

44001

Set of Burrs, HSS Quality (Shank Ø 6 mm)

HSS

Lukas

Use

For steel and cast steel, alloyed and unalloyed.

Quality

HSS.

Note:

Burr shapes see cat.-no. 44002.

Set contents

2	Burrs cylindrical 6 x 16 / 12 x 25 mm,
1	Burr helical 12 x 25 mm,
2	Burrs spherical 4 x 3 / 12 x 10 mm,
1	Burr tear-drop 12 x 20 mm,
1	Burr pointed arc 12 x 30 mm,
1	Burr flame-shaped 12 x 30 mm,
1	Burr lobed 6 x 20 mm,
1	Burr pointed taper 6 x 18 mm.



44001

Serration	Cutting speed m/min	Type	44001	...
10-piece	3	60 - 180	in the case	201

44002

HSS Burrs (Shank Ø 6 mm)

HSS

Lukas

Type

Serration 3.

Use

For steel and cast steel, alloyed and unalloyed.

Recommended working speed $v_c = 60-180$ m/min.Quality
HSS.

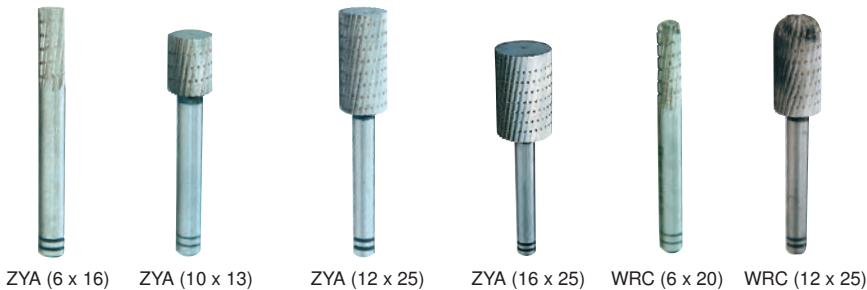
Note:

Available on request:

Serration 1 = for light metals (long-chipping), light metal alloys, lead, tin, plastics, (thermoplastics & thermosets), fibre, rubber wood.

Serration 2 = for light metals (short-chipping), bronze, copper, electrolytic copper, red brass, bronze, zinc, magnesium alloys (electron).

Serration 5 = for fine processing of steel and cast steel, alloyed and unalloyed as well as non-lubricating non-ferrous metals.



ZYA (6 x 16) ZYA (10 x 13) ZYA (12 x 25) ZYA (16 x 25) WRC (6 x 20) WRC (12 x 25)



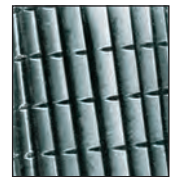
KUD (4,5 x 4) KUD (8 x 7) KUD (12 x 10) KUD (16 x 14) TRE (16 x 25) SPG (6 x 18)



SPG (12 x 30) SPG (16 x 30) B (12 x 30) beam (6 x 20) KEL (10 x 20) STM (10 x 20) STM (12 x 30)



Serration 1

Serration 2
with chip breakerSerration 3
with chip breaker

Serration 5

44002

Shape	Head diameter Ø x -length mm	Overall length mm	44002	...
Cylindrical (ZYA)	6 x 16	56	103	
Cylindrical (ZYA)	10 x 13	53	105	
Cylindrical (ZYA)	12 x 25	65	106	
Cylindrical (ZYA)	16 x 25	65	107	
Helical (WRC)	6 x 20	60	116	
Helical (WRC)	12 x 25	65	119	
Spherical (KUD)	4,5 x 4	60	123	
Spherical (KUD)	8 x 7	60	126	
Spherical (KUD)	12 x 10	60	128	
Spherical (KUD)	16 x 14	60	#	129

Shape	Head diameter Ø x -length mm	Overall length mm	44002	...
Tear-drop (TRE)	16 x 25	60	132	
Pointed arc (SPG)	6 x 18	58	133	
Pointed arc (SPG)	12 x 30	70	136	
Pointed arc (SPG)	16 x 30	70	137	
Flame-shaped (B)	12 x 30	70	#	140
Lobbed	6 x 20	60	#	143
Round taper (KEL)	10 x 20	60	#	145
Pointed taper (SKM)	10 x 20	60	#	152
Pointed taper (SKM)	12 x 30	70	#	154





Use recommendations

- HSS burrs must be used at low speeds as compared with carbide burrs.

- For application situations where high speeds are not available.
- For soft materials, HSS burrs are the economical alternative to hard metal burrs.

- The ductility of the -high-performance, high-speed steel (HSS) results in high stability of the tooth cutting edges.

Serration aluminium



Serration 1 without chip deflector



Serration 2 with chip deflector



Serration 3 with chip deflector



Serration 5 without chip deflector



	Material groups	Processing case	Serration	Cutting speed	
Steel and cast steel materials	Untempered, non heat-treated steels to 1200 N/mm ² (< 38 HRC)	Construction steels, carbon steels, tool steels, unalloyed steels, case-hardened steels, cast steel	Coarse machining = high stock removal	2	60 - 80 m/min
			Fine machining e.g. deburring	3 3 5	60 - 80 m/min 80 - 100 m/min 60 - 80 m/min
	Rust and acid-resistant steels	Austenitic and ferritic high-grade steels	Coarse machining = high stock removal	1	60 - 80 m/min
			Fine machining e.g. deburring	1 2	80 - 100 m/min 60 - 80 m/min
Non-ferrous metals	Soft non-ferrous metals	Al alloys, brass, copper, zinc	Coarse machining = high stock removal	Al 1	200 - 300 m/min 200 - 300 m/min
			Fine machining e.g. deburring	2	200 - 250 m/min
Cast iron materials		Grey cast iron, nodular graphite cast iron	Coarse machining = high stock removal	2 3	60 - 80 m/min 60 - 80 m/min
			Fine machining e.g. deburring	3 5	80 - 100 m/min 80 - 100 m/min
				Al	200 - 300 m/min
Others / plastics		Fibre-reinforced thermoplastics and thermoset plastics, rubber, wood	Coarse machining = high stock removal	1 1	200 - 300 m/min 250 - 300 m/min
			Fine machining e.g. deburring	2	200 - 250 m/min

Example:

HSS burr, serration 2,
tool diameter 12 m.
Coarse machining of untempered, non heat-treated steels.
Cutting speed: 60 - 80 m/min
Rotational speed range: 1,600 - 2,200 rpm

Ø mm	Cutting speeds m/min					
	60	80	100	200	250	300
	rational speed rpm					
1.6	12,000	16,000	19,900	39,800	49,800	59,700
2.3	8,400	11,100	13,900	27,700	34,600	41,600
3.2	6,000	8,000	10,000	19,900	24,900	29,900
4.0	4,800	6,400	8,000	16,000	19,900	23,900
5.0	3,900	5,100	6,400	12,800	16,000	19,100
6.0	3,200	4,300	5,400	10,700	13,300	16,000
7.0	2,800	3,700	4,600	9,100	11,400	13,700
8.0	2,400	3,200	4,000	8,000	10,000	12,000
10.0	2,000	2,600	3,200	6,400	8,000	9,600
12.0	1,600	2,200	2,700	5,400	6,700	8,000
14.0	1,400	1,900	2,300	4,600	5,700	6,900
16.0	1,200	1,600	2,000	4,000	5,000	6,000



Abrasive Tools / Separating Tools

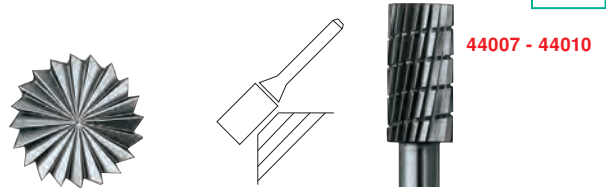
44007 - 44010

HSS Burrs Cylindrical (ZYAS)

HSS



With face-cutting serration.



Head Ø x -length mm	Total length mm	Shank Ø mm	Serration 1		Serration 2		Serration 3		Serration 5	
			44007	...	44008	...	44009	...	44010	...
6 x 16	60	6			202	#	202	202	#	202
10 x 13	53	6			204	#	204	204		
12 x 25	65	6			206		206	206	#	206
16 x 25	65	6					207	207		

44012 - 44014

HSS Burrs, Helical (WRC)

HSS



Head Ø x -length mm	Total length mm	Shank Ø mm	Serration 1		Serration 2		Serration 3	
			44012	...	44013	...	44014	...
6 x 16	60	6			202	#	202	202
8 x 20	60	6						203
12 x 25	65	6		#	205		205	205

44019

HSS Burrs, Spherical (KUD)

HSS

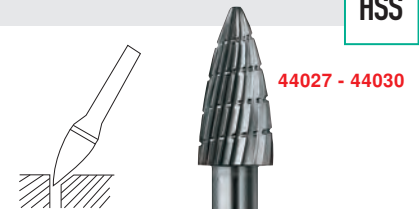


Head Ø x -length mm	Overall length mm	Shank Ø mm	Serration 3	
			44019	...
8 x 7	55	6		203
12 x 10	51	6		205
16 x 14	54	6	#	206

44027 - 44030

HSS Burrs, Pointed Arc (SPG)

HSS



Head Ø x -length mm	Total length mm	Shank Ø mm	Serration 1		Serration 2		Serration 3		Serration 5	
			44027	...	44028	...	44029	...	44030	...
6 x 18	60	6	#	201		201	201	#	201	
12 x 30	70	6		204		204	204			
16 x 30	70	6					205			

44034

HSS Burrs, Flame-Shaped (B)

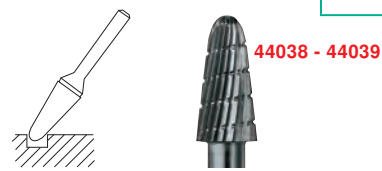
HSS



Head Ø x -length mm	Overall length mm	Shank Ø mm	Serration 3	
			44034	...
12 x 30	70	6		202

44038 - 44039 HSS Burrs, Rounded Taper (KEL)

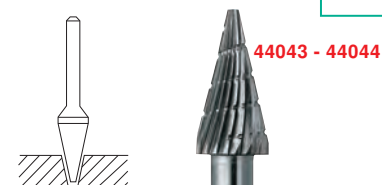
HSS



Head Ø x -length mm	Total length mm	Shank Ø mm	Serration 2 44038	...	Serration 3 44039	...
10 x 20	60	6	#	201	#	201

44043 - 44044 HSS Burrs, Pointed Taper (STM)

HSS



Head Ø x -length mm	Total length mm	Shank Ø mm	Serration 2 44043	...	Serration 3 44044	...
10 x 20	60	6		202		202
12 x 25	65	6		203	#	203

Info (Solid) carbide burrs cat.-no. 44093 - 44226

VHM



Type

With straight shank, right-hand helix, right-hand cut.

Serration 2

Recommended cutting speed
Vc = 400 - 800 m/min.

Serration 3 (Al)

Recommended cutting speed
Vc = 600 - 960 m/min.

Serration 5

Increased tooth angle especially for heavy-duty applications, e.g. in the foundry industry, shipyards and in heavy industry.
Recommended cutting speed
Vc = 500 - 960 m/min.
Advantage over serration 6: 40% longer service life.

Serration 6

Multi-purpose use, maximum machining.
Recommended cutting speed
Vc = 500 - 960 m/min.

Serration 6 (TiAlN)

Like serration 6, however longer service life through TiAlN coating.

Note:

Additional dimensions, serration (e.g. diamond tipped serration) and other types (e.g. double-end cutter or burrs with extra long shank) available on request.

Warning:

Always comply with the recommended **cutting speed or working speed** (insufficient rpm is the most frequent cause of tooth break)! Just as important is the selection of the **right shape** (see application diagrams for cat.-no. 44102 **cont.**) and the **size of the burr**. In order to avoid stronger vibrations, **max. 33%** of the cutting edges should remove stock simultaneously.

Head Ø mm	Working speed	
	max.	recommended
2	100,000	50,000 - 80,000
3	100,000	50,000 - 75,000
4	100,000	50,000 - 75,000
6	70,000	35,000 - 53,000
8	55,000	28,000 - 42,000
10	50,000	25,000 - 38,000
12	40,000	20,000 - 30,000
15	30,000	15,000 - 23,000
20	20,000	10,000 - 15,000
25	15,000	7,000 - 11,000

Serration 2 3 (Al) 5 6 6 (TiAlN)



Application range	2	3 (Al)	5	6	6 (TiAlN)
Aluminium, Al alloys	-	x	-	-	-
Bronze, copper, brass	x	-	-	-	-
Carbon	-	-	-	-	-
Fibreglass	-	x	-	-	-
Cast iron	x	-	x	x	x
Hard rubber	-	x	-	-	-
HSS-E (Co)	x	-	-	x	x
Plastics	-	x	-	-	-
Magnesium, alloys	-	-	-	-	-
Stainless steels	x	-	-	x	x
Weld seams	x	-	x	x	x
High-strength steels	x	-	-	x	x
Steel, nickel-chromium	x	-	-	x	x
Titanium alloys	x	-	-	x	x
Zinc alloys	-	x	-	-	-

Burrs with extra-long shank available on request



44093

Solid carbide burrs set (shank Ø 3 mm)

VHM

ATORN®

Type

Dimensions = Head Ø x head length mm.

44093 101

Set contents 44093 101	
Serration 2	
1	Burr cylindrical 3 x 12 mm,
1	Burr helical 3 x 12 mm,
1	Burr spherical 3 x 3 mm,
1	Burr tear-drop 3 x 6 mm,
1	Burr round arc 3 x 12 mm,
1	Burr pointed arc 3 x 12 mm,
1	Burr flame-shaped 3 x 6 mm,
1	Burr round taper 3 x 12 mm,
1	Burr pointed taper 3 x 11 mm,
1	Burr angled 3 x 3 mm.

Set contents 44093 102	
Serration 2	
of each 2	Burrs cylindrical 3 x 12 mm,
of each 2	Burrs helical 3 x 12 mm,
of each 2	Burrs spherical 3 x 3 mm,
of each 2	Burrs tear-drop 3 x 6 mm,
of each 2	Burrs round arc 3 x 12 mm,
Serration 6	
of each 2	Burrs cylindrical 3 x 12 mm,
of each 2	Burrs helical 3 x 12 mm,
of each 2	Burrs spherical 3 x 3 mm,
of each 2	Burrs tear-drop 3 x 6 mm,
of each 2	Burrs round arc 3 x 12 mm.



