

Carbide burrs Shank diameter: 3 mm

Application:

For deburring and finishing work on cast parts, roughly machined workpieces or welding seams - can be used in hand-guided or on stationary machines.



TOOTHING 6 Staggered tooth system, universal

stainless steel, titanium

Material: brass, copper, cast iron, bronze, unhardened and hardened steel,



TOOTHING 2 Standard tooth system, universal application

Cutting speed: 400-800 m/min

Material: brass, copper, cast iron, bronze, unhardened steel, hardened steel, stainless steel, titanium

ATORN[®] Cemented carbide milling bit (DIN Similar to 8033) Shank diameter: 3 mm

			Serration type	6	2
	Form	Cutting edge Ø x cutting edge length	Length (mm)	76003 Ident. No.	76003 Ident. No.
	Cylindrical	3 x 14.0 mm	38	021 •	024 •
and the second sec	Cylindrical	6 x 12.0 mm	45	041 •	044 •
	Cylindrical shape with spur cut	3 x 14.0 mm	38	061 •	064 •
	Cylindrical shape with spur cut	6 x 12.0 mm	45	081	084 •
	Cylindrical shape	2 x 11.0 mm	38	101 •	104 •
	Cylindrical shape	3 x 12.0 mm	38	111 •	114 •
	Cylindrical shape	6 x 12.0 mm	45	121 •	124 •
\$	Ball shape	3 x 2.0 mm	38	141 •	144 •
	Ball shape	6 x 4.0 mm	38	151 •	154 •
	Flame configuration	3 x 6.0 mm	38	201 •	204 •
	Drop shape	3 x 6.0 mm	38	211 •	214 •
	Drop shape	6 x 10.0 mm	42	221 •	224 •
	Semicircular shape	3 x 12.0 mm	38	231 •	234 •
	Semicircular shape	6 x 12.0 mm	45	241 •	244 •
	Ogive shape	3 x 12.0 mm	38	261 •	264 •
-	Ogive shape	6 x 12.0 mm	45	271 •	274 •
	Conical pointed	3 x 11.0 mm	38	281 •	284 •
	Conical pointed	6 x 12.0 mm	48	291 •	294 •
	Angle milling cutter shape	3 x 4.0 mm	38	321 •	324 •
	Cone	3 x 15.0 mm	38	371 •	374 •
	Cone	6 x 16.0 mm	48	381 •	384 •

Prod. Gr. 6CG

ATORN[®] Cemented carbide milling bit set (DIN Similar to 8033) 10-piece, shaft diameter 3 mm, toothing 2

Application:

For deburring and finishing work on cast parts, roughly machined workpieces or welding seams - can be used in hand-guided or on stationary machines.

Execution:

- For use with steel, stainless steel, cast iron
- Cutting speed: 450-900 m/min
- Precise spindle bearing with high concentricity required

76003...

Prod. Gr. 6CG

Delivery:

1x ZYA 0313, ZYAS 0313, SKM 0311, WRC 0313, KEL 0308, SPH 0308, TRE 0306, SPG 0313, KUD 0302, RBF 0313 each, in plastic stand

Technical data:

Number of pieces in assortment/set: 10 PCS

Ident. No. 921







Carbide burrs Shank diameter 6 mm

Application:

For deburring and finishing work on cast parts, roughly machined workpieces or welding seams - can be used in hand-guided or on stationary machines.



TOOTHING 6 Staggered tooth system, universal application

Cutting speed:

steel, titanium

450-900 m/min

ALU TOOTHING

Cutting speed: 600-960 rpm

Material: aluminium, plastics, Material: brass, copper, cast iron, bronze, non-ferrous metals, light metals unhardened and hardened steel, stainless



TOOTHING 2 Standard tooth system, universal application

Cutting speed: 400-800 m/min

Material: brass, copper, cast iron, bronze, unhardened steel, hardened steel, stainless steel, titanium

ATORN[®] Cemented carbide milling bit (DIN Similar to 8033) Shank diameter 6 mm

			Serration ty	/pe	6	Alur	ninium	1	2
	Form	Cutting edge Ø x cutting edge	Length (mm)	76006		76006.		76006	
		length	5 ()	Ident. N	۱o.	Ident. N	lo.	Ident.	No.
	Cylindrical shape with spur cut	6 x 18.0 mm	50	011	•	-	-	-	-
	Cylindrical shape with spur cut	8 x 20.0 mm	64	021	•	-	-	-	-
	Cylindrical shape with spur cut	10 x 20.0 mm	64	061	•	060	•	-	-
	Cylindrical shape with spur cut	12 x 25.0 mm	70	081	•	080	•	-	-
Concession in the local division of the loca	Cylindrical	6 x 18.0 mm	50	101	•	-	-	-	-
	Cylindrical	8 x 20.0 mm	64	111	•	-	-	-	-
	Cylindrical	10 x 20.0 mm	64	121	•	120	•	-	-
	Cylindrical	12 x 25.0 mm	70	131	•	130	•	134	•
	Cylindrical shape	6 x 18.0 mm	50	201	•	-	-	-	-
	Cylindrical shape	8 x 20.0 mm	64	211	•	-	-	214	•
	Cylindrical shape	10 x 20.0 mm	64	221	•	220	•	-	-
	Cylindrical shape	12 x 25.0 mm	70	231	•	230	•	234	•
	Ball shape	6 x 5.0 mm	50	321	•	-	-	-	-
	Ball shape	8 x 7.0 mm	52	331	•	-	-	-	-
62T	Ball shape	10 x 9.0 mm	54	341	•	340	•	-	-
	Ball shape	12 x 10.0 mm	56	351	•	350	•	354	•
	Ball shape	15 x 14.0 mm	59	361	•	-	-	-	-
	Drop shape	6 x 1.0 mm	50	371	•		-	-	-
	Drop shape	10 x 15.0 mm	60	381	•	-	-		-
	Drop shape	12 x 20.0 mm	67	391	•	-	-	-	-
	Semicircular shape	6 x 18.0 mm	50	421	•	-	-	-	-
	Semicircular shape	8 x 20.0 mm	65	431	•	-	-	-	-
	Semicircular shape	10 x 20.0 mm	64	441	•	440	•	-	-
	Semicircular shape	12 x 25.0 mm	70	451	•	450	•	-	-
	Ogive shape	6 x 18.0 mm	50	611	•	-	-		-
	Ogive shape	8 x 20.0 mm	64	621	•	-	-	-	-
-	Ogive shape	10 x 20.0 mm	64	631	•	-	-	-	-
	Ogive shape	12 x 25.0 mm	70	641	•	-	-	644	•
	Flame configuration	8 x 20.0 mm	64	651	•	-	-	-	-
	Flame configuration	12 x 30.0 mm	77	661	•	-	-	-	-
	Conical pointed	6 x 20.0 mm	50	711	•	-	-	-	-
	Conical pointed	10 x 20.0 mm	64	731	•	-	-	-	-
	Conical pointed	12 x 25.0 mm	71	741	•	-	-		-
	Cone	6 x 18.0 mm	50	761	•	-	-	-	-
1	Cone	10 x 26.0 mm	76	771	•	770	•	-	-
	Cone	12 x 28.0 mm	77	781	•	780	•	-	-

