYA /
WKNCylinder without end cut +
inverted cone

Cutting data

Movie

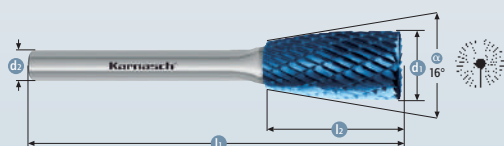


Art.	d1	l2	d2	l1	brazed	solid
11 6051 100	12	25	6	70		

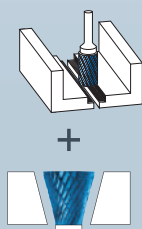
Application examples



11 6052



SHAPE

ZYP /
WKNCylinder with end cut + inverted
cone

Cutting data

Movie

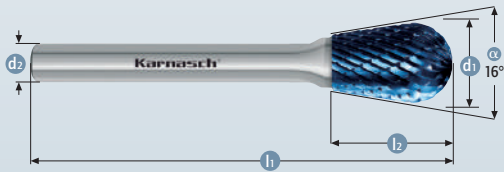


Art.	d1	l2	d2	l1	brazed	solid
11 6052 100	12	25	6	70		

Application examples



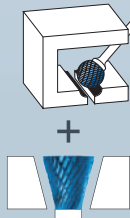
11 6053



SHAPE

WRC/
WKN

Ball nosed cylinder + inverted cone



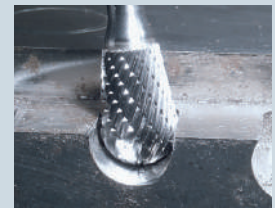
Cutting data

Movie

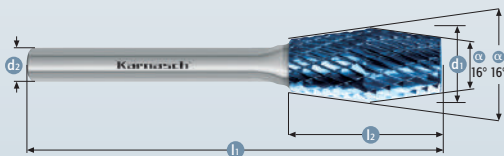


Art.	d1	l2	d2	l1	brazed	solid
11 6053 100	12	20	6	65		

Application examples



11 6058



SHAPE

WKN/
WKN

Inverted cone + inverted cone



Cutting data

Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6058 100	12	25	6	70		

Application examples



1



2



3



4



5



6



7



8



9

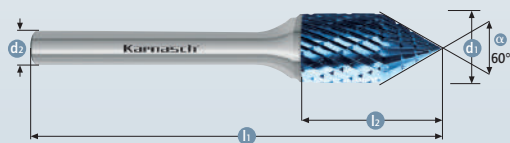


10



- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

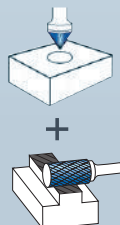
11 6059



SHAPE

KSJ /
ZYA

Countersink 60° + cylinder



Cutting data

Movie



739



739

Art.

d1

l2

d2

l1

brazed

solid

11 6059 100

12

25

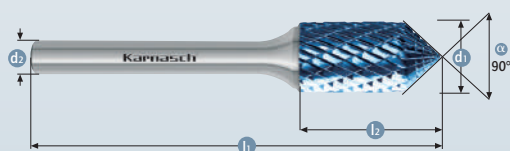
6

70

Application examples



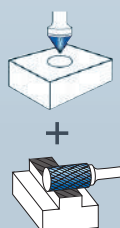
11 6060



SHAPE

KSK /
ZYA

Countersink 90° + cylinder



Cutting data

Movie



739



739

Art.

d1

l2

d2

l1

brazed

solid

11 6060 100

12

25

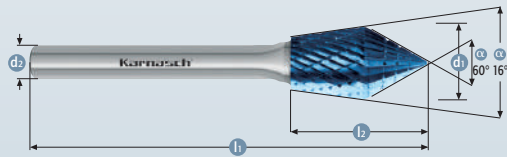
6

70

Application examples



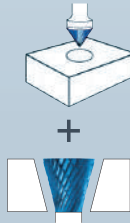
11 6061



SHAPE

KSJ /
WKN

Countersink 60° + inverted cone



Cutting data

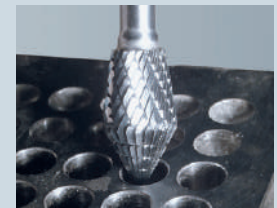


Movie



Art.	d1	l2	d2	l1	brazed	solid
11 6061 100	12	23	6	68		

Application examples



Quality products for metalworking.