Contents	Serration	Type	44093	...
10-piece	2	in case		101
20-piece	2 und 6	in case		102

44096

Solid Carbide/Carbide Burr Set (Shank Ø 6 mm)

VHM

ATORN®

Type

Dimensions = Head Ø x head length mm.

44096 107

Set contents 44096 101	
Serration 3 (aluminium)	
1	Burr cylindrical 12 x 25 mm,
1	Burr helical 12 x 25 mm,
1	Burr round arc 12 x 25 mm,
1	Burr round taper 12 x 28 mm.

Set contents 44096 104	
Serration 6	
1	Burr cylindrical 6 x 18 mm,
1	Burr helical 6 x 18 mm,
1	Burr spherical 6 x 6 mm,
1	Burr tear-drop 6 x 10 mm,
1	Burr round arc 6 x 18 mm,
1	Burr pointed arc 6 x 18 mm.



Set contents 44096 107	
Serration 5	
1	Burr cylindrical 12 x 25 mm,
1	Burr helical 12 x 25 mm,
1	Burr round arc 12 x 25 mm,
1	Burr pointed arc 12 x 25 mm,
1	Burr round taper 12 x 28 mm.

Set contents 44096 105	
Serration 6	
1	Burr cylindrical 12 x 25 mm,
2	Burrs helical 10 x 20 / 12 x 25 mm,
1	Burr spherical 12 x 12 mm,
1	Burr tear-drop 10 x 15 mm,
2	Burrs round arc 10 x 20 / 12 x 25 mm,
1	Burr pointed arc 10 x 20 mm.

44096 105

Set contents 44096 102	
Serration 6	
1	Burr cylindrical 10 x 20 mm,
1	Burr helical 10 x 20 mm,
1	Burr round arc 10 x 20 mm,
1	Burr pointed arc 10 x 20 mm.

Set contents 44096 108	
Serration 6	
2	Burrs cylindrical 10 x 20 / 12 x 25 mm,
2	Burrs helical 10 x 20 / 12 x 25 mm,
1	Burr spherical 12 x 10 mm,
1	Burr tear-drop 10 x 16 mm,
1	Burr round arc 12 x 25 mm,
2	Burrs pointed arc 10 x 20 / 12 x 25 m,
1	Burr round taper 12 x 30 mm.



Set contents 44096 103	
Serration 6	
1	Burr cylindrical 12 x 25 mm,
1	Burr helical 12 x 25 mm,
1	Burr round arc 12 x 25 mm,
1	Burr pointed arc 12 x 25 mm.

Set contents 44096 106	
Serration 6 TiAlN	
1	Burr cylindrical 10 x 20 mm,
1	Burr helical 12 x 25 mm,
1	Burr round arc 12 x 25 mm,
1	Burr pointed arc 10 x 20 mm,
1	Burr round taper 12 x 28 mm.

44096 106

Contents	Serration	Coating	Type	44096	...
4-piece	(Al) 3	-	in case		101
5-piece	5	-	in case		107
4-piece	6	-	in case		102
4-piece	6	-	in case	#	103
6-piece	6	-	in case		104
8-piece	6	-	in case		105
10-piece	6	-	in case		108 NEW
5-piece	6	TiAlN	in case		106



Solid Carbide / Carbide Burrs

44102 - 44106

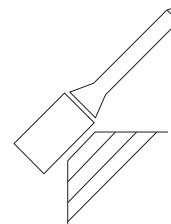
Solid Carbide / Carbide Burrs, Cylindrical (ZYA)

VHM

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44102 - 44106

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 6	
		44102	...	44103	...	44106	...
3 x 14	3		102				102
6 x 5	3	#	103			#	103
6 x 12	3		104				104
6 x 18	6		106	#	106		106
8 x 20	6		107	#	107		107
10 x 20	6		109		109		109
12 x 25	6		113	#	113		113
15 x 25	6		114	#	114		114
15 x 25	8	#	121	#	121	#	121



44115 - 44117

Solid Carbide / Carbide Burrs, Cylindrical (ZYA-S)

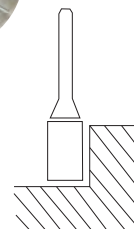
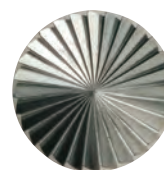
VHM

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With face-cutting serration.

44115 - 44117

Head Ø x -length mm	Shank Ø mm	Serration 5		Serration 6		Serration 6/TiAlN	
		44115	...	44116	...	44117	...
6 x 18	6				106		
8 x 20	6				107		
10 x 20	6				109		109
12 x 25	6		112		112		



44122 - 44127

Solid Carbide / Carbide Burrs, Helical (WRC)

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44122 - 44127

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 5		Serration 6		Serration 6/TiAlN	
		44122	...	44123	...	44125	...	44126	...	44127	...
2 x 11	3	#	101						101		
3 x 12	3		102						102		
6 x 12	3		104						104		
6 x 18	6		106		106				106		
8 x 20	6		107						107		
10 x 20	6		108	#	108				108		
12 x 25	6		111		111		111		111		111
15 x 25	6								113		
12 x 25	8								118		
15 x 25	8							#	120		



44132 - 44136

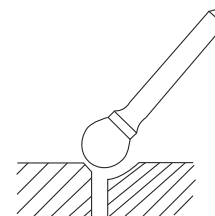
Solid Carbide / Carbide Burrs, Spherical (KUD)

VHM

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44132 - 44136

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 6	
		44132	...	44133	...	44136	...
3 x 3	3		102				102
4 x 4	3		103				103
6 x 6	3		104				104
6 x 6	6		106				106
8 x 8	6		107				107
10 x 10	6	#	108		108		108
12 x 12	6		109	#	109		109
15 x 15	6		110	#	110		110



44142 - 44146

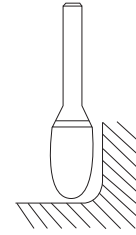
Solid Carbide / Carbide Burrs, Tear-Drop (TRE)

VHM

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Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 6	
		44142	...	44143	...	44146	...
3 x 6	3	#	101			#	101
6 x 10	3	#	102			#	102
6 x 10	6	#	103				103
8 x 15	6	#	104				104
10 x 15	6	#	105				105
12 x 20	6		106	#	106		106
15 x 25	6	#	107				107
15 x 25	8	#	111	#	111		

44142 - 44146



Abrasive Tools/
Separating Tools

44152 - 44157

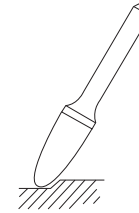
Solid Carbide / Carbide Burrs, Round Arc (RBF)

VHM

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Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 5		Serration 6		Serration 6/TiAlN	
		44152	...	44153	...	44155	...	44156	...	44157	...
3 x 8	3	#	101							101	
3 x 12	3		102							102	
6 x 12	3		103							103	
6 x 18	6		104							104	
8 x 20	6	#	105		#	105				105	
10 x 20	6		106		#	106				106	
12 x 25	6		108		108		108		108		# 108
15 x 25	6	#	110		#	110			110		
12 x 25	8		116		#	116			#	116	

44152 - 44157



44162 - 44167

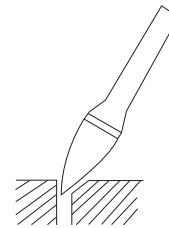
Solid Carbide / Carbide Burrs, Pointed Arc (SPG)

VHM

ATORN®

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 5		Serration 6		Serration 6/TiAlN	
		44162	...	44165	...	44166	...	44167	...
3 x 6	3	#	101					101	
3 x 12	3		102					102	
6 x 12	3		103					103	
6 x 18	6		104					104	
8 x 20	6	#	105					105	
10 x 20	6	#	106					106	106
12 x 25	6		108		108			108	
15 x 25	6		110				#	110	
12 x 25	8						#	116	

44162 - 44167



44172 - 44176

Solid Carbide / Carbide Burrs, Flame-Shaped (H)

VHM

ATORN®

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 6	
		44172	...	44176	...
3 x 6	3		101		101
8 x 20	6		# 102		102
12 x 32	6		# 103		103
15 x 35	8		# 107		# 107

44172 - 44176



Solid Carbide / Carbide Burrs

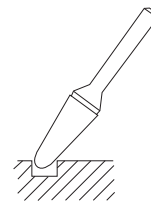
44182 - 44187

Solid Carbide / Carbide Burrs, Rounded Taper (KEL)

VHM

ATORN[®]

44182 - 44187



Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 3 (Al)		Serration 5		Serration 6		Serration 6/TiAIN	
		44182	...	44183	...	44185	...	44186	...	44187	...
3 x 12	3		101						101		
6 x 18	6	#	103						103		
10 x 26	6		105	#	105				105		
12 x 28	6		106	#	106		106		106		106
15 x 33	6	#	107	#	107				107		

44192 - 44196

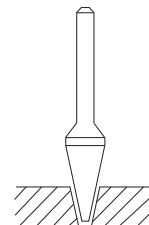
Solid Carbide / Carbide Burrs, Countersink (STM)

VHM

ATORN[®]

44192 - 44196

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 6	
		44192	...	44196	...
3 x 8	3		101	#	101
3 x 11	3		102		102
3 x 15	3		103		103
6 x 12	3		104		104
6 x 20	6		105		105
10 x 20	6		106		106
12 x 25	6	#	107		107
16 x 25	6	#	108		108



44202 - 44206

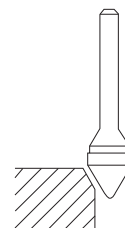
Solid Carbide / Carbide Burrs, Countersink 60° (KSJ)

VHM

ATORN[®]

44202 - 44206

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 6	
		44202	...	44206	...
3 x 2,5	3	#	101		101
6 x 4	6	#	102	#	102
10 x 8	6	#	103		103
12 x 11	6	#	104	#	104
15 x 14	6		105	#	105



44212 - 44216

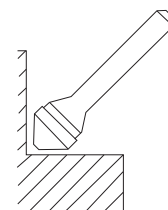
Solid Carbide / Carbide Burrs, Countersink 90° (KSK)

VHM

ATORN[®]

44212 - 44216

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 6	
		44212	...	44216	...
3 x 1,5	3	#	101		101
6 x 3	6	#	102		102
10 x 5	6		103		103
12 x 6	6	#	104		104
15 x 8	6		105		105



44222 - 44226

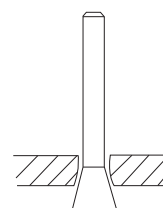
Solid Carbide / Carbide Angle Burrs (WKN)

VHM

ATORN[®]

44222 - 44226

Head Ø x -length mm	Shank Ø mm	Serration 2		Serration 6	
		44222	...	44226	...
3 x 4	3	#	101		101
6 x 6	3	#	102		102
10 x 10	6				104
12 x 12	6	#	105		





With PFERD carbide burrs materials of almost any strength can be machined. This is possible through the optimal match of tooth shape, number of teeth, angle of twist, angle of rake and concentricity. The precise concentricity of PFERD carbide burrs

- protects the operator's health during the work procedure,
 - reduces wear of the drive unit,
 - allows chatter-free work,
 - prevents chatter marks.
- The high dimensional stability of the carbide burrs enables
- use on robots and
 - multiple re-sharpenings.

Implementation principle:
The harder the material, the finer the serration.

Note:
Other dimensions and serrations, as well as carbide burrs with special shank shapes and -lengths and special serrations available on request.

Serration aluminium Serration 1 Serration 3 PLUS Serration 4 Serration 5



Material groups		Processing case	Serration	Cutting speed
Steel and cast steel materials	Untempered, non heat-treated steels to 1200 N/mm ² (<38 HRC)	Construction steels, carbon steels, tool steels, unalloyed steels, case-hardened steels, cast steel	Coarse machining = high stock removal	1 600 - 900 m/min
				3PLUS 450 - 600 m/min
	Tempered, heat-treated steels over 1200 N/mm ² (>38 HRC)	Tool steels, tempered steels, alloy steels, cast steels	Coarse machining = high stock removal	3PLUS 250 - 350 m/min
				4 250 - 350 m/min
Stainless steels	Rust and acid-resistant steels	Austenitic and ferritic high-grade steels	Coarse machining = high stock removal	1 300 - 450 m/min
				3PLUS 250 - 350 m/min
			Fine machining e.g. deburring	4 250 - 350 m/min
				5 350 - 450 m/min
Non-ferrous metals	Soft non-ferrous metals	Al alloys, brass, copper, zinc	Coarse machining = high stock removal	Al 600 - 900 m/min
				1 600 - 900 m/min
	Hard non-ferrous metals	Bronze, titanium/titanium alloys, extremely hard Al alloys (high Si-proportion)	Coarse machining = high stock removal	4 250 - 350 m/min
	Materials with very high-temperature strength	Nickel-based alloys, Ni-Co alloys (jet engine and turbine construction)	Coarse machining = high stock removal	3PLUS 300 - 450 m/min
			Fine machining e.g. deburring	4 300 - 450 m/min
		5 350 - 500 m/min		
Cast iron materials		Grey cast iron, nodular graphite cast iron	Coarse machining = high stock removal	1 600 - 900 m/min
				3PLUS 450 - 600 m/min
Others / plastics		Fibre-reinforced thermoplastics and thermoset plastics, hard rubber	Coarse machining = high stock removal	Al 500 - 900 m/min
			Fine machining e.g. deburring	Al 500 - 900 m/min

Example:

Carbide burr, serration 3 PLUS, tool diameter 12 m. Coarse machining of untempered, non heat-treated steels. Cutting speed: 450 - 600 m/min
Rotational speed range: 12,000 - 16,000 rpm

Ø mm	Cutting speeds m/min							
	250	300	350	400	450	500	600	900
	rotational speed rpm							
2	40,000	48,000	56,000	64,000	72,000	80,000	95,000	143,000
3	27,000	32,000	37,000	42,000	48,000	53,000	64,000	95,000
4	20,000	24,000	28,000	32,000	36,000	40,000	48,000	72,000
6	13,000	16,000	19,000	21,000	24,000	27,000	32,000	48,000
8	10,000	12,000	14,000	16,000	18,000	20,000	24,000	36,000
10	8,000	10,000	11,000	13,000	14,000	16,000	19,000	29,000
12	7,000	8,000	9,000	11,000	12,000	13,000	16,000	24,000
16	5,000	6,000	7,000	8,000	9,000	10,000	12,000	18,000
20	4,000	5,000	6,000	6,000	7,000	8,000	10,000	14,000
25	3,000	4,000	4,000	5,000	6,000	6,000	8,000	11,000

Abrasive Tools / Separating Tools



Carbide Burrs

44233

Sets of Burrs, Carbide Quality (Shank Ø 3 mm)

HM



Type
Dimensions = Head Ø x head length mm.

