Tool Category 4

Filing, Grinding and Sawing Tools

40/853

40/854

40/854

40/854

Product line

40
Machinists´ Files

Pages 40/850 to 40/854

41/855

41/856
M

41/857
M

41/857

Product line

41
Precision Files

Pages 41/855 to 41/857

42/858

42/859

42/861

42/861

Product line

42
Special files / File Handles

Pages 42/858 to 42/861

43/863

43/863

43/863

43/863

Product line

43
Diamond Files

Pages 43/862 to 43/863

HSS

44/865
HSS

44/866
Carbide

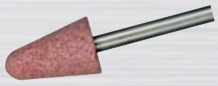
44/869
Carbide

44/871

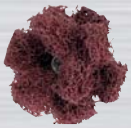
Product line

44
Burrs / Rotary Cutters

Pages 44/864 to 44/874


45/876

45/881

45/883

45/887

Product line

45
Mounted Points / Abrasives

Pages 45/875 to 45/887

46/888

46/892

46/906

46/910

Product line

46
Grinding Disks / Dressers

Pages 46/888 to 46/911

47/912

47/915

47/916

47/920

Product line

47
Abrasive Clothes / Sharpeners

Pages 47/912 to 47/921

48/922

48/927

48/928

48/932

Product line

48
Industrial Brushes

Pages 48/922 to 48/932

49/933

49/935

49/941

49/943

Product line

49
Saw Blades / Saw Frames

Pages 49/933 to 49/943

Index

Tool Category 4 — Filing, Grinding and Sawing Tools

1 2 3 ...

3M™ Cubitron™ ... 46/888, 46/890, 46/898, 46/900, 46/905, 48/922

A

Abrasive cap ... 45/884
Abrasive cap holder ... 45/884
Abrasive cloth ... 47/915
Abrasive cup wheel ... 46/906
Abrasive file ... 47/919 - 47/920
Abrasive flap disc ... 46/894, 46/897 - 46/898
Abrasive paper ... 47/915
Abrasive sleeve holder ... 45/884
Abrasive sleeve ... 45/885
Abrasive sponge ... 47/915
Arkansas grinding file ... 47/919

B

Backing pad ... 46/888, 46/890, 46/892, 47/914
Bench stone ... 47/919 - 47/920
Bevel brush crimped ... 48/927
Bevel brush knotted ... 48/926

C

CBN mounted point ... 45/880
CBN tool grinding wheel ... 46/909
Chain saw file 42/859
Clamping mandrel ... 47/914, 48/923
Clamping shank ... 45/882
Clamping shank ... 45/882
Clean sanding paper disc Cubitron™ ... 48/922
Contact file ... 42/859
Cup brush ... 48/928
Cup brush ... 48/926
Cutting disc ... 46/904 - 46/906
Cutting disc CUBITRON™ II (ceramics) ... 46/905
CVD needle dresser ... 46/910
CVD needle dresser ... 46/910
Cylinder brush ... 48/930 - 48/931

D

Deburring wheel brush ... 48/925
Diamond dresser ... 46/910 - 46/911
Diamond dressing plate ... 46/911
Diamond habilis file ... 43/863
Diamond mounted point ... 45/880
Diamond needle file ... 43/863
Diamond sharpening stone ... 47/920
Diamond tool grinding wheel ... 46/909
Dispenser ... 47/916
Dresser ... 46/908, 46/910 - 46/911
Dresser for grinding wheels ... 46/908
Dressing plate ... 46/910 - 46/911

E

Economy abrasive roll ... 47/916
End brush ... 48/928

F

Felt point ... 45/881
Fibre disc ... 46/888 - 46/889, 46/892
File brush ... 48/932
File handle ... 42/861
File ... 42/858 - 42/861
Fine brush ... 48/932
Flap wheel ... 45/886
Fretsaw frame ... 49/943

F

Gent´s saw ... 49/942
Grinding disc holder system ... 46/899
Grinding disc ... 46/899
Grinding drum ... 45/887
Grinding paste ... 45/883
Grinding wheel ... 46/892

H

Habilis file ... 42/860
Hacksaw ... 49/942
Hacksaw ... 49/943
Hand lap ... 47/920
Hand pad ... 47/912
Hand sanding block ... 47/913
Hand sanding block ... 47/915
Handsaw blade bi-metal, unbreakable ... 49/941
Handsaw ... 49/940 - 49/943
HM hole saw ... 49/940
HM miniature burr ... 44/872 - 44/874
HM rotary cutter ... 44/868 - 44/872
Honing brush ... 48/931
HSS engraving pen ... 44/866
HSS rotary cutter ... 44/865 - 44/866

J

Jack saw ... 49/943

L

Lamella flap wheel ... 45/887
Laplander set ... 49/940
Lathe file ... 42/858

M

Machine sawblade HSS ... 49/933 - 49/934
Machinist´s file ... 40/853 - 40/854
Mandrel ... 48/923
Marbling tool ... 45/881
Metal jigsaw ... 49/942
Metal saw frame ... 49/941 - 49/942
Metal sawblade ... 49/935, 49/937 - 49/939
Micro tube brush ... 48/930
Mini bow saw ... 49/943
Miniature brush ... 48/927
Miniature polishing head ... 45/877
Mitre box ... 49/942
Mounted point ... 45/876 - 45/880
Multi-purpose file ... 40/854

N

Needle file ... 42/860 - 42/861, 43/863
Non-woven abrasive ... 45/886
Non-woven abrasive ... 47/912
Non-woven abrasive belt ... 47/917
Non-woven abrasive in multiple layers ... 45/881
Non-woven abrasive roll ... 47/912 - 47/913
Non-woven disc ... 46/899
Non-woven flap disc ... 46/894
Non-woven Velcro disc ... 47/913

P

Pipeline brush ... 48/926
Polishing compound ... 45/884
Polishing drum ... 45/881
Polishing paste ... 45/882
Polishing tool ... 45/881 - 45/884
Precision file ... 41/855 - 41/857, 42/860
Pruning saw ... 49/940, 49/943
PUK pocket hack saw ... 49/942

R

Rotary cutter ... 44/864 - 44/874
Rough cleaning wheel ... 47/914
Roughing disc ... 46/900 - 46/901

S

Sanding belt ... 47/917 - 47/918
Sanding pad ... 46/892
Sanding star ... 45/887
Satin finishing tool ... 45/883
Shank-mounted wheel brush ... 48/927
Sharpening block ... 46/908
Sharpening stone ... 47/919 - 47/920
Sharpening stone ... 47/919 - 47/920
Small burr ... 44/872 - 44/874
Soft metal file ... 42/858
Soft pad sanding sponge ... 47/915
Spark plug brush ... 48/932
Square file ... 40/853

T

Thread file ... 42/859
Threaded grinding wheel ... 45/887
Three-square file ... 40/853
Tool grinding wheel ... 46/908
Tool grinding wheel for double wheel grinders ... 46/908 - 46/909
Tool holder ... 45/887
Tube brush ... 48/930

U

Universal hand brush ... 48/932
Universal knife/pruning saw ... 49/940

V

Velcro backing pad ... 46/890, 47/913
Velcro grinding disc ... 46/889 - 46/890
Velcro sanding pad ... 46/890, 47/913
Velcro sheet stripes ... 47/915

W

Warding file set ... 40/854
Wheel brush ... 48/923, 48/925
Wire brush ... 48/931 - 48/932
Wood rasp ... 42/859

Engineer´s file

PFERD

Design:
- with forged tang; flawless steel microstructure for uniform hardness
- evenly executed cut, exact shape

Use:
Quality file for the highest demands, with long service life and high stock removal rate

DIN 7261 Form A

Cut 1 (coarse) roughing, coerse machining

Cut 2 (medium) universal roughuing and finishing

Cut 3 (fine) finishing, fine machining

400100 hand, cut 1 (coarse)
400200 hand, cut 2 (medium)
400300 hand, cut 3 (fine)

Cutting length mm	400100	400200	400300	Cross-section mm
100	●	●	●	12 × 2.5
150	●	●	●	16 × 4.0
200	●	●	●	20 × 5.0
250	●	●	●	25 × 6.0
300	●	●	●	30 × 6.5
350	●	●	—	35 × 7.5

parallel ending

DIN 7261 Form D

401100 square, cut 1 (coarse)
401200 square, cut 2 (medium)
401300 square, cut 3 (fine)

Cutting length mm	401100	401200	401300	Cross-section mm
100	●	●	●	4.0
150	●	●	●	6.0
200	●	●	●	8.0
250	●	●	●	10.0
300	●	●	—	12.0

pointed ending

DIN 7261 Form C

402100 three-square, cut 1 (coarse)
402200 three-square, cut 2 (medium)
402300 three-square, cut 3 (fine)

Cutting length mm	402100	402200	402300	Cross-section mm
100	●	●	●	8.0
150	●	●	●	11.0
200	●	●	●	15.0
250	●	●	●	17.5
300	●	●	—	20.0

pointed ending

DIN 7261 Form E

403100 half round, cut 1 (coarse)
403200 half round, cut 2 (medium)
403300 half round, cut 3 (fine)

Cutting length mm	403100	403200	403300	Cross-section mm
150	●	●	●	16 × 4.5
200	●	●	●	20 × 6.0
250	●	●	●	25 × 7.0
300	●	●	●	30 × 8.5
350	●	—	—	35 × 10.0

parallel ending

DIN 7261 Form F

404100 round, cut 1 (coarse)
404200 round, cut 2 (medium)
404300 round, cut 3 (fine)

Cutting length mm	404100	404200	404300	Cross-section mm
100	●	●	●	4.0
150	●	●	●	6.0
200	●	●	●	7.5
250	●	●	●	9.5
300	●	●	●	12.0

pointed ending

Multi-purpose file

Design:
- hand form with special cut
- teeth in spade form and wide chip breakers
- reduced clogging of the filing grooves, even when processing soft material
- with plastic handle

Use:
- universal file for roughing and finishing
- for the machining of steel, NF metal, plastic and wood

parallel ending

405050 with universal cut

Cutting length mm	405050	Cross-section mm
200	●	20 × 5.0
250	●	25 × 6.0
300	●	30 × 6.5

Engineer´s file set

Design:
5-piece set, consisting of one file (with plastic handle) each:
hand, three-square, square, half round, round

Delivery:
In art leather roll-up pouch

406100 PFERD, cut 1 (coarse)
406200 PFERD, cut 2 (medium)
406300 PFERD, cut 3 (fine)
406305 PRECITOOL, cut 2 (medium)

Cutting length mm	406100	406200	406300	406305
200	●	●	●	●
250	●	●	●	●
300	●	●	—	—

PFERD

PRECITOOL

Key file set

Design:
- 6-piece set, comprising one key file (with wooden handle) each:
  hand, flat pointed, square, three-square, half-round and round
- cutting length approx. 100 mm, cut 2

407410

407420

407450

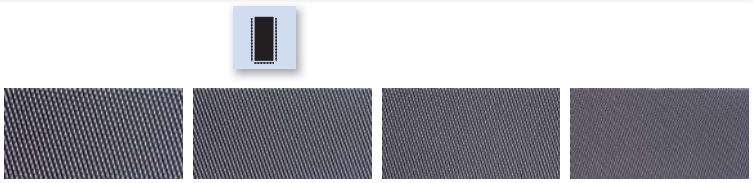
407410 PFERD, in plastic pouch
407420 PRECITOOL, in metal box
407450 PFERD, in plastic pouch

Quantity	407410	407420	407450
6	●	●	●

Precision file

Design and use:
- precision files conform to highest demands on dimensional accuracy, cutting performance and tool life
- smaller than engineers´ files, easier to handle and more precise in their geometry
- their main use is in fixture construction and tool making as well as in the construction and installation of high-precision devices and machines

SC = Swiss cut



Cut 00 for very coarse precision machining | Cut 0 for coarse precision machining | Cut 1 for medium precision machining | Cut 2 for medium-fine precision machining

410100 Pottance file (hand, cut on three sides)

Cutting length mm/SC	410100	Cross-section mm
100/00	●	13 × 3
100/0	●	13 × 3
100/1	●	13 × 3
100/2	●	13 × 3
150/00	●	18 × 4
150/0	●	18 × 4

Cutting length mm/SC	410100	Cross-section mm
150/1	●	18 × 4
150/2	●	18 × 4
200/00	●	22 × 5
200/0	●	22 × 5
200/1	●	22 × 5
200/2	●	22 × 5

411100 Pillar file, regular (hand, two sides cut)

Cutting length mm/SC	411100	Cross-section mm
150/00	●	13 × 4
150/0	●	13 × 4
150/2	●	13 × 4
200/00	●	15 × 5
200/0	●	15 × 5

Cutting length mm/SC	411100	Cross-section mm
200/2	●	15 × 5
250/00	●	18 × 6
250/0	●	18 × 6
250/2	●	18 × 6
—	—	—

412100 Pillar file, slim (hand, two sides cut)

Cutting length mm/SC	412100	Cross-section mm
150/00	●	8 × 3.5
150/0	●	8 × 3.5
150/2	●	8 × 3.5
200/00	●	10 × 4.5
200/0	●	10 × 4.5

Cutting length mm/SC	412100	Cross-section mm
200/2	●	10 × 4.5
250/00	●	12 × 5.0
250/0	●	12 × 5.0
250/2	●	12 × 5.0
—	—	—

413100 Pillar file, very slim (hand, two sides cut)

Cutting length mm/SC	413100	Cross-section mm
150/00	●	6 × 3.0
150/0	●	6 × 3.0
150/2	●	6 × 3.0

Cutting length mm/SC	413100	Cross-section mm
200/00	●	8 × 3.5
200/0	●	8 × 3.5
200/2	●	8 × 3.5

414100 Tang file, square

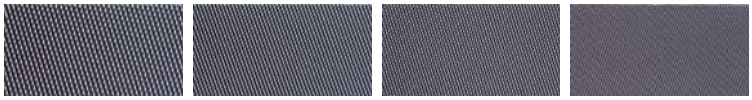
Cutting length mm/SC	414100	Cross-section mm
150/0	●	6
150/1	●	6
150/2	●	6

Cutting length mm/SC	414100	Cross-section mm
200/0	●	8
200/1	●	8
200/2	●	8

Precision file

Design and use:
- precision files conform to highest demands on dimensional accuracy, cutting performance and tool life
- smaller than engineers´ files, easier to handle and more precise in their geometry
- their main use is in fixture construction and tool making as well as in the construction and installation of high-precision devices and machines

SC = Swiss cut



Cut 00 for very coarse precision machining | Cut 0 for coarse precision machining | Cut 1 for medium precision machining | Cut 2 for medium-fine precision machining

415100 Tang file, three-square

Cutting length mm/SC	415100	Cross-section mm
100/1	●	6
100/2	●	6
150/0	●	10
150/1	●	10
150/2	●	10
200/0	●	14
200/1	●	14
200/2	●	14

416100 Tang file, half-round

Cutting length mm/SC	416100	Cross-section mm
100/0	●	12 × 3.5
100/1	●	12 × 3.5
100/2	●	12 × 3.5
150/00	●	16 × 4.5
150/0	●	16 × 4.5
150/1	●	16 × 4.5
150/2	●	16 × 4.5
200/00	●	21 × 6.0
200/0	●	21 × 6.0
200/1	●	21 × 6.0
200/2	●	21 × 6.0
250/00	○	25 × 7.0
250/0	●	25 × 7.0
250/1	●	25 × 7.0

417100 Tang file, round

Cutting length mm/SC	417100	Cross-section mm
100/2	●	4
150/0	●	6
150/1	●	6
150/2	●	6
200/0	●	8
200/1	●	8
200/2	●	8
—	—	—

418100 Tang file, knife file

Cutting length mm/SC	418100	Cross-section mm
150/0	●	18 × 4
150/2	●	18 × 4
200/0	●	22 × 5
200/2	●	22 × 5

Precision file CORINOX®

Design and use:
- high-performance file with outstanding wear resistance and durability (stainless surface with **hardness 1.200 HV**)
- no clogging of the file due to special tooth shape; chips can be removed by tapping
- for the treatment of high-grade steels, high-temperature steels, rare alloys, GRP, CFRP and the like

419012 Pottance file, hand, SC 00
419022 Pottance file, hand, SC 0

Cutting length mm	419012	419022	Cross-section mm
150	●	●	18 × 4
200	●	●	22 × 5

parallel ending

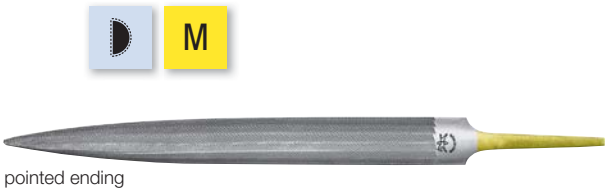
419112 Pillar file, regular, SC 00
419122 Pillar file, regular, SC 0

Cutting length mm	419112	419122	Cross-section mm
150	○	●	13 × 4
200	●	●	15 × 5

parallel ending

419212 Tang file, half-round, SC 0
419222 Tang file, half-round, SC 2

Cutting length mm	419212	419222	Cross-section mm
150	●	—	16 × 4.5
200	●	●	21 × 6.0



pointed ending

419322 File, three-square, SC 0

Cutting length mm	419322	Cross-section mm
200	●	14 × 14

pointed ending

419422 File, square, SC 0

Cutting length mm	419422	Cross-section mm
150	●	6

pointed ending

419522 File, round, SC 0

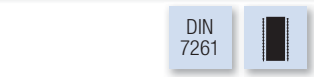
Cutting length mm	419522	Cross-section mm
200	●	8

pointed ending

Lathe file

Design:
- square, form H
- cut on 2 sides, 2 edges uncut
- opposed direction of the cut on the front and back side for better chip removal and safe working

DIN 7261



Use:
For deburring turning parts on lathes

420300 Cut 1

Cutting length mm	420300	Cross-section mm	Fitting handle
250	●	25 × 6.0	FH 4/1
300	●	30 × 6.5	FH 5/1

Soft metal file

Design:
Type 421000:
- square, form A
- special cut on three sides, one edge uncut

Type 421100:
- half-round, form E
- cut on 2 sides
- special spiral cut on the half-round side, perfectly suitable for the treatment of soft metals

DIN 7261 | Form A | Form E

Use:
- machining of surfaces
- deburring
- machining of rectangular geometries
- filing of half round profiles (type 421100)

421000 hand, cut 0
421100 half round, cut 0

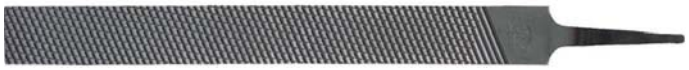
Cutting length mm	421000	421100	Cross-section (flat / half round) mm	Fitting handle
250	●	●	25 × 6.0 / 25 × 7.0	FH 4/1
300	●	●	30 × 6.5 / 30 × 8.5	FH 5/1

Milled file with chip breaker

Design:
- square
- toothed on three sides
- flat side helical cut with chip breaker
- high edge straight toothed

DIN 7264

Use:
- for the machining of surfaces
- deburring
- machining of rectangular geometries
- universally for soft and long chipping material



422100 hand, toothing 1 (coarse)
422200 hand, toothing 2 (medium)

Toothed length mm	422100	422200	Cross-section mm	Fitting handle
300	●	●	30 × 5.8	FH 5/1

Design:
- half-round, hollow and tapered
- half round side with helical toothing, with chip breaker

DIN 7264

Use:
- machining of radii
- deburring
- filing of half-round profiles
- universally for soft and long chipping material

422500 Half round, concave, toothing 1 (coarse)

Toothed length mm	422500	Cross-section mm	Fitting handle
250	○	23 × 7.0	FH 4/1
300	●	27 × 9.0	FH 5/1

Wood rasp

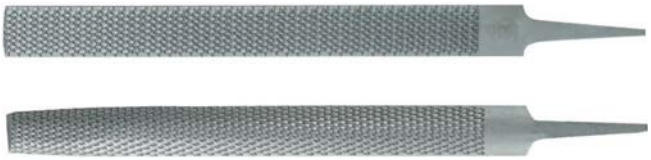
PFERD

Design:
With special cut for wood (rasp cut)

DIN 7263

423000 hand, cut 2 (medium)
423050 half round, cut 2 (medium)

Cutting length mm	423000	423050	Cross-section mm	Fitting handle
200	●	●	20 × 6.5	FH 4/1
250	●	●	25 × 7.5	FH 4/1



423100 round, cut 2 (medium)

Cutting length mm	423100	Cross-section mm	Fitting handle
200	●	9.5	FH 4
250	●	11.5	FH 4

Thread file

TURNUS

Design:
- 8 different pitches
- for sharp threads metric or inch

Use:
For reworking damaged female and male threads

424100 Thread file

Thread type	424100	Lead
METRISCH	●	0.8 | 1 | 1.25 | 1.5 | 1.75 | 2 | 2.5 | 3
WHITWORTH	●	24 | 20 | 18 | 16 | 14 | 12 | 11 | 10 (Threads per inch)

Chain saw file

PFERD

Design:
- round file with exact spiral cut for extreme sharpness and particularly long service life
- sharpens the tooth edge rapidly and score-free

Use:
For gentle manual sharpening of commercial saw chains

Recommendations for use:
Two to three file strokes are sufficient for normal sharpening, which reduces wear and tear, protects the chain and increases the service life

425500 Classic cut

Length of cut × cross section mm	425500	Fitting handle
200×4,8	●	FH 3
200×5,5	●	FH 3

Contact file

PFERD

Design:
- slim, rectangular flat file (very thin), form A
- special cross cut on both sides

DIN 7283

Use:
For machining of terminal contacts, narrow grooves, perforations and openings

425600 Cut 2

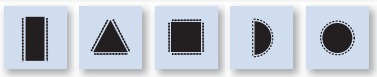
Total length mm	425600	Cross-section mm
100	●	8.0 × 1.2

Handy file CORRADI®

PFERD

Design and use:
- robust file, similar to a needle file
- cylindrically forged tang (usable without handle)
- total length 215 mm
- cutting length 105 mm
- for tool construction and die making
- applicable at inaccessible places

Note:
Diamond handy files see 432020 and 432060



426202 Cut SC 00
426252 Cut SC 1

Type	426202	426252	Cross-section mm
FLACHSTUMPF	●	●	10.0 × 2.5
DREIKANT	●	●	9.5
VIERKANT	●	●	5.0 × 5.0
HALBRUND	●	●	12.0 × 3.5
RUND	●	●	6.5

Handy files set CORRADI®

PFERD

Design:
5-piece set, comprising one file each 426202 or 426252, resp. hand, half round, three-square, square and round

426502 Cut SC 00
426552 Cut SC 1

Cut	426502	426552
SH00	●	—
SH1	—	●

Precision needle file CORRADI®

PFERD

Design:
- with round shank
- hardness approx. 64 - 66 HRC
- usable with or without handle

Use:
For fine and accurate filing work
Diamond needle files see: 431000 to 431100

426810 Cut SC 0, 140 mm
426820 Cut SC 1, 140 mm
426830 Cut SC 2, 140 mm

Type	426810	426820	426830	Cross-section mm
FLACHSTUMPF	●	●	●	5.1 × 1.3
DREIKANT	●	●	●	3.5
VIERKANT	●	●	●	2.4
HALBRUND	●	●	●	5.0 × 1.7
RUND	●	●	●	3.0
BARETT	●	●	●	5.0 × 2.1

426910 Cut SC 0, 160 mm
426920 Cut SC 1, 160 mm
426930 Cut SC 2, 160 mm

Type	426910	426920	426930	Cross-section mm
FLACHSTUMPF	●	●	●	5.5 × 1.4
FLACHSPITZ	—	●	●	5.5 × 1.4
DREIKANT	●	●	●	3.70
VIERKANT	●	●	●	2.50
HALBRUND	●	●	●	5.6 × 1.8
RUND	●	●	●	3.25
MESSER	●	●	●	5.8 × 1.7
VOGELZUNGE	●	●	●	5.2 × 2.3
BARETT	●	●	●	5.3 × 2.1

426940 Cut SC 0, 180 mm
426941 Cut SC 1, 180 mm
426942 Cut SC 2, 180 mm

Type	426940	426941	426942	Cross-section mm
FLACHSTUMPF	●	●	●	6.0 × 1.5
DREIKANT	●	—	●	4.1
VIERKANT	●	—	●	2.7
HALBRUND	●	—	●	6.0 × 2.0
RUND	●	●	●	3.5

426950 Cut SC 0, 200 mm
426951 Cut SC 1, 200 mm
426952 Cut SC 2, 200 mm

Type	426950	426951	426952	Cross-section mm
FLACHSTUMPF	●	●	●	6.4 × 1.6
DREIKANT	●	—	●	4.40
VIERKANT	●	—	●	3.00
HALBRUND	●	—	●	6.5 × 2.0
RUND	●	●	●	3.75

Needle file set CORRADI®

Design:
12-piece set, consisting of one needle file each of each form

427000 12-piece

Length mm/SC cut	427000
140/1	●
160/1	●
180/0	●
200/0	●

File handle

Design:
- made of hardwood, with embedded indissoluble clamp
- safety file handle; the deeply embedded clamp made of tubular steel prevents splitting of the handle when the file is driven into it

DIN 395

429500 Hardwood

Total length mm	429500	suitable for file lengths mm
70	●	100
80	●	100
90	●	125
100	●	150
110	●	200
120	●	250
130	●	300
140	●	350
160	●	400

File handle

Design:
- ergonomic two-component file handle
- large, rounded contact surfaces
- octagon at the collar prevents annoying rolling away of the tool
- reusable

FH 2	100 - 150 mm Key files and very fine tangs
FH 3	100 - 150 mm standard tangs
FH 4/1	200 - 250 mm for profiles flat blunt, flat pointed, half round
FH4	200 - 250 mm for profiles thoze-square, square round and special shapes
FH 5/1	300 -350 mm for profiles flat blunt, flat pointed, half round
FH 5	300 - 350 mm for profiles thoze-square, square round and special shapes

429550 Plastic, ergonomic

type	429550	suitable for file lengths mm
FH2	●	100 - 150
FH3	●	100 - 150
FH4	●	200 - 250
FH4/1	●	200 - 250
FH5/1	●	300 - 350
FH5	●	300 - 350

File handle

Design:
- made of sturdy plastic
- good power transmission and excellent guidance
- air chambers help to absorb the moisture originating from the hands
- octagon collar prohibits rolling away of the placed-down files
- patented tang receptacles with displacement chambers

429560 Plastic

type	429560	suitable for file lengths mm
PH8	●	100 - 150 (with very narrow hinges)
PH9	●	100 - 150
PH11	●	200 - 250
PH13	●	300 - 350

File handle

Use:
Type SH220:
- simply by twisting the two halves of the handle the file tang is safely clamped into it
- for needle files, diamond files and small machinist´s or precision files
- fitting for file length 140 | 160 | 180 | 200 mm
- fitting for shank ∅ 3.00 | 3.25 | 3.50 | 3.75 mm

Type NFH 211-3K:
- for save guiding and rapid clamping of needle files with tang ∅ 3.0 - 4.5 mm

SH220

NFH211-3K

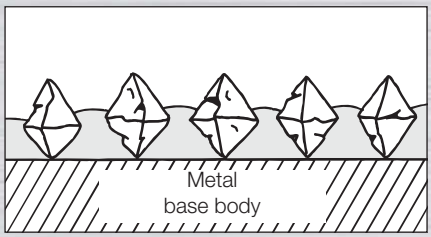
429600 for needle files

type	429600
SH220	●
NFH211 - 3K	●

Diamond Files

Product information

Galvanically bonded diamond tools

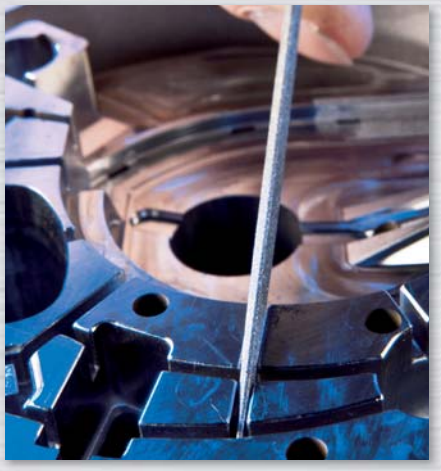


Tool structure
The main feature of galvanically bonded tools is the single-layer coating with diamond or CBN grain. The fixation of the abrasive grains on a metal base body by an electrochemically deposited nickel layer is referred to as the coating. The nickel layer corresponds approximately to half of the grain diameter used.

Advantages:
- Shortened processing time due to the coating type
- Reduction of unproductive processing times, since dressing and profiling is no longer required
- Reduction of the tool costs due to the single-layer coating and the recoatability
- Individual tool profiles
- Constant tool geometry due to the single-layer coating

Areas of application:
Galvanically bonded tools are troubleshooters for the machining of various materials, e.g. particularly hard or abrasive materials. The choice of the grain size allows to vary the characteristics of galvanically coated tools in application-oriented ways.