Karnasch®
PROFESSIONAL TOOLSHIGH-TECH
FOR MICRO-PRECISION

www.karnasch.co.uk

1



2



3



4



5



6



7



8



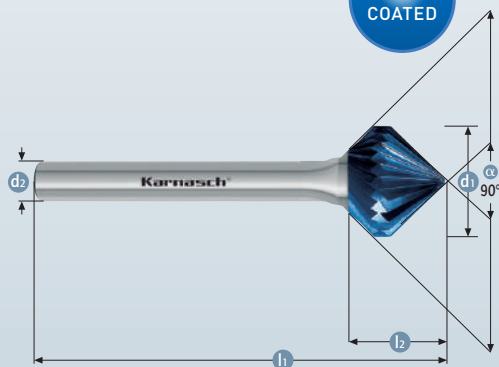
9



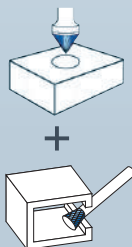
10



11 6063



SHAPE

KSK /
KSKCountersink 90° +
countersink 90°

Cutting data

Movie



739

739

Art.

d1

l2

d2

l1

brazed

solid

11 6063 100

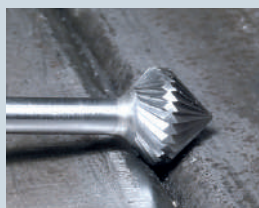
• 16

15

6

60

Application examples


Karnasch®
 PROFESSIONAL TOOLS

Quality products for metalworking.

PRODUCTIVITY
 FOR INDUSTRIAL CLIENTS
 WORLDWIDE

www.karnasch.co.uk

SETS · DISPLAYS



5.4

CONTACT

ATA Garryson Ltd.
Spring Road
Ibstock
LE67 6LR
United Kingdom
sales@atagarryson.com

+44 (0) 1530 261 145

NOW ONLINE FOR YOU!

www.karnasch.co.uk

ONLINE 



1



2



3



4



5



6



7



8



9



10

- 1 
- 2 
- 3 
- 4 
- 5 
- 6 
- 7 
- 8 
- 9 
- 10 

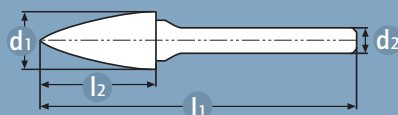
11 4918

BEST
SELLER



5 pieces

Movie



BEST
SELLER

Bestseller – price reduced



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5011 085	• 10	20	6	65
11 5021 085	• 10	20	6	65
11 5051 040	• 10	20	6	65
11 5061 045	• 10	20	6	65
11 5081 035	• 10	30	6	75

Shape	DIN 8033	Contents
	ZYB	1× Cylinder with end cut
	WRC	1× Ball nosed cylinder
	RBF	1× Ball nosed tree
	SPG	1× Tree
	KEL	1× Ball nosed cone

11 4947

Empty set



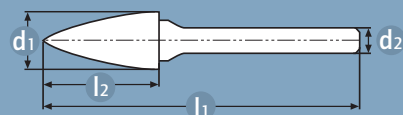
Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.

11 4926

BEST
SELLER

5 pieces

Movie

BEST
SELLER

Bestseller – price reduced



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5011 100	• 12	25	6	70
11 5021 105	• 12	25	6	70
11 5051 050	• 12	25	6	70
11 5061 060	• 12	25	6	70
11 5081 045	• 12	25	6	77

Shape	DIN 8033	Contents
	ZYB	1× Cylinder with end cut
	WRC	1× Ball nosed cylinder
	RBF	1× Ball nosed tree
	SPG	1× Tree
	KEL	1× Ball nosed cone

Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.