Set contents

- 4 Burrs cylindrical 2 x 10 / 3 x 13 / 6 x 7 / 6 x 13 mm,
- 1 Burr flame-shaped 3 x 7 mm,
- 2 Burrs helical 2 x 10 / 3 x 13 mm,
- 1 Burr angled 3 x 7 mm,
- 2 Burrs tear-drop 3 x 7 / 6 x 10 mm,
- 1 Burr spherical 4 x 3 mm,
- 1 Burr pointed taper 6 x 13 mm,
- 2 Burrs round arc 3 x 7 / 6 x 13 mm,
- 1 Burr pointed arc 3 x 7.



44233

Contents	Serration	Type	44233	...
15-piece	5	in transparent box		101

44234

Sets of Burrs, Carbide Quality (Shank Ø 6 mm)

HM



Type
High chip removal capacity thanks to aggressive teeth geometry, long service life.
Dimensions = Head Ø x head length mm.

Use
For structural steel, structural steel, non-ferrous metals For quick, aggressive metal cutting applications on surfaces and in solid stock. Special gripping

capacity in edge use, e.g. when deburring. Exceptionally well suited for working on welds.

Set contents

- 2 Burrs cylindrical 6 x 16 / 12 x 25 mm,
- 2 Burrs spherical 10 x 9 / 12 x 10 mm,
- 2 Burrs helical 6 x 18 / 12 x 25 mm,
- 2 Burrs pointed arc 6 x 18 / 12 x 25 mm,
- 1 Burr round arc 6 x 18 mm,
- 1 Burr round taper 12 x 30 mm.



44234

Contents	Serration	Cutting speed m/min	Type	44234	...
10-piece	Combi cut	450 - 700	in plastic box		101

44238 - 44240

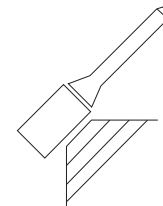
Carbide Burrs, Cylindrical (ZYA)

HM



ISO 7755/2+DIN 8033-2.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 4		Serration 5	
			44238	...	44239	...	44240	...
6 x 16	6	55			106		106	# 106
8 x 20	6	60			107	#	107	
10 x 20	6	60	#		109		109	
12 x 25	6	65			111	#	111	
16 x 25	6	65	#		113	#	113	



44238 - 44240

44243 - 44245

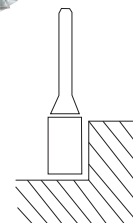
Carbide Burrs, Cylindrical (ZYA-S)

HM



ISO 7755/2+DIN 8033-2.
With face-cutting serration.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 5	
			44243	...	44245	...
2 x 10	3	40			101	# 101
3 x 13	3	43			102	102
4 x 13	6	55		#	103	# 103
6 x 13	3	43			105	105
6 x 16	6	55			106	106
8 x 20	6	60			107	
10 x 20	6	60			109	
12 x 25	6	65			111	



44243 - 44245



44250 - 44252

Carbide Burrs, Helical (WRC)

HM

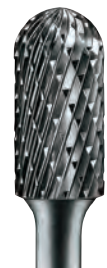


ISO 7755/3+DIN 8033-3.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 4		Serration 5	
			44250	...	44251	...	44252	...
2 x 10	3	40	#	101	#	101		
3 x 13	3	43		102		102	102	
6 x 13	3	43		104	#	104	# 104	
6 x 16	6	55		105		105	# 105	
8 x 20	6	60		107	#	107		
10 x 20	6	60		109		109		
12 x 25	6	65		113		113		



44250 - 44252



Abrasive Tools / Separating Tools

44257 - 44259

Carbide Burrs, Spherical (KUD)

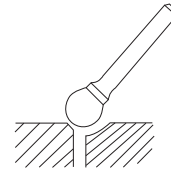
HM



ISO 7755/4+DIN 8033-8.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 4		Serration 5	
			44257	...	44258	...	44259	...
3 x 2	3	33			101	#	101	101
4 x 3	3	34			102	#	102	102
6 x 5	3	35			104	#	104	104
6 x 5	6	45	#		105	#	105	105
8 x 7	6	47			106	#	106	106
10 x 9	6	49	#		107	#	107	107
12 x 10	6	51	#		108	#	108	108

44257 - 44259



Abrasive Tools/
Separating Tools

44263 - 44265

Carbide Burrs, Round Arc (RBF)

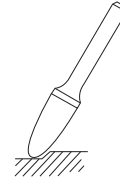
HM



DIN 8033-10.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 5	
			44263	...	44265	...
6 x 13	3	43			102	102

44263 - 44265



44268 - 44270

Carbide Burrs, Pointed Arc (SPG)

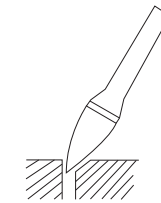
HM



ISO 7755/7+DIN 8033-9.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 4		Serration 5	
			44268	...	44269	...	44270	...
3 x 13	3	43			102	#	102	102
6 x 13	3	43			103	#	103	103
6 x 18	6	55			104	#	104	104
10 x 20	6	60	#		105	#	105	105
12 x 25	6	65	#		107	#	107	107
16 x 25	6	70	#		111	#	111	111

44268 - 44270



44272 - 44273

Carbide Burrs, Flame-Shaped (B)

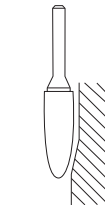
HM



ISO 7755/11+DIN 8033-4.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 5	
			44272	...	44273	...
6 x 13	3	43				102
12 x 30	6	70			104	

44272 - 44273



44283 - 44285

Carbide Burrs, Pointed Taper (STM)

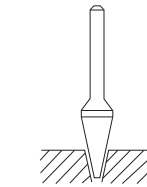
HM



ISO 7755/11+DIN 8033-4.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 3 Plus		Serration 5	
			44283	...	44285	...
6 x 13	3	43			103	103
6 x 18	6	55			104	104
10 x 20	6	60			105	105
12 x 25	6	65			106	106

44283 - 44285



44289

Carbide Angle Burrs (WKN)

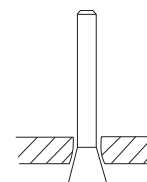
HM



ISO 7755/12+DIN 8033-7.
With face-cutting serration.

Head Ø x -length mm	Shank Ø mm	Total length mm	Serration 5	
			44289	...
3 x 7	3	37		101

44289





44293 - 44294 Carbide Burrs for GRP and CFRP



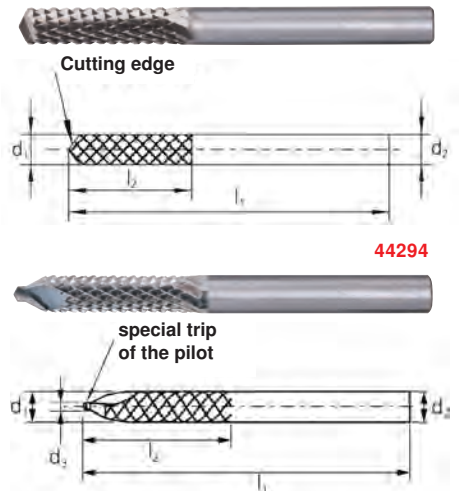
Use
 For the processing of
 - GRP (glass-fibre reinforced plastics)
 - CFRP (carbon-fibre reinforced plastics)

Serration FVK
 Coarse metal cutting applications = high stock removal
 Preferred for edging and contour milling of fibre-reinforced plastics GRP and CFRP, suitable for hard rubber and thermoplastics. Can be used on machine tools and manual implementation due to the high concentricity.

Serration FVKS
 Fine machining = less material removal
 Similar to serration FVK. Due to the special tooth design, suitable for use on machines and robots with high feed rates, quite milling behaviour, generates a smooth cut edge.

44293
Use
 The special **cutting edge of the drill bit (BS)** enables plunging into solid material, i.e. drilling and milling in one work step.

44294
Use
 The special **tip of the pilot drill bit (ZBS)** enables plunging into solid material, i.e. drilling and milling in one work step. It is especially suited for manual use. The tip of the pilot drill bit allows safe pre-drilling under virtually all surface conditions.



Serration	d ₂ mm	d ₃ mm	d ₁ x l ₂ mm	l ₁ mm	speed RPM at 500 m/min*	speed RPM at 900 m/min*	with BS		with ZBS	
							44293	...	44294	...
FVK	6	-	6 x 25	65	27.000	48.000	#	101		
FVK	6	2,5	6 x 30	65	27.000	48.000			#	101
FVK	8	-	8 x 25	65	20.000	36.000	#	102		
FVK	8	3,0	8 x 30	65	20.000	36.000			#	102
FVKS	6	-	6 x 25	65	27.000	48.000	#	201		
FVKS	6	2,5	6 x 30	65	27.000	48.000			#	201
FVKS	8	-	8 x 25	65	20.000	36.000	#	202		
FVKS	8	3,0	8 x 30	65	20.000	36.000			#	202

*Cutting speed

44299 Extensions for drive spindles



Use
 - With spindle extensions, the shanks of grinding and milling tools can be extended
 - They enable use on hard-to-reach places
 - The extension for drive spindles is clamped into the collet of the machine (compressed air or electric drive) or into the handpiece of the flexible shaft
 - Spindle extensions are an economical alternative to special manufacturing of burrs and grinding points with long shaft

Safety advice:
Attention! When using spindle extensions, the relevant safety regulations and the accident prevention regulations must be complied with.
 For tasks with large shaft lengths it is strictly necessary to introduce the tool into the workpiece (e.g. bores, tubes, channels or grooves) before switching on the drive unit. Under no circumstances should the extension with tool run free outside of the workpiece.

There is increased danger if this instruction is not complied with! Under unfavourable boundary conditions there is a possibility of snapping off the extension with clamped in tool. **The extension is only for suitable for manual use** in conjunction with suitable compressed air/electrical drive units or flexible shaft handpieces for tools with **standard shanks**. In combination with a appropriate tool that is approved for the speed, it is accommodated in the chatter-free collet of the devices. It must not be clamped in on the transition radius under any circumstances.

The clamping in of a second extension or of tools with over-long shanks is prohibited.



Max. permissible speed RPM	Trunnion mount (motor/handpiece) Ø mm	Tool-receptacle mm	total-length mm	Trunnion mount Length mm	Spindle Ø max. mm	incl. collet chuck Ø mm	44299	...
44.000	8	3	78	30	9,5	3	#	101
20.000	SPG 6	6	104	Special	12,0	6	#	102
20.000	8	6	120	30	12,0	6	#	103
20.000	SPG 6	6	129	Special	12,0	6	#	104
20.000	8	6	144	30	12,0	6	#	105
10.000	6	3	150	30	11,5	-	#	106
10.000	8	6	150	30	13,5	-	#	107

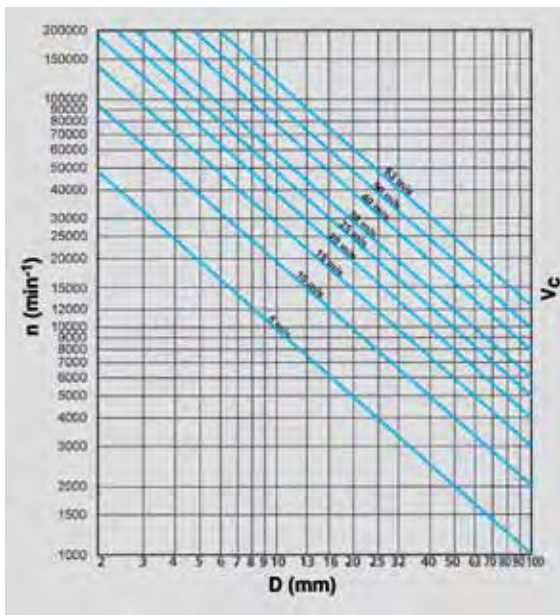


Abrasive Tools/
Separating Tools

The grinding points are characterised by constant, superior material removal performance and long service life and achieve a high surface quality on the workpiece. The precise concentricity prevents chatter marks, enables quiet operation, reduces the load of drive system and ensures an improved protection of the operator's safety and health. The grinding points are especially suited for the shown applications (see table), because of grit type, grit size, hardness and bonding. They can be used universally for **grinding edges and surfaces**.

Abrasive for material of	Special corundum (NDW) hardened Tool steel	White corundum (EK) Steel, cast-iron	Corundum mix (HK) Steel, cast-iron, non-ferrous metals Plastics (hard) GRP
Grit (from - to)	Fine (grit 100)	Fine (grit 46-100) to Coarse (grit 24-60)*	Coarse (grit 24-60)
Hardness	Hard/very hard	Medium	Soft/medium
Bonding	Ceramic	Ceramic	Ceramic/artificial resin
V = m/s (edge grinding)	approx. 10-30	approx. 25-40	approx. 30-50
V = m/s (surface grinding)	approx. 10-30	approx. 15-25	approx. 25-35
Use	Grinding	Grinding	Grinding
Cat.-no.	44300 - 44304	44305 - 44342	44350 - 44355

*The larger the grinding point, the coarser the grit
V = m/s: Recommended peripheral speed in m/s



Recommended peripheral speeds

In the diagram, the peripheral speeds are represented by the blue diagonal lines.

The perpendicular line appropriate for the tool meets the diagonal line for the specified peripheral speed. From this point the rpm for the grinding tool and machine are read out in rpm in the horizontal line on the left edge.