Prod. Gr. 6CG

Source: Hahn+Kolb Werkzeuge GmbH 1812 Technical data subject to change. Availability subject to country specific rules and regulations

ATORN[®] Cemented carbide milling bit sets (DIN Similar to 8033) Shaft diameter 6 mm, teeth 6

Application:

For deburring and finishing work on cast parts, roughly machined workpieces or welding seams - can be used in hand-guided or on stationary machines.

- Execution:
- Cutting speed: 450-900 m/min
- Precise spindle bearing with high concentricity
- required Ident. No. 920: For use with cast iron, unhardened
- Ident. No. 920: For use with cast iron, unhardened steel, tool steel and alloyed stainless steel
- Ident. No. 931: Universal application for metals of all kinds (excl. aluminium)

Advantage:

 Ident. No. 920: With TiAIN coating for longer service life, strength and effective manufacture

Delivery:

Ident. No. 920: 1x ZYA-S 1020, WRC 1225, RBF 1225, SPG 1020, KEL 1228 each, in plastic box Ident. No. 931: 1x ZYA 1020, ZYA 1225, WRC 1020, WRC 1225, KEL 1230, TRE 1016, SPG 1020, SPG 1225, KUD 1210, RBF 1225 each, in plastic box



Ident. No. 920



Ident. No. 931



Prod. Gr. 6CG



PFERD cemented carbide milling bits Shaft diameter 3 and 6 mm, toothing 3 Plus

Application:

Deburring, processing contours, chamfering/rounding edges, milling out for preparation of deposit welds, preparation/levelling of welding seams, fettling, altering geometries.



PFERD TOOTHING 3 PLUS: Universal staggered tooth system for roughing;

Cutting speed:

Steels up to 1200 N/mm² (< 38 HRC); cast iron: < 450-600 m/min; Hardened, tempered steels over 1200 N/mm² (> 38 HRC); stainless steel: > 250-350 m/min; Nickel-based and cobalt-based alloys: 250-450 m/min;

Carbide burrs

🅍 Shaft diameter 3 mm, toothing 3 Plus (according to DIN 8033)

			Serration type	3 PLUS
	Form	Head Ø x cutting edge length	Length (mm)	76007 Ident. No.
	Cylindrical shape with spur cut	2 x 10 mm	40	360 •
100	Cylindrical shape with spur cut	3 x 13 mm	43	365 •
	Cylindrical shape with spur cut	6 x 13 mm	43	370 •
	Cylindrical shape	3 x 13 mm	43	460 •
	Cylindrical shape	6 x 13 mm	43	465 •
	Ball shape	3 x 2 mm	33	410 •
	Ball shape	4 x 3 mm	34	415 •
	Ball shape	6 x 5 mm	35	420 •
	Ogive shape	3 x 13 mm	43	530
	Ogive shape	6 x 13 mm	43	535 •
-	Conical pointed	3 x 11 mm	41	610 •
	Conical pointed	6 x 13 mm	43	615 •
_	Semicircular shape	3 x 13 mm	43	650 •
00.0	Semicircular shape	6 x 13 mm	43	655 •
	Drop shape	3 x 7 mm	37	700 •
	Drop shape	6 x 10 mm	40	705 •

Prod. Gr. 6AB

Carbide burrs

Shaft diameter 6 mm, toothing 3 Plus (according to DIN 8033)

			Serration type	3 PLUS
	Form	Head Ø x cutting edge length	Length (mm)	76007
				Ident. No.
	Cylindrical shape with spur cut	6 x 16 mm	55	375 •
	Cylindrical shape with spur cut	8 x 20 mm	60	380
1000	Cylindrical shape with spur cut	10 x 20 mm	60	385 •
	Cylindrical shape with spur cut	12 x 25 mm	65	390 •
	Cylindrical shape with spur cut	16 x 25 mm	65	395 •





Deburring and cleaning \ Milling bits

			Serration type	3 PLU
	Form	Head Ø x cutting edge length	Length (mm)	76007
				Ident. No.
	Ball shape	6 x 5 mm	45	425
	Ball shape	8 x 7 mm	47	430
r	Ball shape	10 x 9 mm	49	435
	Ball shape	12 x 10 mm	51	440
	Ball shape	16 x 14 mm	54	445
	Cylindrical shape	6 x 16 mm	55	470
-	Cylindrical shape	8 x 20 mm	60	475
	Cylindrical shape	10 x 20 mm	60	480
	Cylindrical shape	12 x 25 mm	65	485
	Flame configuration	8 x 20 mm	60	500
25	Flame configuration	12 x 30 mm	70	505
	Flame configuration	16 x 35 mm	75	510
	Ogive shape	6 x 18 mm	55	540
m	Ogive shape	8 x 20 mm	60	545
	Ogive shape	10 x 20 mm	60	550
	Ogive shape	12 x 25 mm	65	555
	Cone with rounded end	8 x 20 mm	60	570
	Cone with rounded end	10 x 20 mm	60	575
-	Cone with rounded end	12 x 25 mm	65	580
	Cone with rounded end	16 x 30 mm	70	590
	Conical pointed	6 x 18 mm	55	620
<u></u>	Conical pointed	10 x 20 mm	60	625
	Conical pointed	12 x 25 mm	65	630
	Semicircular shape	6 x 18 mm	55	660
	Semicircular shape	8 x 20 mm	60	665
-	Semicircular shape	10 x 20 mm	60	670
	Semicircular shape	12 x 25 mm	65	675
	Semicircular shape	16 x 30 mm	70	680
	Drop shape	6 x 10 mm	50	710
	Drop shape	10 x 16 mm	56	715
	Drop shape	2 x 20 mm	60	720

Prod. Gr. 6AB

Cemented carbide milling bit sets

5 cemented carbide milling bits, shaft diameter 6 mm, toothing 3 PLUS

Application:

For deburring, processing contours, fettling, altering geometries.