11 4947

Empty set

1



2



3



4



5



6



7



8



9



10

Index

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

11 4907

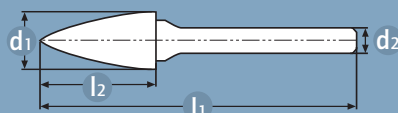
BEST
SELLER

DIN



5 pieces

Movie



BEST
SELLER

Bestseller – price reduced



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5011 103	• 12.0 DIN	25	6	70
11 5021 107	• 12.0 DIN	25	6	70
11 5051 053	• 12.0 DIN	25	6	70
11 5061 063	• 12.0 DIN	25	6	70
11 5081 047	• 12.0 DIN	25	6	70

Shape	DIN 8033	Contents
B	ZYB	1× Cylinder with end cut
C	WRC	1× Ball nosed cylinder
F	RBF	1× Ball nosed tree
G	SPG	1× Tree
L	KEL	1× Ball nosed cone

11 4947

Empty set



Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.

11 4934

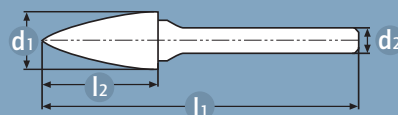
BEST
SELLERBEST
SELLER

Bestseller – price reduced



10 pieces

Movie



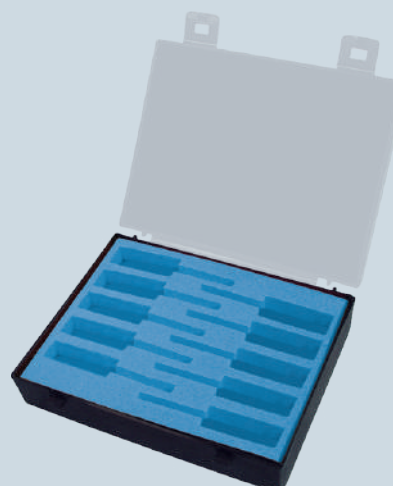
Universal HP-3



Cut

Art.	d1	l2	d2	l1	Shape	DIN 8033	Contents
11 5011 085	• 10	20	6	65	B	ZYB	1× Cylinder with end cut
11 5021 085	• 10	20	6	65	C	WRC	1× Ball nosed cylinder
11 5051 040	• 10	20	6	65	F	RBF	1× Ball nosed tree
11 5061 045	• 10	20	6	65	G	SPG	1× Tree
11 5081 035	• 10	30	6	75	L	KEL	1× Ball nosed cone
11 5011 100	• 12	25	6	70	B	ZYB	1× Cylinder with end cut
11 5021 105	• 12	25	6	70	C	WRC	1× Ball nosed cylinder
11 5051 050	• 12	25	6	70	F	RBF	1× Ball nosed tree
11 5061 060	• 12	25	6	70	G	SPG	1× Tree
11 5081 045	• 12	32	6	77	L	KEL	1× Ball nosed cone

Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.