Example:

- grinding point Ø 20 mm,
- recommended peripheral speed 15 - 40 m/s,
- rpm: 14,000 - 38,000 rpm.

For materials that are difficult to machine, lower peripheral speeds are recommended, because lower speeds increase the abrasive capacity of the grinding point.

n = rpm
D = tool diameter
Vc = peripheral speed



44300

Mounted Grinding Point Assortment NDW (Shank Ø 3 mm)



Type

Dimensions = Ø x height. Outstanding dimensional stability, high edge strength, optimal machining values, long service life.

Use

For die and tool making, especially suitable for fine-grinding and deburring, edge working, hardened steel.

Quality

Composition:

- N = brown corundum,
- D = high-grade corundum dark-red,
- W = single-crystal corundum white.

44300



Set contents	
4	Grinding points cylindrical 4 x 8 / 6 x 10 / 8 x 10 / 10 x 13 mm,
2	Grinding points pointed arc 5 x 10 / 8 x 10 mm,
3	Grinding points spherical 4 x 4 / 6 x 6 / 8 x 8 mm,
1	Grinding point helical 10 x 13 mm.

Contents	Shank length mm	Cutting speed m/s	Type	44300	...
10-piece	50	10 - 30	in the case		101

When you think laterally ...



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... new ideas arise.



Performance requires quality

Grinding points

44301 - 44304

Grinding Points NDW (Shank Ø 3 mm)



Type

Extraordinary stability, great edge strength, perfect operation width, long service life, recommended working speed 10-30 m/s Length of shank 50 mm.

Use

For die and tool making, especially suitable for fine-grinding and deburring, edge working, hardened steel.

Quality

Composition:

N = normal corundum,
D = high-grade corundum, dark-red
W = single crystal carborundum, white.

44301
Cylindrical.

44303
Spherical.

44302
Pointed arc.

44304
Helical.

Ø x height mm	Cylindrical		Pointed arc		Spherical		Helical	
	44301	...	44302	...	44303	...	44304	...
4 x 4							101	
4 x 8		102						
5 x 10				101				
6 x 6						102		
6 x 10		103						
8 x 8						103		
8 x 10		105		102				
10 x 13		108						101



44305

Mounted Grinding Point Assortment EK (Shank Ø 3 mm)



Type

Dimensions = Ø x height.

Quality

High-grade carborundum, pink.

Set contents

- 11 Grinding points cylindrical 4 x 8 / 5 x 10 / 5 x 10 / 6 x 13 / 8 x 2 / 8 x 10 / 8 x 10 / 10 x 13 / 13 x 3 / 16 x 4 / 16 x 4 mm,
- 2 Grinding points pointed arc 3 x 6 / 8 x 16 mm,
- 1 Grinding point helical 5 x 10 mm,
- 1 Grinding point spherical Ø 5 mm.

Contents	Grit	Type	44305	...
15-piece	Fine	in box		101



44305

44310 - 44315

Grinding Points EK (Shank Ø 3 mm)



44310
Cylindrical.

44315
Spherical.

Quality

High-grade carborundum, pink.

Ø x height mm	Ø mm	Cylindrical		Spherical	
		44310	...	44315	...
4 x 8	-		105		
5 x 10	-		106		
6 x 10	-		107		
8 x 16	-		109		
-	6				101
-	8				102
-	13				104

44310

44315



44317

Mounted Grinding Points, Cylindrical EK (Shank Ø 3 mm)



Quality

High-grade carborundum, pink.

Ø x height mm	Grit		44317	...
4 x 8	coarse 60	10 pcs.		104
4 x 8	Fine 100	10 pcs.		105
5 x 10	coarse 60	10 pcs.	#	106
5 x 10	Fine 100	10 pcs.		107
6 x 13	coarse 60	10 pcs.		109
6 x 13	fine 100	10 pcs.		110
8 x 16	Coarse 46	10 pcs.		115
8 x 16	Fine 80	10 pcs.		116



44317



Abrasive Tools/
Separating Tools

44320

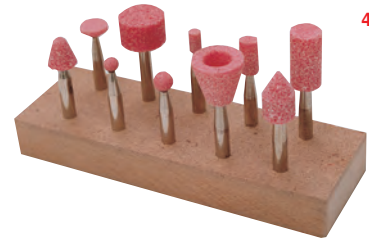
Mounted Grinding Points Assortment EK (Shank Ø 6 mm)



Type
Dimensions = Ø x height.
Quality
High-grade carborundum, pink.

Set contents

- 5 Grinding points cylindrical 5 x 10 / 8 x 16 / 13 x 3 / 13 x 25 / 20 x 13 mm,
- 1 Grinding point pointed taper 13 x 13 mm,
- 2 Grinding points spherical Ø 6 / 8 mm,
- 1 Grinding point cupped, conical 20 x 19,5 mm,
- 1 Grinding point centre 60° 13 x 20 mm.



44320

Contents	Type	44320	...
10-piece	in wooden stand		101

44322

Mounted Grinding Points Assortment EK (Shank Ø 6 mm)



Type
Dimensions = Ø x height.
Quality
High-grade carborundum, pink.

Set contents

- 5 Grinding points cylindrical 10 x 13 / 13 x 20 / 20 x 6 / 20 x 13 / 20 x 25 mm,
- 1 Grinding point spherical Ø 16 mm,
- 1 Grinding point helical 20 x 25 mm,
- 1 Grinding point pointed arc 13 x 20 mm,
- 2 Grinding points taper 20 x 20 / 20 x 32 mm.



44322

Contents	Grit	Type	44322	...
10-piece	Coarse	in box		101

44325

Mounted Grinding Points, Cylindrical Point EK (Shank Ø 6 mm)



Quality
High-grade carborundum, pink.



44325

Ø x height mm	44325	...
4 x 8	103	
5 x 10	104	
6 x 10	105	
8 x 16	107	
10 x 20	111	
10 x 32	112	
13 x 3	# 114	
13 x 20	116	

Ø x height mm	44325	...
13 x 25	# 117	
16 x 4	# 119	
16 x 20	121	
16 x 32	122	
16 x 40	# 123	
20 x 6	124	
20 x 40	129	
25 x 10	131	

Ø x height mm	44325	...
25 x 32	134	
32 x 8	135	
32 x 20	136	
32 x 40	138	
40 x 10	139	
40 x 20	140	
50 x 10	142	
50 x 20	143	

44326

Cylindrical grinding points SiC-aluminium (Shank Ø 6 mm)



Use
Especially for machining non-ferrous metal.
For deburring, cleaning, rework, and finishing.
Through its special micro-structure design,

maximum service life is achieved and it prevents the pores from clogging. The grinding points have a special impregnation which promotes self-sharpening.

Quality
Silicon carbide, green.



44326

Ø x height mm	Grit	44326	...
10 x 13	80	# 106	
10 x 20	80	107	
13 x 32	80	# 109	

Ø x height mm	Grit	44326	...
16 x 32	80	# 111	
20 x 20	80	112	
20 x 40	80	# 114	

Ø x height mm	Grit	44326	...
40 x 20	80	# 116	

44327

Mounted Grinding Points, Cylindrical Point EK (Shank Ø 6 mm)



Quality
High-grade carborundum, pink.



44327

Ø x height mm	Grit	44327	...
4 x 8	Coarse 60	# 103	
4 x 8	Fine 100	# 104	
5 x 10	Coarse 60	# 105	
5 x 10	Fine 100	106	
6 x 13	coarse 60	107	
6 x 13	Fine 100	108	
8 x 16	Coarse 46	114	
8 x 16	Fine 80	115	

Ø x height mm	Grit	44327	...
10 x 20	Coarse 46	120	
10 x 20	Fine 80	# 121	
10 x 32	Coarse 46	124	
10 x 32	Fine 80	# 125	
13 x 3	Coarse 60	# 126	
13 x 3	Fine 100	# 127	
13 x 20	Coarse 46	# 131	
13 x 20	Fine 80	# 132	

Ø x height mm	Grit	44327	...
13 x 25	Coarse 46	# 133	
13 x 25	Fine 80	134	
16 x 4	Coarse 46	# 138	
16 x 4	Fine 80	# 139	
16 x 20	Coarse 30	143	
16 x 20	Fine 60	144	
16 x 32	Coarse 30	145	
16 x 32	Fine 60	146	

Grinding points

44330

Tapered Grinding Points, EK (Shank Ø 6 mm)

LUKAS

Quality
High-grade carborundum, pink.

44330



Ø x height mm	44330	...
16 x 32		102
20 x 32		105

Ø x height mm	44330	...
20 x 40		106
25 x 70		107

44331

Taper grinding points SiC-aluminium (Shank Ø 6 mm)

LUKAS

Application
Especially for machining non-ferrous metal.
For deburring, cleaning, rework, and finishing.
Through its special micro-structure design,

maximum service life is achieved and it and prevents loading. The grinding points have a special impregnation which promotes self-sharpening.

Quality
Silicon carbide, green.

44331



Ø x height mm	Grit	44331	...
16 x 32	80		102

Ø x height mm	Grit	44331	...
20 x 40	80		106

44332

Tapered Grinding Points, EK (Shank Ø 6 mm)

PFERD

Quality
High-grade carborundum, pink.

44332



Ø x height mm	Grit	44332	...
16 x 45	Coarse 46		108
16 x 45	Fine 80		109
20 x 32	Coarse 30		112
20 x 32	Fine 60		113

Ø x height mm	Grit	44332	...
20 x 40	Coarse 30		114
20 x 40	Fine 60		115
25 x 70	Coarse 30		120

44335

Mounted Grinding Points, Ball Point EK (Shank Ø 6 mm)

LUKAS

Quality
High-grade carborundum, pink.

44335



Ø mm	44335	...
6		101
8		102
13		104

Ø mm	44335	...
20		106
25		107
32	#	108

44337

Mounted Grinding Points, Ball Point EK (Shank Ø 6 mm)

PFERD

Quality
High-grade carborundum, pink.

44337



Ø mm	Grit	44337	...
5	Coarse 60	#	102
5	Fine 100	#	103
8	Coarse 46	#	104
8	Fine 80	#	105
13	Coarse 46		108
13	Fine 80	#	109

Ø mm	Grit	44337	...
20	Coarse 30		112
20	Fine 60		113
25	Coarse 30	#	114
25	Fine 60	#	115
32	Coarse 24	#	116
32	Fine 46		117

44340

Conical Cup Grinding Points EK (Shank Ø 6 mm)

LUKAS

Quality
High-grade carborundum, pink.

44340



Greatest Ø x height mm	44340	...
20 x 20	#	101
25 x 24		102

Greatest Ø x height mm	44340	...
32 x 29	#	103
40 x 36	#	104

44342

Conical Cup Grinding Points EK (Shank Ø 6 mm)

PFERD

Quality
High-grade carborundum, pink.

44342



Ø x height mm	Grit	44342	...
20 x 16	Coarse 30		101
20 x 16	Fine 60	#	102
25 x 20	Coarse 30	#	103

Ø x height mm	Grit	44342	...
32 x 25	Coarse 24	#	105
32 x 25	Fine 46	#	106

44350 - 44355

Mounted Grinding Points, Cylinder Point (Shank Ø 6 mm)



44350

AWN/H soft

Type

Ceramic bonding.

Use

Soft grinding, very good performance.

Quality

Carborundum composite (white/blue).

44355

ADW/L medium

Type

Synthetic resin bonding.

Use

High removal rates, stays open, universal implementation. Ideal for universal implementation on stainless steel (INOX).

Quality

Carborundum composite (dark brown).

44350



44355



Head Ø x Head height mm	Grit	AWN/H soft		ADW/L medium	
		44350	...	44355	...
8 x 16	Coarse 46			#	150
10 x 20	Coarse 46		166		
10 x 32	Coarse 46			#	168
16 x 32	Coarse 30	#	199		199
20 x 25	Coarse 30	#	220		
20 x 40	Coarse 30				222

Head Ø x Head height mm	Grit	AWN/H soft		ADW/L medium	
		44350	...	44355	...
25 x 25	Coarse 30	#	234		
25 x 32	Coarse 30				237
32 x 16	Coarse 24				244
32 x 32	Coarse 24		246		
40 x 20	Coarse 24				253
50 x 25	Coarse 24				258

Info

Grinding points AWCO hardness J cat.-no. 44357 - 44363



Grinding points with **hardness J** are manufactured of a ceramic binding and a mixture of abrasive grit consisting of white corundum and blue ceramic sintered corundum. In the combination of friable, sharp-edged white corundum and the self-sharpening effect of the micro-

crystalline sintered corundum, the soft bond enables extremely high material removal rates with an excellent service life.

Hardness J is ideally **suited for use on titanium materials**, nickel alloys and cobalt-based alloys, as well as for machining hardened structural steel-work parts and build-up welds.

Advantages

- Cooler grind due to the friability of the grit mixture
- High removal rates with good service life
- Self-sharpening effect of the sintered corundum guarantees constant material removal rates



Abrasive	White corundum ceramic grit (AWCO)	Bonding	Ceramic
for material of	Steel, cast-iron, non-ferrous metals	Cutting speed m/s	approx. 30-50
Grit (from - to)	Fine (grit 46-100) to	Use	Grinding
Hardness	Medium	Cat.-no.	44357 - 44363

44357 - 44358

Cylindrical Grinding Points AWCO hardness J (shank Ø 3 and 6 mm)



Quality

White corundum and ceramic grit.