Galvanically bonded diamond and CBN tools are used in both wet and dry grinding

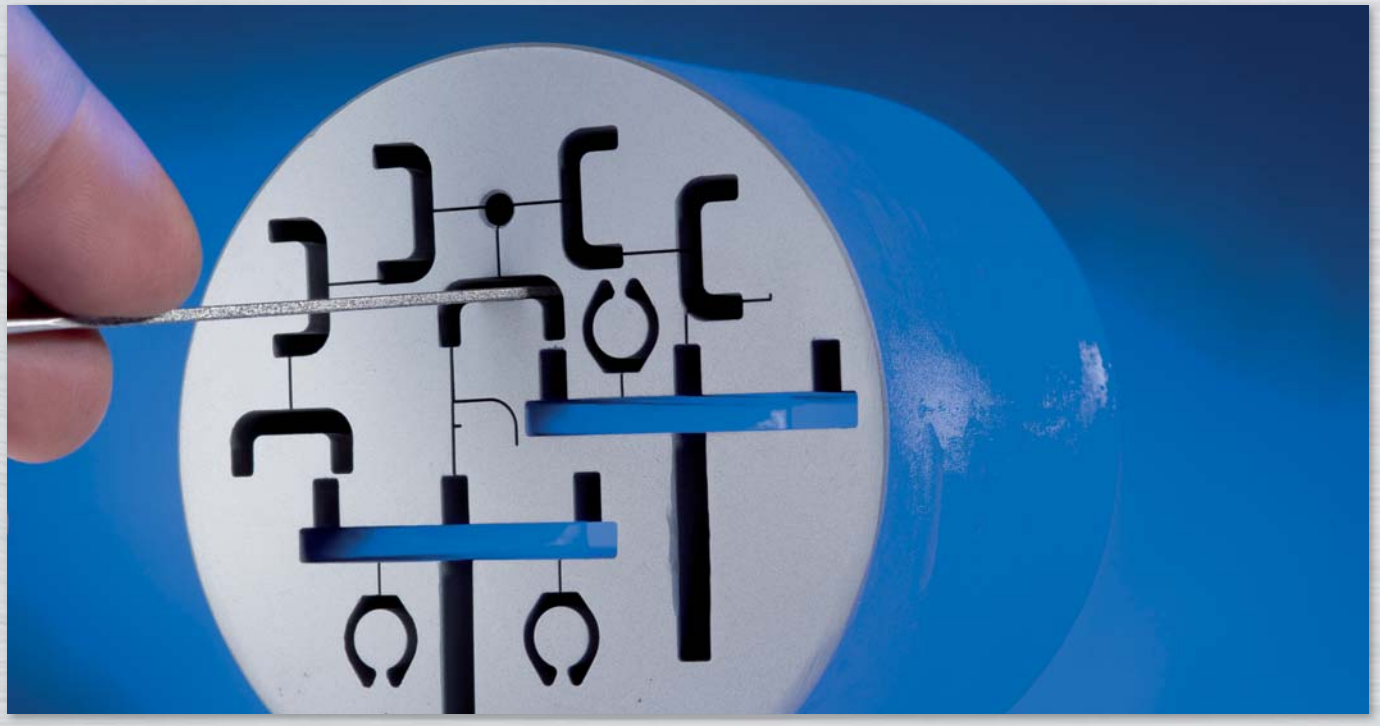


Diamond Files
Diamond files are successfully used wherever conventional files fail due to the hardness of the material to be machined.

Note:
Diamond files are also used for machining hardened steel. The working temperatures are so insignificant that no thermal/chemical wear occurs. Thus the higher hardness of the diamond grain can be utilized for a longer service life.

Recommendations for use:
- Apply only slight pressure to the file, especially in workpiece edge areas
- Clogged diamond files can be cleaned in kerosene or anti-static plastic cleaner using a file brush. Alternatively, ultrasonic cleaning is possible. Often it will suffice to knock the file against a hard object.
- Operate preferably free of grease!

Grain size	Grain size standards [µm] ISO 6106 (FEPA standard)	Recommendations for use:
Extremely fine	D 15	Very fine prefinishing
Very fine	D 25 / D 46	Fine finishing
Fine	D 91	Finishing
Medium	D 126	Universal use
Coarse	D 151 / D 181	Roughing
Very coarse	D 251	Roughing



Diamond needle file

Design:
- total length: 140 mm
- diamond coating length: 70 mm
- shank ∅ 3 mm
- carrier material made of special steel

Use:
- for dimensionally correct finishing of cuts, dies and press/extrusion tools made of hardened steel or hard metal
- also suited for glass, ceramics and other hard materials

Grains:
D91 (fine): Finishing, smoothing and fine finishing
D126 (medium): Standard tasks and general use
D181 (coarse): Roughing

Note:
Quick-clamping handle see 429600

431000 Grain D91 (fine)
431050 grain D126 (medium)
431100 Grain D181 (coarse)

Type	431000	431050	431100	Cross-section mm
FLACHSTUMPF	●	●	●	5.5 × 1.6
DREIKANT	●	●	●	3.5
VIERKANT	●	●	●	2.6 × 2.6
HALBRUND	●	●	●	5.5 × 1.6
RUND	●	●	●	3.2
MESSER	—	●	—	5.0 × 1.8
SCHWERT	●	—	—	5.0 × 2.4
VOGELZUNGE	●	●	—	5.0 × 2.2

Design:
- 5-piece set
- consisting of one diamond needle file each hand, three-square, square, half-round and round

431250 Set, grain D91 (fine)
431200 Set, grain D126 (medium)

Quantity Filing	431200	431250
5	●	●

Diamond habilis file

Design and use:
- total length: 215 mm
- coating length: 110 mm
- for standard tasks

Note:
With their forged shaft diamond handy files are used without file handle

432020 grain D126 (medium)

Type	432020	Cross-section mm
FLACHSTUMPF	●	10.3 × 2.8
DREIKANT	●	10.0
VIERKANT	●	5.5 × 5.5
HALBRUND	●	12.5 × 3.8
RUND	●	6.7

Design:
- 5-piece set
- consisting of 1 diamond handy file (432020) each hand, three-square, square, half round and round

432060 Set, grain D126 (medium)

Total length mm	432060
215	●

HSS rotary cutter

Product information

Cut 1
without chip breaker

Cut 2
with chip breaker

Cut 3
with chip breaker

Cut 5
without chip breaker

Cut ALU

HSS rotary cuttersare, due to their special tooth geometry and high production quality, particularly suitable for deburring, chamfering, fettling of castings and for the machining of aluminium. They can also be used economically with low-performance machines at lower speeds.

Advantages
- High aggressiveness.
- Can be used at low speeds.
- Large chip removal per time unit.
- The viscosity of the high-performance high-speed steel (HSS) results in a great stability of the tooth cutting edge.

Cut 1
Ideally suited for cutting steel, cast steel and stainless steel (INOX).

Cut 2
Ideally suited for cutting steel, cast steel and cast iron. Also suitable for fine machining, for example, deburring of steel, cast steel and cast iron, non-ferrous metals and plastics.

Cut 3
Ideally suited for cutting steel, cast steel and cast iron. Also suitable for fine machining, for example, deburring of steel, cast steel and cast iron.

Cut 5
Ideally suited for finish machining, for example deburring of steel, cast steel and cast iron.

Cut ALU
Ideally suited for cutting soft non-ferrous metals, brass, copper, aluminium alloys, plastics, fibre-reinforced plastics and rubber.

Recommended speed range [min^{-1}]

❶ Material groups			❷ Application task	❸ Toothing	❹ Cutting speed
Steel, cast steel	Non-hardened, nontempered steels up to 1,200 N/mm² (< 38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels, cast steel	Coarse machining = high stock removal	2	60 - 80 m/min
				3	
			Fine machining = low stock removal	3	80 - 100 m/min
				5	60 - 80 m/min
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse machining = high stock removal	1	60 - 80 m/min
			Fine machining = low stock removal	1	80 - 100 m/min
				2	60 - 80 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	Coarse machining = high stock removal	ALU	200 - 300 m/min
				1	
			Fine machining = low stock removal	2	200 - 250 m/min
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with spheroidal graphite/nodular cast iron EN-GJS (GGG), white malleable cast iron EN-GJMW (GTW), black malleable cast iron EN-GJMB (GTS)	Coarse machining = high stock removal	2	60 - 80 m/min
				3	
			Fine machining = low stock removal	3	80 - 100 m/min
				5	
Plastics, other materials	Fibre-reinforced thermoplastic and thermoset plastics, hard rubber, wood		Coarse machining = high stock removal	ALU	200 - 300 m/min
				1	
			Fine machining = low stock removal	1	250 - 300 m/min
				2	200 - 250 m/min

To determine the recommended speed range [min^{-1}] please proceed as follows:

❶ Select the material group to be machined.
❷ Assign processing case.
❸ Select the toothing.
❹ Determine cutting speed range.
❺ Select the desired diameter of the rotary cutter.
❻ Cutting speed range and diameter of rotary cutter indicate the recommended speed range.

	❻ Cutting speeds [m/min]					
❺ Ø [mm]	60	80	100	200	250	300
	Speeds (min^{-1})					
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

HSS burr

HSS | Form A | Toothing 3 | Shank 6mm

Zahnung 3

440100 Cylindrical shape A, with spur toothing

type	440100	Head ∅ mm	Head length mm	Total length mm
A0413ST	●	4	13	60
A0616ST	●	6	16	60
A0820ST	●	8	20	60
A1013ST	●	10	13	53
A1020ST	●	10	20	60
A1225ST	●	12	25	65
A1625ST	●	16	25	65

Types F0403 and F0605 without chip breaker!

440200 Spherical shape F

Form F

type	440200	Head ∅ mm	Head length mm	Total length mm
F0403	●	4	3	55
F0605	●	6	5	55
F0807	●	8	7	55
F1009	●	10	9	49
F1210	●	12	10	51
F1614	●	16	14	54

440250 Cylindrical points with radius end C

Form C

type	440250	Head ∅ mm	Head length mm	Total length mm
C0616	●	6	16	60
C0820	●	8	20	60
C1020	●	10	20	60
C1225	●	12	25	65

440300 Conical pointed shape G

Form G

type	440300	Head ∅ mm	Head length mm	Total length mm
G0618	●	6	18	60
G1020	●	10	20	60
G1225	●	12	25	65

440320 Pointed tree, shape K

Form K

type	440320	Head ∅ mm	Head length mm	Total length mm
K0618	●	6	18	60
K1020	●	10	20	60
K1225	●	12	25	65
K1230	●	12	30	70
K1630	●	16	30	70

440400 Ball nose cone form L

Form L

type	440400	Head ∅ mm	Head length mm	Total length mm
L1020	●	10	20	60
L1225	●	12	25	65
L1230	●	12	30	70

440420 Drop shape O

Form O

type	440420	Head ∅ mm	Head length mm	Total length mm
O0610	●	6	10	55
O1016	●	10	16	56
O1220	●	12	20	60
O1625	○	16	25	65

HSS burr Special shapes

HSS | Shank 6mm

W1220

440450 Angular burr shape W 20°, with spur toothing
440550 Shape 55 and 64

55

64

Type	440450	440550	Head ∅ mm	Head length mm	Total length mm
W1220	●	—	12	13	53
55	—	●	6	20	60
64	—	●	12	30	70

HSS burr set

Design:
The set comprises the most common shapes and sizes

Delivery:
In metal cassette (type 81/10) or plastic box with transparent cover

HSS | Shank 6mm

81/10

82/10

83/18

440590 PFERD

Type/ number rotary burrs	440590	Contents 1 piece each form/size	Packaging
81/10	●	A0616ST | A1013ST | A1225ST | C0616 | C1225 F1210 | K0618 | K1230 | K1630 | L1630	Metal box
82/10	○	A1013ST | A1625ST | F1614 | G1020 | K1630 L1020 | L1630 | O1625 | W1220 | 45	Plastic box
83/18	●	A0616ST | A1225ST | C0616 | C1225 | F0403 | F0807 F1210 | F1614 | G0618 | G1225 | K0618 | K1225 K1230 | O0610 | O1220 | 55 | 63 | 64	Plastic box

HSS burr

Design and use:
- with special toothing
- for the machining of aluminium alloys, brass, copper, zinc, CRP and GFRP

HSS | Shank 6mm | Form A | Form C | Form K | Form L | Form O | N

440600 Aluminium

Type (head ∅ × length) mm	440600	Head ∅ mm	Head length mm	Total length mm
A1625ST	●	16	25	65
C1625	●	16	25	65
K1630	●	16	30	70
L1630	●	16	30	70
O1625	●	16	25	65

A1625ST C1625 K1630 L1630 O1625

HSS engraving pen

Design and use:
- with special toothing
- shank length 40 mm
- for fine machining in small and difficult to access areas

HSS | Shank 6mm

301 305 306 311

440800 with special toothing

type	440800	Head ∅ mm	Head length mm	Total length mm
301	●	3	2.7	60
305	●	3	4.5	60
306	●	3	4.5 (34°)	60
311	●	6	5.6	60

Carbide rotary cutters

Product information

Cut 3 (MY to DIN 8033)

Cut 3 PLUS (MX to DIN 8033)

Cut 5 (F to DIN 8033)

Cut ALU

Cut STEEL

Cut INOX

With PFERD tungsten carbide burrs, materialsof almost any strength are machined. They are manufactured in compliance with the highest quality standards.

Advantages:
- Maximum cutting performance due to optimum tuning of hard metal, geometry, toothing and, if necessary, coating.
- Improved work comfort with reduced fatigue due to innovative teeth for high-performance applications.
- Very long service life and removal rate due to application-oriented tool design.
- Reduced wear of the tool drive due to impact-free work without chatter marks thanks to precise concentricity.

Cut 3
- Machining of cast iron, steel <60 HRC, stainless steel (INOX), nickel-base and titanium alloys.
- High removal rate.
- Good surfaces.

Cut 3 PLUS
- Similar to cut 3, but stagger-toothed.
- Machining of cast iron, steel <60 HRC, stainless steel (INOX), nickel-base and titanium alloys.
- High removal rate.

Cut 5
- Fine machining of cast iron, steel <60 HRC, stainless steel (INOX) and highly heat-resistant materials such as nickel-base and cobalt-base alloys.
- Good surfaces.

Cut ALU
- High cutting performance on aluminium and aluminium alloys, light metals, non-ferrous metals and plastics.
- Smooth cutting behaviour.

Cut STEEL
- Extremely high cutting performance on steel and cast steel.
- Smooth cutting behaviour.
- Reduced vibrations and less noise.

Cut INOX
- Extremely high chipping performance on all austenitic, rustproof and acid-resistant steels and stainless steels (INOX)
- Significantly reduced vibrations and less noise.

❶ Material groups			❷ Application task	❸ Toothing	❹ Cutting speed
Steel, cast steel	Non-hardened, non-tempered steels up to 1200 N/mm² (< 38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels, cast steel	Coarse cutting	3 PLUS	450 – 600 m/min
				STEEL	450 – 750 m/min
			Finish machining	3	450 – 600 m/min
	Hardened, tempered steels above 1,200 N/mm² (> 38 HRC)	Tool steels, tempered steels, alloyed steels, cast steel	Coarse cutting	3, 3 PLUS	250 – 350 m/min
				STEEL	450 – 750 m/min
			Finish machining	5	350 – 450 m/min
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	Coarse cutting	3, 3 PLUS	250 – 350 m/min
				INOX	450 – 600 m/min
			Finish machining	5	350 – 450 m/min
Non-ferrous metals	Soft non-ferrous metals	Aluminium alloys, brass, copper, zinc	Coarse cutting	ALU	600 – 1,100 m/min
			Finish machining		900 – 1,100 m/min
	Hard non-ferrous metals	Hard aluminium alloys (high Si percentage)	Coarse cutting	3	250 – 350 m/min
				ALU	600 – 1,100 m/min
			Finish machining	3	350 – 450 m/min
				ALU	900 – 1,100 m/min
		Titanium and titanium alloys	Coarse cutting	3	250 – 350 m/min
				ALU	450 – 600 m/min
			Finish machining	3	350 – 450 m/min
				ALU	600 – 900 m/min
		bronze	Coarse cutting	3	250 – 350 m/min
				ALU	600 – 1,100 m/min
			Finish machining	3	350 – 450 m/min
				ALU	600 – 900 m/min
	Highly heat-resistant materials	Nickel base and cobalt base alloys (aircraft engine and turbine construction)	Coarse cutting	3 PLUS	250 – 450 m/min
			Finish machining	5	350 – 600 m/min
Cast iron	Grey cast iron, white cast iron	Cast iron with flake graphite EN-GJL (GG), with spheroidal graphite/nodular cast iron EN-GJS (GGG), white malleable cast iron EN-GJMW (GTW) black malleable cast iron EN-GJMB (GTS)	Coarse cutting	3 PLUS	450 – 600 m/min
			Finish machining	3	450 – 600 m/min
Plastics, other materials	Fibre reinforced plastics (GRP/CRP), thermoplastics		Coarse cutting	ALU	600 – 900 m/min
			Finish machining		600 – 1,100 m/min

To determine **the recommended speed range [min⁻¹]** please proceed as follows:
❶ Select the material group to be machined.
❷ Assign processing case.
❸ Select the toothing.
❹ Determine cutting speed range.
❺ Select the desired diameter of the rotary cutter.
❻ Cutting speed range and diameter of rotary cutter indicate the recommended speed range.

❺ Rotary cutter ø [mm]	❻ Cutting speeds [m/min]						
	250	350	450	600	750	900	1,100
	Speeds (min⁻¹)						
2	40,000	56,000	72,000	95,000	119,000	143,000	175,000
3	27,000	37,000	48,000	64,000	80,000	95,000	117,000
4	20,000	28,000	36,000	48,000	60,000	72,000	88,000
6	13,000	19,000	24,000	32,000	40,000	48,000	59,000
8	10,000	14,000	18,000	24,000	30,000	36,000	44,000
10	8,000	11,000	14,000	19,000	24,000	29,000	35,000
12	7,000	9,000	12,000	16,000	20,000	24,000	30,000
16	5,000	7,000	9,000	12,000	15,000	18,000	22,000
20	4,000	6,000	7,000	10,000	12,000	14,000	17,000

Design:
Rotary cutters made of high-performance carbide for highest cutting performance. Optimal matching of carbide, geometry and innovative toothing. Very long service life, reduced wear and tear and high stock removal rate.

Use:
For use with manual and industrial robots for deburring, edge breaking, chamfering as well as for weld seam and surface processing. Optimal speeds are prerequisites for economical use and good results.

Carbide

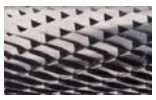
Shank 6mm

Cylindrical shape without front toothing (ZYA)

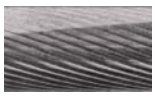
Form ZYA

Form ZYA

Toothing 3



Toothing 3 PLUS



Toothing 5

443000 PRECITOOL ZYA, toothing 3 PLUS

Head Ø × head length mm	443000	Total length mm
4×16	●	51
6×16	●	51
8×20	●	64
10×20	●	64
12×25	●	70
16×25	●	70

443002 PFERD ZYA, toothing 3
443004 PFERD ZYA, toothing 3 PLUS
443008 PFERD ZYA, toothing 5

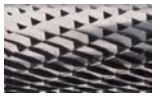
Head Ø × head length mm	443002	443004	443008	Total length mm
4×13	—	○	●	55
6×16	●	●	●	55
8×20	●	●	○	60
10×20	●	●	●	60
12×25	○	●	○	65
16×25	○	○	—	65

Cylindrical shape with front toothing (ZYA-S)

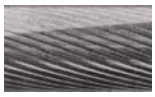
Form ZYA-S

Form ZYA-S

Toothing 3



Toothing 3 PLUS



Toothing 5

443050 PRECITOOL ZYA-S, toothing 3 PLUS

Head Ø × head length mm	443050	Total length mm
4×16	●	51
6×16	●	51
8×20	●	64
10×20	●	64
12×25	●	70
16×25	●	70

443052 PFERD ZYA-S, toothing 3
443054 PFERD ZYA-S, toothing 3 PLUS
443058 PFERD ZYA-S, toothing 5

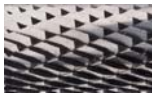
Head Ø × head length mm	443052	443054	443058	Total length mm
4×13	—	○	○	55
6×16	○	●	○	55
8×20	○	●	○	60
10×20	○	●	○	60
12×25	○	○	○	65
16×25	○	○	○	65

Cylindrical shape with round end

Form WRC

Form WRC

Toothing 3



Toothing 3 PLUS

Toothing 5

443100 PRECITOOL WRC, toothing 3 PLUS

Head Ø × head length mm	443100	Total length mm
4×16	●	51
6×16	●	51
8×20	●	64
10×20	●	64
12×25	●	70
16×25	●	70

443102 PFERD WRC, toothing 3
443104 PFERD WRC, toothing 3 PLUS
443108 PFERD WRC, toothing 5

Head Ø × head length mm	443102	443104	443108	Total length mm
4×13	—	○	—	55
6×16	○	●	○	55
8×20	○	●	○	60
10×20	○	●	○	60
12×25	○	●	○	65
16×25	○	○	—	65

HM burr

PRECITOOL PRÄZISIONSWERKZEUGE

HM burr

PFERD

Design:
Rotary cutters made of high-performance carbide for highest cutting performance. Optimal matching of carbide, geometry and innovative toothing. Very long service life, reduced wear and tear and high stock removal rate.

Use:
For use with manual and industrial robots for deburring, edge breaking, chamfering as well as for weld seam and surface processing. Optimal speeds are prerequisites for economical use and good results.

Carbide

Shank 6mm

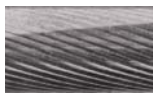
Spherical shape

Form KUD

Form KUD

Toothing 3

Toothing 3 PLUS



Toothing 5

443200 PFERD KUD, toothing 3 PLUS

Head Ø × head length mm	443200	Total length mm
3×3	●	51
6×6	●	51
8×8	●	52
10×10	●	52
12×11	●	56
16×14	●	59

443202 PFERD KUD, toothing 3
443204 PFERD KUD, toothing 3 PLUS
443208 PFERD KUD, toothing 5

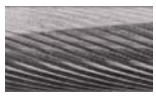
Head Ø × head length mm	443202	443204	443208	Total length mm
4×3	—	●	○	45
6×5	●	●	●	45
8×7	○	●	○	47
10×9	●	●	○	49
12×10	○	●	○	51
16×14	—	○	○	54
20×18	○	○	—	58

Drop shape

Form TRE

Form TRE

Toothing 3



Toothing 5

443300 PRECITOOL TRE, toothing 3 PLUS

Head Ø × head length mm	443300	Total length mm
6×10	●	51
8×16	○	60
10×16	●	60
12×22	●	67
16×25	●	70

443302 PFERD TRE, toothing 3
443308 PFERD TRE, toothing 5

Head Ø × head length mm	443302	443308	Total length mm
6×10	—	○	50
12×20	○	○	60

Tree shape

Form RBF

Form RBF

Toothing 3

Toothing 5

443400 PRECITOOL RBF, toothing 3 PLUS

Head Ø × head length mm	443400	Total length mm
6×16	●	51
8×20	●	64
10×20	●	64
12×25	●	70
16×25	●	70

443402 PFERD RBF, toothing 3
443408 PFERD RBF, toothing 5

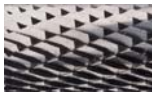
Head Ø × head length mm	443402	443408	Total length mm
6×18	○	●	55
10×20	●	○	60

Pointed tree shape

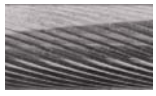
Form SPG

Form SPG

Toothing 3



Toothing 3 PLUS



Toothing 5

443500 PRECITOOL SPG, toothing 3 PLUS

Head Ø × head length mm	443500	Total length mm
6×16	●	51
8×20	●	64
10×20	●	64
12×25	●	70
16×25	●	70

443502 PFERD SPG, toothing 3
443504 PFERD SPG, toothing 3 PLUS
443508 PFERD SPG, toothing 5

Head Ø × head length mm	443502	443504	443508	Total length mm
6×18	●	○	○	55
10×20	○	○	○	60
12×25	●	●	○	65

Design:
Rotary cutters made of high-performance carbide for highest cutting performance. Optimal matching of carbide, geometry and innovative toothing. Very long service life, reduced wear and tear and high stock removal rate.

Use:
For use with manual and industrial robots for deburring, edge breaking, chamfering as well as for weld seam and surface processing. Optimal speeds are prerequisites for economical use and good results.

Carbide

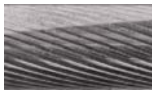
Shank 6mm

Flame shape

Form B

Form B

Toothing 3



Toothing 5

443600 PRECITOOL B, toothing 3 PLUS

Head Ø × head length mm	443600	Total length mm
8×20	●	64
12×32	●	76
16×36	●	81

443602 PFERD B, toothing 3
443604 PFERD B, toothing 3 PLUS

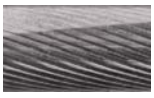
Head Ø × head length mm	443602	443604	Total length mm
8×20	○	●	60
12×30	○	○	70

Flame shape

Form KEL

Form KEL

Toothing 3



Toothing 5

443700 PRECITOOL KEL, toothing 3 PLUS

Head Ø × head length mm	443700	Total length mm
6×16	●	51
8×24	●	67
10×27	●	71
12×30	●	73
16×33	●	78

443702 PFERD KEL, toothing 3
443708 PFERD KEL, toothing 5

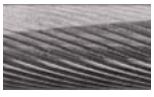
Head Ø × head length mm	443702	443708	Total length mm
10×20	○	—	60
12×30	○	○	70

Conical pointed shape

Form SKM

Form SKM

Toothing 3



Toothing 5

443800 PRECITOOL SKM, toothing 3 PLUS

Head Ø × head length mm	443800	Total length mm
6×20	●	51
10×19	●	64
12×25	●	70
16×29	●	70

443802 PFERD SKM, toothing 3
443808 PFERD SKM, toothing 5

Head Ø × head length mm	443802	443808	Total length mm
6×18	●	●	55
10×20	●	○	60
12×25	○	●	65

Angular burr without front toothing, frustoconical

Form WKN

443902 PFERD WKN, toothing 3

Head Ø × head length mm	443902	Total length mm
10×13	●	53
12×13	○	53
16×13	●	53

HM burr set

Design:
443819: Shank Ø 6 mm, staggered teeth (3 PLUS), length 64 mm
443905: Shank Ø 6 mm, staggered teeth (3 PLUS), length 55 mm (ball 45 mm)
444819: Shank Ø 3 mm, staggered teeth, length 38 mm
444820: Shank Ø 3 mm, toothing 5, length 34-43 mm

Carbide | Shank 6mm | Shank 3mm

443819 PRECITOOL, shank Ø 6 mm
444819 PRECITOOL, shank Ø 3 mm

parts	443819	444819	Contents
8	●	—	**1 cylindrical without front toothing** 10 × 20 mm **1 cylindrical with front toothing** 10 × 20 mm **1 cylindrical with rounded head** 10 × 20 mm **1 pointed tree** 10 × 20 mm **1 round arch tree** 10 × 20 mm **1 pointed cone** 6 × 20 mm **1 round cone, conical** 10 × 27 mm **1 spherical** Ø 10 mm
10	—	●	**1 cylindrical without front toothing** 3 × 13 mm **1 cylindrical with rounded head** 3 × 13 mm **1 pointed arch** 3 × 8 mm **1 round arch** 3 × 13 mm **1 drop shape** 3 × 6 mm **1 flame shape** 3 × 6 mm **1 round cone, spherical** 3 × 13 mm **1 spherical** Ø 3 mm **1 interior angle** 10°, 3 mm **1 pointed cone** 3 × 13 mm

443905 PFERD, shank Ø 6 mm
444820 PFERD, shank Ø 3 mm

parts	443905	444820	Contents
5	●	—	**1 cylindrical without front toothing** 6 × 16 mm **1 pointed arch** 6 × 18 mm **1 round arch** 6 × 18 mm **1 spherical** 6 × 5 mm **1 cylindrical with round end** 6 × 16 mm
15	—	●	**4 cylindrical without front toothing** 2 × 10 | 3 × 13 | 6 × 7 | 6 × 13 mm **1 pointed arch** 3 × 7 mm **2 round arch** 3 × 7 | 6 × 13 mm **2 drop shape** 3 × 7 | 6 × 10 mm **1 flame shape** 3 × 7 mm **1 spherical** 4 × 3 mm **2 cylindrical with round end** 2 × 10 | 3 × 13 mm **1 angular burr** 3 × 7 mm **1 pointed cone** 6 × 13 mm

HM burr

Design:
Special toothing for soft and smearing materials

Carbide | Shank 6mm | N

Use:
For machining of aluminium, copper, bronze, tin, zinc, plastics, NF metals etc.