Execution:

 Five carbide milling bits in a break-resistant plastic box. Five additional spaces are available to be equipped by the user as necessary.

Delivery:

Ident. No. 750: ZYA 0616/6 Z3 PLUS, KUD 0605/6 Z3 PLUS, WRC 0616/6 Z3 PLUS, SPG 0618/6 Z3 PLUS, RBF 0618/6 Z3 PLUS

Ident. No. 760: ZYA 1225/6 Z3 PLUS, KUD 1210/6 Z3 PLUS, WRC 1225/6 Z3 PLUS, SPG 1225/6 Z3 PLUS, RBF 1225/6 Z3 PLUS

Technical data:

• Number of pieces in assortment/set: 5



Ident. No. 760



Ident, No. 750

Head Ø (mm)	76007 Ident.	7 No.
6	750	•
12	760	•

Prod. Gr. 6AB



ATORN HSS milling bits Shank diameter 6 mm

Application:

For deburring, chamfering, milling, contour milling, fettling and for welding seam machining.

nill-



TOOTHING 1: Very rough toothing for soft materials, without chip breaker groove

Cutting speed:

200-300 m/min

Material: Aluminium (long-chipping), light metal alloys, lead, tin, plastic materials (thermoplastics and duroplastics) fibre, rubber, wood



TOOTHING 2: Robust plain toothing, with chip breaker groove

Cutting speed: 150-300 m/min

Material: Light metal (short-chipping), brass, copper, electrolyte, red bronze, bronze, zinc, magnesium alloy



TOOTHING 3: Medium plain toothing, with chip breaker groove

Cutting speed: 60-180 m/min

Material: steel and steel casting, alloyed and unalloyed





			Serration type	2		3			1
	Form	Cutting edge Ø x cutting edge	Length (mm)	7600		7600		7600	
		length		Ident.	NO.	Ident.	NO.	Ident.	INO.
Contraction of the local division of the loc	Conical	12.0 x 30.0 mm	70	292	•	-	-	-	-
	Conical pointed	10.0 x 20.0 mm	60	152	•	153	•	-	-
- Children and Chi	Conical pointed	6.0 x 18.0 mm	58	192	•	193	•	-	-
	Conical pointed	12.0 x 30.0 mm	70	312	•	313	•	311	٠
	Cone with rounded end	16.0 x 30.0 mm	70	362	•	363	•	361	•
	Ogive shape	6.0 x 18.0 mm	58	182	•	183	•	181	•
	Ogive shape	12.0 x 20.0 mm	60	272	•	273	•	-	-
ALC: NOT THE OWNER OF	Ogive shape	12.0 x 30.0 mm	70	302	•	303	•	-	-
	Ogive shape	16.0 x 30.0 mm	70	352	•	353	•	351	•
	Ball shape	4.5 x 4.0 mm	60	222	•	223	•	-	-
	Ball shape	6.0 x 5.0 mm	60	-	-	226	•	-	-
	Ball shape	8.0 x 7.0 mm	60	232	•	233	•	231	•
	Ball shape	12.0 x 10.0 mm	60	242	•	243	•	241	•
	Ball shape	16.0 x 14.0 mm	60	252	•	253	•	251	•
	Drop shape	12.0 x 20.0 mm	60	262	•	263	•	-	-
	Cylindrical	10.0 x 13.0 mm	53	112	•	113	•	-	-
Contraction of	Cylindrical	6.0 x 16.0 mm	56	162	•	163	•	161	•
and the second s	Cylindrical	12.0 x 25.0 mm	65	332	•	333	•	331	•
	Cylindrical	16.0 x 25.0 mm	65	342	•	343	•	341	•
(11000000)	Cylindrical shape	6.0 x 20.0 mm	60	172	•	173	•	171	•
- CONTRACTOR	Cylindrical shape	12.0 x 25.0 mm	65	322	•	323	•	321	•

Prod. Gr. 6CF



ATORN® Cylinder wire brushes with braided wire

for use on all commercially available angle grinders and angle polishers

Application:

For preparatory and finishing work on weld seams, for removing rust, scale, varnish, slag, rubber residues and for deburring. Ideal for use in hard-to-reach

places.

Advantage:

Long life, even with diagonal application



Ident. No. 021-061, 121-161

							Version	B	raided	E	raided
					Edging material		Steel	Stainless stee			
	Material to be processed					Steel Cast steel		rou	Non-fer- s metal ıminium		
Head Ø (mm)	Width of head	Wire Ø (mm)	Number of	Connection	Bore Ø (mm)	Max. rotation	Number of	76089		76089 76089	
	(mm)		braids (PCS)	thread		speed (U/	pieces per	Ident. No.		Ident.	No.
						min(rpm))	packet (PCS)				
115	12	0.5	20	M14	-	12500	1	011	•	111	•
115	12	0.5	20	-	22.2	12500	1	021	•	121	•
125	13	0.5	20	-	22.2	12500	1	031	•	-	-
178	13	0.5	30	-	22.2	12000	1	061	•	161	•

Prod. Gr. 6CM

Narrow cylinder wire brush (pipeline brush) **LESSMANN** for use on all commercially available angle grinders and angle polishers

Application:

Especially for processing of U- and V-welding seams; which are often chosen for pipe connections

- Execution:
- Long service life

smooth running

Advantage:

· Pipeline brush is particularly narrow and is therefore suitable for cleaning all welding seams on pipe connections



Ident. No. 400-410









Ident. No. 430

						Version	Braided Narr	ow Brai	ded Narrow		
									Stainless steel		
Head Ø (mm)	Width of head	Wire Ø (mm)	Number of	Bore Ø (mm)	Max. rotation	Number of	76099 76		99		
	(mm)		braids		speed (U/	pieces per	Ident. No.	Iden	t. No.		
					min(rpm))	packet (PCS)					
115	6	0.5	32	22.2	15000	1	400 •	430			
125	6	0.5	40	22.2	15000	1	405 •	-	-		
178	6	0.5	48	22.2	12500	1	410 •	-	-		

Prod. Gr. 6CL



ATORN® Wire cup brushes with crimped or braided wire

for use on all commercially available angle grinders and angle polishers

Application:

No. 76085: For light to medium cleaning work on large surfaces and welding seams.