44357 - 44358



Shank Ø 3 mm				
Ø x height head mm	Grit	Ø x length shank mm	Max. permissible speed RPM	44357 ...
3 x 6	80	3 x 30	206.100	101
3 x 6	100	3 x 30	206.100	102
4 x 8	80	3 x 30	175.100	# 103
4 x 8	100	3 x 30	175.100	104
5 x 10	80	3 x 30	130.700	# 105
5 x 10	100	3 x 30	130.700	106
6 x 13	60	3 x 30	93.600	107
6 x 13	80	3 x 30	93.600	108
6 x 13	100	3 x 30	93.600	109

Shank Ø 6 mm				
Ø x height head mm	Grit	Ø x Length shank mm	Max. permissible speed RPM	44358 ...
8 x 16	46	6 x 40	119.300	# 101
8 x 16	80	6 x 40	119.300	102
10 x 13	46	6 x 40	95.400	103
10 x 13	80	6 x 40	95.400	104
13 x 25	46	6 x 40	73.400	105
13 x 25	80	6 x 40	73.400	106
16 x 20	46	6 x 40	59.600	# 107
16 x 20	60	6 x 40	59.600	# 108
16 x 32	46	6 x 40	51.200	109
16 x 32	60	6 x 40	51.200	# 110
20 x 25	46	6 x 40	47.700	111
20 x 25	60	6 x 40	47.700	112
32 x 32	46	6 x 40	25.700	# 113
40 x 20	46	6 x 40	23.800	# 114

continuation ▶



44359 - 44360 Spherical Grinding Points AWCO hardness J (shank Ø 3 and 6 mm)

continuation ▶

PFERD



Quality

White corundum and ceramic grit.

44359 - 44360



Head Ø mm	Grit	Shank Ø x Shank length mm	Max. permissible speed RPM	Shank Ø 3 mm	
				44359	...
6	80	3 x 30	149.200	#	101
6	100	3 x 30	149.200	#	102
8	80	3 x 30	116.200	#	103
8	100	3 x 30	116.200	#	104

Head Ø mm	Grit	Shank Ø x Shank length mm	Max. permissible Speed RPM	Shank Ø 6 mm	
				44360	...
13	46	6 x 40	73.400	#	101
13	60	6 x 40	73.400	#	102
13	80	6 x 40	73.400	#	103

44361 - 44362 Pointed Arc Grinding Points AWCO hardness J (shank Ø 3 and 6 mm)

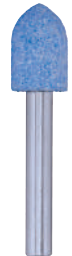
PFERD



Quality

White corundum and ceramic grit.

44361 - 44362



Head Ø x Head height mm	Grit	Shank Ø x Shank length mm	Max. permissible speed RPM	Shank Ø 3 mm	
				44361	...
6 x 13	80	3 x 30	107.900	#	101
6 x 13	100	3 x 30	107.900	#	102
8 x 16	60	3 x 30	72.800	#	103
8 x 16	80	3 x 30	72.800	#	104
8 x 16	100	3 x 30	72.800	#	105

Head Ø x Head height mm	Grit	Shank Ø x Shank length mm	Max. permissible speed RPM	Shank Ø 6 mm	
				44362	...
13 x 20	46	6 x 40	73.400	#	101
13 x 20	60	6 x 40	73.400	#	102
13 x 20	80	6 x 40	73.400	#	103

44363 Spherical Grinding Points AWCO hardness J (shank Ø 3 6 mm)

PFERD



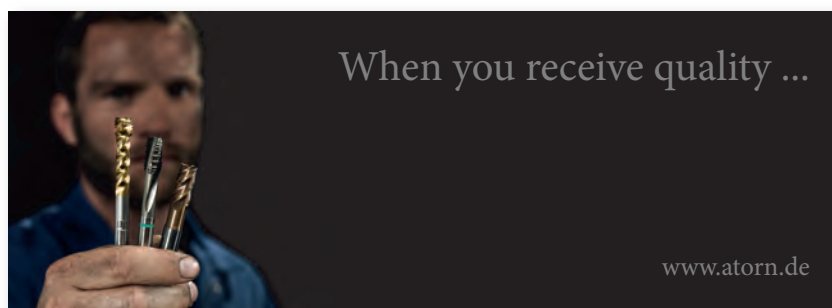
Quality

White corundum and ceramic grit.

44363



Head Ø x Head height mm	Grit	Shank Ø x Shank length mm	Max. permissible speed RPM	Shank Ø 6 mm	
				44363	...
10 x 25	46	6 x 40	95.400	#	101
10 x 25	60	6 x 40	95.400	#	102
16 x 45	46	6 x 40	52.000	#	103
16 x 45	60	6 x 40	52.000	#	104



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Performance requires quality



Use
E.g. for warm and cold working steel, fine cast steel, structural steel, stainless steel, acid-resistant steel, stainless sheet steel, cast stainless steel, corrosion-resistant steel, bronze, copper, brass, cast brass and bronze.

44364

Type
Rubber bonding, soft grinding.

Use
Preparation for polish grinding and matt polishing of non-ferrous metals. Also for aluminium, forgeable aluminium alloys, cast aluminium. Recommended peripheral speed 12-20 m/s.

Quality
High-grade carborundum, pink (EK).

44365

Type
Leather bonding, better surface quality, long service life.

Use
As preparation for polishing and rounding of edges. Recommended peripheral speed 15-30 m/s.

Quality
High-grade carborundum, white (HGC).

44366

Type
Polyurethane bonding, soft, elastic, cool grinding, adapts to contours.

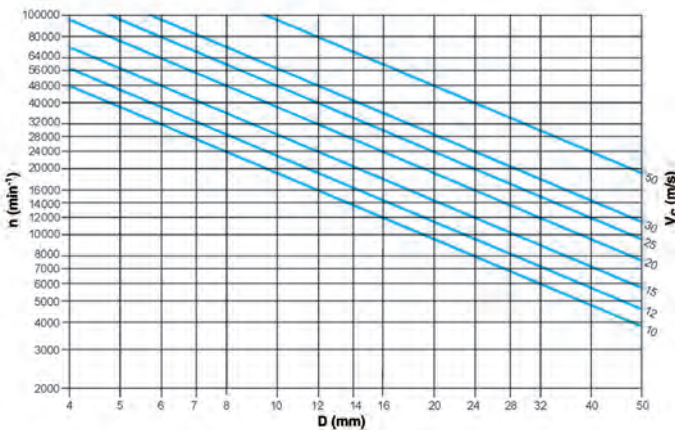
Use
For gentle machining of surfaces, dash-dot matting, cleaning, preparation of cleaning, de-oxidising, light-duty deburring. Recommended peripheral speed < 10-15 m/s.

Quality
Silicon carbide, green (SIC).

44364 44365 44366



Abrasive Tools/
Separating Tools



Working speeds for Poliflex® tools

In the diagram, the cutting speeds are represented by the diagonal lines.

Combine the diameter (perpendicular line) with the cutting speed (diagonal line). At the height of this cutting point, in the horizontal line, on the left edge, the recommended operating speed for the selected diameter of the Poliflex® tool in RPM is read out.

Example:

Poliflex® fine grinding point, high-grade carborundum, pink, 15 mm Ø, recommended peripheral speed = < 12 - 20 m/s, recommended rotational speed range = < 15.500 - 26.000 min⁻¹.

- n = speed
- D = tool diameter
- Vc = peripheral speed

Head Ø x head height mm	Grit	Shank Ø mm	Shank length mm	EK pink		EK white		SIC green	
				44364	...	44365	...	44366	...
8 x 12	80	3	30						107
8 x 12	120	3	30		112		109		
10 x 15	120	6	40		118	#	114		
15 x 25	120	6	40		128	#	123		
20 x 30	80	6	40						111
20 x 30	120	6	40		132	#	127		
25 x 25	120	6	40	#	134	#	129		
30 x 30	120	6	40	#	136	#	131		

Info

Polishing points cat.-no. 44375 - 44377

Due to the outstanding elasticity, the felt polishing points in conjunction with grinding compound (cat.-no. 43141) and polishing compounds (cat.-no. 44380 - 44381), are also suitable for polishing particularly complicated shapes, such as pressure-cast and injection moulded shapes, pulling tools, pressing tools, cutting tools, cold heading dies, forging dies, bearings, spindles, rollers, calibres, etc.

Abrasive	Felt with grinding paste
For material of	steel, cast-iron, non-ferrous metals
Grit (from - to)	Micro-fine (with compound grit 1200) to very coarse (with compound grit 90)
Hardness	Very soft
V = m/s	approx. 5-10
Use	Polishing
Cat.-no.	44375 - 44377

V = m/s: Recommended peripheral speed in m/s



44375

Felt Polishing Points (Shank Ø 6 mm)



Use

For surface finishing of pre-ground workpieces. Usage in conjunction with special lapping compound cat.-no. 43141 and polishing paste cat.-no. 44380 - 44381.

Note:

cat.-no. 44375 120 with borehole 6 mm Ø, without mounting arbor.

44375 101-105



44375 107-109



44375 111



44375 118



44375 120



44375 126



Shape	Head Ø x Length approx. mm	44375	...
Cylinder	10 x 15	101	
Cylindrical	25 x 30	105	
spherical	Ø 10	107	
spherical	Ø 12	108	
spherical	Ø 20	#	109

Shape	Head Ø x Length approx. mm	44375	...
Pointed arc	12 x 20	111	
Round taper	25 x 30	118	
Disc	40 x 10	120	
Mounting arbor	-	126	



43141

44376

Felt Polishing Points (Shank Ø 3 mm)



Use

Mainly used in the area of **high-gloss polishing** in conjunction with special lapping compound cat.-no.

43141 and polishing paste cat.-no. 44380 - 44381. Thanks to the different diameters and shapes, even complicated workpieces can be polished. Easy to profile.

Shape	Head Ø x -length mm	Shank length mm	Rec. speed 1/min	44376	...
Cylindrical	6 x 10	40	16.000-32.000	101	
Cylindrical	8 x 10	40	12.000-24.000	102	
Cylindrical	10 x 14	40	10.000-20.000	103	
Pointed arc	8 x 12	40	12.000-24.000	104	
Pointed arc	10 x 18	40	10.000-20.000	105	
Pointed arc	12 x 18	40	8.000-16.000	106	
Helical	8 x 12	40	12.000-24.000	107	
Helical	10 x 14	40	10.000-20.000	108	



44376 101-103



44376 104-106



44376 107-108



44377

Felt Polishing Points (Shank Ø 6 mm)



Use

Mainly used in **high-gloss polishing** in conjunction with special lapping compound cat.-no. 43141 and polishing paste cat.-no. 44380 - 44381. Thanks to the different diameters and shapes, even complicated workpieces can be polished. Easy to profile.

44377 102-104

Type

With borehole in face, therefore particularly suitable in face grinding. The borehole in the face prevents the accumulation of residue.

Shape	Head Ø x -length mm	Shank length mm	Rec. speed 1/min	44377	...
Cylindrical	10 x 14	40	10.000-20.000	101	
Cylindrical	15 x 20	40	6.000-12.000	102	
Cylindrical	20 x 25	40	5.000-10.000	103	
Cylindrical	25 x 30	40	4.000-8.000	104	
Pointed arc	10 x 18	40	10.000-20.000	105	
Pointed arc	15 x 20	40	6.000-12.000	106	
Pointed arc	15 x 30	40	6.000-12.000	#	107
Pointed arc	20 x 25	40	5.000-10.000	108	
Helical	15 x 20	40	6.000-12.000	#	109
Helical	20 x 25	40	5.000-10.000	#	110
Helical	25 x 30	40	4.000-8.000	111	
Round taper	15 x 20	40	6.000-12.000	#	112
Round taper	20 x 25	40	5.000-10.000	113	
Round taper	25 x 30	40	4.000-8.000	114	
Round taper	30 x 35	40	3.000-6.000	115	
Tear-drop	10 x 14	40	10.000-20.000	#	116
Angled	20 x 16	40	5.000-10.000	#	117



44377 101



44377 102-104



44377 105-108



44377 109-111



44377 112-115



44377 116



44377 117



Abrasive Tools/
Separating Tools

44380

Polishing Paste Bars



Use

Use in conjunction with felt polishing points (cat-no. 44375 - 44377).

44380

Type	Use	Colour	B x T x H mm	44380	...
Pre-polishing compound	Steel + stainless Steel	green	70 x 50 x 140		101
Pre-polishing compound	Al + Messing	grey	70 x 50 x 140		102
Pre-polishing compound	Non-ferrous	brown	70 x 50 x 140		103
High-gloss polishing compound	all metals	pink	70 x 50 x 140		104
High-gloss polishing compound	plastics	beige	70 x 50 x 140		105



44381

Diamond Polishing Compounds



Type

- Paste in practical dosing syringe with scale, a little goes a long way
- **High diamond proportion**
- Can also be applied as concentrate
- Grit mixture, thus better abrasion than with pure grit
- No mistaking the grit, through colouration of the compound
- Oil-soluble
- No hazardous substances

Use

- Suitable for polishing
- Hard metals
- Hard case-hardened steel and chrome-steels
- Coatings that protect against wear

44381

Grit μ	Contents ml	Colour	44381	...
1 - 3	5	red	#	201
1 - 3	20	red		401
4 - 6	5	yellow	#	202
4 - 6	20	yellow	#	402
12 - 17	5	green		203
12 - 17	20	green		403
30 - 40	5	blue	#	204
30 - 40	20	blue	#	404
40 - 50	5	orange	#	205
40 - 50	20	orange	#	405



44385 - 44390

Diamond and CBN Grinding Points



Type

Cylindrical shape, A = offset shank, N = non-offset shank. **Advantages:** Excellent service life and profile-holding properties. Short working time. Reduction of non-productive times. No thermal damage to the workpiece thanks to the low grinding temperatures. Even quality for many workpieces.

44385

Diamond Grinding Points

Use

For the processing of carbide (sintered, green compact), glass, ceramics (also engineered ceramics, coatings that protect against wear, ferrite, silicon, graphite, electro-carbons, thermosets, glass-fibre reinforced plastics, natural stone and cast stone, fire-resistant materials, among other things

on internal cylindrical grinding machines and coordinate grinding machines.

Recommended peripheral speed:

wet 20 m/s, dry 15 m/s.

Quality

Grit D 126.

44390

CBN Grinding Points

Cubic boron nitride.

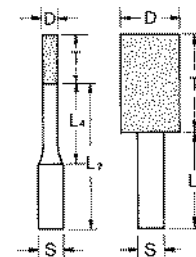
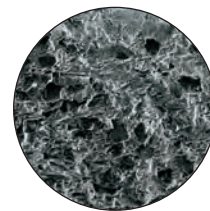
Use

For the processing of high-speed steels, tool steels, case-hardened steels, ball bearing steels, chrome steels, among other things on internal cylindrical grinding machines and coordinate grinding machines. **Recommended peripheral speed:** wet 30 m/s, dry 20 m/s.