ZYA 1225

WRC 1225

RBF 1225

KEL 1230

KUD 1210

444759 Aluminium

type	444759	Head Ø mm	Head length mm	Total length mm
ZYA1020	●	10	20	64
ZYA1225	●	12	25	70
WRC0616	●	6	16	51
WRC1225	●	12	25	70
RBF0618	●	6	18	51
RBF1225	●	12	25	70
KEL1230	●	12	30	73
KUD1210	●	12	10	56

HM burr

Design:
- specially developed for the chipping of aluminium
- reduction of material adhesion
- long service life
- large removal rate
- applicable up to 1,100 m/min cutting speed
- smooth running characteristics

Carbide | Shank 6mm | N

ZYAS KUD WRC KEL RBF

444762 Aluminium

type	444762	Head Ø mm	Head length mm	Total length mm	Type
ZYAS0616	○	6	16	55	Cylindrical shape with face toothing
ZYAS1225	○	12	25	65	Cylindrical shape with face toothing
KUD1210	○	12	10	50	Spherical shape
WRC0616	●	6	16	55	Cylindrical shape with round end
WRC1225	●	12	25	65	Cylindrical shape with round end
KEL1230	○	12	30	70	Conical with radius end
RBF0618	○	6	18	55	Tree shape
RBF1225	●	12	25	65	Tree shape

HM burr

PFERD

Design:
- especially developed for the treatment of steel and cast steel
- **simultaneously noticeable aggressiveness and good manageability**
- due to the high cutting performance, high time savings and high economic efficiency
- applicable up to 750 m/min cutting speed
- smooth running and reduced noise

Carbide | Shank 6mm | P

444765 Steel

type	444765	Head ∅ mm	Head length mm	Total length mm	Type
ZYA0616	○	6	16	55	Cylindrical shape
ZYA1225	●	12	25	65	Cylindrical shape
KUD0605	●	6	5	45	Spherical shape
KUD1210	●	12	10	51	Spherical shape
WRC0616	○	6	16	55	Cylindrical shape with round end
WRC1225	○	12	25	65	Cylindrical shape with round end
B1230	○	12	30	70	Flame shape
SPG0618	●	6	18	55	Pointed tree shape
SPG1225	○	12	25	70	Pointed tree shape
KEL1230	●	12	30	70	Conical with radius end
RBF0618	○	6	18	55	Tree shape
RBF1225	●	12	25	65	Tree shape

ZYA1225 KUD1210 WRC1225 B1230 SPG1225 KEL1230 RBF1225

HM burr

PFERD

Design and use:
- innovative rotary burrs for the machining of stainless steel
- **extremely high chipping performance on all austenitic, rustproof and acid-resistant steels**
- long tool life due to innovative tooth geometry
- delivers high-quality surfaces through optimal chip formation
- prevents heat-related discolourations on the material due to low heat development
- comfortable, ergonomic working through smooth operation, reduced vibrations and less noise
- applicable up to 600 m/min cutting speed

Carbide | Shank 6mm | M

444770 INOX

type	444770	Head ∅ mm	Head length mm	Total length mm	Type
ZYA0616	○	6	16	55	Cylindrical shape
ZYA1225	●	12	25	55	Cylindrical shape
KUD0605	●	6	5	45	Spherical shape
KUD1210	●	12	10	51	Spherical shape
WRC0616	○	6	16	55	Cylindrical shape with round end
WRC1225	●	12	25	65	Cylindrical shape with round end
B1230	○	12	30	70	Flame shape, pointed
SPG0618	○	6	18	55	Pointed tree shape
SPG1225	●	12	25	65	Pointed tree shape
KEL1230	○	12	30	70	Conical with radius end
RBF0618	○	6	10	55	Tree shape
RBF1225	○	12	18	65	Tree shape
TRE1220	○	12	20	60	Flame shape

ZYA1225 KUD1210 WRC1225 B1230 SPG1225 KEL1230 RBF1225 TRE1220

HM miniature burr

PFERD

Design:
- specially developed for the chipping of aluminium
- distinguishes itself through a high chipping performance on all aluminium materials
- reduction of material adhesion
- long service life
- large removal rate
- applicable up to 1,100 m/min cutting speed
- smooth running characteristics

Carbide | Shank 3mm | N

444825 Aluminium

type	444825	Head ∅ mm	Head length mm	Total length mm	Type
ZYAS0313	●	3	13	43	Cylindrical shape with face toothing
ZYAS0613	○	6	13	43	Cylindrical shape with face toothing
KUD0302	○	3	2	32	Spherical shape
KUD0605	●	6	5	35	Spherical shape
WRC0313	○	3	13	43	Cylindrical shape with round end
WRC0613	●	6	13	43	Cylindrical shape with round end
RBF0313	●	3	13	43	Tree shape
RBF0613	●	6	13	43	Tree shape

ZYAS KUD WRC RBF

Design and use:
- shank ∅ 3 mm
- HM head soldered
- for further details see product information

Carbide | Shank 3mm

Toothing 3

Toothing 4

444810 Cylindrical shape, toothing 3
444800 Cylindrical shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
ZYA0210	●	○	2.4	13	38
ZYA0313	●	●	3	13	38
ZYA0607	●	○	6	7	38
ZYA0613	●	●	6	13	51
ZYA-S0210	●	○	2.5	11	38
ZYA-S0313	●	●	3	14	38
ZYA-S0613	●	●	6	13	51

ZYA-S0210 ZYA0210 ZYA-S0313 ZYA0313 ZYA0607 ZYA-S0613 ZYA0613

444810 Flame shape, toothing 3
444800 Flame shape, toothing 4

B0307 B0613

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
B0307	●	●	3	6	38
B0613	●	●	6	13	43

WKN-S0307 WKN0307 WKN-S0607 WKN0607

444810 Inverted cone shape, toothing 3
444800 Inverted cone shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
WKN0307	●	●	3	3	38
WKN0607	●	○	6	6	44
WKN-S0307	○	○	3	7	38
WKN-S0607	●	●	6	8	44

SKM0307 SKM0313 SKM0613

444810 Cone shape with pointed end, toothing 3
444800 Pointed tree shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
SKM0307	●	●	3	10	38
SKM0313	●	●	3	13	38
SKM0613	●	●	6	13	51

SPG0307 SPG0313 SPG0613

444810 Pointed tree shape, toothing 3
444800 Pointed tree shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
SPG0307	●	●	3	8	38
SPG0313	●	●	3	13	38
SPG0613	●	●	6	13	51

WRC0210 WRC0313 WRC0613

444810 Cylindrical shape with round end, toothing 3
444800 Cylindrical shape with round end, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
WRC0210	●	●	2.4	13	38
WRC0313	●	●	3.0	13	38
WRC0613	●	●	6.0	13	51

KUD0302 KUD0403 KUD0605

444810 Spherical shape, toothing 3
444800 Spherical shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
KUD0302	●	●	2.4	2.4	38
KUD0403	●	●	3.2	3.2	38
KUD0605	●	●	6.4	6.4	44

RBF0313 RBF0613

444810 Tree shape, toothing 3
444800 Tree shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
RBF0313	●	●	3	13	38
RBF0613	●	●	6	13	51

TRE0307 TRE0610

444810 Drop shape, toothing 3
444800 Drop shape, toothing 4

type	444800	444810	Head ∅ mm	Head length mm	Total length mm
TRE0307	●	●	3	6	38
TRE0610	●	●	6	10	48

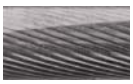
HM miniature burr

PFERD

Design and use:
- shank ∅ 3 mm
- HM head soldered
- for further details see product information

Carbide | Shank 3mm

Toothing 4


Toothing 5

444806 Cylindrical shape, toothing 4
444808 Cylindrical shape, toothing 5

type	444806	444808	Head ∅ mm	Head length mm	Total length mm
ZYA0210	○	●	2	10	40
ZYA0313	●	●	3	13	43
ZYA0607	—	○	6	7	37
ZYA0613	—	○	6	13	43
ZYA-S0313	●	—	3	13	43
ZYA-S0607	—	○	6	7	37
ZYA-S0613	●	—	6	13	43

ZYA0210 ZYA0313 ZYA0607 ZYA0613 ZYA-S0313 ZYAS0607 ZYA-S0613

B0307 B0613

WRC0210 WRC0313 WRC0613

444808 Flame shape, toothing 5

type	444808	Head ∅ mm	Head length mm	Total length mm
B0307	●	3	7	37
B0613	●	6	13	43

444806 Cylindrical shape with round end, toothing 4
444808 Cylindrical shape with round end, toothing 5

type	444806	444808	Head ∅ mm	Head length mm	Total length mm
WRC0210	●	●	2	10	40
WRC0313	●	●	3	13	43
WRC0613	●	●	6	13	43

WKN0307 WKN0607

444808 Inverted cone shape, toothing 5

type	444808	Head ∅ mm	Head length mm	Total length mm
WKN0307	●	3	7	37
WKN0607	○	6	7	37

KUD0302 KUD0403 KUD0605

444806 Spherical shape, toothing 4
444808 Spherical shape, toothing 5

type	444806	444808	Head ∅ mm	Head length mm	Total length mm
KUD0302	●	●	3	2	33
KUD0403	●	●	4	3	34
KUD0605	●	●	6	5	35

SKM0307 SKM0311 SKM0613

444808 Conical pointed shape, toothing 5

type	444808	Head ∅ mm	Head length mm	Total length mm
SKM0307	●	3	7	37
SKM0311	●	3	11	41
SKM0613	●	6	13	43

RBF0307 RBF0613

444806 Tree shape, toothing 4
444808 Tree shape, toothing 5

type	444806	444808	Head ∅ mm	Head length mm	Total length mm
RBF0307	—	●	3	7	37
RBF0613	●	●	6	13	43

SPG0307 SPG0313 SPG0613

444806 Pointed tree shape, toothing 4
444808 Pointed tree shape, toothing 5

type	444806	444808	Head ∅ mm	Head length mm	Total length mm
SPG0307	●	●	3	7	37
SPG0313	●	●	3	13	43
SPG0613	●	●	6	13	43

TRE0307 TRE0610

444808 Drop shape, toothing 5

type	444808	Head ∅ mm	Head length mm	Total length mm
TRE0307	○	3	7	37
TRE0610	○	6	10	40

Mounted points

Product information

Mounted points in **hardness O** consist of pink aluminium oxide in a vitrified bond. These tools are characterized by a very long tool life and good stock removal rate due to the combination of wear-resistant grain and a hard bond. The hardness O is particularly suited for use on edges and for deburring work on steel components.

Advantages:
- Long tool life and low tool wear due to the hard, dimensionally stable bond.
- Economical to use due to the high edge stability even on low-speed tool drives.

Application examples:
- Removal of burrs on cast steel parts
- Grinding of chamfers for welding seam preparation
- Grinding contours.

Recommendations for use:
- Mounted points of hardness O achieve their best performance at a cutting speed of 25 to 40 m/s.
- Flexible shafts, electric grinders and air-powered straight grinders are suitable as tool drives.

Mounted points in **hardness R** are manufactured from grey silicon carbide in a vitrified bond.
The combination of very hard abrasive grain and high bond content means that extremely long tool life is achieved when grinding The hardness R is particularly suitable for use on edges and for grinding out metal contamination on grey and nodular cast iron at high cutting speeds.

Advantages:
- Highly dimensionally stable due to the high bond content.
- Economical to use due to the high edge stability even on low-speed tool drives

Application examples:
- Removal of sharp burrs on grey and nodular cast iron components.
- Grinding of sand and metal contamination on cast parts.

Recommendations for use:
- Mounted points of hardness R achieve their best performance at a cutting speed of 30 to 50 m/s.
- Flexible shafts, electric grinders and air-powered straight grinders are suitable as tool drives.

Mounted points in **hardness N** are manufactured from regular aluminium oxide and a high-quality resinoid bond. This relatively hard bond contains grinding additives, which in combination with tough regular aluminium oxide and the hard bond allow high stock removal rates and excellent tool life. The hardness N is particularly suited for edge grinding on stainless steel (INOX). It is characterized by cool grinding and high dimensional stability.

Advantages:
- Due to cool grinding, very suitable for use on temperature-sensitive materials.
- High level of grinding comfort through low-vibration grinding.
- Economical to use due to the high edge stability even on low-speed tool drives.

Application examples:
- Grinding of fillet welds on high-grade steel components.
- Removal of burrs on moulded high-temperature-resistant alloys.
- Removal of burrs on cast stainless steel parts.
- Grinding of chamfers in preparation for welding of stainless steel profiles.

Recommendations for use:
- Mounted points of hardness N achieve their best performance at a cutting speed of 35 to 50 m/s.
- Flexible shafts, electric grinders and air-powered straight grinders are suitable as tool drives.

Material group			Bond ▶	Ceramic bond		Resinoid bond
			Mounted point hardness ▶	Hardness 0	Hardness R	Hardness N
			Abrasives ▶	AR	CU	AN
			Recommended cutting speed ▶	25–40 m/s	30-50 m/s	35-50 m/s
			Processing task ▼			
Steel, cast steel	Non-hardened, non-tempered steels up to 1,200 N/mm² (< 38 HRC)	Structural steels, carbon steels, tool steels, unalloyed steels, case-hardening steels	**Surface grinding** with high stock removal rate	❍		
			Edge grinding with high form stability	●		❍
	Hardened, heat-treated steels over 1,000 N/mm² (> 38 HRC)	Tool steels, tempered steels, alloyed steels	**Edge grinding** with high form stability	❍		
	Cast steel	Non-alloyed cast steel, low-alloyed cast steel	**Surface grinding** with high stock removal rate	❍ *		
			Edge grinding with high form stability	● *		❍
Stainless steel (INOX)	Rust- and acid-resistant steels	Austenitic and ferritic stainless steels	**Surface grinding** with high stock removal rate			❍
			Edge grinding with high form stability	❍		●
Cast iron	Grey cast iron white cast iron	Cast iron with flake graphite EN-GJL (GG), with nodular graphite/nodular cast iron EN-GJS (GGG), white annealed cast iron EN-GJMW (GTW), black cast iron EN-GJMB (GTS)	**Surface grinding** with high stock removal rate	❍ *	❍ *	❍
			Edge grinding and grinding of burning-in with high form stability	❍ *	● *	❍

● = highly suitable ❍ = suitable * = additional types for foundries

Mounted point Fused alumina, shank Ø 6 mm, grain coarse

PFERD

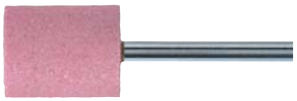
Design:
- pink fused alumina (EKR), coarse grain
- hardness O (for details see product information page 45/875)
- shank: Ø 6 mm, length: 40 mm

EKR | Shank 6mm | P | PU 10 pieces

450100 Form ZY

type	450100	Head Ø mm	Head length mm
ZY0408	●	4	8
ZY0510	●	5	10
ZY0613	●	6	13
ZY0816	●	8	16
ZY1020	●	10	20
ZY1025	●	10	25
ZY1032	●	10	32
ZY1325	●	13	25
ZY1632	●	16	32
ZY2006	●	20	6
ZY2025	●	20	25
ZY2506	●	25	6
ZY2513	●	25	13
ZY2532	●	25	32
ZY3216	●	32	16
ZY4020	●	40	20

Form ZY



450300 Form WR

type	450300	Head Ø mm	Head length mm
WR0510	●	5	10
WR0816	●	8	16
WR1320	●	13	20

Form WR

450400 Form SP

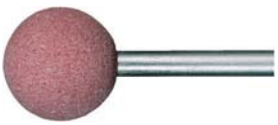
type	450400	Head Ø mm	Head length mm
SP0510	●	5	10
SP0816	●	8	16
SP1320	●	13	20
SP2032	●	20	32

Form SP

450500 Form KU

type	450500	Head Ø mm	Head length mm
KU05	●	5	5
KU08	●	8	8
KU13	●	13	13
KU16	●	16	16
KU20	●	20	20
KU25	●	25	25

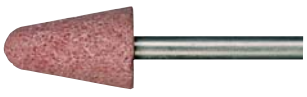
Form KU



450600 Form KE

type	450600	Head Ø mm	Head length mm
KE1313	●	13	13
KE1616	●	16	16
KE1645	●	16	45
KE2020	●	20	20
KE2525	●	25	25
KE2545	●	25	45

Form KE



Small mounted point Fused alumina, shank ∅ 3 mm

Design:
- special fused alumina (ECR), fine grain, hardness O
  (for details see product information page 45/875)
- shank: ∅ 3 mm, length: 30 mm

EKR | Shank 3mm | P | PU 10 pieces

450610 Form ZY

type	450610	Head ∅ mm	Head length mm
ZY0205	●	2	5
ZY0306	●	3	6
ZY0408	●	4	8
ZY0510	●	5	10
ZY0613	●	6	13
ZY0810	●	8	10
ZY0816	●	8	16
ZY1002	●	10	2
ZY1013	●	10	13
ZY1303	●	13	3
ZY1604	●	16	4

Form ZY

450630 Form WR
450640 Form SP

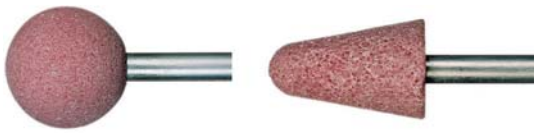
type	450630	450640	Head ∅ mm	Head length mm
WR0306	●	—	3	6
WR0510	●	—	5	10
SP0306	—	●	3	6
SP0510	—	●	5	10

Form WR | Form SP

450650 Form KU
450660 Form KE

type	450650	450660	Head ∅ mm	Head length mm
KU03	●	—	3	3
KU05	●	—	5	5
KU08	●	—	8	8
KU13	●	—	13	13
KE1010	—	●	10	10

Form KU | Form KE



Set of mounted points Special fused alumina

Design:
- hardness degree O (wear-proof grain, hard bonding)
- ceramic bonding
- fused alumina pink

Use:
- very long tool life
- universally applicable, dimensionally stable and with high edge strength
- recommended cutting speed 25 - 40 m/s
- for edge application and deburring operations at steel components

EKR | Shank 6mm | Shank 3mm

450690 Set of mounted points

parts	450690	Contents 1 grinding pin each of the type	Shank ∅ mm	Grain size
10	●	ZY1013 | ZY1320 | ZY2006 | ZY2013 | ZY2025 | KU16 | WR2025 | WK2025 | SP1320 | KE2020	6	coarse
15	●	2 × ZY0510 | 2 × ZY0810 | ZY0802 | ZY0613 | ZY0408 | ZY1013 | ZY1604 | WR0510 | KU05 | SP0306 | KE1010 | ZY1604 | ZY1303	3	Fine

10 15

Mounted point Silicon carbide

PFERD

SiC | Form ZY | Shank 6mm | K | PU 10 pieces

Design:
- ceramic bonding
- silicon carbide abrasive grain
- hardness R
- high cohesiveness and homogeneous structure
- length: 40 mm
- grain size 30 (coarse)

Use:
- for the machining of grey cast iron, nodular cast iron, thermoset, inorganic materials
- on high-speed grinding machines
- recommended peripheral speed 30 - 50 m/s

450700 Form ZY

type	450700	Head ∅ mm	Head length mm
ZY1632	●	16	32
ZY2025	●	20	25
ZY2040	●	20	40

Mounted point Bakelite-bonded

PFERD

NK | Form ZY | Shank 6mm | M | PU 10 pieces

Design:
- normal corundum
- Bakelite (BA) bonding
- hardness N
- length: 40 mm
- grain size 46 (medium)

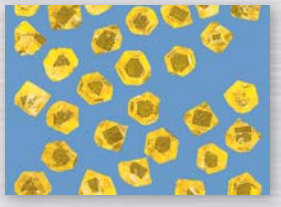
Use:
- for machining stainless and acid-proof steels
- for high peripheral speed 35 - 50 m/s
- for edge application

451000 Form ZY

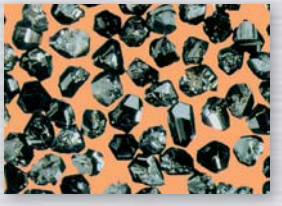
type	451000	Head ∅ mm	Head length mm
ZY1032	●	10	32
ZY1325	●	13	25
ZY1632	●	16	32
ZY2025	●	20	25
ZY4020	●	40	20

Product information

Advantages of grinding tools with diamond and CBN
Excellent service life and profile retention, short processing times. Reduction of unproductive time losses, because the tool has to be dressed or changed less frequently Prevention of thermal damages to the workpiece due to lower grinding temperatures. Uniform quality level over a large number of workpieces.



Abrasive diamond
Diamond and CBN abrasives do not compete but complement each other For steel processing, diamond is inapt, because a chemical reaction between iron (Fe) in the steel and carbon (C) of the diamond causes very rapid wear of the diamond tool. The machining of steel with diamond is therefore generally uneconomical.



Abrasive CBN
CBN is nearly as hard as diamond, but does not react with iron (Fe) in the steel

Diamond tools are suitable for the processing of:
HM (sintered), HM (green compact), glass, ceramics (also engineering ceramics), porcelain, wear protection layers, ferrite, silicon, graphite, synthetic carbon, thermosets, glass fibre reinforced plastics, natural and synthetic materials, fireproof fabrics.

CBN tools are suitable for the processing of:
high-speed steels, tool steels, case-hardening steels, ball bearing steels, chromium steels, hardened steel materials with a hardness above 54 HRC.

Conversion table
❶ cutting speed (m/s)
❷ in rotational speed (min^{-1})
❸ per tool Ø

Example: Diamond mounted point

Diameter:	20 mm
Cutting speed:	25 m/s
Rotational speed:	23 870 min^{-1}

Safety instructions:

Please observe safety recommendations!

❸ tool Ø (mm)	❶ cutting speeds (m/s)											
	8	12	15	18	20	25	30	40	50	80	100	125
	❷ rotational speeds (min^{-1})											
1	152,790	229,180										
2	76,390	114,590	143,240	171,890	190,990	238,730						
3	50,930	76,390	95,490	114,590	127,320	159,160	190,990					
4	38,200	57,300	71,620	85,940	95,490	119,370	143,240	190,990				
5	30,560	45,840	57,300	68,760	76,390	95,490	114,590	152,790	190,990			
6	25,470	38,200	47,750	57,300	63,660	79,580	95,490	127,320	159,160			
7	21,830	32,740	40,930	49,110	54,570	68,210	81,850	109,140	136,420	218,270		
8	19,100	28,650	35,810	42,970	47,750	59,680	71,620	95,490	119,370	190,990	238,270	
9	16,980	25,470	31,830	38,200	42,440	53,050	63,660	84,880	106,100	169,770	212,210	
10	15,280	22,920	28,650	34,380	38,200	47,750	57,300	76,390	95,490	152,790	190,990	238,270
12	12,730	19,100	23,870	28,650	31,830	39,790	47,750	63,660	79,580	127,320	159,160	198,940
15	10,190	15,280	19,100	22,920	25,470	31,830	38,200	50,930	63,660	101,860	127,320	159,160
18	8,490	12,730	15,920	19,100	21,220	26,530	31,830	42,440	53,050	84,880	106,100	132,630
20	7,640	11,460	14,320	17,190	19,100	23,870	28,650	38,200	47,750	76,390	95,490	119,370
25	6,110	9,170	11,460	13,750	15,280	19,100	22,920	30,560	38,200	61,120	76,400	95,490
30	5,090	7,640	9,550	11,460	12,730	15,920	19,100	25,470	31,830	50,930	63,660	79,580
40	3,820	5,730	7,160	8,590	9,550	11,940	14,320	19,100	23,870	38,200	47,750	59,680
50	3,060	4,580	5,730	6,880	7,640	9,550	11,460	15,280	19,100	30,560	38,200	47,750
75	2,040	3,060	3,820	4,580	5,090	6,370	7,640	10,190	12,730	20,370	25,470	31,830
100	1,530	2,290	2,870	3,440	3,820	4,780	5,730	7,640	9,550	15,280	19,100	23,870
125	1,220	1,830	2,290	2,750	3,060	3,820	4,580	6,110	7,640	12,220	15,280	19,100
150	1,020	1,530	1,910	2,290	2,550	3,180	3,820	5,090	6,370	10,190	12,730	15,920
175	870	1,310	1,640	1,960	2,180	2,730	3,270	4,370	5,460	8,730	10,910	13,640
200	760	1,150	1,430	1,720	1,910	2,390	2,870	3,820	4,780	7,640	9,550	11,940
250	610	920	1,150	1,380	1,530	1,910	2,290	3,060	3,820	6,110	7,640	9,550
300	510	760	960	1,150	1,280	1,600	1,910	2,550	3,180	5,090	6,370	7,960
350	440	660	820	980	1,090	1,360	1,640	2,180	2,730	4,370	5,460	6,820
400	380	570	720	860	960	1,200	1,430	1,910	2,390	3,820	4,780	5,970
450	340	510	640	760	850	1,060	1,270	1,700	2,120	3,400	4,240	5,310
500	310	460	570	690	760	960	1,150	1,530	1,910	3,060	3,820	4,780
600	260	380	480	570	640	800	960	1,270	1,590	2,550	3,180	3,980

CBN mounted point

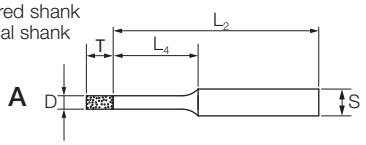
PFERD

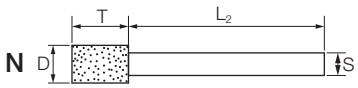
CBN | Form ZY | Shank 3mm | Shank 6mm | P | M | K

Design:
- precision ground mounted points with very hard CBN coating (single layer) in galvanic bonding
- high grinding efficiency and reasonable tool life

Use:
- for machining high-speed steel, tool steel, high-temperature materials
- cutting speeds: Dry grinding 15 - 30 m/s, wet grinding 20 - 45 m/s

A = shouldered shank
N = cylindrical shank



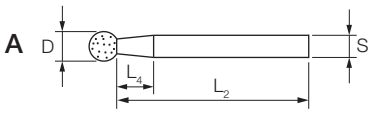


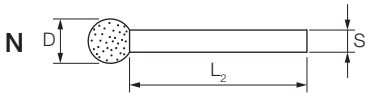
453030 Form ZY grain B126 (medium)

Head Ø × D mm	453030	L_4 mm	L_2 mm	Shank Ø mm
1,0×4	●	9	36	3
1,4×4	●	9	36	3
2,0×4	●	10	36	3
3,0×4	●	19	36	3
4,0×5	●	—	45	3

Head Ø × D mm	453030	L_4 mm	L_2 mm	Shank Ø mm
5,0×5	●	—	45	3
6,0×6	●	19	54	6
8,0×8	●	—	52	6
10,0×8	●	—	52	6
12,0×8	●	—	52	6

Form KU





453040 Form KU grain B126 (medium)

Head Ø mm	453040	L_4 mm	L_2 mm	Shank Ø mm
1,0	●	10	44	3
2,0	●	8	43	3
3,0	●	6	42	3
4,0	●	5	41	3

Head Ø mm	453040	L_4 mm	L_2 mm	Shank Ø mm
5,0	●	2	40	3
6,0	●	—	39	3
8,0	●	10	52	6
—	—	—	—	—

Diamond mounted point

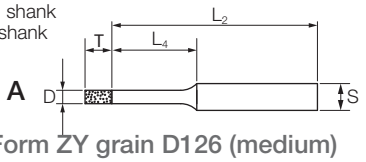
PFERD

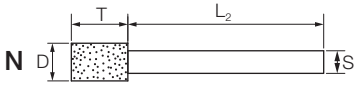
Diamond | Form ZY | Shank 3mm | Shank 6mm | Plastics

Design:
- precision ground mounted points with extremely hard diamond application (single layer) in galvanic bonding
- high cutting properties and excellent tool life

Use:
- to machine glass fibre or carbon reinforced thermosets, carbide, ferrite steel, silicon, graphite etc.
- cutting speeds: Dry grinding 8 - 18 m/s, wet grinding 15 - 30 m/s

A = reduced shank
N = conical shank

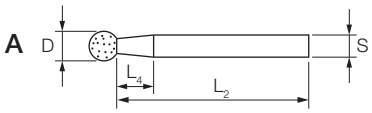


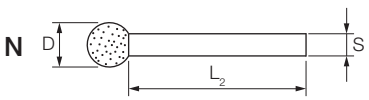


454030 Form ZY grain D126 (medium)

Head Ø × D mm	454030	L_4 mm	L_2 mm	Shank Ø mm
1,0×4	●	9	36	3
1,4×4	●	9	36	3
1,6×4	●	10	36	3
2,0×4	●	10	36	3
2,4×4	●	14	36	3
3,0×4	●	19	36	3

Head Ø × D mm	454030	L_4 mm	L_2 mm	Shank Ø mm
4,0×5	●	—	45	3
5,0×5	●	—	45	3
6,0×6	●	19	54	6
8,0×8	●	—	52	6
10,0×8	●	—	52	6
12,0×8	●	—	52	6





Form KU

454060 Form KU grain D126 (medium)

Head Ø mm	454060	L_4 mm	L_2 mm	Shank Ø mm
1,0	●	10	44	3
2,0	●	8	43	6
3,0	●	6	42	3
4,0	●	5	41	3

Head Ø mm	454060	L_4 mm	L_2 mm	Shank Ø mm
5,0	●	2	40	3
6,0	●	—	39	3
8,0	●	10	52	6
10,0	●	5	50	3

Polishing abrasive Poliflex®

Design:
- bonding: GR (rubber bond), grain size 120
- fused alumina AR
- max. peripheral speed 15 m/s (recommended 10 - 12 m/s)

EKR | Shank 6mm | PU 10 pieces

Use:
- for grinding and polishing
- usable for extremely smearing metals
- for surface finishing of containers, devices made of stainless or acid-resistant steel, NF and light metals and plastics, polishing of moulds for pressure castings and injection moulds
- to create optical effects at stainless containers etc.