11 4950

Empty set

1



2



3



4



5



6



7



8



9



10



Index

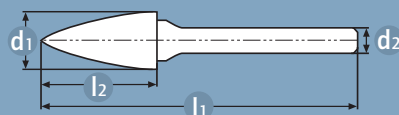
11 4942

BEST
SELLER



10 pieces

Movie



BEST
SELLER

Bestseller – price reduced



Universal HP-3



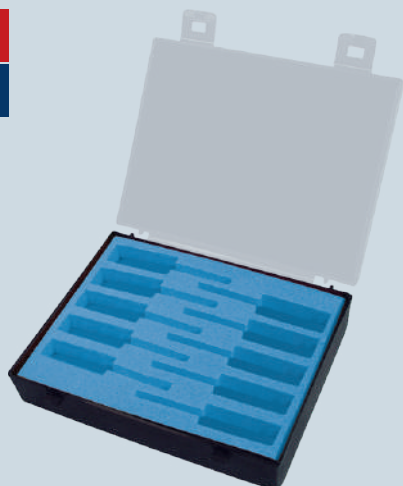
Cut

Art.	d1	l2	d2	l1
11 5001 105	• 12	25	6	70
11 5011 100	• 12	25	6	70
11 5021 105	• 12	25	6	70
11 5031 080	• 12	11.4	6	65
11 5041 035	• 12	22	6	67
11 5051 050	• 12	25	6	70
11 5061 060	• 12	25	6	70
11 5071 025	• 12	32	6	77
11 5081 045	• 12	32	6	77
11 5091 045	• 12	25	6	70

Shape	DIN 8033	Contents
A	ZYA	1× Cylinder without end cut
B	ZYB	1× Cylinder with end cut
C	WRC	1× Ball nosed cylinder
D	KUD	1× Ball
E	TRE	1× Oval
F	RBF	1× Ball nosed tree
G	SPG	1× Tree
H	–	1× Flame
L	KEL	1× Ball nosed cone
M	SKM	1× Cone

11 4950

Empty set



Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.

11 4911

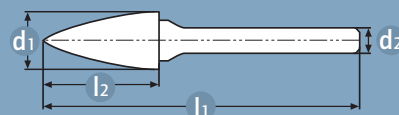
BEST
SELLER

DIN



10 pieces

Movie

BEST
SELLER

Bestseller – price reduced



Universal HP-3



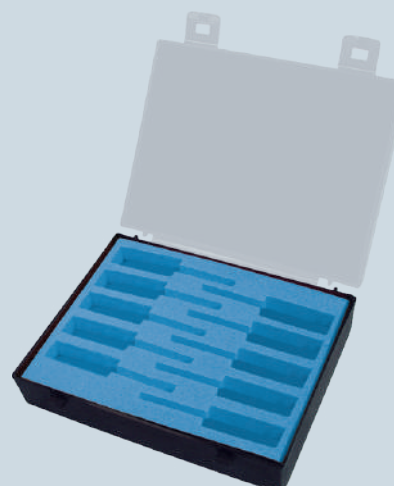
Cut

Art.	d1	l2	d2	l1
11 5001 107	• 12.0 DIN	25	6	70
11 5011 103	• 12.0 DIN	25	6	70
11 5021 107	• 12.0 DIN	25	6	70
11 5031083	• 12.0 DIN	11.4	6	65
11 5041 037	• 12.0 DIN	22	6	66
11 5051 053	• 12.0 DIN	25	6	70
11 5061 063	• 12.0 DIN	25	6	70
11 5071 027	• 12.0 DIN	32	6	70
11 5081 047	• 12.0 DIN	32	6	70
11 5091 047	• 12.0 DIN	25	6	70

Shape	DIN 8033	Contents
A	ZYA	1× Cylinder without end cut
B	ZYB	1× Cylinder with end cut
C	WRC	1× Ball nosed cylinder
D	KUD	1× Ball
E	TRE	1× Oval
F	RBF	1× Ball nosed tree
G	SPG	1× Tree
H	–	1× Flame
L	KEL	1× Ball nosed cone
M	SKM	1× Cone

11 4950

Empty set



Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.