Quality

Grit B 126.

44385 - 44390



Diamond		CBN		44385	...	44390	...
D x T mm	S mm	shank-form	L2 mm	L4 mm			
1,0 x 4	3	A	36	9	103	#	103
1,6 x 4	3	A	36	10	107	#	107
2,0 x 4	3	A	36	10	109	#	109
2,6 x 4	3	A	36	14	113	#	113
3,0 x 4	3	A	36	19	115	#	115
3,5 x 5	3	N	45	-	116	#	116
4,0 x 5	3	N	45	-	117	#	117
4,5 x 5	3	N	45	-	#	118	118
5,0 x 5	3	N	45	-	119	#	119

Diamond		CBN		44385	...	44390	...
D x T mm	S mm	Shank-form	L2 mm	L4 mm			
5,5 x 6	3	N	44	-	120	#	120
6,0 x 6	6	A	54	19	#	121	121
7,0 x 8	6	N	52	-	#	123	123
8,0 x 8	6	N	52	-	#	125	125
10,0 x 8	6	N	52	-	#	127	127
12,0 x 8	6	N	52	-	#	129	129
15,0 x 10	6	N	50	-	132	#	132
20,0 x 10	6	N	50	-	136	#	136



44502 Diamond cup grinding points



Type
Synthetic resin bonding.

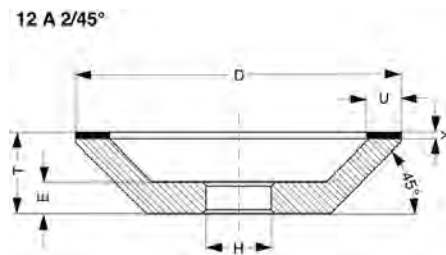
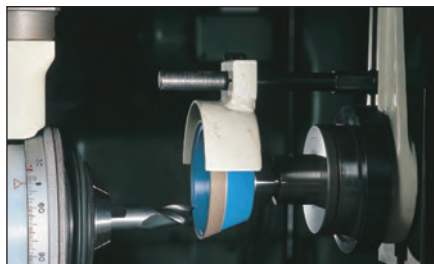
Use
Particularly for grinding, (sharpening) of carbide tools on all common grinding machines. Universally suited for dry and wet grinding (wet grinding is always recommended).

Grit D 126: For finishing.
Grit D 64: For fine-grinding.

Bonding PHT:
Especially for **high-performance dry grinding**, i.e. cooler grinding, even without coolant.

Note:
Grit concentration, indicates the grit quantity in carat (ct) per volume unit (cm³) of the abrasive coating.

44502



D x X x U x H mm	T mm	E mm	Grit	Bond	Grit concentration	Wet grinding approx. m/s	Dry grinding approx. m/s	12 A 2/45° 44502	...
125 x 2 x 10 x 20	25	10	D 64	PHT	C 50 (2,2 ct/cm ³)	20 - 35	15 - 20		114
125 x 2 x 10 x 20	25	10	D 126	PHT	C 75 (3,3 ct/cm ³)	20 - 35	15 - 20		115

44540 Grinding machine deburring wheel Scotch-Brite™ DB-WL



Type
These wheels are made of wrapped-around fibre. This guarantees a continuous release of the grits. **Extremely long service life.** High cutting force.

Use
Especially suitable for deburring and rounding of edges and boreholes, milling or punching edges and for deburring taps. Suitable for all metals, also hard and ductile metals, such as stainless steel and titanium.

Note:
Reducing flanges for compact wheels see cat.-no. 44545.



44540

Type	Outer Ø x width x inner Ø mm	Speed max. RPM	44540	...
DB-WL	203 x 50,8 x 76,2	4500	#	101

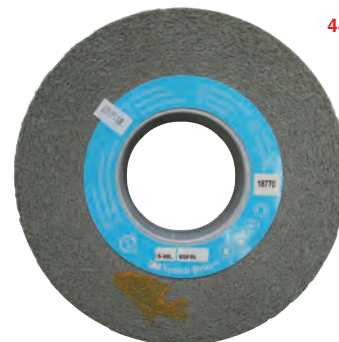
44541 Grinding machine finishing wheel Scotch-Brite™ FS-WL



Type
Wrapped-around fibre mat disc guarantees a continuous release of grits. The impregnation ensures a longer service life. The grits are evenly spread, no deviations in the surface. Gentle, adaptive application, quick cutting at low temperatures.

Use
For fine machining of stainless steel, copper, brass and aluminium.

Note:
Reducing flanges for compact wheels see cat.-no. 44545.



44541

Type	Outer Ø x width x inner Ø mm	Speed max. RPM	44541	...
FS-WL	203 x 50,8 x 76,2	4500	#	101

44545 Reducing flange for compact wheels



Type
Pairs.
Use

These back plates are required for mounting compact wheels. They are suitable for all standard shank diameters. For all other shank diameters, the borehole can be drilled out.

Note:
Suitable compact wheels see cat.-no. 44540 - 44541.

44545



Can be used for inner Ø mm	Bore of the flange mm	44545	...
76,2	13	#	101

Abrasive Tools / Separating Tools

44550

Grinding Wheels for Rough-Grinding

Type

Straight, ceramic bond, bonding type V 42, hardness 36 P.

Use

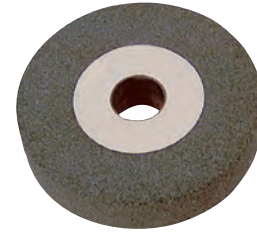
For general workshop use. For roughing standard steel, iron etc.

Quality

Normal carborundum (NK).

Note:

Grinding wheels in further dimensions available on request. For reducing the borehole Ø by means of reducing rings (cat.-no. 44560).



44550

Disc Ø x width x Bore mm	NK/grit 36	
	44550	...
150 x 20 x 15		101
150 x 20 x 32		102
175 x 25 x 32		103
175 x 25 x 51	#	104

Disc Ø x width x Bore mm	NK/grit 36	
	44550	...
200 x 20 x 32	#	105
200 x 25 x 15	#	106
200 x 25 x 20		107
200 x 25 x 32		108

Disc Ø x width x Bore mm	NK/grit 36	
	44550	...
200 x 25 x 51	#	109
200 x 32 x 51		110
300 x 40 x 76		113

44552 - 44556

Grinding Wheels for Finishing

Type

Straight, ceramic bond, bonding type V 42.

Note:

Grinding wheels in further dimensions available on request. For reducing the borehole Ø by means of reducing rings (cat.-no. 44560).

44552

Use

Hardness M. For general workshop use.

For finishing standard steel, iron, etc.

Quality

Normal carborundum (NK).

44554

Use

Hardness K. For finish grinding of hardened steel and high-speed steels.

Quality

High-grade carborundum (HGC).

44556

Use

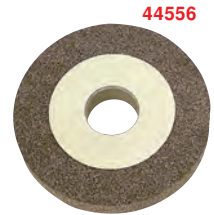
Hardness Jot. For finishing grey cast iron, carbide, aluminium, porcelain, natural and artificial stone as well as welds.

Quality

Silicon carbide, green (SIC).

44552

44554



44556

Disc Ø x width x Bore mm	NK/grit 60		EK/grit 60		SIC/grit 80	
	44552	...	44554	...	44556	...
150 x 20 x 15		301		101		101
150 x 20 x 32		302		102		102
175 x 25 x 32		303		103		103
175 x 25 x 51		304		104		104
200 x 20 x 32	#	305		105		105
200 x 25 x 15	#	306	#	106	#	106
200 x 25 x 20		307		107		107
200 x 25 x 32		308		108		108
200 x 25 x 51		309		109		109
200 x 32 x 51		310		110		110
250 x 32 x 51	#	311		111	#	111
300 x 40 x 25	#	312	#	112	#	112
300 x 40 x 76		313		113	#	113

44560

Reducing Rings for Grinding Wheels

Type

Pairs.

Use

For reducing the borehole Ø of the grinding wheels cat.-no. 44550 44556).

2 reducing rings are needed per wheel.



44560

Outer Ø mm	Inner Ø mm	Pair	
		44560	...
20	12		101
20	16		102

Outer Ø mm	Inner Ø mm	Pair	
		44560	...
32	15		103
32	16		104
32	20		105

Outer Ø mm	Inner Ø mm	Pair	
		44560	...
51	32		106
76	51	#	107



44902 - 44903 See-Through Grinding Wheels

Type
Horizontally rotating. Radially orientated elongated holes ensure a see-through effect during cutting, so that the workpiece can be watched. Abrasive coating with artificial resin bond – can be used on both sides.

Quality
Abrasive high-grade carborundum with silicon carbide.

44902
Type ER
Use
For structural steel, malleable cast iron, cast steel, perhaps grey cast iron and non-metallic materials.

44903
Type EF
Use
For high-speed steels (alloyed tool steels).

44902 - 44903



Grit	Ø x thickness x bore mm	Type ER		Type EF	
		44902	...	44903	...
60	210 x 5 x 12	#	202	#	202
120	210 x 4 x 12	#	205	#	205
150	210 x 4 x 12	#	206	#	206

44600 Clamp flange Rhoducer (vibration-damping clamp flange)

RHODIUS BRAINTOOLS
by Rhodius

Type
Clamping flange for retrofitting of non vibration-damped angle grinders. It has a wear-resistant coating that additionally damps vibrations through crossbars, because the clamping surface is reduced. Thus it reduces stresses for the body areas which were previously especially stressed, and thus significantly increases quality of work.

Use
For more comfort during the application and for keeping you healthy. Reduces grinding vibrations.

44600



	44600	...
Rhoducer	#	101

44601 Rough Grinding Discs (Metal)

ATORN[®]

Type
Offset, glass fabric reinforcement, open structure. Hard disc with high machining capacity and high edge strength.

Use
For use on high-speed angle grinders. For steel and non-ferrous metal work.

NEW

44601



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44601	...
115 x 7	22,2	13.285	80	25 pcs.		201
125 x 7	22,2	12.200	80	25 pcs.		202
180 x 7	22,2	8.600	80	10 pcs.		203
230 x 7	22,2	6.600	80	10 pcs.		204



44603 Rough Grinding Discs (Metal)

HW

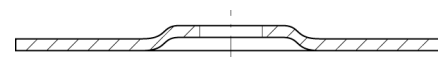
Type
Offset, fibre-glass reinforcement, brown corundum. High abrasive performance and long service life. Made in Germany.

Use
For all types of metals, particularly sheet steel, structural steel and weld seams.

44603



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44603	...
115 x 6	22,23	13.285	80	10 pcs.		101
125 x 6	22,23	12.200	80	10 pcs.		102
180 x 6	22,23	8.600	80	10 pcs.		103
230 x 6	22,23	6.600	80	10 pcs.		104



Abrasive Tools / Separating Tools

44606 - 44609

Rough Grinding Discs (Metal)

RHODIUS

Type
Offset, glass fabric reinforcement, open structure.
Use
For machining steel with fast angle grinders.

44606
Medium-hard wheel
Type RS 2
Type
With high chip removal and and high edge strength.
Use
For the processing of of structural steels and constructions steels, unalloyed and alloyed stainless steels, as well as tool steels.

44609
Standard Universal
Type KSM
Type
Hard wheel with long life time.
Use
Universal implementation for general metal working.



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		medium-hard		standard	
					44606	...	44609	...
115 x 6	22,2	13.285	80	25 pcs.			101	101
125 x 6	22,2	12.200	80	25 pcs.			102	102
150 x 6	22,2	10.185	80	10 pcs.			103	
180 x 6	22,2	8.600	80	10 pcs.	#		104	# 104
180 x 10	22,2	8.600	80	10 pcs.	#		106	
230 x 6	22,2	6.600	80	10 pcs.				# 107

44615 - 44617

Rough Grinding Discs (Metal)

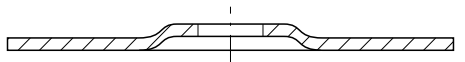


Type
In compliance with EN 12413. Offset, fibre-reinforced artificial resin bond.

44615
Medium-hard wheel
Type A 30 P
Use

For the processing of steel and cast-iron (grey cast-iron and nodular cast iron) with high grinding capacity and good service life. For surface grinding, processing of weld seams, chamfering, deburring, fillet weld grinding.

44617
Hard wheel
Type A 24 R
Use
For the processing of steel with high grinding capacity and good service life. For surface grinding, processing of weld seams, chamfering, deburring, fillet weld grinding and back gouging.



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		A 30 P		A 24 R	
					44615	...	44617	...
115 x 4,1	22,2	13.300	80	10 pcs.				101
115 x 7,2	22,2	13.300	80	10 pcs.			101	# 102
125 x 7,2	22,2	12.200	80	10 pcs.			102	104
178 x 7,2	22,2	8.600	80	10 pcs.	#		103	106
178 x 8,3	22,2	8.600	80	10 pcs.	#		104	107
230 x 7,2	22,2	6.600	80	10 pcs.	#		105	108

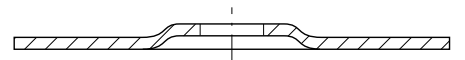
44611

Rough Grinding Discs (Aluminium)

RHODIUS

Medium-hard disc
Type RS 24
Type
Offset, glass fabric reinforcement, open structure. Grinds easily, with excellent service life and extremely high removal rates. Special fillers prevent clogging of the disc.

Use
For all lubrication non-ferrous metals, such as aluminium, zinc, lead and tin and their alloys, such as bronze, bronze, gun metal. For grinding lugs, skins of a casting, welds, burrs and edges.



Ø x width mm	Bore Ø mm	speed max. RPM	Working speed max. m/s		44611	...
115 x 6	22,2	13.285	80	25 pcs.		101
125 x 6	22,2	12.200	80	25 pcs.		102
180 x 6	22,2	8.600	80	10 pcs.		104

44630 Rough Grinding Discs (Stainless Steel)

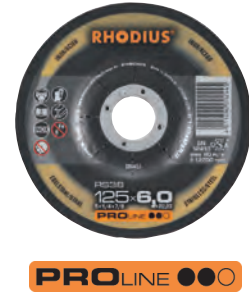
RHODIUS

Medium-hard wheel
Type RS 38

Type
Offset, glass fabric reinforcement, open structure.
Grinds easily, with high removal rates and very good service life. **Free of iron and sulphur.**

Use
For corrosion and acid-resistant steel such as INOX, V2A, Coracid, Nirosta, heat-resistant cast steel (GX steel), spring steel, all types of construction and tool steel. For grinding edges, deburring, cleaning of welds.