No. 76088: For heavy-duty cleaning work on large surfaces and welding seams.



No. 76085 007



No. 76088 066

					Version	Co	rrugated	6	Braided		
					Edging material		Steel		Steel		
	Material to be processed										
					Ha	ardwood	Ha Ha	ardwood			
Head Ø (mm)	Number of braids	Connection thread	Wire Ø (mm)	Max. rotation speed	Number of pieces	7608	76085		8		
	(PCS)			(U/min(rpm))	per packet (PCS)	Ident.	ent. No. Ider		No.		
60	0	M14	0.3	12500	1	007	•	-	-		
100	0	M14	0.3	8500	1	011	•	-	-		
65	18	M14	0.5	12500	1			066	•		
80	22	M14	0.5	8500	1	-	-	111	•		
100	26	M14	0.5	8500	1	-	-	121	•		

Prod. Gr. 6CM



ATORN® Conical brushes with wire braided anti-clockwise

for use on all commercially available angle grinders and angle polishers

Application:

For use in hard-to-reach places. For preparatory and finishing work on weld seams, for removing rust, scale, varnish, slag, rubber residues and for deburring.

Technical data:

- Number of braids: 18 PCS
- Connection thread: M14
 Wire diameter: 0.5 mm
- Max. rotation speed: 12500 U/min(rpm) Number of pieces per packet: 1 PCS

Advantage:

Long life, even with diagonal application

	Version	Braided	Braided
	Edging material	Steel	Stainless steel
	Material to be processed	Steel Cast steel Softwood Hardwood	Stainless steel Non-fer- rous metal Aluminium
Head Ø (mm)	Width of head (mm)	76089	76089
		Ident. No.	Ident. No.
100	13	081	181 •
115	15	091 •	191 •

Prod. Gr. 6CM

1816

Source: Hahn+Kolb Werkzeuge GmbH Technical data subject to change. Availability subject to country specific rules and regulations

www.iconridge.com



Ident. No. 081-091, 191



ATORN[®] Cylinder wire brushes with braided or crimped wire For bench grinder

Application:

ing weld seams and stone.

No. 76092-76093: For removing rust and scale and for grinding. No. 76094: For heavy demands and heavy-duty brush work, for removing rust and scale, for grinding

and roughing, for removing varnish and for machin-

Execution: No. 76092-76093:

- Steel pipe body with pressed ring and outer
- flange With particularly dense material filling

Notes:

No. 76092-76093: Art. 76092 with 32 mm drill hole includes 7-piece adapter set: reduction to drill hole: 13 / 15 / 16 / 19 / 20 mm or 7/8" / 1



No. 76092-76093



No. 76094

					Version	Co	rrugated	Co	rrugated	E	Braided	
					Edging material		Steel	Stair	nless steel		Steel	
				Material to be processed S		Steel Cast steel Softwood Hardwood		Stainless steel Non-fer- rous metal Aluminium		Steel Cast steel Softwood Hardwood		
Head Ø (mm)	Wire Ø (mm)	Number of braids (PCS)	Bore Ø (mm)	Max. rotation speed (U/ min(rpm))	Number of pieces per packet (PCS)	76092 Ident. No.		7609 Ident.		7609 Ident.		
80	0.3	0	10	10000	1	081	•	081	•	-	-	
100	0.3	0	10	8000	1	101	•	101	•	-	-	
150	0.3	0	32	6000	1	151	•	-	-	-	-	
178	0.3	0	32	6000	1	176	•	-	-	-	-	
200	0.3	0	32	4500	1	201	•	-	-	-	-	
150	0.3	0	14	6000	1	-	-	151	•	-	-	
178	0.3	0	14	6000	1	-	-	176	•	-	-	
200	0.3	0	20	4500	1	-	-	201	•	-	-	
100	0.5	40	20	11000	1	-	-	-	-	101	•	
200	0.5	102	25.4	8500	1	-	-	-	-	201	•	

Prod. Gr. 6CM



ATORN® Shaft-mounted cylinder wire brushes with crimped wire Shaft diameter 6 mm, for use on fast-running machines

Application:

For roughing, deburring, paint stripping, de-scaling, matting and cleaning.

- Technical data:
- Number of braids: 0 PCS





Ident. No. 011-041, 061-171



Ident. No. 051

			Version	Corrugated	Corrugated	Corrugated
			Edging material	Steel	Brass	Stainless steel
			Material to be processed	Steel Cast steel Softwood Hardwood	Brass Softwood	Stainless steel Non-fer- rous metal Aluminium
Head Ø (mm)	Width of head (mm)	Wire Ø (mm)	Max. rotation speed (U/	76090	76090	76090
			min(rpm))	Ident. No.	Ident. No.	Ident. No.
20	4	0.15	20000	011 •	021 •	
30	6	0.15	20000	031		
40	11	0.20	18000	041 •	051 •	141 •
50	17	0.20	15000	061 •		
70	18	0.30	15000	071 •	081 •	171 •
20	4	0.20	20000			111 •
30	9	0.20	20000			131 •
50	10	0.30	15000			161 •

Source: Hahn+Kolb Werkzeuge GmbH Technical data subject to change. Availability subject to country specific rules and regulations



ATORN[®] Shaft-mounted cylinder wire brushes with braided wire Shaft diameter 6 mm, for use on fast-running machines

Application:

For machining weld seams, removing hard scale, slag, underbody sealing, sand residues and for deburring.

Execution:

- With plaited wire (number of plaits: 15)
- Technical data:
- Head diameter: 75 mm
- Wire diameter: 0.50 mm Number of braids: 15
- Max. rotation speed: 20000 U/min(rpm)
- Number of pieces per packet: 5 PCS









Ident, No. 181

Version	E	Braided	E	Braided		
Edging material		Steel	Stair	nless steel		
Material to be processed	So	Cast steel oftwood ardwood	Stainless ste Stainless ste Non-fer- rous metal Aluminium 76090 Ident. No.			
Width of head (mm)	7609					
	Ident. No.		Ident. No.			
13	091	•	-	-		
12	-	-	181	•		

Prod. Gr. 6CM

ATORN[®] Shaft-mounted cylinder wire brushes with silicon carbide sanding bristles Shaft diameter 6 mm, for use on fast-running machines

Application:

For deburring, rounding edges and surface finishing, and for processing stamped, turned, milled and drilled tool parts.

Advantage:

- Optimal adaptation to irregular surfaces due to nylon fibres
- High elasticity without risk of breakage paired with a long service life

Notes:

Due to the effect of heat on the plastic brushes, the speed is limited to a cutting speed of 18 m/sec.