454830 Form ZY

type	454830	Head ∅ mm	Head length mm
ZY1015	●	10	15
ZY1220	●	12	20
ZY1525	●	15	25
ZY2030	●	20	30
ZY2525	●	25	25
ZY3030	●	30	30

Marbling tool and non-woven abrasive disc

Design and use:
- abrasive fleece in corundum version, oil- and waterproof
- for marbling or to obtain effects on surfaces or profiled workpieces
- optimum speed 600 - 1400 min^{-1}
- marbling tool to receive the non-woven abrasive fabric (Velcro fastening)

EKR | Shank 6mm | PU 10 pieces

454840 Marbling tool
454842 Non-woven abrasive disc (grain 100)
454844 Non-woven abrasive disc (grain 180)
454846 Non-woven abrasive disc (grain 280)

∅ mm	454840	454842	454844	454846
40	●	●	●	●
50	●	●	●	●
60	●	●	●	●

454840

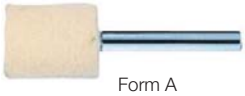
454842-46

Felt polishing point

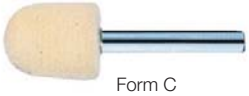
Design:
Made of firm felt with metal shank

Form A | Form C | Form K | Form L | Form D | Shank 6mm | PU 10 pieces

Use:
- for surface refinement of pre-ground parts
- optimum peripheral speed 5 - 19 m/s



Form A



Form C

Form K

Form L

Form D

454850 with metal shank

type	454850	Head ∅ mm	Head length mm
1014A	●	10	14
2025A	●	20	25
2530A	●	25	30
2530C	●	25	30
1018K	●	10	18
1520K	●	15	20
2025L	●	20	25
3035L	●	30	35
1014D	●	10	14

Polishing tool

Design:
- folded cloth rings of corrugated textile fabric are firmly wrapped around the metal core
- bore: 10 mm
- for polishing and satinising

454860:
- sisal cotton cloth, type 81 (dense structure)
- impregnated to strengthen the polishing effect, to extend tool life and for better adhesion of the polishing compound
- 20 mm wide

454862:
- polishing cloth Notiflex, type NF 914 (hard, density 110)
- 14 mm wide

454864:
- ultra fine polishing cloth Notiflex, type NF 925 (soft, density 110)
- 14 mm wide

Use:
- on drills, flexible shafts, angle polishers and polishing machines (number and width optional)
- to be used with compound from pre-polishing to mirror finishing of metals (INOX, steel, NE metals)
- peripheral speed approx. 25 - 30 m/sec.

454860: Mainly for pre-polishing or matting (NE metals)
454862: For polishing and levelling as well as finishing without high-gloss creation
454864: For high-gloss polishing of all metals as well as plastics

454860 Sisal cloth ring (PU = 1 piece)
454862 Notiflex non-woven polishing buff, NF 914 (PU = 2 pieces)
454864 Notiflex non-woven polishing buff, NF 925 (PU = 2 pieces)

Ø mm	454860	454862	454864
100	●	●	●
150	●	●	●
200	●	●	●

454866 Polishing assortment 10-piece

parts	454866	Contents
10	●	2 sisal cloth buffs 2 Notiflex fleece buffs, hard 2 Notiflex fleece buffs, soft 3 polishing compounds white, brown, blue 1 shank ∅ 6 mm

Accessories for polishing tools

454868 Clamping shank (shank 6 mm, for 10 mm bore)

Ø mm	454868
6	●

454878 Clamping shank for polishing buffing pad

Clamping width mm	454878	Ideal for
15 - 30	●	Angular polisher
15 - 50	●	Angular polisher

Safety data sheet

454880 Polishing compound

Colour	454880	Ideal for
WEISS	●	Pre-polishing and finishing of INOX and steel
BRAUN	●	Pre-polishing and finishing of NF metals
BLAU	●	for high-gloss polishing of steel, premium steel and NF metals

Satinising tool

Design and use:
- abrasive fleece rings (density 100) firmly wrapped around a metal core
- bore: 10 mm

454890:
- coarse, aggressive abrasive fleece (approx. grain 100)
- for deoxidising, removing of rust films and surface contaminations as well as for roughing (lacquers, paints, plastic) and satinising of decorative metals (surface roughness approx. 3.5 - 4 µm)
- type A4

454892:
- medium grinding fleece (approx. grain 180)
- for regrinding ground/brushed surfaces (surface roughness approx. 3 µm)
- type A6

454894:
- ultra-fine grinding fleece (approx. grain 280)
- for repairing scratches or for fine matting (surface roughness approx. 1.5 µm)
- type S7

454890 LIPPRITE-EKK buff, coarse
454892 LIPPRITE-EKK buff, medium
454894 LIPPRITE-EKK buff, fine

Ø mm	454890	454892	454894
100	●	●	●

454896 Satinising assortment, 4-piece

parts	454896	Contents
4	●	3 LIPPRITE-EKK buffs 1 each coarse, medium, fine 1 clamping shank Ø 6 mm

Grinding compound

Design and use:
- oil-soluble, ready-to-use grinding compound (SiC grain)
- for felt polishing points
- also fit for grinding-in valves
- granulation 800 esp. for tungsten carbide matrices

SiC

Safety data sheet

454900 Can 250 g

Grit grade	454900	Grit range
90	●	medium coarse
150	●	Fine
280	●	very fine
360	●	extra fine
800	●	extremely fine

Grinding compound

Use:
- concentrated paste for manual and machine lapping
- high surface quality
- low-cost alternative to diamond paste due to extreme grain hardness

SiC

Safety data sheet

454950 Tube 100 g

Grit grade	454950	Grit size (micron)
120	●	180 µ
180	●	130 µ
220	●	100 µ
360	●	50 µ
500	●	25 µ

Grit grade	454950	Grit size (micron)
750	●	10 µ
1000	●	5 µ
1500	●	3 µ
2000	●	1 µ
—	—	—

Polishing compound

EMIL OTTO

Use:
On grinding, polishing and cloth discs as well as brushes

Delivery:
In cardboard tube, variable pack weights, about 300 to 350 g

Safety data sheet

454958 Grinding and polishing compound

type	454958	Polishing compound specially suited for
1703	●	Steel and VA steel
1704	●	for high gloss polishing of all metals

Grinding cap holder / Grinding cap

PFERD

Design:
- slotted abrasive cap holder with steel shank (reusable)
- seamless formed abrasive cap, coated with abrasive particles
- quick replacement
- grain sizes 60 (coarse) / 80 (medium) and 280 (fine)

Shank 3mm | Shank 6mm

Use:
- mainly in tool-making and mould-making
- finishing at contours and difficult to access places
- recommended peripheral speed 10 - 20 m/s

455000 Abrasive cap holder

type	455000	Head Ø mm	Head length mm	Shank Ø mm	recomm. speed min^{-1}
0510A	●	5	10	3	40,000
0511C	●	5	11	3	40,000
0515L	●	5	15	6	40,000
1317C	●	13	17	6	16,000
1626G	●	16	26	6	12,000
1626A	●	16	26	6	12,000
1632L	●	16	32	6	12,000
2140L	●	21	40	6	9,500

455100 Abrasive caps, coarse/medium (grain 60/80)
455150 Abrasive cap, fine (grain 280)

Corundum A | P | Kunststoffe | VPE 50 Stück

type	455100	455150	455100 Grit	455150 Grit
0510A	●	●	80	280
0511C	●	●	80	280
0515L	●	●	80	280
1317C	●	●	60	280
1626G	●	●	60	280
1626A	●	●	60	280
1632L	●	●	60	280
2140L	●	●	60	280

Abrasive sleeve holder

PFERD

Design:
- re-usable abrasive drum holder with steel shank
- GK = slotted holder, expands through centrifugal force and in this way holds the belt

Shank 6mm

455300 Type GK

Ø × hight mm	455300	Min. speed min^{-1}	Maximum speed min^{-1}
10×20	●	30,000	44,000
15×30	●	26,000	36,000
22×20	●	18,000	26,000
30×30	●	13,000	19,100
45×30	●	8,500	12,700

Abrasive sleeve Corundum A

Design:
Made of tearproof cloth with synthetic resin-bonded abrasive grain for long lifetime and good grain adhesion

Corundum A | P | N | Kunst-stoffe | PU 25 pieces

Use:
- levelling of pre-ground weld seams, smoothing of spot welds, regrinding of forging dies etc.
- the use of grinding oil prevents clogging of the belt and raises tool life
- for universal use on steel, NF metals and plastics

455400 coarse/medium (grain 60/80)
455410 fine (grain 150)

Ø × hight mm	455400	455410	455400 Grit	455410 Grit
10×20	●	●	80	150
15×30	●	●	80	150
22×20	●	●	60	150
30×30	●	●	60	150
45×30	●	●	60	150

Abrasive sleeve Zirconium corundum

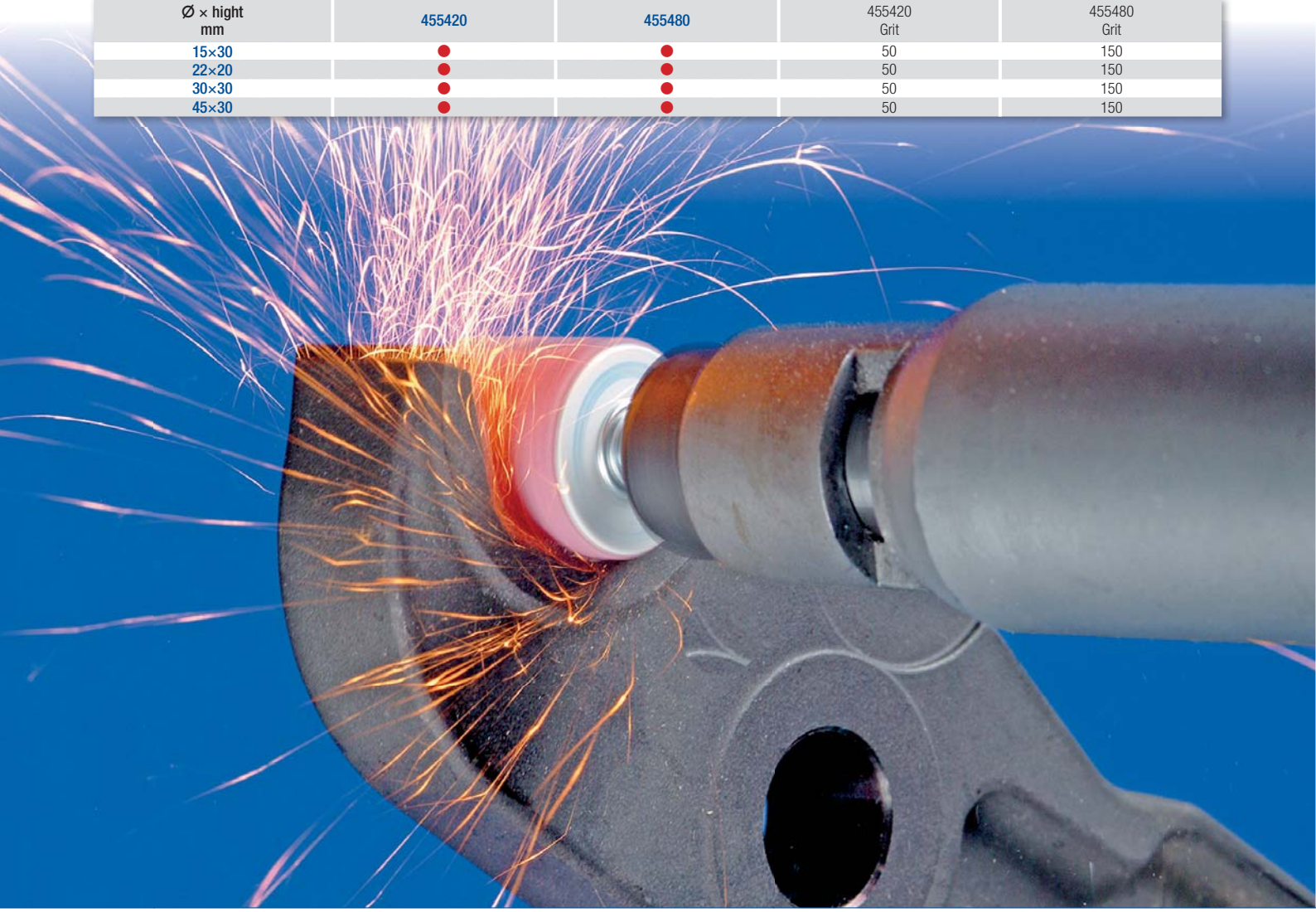
Design
- abrasive zirconium corundum Z-Cool
- cool cut means no clogging

Zircon corundum | M | PU 25 pieces

Use:
For machining on stainless steel (INOX)

455420 coarse (grain 50)
455480 fine (grain 150)

Ø × hight mm	455420	455480	455420 Grit	455480 Grit
15×30	●	●	50	150
22×20	●	●	50	150
30×30	●	●	50	150
45×30	●	●	50	150



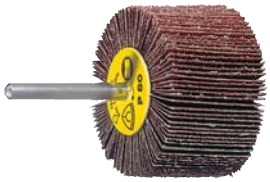
Flap wheel

KLINGSPOR Schleiftechnologie

Corundum A | Shank 6mm | P | PU 10 pieces

Design and use:
Type KM 613:
- flexible grinding and polishing tools made of abrasive cloth
- lamellae arranged in fan-shape
- for hand-held machines to treat profiled work-pieces, inside areas, narrow and hard to reach places
- especially suited for radial use

Note:
Use grinding oil to enhance the grinding performance!



455600 grain 60
455620 grain 80
455650 grain 120
455700 grain 240

Ø × hight mm	455600	455620	455650	455700	recomm. speed min^{-1}
30×10	●	●	●	●	12,000
30×15	●	●	●	●	12,000
40×15	●	●	●	●	9,600
40×20	●	●	●	●	9,600
50×20	●	●	●	●	7,000
50×30	●	●	●	●	7,000
60×20	●	●	●	●	6,300
60×30	●	●	●	●	6,300
60×40	●	●	●	○	6,300
60×50	●	●	●	●	6,300
80×50	●	●	●	●	4,800

Non-woven abrasive

PFERD | PRECITOOL PRÄZISIONSWERKZEUGE

Corundum A | Shank 6mm | UNI | PU 10 pieces

Use:
- non-woven carrier fabric interspersed with normal corundum
- for removing dirt and oxide layers from metals and matting and satin finishing of metals
- creates a semi-gloss surface finish

456000 PNL:
- the abrasive cloth is organised radial in lamellar shape
- the lamellae are densely arranged, granting a long tool life
- for surface machining

456100 PNR:
- the grinding cloth is organised axially on top of each other in round blanks
- for the machining of profiles or pipes

456000 PNL

456100 PNR

456000 PRECITOOL, type PNL
456100 PFERD, type PNR

Ø × height/grain mm	456000	456100	max. speed min^{-1}
60×50/100	●	●	7,000
60×50/180	●	●	7,000
60×50/280	●	●	7,000
80×50/100	●	●	5,250
80×50/180	●	●	5,250
80×50/280	●	●	5,250

Flap wheel INOX

PFERD

Zircon corundum | Shank 6mm | M | PU 10 pieces

Design:
Zirconium corundum Z-Cool

Use:
- for machining of **stainless steel and high-temperature alloys**
- high abrasive capacity
- no clogging

455710 grain 60
455715 grain 80

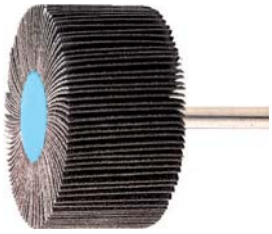
Ø × hight mm	455710	455715	recomm. speed min^{-1}
30×20	●	●	9,600
40×20	●	●	9,600
50×20	●	●	7,000
60×30	●	●	6,300
80×50	●	●	4,800

Flap wheel SiC

PFERD

Design and use:
- silicon carbide (SiC)
- **for the machining of hard and tough materials**, like titanium alloys and aluminium, copper, bronze, high-alloyed steel and plastic
- generates a particularly fine sanding pattern

SiC | Shank 6mm | N | PU 10 pieces



455720 grain 60
455725 grain 80
455730 grain 120
455735 grain 150

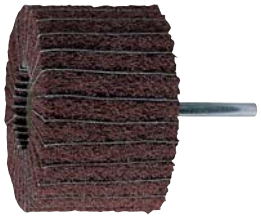
Ø × hight mm	455720	455725	455730	455735	recomm. speed min^{-1}
30×10	●	●	●	●	12,000
60×30	●	●	●	●	6,300

Non-woven abrasive with intermediate layer

PFERD

Design and use:
- non-woven material arranged radially, i.e. In lamellae form
- between the lamellae are abrasive cloth interlayers
- improved stock removal
- the result is coarser in appearance

Corundum A | Shank 6mm | UNI | PU 10 pieces



456200 Type PNZ

Ø × height/grain mm	456200	max. speed min^{-1}
60×50/100	●	7,000
80×50/100	●	5,250

Grinding wheel with thread

PFERD

Corundum A | UNI | Socket M 14

Design:
- grinding wheel for the machining of medium-size surfaces on speed-controlled angle grinders and fillet weld grinders
- can be mounted directly to the spindle of the driving machine without further clamping devices
- **abrasive: Corundum A**

456210 PNL:
- abrasive cloth is organised radial in lamellar shape
- dense packing of the layers ensures long service life

456212 PNZ:
- abrasive cloth is organised radial in lamellar shape
- between the lamellae are abrasive cloth interlayers
- this arrangement of the lamellae allows improved stock removal and results in a coarser finish

456214 PNG:
- consists of several strips of strongly corrugated abrasive cloth arranged around a metal core
- the wave-shape arrangement makes uniform brush-matting of surfaces possible

456210 PNL | 456212 PNZ | 456214 PNG

456210 POLINOX®, type PNL
456212 POLINOX®, type PNZ
456214 POLINOX®, type PNG

Ø × height/grain mm	456210	456212	456214	max. speed min $^{-1}$
100×50/100	●	○	●	6,000
100×50/180	●	●	●	6,000
100×50/280	●	—	○	6,000

Lamellar flap wheel

KLINGSPOR Schleiftechnologie

Corundum A | UNI

Design:
- **SM 611**, dense, radially around the core arranged abrasive cloth lamellae, good adaptation to the workpiece
- recesses on both sides facilitate exact operations in corner areas through recessed clamping flanges

Use:
- for light sanding and satinising of steel, premium steel, NE metals, aluminium, wood and plastic plus extra large-scale workpieces
- for coarse, medium and final touch
- lamellar flap discs to be used with mounting plate SMD 612 (456525)

Note:
- coarse grain acts subtler at high speed
- fine grain behaves coarser at low speed
- please mind the permitted speed

456505 Ø 165 - 30 mm
456515 Ø 165 × 50 mm

Grit grade	456505	456515	max. speed min $^{-1}$
60	●	●	5,800
80	●	●	5,800
120	●	●	5,800

456525 Mounting plate SMD 612

type	456525	Diameter mm	Bore Ø mm	Bore Ø up to mm
SMD612	●	79 × 12	12	40

Sanding star POLINOX®

PFERD

UNI

Design:
- for cleaning, deburring and finish grinding of interior surfaces and contours
- usable especially for hard to reach places such as holes and recesses
- number of layers:
  Ø 25 mm = 2
  Ø 38 mm = 3

Application examples
- deburring of holes on components made of NF and non-ferrous heavy metals
- fine grinding on internal surfaces of pipes made of stainless steel (INOX)
- cleaning of threads

456220 Type PNST, Ø 25 mm
456222 type PNST, Ø 38 mm

Grit grade	456220	456222
80	●	●
100	●	●
280	●	●

Tool holder

PFERD

Design:
- due to the different lengths of the tool holders, bores or perforations in different depths can be reached
- **shank diameter: 6 mm**

Shank 6mm

456225 for sanding star POLINOX®, Type PNST

Length mm	456225	Thread	Clamping length mm
75	●	8 - 32 UNC	30
125	●	8 - 32 UNC	30

Grinding drum

PFERD

UNI

Design:
- Ø 100 mm, width 100 mm
- mounting bore: 19 mm with 2 keyways
- fitting for all surface grinders and surface polishing (glazing) machines

Use:
456550 PNL-W:
- for directed brush matting on large surfaces (container construction, construction of large-scale catering establishments)

456560 PNZ-W:
- due to layers of abrasive cloth between the cloth lamellae better material removal and coarser character on large surfaces

456550 PNL-W

456560 PNZ-W

456550 Type PNL-W
456560 Type PNZ-W

Grit grade	456550	456560	recomm. speed min^{-1}
60	—	●	2,000 - 3,700
80	—	●	2,000 - 3,700
100	●	—	2,000 - 3,700
120	—	●	2,000 - 3,700
180	●	—	2,000 - 3,700
280	●	—	2,000 - 3,700

Fibre disc

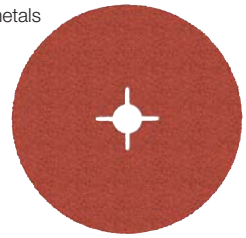
Ceramic | UNI | M | PU 100 pieces

Design and use:
- with precision formed ceramic grain
- high removal rate and reasonable tool life
- for removal and weld seam processing

Application areas:
Type 782C: Structural steels, forged steels, NF metals
Type 787C: Stainless steels

Delivery:
In packaging units only!

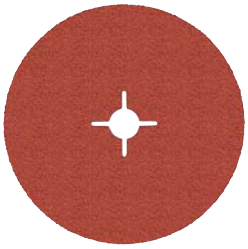
NEW!



460903 Type 782C, Ø 115 mm
460905 Type 782C, Ø 125 mm

Grit grade	460903	460905
36	●	●
60	●	●
80	●	●

NEW!



460907 Type 787C, Ø 115 mm
460909 Type 787C, Ø 125 mm

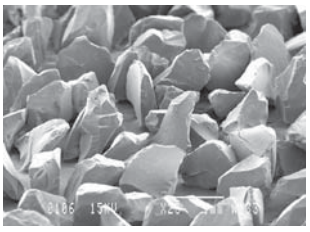
Grit grade	460907	460909
36	●	●
60	●	●
80	●	●
120	●	●

Fibre disc Cubitron™ II

Ceramic | P | K | PU 25 pieces

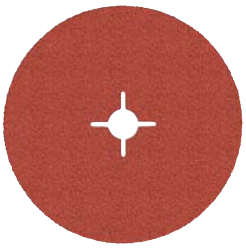
Design and use:
- **suited for steel, construction steel and cast iron**
- for weld seam preparation
- made of extremely tearproof and adaptable vulcanised fibre
- fastest grinding processes, maximum material removal rate, long service life, self-sharpening effect, cool grinding, stress cracks and discolourations are avoided
- **up to 30 % faster grinding processes on difficult to machine materials**
- **up to 3× longer tool life**
- construction features: vulcanised fibre, full synthetic resin, Cubitron™ II mineral ceramics grain, semi-open dispersion
- bore Ø: 22.23 mm

Delivery:
In packaging units only!



Conventional grinding mineral

Precision molded 3M™ Cubitron™ grinding mineral



460914 Type 982 C, Ø 115 mm
460916 Type 982 C, Ø 125 mm
460917 Type 982 C, Ø 180 mm

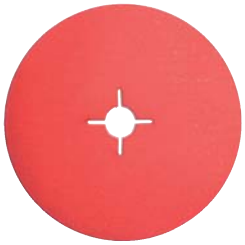
Grit grade	460914	460916	460917	460914 max. speed min $^{-1}$	460916 max. speed min $^{-1}$	460917 max. speed min $^{-1}$
36	●	●	●	13,200	12,000	8,500
60	●	●	●	13,200	12,000	8,500
80	●	●	●	13,200	12,000	8,500

Fibre disc Cubitron™ II

Ceramic | M | N | PU 25 pieces

Design and use:
- like type 982 C, but **with additionally applied grinding aid**
- cooler grinding
- no clogging on smearing materials
- suited for stainless steel, titanium, nickel alloys and aluminium

Delivery:
In packaging units only!



460918 Type 987 C, Ø 115 mm
460920 Type 987 C, Ø 125 mm
460921 Type 987 C, Ø 180 mm

Grit grade	460918	460920	460921	max. speed min $^{-1}$
36	●	●	●	8,500
60	●	●	●	8,500
80	●	●	●	8,500

High-performance backing pad

Design:
- especially for Cubitron™ II pads
- ribbed for cooling
- thread M14

460940 ribbed
460941 flat and flexible

Ø mm	460940	460941
115	●	●
125	●	●

Fibre disc

KLINGSPOR Schleiftechnologie

Corundum A | P | K | N | PU 25 pieces

Design:
- highly elastic full resin bond corundum grain on tear-resistant pad of vulcanised fibre
- with bore and cross recess

Use:
- for the reworking of weld seams, welding points, at metal construction, locksmith work, container construction and repair shop
- universal disc for metal working

Delivery:
In packaging units only!

461000 Ø 115 mm
461050 Ø 125 mm
461100 Ø 180 mm

Grit grade	461000	461050	461100	max. speed min $^{-1}$
24	●	●	●	13,300
36	●	●	●	13,300
40	●	●	●	13,300
60	●	●	●	13,300
80	●	●	●	13,300
100	●	●	●	13,300
120	●	●	●	13,300

Fibre disc

KLINGSPOR Schleiftechnologie

Zircon corundum | M | PU 25 pieces

Design and use:
- zirconium corundum
- for machine processing, derusting, descaling, deburring, notably for stainless steel

Delivery:
In packaging units only!

461120 Stainless steel, Ø 115 mm
461140 Stainless steel, Ø 125 mm

Grit grade	461120	461140	max. speed min $^{-1}$
36	●	●	13,300
40	●	●	13,300
60	●	●	13,300
80	●	●	13,300
100	○	●	13,300

Velcro grinding disc

KLINGSPOR Schleiftechnologie

Design:
- strong E-weight paper with semi-open corundum dispersion and full synthetic resinoid bonding
- laminated with loop pile velours
- Velcro-backed

Use:
- for all current grinding operations occurring at the processing of wood and metal
- for reworking of filler materials

Delivery:
In packaging units only!

Corundum A | UNI | PU 50 pieces

461180 without perforation, Ø 115 mm
461184 without perforation, Ø 125 mm
461186 without perforation, Ø 150 mm

Grit grade	461180	461184	461186
40	●	●	●
60	●	●	●
80	●	●	●
120	●	●	●
180	●	●	●
240	●	●	●
400	●	●	●

Velcro grinding disc with perforation

KLINGSPOR Schleiftechnologie

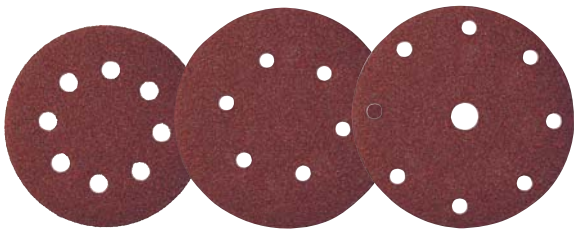
for rotary sander with suction
461190: Ø 125 mm, 8 holes Ø 10 mm, pitch circle Ø 65 mm
461192: Ø 150 mm, 6 holes Ø 10 mm, pitch circle Ø 80 mm
461196: Ø 150 mm, 8 holes Ø 10 mm, pitch circle Ø 120 mm + centre hole Ø 17 mm

Corundum A | UNI | PU 50 pieces

Design:
- strong E-weight paper with semi-open corundum dispersion and full resinoid bonding
- laminated with loop pile velours
- Velcro-backed

Use:
- for all current grinding operations occurring at the processing of wood and metal
- for reworking of filler materials
- with a corresponding backing pad on all major angle grinders and other hand grinders

Delivery:
In packaging units only!



461190 461192 461196

461190 Ø 125 mm, 8 holes (Bosch, Fein, Festo, Metabo)
461192 Ø 150 mm, 6 holes (Bosch, Metabo)
461196 Ø 150 mm, 8 holes with centre hole (Festo)

Grit grade	461190	461192	461196
40	●	●	●
60	●	●	●
80	●	●	●
100	●	●	●

Grit grade	461190	461192	461196
120	●	●	●
180	●	●	●
240	●	●	●
400	●	●	●

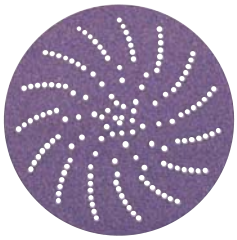
Velcro grinding disc Multi hole perforation

Design and use:
- Cubitron™ II precision ceramic grain
- aggressive abrasion, fast grinding
- requires little contact pressure
- innovative spiral perforation for optimal suction
- multiple releasing from and reattachment to the backing pad possible
- tear-resistant and edge-stable film backing
- very low clogging tendency

Delivery:
In packaging units only!

Cubitron™ II | UNI | PU 50 pieces

NEW!



461195 Type 775L, Ø 150 mm

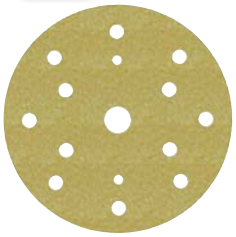
Grit grade	461195
80	●
120	●

Velcro grinding disc with perforation

Design and use:
- C paper
- full synthetic resin
- open coating
- dust rejecting
- especially suited for lacquer sanding works
- for applications covering the entire industrial sector

Delivery:
In packaging units only!

Corundum A | UNI | PU 100 pieces



461198 Type 255 P, Ø 150 mm

Grit grade	461198
80	●
120	●
150	●
180	●
220	●
240	●
320	●
400	●

Velcro pad

Design and use:
- to receive Velcro adhesive discs with Ø150 mm
- Direct Flow™ technology for direct removal of grinding dust
- multi hole perforation

461199 Type Hookit, Ø 150 mm, standard

type	461199	Thread
0010	●	M8
0015	●	5/16"

Backing pad

Design:
- special plastic, extra elastic and wearproof
- with clamping nut
- with thread connection M14

Use:
For mounting fibre discs to angle grinders with max. 80 m/sec. peripheral speed.