1



2



3



4



5



6



7



8



9



10

Index

11 4853

BEST
SELLER



Lockable display Ø 6, 8, 10, 12 mm,
shank 6 mm (40 pieces)

Movie



BEST
SELLER

Bestseller – price reduced



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5011 050	• 6	18	6	50
11 5011 075	• 8	20	6	65
11 5011 085	• 10	20	6	65
11 5011 100	• 12	25	6	70
11 5021 055	• 6	18	6	50
11 5021 075	• 8	20	6	65
11 5021 085	• 10	20	6	65
11 5021 105	• 12	25	6	70
11 5051 030	• 6	18	6	50
11 5051 035	• 8	20	6	65
11 5051 040	• 10	20	6	65
11 5051 050	• 12	25	6	70
11 5061 035	• 6	18	6	50
11 5061 040	• 8	20	6	65
11 5061 045	• 10	20	6	65
11 5061 060	• 12	25	6	70
11 5081 020	• 6	18	6	50
11 5081 025	• 8	25	6	50
11 5081 035	• 10	30	6	75
11 5081 045	• 12	32	6	77

Shape	DIN 8033	Contents
B	ZYB	2× Cylinder with end cut
C	WRC	2× Ball nosed cylinder
F	RBF	2× Ball nosed tree
G	SPG	2× Tree
L	KEL	2× Ball nosed cone

11 4945

Empty display



Would you like a display of mini-burs?
No problem! Select 6.0 mm shafts from
the complete list of products. Note that the
maximum length is 86 mm.

11 4855

BEST
SELLER



Lockable display Ø 6, 8, 10, 12 mm,
shank 6 mm (64 pieces)

Film
Movie



www

BEST
SELLER

Bestseller – price reduced



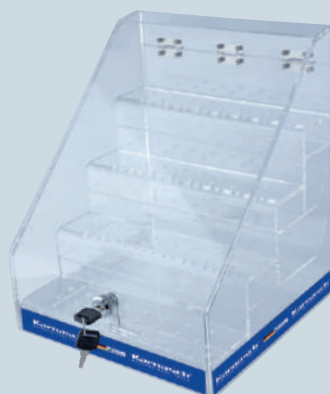
Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5001 065	• 6	18	6	50
11 5001 080	• 8	20	6	65
11 5001 090	• 10	20	6	65
11 5001 105	• 12	25	6	70
11 5011 050	• 6	18	6	50
11 5011 075	• 8	20	6	65
11 5011 085	• 10	20	6	65
11 5011 100	• 12	25	6	70
11 5021 055	• 6	18	6	50
11 5021 075	• 8	20	6	65
11 5021 085	• 10	20	6	65
11 5021 105	• 12	25	6	70
11 5041 020	• 6	10	6	50
11 5041 025	• 8	15	6	60
11 5041 030	• 10	16	6	60
11 5041 035	• 12	22	6	67
11 5051 030	• 6	18	6	50
11 5051 035	• 8	20	6	65
11 5051 040	• 10	20	6	65
11 5051 050	• 12	25	6	70
11 5061 035	• 6	18	6	50
11 5061 040	• 8	20	6	65
11 5061 045	• 10	20	6	65
11 5061 060	• 12	25	6	70
11 5071 010	• 6	14	6	50
11 5071 015	• 8	20	6	65
11 5071 020	• 10	20	6	65
11 5071 025	• 12	32	6	77
11 5081 020	• 6	18	6	50
11 5081 025	• 8	25	6	70
11 5081 035	• 10	30	6	75
11 5081 045	• 12	32	6	77

Shape	DIN 8033	Contents
A	ZYA	2x Cylinder without end cut
B	ZYB	2x Cylinder with end cut
C	WRC	2x Ball nosed cylinder
E	TRE	2x Oval
F	RBF	2x Ball nosed tree
G	SPG	2x Tree
H	–	2x Flame
L	KEL	2x Ball nosed cone



11 4948

Empty display

Would you like a display of
mini-burs? No problem!
Select 6.0 mm shafts from
the complete list of products.
Note that the maximum
length is 86 mm.