Technical data:

- Number of braids: 0 PCS
- Max. rotation speed: 15000 U/min(rpm)
- Number of pieces per packet: 5 PCS



		Version	Co	rrugated	Co	rrugated	
		Edging material		n with SiC ain 180	Nylon with SiC grain 320		
	r	Naterial to be processed	stee rou Alu	Stainless Non-fer- s metal minium Wood	Stainless stee Non-ferrous metal Steel Wood		
Head Ø (mm)	Width of head (mm)	Wire Ø (mm)	7609	1	76091		
			Ident.	No.	Ident. No.		
50	15	0.90	011	•	-	-	
70	18	0.90	021	•	-	-	
50	15	0.55	-	-	031	•	
70	18	0.55	-	-	041	•	

Prod. Gr. 6CM



Wire end brushes with crimped wire Shaft diameter 6 mm, for use on fast-running machines

Application:

1818

For removing burrs, rust, slag, scale, rubber residues, incineration residues and other impurities from

places that are difficult to access and from inner surfaces.







Ident. No. 111



					Edging material	Ste	eel	Stair	nless steel
	Material to be processed Head Ø (mm) Length of bristles Length (mm) Wire Ø (mm) Max. rotation speed Number of pieces								
Head Ø (mm)	Length of bristles	Length (mm)	Wire Ø (mm)	Max. rotation speed	76095	76095		76095	
	(mm)			(U/min(rpm))	Ident. No	Ident. No.		Ident. No.	
10	20	40	0.50	20000	5	201	•	-	-
10	20	100	0.30	20000	5	211	•	-	-
17	25	45	0.50	18000	5	221	•	-	-
25	25	50	0.50	18000	5	231	•	-	-
30	25	45	0.50	15000	5	241	•	-	-
10	20	40	0.30	20000	5	-	-	101	•
11	20	100	0.30	9000	5	-	-	111	•

Prod. Gr. 6CM



ATORN[®] Wire end brushes with braided wire

Shaft diameter 6 mm, for use on fast-running machines

Application:

Advantage:

For precise machining in hard-to-reach places and on inner surfaces, also particularly suitable for cleaning the inside of cylindrical bores.

- Variable outer diameter: due to the centrifugal force produced, the brush opens or closes as the working speed changes
- High flexibility and high cleaning efficiency





						Edging material	Steel	Stainless steel
					Materia	Steel Cast stee	el Stainless steel Non-fer- rous metal Aluminium	
Head Ø (mm)	Length of bris- tles (mm)	Length (mm)	Wire Ø (mm)	Number of braids (PCS)	Max. rotation speed (U/ min(rpm))	Number of pieces per packet (PCS)	76096 Ident. No.	76096 Ident. No.
20	29	44	0.25	6	20000	5	111 •	011 •
23	29	44	0.35	8	20000	5	121 •	021
30	29	44	0.35	12	20000	5	131 •	031 •

Prod. Gr. 6CM

ATORN® Wire end brushes with crimped stranded wire Shaft diameter 6 mm, for use on fast-running machines

Application:

For roughening, deburring, stripping paint or removing burrs, rust and combustion residues in hard-toreach places in steel machining.

Execution:

- 3-4 brass-plated steel wires with single wire diameters of 0.2 mm twisted into rope construction
- Spring hard and tough

Notes:

Not suitable for VA machining.

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- MAS	

				E	Edging material		Steel
				Material to	be processed	Ste	el Wood
Head Ø (mm)	Length of	Length (mm)	Wire Ø (mm)	Max. rotation	Number of	7609	7
	bristles (mm)			speed (U/	pieces per	Ident.	No.
				min(rpm))	packet (PCS)		
11	20	40	0.20	20000	5	121	•
16	25	45	0.20	20000	5	171	•
22	25	45	0.20	18000	5	241	•
28	30	45	0.20	15000	5	301	•

Prod. Gr. 6CM







LESSMANN[®] Surface brushes with crimped wire

Shaft diameter 6 mm, for use on fast-running machines

Advantage: Application: For cleaning and deburring small and medium surfaces. Thick bristles guarantee a long service life Execution: Technical data: Use for fast-running machines Wire diameter: 0.30 mm Thick bristles guarantee a long service life Number of pieces per packet: 10 PCS Ident. No. 300 Ident. No. 305-315

			Edging material	Steel	Stainless steel
D (mm)	A (mm)	H (mm)	Max. rotation speed (U/	76099	76099
			min(rpm))	Ident. No.	Ident. No.
50	22	20	10500	300 •	305 •
70	30	25	6000	310	315

Prod. Gr. 6CL

I® ATORN miniature brushes round/pot/wire end brushes ATOR! Shank Ø 2.34 mm

Application:

For cleaning and polishing as well as for light deburring work in holes and cavities.

Due to the low trimming width, targeted processing is possible in hard-to-reach spots.

Notes:

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Brushes with natural trim can be used with polishing pastes for a better result. Brushes with flexible nylon diamond trim: Restoration and breakage resistance even under heavy load and deformation. Suitable for processing very hard parts such as ceramic parts, hardened parts, precision components, etc.



Ident. No. 240

Ident. No. 330

IC	Jent. No. 011-015			Ident. No. 240		ident. No. 550			
Туре	Shaft Ø (mm)	Brush Ø (mm)	Version	Edging material	Wire Ø (mm)	Max. rotation speed (U/ min(rpm))	Number of pieces per packet	7608 Ident.	
Cylinder wire brush	2.34	16	Corrugated	Steel	0.10	25000	12	001	•
Cylinder wire brush	2.34	22	Corrugated	Steel	0.10	25000	12	005	•
Cylinder wire brush	2.34	32	Corrugated	Steel	0.10	15000	12	009	•
Cylinder wire brush	2.34	16	Corrugated	Stainless steel	0.10	25000	12	011	•
Cylinder wire brush	2.34	22	Corrugated	Stainless steel	0.10	25000	12	015	•
Cylinder wire brush	2.34	16	Corrugated	Brass	0.10	25000	12	021	•
Cylinder wire brush	2.34	22	Corrugated	Brass	0.10	25000	12	025	•
Cylinder wire brush	2.34	16	-	Natural bristle goat hair	-	25000	12	031	•
Cylinder wire brush	2.34	22	-	Natural bristle goat hair	-	25000	12	035	•
Cylinder wire brush	2.34	17	-	Nylon diamond grain 400	-	25000	2	041	•
Cylinder wire brush	2.34	22	-	Nylon diamond grain 400	-	25000	2	045	•
Wire cup brush	2.34	18	Corrugated	Steel	0.10	20000	12	200	•
Wire cup brush	2.34	18	Corrugated	Stainless steel	0.10	20000	12	210	•
Wire cup brush	2.34	18	Corrugated	Brass	0.10	20000	12	220	•
Wire cup brush	2.34	18	-	Natural bristle goat hair	-	20000	12	230	•
Wire cup brush	2.34	18	-	Nylon diamond grain 400	-	20000	2	240	•
End brush	2.34	5	Corrugated	Steel	0.10	5000	12	300	•
End brush	2.34	5	Corrugated	Stainless steel	0.10	5000	12	310	•
End brush	2.34	5	Corrugated	Brass	0.10	5000	12	320	•
End brush	2.34	5	-	Natural bristle goat hair	-	5000	12	330	•
End brush	2.34	5	-	Nylon diamond grain 400	-	5000	2	340	•