44630



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44630	...
115 x 6	22,2	13.285	80	25 pcs.	#	101
125 x 6	22,2	12.200	80	25 pcs.		102
180 x 6	22,2	8.600	80	10 pcs.		103
230 x 6	22,2	6.600	80	10 pcs.	#	105

Abrasive Tools/
Separating Tools

44619 - 44621 Rough Grinding Discs (Stainless Steel)



Type
In compliance with EN 12413. Offset, fibre-reinforced artificial resin bond. **Without filler materials which contain iron, sulphur, or chlorine.**

44619
Medium-hard wheel
Type A 30 M
Use
For the processing of stainless steel and materials that are difficult to machine with aggressive grinding action and good tool life. For surface grinding, processing of weld seams, chamfering, deburring, fillet weld grinding and back gouging.

44619



44621
Hard wheel
Type A 30 N
Use
For the processing of stainless steel with aggressive grinding action and good service life. For surface grinding, processing of weld seams, chamfering, deburring, fillet weld grinding and back gouging.

44621



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		A 30 M		A 30 N	
					44619	...	44621	...
115 x 4,1	22,2	13.300	80	10 pcs.			#	101
115 x 7,2	22,2	13.300	80	10 pcs.		101	#	103
125 x 5,2	22,2	12.200	80	10 pcs.				105
125 x 7,2	22,2	12.200	80	10 pcs.		102		106
178 x 7,2	22,2	8.600	80	10 pcs.		103		
178 x 8,3	22,2	8.600	80	10 pcs.	#	104		
230 x 7,2	22,2	6.600	80	10 pcs.		105		

44604 Rough Grinding Discs (Stainless Steel) Cubitron™ II

3M

Type
- Up to three times the removal capacity of conventional roughing discs
- Immediate engagement in solid material
- Expenditure of force reduced by 70% at the same removal rate
- Faster, cooler grinding and optimized grinding processes

Use
Particularly suited for structural steelwork applications (side grinding with frequent edge stress, chamfering, grinding of fillet welds, cleaning, back gouging, coarse grinding tasks and removal of weld seams).

44604



Ø x width mm	Bore Ø mm	Working speed max. m/s	44604	...
115 x 7	22,2	80		101
125 x 7	22,2	80		102
178 x 7	22,2	80		103
230 x 7	22,2	80		104

44660 - 44661

Cup wheels (metal / stone)

RHODIUS

Type

Conical, medium-hard.

Use

For rough grinding through finishing grinding. For use on common angle grinders.

Note:

Use special protective hood!

44660

Use

For grinding surfaces, constructions and welds. For levelling of put-together parts thanks to face-mounting. For structural steel, unalloyed and alloy steel, spring steel, tempered steel.

Quality

Normal carborundum.

44661

Use

For grinding natural and artificial stone, chamfering of edges, cleaning of grey cast iron parts and of frameworks. For concrete, refractory stones, tiles, glazed tiles, clinker, moulding sand.

Quality

Silicon carbide.



44660

44661

Grit	Greatest Ø x height mm	Hardness	Bore Ø mm	Speed max. RPM	Working speed max. m/s	Metal		Stone	
						44660	...	44661	...
24 (Coarse)	110/90 x 55	Q	22,2	8.680	50				
36 (medium)	110/90 x 55	Q	22,2	8.680	50			201	201
60 (Fine)	110/90 x 55	Q	22,2	8.680	50			202	203

44705

Combination Grinding Discs 1.9 mm

RHODIUS

Type XT 35 Cross

Type

Extra-thin combination disc (1.9 mm), offset.

Enables pleasant, easy and fast parting and roughing grinding with good service life. Three full fabric layers guarantee a very high stability and best safety. Free of iron and sulphur.

Use

Several work steps can be performed with one disc, without having to remove the machine. Extra thin cutting, deburring, bevelling, and smoothing. Suitable for corrosion and acid-resistant steel, Hardox, hardened, high-alloyed and high-strength steel, galvanised parts, steel, tool steel.



44705

Ø x thickness mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44705	...
115 x 1,9	22,23	13.285	80	25 pcs.	#	101
125 x 1,9	22,23	12.200	80	25 pcs.	#	102

44710

Combination grinding discs



Type

In compliance with EN 12413.

Combination grinding disc for cutting and light-duty deburring. Robust, very stable disc design. Reduces costs by reducing set-up times. Aggressive abrasive and high-quality grit bonding. Without filler materials which contain iron, sulphur, or chlorine.

Use

For cutting, light-duty deburring and light-duty surface grinding. For steel and INOX. Suitable for angle grinder of all classes.



44710

Ø x thickness mm	Speed max. 1/min		44710	...
115 x 1,9	13.300	10 pcs.		100
115 x 2,8	13.300	10 pcs.	#	101
125 x 1,9	12.200	10 pcs.		103
125 x 2,8	12.200	10 pcs.		102

Cutting-off discs

44800 - 44801

Small Free-Hand Cutting-Off Discs



44800

Medium-hard wheel

Type

In compliance with EN 12413. Straight, fibre-reinforced, artificial resin bond. **Without filler materials which contain iron, sulphur, or chlorine.**

Use

Universal implementation for cutting steel, stainless steel, cast iron and non-ferrous materials. Especially suitable for materials with very high-temperature strength, e.g. when repairing engines in turbine construction. Also in car-body construction, for cutting sheet metal in hard-to-reach places.

Note:

With mounted clamping bolt on straight grinders can be used up to the highest permissible speed of the clamping bolt.
(Compressed-air) straight grinder see cat.-no. 91500 - 91503, 92425, 92430.

44801

Mounting bolt

Type

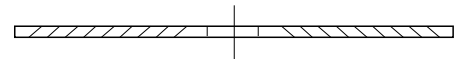
Shank Ø 6 or 10 mm.

Note:

When using the clamping bolt, comply with the highest permissible speed specified in the package insert.

44800

44801



Ø x width mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s	Cutting-off disc		Mounting bolt	
				44800	...	44801	...
30 x 1,1	6	51.000	80			101	101
40 x 1,1	6	38.200	80			103	101
50 x 2,1	6	30.600	80			107	101
65 x 2,1	10	23.500	80			112	103
70 x 2,1	10	21.800	80			116	103
76 x 2,1	10	20.100	80			121	103

44804

Free-Hand Cutting-Off Discs (Metal)

ATORN®

Type

Straight shape, thin type. Extremely hard cutting-off disc for extremely short cutting times. Smooth sides for chatter-free and almost burr-free cutting.

Use

For cutting thin-walled pipes, thin sheet metal and profiles.

Ø x thickness mm	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44804	...
115 x 1,0	22,2	13.285	80	50 pcs.		101
115 x 1,5	22,2	13.285	80	50 pcs.		102
125 x 1,0	22,2	12.200	80	50 pcs.		103
125 x 1,5	22,2	12.200	80	50 pcs.		104
180 x 1,5	22,2	8.600	80	25 pcs.		106
230 x 1,9	22,2	8.600	80	25 pcs.		107

44804



44805

Free-Hand Cutting-Off Discs (Metal)

ATORN®

Type

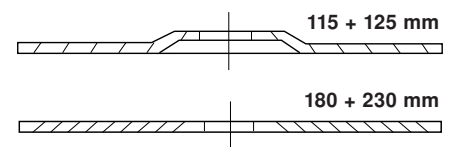
Glass fabric reinforcement, open structure. Hard, with long life and cooled, fast cutting.

Use

For cutting high-strength structural steels.

Ø x thickness mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44805	...
115 x 3	Offset	22,2	13.285	80	25 pcs.		101
125 x 3	offset	22,2	12.200	80	25 pcs.		102
180 x 3	Straight	22,2	8.600	80	25 pcs.		103
230 x 3	Straight	22,2	6.600	80	25 pcs.		104

44805



44803

Free-Hand Cutting-Off Discs (Metal)

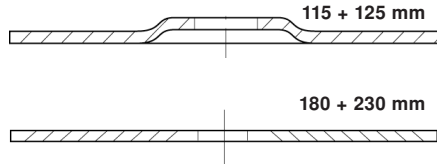


Type

Cutting-off disc with good service life and fast cut. Made in Germany.

Use

Universal implementation for cutting all metals, e.g. structural steelwork and construction steelwork, etc.



44803



Ø x width mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44803	...
115 x 3	Offset	22,23	13.285	80	25 pcs.		101
125 x 3	Offset	22,23	12.200	80	25 pcs.		102
180 x 3	Straight	22,23	8.600	80	25 pcs.		103
230 x 3	Straight	22,23	6.600	80	25 pcs.		104

44809 - 44816

Free-hand cutting-off discs (steel)

RHODIUS

Type

Glass-fibre-reinforced, open structure, hole 22,2 mm Ø, max. working speed 80 m/s.

44809

Extra thin high-quality cutting-off disc

Type XT20

Type

Very hard, with extremely quick cut, very thin, very precise, chatter-free, burr-free, low-noise, cool, with extremely long service life.

Use

For cutting solid stock, of steel, tubing, profiles and sheet steels, spring steels, and tool steels.

44810

High-Performance Cutting-Off Disc

Type FT/FTK 67

Type

Very long service life and special cool cutting.

Use

For cutting sheet metal, tubing, profiles and solid steel materials. Effortlessly cuts all iron materials.

44814

Medium-hard wheel

Type KSM/KSMK

Type

With good cutting properties and high-performance standard.

Use

For universal metal working implementation.

44815

Special medium-hard

Type FT/FTK 33

Type

With long life and cooled, fast cutting.

Use

For cutting high-strength structural steels.

44816

Medium-hard cutting-off disc

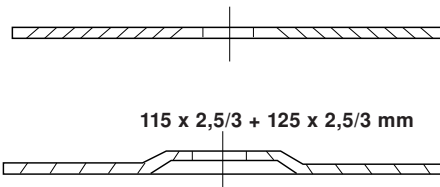
Type XT/FT/FTK 24

Type

Even cuts heavy-duty materials very easily, with long service life.

Use

Ideally suited for cutting of aluminium, Al alloys, copper, brass, bronze and other lubricating non-ferrous metals



Ø x thickness mm	Shape	Speed max. RPM.		XT20		XT/FT/FTK 67		KSM/KSMK		FT/FTK 33		XT/FT/FTK 24		...
				44809	...	44810	...	44814	...	44815	...	44816	...	
115 x 1,0	Straight	13.285	-		101		201							
115 x 1,5	Straight	13.285	-		102		203							103
115 x 2,5	Offset	13.285	-										#	108
115 x 3,0	offset	13.285	25 pcs.					#	108			208		
115 x 3,0	Offset	13.285	-				208							
125 x 1,0	Straight	12.200	-		103		209							
125 x 1,5	Straight	12.200	-		104		211							111
125 x 2,5	Offset	12.200	25 pcs.											116
125 x 3,0	Offset	12.200	25 pcs.				216		116			216		
150 x 1,5	Straight	10.185	25 pcs.		108									
150 x 3,0	Straight	10.185	-					#	223					
180 x 1,5	Straight	8.600	25 pcs.		105		229							
180 x 1,5	Straight	8.600	-											128
180 x 3,0	Straight	8.600	25 pcs.			#	231	#	131	#	231			
180 x 3,0	Straight	8.600	-									#		131
230 x 1,9	Straight	6.600	25 pcs.		106		237					#		137
230 x 3,0	Straight	6.600	25 pcs.				239		139			#		139
230 x 3,0	Straight	6.600	-							#	239			



Cutting-off discs

44806 - 44807 Free-Hand Cutting-Off Discs (Metal)



Type

In compliance with EN 12413. Fibre-reinforced, artificial resin bond.

Use

For cutting sheet metal, tubing, profiles and solid stock made of steel.

44806

Medium-hard wheel

Type A 24/46/60 P

Use

Good service life and fast cutting (universal)

44807

Hard wheel

Type A 24/30/46/60 S

Use

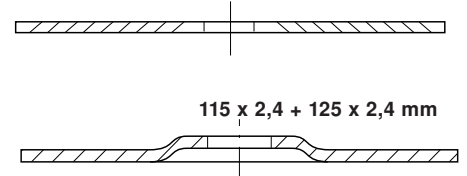
Thickness 1,0 mm: Quick, almost burr-free cutting (of e.g. sheet metal).

thickness 1,6/1,9/2,4/2,9 mm:

Very good service life and fast cutting (universal)

44806

44807



Ø x thickness mm	Shape	Grit size	Bore Ø mm	speed max. RPM	Working speed max. m/s	Image	A 24-60 P		A 24-60 S	
							44806	...	44807	...
115 x 1,0	Straight	60	22,2	13.300	80	25 pcs.		105		104
115 x 1,6	Straight	46	22,2	13.300	80	25 pcs.		106	#	105
115 x 2,4	Straight	30	22,2	13.300	80	25 pcs.				106
115 x 2,4	Offset	46/30	22,2	13.300	80	25 pcs.	#	107	#	107
125 x 1,0	Straight	60	22,2	12.200	80	25 pcs.		109		109
125 x 1,6	Straight	46	22,2	12.200	80	25 pcs.		110		110
125 x 2,4	Straight	46	22,2	12.200	80	25 pcs.				111
125 x 2,4	Offset	46/30	22,2	12.200	80	25 pcs.		111	#	112
178 x 1,6	Straight	46	22,2	8.600	80	25 pcs.	#	112	#	115
178 x 3,2	Straight	24	22,2	8.600	80	25 pcs.	#	113	#	116
230 x 1,9	Straight	46	22,2	6.600	80	25 pcs.		114		119
230 x 3,2	Straight	24	22,2	6.600	80	25 pcs.		115		120

44850 Cutting-Off Discs (Metal)



Type A 24 S SG

Type

In compliance with EN 12413. Fibre-reinforced, artificial resin bond.