11 4955

Empty display

1



2



3



4



5



6



7



8



9



10

Index

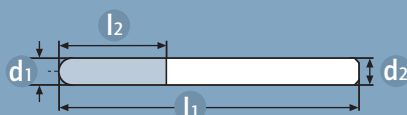
11 4904

BEST
SELLER



10 pieces

Movie



BEST
SELLER

Bestseller – price reduced



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5001 030	• 3	14	3	38
11 5011 015	• 3	14	3	38
11 5021 025	• 3	14	3	38
11 5031 025	• 3	2.7	3	38
11 5041 010	• 3	6	3	38
11 5051 015	• 3	14	3	38
11 5061 015	• 3	14	3	38
11 5071 005	• 3	6	3	38
11 5081 010	• 3	14	3	38
11 5091 015	• 3	11	3	38

Shape	DIN 8033	Contents
A	ZYA	1× Cylinder without end cut
B	ZYB	1× Cylinder with end cut
C	WRC	1× Ball nosed cylinder
D	KUD	1× Ball
E	TRE	1× Oval
F	RBF	1× Ball nosed tree
G	SPG	1× Tree
H	–	1× Flame
L	KEL	1× Ball nosed cone
M	SKM	1× Cone

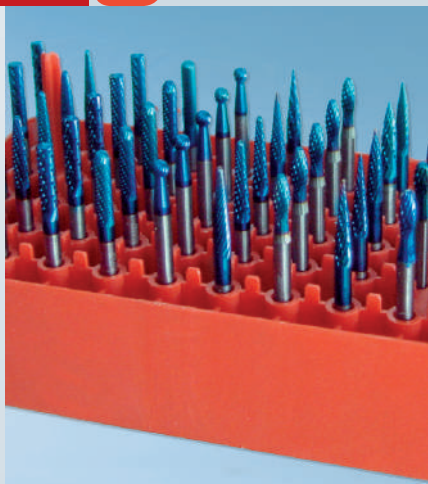
11 4952

Empty set



Would you like a display of mini-burs?
No problem! Select 3.0 mm shafts from
the complete list of products. Note that the
maximum length is 38 mm.

11 4837

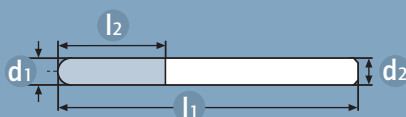
BEST
SELLERBEST
SELLER

Bestseller – price reduced



50 pieces

Movie



Universal HP-3



Cut

Art.	d1	l2	d2	l1
11 5001 030	• 3	14	3	38
11 5011 015	• 3	14	3	38
11 5021 025	• 3	14	3	38
11 5031 025	• 3	2.7	3	38
11 5041 010	• 3	6	3	38
11 5051 015	• 3	14	3	38
11 5061 015	• 3	14	3	38
11 5071 005	• 3	6	3	38
11 5081 010	• 3	14	3	38
11 5091 015	• 3	11	3	38

Shape	DIN 8033	Contents
A	ZYA	5× Cylinder without end cut
B	ZYB	5× Cylinder with end cut
C	WRC	5× Ball nosed cylinder
D	KUD	5× Ball
E	TRE	5× Oval
F	RBF	5× Ball nosed tree
G	SPG	5× Tree
H	–	5× Flame
L	KEL	5× Ball nosed cone
M	SKM	5× Cone

Would you like a display of mini-burs?
No problem! Select 3.0 mm shafts from
the complete list of products. Note that the
maximum length is 38 mm.



11 4953

Empty set

1



2



3



4



5



6



7



8



9



10



Index

11 4805

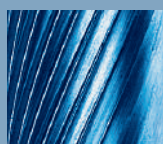
MINI

10 pieces

Movie



Universal Fein



Cut

Art.	d1	l2	d2	l1	Shape	DIN 8033	Contents
11 5006 005	• 1	4	3	38	A	ZYA	1× Cylinder without end cut
11 5006 010	• 1.5	4	3	38	A	ZYA	1× Cylinder without end cut
11 5026 005	• 1	4	3	38	C	WRC	1× Ball nosed cylinder
11 5026 010	• 1.5	4	3	38	C	WRC	1× Ball nosed cylinder
11 5036 005	• 1	1	3	38	D	KUD	1× Ball
11 5036 010	• 1.5	1	3	38	D	KUD	1× Ball
11 5046 005	• 1.5	4	3	38	E	TRE	1× Oval
11 5056 005	• 1.5	4	3	38	F	RBF	1× Ball nosed tree
11 5066 005	• 1.5	4	3	38	G	SPG	1× Tree
11 5196 005	• 1.5	4	3	38	M	SKM	1× Cone