Prod. Gr. 6CN



ATORN miniature brushes round/pot/wire end brushes

Application:

spots.

For cleaning and polishing as well as for light deburring work in holes and cavities. Due to the low trimming width, targeted processing is possible in hard-to-reach

Notes:

Brushes with natural trim can be used with polishing pastes for a better result. Brushes with flexible nylon diamond trim: Restoration and breakage resistance even under heavy load and deformation. Suitable for processing very hard parts such as ceramic parts, hardened parts, precision components, etc.







Ident. No. 121-125

Ident. No. 290

Ident. No. 370

Туре	Shaft Ø (mm)	Brush Ø (mm)	Version	Edging material	Wire Ø (mm)	Max. rotation speed (U/ min(rpm))	Number of pieces per packet	76080 Ident.	
Cylinder wire brush	3.0	16	Corrugated	Steel	0.10	25000	12	101	•
Cylinder wire brush	3.0	22	Corrugated	Steel	0.10	25000	12	105	•
Cylinder wire brush	3.0	32	Corrugated	Steel	0.10	15000	12	109	•
Cylinder wire brush	3.0	16	Corrugated	Stainless steel	0.10	25000	12	111	•
Cylinder wire brush	3.0	22	Corrugated	Stainless steel	0.10	25000	12	115	•
Cylinder wire brush	3.0	16	Corrugated	Brass	0.10	25000	12	121	•
Cylinder wire brush	3.0	22	Corrugated	Brass	0.10	25000	12	125	•
Cylinder wire brush	3.0	16	-	Natural bristle goat hair	-	25000	12	131	•
Cylinder wire brush	3.0	22	-	Natural bristle goat hair	-	25000	12	135	•
Wire cup brush	3.0	18	Corrugated	Steel	0.10	20000	12	260	•
Wire cup brush	3.0	18	Corrugated	Stainless steel	0.10	20000	12	270	•
Wire cup brush	3.0	18	Corrugated	Brass	0.10	20000	12	280	•
Wire cup brush	3.0	18	-	Natural bristle goat hair	-	20000	12	290	•
End brush	3.0	5	Corrugated	Steel	0.10	5000	12	360	•
End brush	3.0	5	Corrugated	Stainless steel	0.10	5000	12	370	•
End brush	3.0	5	Corrugated	Brass	0.10	5000	12	380	•
End brush	3.0	5	-	Natural bristle goat hair	-	5000	12	390	•

Prod. Gr. 6CN

ATORN[®] ATORN tube brush micro abrasive

Application:

Use in CNC and NC machines and machining centres.

Perfect for deburring cross-drilled holes, control parts, O-ring grooves and cylindrical workpieces, cleaning condensers and smoke tubes as well as roughening of surface coatings.

Execution:

• Flexible trim made from silicon carbide or aluminium oxide

Advantage:

Micro-abrasive tube brushes are also flexible in smaller diameter ranges

Can be used for a wide range of diameters, unlike conventional deburring tools
 Notes:

The brushes should be used with an excess length of 5 - 10% compared to the bore diameter.

Grid size	D (mm)	L (mm)	A (mm)	Shaft Ø (mm)	Max. rotation speed (U/min(rpm))	Number of pieces per packet	76087 Ident. No.
SIC 1000	0.7	100	12	0.42	500	12	005 •
SIC 1000	1.2	100	12	0.47	500	12	010 •
SIC 1000	1.9	100	18	0.74	500	12	015 •
SIC 1000	2.2	100	18	0.93	1000	12	020 •
SIC 1000	2.6	100	25	1.08	1000	12	025 •
SIC 1000	3.2	100	25	1.66	1000	12	030
SIC 1000	3.5	100	25	1.66	1000	12	035 •
AO 600	4.2	125	25	2.2	1000	12	150 •
AO 600	4.8	125	25	2.2	1000	12	155 •
AO 600	5.5	125	25	2.2	1000	12	160 •
AO 600	6.6	125	25	3.0	1500	12	165 •
AO 600	8.2	125	25	3.0	1500	12	170 •
AO 600	9.8	125	25	3.4	1500	12	175 •
AO 600	11.5	125	25	3.4	2000	12	180 •
AO 600	13.0	125	25	4.2	2000	12	185 •
AO 600	16.0	125	25	4.2	2000	12	190 •
AO 600	17.5	125	25	4.2	2000	12	195 •
AO 600	19.4	125	25	5.6	2000	12	200 •
AO 600	22.6	125	25	5.6	2000	12	205 •
AO 600	25.8	125	25	6.2	2000	12	215 •

Prod. Gr. 6CN



Ident. No. 550-580

ATORN® ATORN Helituf internal cleaning brushes

Densely filled internal cleaning brushes for mechanical or manual use

Application:

Execution:

Crimped wire spiral bristles

Ident. No. 505-545

Helituf internal cleaning brushes are ideal for cleaning threaded holes, brushing edges and elongated slots such as keyways.

• Spiral bristle arrangement simulates a lifting motion

Dual wire core

- Advantage:
- Can be used in drill chucks and tool spindles

Notes:

Optional Helituf® holders also enable assembly in chucks.