Socket M 14

461200 Standard
461225 ribbed

Diameter mm	461200	461225	for disc Ø mm	max. speed min $^{-1}$
115 - 14	●	●	115	20,000
125	●	●	125	15,000
180	●	●	180	8,500

Velcro backing pad

Design:
- special plastic, extra elastic and wearproof
- with clamping nut
- thread connection: M14
- backside additionally trimmed with a self-fastening backing pad with hooks to hold the Velcro grinding disc positively in place

Use:
For mounting fibre discs to angle grinders with max. 80 m/sec. peripheral speed

Socket M 14

461240 Velcro-backed

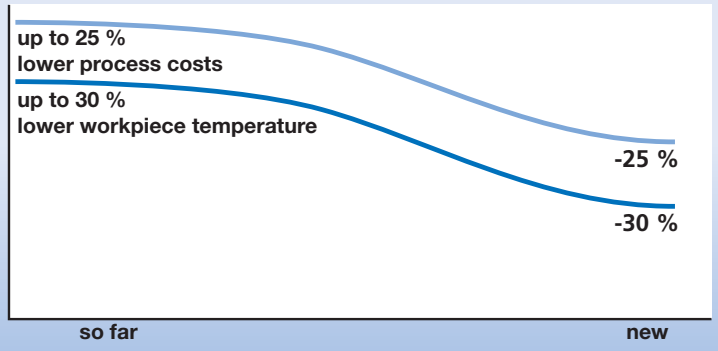
Diameter mm	461240
115	●
125	●
150	●

COMBICLICK® Fibre disc

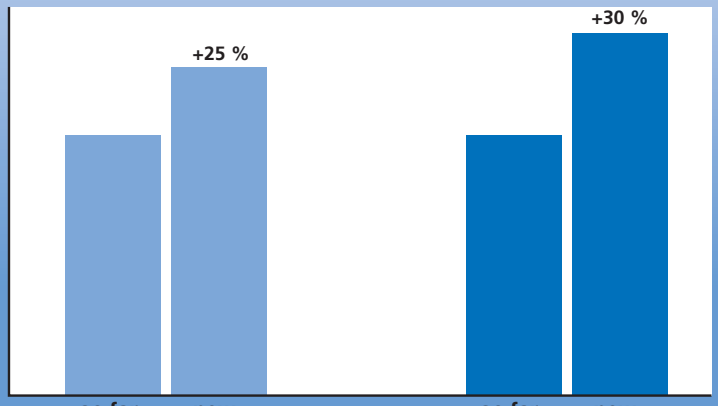
Product information

PFERD presents a newly developed, patented quick-mounting and cooling system for use with fibre disks
Our COMBICLICK® system combines an innovative flexible backing pad with a rugged mounting system at the back of the disk
The new backing pad allows COMBICLICK® fibre disks to be used with standard angle grinders. The geometry of the cooling slots ensures a high throughput of air, thus significantly reducing thermal loads on the abrasive material and workpiece. The rugged mounting fixture, secure disk attachment to the backing pad plus optimized cooling help to provide
- up to 30 % lower workpiece temperature
- up to 25 % increased stock removal
- up to 30 % longer service life and improved utilization of the abrasive material
- up to 30 % lower tool wear

Process costs and workpiece temperature drop



Cutting performance and service life improve



Advantages for the user:

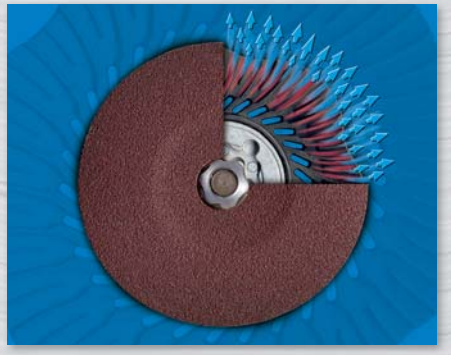
System

Very simple and comfortable handling.

Set-up

Extremely fast and easy tool change reduces process costs.

Cooling effect



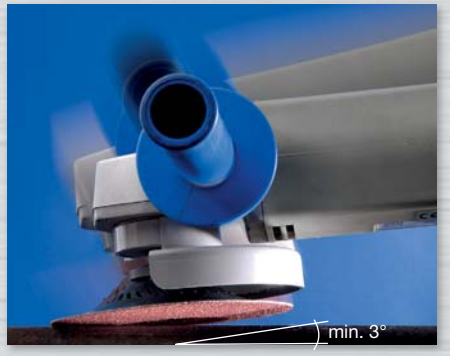
Very good cooling of tool and tool workpiece.

Flexible grinding

Soft and particularly flexible grinding behaviour in face grinding with COMBICLICK® fibre sander.

COMBICLICK® allows very flat use!

So far



Use with COMBICLICK®

With COMBICLICK®, scratches by protruding metal parts are prevented and a very high utilization of the available abrasive is achieved.

Fibre grinding disc COMBICLICK®

Design:
- corundum A
- for **universal grinding tasks** from coarse to final touch
- for industry and crafts

Corundum A | P | K | N | Plastics | PU 25 pieces

461230 Corundum A

Ø / grain	461230	max. speed min $^{-1}$
115/36	●	13,300
115/60	●	13,300
115/80	●	13,300
125/36	○	12,200
125/60	○	12,200
125/80	○	12,200

Fibre grinding disc COMBICLICK®

Design and use:
- ceramic grain CO
- for **aggressive grinding with highest abrasion** and very good tool life
- for machining of hard materials and layers
- primarily applicable on high-performance angle grinders

Ceramic | P | K | PU 25 pieces

461234 Ceramic grain CO

Ø / grain	461234	max. speed min $^{-1}$
115/36	○	13,300
115/60	●	13,300
115/80	●	13,300
125/36	●	12,200
125/60	●	12,200
125/80	○	12,200

Fibre grinding disc COMBICLICK®

Design and use:
- zirconium corundum Z
- for **coarse grinding tasks with high chipping demand** and good lifetime
- best results on high-performance angle grinders and at increased contact pressure

Zircon corundum | P | M | PU 25 pieces

461232 Zirconium corundum Z

Ø / grain	461232	max. speed min $^{-1}$
115/60	○	13,300
115/80	●	13,300
125/60	○	12,200
125/80	○	12,200

Grinding disc COMBICLICK®

Design:
- backing pad for all COMBICLICK®abrasive fibre discs on customary angle grinders
- geometry of the cooling slots guarantee high air flow for **considerable reduction of the thermal load** of abrasive and workpiece
- patented COMBICLICK®clamping system: **Minimises the tool change times**

Maximum permissible peripheral speed is 80 m/s.

461238 Backing pad

for disc Ø mm	461238	Thread	max. speed min $^{-1}$
115/125	●	M14	13,300

Grinding disc CC Grind

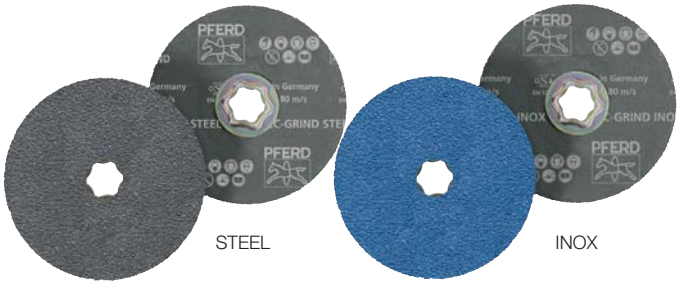
Design:
- use only with the surface
- not suitable for peripheral grinding
- clearly increased removal rate
- lower workpiece temperature

P | M | PU 25 pieces

Type STEEL:
- for very high removal rates on steel

Type INOX:
- for cool grinding and very good removal rates on stainless steel (INOX)

Delivery:
In packaging units only!



461244 CC Grind

Ø mm / Type	461244	max. speed min $^{-1}$
115/STEEL	●	13,300
115/INOX	○	13,300
125/STEEL	●	12,200
125/INOX	●	12,200

Backing pad CC Grind

Design:
- for grinding discs CC-GRIND® on standard angle grinders
- geometry of the cooling slots guarantee high air flow for **considerable reduction of the thermal load** of abrasive and workpiece
- patented cooling and rapid clamping system minimises the tool change times

Maximum permissible peripheral speed is 80 m/s.

461246 CC Grind

type	461246	Thread	Seat Ø mm
INOX	●	M14	115/125
STEEL	●	M14	115/125

HIGHLIGHT

Flap disc

KLINGSPOR Schleiftechnologie

Zircon corundum | P | M | cranked | PU 10 pieces

- Lamella flap wheel with fibre support
- Abrasive: high-quality aggressive zirconium alumina, free of iron and sulphur
- Bore diameter: 22.23 mm
- SMT 626, cranked version 6°, for the grinding of edges and weld seams, also for plane and surface grinding
- For low-noise and low-vibration grinding of weld seams, for deburring and derusting of steel and stainless steel
- Delivery only in packaging units

461255 cranked

Ø / grain	from 10	from 100	from 500	max. speed min $^{-1}$
115/40	●	●	●	13,300
115/60	●	●	●	13,300
115/80	●	●	●	13,300
125/40	●	●	●	12,200
125/60	●	●	●	12,200
125/80	●	●	●	12,200

Flap disc

PRECITOOL PRÄZISIONSWERKZEUGE

Zircon corundum | P | M | cranked | PU 10 pieces

- Lamella flap wheel with fibre support
- Abrasive: high-quality aggressive zirconium alumina, free of iron and sulphur
- Bore diameter: 22.2 mm
- For grinding of weldseams, deburring, derusting
- Universally for all kinds of steel and here preferably for surface grinding
- Delivery only in packaging units

461264 cranked

Ø / grain	from 10	from 100	from 500	max. speed min $^{-1}$
115/40	●	●	●	13,300
115/60	●	●	●	13,300
115/80	●	●	●	13,300
125/40	●	●	●	12,200
125/60	●	●	●	12,200
125/80	●	●	●	12,200

Flap disc

KLINGSPOR Schleiftechnologie

Zircon corundum | P | M | straight | cranked | PU 10 pieces

Design:
- lamellar flap wheel with non-woven fibre support
- abrasive: High-quality aggressive zirconium alumina, free of iron and sulphur
- bore Ø: 22.23 mm

461250: SMT 628, straight version, best for surface grinding
461260: SMT 624, cranked version 12°, for edge grinding

Use:
For low-noise and low-vibration grinding of weld seams, for deburring and derusting of steel and stainless steel

Delivery:
In packaging units only!

461250 straight
461260 cranked 12°

Ø / grain	461250	461260	max. speed min $^{-1}$
115/40	●	●	13,300
115/60	●	●	13,300
115/80	●	●	13,300
125/40	●	●	12,200
125/60	●	●	12,200
125/80	●	●	12,200

Flap disc

KLINGSPOR Schleiftechnologie

Zircon corundum | P | M | cranked | PU 10 pieces

Design:
SMT 324 EXTRA
- new zirconium corundum abrasive
- pad: Glass fabric
- bore Ø: 22.23 mm

Use:
Especially for grinding of hard metal materials, e.g. removing weld seams on stainless steel. No clogging or vitrification

Delivery:
In packaging units only!

461253 Ø 125 mm, cranked

Grit grade	461253	max. speed min $^{-1}$
40	●	13,300
60	●	13,300
80	●	13,300

Non-woven flap disc

KLINGSPOR Schleiftechnologie

P | M | cranked | PU 5 pieces

Design:
SMT 800
- top-quality abrasive mop disc, synthetic resin-bonded glass fabric pad
- bore Ø: 22.23 mm

Type C: Coarse
Type M: Medium
Type V: Very fine

Use:
- for finish-grinding
- depending on hardness degree also for cleaning, easy deburring and WIG
  weld seam treatment on stainless steel

Delivery:
In packaging units only!

461290 Non-woven flap wheel, cranked

Ø / grain	461290	max. speed min $^{-1}$
115/C	●	7,000
115/M	●	7,000
115/V	●	7,000
125/C	●	6,400
125/M	●	6,400
125/V	●	6,400

HIGHLIGHT

NEW! IN PROGRAM

Flap disc

PRECITOOL PRÄZISIONSWERKZEUGE

Maximum abrasion!

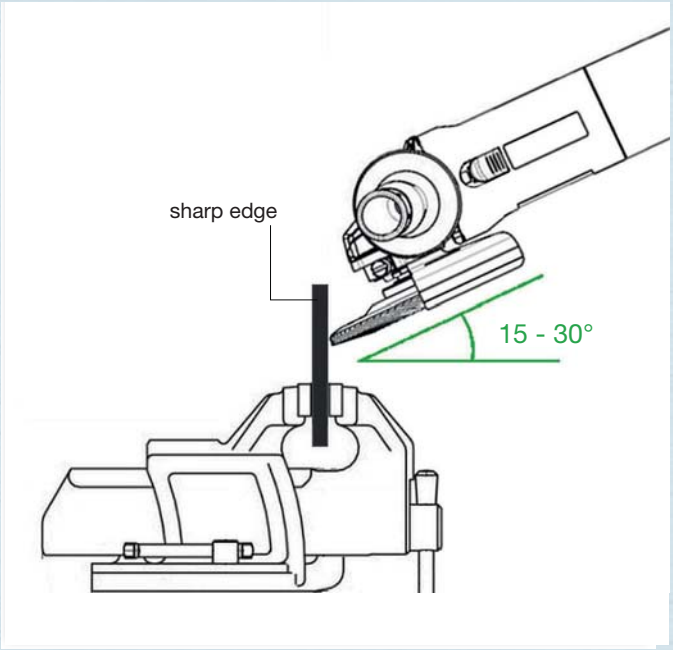
Ceramic | P | M | PU 10 pieces

- trimmable backing pad, fully usable disc
- maximum abrasion due to self-sharpening ceramic grain
- cool grinding, less tarnish
- wider lamellae for optimum machining of the workpiece
- bore Ø: 22.23 mm
- Note: Angle grinder with > 1,000 Watt recommended

461280 Ceramics

Ø / grain	461280	max. speed min $^{-1}$	PU
115/40	●	13,300	10
115/60	●	13,300	10
125/40	●	12,300	10
125/60	●	12,300	10

Correct trimming of flap discs on special plastic carrier



- Trim the flap disc on a sharp edge
- Trimming may only be done at an angle of 15 - 30°
- Initially exert slight pressure and gradually increase until chip forms
- Maintain pressure until the abrasive sheets are exposed to about 5-6 mm
- Improper trimming can damage the disc
- Stop trimming when the adhesive, which holds the grinding blades becomes visible.
- Do not trim on blunt edges!
- Do not hit against workpiece!

Flap discs

Product information

POLIFAN® flap disks offer the user advantages over roughing disks, where high cutting performance is required as well as high surface quality.

The wide range of high-quality grinding lamellae and the tried and tested special designs from PFERD meet the requirements of demanding grinding tasks and the materials to be machined.

Type SG A
Universally applicable professional tool with high cutting performance and outstanding service life.

Type SG ZIRKON
Top tool for the most demanding grinding tasks with the most economical use. With aggressive cutting performance and outstanding service life.

Type SG ZA
Professional tool for demanding grinding tasks with high cutting performance and long service life.

Type SG A COOL
Professional tool for grinding tasks with high surface quality and low thermal loading For extra cool grinding on poor thermoconductive materials

POLIFAN® CURVEis an innovation of PFERD for fillet processing. Thanks to the special arrangement of the grinding lamellae, the unique radial design (PFR) offers convincing advantages in the complex and demanding machining of fillet welds:

- High removal rate due to unequalled speed, aggressive grinding and thus significant savings in labour costs.
- Precise and optimal grinding of the fillet weld geometry
- Dimensional stability for high-quality results
- Excellent service life for the treatment of fillet welds
- Optimal utilisation of the abrasive in the radius

Recommendations for use:

- **Type M** for fillet weld radii > 5 mm
- **Type L** for fillet weld radii > 8 mm

Type SGP ZIRKON CURVE
High-performance tool for demanding grinding tasks with particularly high cutting performance.

Type SGP CO-CURVE
High-performance tool for demanding grinding tasks, especially for obtaining fine surfaces. The ceramic grain guarantees extremely cool grinding on materials which are poorly thermally conductive and therefore optimal grinding results without thermal workpiece damage.

The patented design of **POLIFAN®-STRONG** opens a completely new dimension of grinding. Outstanding benefits are a unique performance advantage:

- Fast grinding by constant abrasive aggressiveness to the last abrasive grain
- Maximum efficiency thanks to more power per unit of time and less disk consumption.
- Greatest possible removal rate.
- Extremely long service life.
- Maximum efficiency thanks to fewer tool changes and set-up times.
- Optimal utilisation of the powerful drive.

Recommendations for use:

- **Grain size 36** is optimally suited for high removal, e.g. for welding seam processing.
- **Grain size 50** is optimally suited for edge processings like chamfering or for achieving fine surfaces.

Type SGP ZIRKON STRONG
High-performance tool with particularly high cutting performance for demanding grinding tasks.

Type SGP CO-STRONG FREEZE
High performance tool for most demanding grinding tasks. The innovative abrasive with ceramic grain guarantees an ultra-cool cut on materials which are poorly thermally conductive. Maximum material removal and exceptional tool life.

The fast way to the best tool

Starting from the processing task ❶ and material ❷, the overview shows the different versions of tools from the PFERD program and helps you to find the optimum tool.

❷ Material / ❶ Processing task	Steel Design	Stainless steel (INOX) Design	Aluminium, non-ferrous metals Design	Plastics, other materials Design
Surface grinding	SG A SG ZIRKON	SG A SG ZA SG A COOL SGP CO-STRONG REEZE	SG A COOL	SG A SG A COOL
Weld dressing	SG A SG ZIRKON SGP ZIRKON STRONG	SG ZA SGP CO-STRONG FREEZE	SG A COOL	–
Chamfering	SG ZIRKON SGP ZIRKON STRONG	SG ZIRKON	–	SG A
Deburring	SGP ZIRKON STRONG	SG ZIRKON	–	SG A
Fillet welding	SGP ZIRKON CURVE	SGP ZIRKON CURVE SGP CO-CURVE	–	–

Flap disc POLIFAN®

Design:
SG-A
- abrasive corundum A
- high chipping performance
- excellent tool life
- bore ∅: 22.23 mm

Corundum A | P | M | cranked | straight | PU 10 pieces

Use:
- for steel, stainless steel and plastic
- for universal grinding tasks, e.g. surface grinding and weld seam treatment

Delivery:
In packaging units only!

461300 straight

∅ / grain	461300
115/40	●
115/60	●
115/80	●
115/120	●
125/40	●
125/60	●
125/80	●
125/120	●
180/40	●
180/60	●
180/80	●

461315 cranked

∅ / grain	461315
115/40	●
115/60	●
115/80	●
115/120	●
125/40	●
125/60	●
125/80	●
125/120	●
180/40	●
180/60	●
180/80	●

Flap disc POLIFAN®

Design:
SG-A-COOL
- abrasive corundum A with coating
- for extra cool grinding on poor thermo-conductive materials
- bore ∅: 22.23 mm

Corundum A | M | N | cranked | straight | PU 10 pieces

Use:
- for stainless steel, aluminium and NF metals
- for grinding tasks with high surface quality and low thermal loading
- preferred for machining of sheet material and thin walled profiles

Delivery:
In packaging units only!

461330 straight

∅ / grain	461330
115/40	●
115/60	●
115/80	○
125/40	●
125/60	●
125/80	○

461335 cranked

∅ / grain	461335
115/40	●
115/60	●
115/80	○
125/40	○
125/60	●
125/80	○

Flap disc POLIFAN®

Design:
SG-ZIRKON
- abrasive zirconium corundum
- aggressive chipping performance and very good tool life
- bore ∅: 22.23 mm

Zircon corundum | P | M | cranked | straight | PU 10 pieces

Use:
- for steel and stainless steel
- for weld dressing, chamfering and surface grinding
- best results on high-performing angle grinders with increased contact pressure

Delivery:
In packaging units only!

461350 straight

∅ / grain	461350
115/40	●
115/60	●
125/40	●
125/60	●
180/40	●
180/60	●

461355 cranked

∅ / grain	461355
115/40	●
115/60	●
115/80	●
115/120	●
125/40	●
125/60	●
125/80	●
125/120	●
180/40	●
180/60	○

Flap disc POLIFAN®

Design:
SG-ZA
- high-performance abrasive zirconium corundum
- at surface grinding on stainless steel (INOX) good performance, does not vitrify
- bore ∅: 22.23 mm

Zircon corundum | M | cranked | straight | PU 10 pieces

Use:
- for angle grinders of all performance classes
- suited for surface grinding and treatment of weld seams
- **for stainless steel**

Delivery:
In packaging units only!

461366 straight

∅ / grain	461366
115/40	●
115/60	●
115/80	●
125/40	●
125/60	●
125/80	●

461376 cranked

∅ / grain	461376
115/40	●
115/60	○
115/80	●
125/40	●
125/60	●
125/80	●

Flap disc POLIFAN®-STRONG

Design:
SGP-ZIRKON-STRONG
- grain size 36 for coarse steel treatment
- grain size 50 for edge processing
- abrasive, lamellae and carrier plate are tuned for use on powerful drives
- bore Ø 22.23 mm

Advantages:
- **rapid grinding due to steady aggressiveness** down to the last abrasive grain
- **greatest possible removal rate**
- extremely long service life
- optimal utilisation of the powerful drive

Zircon corundum | P

Use:
- for steel materials
- for weld seam treatment
- for chamfering and deburring

461390 Type PFC, conical

Ø / grain	461390	max. speed min $^{-1}$
115/36	●	13,300
115/50	●	13,300
125/36	●	12,200
125/50	●	12,200

Flap disc POLIFAN®-CURVE

Design:
SGP-ZIRKON-CURVE
- abrasive zirconium corundum Z
- innovation for the treatment of fillet welds (5 mm or 8 mm, resp.)
- due to radial construction and special arrangement of the lamellae notable advantage for fillet weld treatment
- bore Ø 22.23 mm

Zircon corundum | P | M

Advantages:
- rapid, aggressive grinding due to high removal rate
- precise and optimal grinding-out of the fillet weld geometry
- dimensional stability for high-quality results
- excellent service life for the treatment of fillet welds
- optimal utilisation of the abrasive in the radius

Use:
- for steel and stainless steel
- for fillet weld grinding, chamfering or deburring

461395 Type PFR, radial

Ø / grain / seam width	461395	max. speed min $^{-1}$
125/40/5	●	12,200
125/40/8	●	12,200

Flap disc POLIFAN®CO-CURVE

Design:
SGP CO-CURVE
- high-performance tool for most demanding grinding tasks
- particularly for obtaining fine surfaces
- the ceramics grain guarantees extremely cool grinding on materials with poor thermal conductivity
- optimal grinding results are obtained without thermal damage to the workpiece
- fillet weld grinding, chamfering, deburring

Ceramic | M

461397 Type PFR, radial

Ø / grain / seam width	461397	max. speed min $^{-1}$
115/60/5	●	13,300
115/60/8	●	13,300
125/60/5	●	12,200
125/60/8	●	12,200

Flap disc Cubitron™ II (Ceramic)

Design and use:
- high stock removal potential, uniform finish
- cool grinding due to ceramic precision grain
- increased packing density of the sanding lamellae and sturdier base. This means longer service life and more active abrasive material
- suitable for removal, deburring, finishing or edge grinding

Cubitron™ II | P | M | PU 10 pieces

Delivery:
In packaging units only!

NEW! IN PROGRAM

461402 Type 969F, conical

Ø / grain	461402	max. speed min $^{-1}$
115/40	●	13,200
115/60	●	13,200
115/80	●	13,200
125/40	●	12,000
125/60	●	12,000
125/80	●	12,000

Grinding tool system COMBIDISC®

PFERD

Shank 6mm

Design:
- abrasive disc holder system CD
- bolted connection with metal female thread
- 6 mm shank
- peripheral speed according to version 20 - 50 ms/sec.
- 3 degrees of hardness available:
  W = soft
  M = medium
  H = hard

Advantages:
- simple handling => fast change of abrasive discs
- no sticking, no slipping, no loosening by heat
- vibration-free concentricity
- abrasive disc always remains centrically

Use:
- for efficient grinding of small surfaces and contours (e.g. in toolmaking and mould-making, mechanical engineering etc.)
- for drive units such as pneumatic straight and angle grinders, flexible shaft machines

461900 COMBIDISC®abrasive disc holder

Hardness/Ø mm	461900	max. speed min $^{-1}$
W50	●	19,000
W75	○	12,500
M50	●	19,000
M75	●	12,500
H50	●	19,000
H75	●	12,500

Abrasive sheet COMBIDISC®

PFERD

Corundum A | PU 100 pieces | PU 50 pieces

UNI

Design and use:
Type 461910:
- corundum A
- for **universal application** on metals and other materials

Type 461920:
- corundum A-Forte
- universally applicable on all metals
- high abrasive capacity
- cool grinding
- long tool life

Delivery:
In packaging units only (size 75 = 50 pieces).

461910 Corundum A
461920 Corundum A-Forte

Ø / grain	461910	461920
50/36	●	●
50/60	●	●
50/80	●	●
50/120	●	●
75/36	○	○
75/60	●	○
75/80	●	○
75/120	○	○
50/180	●	—
50/320	●	—
75/180	●	—
75/320	●	—

Non-woven disc COMBIDISC®

PFERD

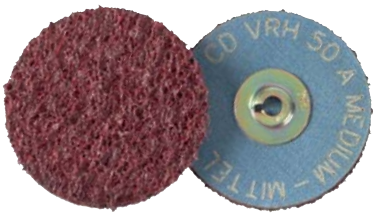
Corundum A | PU 50 pieces | PU 25 pieces

UNI

Design and use:
- corundum A, hard version, open structure
- universally employable for surface treatment on metals
- removal of prefinishing marks
- removal of oxidation
- for easy deburring tasks

Note:
The flexibility of the round blank at surface grinding is determined by the hardness degree of the holder

Delivery:
In packaging units only (size 75 = 25 pieces)



461935 hard

Ø / version	461935
50/GROB	●
50/MITTEL	●
50/SEHR FEIN	●
75/GROB	○
75/MITTEL	●
75/SEHR FEIN	○

Non-woven disc COMBIDISC®

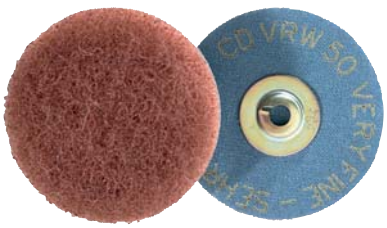
PFERD

Corundum A | PU 50 pieces | PU 25 pieces

UNI

Design and use:
- corundum A, soft version, very open structure
- for final touch at surfaces and contours
- for cleaning operations at metals
- the addition of oil or water during grinding results in even finer surfaces, cooler grinding and longer tool life
- removal of prefinishing marks
- removal of oxidation
- for easy deburring tasks

Delivery:
In packaging units only (size 75 = 25 pieces)



461955 soft

Ø / version	461955
50/MITTEL	●
50/FEIN	●
50/SEHR FEIN	●
75/MITTEL	○
75/FEIN	○
75/SEHR FEIN	○

Roughing disc

KLINGSPOR Schleiftechnologie

UNI | cranked | PU 10 pieces

Design:
A24 extra
- medium hardness
- cranked
- bore ∅ 22.23 mm

Use:
Universally applicable for all fields of metal processing

Delivery:
In packaging units only!

462110 Universal

∅ × thickness (nom. dim.) mm	462110	max. speed min $^{-1}$
115×6	●	13,300
125×6	●	12,200
180×8	●	8,500
230×8	●	6,600

Roughing disc

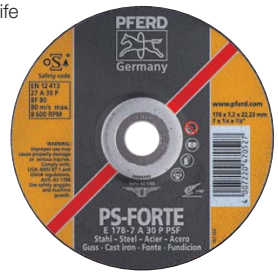
PFERD

P | K | cranked | PU 10 pieces

Design:
A 30 P PS-Forte
- medium hardness
- bore ∅ 22.23 mm

Use:
- for machining of steel and cast iron (grey and nodular cast iron)
- high grinding efficiency and reasonable tool life

Delivery:
In packaging units only!



462150 Steel/cast iron

∅ × thickness (nom. dim.) mm	462150	max. speed min $^{-1}$
115×7	●	13,300
125×7	●	12,200
178×8	●	8,600
230×8	●	6,600

Roughing disc

PFERD

P | cranked | PU 10 pieces

Design:
- **A 24 RSG**
- hard version
- bore ∅ 22.23 mm

Use:
- for weld seam machining, deburring and edge processing
- at steel machining with high grinding capacity and long service life

Delivery:
In packaging units only!

462155 Steel

∅ × thickness (nom. dim.) mm	462155	max. speed min $^{-1}$
115×7	●	13,300
125×7	●	12,200
178×8	●	8,600
230×8	●	6,600

Roughing disc

PFERD

M | cranked | PU 10 pieces

Design:
A 30 M PS-Forte
- medium hardness (M)
- bore ∅ 22.23 mm

Use:
- for the machining of stainless steel and difficult-to-machine materials
- high grinding efficiency and reasonable tool life
- without addition of bulking agents containing iron, sulphur or chlorine

Delivery:
In packaging units only!

462160 INOX

∅ × thickness (nom. dim.) mm	462160	max. speed min $^{-1}$
115×7	●	13,300
125×7	●	12,200
178×8	●	8,300
230×8	○	6,600

Roughing disc Cubitron II (ceramic)

3M

Cubitron™ II | P | M | cranked | PU 10 pieces

Design and use:
- for stock removal, removal of weld seams, chamfering and plastering
- 3-fold removal rate compared to conventional grinding discs
- immediate intervention into the solid material
- **reduction of effort required around up to 70 %**
- bore ∅ 22.23 mm

Delivery:
In packaging units only!