11 4952

Empty set



Would you like a display of mini-burs?
No problem! Select the content you want
from the complete list of mini-bur products
on page 830.

11 4820

MINI

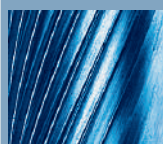


50 pieces

Movie



Universal Fein



Cut

Art.	d1	l2	d2	l1
11 5006 005	• 1	4	3	38
11 5006 010	• 1.5	4	3	38
11 5006 020	• 2	4	3	38
11 5026 005	• 1	4	3	38
11 5026 010	• 1.5	1	3	38
11 5026 015	• 2	1	3	38
11 5036 005	• 1	4	3	38
11 5036 010	• 1.5	4	3	38
11 5036 015	• 2	4	3	38
11 5046 005	• 1.5	4	3	38
11 5056 005	• 1.5	4	3	38
11 5066 005	• 1.5	4	3	38
11 5196 005	• 1.5	4	3	38

Shape	DIN 8033	Contents
	ZYA	5× Cylinder without end cut
	ZYA	5× Cylinder without end cut
	ZYA	3× Cylinder without end cut
	WRC	5× Ball nosed cylinder
	WRC	5× Ball nosed cylinder
	WRC	3× Ball nosed cylinder
	KUD	5× Ball
	KUD	5× Ball
	KUD	2× Ball
	TRE	3× Oval
	RBF	3× Ball nosed tree
	SPG	3× Tree
	SKM	3× Cone

Would you like a display of mini-burs?
No problem! Select the content you want
 from the complete list of mini-bur products
 on page 830.



11 4953

Empty set

1



2



3



4



5



6



7



8

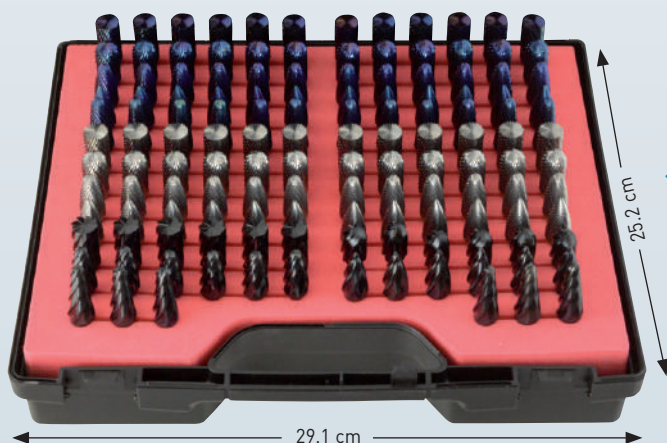


9



10

Index



Removable cover.
Becomes a Display.



Plastic case and display. Can
be equipped with 138 pieces.

Robust plastic case with carry handle and display in one.

Ideal for hard use on the construction site. All rotary burs secured from the outside by impact-resilient plastic. All rotary burs secured from the inside by tight fit in a precisely fitting bore. The heads **cannot** touch.

Can be equipped with 138 rotary mills. It is also suitable as **table display (lid removable)** with our most popular rotary mills.

Choose rotary burs with a 6 or 8 mm shaft from our overall rotary burs range. The overall length (L1) of the rotary bur should not exceed 86 mm. **We will gladly advise you about the most common rotary burs.**

When ordering a fully equipped case (138 pieces), the **case** is enclosed **for free**. You only need to pay for the contents.

1



2



3



4



5



6



7



8



9



10