Ident. No. 605-630

Ident. No. 650-685

Bore Ø (mm)	Edging material	Wire Ø (mm)	D (mm)	L (mm)	A (mm)	Shaft Ø (mm)	Max. rotation speed (U/ min(rpm))	Number of pieces per packet	76087 Ident. I	
6	Steel	0.13	6.4	89	25	3	3500	12	505	•
8	Steel	0.13	8.3	89	25	3	3500	12	510	•
10	Steel	0.13	11.0	89	25	3	3500	12	515	•
13	Steel	0.13	14.3	89	25	3	3500	12	520	•
16	Steel	0.13	17.5	89	25	3	3000	12	525	•
19	Steel	0.13	21.0	89	25	3	3000	12	530	•
22	Steel	0.13	23.8	89	25	3	3000	12	535	•
25	Steel	0.13	27.0	89	25	3	3000	12	540	•
29	Steel	0.13	30.0	89	25	3	3000	12	545	•
10	Steel	0.20	11.0	89	25	3	3500	12	550	•
13	Steel	0.20	14.3	89	25	3	3500	12	555	•
16	Steel	0.20	17.5	89	25	3	3000	12	560	•
19	Steel	0.20	21.0	89	25	3	3000	12	565	•
22	Steel	0.20	23.8	89	25	3	3000	12	570	•
25	Steel	0.20	27.0	89	25	3	3000	12	575	•
32	Steel	0.20	33.4	89	25	3	3000	12	580	•
6	Stainless steel	0.13	6.4	89	25	3	3500	12	605	•
10	Stainless steel	0.13	11.0	89	25	3	3500	12	610	•
13	Stainless steel	0.13	14.3	89	25	3	3500	12	615	•
16	Stainless steel	0.13	17.5	89	25	3	3000	12	620	•
22	Stainless steel	0.13	23.8	89	25	3	3000	12	625	•
25	Stainless steel	0.13	27.0	89	25	3	3000	12	630	•
10	Stainless steel	0.20	11.0	89	25	3	3500	12	650	•
13	Stainless steel	0.20	14.3	89	25	3	3500	12	655	•
16	Stainless steel	0.20	17.5	89	25	3	3000	12	670	•
19	Stainless steel	0.20	21.0	89	25	3	3000	12	675	•
25	Stainless steel	0.20	27.0	89	25	3	3000	12	680	•
32	Stainless steel	0.20	33.4	89	25	3	3000	12	685	•

Prod. Gr. 6CN

ATORN Helituf holder R R

Application:

For ideal mounting in chucks or extending the total length.

Notes:

The holders can be used either individually or screwed together up to 225 mm total length (incl.



Technical data: • L: 90 mm

Number of pieces per packet: 1





1822



Ident. No. 501

Ident. No. 502



Execution:

 Micro pipe brushes (IBH) with steel wire are internal cleaning brushes with steel wire bristles,

Notes:

When using the brushes on a machine, always observe the specified max. rotation speed (max. RPM)

Wire Ø (mm)	D (mm)	L (mm)	A (mm)	Max. rotation speed	Number of pieces per	76099
				(U/min(rpm))	packet (PCS)	Ident. No.
0.12	10	90	25	3500	10	100 •
0.12	13	90	25	3500	10	105 •
0.12	16	90	25	3000	10	110 •
0.20	19	90	25	3000	10	114 •
0.20	25	90	25	3000	10	120 •

Prod. Gr. 6CL





Advantages of 3M Scotch-Brite[™] Bristle products

Bristle products are flexible, high-performance brushes impregnated with ceramic Cubitron abrasive grains. They have exceptionally long service lives. They are especially suited to cleaning, deburring and paint stripping.

Thanks to their unique cast-in-one-piece design, individual components cannot work loose during application as can happen when using wire brushes. This improves occupational safety. Furthermore, Scotch-Brite Bristle products do not clog, which ensures consistent performance throughout their service life. Thanks to their high level of flexibility, Bristle products adapt to the shapes and contours of workpieces. This enables you to produce a uniform finish, even on very profiled surfaces.



Integrated M14 thread makes additional accessories unnecessary

Integrated M14 thread makes additional accessories unnecessary

works without contact pressure with a very long service life

Scotch-Brite[™] BD-ZB bristle disc for angle grinders

Specially designed for planar surfaces

Application:

Ident. No. 010: For rust removal, paint removal, removing adhesive residues or other surface contaminants. Specially designed for flat surfaces. Can be used on angle grinders without accessories.

Ident. No. 021-031: for rust removal, paint removal, removing adhesive residues or other surface contaminants. specially designed for flat surfaces. can be used on angle grinders without accessories.

Advantage:

Ident. No. 010:

· Works without contact pressure with a very long service life





Ident. No. 021-031:

Head diameter: 115 mm Length of bristles: 19 mm

 Max. rotation speed: 12200 U/min(rpm) Suitable for machine chuck: M14

Material of abrasive medium: Ceramic core Cubitron

Technical data:

Ident. No. 010

on virtually all materials. Specially designed for highly contoured surfaces. For use on robotic

machines, sanding blocks, straight grinders or on

8 separable individual segments, flange with 4

· With curved bristles, ideal for working on profiled

reducers from 25.4 to 13 mm

Ident. No. 021



Ident. No. 031

Grid size		50	80	120
Colour		Green	Yellow	White
Number of pieces per packet (PCS)		1	-	-
76008	Ident No.	010	021	031
76098	ldent. No.	•	•	•

Prod. Gr. 6DM

Scotch-Brite[™] BB-ZB radial bristle grinding brush, type C

Specially designed for highly contoured surfaces

Application: For cleaning, removing paint, deburring and blending

flexible shafts.

Execution:

Advantage:

surfaces

Notes:

For use only with clamping mandrel no. 76098 001

Technical data:

- Head diameter: 150 mm
- Length of bristles: 38 mm
- Max. rotation speed: 6000 U/min(rpm) Material of abrasive medium: Ceramic core
- Cubitron
- Number of pieces per packet: 1 PCS



Ident, No. 080



Ident. No. 090

Grid size	Colour	7609 Ident.	8 No.
80	Yellow	080	•
220	Red	090	•

Prod. Gr. 6DM





Scotch-Brite[™] BB-ZS radial bristle grinding brush, type C, with shaft Specially designed for highly contoured surfaces

Application:

For cleaning, removing paint, deburring and blending on virtually all materials. Specially designed for highly contoured surfaces. For use on straight grinders or flexible shafts

Execution:

6 segments cast with a 6-mm shank

Advantage:

- · With curved bristles, ideal for working on profiled surfaces
- Can be used immediately without any further accessories

Technical data:

- Head diameter: 75 mm
- Length of bristles: 25 mm
- Max. rotation speed: 15000 U/min(rpm) Suitable for machine chuck: Shank 6 mm
- Material of abrasive medium: Ceramic core
- Cubitron
- Number of pieces per packet: 1 PCS







Ident. No. 120

Grid size		80	120	220
Colour		Yellow	White	Red
76098	ldent. No.	110	120	130
/0098		•	•	•

Prod. Gr. 6DM

Scotch-Brite[™] MN-AC clamping mandrel 23

For bristle brushes and Scotch-Brite[™] coarse cleaning discs

Application:

For clamping radial bristle brushes BB-ZB type C, in diameters 150 mm, 193 mm and 200 mm and Scotch-Brite[™] coarse cleaning discs XT-DC, CG-DC and BF-DC (see no. 760985 210-260).