462164 Steel/INOX

∅ × thickness (nom. dim.) mm	462164	max. speed min $^{-1}$
115×7	●	13,300
125×7	●	12,250
178×7	●	8,500
230×7	●	6,650

Roughing disc

KLINGSPOR Schleiftechnologie

Design:
A 46 N Supra
- soft standard disc, cranked
- bore ∅ 22.23 mm

N | cranked | PU 10 pieces

Use:
For the machining of aluminium as well as for all other NF metals

Delivery:
In packaging units only!

462170 Aluminium

∅ × thickness (nom. dim.) mm	462170	max. speed min $^{-1}$
115×6	●	13,300
125×6	●	12,200
180×8	○	8,500

Roughing disc

KLINGSPOR Schleiftechnologie

Design:
A 24 N Supra
- soft high-performance disc, cranked
- bore ∅ 22.23 mm

M | cranked | PU 10 pieces

Use:
- for rust and acid resistant steel like e.g. INOX
- with vast chipping capacity and very good tool life
- free of iron and sulphur

Delivery:
In packaging units only!

462190 INOX

∅ × thickness (nom. dim.) mm	462190	max. speed min $^{-1}$
115×6	●	13,300
125×6	●	12,200
180×8	●	8,500

High-Speed-Disc ALUMASTER®

Application areas:
- Silo and container construction
- Wagon construction
- Ship and yacht building

Roughing disc set ALUMASTER®

Advantages:	Recommendations for use:
extremely high cutting performance	preferably for use on compressed air angle grinders with a power output of more than 1,000 watts or electric angle grinders with a rated power of 1,400 watts or more
durable due to rotatable and interchangeable carbide inserts	no additional pressure necessary recommended operating angle in special cases up to 60°
no clogging of the tool, even with lubricating materials	No deep immersion, the milling disk is not a cutting tool. Machining along the workpiece edge and not against it
economical and environmentally friendly alternative to roughing and fan disks	Slowing down of the tool not on the workpiece, otherwise risk of breakage of the indexable insert

Design and use:
- unique tool with extremely high cutting performance
- specially developed for use on angle grinders
- optimal for aluminium processing, because there is no formation of harmful substances and explosive dusts

Set content:
High-Speed disk ALUMASTER®, 10 indexable inserts, 10 screws for indexable inserts, Torx key, in plastic case

462200 High-Speed disc ALUMASTER®

Ø mm	462200	max. speed min $^{-1}$
115	○	13300

462200 Indexable insert set

type	462200	Contents
0010	○	10 piece

462200 Mounting screw set for indexable inserts

type	462200	Contents
0020	○	5 piece

HIGHLIGHT

KLINGSPOR Schleiftechnologie

Cutting disc

P M N straight PU 25 pieces

A 60 TZ special (1.0 mm) / A 46 TZ special (1.6/1.9 mm)

- thin high performance disc
- to machine thin-walled profiles and tubes
- low burr formation
- for stainless steel, non-ferrous metals and steel
- bore Ø: 22.23 mm
- Delivery only in packaging units

463300 Universal, slim

Ø × thickness (nom. dim.) mm	from 25	from 100	from 500	max. speed min $^{-1}$
115×1.0	●	●	●	13,300
115×1.6	●	●	●	13,300
125×1.0	●	●	●	12,200
125×1.6	●	●	●	12,200
180×1.6	●	●	●	8,500
230×1.9	●	●	●	6,600

Cutting disc

PRECITOOL PRÄZISIONSWERKZEUGE

P M N straight PU 25 pieces

- slim cutting disc
- to machine thin-walled profiles and tubes
- for stainless steel, non-ferrous metals and steel
- bore Ø: 22.23 mm
- Delivery only in packaging units

463302 Universal, slim

Ø × thickness (nom. dim.) mm	from 25	from 100	from 500	max. speed min $^{-1}$
115×1.0	●	●	●	13,300
125×1.0	●	●	●	12,200

Cutting disc

KLINGSPOR Schleiftechnologie

Design:
A 24 Extra
- medium hard cutting disc with long service life and easy cut
- bore ∅: 22.23 mm

Use:
For all areas of metal machining

Delivery:
In packaging units only!

UNI | cranked | straight | PU 25 pieces

463000 Universal

∅ mm	463000	Disc shape	Wheel thickness mm	max. speed min $^{-1}$
115	●	cranked	2.5	13,300
125	●	cranked	2.5	12,200
180	●	straight	3.0	8,500
230	●	straight	3.0	6,600

Cutting disc

PFERD

Design:
A 24 PPS-Forte
- fibre-reinforced quality
- bore ∅: 22.23 mm

Use:
- for cutting sheets, profiles and solid material made of steel
- long service life and rapid cutting

Delivery:
In packaging units only!

P | K | cranked | straight | PU 25 pieces

463100 Steel / Cast iron

∅ mm	463100	Disc shape	Wheel thickness mm	max. speed min $^{-1}$
115	●	cranked	2.4	13,300
125	●	cranked	2.4	12,000
178	●	straight	3.0	8,600
230	●	straight	3.0	6,600

Cutting disc

PFERD

Use:
A 24 SSG
- for cutting sheets, profiles and solid material made of steel
- bore ∅: 22.23 mm

Delivery:
In packaging units only!

P | cranked | straight | PU 25 pieces

463110 Steel

∅ mm	463110	Disc shape	Wheel thickness mm	max. speed min $^{-1}$
115	●	cranked	2.4	13,300
125	●	cranked	2.4	12,000
178	●	straight	3.0	8,600
230	●	straight	3.0	6,600

Cutting disc X SLIM

PFERD

Design and use:
A 60 S SGP-INOX
- for cool, fast, comfortable, burr-free and universal cutting with maximum tool life
- best cutting results on pneumatic turbine grinders and strong high frequency and electric angle grinders
- abrasive: Corundum A manufactured without the addition of iron, chlorine and sulphur-containing fillers
- extremely loadable high-performance tool in hardness S - stainless steel (INOX)
- cutting of sheet metals, profiles and solid material
- bore ∅: 22.23 mm

Delivery:
In packaging units only!

M | straight | PU 25 pieces

463152 INOX, extra slim (0.8 mm)

Ø × thickness (nom. dim.) mm	463152	max. speed min $^{-1}$
115×0,8	●	13,300
125×0,8	●	12,200

Cutting disc

PFERD

Design and use:
A 60 R SG-INOX
- without addition of bulking agents containing iron, sulphur or chlorine
- bore ∅: 22.23 mm
- for cutting sheets, profiles and solid material made of premium steel

Delivery:
In packaging units only!

M | straight | PU 25 pieces

463155 INOX, slim

Ø × thickness (nom. dim.) mm	463155	max. speed min $^{-1}$
115×1,0	●	13,300
115×1,6	●	13,300
125×1,0	●	12,200
125×1,6	●	12,200

Cutting disc Cubitron™ II

Ceramic | P | M | N | straight | PU 25 pieces

Design and use:
- with precision-Cubitron II ceramic grain and special binder coating
- **very high cutting performance with long service life and minimal burr formation**
- fast, comfortable cutting of profiles, pipes, bars and sheets
- in steel, stainless steel and NF metals

Delivery:
In packaging units only!

With grid pattern design for extended tool life!

463303 Universal, slim

Ø × thickness (nom. dim.) mm	463303	max. speed min $^{-1}$
115×1,0	●	13,200
125×1,0	●	12,000

463303 Universal

Ø × thickness (nom. dim.) mm	463303	max. speed min $^{-1}$
115×1,6	●	13,200
125×1,6	●	12,000
180×1,6	●	8,500

Cutting disc

KLINGSPOR Schleiftechnologie

M | straight | PU 25 pieces

Design:
A 960 TZ SPECIAL
- all-rounder among the thin high-performance cutting discs
- optimised bond system ensures longer service life
- low burr formation
- low thermal stress
- free of iron, sulphur and chlorine
- bore Ø: 22.23 mm

Delivery:
In packaging units only!

Cutting disc Ceramics

KLINGSPOR Schleiftechnologie

P | M | Ceramic | straight | PU 25 pieces

Design:
K 960 TX SPECIAL
- thin cutting disc with ceramic grain
- high aggressiveness and service life
- free of iron, sulphur and chlorine
- high performance with little effort
- bore Ø: 22.23 mm

Delivery:
In packaging units only!

463308 INOX, slim

Ø × thickness (nom. dim.) mm	463308	max. speed min $^{-1}$
115×1,0	●	13,300
125×1,0	●	12,200

463309 Steel/INOX, slim

Ø × thickness (nom. dim.) mm	463309	max. speed min $^{-1}$
115×1,0	●	13,300
125×1,0	●	12,200

Cutting disc for aluminium

KLINGSPOR Schleiftechnologie

N | cranked | straight | PU 25 pieces

Design:
A 46 N Supra
- soft, open and light cutting separating disc
- bore Ø 22.23 mm

Use:
- for all smearing NF metals like aluminium, copper, zinc, lead, tin and alloys thereof
- for cutting sprues, solid material, tubes, profiles and sheet material

Delivery:
In packaging units only!

463310 Aluminium

Ø mm	463310	Disc shape	Wheel thickness mm	max. speed min $^{-1}$
115	●	cranked	2.5	13,300
125	●	cranked	2.5	12,000
180	●	straight	3.0	8,600
230	●	straight	3.0	6,600

Cutting disc

KLINGSPOR Schleiftechnologie

P | M | N | straight | PU 25 pieces

Design:
A 560 AC
- binding optimised for battery-powered machines
- fast release behaviour
- limited burr formation
- low thermal stress
- free of iron, sulphur and chlorine
- bore Ø: 22.23 mm

Delivery:
In packaging units only!

NEW!
Especially for machines with rechargeable batteries!

463312 Universal

Ø × thickness (nom. dim.) mm	463312	max. speed min -1
115×1,0	○	13,300
125×1,0	○	12,200

Cutting disc

KLINGSPOR Schleiftechnologie

Stone | straight | PU 25 pieces

Design:
C 24 Extra
- medium hard cutting disc with long tool life
- bore Ø: 22.23 mm

Use:
For cutting of stones, slabs, bricks, wall tiles, clay pipes, roof tiles, clinkers

Delivery:
In packaging units only!

463320 for stone

Ø mm	463320	Disc shape	Wheel thickness mm	max. speed min -1
180	●	straight	3	8,600
230	●	straight	3	6,600

Cup wheel

KLINGSPOR Schleiftechnologie

Corundum A | P

Design:
- medium hard cup wheel made of corundum
- bore Ø: 22.23 mm

Use:
- grinding of surfaces and weld seams
- from pregrinding to final sanding max. operation speed 50 m/s
- dimensions 110/90 × 55 mm

464450 Cup wheel

Grit	464450
16	●
30	●

Tool grinding wheels

PRECITOOL® PRÄZISIONSWERKZEUGE

Product information

The choice of an abrasive depends on the type of workpiece to be ground and its properties as well as the operating conditions. For the different application areas we offer abrasive products made from the following artificial grinding media:

Sandard corundum
For machining iron and low-grade steel.

Special fused alumina
for machining alloyed steels, tool steel and high-speedsteel (HSS) and steels sensitive to heat.

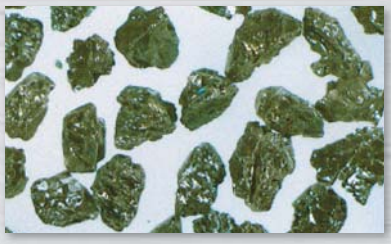
Silicon carbide
For machining carbides, short-chipping materials like aluminium, copper, plastic, glass, china, ceramics etc..

Grit grade
The degree of fineness of a surface to be ground depends quintessentially on the size of the abrasive grain used. Superior demands to the surface will be met by the choice of finer granulation, coupled with the acceptance of a reduced cutting performance.

NK = Standard corundum high tenacity

EKW = High grade corundum, white, very hard and brittle

EKD = special fused alumina, rose very hard, higher grain tenacity han EKW



SiCg = SiC, green extremely hard and brittle

KA or Z = zircon corundum very high mechanical tenacity

Hardness of the grinding disc
Speaking of hardness with regard to a grinding disk is not about referring to mineralogical hardness of the embedded grain, but in fact it is understood as resistance or force required to break one or more abrasive grains out of the bonding union of a grinding disk.

As a broad rule of thumb:
The grinding wheel hardness should be inversely proportional to the hardness of the material to be machined.
For hardened steels a softer hardness is chosen than for uncured ones.

According to DIN 69100, the hardness of grinding discs is denoted by the following letters:

very soft	E	F	G	
soft	H	I	J	K
medium	L	M	N	O
hard	P	Q	R	S
very hard	T	U	V	W
extremely hard	X	Y	Z	

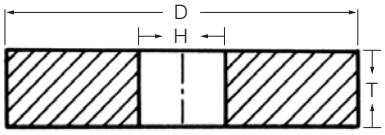
Tool grinding wheel for double grinders

PRECITOOL PRÄZISIONSWERKZEUGE

Design and use:
See product information on previous page

Note:
Other dimensions, grain sizes and composites for special materials available on request

EK | NK | SiC | Form A



Form A without recess

465100 Special fused alumina (EK) for tool grinding HSS
465150 Normal corundum (NC) for steel coarse
465160 Normal corundum (NC) for steel fine
465200 Silicon carbide (SIC) for hard metal

D × T × H mm	465100	465150	465160	465200	465100 Grit/hardness	465150 Grit/hardness	465160 Grit/hardness	465200 Grit/hardness
125×20×32	●	●	●	●	80M	36P	60N	80J
150×20×32	●	●	●	●	80M	36P	60N	80J
150×25×51	●	●	●	●	80M	36P	60N	80J
175×20×32	●	●	●	●	80M	24P	60N	80J
175×25×32	●	●	●	●	80M	24Q	60N	80J
175×25×51	●	●	●	●	80M	24Q	60N	80J
200×25×32	●	●	●	●	80M	24Q	60N	80J
200×25×51	●	●	●	●	80M	24Q	60N	80J
200×32×51	●	●	●	●	80M	24Q	60N	80J
300×40×76	●	●	●	○	60M	24Q	60N	80J

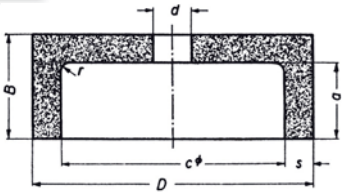
Tool grinding wheel

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
Size 100K = with special edge hardening (mainly for stylus grinders)

Use:
- for tool grinding on stationary mechanical tool grinders
- for grinding of cutting tools like milling cutters, drills, broaches et al.

EK | DIN 69139 | Form D



465900 Fused alumina (EK) for tool grinding

D mm	465900	Bore d ∅ mm	Width B mm	Size a × b mm	Grit/hardness
100	●	20	50	40 × 90	60/1J
100K	●	20	50	40 × 90	60/7J

Grinding disc dresser

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- exchangeable steel-section grinding wheel dresser
- on one axis with pressurized lubrication nipple, mounted in the dressing head
- the spinning dresser made of hardened, U-shaped Swedish steel profile teeth, which are very durable and can be used until complete wear out
- lateral plate to protect against sparks and abrasive particles

469150

469100

469100 complete with spinning top
469150 Spare spinning top

Size	469100	469150	Roll ∅ × width mm	Total length mm	grinding wheel ∅ / max. width mm
0	●	●	36 × 12	285	125 - 250/35
1	●	●	55 × 24	435	250 - 500/60
2	●	●	55 × 50	435	250 - 500/100

Grinding disc dresser TETRABOR®

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
Dresser of pure boron carbide, the hardest material following diamonds and boron nitride

Use:
For economical dressing, profiling and sharpening of grinding wheels

Note:
Dressing with soft pressure using only the edge! For discs up to ∅ 300 mm

469300

469320

469300 TETRABOR®dresser
469320 Holder for TETRABOR®dresser

Length × width × thickness mm	469300	469320
75×12×6	●	●

Dressing rod

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- diamond saving dresser filled with silicon carbide
- with plastic sleeve and wooden handle

SiC

Use:
For profiling and dressing of grinding discs

469200 Silicon carbide

Thickness mm	469200	Length mm
20	●	400

Sharpener

PFERD

Design and use:
- with soft polyurethane bonding
- abrasive silicon carbide
- for resharpening or uncovering of fresh layers on diamonds cutting wheels
- by cutting off thin slices from the sharpening file the external blunt diamonds are removed from the abrasive segment

SiC

469380 Silicon carbide

Length × width × thickness mm	469380
200×50×25	●

Diamond tool grinding disc

Design:
- synthetic resin or phenolic resin bonding (PHT) for high-performance dry grinding
- grain concentration C75 = caratage per cm / coating volume (ct/cm) 3.3

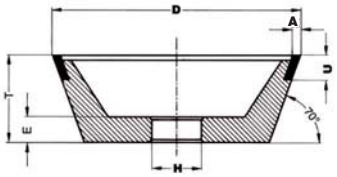
Diamond | Form 11 V9

Use:
- for grinding carbide tools
- for dry sanding, allows cool cutting without coolant - also suited for wet grinding (minimal wear)

Cutting speeds:
- dry sanding approx. 15 - 30 m/s
- wet sanding approx. 20 - 30 m/s

Further dimensions and granulation grades are available on request

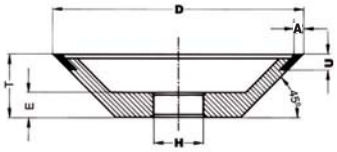
466007 Diamond cup wheel form 11 V9



Type	466007	D - X - U - H mm	Grit	T mm	E mm	Concentration
11V9	○	100 - 2 - 10 - 20	D126	35	10	C100

Diamond | Form 12 V9

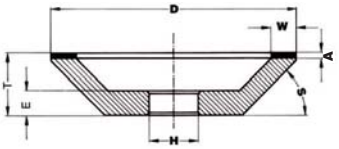
466012 Diamond dish wheel form 12 V9



Type	466012	D - X - U - H mm	Grit	T mm	E mm	Concentration
12V9	○	100 - 2 - 10 - 20	D126	20	10	C100

Diamond | Form 12 A2

466022 Diamond dish grinding wheel form 12 A2



Type	466022	D - W - X - H mm	Grit	T mm	E mm	Concentration
12A2 - 100	●	100 - 10 - 2 - 20	D126	26	10	C100
12A2	●	125 - 10 - 2 - 20	D126	26	10	C100

CBN tool grinding wheel

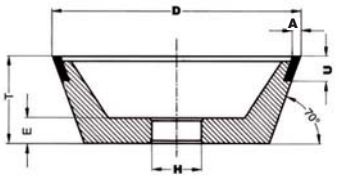
Design:
- synthetic resin or PHT phenolic resin bond for high-performance dry grinding
- grain concentration C75 = caratage per cm / coating volume (ct/cm) 3.3

CBN | Form 11 V9

Use:
- for grinding HSS tools
- for dry grinding, enables cool grinding even without coolant - a suited for wet grinding (minimal wear)

Cutting speeds:
- dry sanding approx. 18 - 30 m/s
- wet sanding approx. 25 - 35 m/s

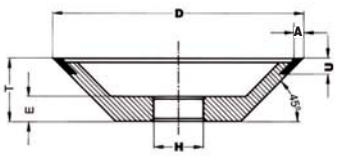
466032 CBN cup wheel form 11 V9



Type	466032	D - X - U - H mm	Grit	T mm	E mm	Concentration
11V9	○	100 - 2 - 10 - 20	B126	35	10	C75

CBN | Form 12 V9

466042 CBN dish wheel form 12 V9



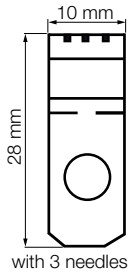
Type	466042	D - X - U - H mm	Grit	T mm	E mm	Concentration
12V9	○	100 - 2 - 10 - 20	B126	20	10	C75

CVD needle dresser

Design:
- optimal dressing tool for achieving consistent surface quality
- constant effective width throughout the entire wearing process

Advantages over conventional dressing plates:
Due to the uniformity of the CVD diamond needles, the reproducibility of the work sequence or the dressing results (surface structure of the grinding wheel and wear characteristics of the dressing tool) is almost constant

Note:
Further needle thicknesses and lengths as well as PKD versions on request



469390 Dressing plate, CVD

type	469390	Dimensions of CVD needles: mm
AP101/633C	○	0.6 × 0.6 × 3
AP101/653C	○	0.6 × 0.6 × 5
AP101/833C	○	0.8 × 0.8 × 3
AP101/853C	○	0.8 × 0.8 × 5
AP101/1043C	○	1.0 × 1.0 × 4
AP101/1053C	○	1.0 × 1.0 × 5

Diamond multi-grain dresser

Design:
Dressing surface interspersed with several rows of diamond grain (2.75 carat)

Diamond

F1 = transverse to the shaft
F2 = parallel to the shaft

Use:
For planing, profiling and dressing of straight grinding discs

469400 with handle

Type	469400	Coating area length × width mm	Total length mm
F1	●	30 × 10	200
F2	●	30 × 10	200

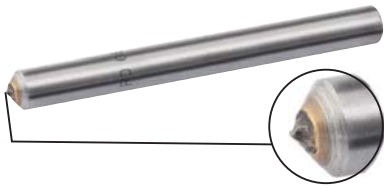
Diamond single-grain dresser

Design:
- cylindrical 8 × 80 mm
- for dressing of grinding discs K60 - 180

Diamond

469490 Single-grain dresser

Diamond weight carat	469490
0,5	●
0,75	●



Diamond fine-grain dresser

Design:
- cylindrical 8 × 80 mm
- for the dressing of grinding discs K60 - 180 on cylindrical and flat grinders

Diamond

Note:
Coarser or finer graining available on request

469492 Fine-grain dresser

Diamond weight carat	469492
1,2	●

Diamond single-grain dresser with natural diamond tip

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- 1st quality = diamonds with 3 - 5 sharp points
- 2nd quality = diamonds with 1 - 3 sharp points

Diamond

Use:
- for dressing, profiling and sharpening of EK and SC grinding discs
- diamond dresser should be clamped vibration-free and as short as possible

Note:
Further sizes available on request

*Shank diameter and length at your choice
Without particulars we provide Ø 10 × 50 mm

Substitution or applying of new stones is possible!
On request also diamonds up to 5 carats available!

Carat weight	0.30	0.40	0.60	0.80	1.0
for disk Ø mm	125 × 30 – 250 × 15	150 × 30 – 300 × 20	200 × 30 – 350 × 20	250 × 30 – 400 × 30	300 × 70 – 500 × 40

469500 1st quality
469550 2nd Quality

Diamond weight carat/shank	469500	469550
0,33MK1	●	—
0,50MK0	●	—
0,50MK1	●	●
0,60MK0	●	●

Diamond weight carat/shank	469500	469550
0,80MK0	●	●
0,80MK1	●	○
1,0MK0	●	○
1,0MK1	●	●

Diamond weight carat/shank	469500	469550
0,3ZYL.	●	●
0,6ZYL.	●	●
0,8ZYL.	●	●
—	—	—

Diamond multi-grain dresser with tips of natural diamonds

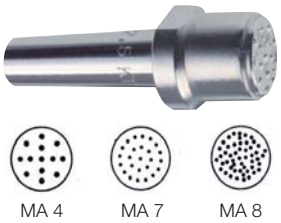
PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- wearing a number of finely crystallised, sharp crude natural diamonds
- arranged either in one or in several layers
- shank sizes MK 0, MK 1

Diamond

Use:
- for dressing, profiling and sharpening of EK and SC grinding discs
- diamond dresser should be clamped vibration-free and as short as possible
- suited for coarse and robust dressing

Note:
Further sizes available on request



469580 Shank size MK 0
469600 Shank size MK 1

type	469580	469600	Diamond weight Carat	Diamond application Ø × depth mm	Diamond dispersion	Application note:
MA4	○	●	2.50	10 × 10	5 layers with 13 stones apiece	Universally applicable for all grinding discs from grain 46
MA7	●	●	2.50	12 × 10	5 layers with 25 stones apiece	Universally applicable for all grinding discs with medium and fine grain
MA8	●	●	5.00	12 × 12	interspersed	for large and wide discs with fine grain

Diamond fine-grain dresser

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- cylindrical 10 × 50 mm
- for the dressing of grinding discs K60 - 180 on cylindrical and flat grinders
- quality D711

Diamond

Note:
Further shank sizes available on request
Coarser or finer graining available on request

469605 Shank size MK0
469607 Shank size MK1
469609 Shank size cylindrical 10 × 50 mm

Diamond weight carat	469605	469607	469609
2,5	○	●	●
3,5	○	●	●

Diamond dressing plate

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- for dressing of grinding discs K60 - 180 on cylindrical grinding machines
- for finer discs, finer diamond grain sizes are available

Diamond

Note:
Other dimensions, natural sharp points and CVD dressing plates available on request

469610 Grit D 900

type	469610
AP105	●
AP205	●

Abrasive cloth

Design and use:
- flexible and versatile
- very compact and even finish
- for smoothing, matting and cleaning of various surfaces
- for roughing of surfaces, removal of wood fibres or light deburring
- **length × width = 224 × 158 mm**

PU

Delivery:
In packaging units only!

470002 Scotch-Brite™ hand sheet

type	470002	Colour	PU
A-MEDIUM	●	brown	10
A-VERYFINE	●	red	20
S-MEDIUM	●	grey	10
S-ULTRAFINE	●	grey	20
F-SUPERFINE	●	white	10

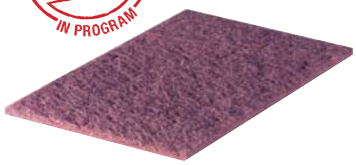
Abrasive cloth

Design and use:
- made of elastic synthetic fibres with abrasive grain in synthetic resin bond
- usable under dry and wet conditions
- for super finishing of metal, wood and plastic plus for intermediate lacquer sanding or for cleaning polishing (derusting)
- for achieving a uniform surface pattern
- **length × width = 229 × 152 mm**

PU
10 pieces

Delivery:
In packaging units only!

NEW! IN PROGRAM



470004 Sheet

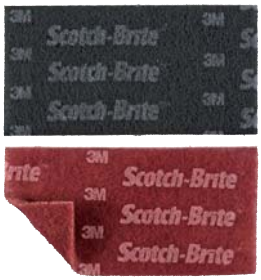
Grit grade	470004
100	●
180	●
280	●
400	●
600	●

Hand sanding block

Design and use:
- for finishing, matting or cleaning and for the grinding of wood, lacquer or metal
- uniform grinding pattern
- **excellent flexibility and long tool life**
- highly versatile
- for aluminium, stainless steel, filler, wood, plastic, paint, metal, steel, synthetic materials, soft steel/carbon
- **Length × width = 128 × 115 mm**

PU
25 pieces

Delivery:
In packaging units only!



470028 Scotch-Brite™-MX-HP

Type / LW	470028	Comparable granulation	Colour
A-VERYFINE	●	280 - 360	red
S-ULTRAFINE	●	600 - 1,000	grey

Abrasive cloth roll 10 m

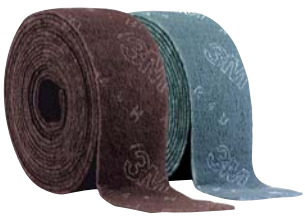
Design and use:
- Durable Flex
- **abrasive made of aluminium oxide or silicon carbide**
- for removal, deburring, varnish sanding and matting
- for aluminium, stainless steel, filler, wood, plastic, paint, metal, steel, synthetic materials, soft steel, carbon
- **length × width = 10 m × 100 mm**

470029 Scotch-Brite™ MX-HP

Type / LW	470029
A-VERYFINE	●
S-ULTRAFINE	●

Abrasive cloth roll 10 m

Design and use:
- WR-SH = particular wear resistant fabric
- resistant and tearproof
- well-suited for machine use
- for smoothing, matting and cleaning of various surfaces
- for roughing of surfaces, removal of wood fibres or light deburring
- **length × width = 10 m × 100 mm**



470020 Scotch-Brite™-WR-RL

Type / LW	470020	Comparable granulation	Colour	Design
A-MEDIUM	●	180 - 220	red	coarse
A-FINE	●	240 - 280	red	Medium
A-VERYFINE	●	280 - 360	red	medium-fine
S-VERYFINE	●	400 - 600	grey	Fine
S-SUPERFINE	●	600 - 1,000	grey	very fine

Abrasive cloth roll

Design and use:
- with good cutting performance and flexibility
- pre-perforated roll with 35 pads in economic hand pad size
- for matting, cleaning and roughing of diverse surfaces
- for uniform results
- **hand pad size = 115 × 150 mm**

470030 Scotch-Brite™CF-SR, perforated

type	470030	Colour
A-VERYFINE	●	purple
S-ULTRAFINE	●	grey
A-EXTRAFINE	●	copper

Abrasive cloth roll

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- made of non-woven nylon fibres
- elastic
- **length × width: 10 m × 115 mm**

NEW! IN PROGRAM

Use:
- dry, with water, with emulsion or oil
- cleaning, surface preparation
- fine deburring of sheet material, NF metals, wooden and plastic parts
- suited for the removal of paint, fillers, small score marks and minor scratches plus corrosion elimination

470062 10 m roll

Grit grade	470062
100	●
180	●
280	●
400	●
600	●

Hand block

3M

Design:
- to hold hand sanding devices like hand pads and non-woven abrasives
- excellent adhesion and practical handling
- fitting for 470020, 470029, 470062

470070 Scotch-Brite™ PH-AC

Length × width mm	470070
120×80	●

Non-woven Velcro grinding disc

3M

Design and use:
- sturdy nylon non-woven fabric with Velcro on a cloth backing
- wide grain row
- for reducing surface roughness, removing tarnish, smoothing surfaces and light cleaning and deburring work

PU 20 pieces

470103 Scotch-Brite™, type SC-DH, Ø 115 mm
470104 Scotch-Brite™, type SC-DH, Ø 125 mm

type	470103	470104	Colour	Design
A-COARSE	●	●	brown	coarse
A-MEDIUM	●	●	red	Medium
A-VERYFINE	●	●	blue	Fine

Velcro backing pad

3M

Design:
- for holding SC-DH, SL-DH and GB-DH fleece wheels **with centring**
- sturdy construction, durable Velcro backing
- M14 seat
- centring reduces vibrations by down to 50 %

Socket M 14

470114 Scotch-Brite™, type MN-AC

Ø mm	470114
115	●
125	●

Non-woven Velcro grinding disc

KLINGSPOR Schleiftechnologie

Design:
NDS 800
- Velcro grinding disc in excellent quality with increased edge stability for demanding tasks
- ideal for coarse cleaning work, deburring and the treatment of weld seams

Corundum A

PU 10 pieces

Use:
In combination with Velcro backing pad 470190 on angle grinders

Delivery:
In packaging units only!