Use

For cutting large cross sections of profile and solid steel and cast-iron material. **For electrically or petrol-driven manually-operated cutting grinding machines.**

44850



Ø x thickness mm	Shape	Bore Ø mm	speed max. RPM	Working speed max. m/s	44850	...
300 x 4,0	Straight	22,2	6.400	100	#	101
300 x 4,0	Straight	25,4	6.400	100	#	102
350 x 4,5	Straight	22,2	5.500	100	#	103
350 x 4,5	Straight	25,4	5.500	100	#	104

When you are king ...



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... your wishes come true.

ATORN®

Performance requires quality

44825

Free-Hand Cutting-Off Discs (Stainless Steel)

ATORN®

Type

- Very hard cutting-off disc with good cutting properties.
- In its composition, complies with the requirements specified in the work regulations for nuclear reactor construction
- Minimal burr formation, sparking and odour
- High cutting speed and long service life


Use

Cutting-off disc free of iron and sulphur, for special implementation in nuclear reactor construction, and for cutting alloyed, high-alloy, and non-rusting stainless steels, sheet metal, tubing, profiles and solid materials.

44825 303

Type

- 10 extremely thin cutting-off discs in at attractive resealable tin can

Ø x thickness mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s		Pack= pcs.	44825	...
115 x 1,0	Straight	22,2	13.285	80	50 pcs.	-		101
115 x 1,5	Straight	22,2	13.285	80	50 pcs.	-		102
125 x 1,0	Straight	22,2	12.200	80	50 pcs.	-		103
125 x 1,0	Straight	22,2	12.200	80	1 pcs.	10		303 NEW
125 x 1,5	Straight	22,2	12.200	80	50 pcs.	-		104
180 x 1,5	Straight	22,2	8.600	80	25 pcs.	-		106
230 x 1,9	Straight	22,2	6.600	80	25 pcs.	-		107



44825 303

Abrasive Tools/
Separating Tools

44802

Free-Hand Cutting-Off Discs (Stainless Steel)

HHW

Type

Made in Germany.


Thickness 1,0 mm: Extremely thin disc enables a fast, uniquely clean cut with minimal expenditure of force. Millimetre-precise application, vibration-free work, no thermally-induced blue colouration and no burr formation (saves rework).

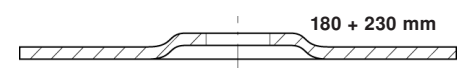
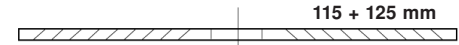
Thickness 1,6 mm: Free of iron and sulphur. Do to its force-saving effect, the thin special disc, is easy on the operator and the tool. High cutting speed, long service life, almost no feathering.

Use

Thickness 1,0 mm: For thin steel sheets, steel ropes, thin-walled profiles and tubes of stainless steel and non-ferrous metals. Composite materials (GRP) Materials with very high-temperature strength.

Thickness 1,6 mm: For mild steel and stainless steel, particularly suited for steel sheets and thin-walled profiles.

Ø x width mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44802	...
115 x 1,0	Straight	22,23	13.280	80	25 pcs.		101
115 x 1,6	Straight	22,23	13.280	80	25 pcs.		102
125 x 1,0	Straight	22,23	12.200	80	25 pcs.		103
125 x 1,6	Straight	22,23	12.200	80	25 pcs.		104
180 x 1,6	Offset	22,23	8.600	80	25 pcs.		105
230 x 1,9	Offset	22,23	6.600	80	25 pcs.		106



44820

Free-Hand Cutting-Off Discs (Stainless Steel)

RHODIUS


Type FT/FTK 38

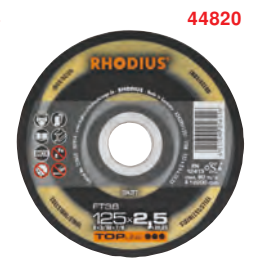
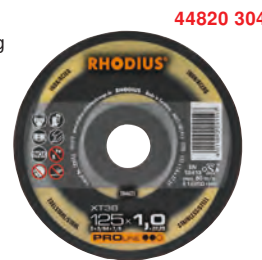
Type

Very hard cutting-off disc with good cutting properties. Free of iron and sulphur.

Use

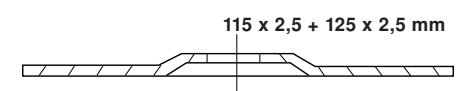
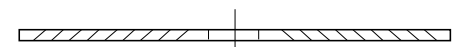
For cutting alloyed, high-alloy, and non-rusting stainless steels, sheet metal, tubing, profiles and solid materials.

Ø x thickness mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s		44820	...
115 x 1,0	Straight	22,2	13.285	80	50 pcs.		301
115 x 1,5	Straight	22,2	13.285	80	-		302
115 x 2,5	Offset	22,2	13.285	80	25 pcs.		303
125 x 1,0	Straight	22,2	12.200	80	-		304
125 x 1,5	Straight	22,2	12.200	80	-		305
125 x 2,5	Offset	22,2	12.200	80	25 pcs.		306
180 x 1,5	Straight	22,2	8.600	80	25 pcs.		307
180 x 3,0	Straight	22,2	8.600	80	25 pcs.		308
230 x 1,9	Straight	22,2	6.600	80	25 pcs.		309
230 x 3,0	Straight	22,2	6.600	80	25 pcs.		310



TOPLINE ●●●

TOPLINE ●●●



Cutting-off discs

44823

Free-Hand Cutting-Off Discs (Stainless Steel)

RHODIUS

44823 100 + 107

Type XTK8

Type

Very hard, **free of iron and sulphur**, with extremely fast cut, very thin, very precise, chatter-free, burr-free, low-noise, cool.

Use

0,8 mm precision cutting-off disc for thin sheet metal.

44823 101-106 + 109

Type XT10

Type

Very hard, **free of iron and sulphur**. Extremely long service life for fewer disc changes and maximum economy. Cool, low-burr cut.

Use

For cutting solid stock, tubing, profiles and stainless sheet steel. Especially suitable for corrosion and acid-resistant steel, spring steel, tool steel.

44823 107

44823

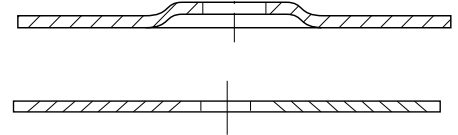


TOPLINE

TOPLINE

Ø x thickness mm	Shape	Bore Ø mm	Speed max. RPM	44823	...
115 x 0,8	offset	22,23	13.285		100
115 x 1,0	Straight	22,23	13.285		101
115 x 1,5	Straight	22,23	13.285	#	102
125 x 0,8	offset	22,23	12.200		107
125 x 1,0	Straight	22,23	12.200		103
125 x 1,5	Straight	22,23	12.200		104
150 x 1,5	Straight	22,23	10.185		109
180 x 1,5	Straight	22,23	8.600		105
230 x 1,9	Straight	22,23	6.600		106

115 x 0,8 + 125 x 0,8 mm



44830 - 44833

Free-Hand Cutting-Off Discs (Stainless Steel)

PFERD



Type

In compliance with EN 12413. Fibre-reinforced, artificial resin bond. **Without filler materials which contain iron, sulphur, or chlorine.**

Use

For cutting sheet metal, tubing, profiles and solid stock made of **stainless steel**.

44830

Medium-hard wheel

Type A 24/46/60 P-INOX

Use

Thickness 1,0 mm: Fast, virtually burr-free cutting (e.g. sheet metal).

Thickness 1,6/1,9/2,4/2,5 mm: Long service life and fast cutting (universal)

44832

Hard wheel

Type A 24/46/60 Q/R-INOX

Use

Thickness 1,0 mm: Quick, almost burr-free cutting (of e.g. sheet metal).

Thickness 1,6/1,9/2,4/2,5 mm: Very long service life and fast cutting (universal)

44833

Hard wheel

Type A 24/46/60 S-INOX

Use

Thickness 0,8/1,0/1,6 (Ø 178)/1,9 mm: Quick, almost burr-free cutting (of e.g. sheet metal).

Thickness 1,6 (Ø 115+125)/2,3 mm: Maximum service life and fast cutting (universal)

Thickness 2,2 mm: Longest service life and high lateral stability (e.g. profiled material or solid stock).

44830

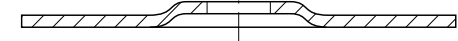
44832



44833



115 x 2,2 + 125 x 2,2 mm



Ø x thickness mm	Shape	Grit size	Bore Ø mm	Speed max. RPM	Working speed max. m/s	P-INOX 44830	Q/R-INOX		S-INOX		...
							...	44832	...	44833	
115 x 0,8	Straight	60	22,2	13.300	80						101
115 x 1,0	Straight	60	22,2	13.300	80			105		102	102
115 x 1,6	Straight	46	22,2	13.300	80	#	106		103	#	103
115 x 2,2	Offset	46	22,2	13.300	80					#	105
115 x 2,4	Straight	46	22,2	13.300	80		107		104		
125 x 0,8	Straight	60	22,2	12.200	80						155
125 x 1,0	Straight	60	22,2	12.200	80			109		106	106
125 x 1,6	Straight	46	22,2	12.200	80	#	110		107	#	107
125 x 2,2	Offset	46	22,2	12.200	80					#	109
125 x 2,4	Straight	46	22,2	12.200	80			111		108	
178 x 1,6	Straight	46	22,2	8.600	80			112		109	#
178 x 2,3	Straight	24	22,2	8.600	80					#	111
178 x 2,5	Straight	24	22,2	8.600	80	#	113	#	110		
230 x 1,9	Straight	46	22,2	6.600	80			114		111	#
230 x 2,5	Straight	24	22,2	6.600	80			115	#	112	

44811

Free-Hand Cutting-Off Discs (Stainless Steel Cubitron™ II)

3M**Type**

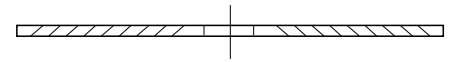
- Faster cut and longer service life
- Minimal annealing colours
- Thinnest cut with minimal feathering
- Fast, cool, grinding and optimised grinding processes

Use

Fast, convenient cutting of profiles, bars, and tubes, as well as stainless steel sheet, structural steel and non-ferrous metals.

NEW

44811



Ø x thickness mm	Shape	Bore Ø mm	Working speed max. m/s	44811	...
76 x 1,0	Straight	6,35	80		101
76 x 1,0	Straight	9,53	80		102
115 x 1,0	Straight	22,20	80		103
115 x 1,6	Straight	22,20	80		104
115 x 2,5	Straight	22,20	80		105
125 x 1,0	Straight	22,20	80		106
125 x 1,6	Straight	22,20	80		107
125 x 2,0	Straight	22,20	80		108
125 x 2,5	Straight	22,20	80		109
180 x 1,6	Straight	22,20	80		110
180 x 2,0	Straight	22,20	80		111
180 x 2,5	Straight	22,20	80		112
230 x 2,5	Straight	22,20	80		113

44818 - 44819

Free-Hand Cutting-Off Discs (Stone)

RHODIUS**Type**

Glass fabric reinforcement, open structure.

44818

Special hard type FT/FTK 44**Type**

Long service life and wide application.

Use

For cutting concrete, natural and artificial stone as well as roofing tiles, granite, ceramics, clinker etc.

44819

Special hard type XT 66**Type**

Very hard cutting-off disc. High cutting capacity at long service life. Smooth, precise edges. Up to 50% less dust.

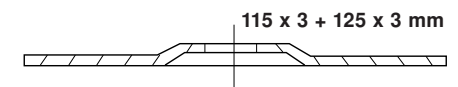
Use

For tile, glazed tile, marble, window sills, steps, roofing slate, etc.

special application: Titanium.

44818

44819

**PROLINE** ●●○**TOPLINE** ●●●

Ø x thickness mm	Shape	Bore Ø mm	Speed max. RPM	Working speed max. m/s	FT/FTK 44		XT 66	
					44818	...	44819	...
115 x 1,5	Straight	22,2	13.285	80			#	201
115 x 3,0	offset	22,2	13.285	80		101		
125 x 1,5	Straight	22,2	12.200	80			#	202
125 x 3,0	offset	22,2	12.200	80	#	102		
180 x 1,9	Straight	22,2	8.600	80			#	204
180 x 3,0	Straight	22,2	8.600	80	#	104		
230 x 1,9	Straight	22,2	6.600	80				205



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Performance requires quality.

For example, with the diamond grinding wheels and CBN face wheels from ATORN.

- Longest service life with uniformly high stock removal rate
- Premium grinding wheels with vibration-damping body
- Universal implementation, wet grinding and dry grinding

ATORN®
Performance requires quality.



44821 - 44822

Diamond Cutting-Off Discs



Use

For dry cuts with angle grinders. Especially for concrete, hard artificial stone, pantiles, clinker hard-baked, piping made of earthenware, piping made of clay, washed-out concrete etc.

44821

Type

Slotted edge with diamond segments. High-performance series.

44822

Type

Smooth, closed edge.

Use

For glazed tiles, glazed clinker, thin natural stone.

44821



44822



Ø mm	Segment height mm	Segment width mm	Bore mm	44821	...	44822	...
110	5	1,9	22,23				101
125	5	1,9	22,23				102
115	10	2,2	22,23		101		
125	10	2,2	22,23		102		
180	10	2,4	22,23		103		
230	10	2,4	22,23		104		

44828

Diamond cutting-off discs (Allcut)

RHODIUS

Type DG210 Allcut

Type

The diamond are attached directly to the pad and constantly guarantee good cutting capacity up to the point of total wear. Due to its long service life it works very economically on stone. Its performance on steel make it the perfect multi-purpose cutting-off disc. Reliable, quick, and cool cutting of various materials. High cutting speed, good machining performance, short cutting times, comfortable cutting behaviour.

Use

For dry and wet cutting. Suitable for concrete workpieces, reinforced concrete, natural stone, construction materials, steel, tiles, glazed tiles, wood, plastics, GRP.

44828



BRAINTOOLS[®]
by Rhodius

Ø mm	Segment height mm	Segment width mm	Bore mm	44828	...
115	3	2,5	22,23		101
125	3	2,5	22,23		102
150	3	2,5	22,23	#	103
180	3	2,8	22,23		104
230	3	2,8	22,23		105

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