Technical data:

Suitable for inner diameter: 12.7 mm

Number of pieces per packet: 1 PCS

Shaft Ø (m	m)	6	8			
Max. clamp	Max. clamping width (mm)		25.4			
76098	Ident, No.	001	002			
/0090	ident. No.	•	•			
Deed Cr. (DM						

Prod. Gr. 6DM



Scotch-Brite[™] non-woven products **Fineness comparison**

Compared with FEPA grain sizes.

Finish comparison (purely optical comparison) with FEPA grain sizes

50	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000
Extra c	coarse														
Coarse SD	Coarse HD														
		Coa	arse												
					Med	lium									
								Fi	ne						
									Very	fine					
											Supe	r fine			
												Ultra	fine		
														Extra	fine

Scotch-Brite[™] high-performance coarse cleaning discs – extra coarse Fibre fleece discs with shaft attachment, for use on straight grinders and flexible shafts

Advantage:

Technical data:

Colour: Blue

Application:

Particularly suited for cleaning before and after welding in metalworking as well as removing rust and other coatings in the workshop or industrial manufacturing. For use on straight grinders or flexible shafts with clamping mandrel no. 76098 001 and 002.

Execution:

Prod. Gr. 6DM

 Flexible fibre fleece with resin-bonded abrasive, for universal cleaning tasks

Max. rotation speed (U/min(rpm))

Metallically pure surface

Type description: CG-DC

Bore diameter: 13.00 mm

Open structure, disc does not clog

Number of pieces per packet: 2 PCS







Source: Hahn+Kolb Werkzeuge GmbH Technical data subject to change. Availability subject to country specific rules and regulations

Scotch-Brite[™] high-performance coarse cleaning discs – extra coarse

Fibre fleece discs with fibre underlay, for use on angle grinders

Application

Ideally suited for cleaning heavy surface soiling and surface coatings or for removing varnish.

Execution:

- Flexible fibre fleece with resin-bonded abrasive, for universal cleaning tasks
- Advantage: Strengthened backing for processing surfaces
- without the use of a support plate
- Open structure, disc does not clog Free of corrosive metals
- Does not loosen individual parts



Type description	Colour	Washer Ø (mm)	Bore Ø (mm)	Max. rotation speed (U/ min(rpm))		7609 Ident.	
CG-RD	Blue	115	22.23	11000	10	220	•

Prod. Gr. 6DM

PERP POLICLEAN® cleaning discs

Shaft diameter 6 mm, shaft length 40 mm

Application:

For cleaning weld seams and surfaces of different structures, and for removing discolouration, rust, corrosion residues and soiling, especially on stainless steel (INOX).

Execution:

- Coarse, abrasive cleaning fleece
- Made of a special combination of synthetic fibres and abrasive grain

Advantage:

- The flexible structure adapts to the surface and workpiece contours
- The open structure prevents clogging and ensures cool grinding
- Material machining without corroding residues on the workpiece surface

Technical data:

Number of pieces per packet: 5 PCS

Max. rotation speed (U/ min(rpm))		15000	10000	7500
7/04/	Ident, No.	015	025	030
76046	Ident. No.	•	•	•

Prod. Gr. 6AB

ATORN disc brushes ATORN

with dense sanding bristle trim (full trim) fully encapsulated in the plastic disc

Application:

On CNC machining centres and with the use of robots, preferably in wet sanding with coolant. Machining flat components: precise deburring, edge rounding, fine machining after milling, surface finishing of e.g. sealing and contact surfaces.

Execution:

- With longitudinal slot for clamping on face mill arbors (DIN 6357) and combi mill arbors (DIN 6358) - no additional accessories required
- Disc brushes with dense sanding bristle trim (full trim) fully encapsulated in the plastic disc
- 4 x higher trim density produced than in conventional process (stamped)

- Advantage:
 - Post-machining directly after the cutting process
 - without changing the geometry of the workpiece · Continuously released abrasive grain ensures
 - reproducible results
 - Very high dimensional stability and accuracy · Controllable wear properties to end of tool life - no
 - bristle breakage

Other designs available on request

Ideally suited for the machining of aluminium

Notes:

Technical data: Filling length: 35 mm



Ident. No. 510-595



Ident. No. 610-695

Brush Ø (mm)	Bore Ø (mm)	Edging material	Grid size	Min./max. rotation speed	Min./max. feed speed	76098 Ident. No.
50	16	Ceramic grain	80	2200-2500 U/ min(rpm)	2000-4500 mm/min	510 •
50	16	Ceramic grain	120	2200-2500 U/ min(rpm)	2000-4500 mm/min	515 •
76	22	Ceramic grain	80	1900-2300 U/ min(rpm)	2500-5000 mm/min	530 •
76	22	Ceramic grain	120	1900-2300 U/ min(rpm)	2500-5000 mm/min	535 •
106	22	Ceramic grain	80	1400-1700 U/ min(rpm)	3000-5500 mm/min	550 •
106	22	Ceramic grain	120	1400-1700 U/ min(rpm)	3000-5500 mm/min	555 •
125	27	Ceramic grain	80	1100-1400 U/ min(rpm)	3500-6500 mm/min	570 •
125	27	Ceramic grain	120	1100-1400 U/ min(rpm)	3500-6500 mm/min	575 •
150	32	Ceramic grain	80	1000-1200 U/ min(rpm)	4500-8000 mm/min	590 •
150	32	Ceramic grain	120	1000-1200 U/ min(rpm)	4500-8000 mm/min	595 •
50	16	Silicon carbide	80	2200-2500 U/ min(rpm)	2000-4500 mm/min	610 •
50	16	Silicon carbide	120	2200-2500 U/ min(rpm)	2000-4500 mm/min	613 •