470115 Ø 115 mm
470150 Ø 125 mm

Grit grade	470115	470150	type
60	●	●	coarse
120	●	●	medium
180	●	●	very fine

Velcro backing pad

KLINGSPOR Schleiftechnologie

Design:
NDS 555
- especially for non-woven discs
- M14 seat

Socket M 14

Use:
For mounting Velcro grinding discs to angle grinders with max. 40 m/sec. peripheral speed

470190 Type NDS 555

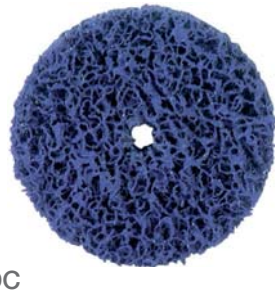
Diameter mm	470190	for disc Ø mm
115	●	115
125	●	125

Coarse cleaning disc

PU 2 pieces

Design and use:
- type S, degree of fineness extra coarse
- **high edge strength, aggressive**
- open structure: does not clog
- for derusting, to remove paint or to clean weld seams
- to remove heavy surface contaminations or coatings
- radially applied on straight grinders, flexible shafts or power drills
- inner ∅ 13 mm

Delivery:
In packaging units only!



470200 Scotch-Brite™, type XT-DC

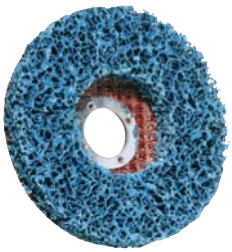
∅ mm	470200	max. speed min -1
100	●	6,000
150	●	4,000

Coarse cleaning disc

PU 10 pieces

Design and use:
- type S, degree of fineness extra coarse
- **edge-stable, aggressive**
- open structure: no clogging
- for derusting, to remove paint or to clean weld seams
- to remove heavy surface contaminations or coatings
- applied flatly
- **use on angle grinders, without accessories**
- inner ∅ 22 mm

Delivery:
In packaging units only!



470210 Scotch-Brite™, type XT-RD

∅ mm	470210	max. speed min -1
115	●	11,000

Coarse cleaning disc

PU 10 pieces

Design and use:
- type S, degree of fineness extra coarse
- **flexible and aggressive**
- open structure: does not clog
- for stainless steel, NF metals and steel
- applied radially
- for derusting, paint stripping, cleaning of welding seams, removal of heavy surface contaminations and coatings
- for use on straight grinders, flexible shafts or power drills
- inner ∅: 13 mm

Delivery:
In packaging units only!

470201 Scotch-Brite™, type CG-DC

∅ mm	470201	max. speed min -1
100	●	6,000
150	●	4,000

Coarse cleaning disc

PU 10 pieces

Design and use:
- type S, degree of fineness extra coarse
- **flexible and aggressive**
- open structure: does not clog
- for derusting, to remove paint or to clean weld seams
- to remove heavy surface contaminations or coatings
- applied flatly
- **use on angle grinders, without accessories**
- inner ∅ 22 mm

Delivery:
In packaging units only!

470212 Scotch-Brite™, type CG-RD

∅ mm	470212	max. speed min -1
115	●	11,000

Coarse cleaning disc

PU 2 pieces

Design and use:
- type A, degree of fineness medium
- **combines flexibility and aggressiveness** with a fine finish
- several discs can be grouped to form one wheel
- for derusting, to remove paint or to clean weld seams
- to remove heavy surface contaminations or coatings
- radially applied on straight grinders, flexible shafts or power drills
- inner ∅ 12.7 mm

Delivery:
In packaging units only!

470202 Scotch-Brite™, type BF-DC

∅ mm	470202	max. speed min -1
152	●	4,000

Accessories for Scotch-Brite™ cleaning disc

Use:
- for mounting radial Bristle brushes in ∅ 150 mm, 193 mm and 200 mm (e.g. 480020) as well as for Scotch-Brite™ rough cleaning wheels XT-DC, CG-DC and BF-DC discs
- for wheels with internal ∅ 12.7 mm

480050 Mandrel MN-AC

Shank ∅ mm	480050	Width mm
6	●	19.0
8	●	25.4

Abrasive cloth

KLINGSPOR Schleiftechnologie

Corundum | PU 50 pieces

Design:
- universal product for metalworking
- sheet material 230 × 280 mm
- corundum abrasive fabric
- bonded with glue and synthetic resin

470350 =
KL 371 X, normal
470450 =
KL 385 JF, ultra flexible

Delivery:
In packaging units only!

470350

470450

470350 standard, (blue twill)
470450 flexible, (brown twill)

Grit grade	470350	470450
40	●	●
60	●	●
80	●	●
100	●	●
120	●	●
150	●	●

Grit grade	470350	470450
180	●	●
220	●	●
320	●	●
400	●	●
600	—	●
—	—	—

Abrasive paper

KLINGSPOR Schleiftechnologie

SiC | PU 50 pieces

Design:
- grain 150 - 400 = PS 11 C
- grain 500 - 2000 = PS 11 A
- sheets 230 × 280 mm
- waterproof silicon carbide abrasive paper
- synthetic resin-bonded and impregnated
- for lacquers and filler

Delivery:
In packaging units only!

470550 Silicon carbide, waterproof

Grit grade	470550
150	●
220	●
240	●
320	●
400	●
500	●

Grit grade	470550
600	●
800	●
1000	●
1500	●
2000	●
—	—

Soft pad sanding sponge

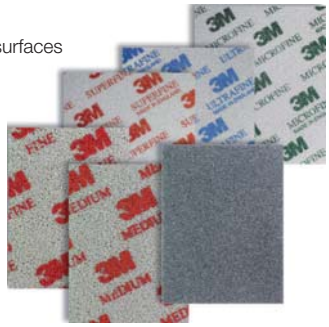
3M

Corundum | PU 20 pieces

Design:
- **ultra flexible and smooth soft pad** to machine narrowest spaces and profiled workpieces
- single side coating on the bottom

Use:
For hand grinding of curved or domed surfaces and contours. Suited for wet grinding

Lieferung:
Nur in Verpackungseinheiten!



470554 Scotch-Brite™, 140 × 115 × 5 mm

Grit range	470554	Grit grade
MITTEL	●	60
FEIN	●	100
SUPERFEIN	●	220
ULTRAFEIN	●	1,000
MIKROFEIN	●	1,500

Sanding sponge

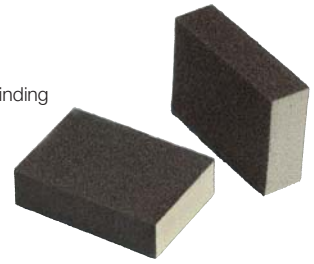
3M

Corundum | SiC | VPE

Design and use:
- synthetic resin-bonded abrasive grain on polyurethane foam
- suited for grinding tasks on wood, plastic and paint

Corundum (A), coated on four sides, 100 × 68 × 26 mm,
due to edge stability suited for surface grinding

Silicon Carbide (SiC), coated on two sides, 125 × 98 × 13 mm,
for contour and profile grinding



470552 Scotch-Brite™

Length × width × thickness mm	470552	Grit grade	Design	PU
100×68×26	●	100 (fine)	4-sided	100
125×98×13	●	100 (fine)	2-sided	24

Grinding block

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- grain embedded in flexible, rubbery plastic bonding
- waterproof and oil-resistant
- open-pored bonding

Use:
- widely employable to clean tools, metals, plastic, tiles, contacts and so on
- deburrs sheet metal, sharp edges

470560 grain 60
470570 grain 120
470580 grain 240

Length × width × thickness mm	470560	470570	470580
80×50×20	●	●	●
150×80×20	●	●	●

Grinding block

KLINGSPOR Schleiftechnologie

Design:
HK 100
- Velcro-backed

Use:
- for hand sanding of surfaces
- pre-grinding and re-grinding without re-chucking; firm fixation of the abrasive paper by Velcro

470590 Velcro-backed

L × W × H mm	470590
118×68×40	●

Velcro sheet strip

KLINGSPOR Schleiftechnologie

Corundum | VPE 100 Stück

Design:
PS 22 K
- for hand sanding block 470590
- size 125 × 70 mm, synthetic resin-bonded
- tough abrasive paper with good sanding performance

Delivery:
In packaging units only!

470595 Size 125 × 70 mm

Grit grade	470595
80	●
100	●
120	●
180	●

Dispenser

KLINGSPOR Schleiftechnologie

Design:
- metal box with 5 retainers
- with tear-off device

Use:
For placement of economy rolls up to 50 mm (470852-470860)

Delivery:
Without depicted content!

470960 Dispenser, empty

Quantity Rolls	470960
5	●

Sanding paper economy roll 50 m

KLINGSPOR Schleiftechnologie

Design:
KL 385 JF
- corundum abrasive fabric in rolls
- length 50 m
- synthetic resin-bonded

Corundum

470760 Width 115 mm
470852 Width 25 mm
470855 Width 40 mm
470860 Width 50 mm

Grit grade	470760	470852	470855	470860
40	○	—	●	●
60	●	●	●	●
80	●	●	●	●
100	●	●	●	●
120	●	●	●	●

Grit grade	470760	470852	470855	470860
150	●	—	●	●
180	●	—	●	●
240	●	—	●	●
320	●	—	●	●
400	●	—	●	●

Sanding paper economy roll 50 m in dispenser box

VSM WE KNOW ABRASIVES

Design:
KK114F
- densely woven cotton fabric with even distribution of the synthetic resin-bonded normal corundum
- tissue brown, for extremely high strain
- extra flexible, oil-resistant
- with very good grain adhesion, high grinding performance and long service life
- length 50 m
- **with integrated pull-off knife**

Corundum

470800 Width 25 mm
470850 Width 40 mm
470851 Width 50 mm

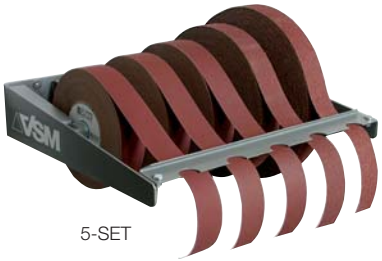
Grit grade	470800	470850	470851
40	●	●	●
60	●	●	●
80	●	●	●
100	●	●	●
120	●	●	●

Grit grade	470800	470850	470851
150	●	●	●
180	●	●	●
240	●	●	●
320	●	●	●
400	●	●	●

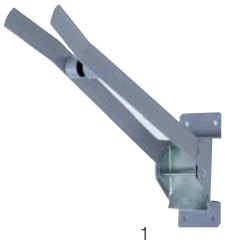
Sanding paper economy roll assortment/dispenser

VSM WE KNOW ABRASIVES

Design:
Set of 5
- the magazine contains 5 economy rolls (470850)
- grain 40, 60, 100, 180, 360 (40 mm wide, 50 m long)
- robust magazine (hammertone enamelled)
- complete with tear-off device and fixing material (for abrasive cloth economy rolls with 20 - 50 mm width and 50 m length)



5-SET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470970 Economy rolls magazine

type	470970	Design
1	○	empty, for 1 roll
5	●	empty, for 5 rolls
5-SET	●	incl. 5 roll assortment, width 40 mm

Abrasive belt endless, normal corundum

KLINGSPOR Schleiftechnologie

Design:
CS 310 XF / LS 309 X (H)
- endless belt made of corundum abrasive fabric
- in full synthetic resin-bonded quality

Corundum A | PU

Use:
- aggressive grinding and long service life
- versatile for deburring of castings, serial parts, tools, pipes and round components made of steel, NF and light metals
- suited for roughing and finishing depending on grain size
- for surface grinding and circular grinding machines with several machining points

Delivery:
In packaging units only!

472008 Belt size 10 × 330 mm, CS 310 XF

Grit grade	472008	PU
40	●	25
60	●	25
80	●	25
120	●	25

472012 Belt size 12 × 520 mm, CS 310 XF

Grit grade	472012	PU
40	●	25
60	●	25
80	●	25
120	●	25

472016 Belt size 13 × 610 mm, CS 310 XF

Grit grade	472016	PU
40	●	25
60	●	25
80	●	25
120	●	25
240	●	25

472018 Belt size 28 × 533 mm, LS 309 X

Grit grade	472018	PU
40	●	20
60	●	20
80	●	20
120	●	20

472025 Belt size 50 × 1000 mm, CS 310 X

Grit grade	472025	PU
40	●	30
60	●	30
80	●	30
120	●	30

472030 Belt size 50 × 2000 mm, CS 310 X

Grit grade	472030	PU
40	●	10
60	●	25
80	●	25
120	●	25

472033 Belt size 75 × 533 mm, LS 309 XH

Grit grade	472033	PU
40	●	10
60	●	10
80	●	10
120	●	10

472034 Belt size 75 × 2000 mm, CS 310 X

Grit grade	472034	PU
40	●	10
60	●	25
80	●	25
120	●	25

472044 Belt size 100 × 950 mm, LS 309 X

Grit grade	472044	PU
40	●	10
60	●	10
80	●	10
120	●	10

472046 Belt size 100 × 1000 mm, LS 309 X

Grit grade	472046	PU
40	●	10
60	●	10
80	●	10
120	●	10

472050 Belt size 150 × 2000 mm, CS 310 X

Grit grade	472050	PU
40	●	10
60	●	10
80	●	10
120	●	10

Abrasive cloth belt endless, non-woven

KLINGSPOR Schleiftechnologie

Use:
NBF 800
- for the machining of steel and stainless steel
- in particular for sheet metal, coils and circuit boards

PU 10 pieces

Delivery:
In packaging units only!

472100 Belt size 12 × 520 mm

Grit grade	472100	PU
180	●	10
240	●	10

472120 Belt size 28 × 533 mm, SV 485

Grit grade	472120	PU
100	●	10
180	●	10
240	●	10

Abrasive belt endless, made of zircon corundum

KLINGSPOR Schleiftechnologie

Design and use:
CS 411 X / CS 411 Y
- synthetic resin-bonding made of zircon corundum
- for high-performance finish at the machining of high-temperature steel
- for soft steels with a smearing tendency, for example, St37 or castings, investment castings, aluminium alloys

CS 411 X: Backing cotton
CS 411 Y: Backing polyester, waterproof, extra tearproof!

Delivery:
In packaging units only!

Zircon corundum | PU

472310 Belt size 12 × 520 mm, CS 411 X

Grit grade	472310	PU
40	●	30
60	●	30
80	●	30
120	●	30

472330 Belt size 13 × 610 mm, CS 411 X

Grit grade	472330	PU
40	●	30
60	●	30
80	○	30
120	○	30

472340 Belt size 28 × 533 mm, CS 411 X

Grit grade	472340	PU
40	●	30
60	●	30
80	●	30
120	●	30

472350 Belt size 50 × 1000 mm, CS 411 X

Grit grade	472350	PU
40	●	30
60	●	30
80	●	30
120	●	30

472360 Belt size 50 × 2000 mm, CS 411 X

Grit grade	472360	PU
40	●	10
60	●	25
80	●	25
120	●	25

472390 Belt size 75 × 2000 mm, CS 411 Y

Grit grade	472390	PU
40	●	10
60	●	10
80	●	10
120	●	10

472395 Belt size 150 × 2000 mm, CS 411 Y

Grit grade	472395	PU
40	●	10
60	●	10
80	●	10
120	●	10

Abrasive belt endless, ceramic grain

VSM WE KNOW ABRASIVES

Design XK850X:
- ceramic grain with resin bonding on polyester fabric
- self-sharpening => thereby:
- more uniform surface quality
- higher processing speed
- longer tool life
- cooler grinding

Ceramic | VPE

472403 Belt size 10 × 330 mm

Grit grade	472403	PU
40	●	100
60	●	100
80	●	100

472404 Belt size 12 × 520 mm

Grit grade	472404	PU
40	●	100
60	●	100
80	●	100

472402 Belt size 13 × 610 mm

Grit grade	472402	PU
40	●	100
60	●	100
80	●	100

472406 Belt size 28 × 533 mm

Grit grade	472406	PU
40	●	20
60	●	20
80	●	20

472408 Belt size 50 × 2000 mm

Grit grade	472408	PU
40	●	10
60	●	10
80	●	10

472400 Belt size 75 × 2000 mm

Grit grade	472400	PU
36	○	20
40	●	20
60	●	20
80	●	20

472405 Belt size 150 × 2000 mm

Grit grade	472405	PU
36	○	20
40	●	20
60	●	20
80	●	20

Sharpening file Corundum

PRECITOOL PRÄZISIONSWERKZEUGE

Corundum

Design:
- for deburring, chamfering and sharpening of tools
- made of corundum ceramically bonded
- hardness O/P in 3 granulation grades

G (coarse) = grain 80 - 100
M (medium) = grain 180
F (fine) = grain 320
in standard quality

Use:
- combined with oil, kerosene, water or dry
- for machining of steel

473000 square
473100 three-square
473200 flat
473400 Half round
473500 round
473600 Knife

length × width mm/ degree of fineness	473000	473100	473200	473400	473500	473600
100×6M	●	●	●	—	●	—
100×6F	●	●	●	●	●	—
100×8M	●	●	●	●	○	—
100×8F	●	●	●	—	●	—
100×10G	●	●	●	●	●	—
100×10M	●	●	●	●	●	—
100×10F	●	●	●	●	●	—
100×13G	●	○	—	—	—	—
100×13M	●	●	●	●	●	—
100×13F	●	●	●	—	●	—
100×25M	—	—	—	—	—	○
100×25F	—	—	—	—	—	●
150×16G	●	●	●	●	—	—
150×16M	●	●	●	●	—	—
150×16F	●	●	●	●	—	—

Sharpening file SiC

PRECITOOL PRÄZISIONSWERKZEUGE

SiC

Design and use:
- made of pure silicon carbide, ceramic bonded
- high hardness and self-sharpening effect
- for deburring, chamfering and sharpening of tools
- for machining carbide metal, NF metals, ceramics and cast

G (coarse) = grain 80 - 100
M (medium) = grain 180
F (fine) = grain 320

474000 square
474100 three-square
474200 flat
474400 Half round
474500 round
474600 Knife

length × width mm/ degree of fineness	474000	474100	474200	474400	474500	474600
100×6M	—	—	—	—	●	—
100×6F	●	●	○	○	●	—
100×8M	●	●	○	○	●	—
100×10M	●	●	●	●	●	—
100×10F	●	●	●	●	●	—
100×13M	●	●	○	●	●	—
100×13F	●	●	○	●	○	—
100×25G	—	—	—	—	—	○
100×25M	—	—	—	—	—	●
100×25F	—	—	—	—	—	●
150×16G	●	●	●	○	○	—
150×16M	●	●	●	●	●	—
150×16F	●	●	●	○	●	—

Sharpening file Hard Arkansas

PRECITOOL PRÄZISIONSWERKZEUGE

Design and use:
- natural stone (genuine Arkansas) made of fine-grained quartz
- high edge strength
- corresponds to grain size 800
- for finest grinding

Note:
Due to natural size variations of the raw material blocks, exact dimensions cannot always be met

474700 square
474720 three-square
474740 flat
474750 Half round
474760 round
474780 Knife

Length × width mm	474700	474720	474740	474750	474760	474780
100×6	—	—	○	—	●	—
100×8	●	—	○	—	●	—
100×10	●	●	●	●	●	—
100×13	—	●	●	—	—	—
100×25	—	—	—	—	—	●

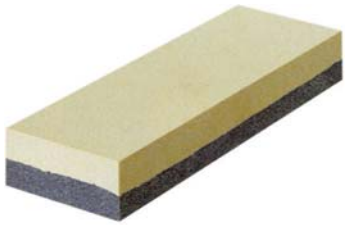
Bench stone (Hone)

PRECITOOL PRÄZISIONSWERKZEUGE

Corundum SiC

Design:
- combined oilstone with hardness degree O/P
- coarse side for pregrinding
- fine side for finishing

Use:
- for sharpening, deburring and chamfering of tools
- corundum for the treatment of steel, silicon for the treatment of HM and cast iron



474800 Corundum
474850 Silicon carbide

Length × width mm	474800	474850	Thickness mm
100×25	●	●	13
115×40	●	●	16
125×50	●	●	20
150×50	●	●	25
200×50	●	●	25

Hand lap for carbide metal

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- whetstone made of boron carbide (60 × 25 × 10 mm)
- with high cohesiveness at edges and surfaces

Use:
- for machining of HM turning tools
- for sharpening cutting edges
- for removal of built-up edges (thus increasing tool life)

474900 Boron carbide

Grit µ	474900	Colour code
180 - 130	●	yellow
220 - 100	●	blue
360 - 50	●	red
500 - 25	●	green

Bench stone (Hone)

FRIATEC

Delivered in case

Design:
- made of highly sintered aluminium oxide, free of bonding agents
- best hardness and stability of edges and profiles
- for excellent surfaces thanks to the finely and densely sintered texture
- pasted into a wooden box

Use:
- for deburring, chamfering and sharpening of tools
- mainly for grinding of hard materials

475800 Medium
475850 Fine

Length × width mm	475800	475850	Thickness mm
100×25	●	●	10
120×50	●	●	10

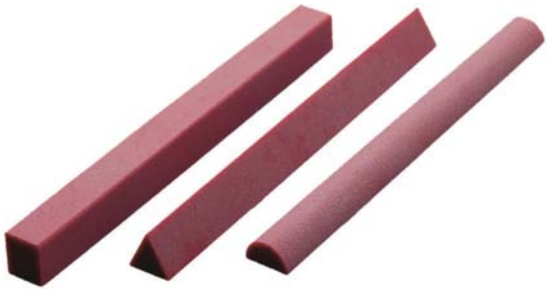
Sharpening file Degussit

FRIATEC

Design:
- made of highly sintered aluminium oxide, free of bonding agents (fine, dense texture)
- with extreme rigidity and permanence of edges and profile

Use:
- for deburring, chamfering and sharpening of tools
- mainly for grinding of hard materials

G (coarse) = Ra approx. 40 µm (corresponds to approx. grain 60)
M (medium) = Ra approx. 10 µm (corresponds to approx. grain 600)
F (fine) = Ra approx. 1 µm (corresponds to approx. grain 2000)



475000 square
475100 three-square
475200 flat
475400 Half round
475500 round
475600 Knife

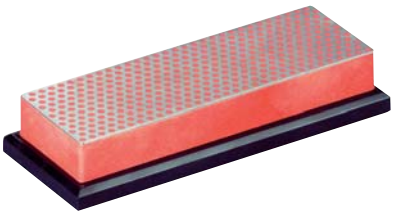
length × width mm/ degree of fineness	475000	475100	475200	475400	475500	475600
100×6M	●	●	●	—	●	—
100×6F	●	●	●	—	●	—
100×8M	●	●	●	—	—	—
100×8F	●	●	●	—	●	—
100×10G	●	●	—	●	—	—
100×10M	●	●	—	●	●	—
100×10F	●	●	—	—	●	—
100×15M	—	—	—	—	—	○
120×13M	●	●	—	—	—	—
120×13F	●	○	—	—	—	—

Diamond oilstone

PRECITOOL PRÄZISIONSWERKZEUGE

Design:
- for quick sharpening of HM and HSS tools
- diamond coating in a nickel layer embedded on a base of steel and plastic
- totally even oilstone - no troughs or scores
- durable, even, extremely firm diamond surface

9 micron (grain extra fine) = for carving tools and chisels
25 micron (grain fine) = for HSS and carbide tools
45 micron (grain coarse) = for woodworking tools



475900 150 × 50 mm

type	475900
9MIKRON	●
25MIKRON	●
45MIKRON	●

Diamond oilstone

3M

Design:
- flex diamond material glued to a 10 mm thick aluminium plate
- length × width = 100 × 25 mm
- in leather pouch

475920 flexible

Grit grade	475920
N020	●
N040	●

Design and use:
- for derusting, paint stripping, removal of adhesive residues and other contaminations
- especially for flat surfaces
- works without contact pressure
- **ceramic Cubitron™abrasive (no clogging)**
- M14 seat integrated, for use on angle grinders, without accessories
- brush ∅ 115 mm

Ceramic | Socket M 14

480010 Bristle-Disc BD-ZB, Ø 115 mm

Grit grade	480010	Colour	max. speed min $^{-1}$
50	●	green	12,000
80	●	yellow	12,000
120	●	white	12,000

Design and use:
- radial brush of 8 individual segments (each approx. 1.7 mm wide), thus variable width
- bore ∅ 25.4 mm
- observe direction of rotation
- bent bristles
- **ceramic Cubitron™- abrasive grain (no clogging)**
- for cleaning, paint stripping, deburring and cross-fading on almost all materials, especially for highly contoured surfaces
- for use on double or straight grinders with enclosed reducer rings ∅ 22.2 | 19.0 | 15.6 | 12.7 mm or flexible shafts with clamping mandrel 480050
- brush ∅ 150 mm

Ceramic

480020 Bristle-Brush, BB-ZB type C, Ø 150 mm

Grit grade	480020	Colour	max. speed min $^{-1}$
80	●	yellow	6,000
120	●	white	6,000
220	●	red	6,000

Design and use:
- radial single segments
- bent bristles
- **ceramic Cubitron™- abrasive grain (no clogging)**
- brush width freely selectable (1 segment approx. 1.6 mm wide) by use of mandrel
- for cleaning, paint stripping, deburring and cross-fading on almost all materials, especially for highly contoured surfaces
- for use on straight grinders or flexible shafts with mandrel 480055 6
- brush ∅ 75 mm
- observe direction of rotation

Ceramic

480025 Bristle Brush, RB-ZB, type C, Ø 75 mm

Grit grade	480025	Colour	max. speed min $^{-1}$
80	●	yellow	20,000
120	●	white	20,000
220	●	red	20,000

Design and use:
- like 480025
- 6 segments potted with one 6 mm shank
- immediate use on straight grinders or flexible shafts without any further accessories
- brush ∅ 76 mm

Ceramic | Shank 6mm

480030 Bristle Brush, BB-ZS, Ø 76 mm

Grit grade	480030	Colour	max. speed min $^{-1}$
80	●	yellow	6,000
120	●	white	6,000
220	●	red	6,000

Accessories for Scotch-Brite™ cleaning disc

Use:
- for mounting radial Bristle brushes in ∅ 150 mm, 193 mm and 200 mm (e.g. 480020) as well as for Scotch-Brite™ rough cleaning wheels XT-DC, CG-DC and BF-DC discs
- for wheels with internal ∅ 12.7 mm

Shank 6mm | Shank 8mm

480050 Mandrel MN-AC

Shank ∅ mm	480050	Width mm
6	●	19.0
8	●	25.4

Use:
- to receive single bristle segments in ∅ 50 mm and 75 mm (e.g. 480025) up to 12.7 mm width
- 2 clamping nuts (for different widths)

Shank 6mm

480055 Mandrel MN-AC/990M

Shank ∅ mm	480055	applicable for ID in mm
6	●	9.5

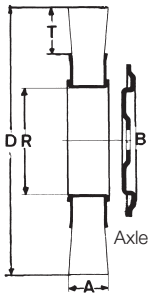
Wheel brush multi-row

Design:
- aggressive multi-row round brushes (exception: 150 × 160/0.3 = single-row)
- with corrugated trimming

480120:
- steel wire in natural hardness
- wire thickness 0.2 mm or 0.3 mm
- corrugated

480220:
- stainless quality steel wire (1,4401)
- wire thickness 0.2 mm or 0.3 mm
- corrugated

Use:
- universal brush for medium-heavy brushing operations
- optimal for the treatment of large-scale surfaces



Axle washer

Note:
For variable use each brush is accompanied by a selection of bore reducers:
- brushes ∅ 100-125 mm, 20 mm => 1/2", 5/8"
- brushes ∅ 150-200 mm, 31.75 mm => 13, 15, 16, 19, 20 mm, 7/8" and 1"
- brushes ∅ 250 mm, 50.80 mm => 20 mm
(please specify deviating bores when ordering)

480120

480220

480120 Steel wire trimming
480220 Steel wire trimming, stainless

∅ × brush width / Wire thickness mm	480120	480220	min. standard bore B mm	max. bore size B mm	T mm	Tube diameter R mm	max. speed min $^{-1}$
100×20/0,2	●	—	20.00	—	23	30.0	8,000
100×20/0,3	●	●	20.00	—	23	30.0	8,000
100×28/0,3	●	—	20.00	—	23	30.0	8,000
125×22/0,2	●	—	20.00	—	30	30.0	6,000
125×22/0,3	●	●	20.00	—	30	30.0	6,000
150×30/0,2	●	●	31.75	—	32	50.8	6,000
150×30/0,3	●	●	31.75	—	29	50.8	6,000
178×23/0,3	●	●	31.75	—	29	50.8	6,000
178×32/0,3	●	●	31.75	—	38	50.8	6,000
200×30/0,3	●	●	31.75	—	38	80.0	4,500
200×38/0,3	●	—	31.75	—	38	80.0	4,500
250×28/0,3	●	●	20.00	50.8	47	100.0	3,600
300×32/0,3	●	—	25.40	50.8	50	120.0	3,000

osborn
Finish. First.

FOR TECHNICAL BRUSHES: A PERFEKT CHOICE.

3 reasons to recommend Osborn brush tools:

1. Work safety – always a relevant subject

More than 650 TÜV-SÜD certified Osborn products provide you as dealer with security concerning area „safety of tools".

A question of SAFETY. Or not?

As a Dealer, yo can stop dealing with questions about safety. Osborn tools have the safety already installed from the factory.

The TÜV certification on the package immediately catches the eye and signals the officially approved high quality of Osborn products.

2. Optimal advice - already on the packaging.

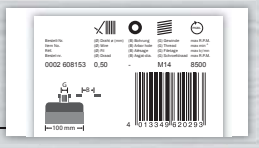
FASTER & BETTER INFORMED.

The new Osborn packages help the customer to find the **right product** in just 4 fast steps strikingly represented and self-explanatory in a way, that expert advice is helpfully supported.

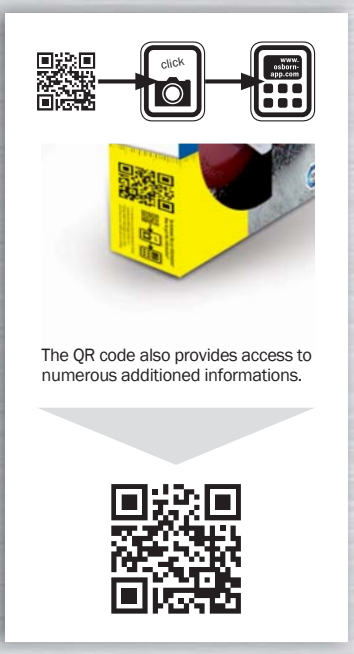
Icons on the package allow quick allocation of the product to the right machine.

Meter performance key figures give comprehensible information about service and output.

Quick Information about trimmings



Detailed informations about the product provide size, speed or TÜV certificatien.



The QR code also provides access to numerous additioned informations.

3. Efficient planning, economic ordering.

MAXIMUM EFFICIENCY.

The widespread practice of the industry to inform about the service life makes it difficult to estimate the material requirement correctly.

With the meter performance Osborn enables needs-oriental purchase, inereases efficiency and saves you and your customers time, money and nerves.

Deburring wheel brush

LESSMANN® THE GERMAN BRUSH COMPANY

Design:
- special brushes for all common deburring machines
- high wire content, exactly uniform trimming distribution
- longer tool life due to the use of very high quality wire
- with axle cover, hole 50.8 mm and double keyway 13 × 7 mm

SiC

480250

480252

480254

480250 Steel wire trimming, crimped
480252 stainless steel wire trimming, corrugated
480254 Nylon abrasive bristles with silicon carbide (SiC K180/1.0)

Ø × brush width / Wire thickness mm	480250	480252	480254	Trimming height mm	max. speed min $^{-1}$
250×60/0,35	●	●	●	50	3,600

Wheel brush single-row

LESSMANN® THE GERMAN BRUSH COMPANY

Design:
- flexible bristles
- gentle treatment, adaptation to the workpiece
- no encrusting, bristles remain abrasive

NEW! IN PROGRAM

Use:
- in stationary machines and machining centres
- for deburring, derusting and roughening of stainless steel, light metal or plastic

480322 Steel wire, crimped
480324 stainless steel wire, corrugated

Ø × brush width / Wire thickness mm	480322	480324	Trimming height mm	max. speed min $^{-1}$
100×12/0,30	●	●	21	8,000
150×14/0,30	●	●	32	6,000
200×16/0,30	●	●	32	6,000

SiC

480326 Abrasive bristles with silicon carbide (SiC K120/1.1)

Ø × brush width / grain mm	480326	Trimming height mm	max. speed min $^{-1}$
100×12/120	●	21	8,000
150×14/120	●	32	6,000
178×14/120	●	46	6,000
200×16/120	●	32	6,000

Wheel brush knotted

LESSMANN® THE GERMAN BRUSH COMPANY

Design:
- **480570:** Smooth, high-strength steel wire, knotted
- **480572:** Smooth, high-strength stainless steel wire, knotted
- trimming single-row
- plait-shaped with rose bud

Use:
- suited for angle grinders or in stationary use
- for pre-machining or reworking of weld seams (fillet weld and butt weld)
- removes scale, rust, paint, slag, rubber residues and deburrs edge

480570

480572

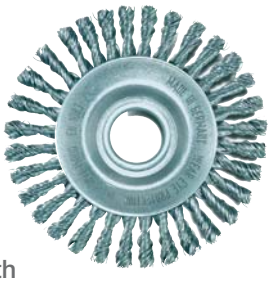
480570 Steel wire trimming
480572 Stainless steel wire trimming

Ø × brush width mm	480570	480572	Bore Ø mm	Trimming height mm	max. speed min $^{-1}$
115×14	●	●	22.2	24	12,500
115×14/M14	●	—	M14 × 2	24	12,500
125×14	●	●	22.2	29	12,500
125×14/M14	●	—	M14 × 2	29	12,500
150×14	●	—	22.2	32	12,500
178×14	●	●	22.2	38	12,500

Pipeline brush knotted, single-row

LESSMANN® THE GERMAN BRUSH COMPANY

Design and use:
- fully knotted (wire ends are cut completely) and pressed firmly into the steel body
- excellent tool life and smooth running
- particularly for professional treatment of U- and V-welds, especially at pipe joints
- slim design



480576 Steel wire trimming, smooth

Ø × brush width mm	480576	Trimming height mm	Quantity Braids	Bore Ø mm	max. speed min -1
115×6	●	22	32	22.2	15,000
125×6	●	26	40	22.2	15,000

480578 stainless steel wire trimming, smooth

Ø × brush width mm	480578	Trimming height mm	Quantity Braids	Bore Ø mm	max. speed min -1
115×6	●	22	32	22.2	15,000

Cup brush knotted, with supporting ring

LESSMANN® THE GERMAN BRUSH COMPANY

Socket M 14

Design:
- trimming single-row
- **480840:** Smooth, high-strength steel wire, knotted
- **480842:** Smooth, high-strength stainless steel wire, knotted

Use:
- ideal for heavy brushing works
- for preparing metal surfaces before painting
- for removing slag, rust, scale or concrete residues

480840

480842

480840 Steel wire trimming
480842 Stainless steel wire trimming

Ø / wire thickness mm	480840	480842	Trimming height mm	max. speed min -1
80/0,5	●	●	25	9,000
100/0,5	●	—	23	9,000
125/0,5	●	—	25	7,000

Cup brush crimped

osborn

Socket M 14

TÜV SÜD

Design:
- with hardened steel wire trimming

Use:
- for machining large surfaces
- for removing slag, paint, rust, scale etc.

481020

481030

481020 Steel wire trimming
481030 Stainless steel wire trimming

Ø / wire thickness mm	481020	481030	max. speed min -1
60/0,20	●	—	12,500
60/0,30	●	●	12,500
80/0,30	●	●	8,500
100/0,30	●	●	8,500

Cup brush knotted

LESSMANN® THE GERMAN BRUSH COMPANY

Socket M 14

Design:
- smooth steel wire, knotted
- trimming single-row

Use:
- ideal for heavy brushing works
- for preparing metal surfaces before painting
- for removing slag, rust, scale or concrete residues

481090

481092

481090 Steel wire trimming
481092 Stainless steel wire trimming

Ø / wire thickness mm	481090	481092	Trimming height mm	max. speed min -1
65/0,35	●	—	20	12,500
65/0,50	●	●	20	12,500
90/0,50	●	—	22	11,500

Bevel brush knotted

LESSMANN® THE GERMAN BRUSH COMPANY

Socket M 14

Design:
- made of high-strength steel wire, smooth
- for difficult to access places
- left twist knotted for longer tool life

481220

481222

481220 Steel wire trimming
481222 Stainless steel wire trimming

Ø × brush width mm	481220	481222	Wire thickness mm	Trimming height mm	max. speed min -1
100×12	●	●	0.35	20	12,500
115×12	●	●	0.50	24	15,000
125×12	●	—	0.50	29	15,000

Bevel brush crimped

LESSMANN® THE GERMAN BRUSH COMPANY

Use:
- for difficult to access areas (conical shape)
- for deburring and derusting with angle grinders

Socket M 14

NEW! IN PROGRAM

481232 Steel wire trimming
481234 Stainless steel wire trimming

Ø × brush width mm	481232	481234	Wire thickness mm	Trimming height mm	max. speed min $^{-1}$
100×10	●	●	0.35	20	15,000

481232

481234

Shank mounted wheel brush crimped

osborn

Design:
- dense trimming
- shank ∅ 6 mm
- shank length 30 mm

Shank 6mm

TÜV SÜD

Use:
- due to their small diameters these brushes can be used at difficult to access places
- for mounting to hand-held drills, flexible shafts and hand grinders

481500

481550

481500 Steel wire trimming
481550 Stainless steel wire trimming

Ø / wire thickness mm	481500	481550	Width mm	max. speed min $^{-1}$
30/0,20	●	●	9	20,000
40/0,20	●	●	11	18,000
50/0,20	●	●	17	15,000
50/0,30	●	●	17	15,000
60/0,20	●	●	12	15,000

Ø / wire thickness mm	481500	481550	Width mm	max. speed min $^{-1}$
60/0,30	●	●	12	15,000
70/0,20	—	●	18	15,000
70/0,30	●	●	18	15,000
80/0,30	●	●	19	15,000
—	—	—	—	—

Shank mounted wheel brush knotted

LESSMANN® THE GERMAN BRUSH COMPANY

Design and use:
- with shank ∅ 6 mm
- to remove underbody protection
- suitable for rust removal, deburring or roughening etc.
- for machining of difficult to access places

Shank 6mm

481562 Steel wire trimming
481564 Stainless steel wire trimming

Ø × wire thickness mm	481562	481564	Brush width mm	Trimming height mm	max. speed min $^{-1}$
75×0,50	●	●	12	15	25,000

481562

481564

Miniature brush

LESSMANN® THE GERMAN BRUSH COMPANY

Design and use:
- for deburring and polishing of small surfaces
- for cleaning of small workpieces
- brushes with stainless steel wire for machining of stainless steel surfaces and aluminium
- **shank diameter 3 mm**
- wire thickness 0.10 mm
- for metalworking industries and crafts
- suitable for precision tools, precision mechanics or pneumatics and hydraulics

PU 10 pieces

Shank 3mm

481610 Steel wire trimming, crimped
481612 stainless steel wire trimming, corrugated
481614 Brass wire trimming, corrugated

type	481610	481612	481614	∅ mm	max. speed min $^{-1}$	Design
5P	●	●	●	5	5,000	End brush
15F	●	●	●	15	15,000	Surface brush
18F	●	●	●	18	15,000	Surface brush
19R	●	●	●	19	12,000	Wheel brush
22R	●	●	●	22	10,000	Wheel brush

End brush

Design:
- shank ∅ 6 mm
- wire thickness 0.30 mm

Shank 6mm

Use:
For mounting to hand-held drills, flexible shafts and hand grinders

30 × 45

10 × 100

481620 Steel wire trimming
481670 Stainless steel wire trimming

Ø × steel body length mm	481620	481670	max. speed min -1
10×45	●	●	20,000
17×45	●	●	18,000
25×45	●	●	18,000
30×45	●	●	15,000
10×100	●	●	10,000

Surface brush

Design and use:
- for working on small and medium surfaces

Shank 6mm

PU 10 pieces

NEW! IN PROGRAM

481822 Standard, steel wire, crimped

Ø mm	481822	Wire thickness mm	max. speed min -1
50	●	0.35	4,500
75	●	0.35	4,500

End brush RUFTUF® knotted

Design:
- wire knotted and crimped
- galvanised sleeve
- shank 6 mm, shank length 20 mm

Shank 6mm

481720:
- stainless steel wire trimming
- protected by heat-shrink tubing

Use:
- for removing burrs, slag, scale, paint, rust, excess rubber, residues of combustion and other contaminations
- at difficult to access places and inside areas
- for use on high-speed portable machines

481700

481720

481700 Steel wire trimming
481720 Stainless steel wire trimming

Ø / wire thickness mm	481700	481720	Trimming height × collar Ø mm	max. speed min -1
20/0,15	●	●	29 × 20	22,000
20/0,26	●	●	29 × 20	22,000
30/0,26	●	—	29 × 30	20,000
30/0,35	●	●	29 × 30	20,000

Surface brush

Design:
- crimped steel wire in natural hardness, coarse
- shank ∅ 6 mm

Shank 6mm

Use:
On drills, for light cleaning actions

481820 Universal

Ø mm	481820	max. speed min -1
50	●	4,500
75	●	4,500

Surface brush

Design and use:
- for working on small and medium surfaces
- for use on electrical and air driven grinding machines
- used for deburring, polishing or structuring of stainless steel, aluminium and plastic

Shank 6mm

NEW! IN PROGRAM

481823

481824

481823 Steel wire, crimped
481824 stainless steel wire trimming, corrugated

Ø mm	481823	481824	Wire thickness mm	Trimming height mm	max. speed min -1
50	●	●	0.30	20	10,500

End brush knotted

Design:
- with shank ∅ 6 mm
- **481730:** High-strength steel wire trimming, knotted
- **481732:** Smooth, stainless wire, knotted, sleeve plastic coated

Shank 6mm

Use:
- for machining of difficult to access places, like inside bores or recesses at housing parts
- with rose bud knotting to increase tool life
- with increasing speed the braids open more and more

481730 Steel wire trimming
481732 Stainless steel wire trimming

Ø / wire thickness mm	481730	481732	Trimming height mm	Total length mm	max. speed min -1
19/0,15	—	●	28	72	20,000
19/0,25	●	●	28	72	20,000
19/0,35	●	—	28	72	20,000
22/0,35	●	●	28	72	20,000
29/0,15	—	●	28	72	20,000
29/0,25	●	●	28	72	20,000
29/0,35	●	—	28	72	20,000

Industrial brushes for surface finishing

Cleaning of welds

Advantages of working with brushes (e.g. cup or bevel brushes)

- Machining of flat and angled weldseams possible
- Brush adjusts to the workpiece
- No damage to the weld or work piece
- Special brushes for weld treatment of pipelines available

Machining of difficult to access places

Advantages of working with end brushes

- Deburring of cross bores with knotted end brushes
- Flexibility through different diameters
- Brush brush opens up to 90°
- Plastic jacket for brushes with stainless steel trimming

Machining of internal bores with microabrasive interior brushes

Advantages of working with microabrasive interior brushes

- Deburring bores or transversal bores or O-ring recesses
- Polishing or cleaning of nozzles and small bores
- Trimming: Alumina, silicon carbide, wire, diamond
- For wet and dry applications

Other applications for brushes

- Surface treatment
- surface texturing
- Polishing
- Deburring of cutting edges
- Removal of annealing colours

The **Lessmann GmbH** is a leading German manufacturer of industrial brushes for surface finishing. The various brush types, such as round brushes, shank brushes or hand brushes, are, in addition to wire trimmings, available with abrasive nylon, plastic fibres or other trimming materials. In addition to a wide standard range are also special solutions available in large and smallest batches.

Micro tube brush

LESSMANN® THE GERMAN BRUSH COMPANY

Design and use:
- interior brush with steel wire trimming
- total length: 90 mm
- shank ∅: 3.8 mm
- for manual or machine use
- suitable for descaling, deburring or cleaning of cross intersections, bore intersections, tapped holes or grooves

NEW! IN PROGRAM

481764 Steel wire trimming

Ø mm / Type	481764	Wire thickness mm	Trimming length mm	max. speed min $^{-1}$
10	●	0.12	25	3,500
13	●	0.12	25	3,500
16	●	0.12	25	3,000
19	●	0.20	25	3,000
25	●	0.20	25	3,000

Tube brush micro abrasive

LESSMANN® THE GERMAN BRUSH COMPANY

Design and use:
- with galvanized spiral core and single trimming row
- trimming made of abrasive bristles with aluminium oxide (from 3.5 mm) or of silicon carbide (up to 3.2 mm)
- **fine SiC or AO bristles with grain 1000 or 600**
- for deburring bores, transversal bores or O-ring recesses
- for polishing or cleaning of nozzles and small bores
- flexible threads adapt the inner brushes to the contour of the workpiece
- total length 125 mm (up to 3.5 = 100 mm)

SiC | Aluminium oxide

481765 Silicon carbide / alumina

Ø mm	481765	Trimming	Trimming length mm	Shank Ø mm
1,2	●	AO K 1000/0.20	12	0.5
1,9	●	AO K 1000/0.20	18	0.7
2,2	●	AO K 1000/0.20	18	0.9
2,6	●	AO K 1000/0.20	25	1.0
3,2	●	AO K 1000/0.20	25	1.7
3,5	●	AO K 1000/0.20	25	1.7
4,2	●	AO K 600/0.30	25	2.2
4,8	●	AO K 600/0.30	25	2.2
5,5	●	AO K 600/0.30	25	2.2

Ø mm	481765	Trimming	Trimming length mm	Shank Ø mm
6,6	●	AO K 600/0.30	25	2.5
8,2	●	AO K 600/0.30	25	3.2
9,8	●	AO K 600/0.30	25	3.2
11,5	●	AO K 600/0.30	25	3.7
13,0	●	AO K 600/0.30	25	3.7
16,0	●	AO K 600/0.30	25	3.7
17,5	●	AO K 600/0.30	25	4.7
20,0	●	AO K 600/0.30	25	4.7
25,0	●	AO K 600/0.30	25	4.7

Tube or cylinder brush

LESSMANN® THE GERMAN BRUSH COMPANY

Design:
- interior brush with galvanized spiral wire core and single trimming row
- silicon carbide abrasive bristles, therefore more flexible in use
- particularly suitable for deburring of holes, transversal bores or O-ring recesses in complex workpieces
- for polishing or cleaning of nozzles and small bores
- wire thickness 0.6 mm
- trimming length 65 mm, total length 125 mm

SiC | SiC

481766 Silicon carbide, grain 120
481767 Silicon carbide, grain 320

Ø mm	481766	NEW!	481767	Shank Ø mm	max. speed min $^{-1}$
10	●		●	3.7	2,000
13	●		●	3.7	2,000
16	●		●	5.2	2,000
19	●		●	5.2	2,000
25	●		●	5.7	2,000

Tube brush with eyelet

LESSMANN® THE GERMAN BRUSH COMPANY

Design:
- galvanised spiral wire core with single trimming row made of corrugated steel wire, brass wire or nylon bristles
- brush length: 100 mm
- total length: 300 mm

Use:
For manual cleaning and deburring of tubes, bores and the like

481770 Steel wire, crimped
481772 Brass wire, crimped
481774 Nylon PA

Ø mm	481770	481772	481774	481770 Wire thickness mm	481772 Wire thickness mm	481774 Wire thickness mm
4	●	●	●	0.10	0.06	0.20
6	●	●	●	0.10	0.10	0.20
8	●	●	●	0.10	0.12	0.20
10	●	●	●	0.15	0.15	0.25
15	●	●	●	0.15	0.15	0.30
20	●	●	●	0.15	0.15	0.30
25	●	●	●	0.15	0.15	0.30
30	●	●	●	0.15	0.15	0.30

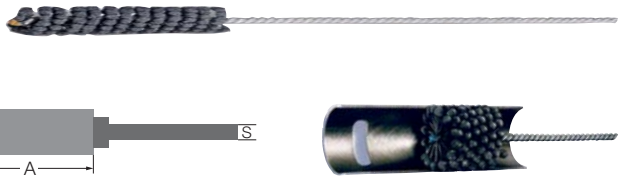
Flex hone brush SiC

osborn

Design:
- rotating honing tool with abrasive globules on robust nylon brushes
- silicon carbide, abrasive
- flexible and elastic working with tender grinding process
- variable nylon strings are ideal for honing of untrue or transversal bores
- total length: 200 mm

SiC

Use:
- for edge chamfering and for finishing of surfaces
- mountable to any machine system (among others to hand drills)
- low-temperature and low-pressure grinding process for a plateau finish without formation of metal scales



481911 grain 120
481912 grain 180

Workpiece Ø (W) mm	481911	481912	Brush Ø (B) mm	Work width (A) mm	Shank Ø (S) mm
6,4	●	●	7.0	40	2.5
7,0	●	●	8.0	50	3.2
8,0	●	●	9.0	50	3.7
9,0	○	●	10.0	50	3.7
10,0	●	●	11.0	60	3.7
11,0	●	●	12.0	60	3.7
12,0	●	●	13.0	60	3.7
14,0	●	●	15.5	60	3.7
16,0	●	●	18.0	60	4.6
18,0	○	●	20.0	60	4.6
20,0	●	●	22.0	70	4.6

Workpiece Ø (W) mm	481911	481912	Brush Ø (B) mm	Work width (A) mm	Shank Ø (S) mm
22,2	●	●	25.0	70	4.6
25,4	●	●	28.0	70	5.1
28,6	●	●	32.0	70	5.1
31,8	●	●	35.0	70	5.7
35,0	○	●	38.0	70	5.7
38,0	●	●	41.0	70	5.7
41,0	○	●	45.0	70	5.7
45,0	●	●	48.0	70	5.7
51,0	○	●	54.0	70	6.5
57,0	○	●	60.0	70	7.3
64,0	○	●	68.0	76	7.5

Wire hand brush

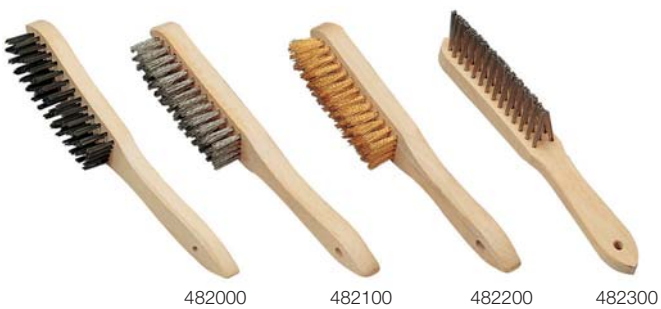
osborn

Design:
- hardwood body with curved handle and hole for hanging
- trimming length 145 mm
- total length approx. 295 mm

482000: With smooth steel wire, 0.35 mm wire thickness
482100: With crimped stainless steel wire, 0.30 mm wire thickness
482200: With crimped brass wire, 0.30 mm wire thickness
482300: With smooth steel wire, 0.35 mm wire thickness, arranged in V-shape

482000 Steel wire
482100 stainless steel wire
482200 Brass wire
482300 Steel wire, V-shaped

Number of rows	482000	482100	482200	482300
2	●	●	●	—
3	●	●	●	●
4	●	●	●	—
5	●	●	●	—
6	●	—	—	—



Wire hand brush crimped wire

Design:
- robust, handy design
- steel or brass wire (482420) corrugated, 0.30 mm thick
- plastic handle with hanging hole

Use:
Universal, especially for derusting and deburring

482400

482410

482400 Steel wire trimming
482410 Stainless steel wire trimming
482420 Stainless brass wire trimming

Total length mm	482400	482410	482420
265	●	●	●

Universal hand brush ROKI

Design and use:
- robust, slim wire brush
- 2 rows of wire, trimming length 22 mm
- very aggressive brush for general brushing tasks
- for cleaning of weld seams
- for removing brake abrasion from brake callipers
- with ergonomic two-component handle and eyelet

482425 Steel wire, smooth, thickness 0.35 mm
482426 Stainless steel wire, smooth, thickness 0.35 mm
482427 Brass wire, crimped, thickness 0.25 mm

Total length mm	482425	482426	482427	Quantity Filling rows	Bristle ∅ mm	Trimming length mm	Trimming height mm
225	●	●	●	2× 13	12	90	22

File brush

Design:
- with wire trimming (scratch strip)
- straight wooden body with rounded edges

Use:
For cleaning corrugated surfaces, especially of files

482700 Trimming height 8 mm

Trimming length × width mm	482700	Total length mm
100×25	●	210
115×40	●	260

Spark plug brush

Design:
- crimped brass wire in three rows
- wire thickness 0.20 mm
- straight wooden body with rounded edges
- trimming height 15 mm

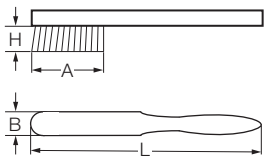
Use:
For cleaning tasks, esp. for spark plugs

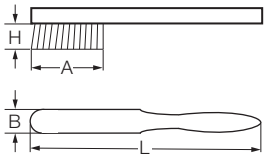
482800 Brass wire crimped

Trimming length mm	482800	Total length mm
20	●	200

Fine brush four-row

Design:
- beechwood handle, rounded edges
- for fine surface improvement, for cleaning and for the application of solutions and cleaning agents
- is characterized by a dense trimming





482810 brass wire, corrugated (0.15 mm)

A × H mm	482810	L mm	B mm
110×20	●	225	24

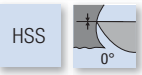
482812 Polyamide, smooth (0.30 mm)

A × H mm	482812	L mm	B mm
110×20	●	225	20

Machine saw blade HSS

Design:
- made of top class HSS DMo5
- **standard toothing, 0° rake angle**
- constant high hardness and great toughness
- optimum cutting performance and long tool life
- **490515** especially for Kasto machines with offset clamping hole

HSS



Use:
- for most cutting areas and materials with higher strength
- ideal for the treatment of a huge variety of different materials and dimensions

490510 Type SB-5

Length mm / Teeth per inch	490510	Width × thickness mm	Clamping hole mm
300/10	●	25 × 1.25	8.5
300/14	●	25 × 1.25	8.5
350/8	●	30 × 1.50	8.5
350/10	●	30 × 1.50	8.5
350/14	●	30 × 1.50	8.5
400/6	●	30 × 2.00	8.5
400/8	●	30 × 2.00	8.5
400/10	●	30 × 2.00	8.5
400/14	●	30 × 2.00	8.5
450/4	●	32 × 2.00	8.5
450/6	●	32 × 2.00	8.5
450/8	●	32 × 2.00	8.5
450/10	●	32 × 2.00	8.5
500/4	○	40 × 2.00	10.5
500/6	●	40 × 2.00	10.5
500/8	○	40 × 2.00	10.5
500/10	○	40 × 2.00	10.5
600/4	●	50 × 2.50	13.0
600/6	●	50 × 2.50	13.0
700/4	●	50 × 2.50	13.0
700/6	○	50 × 2.50	13.0

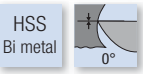
490515 Type SB-5 Kasto

Length mm / Teeth per inch	490515	Width × thickness mm	Clamping hole mm
450/4	●	40 × 2.00	8.5
450/6	●	40 × 2.00	8.5
450/8	●	40 × 2.00	8.5
500/4	○	48 × 2.50	10.5
500/6	○	48 × 2.50	10.5
500/8	○	48 × 2.50	10.5
550/4	●	45 × 2.00	10.5
550/6	●	45 × 2.00	10.5
575/3	○	50 × 2.50	10.5
575/4	●	50 × 2.50	10.5
575/6	●	50 × 2.50	10.5
600/4	○	50 × 2.50	13.0
650/3	○	55 × 2.50	10.5
650/4	●	50 × 2.50	10.5
650/6	○	55 × 2.50	10.5
700/4	●	55 × 2.50	10.5
700/6	●	55 × 2.50	10.5

Machine saw blade HSS bi-metal M2

Design:
- bi-metal bandsaw blade with **0° rake angle**
- tooth tips made of HSS-M2
- blade back made of elastic spring steel
- high cutting performance, even at high feed rates; absolutely unbreakable
- **490560** especially for Kasto machines with offset clamping bore

HSS
Bi metal



Use:
For sawing of solid material, tubes and profiles up to 1,400 N/mm².

490550 Type Ko-Bi

Length mm / Teeth per inch	490550	Width × thickness mm	Clamping hole mm
400/4	●	32 × 1.60	8.5
400/6	●	32 × 1.60	8.5
400/8	●	32 × 1.60	8.5
400/10	●	32 × 1.60	8.5
450/4	●	32 × 1.60	10.5
450/6	●	32 × 1.60	10.5
450/8	●	32 × 1.60	10.5
450/10	○	32 × 1.60	10.5
450/4EB	○	38 × 2.00	10.5
450/6EB	●	38 × 2.00	10.5
500/4	●	38 × 2.00	10.5
500/6	●	38 × 2.00	10.5
600/4	○	50 × 2.50	13.0
700/4	●	50 × 2.50	13.0
700/6	○	50 × 2.50	13.0

490560 Type Ko-Bi Kasto

Length mm / Teeth per inch	490560	Width × thickness mm	Clamping hole mm
450/4	●	38 × 2.00	8.5
450/6	●	38 × 2.00	8.5
450/8	●	38 × 2.00	8.5
450/10	○	38 × 2.00	8.5
500/4	●	50 × 2.50	10.5
550/4	●	50 × 2.50	10.5
550/6	○	50 × 2.50	10.5
575/4	●	50 × 2.50	10.5
575/6	●	50 × 2.50	10.5
600/3	○	50 × 2.50	10.5
600/4	●	50 × 2.50	10.5
600/6	●	50 × 2.50	10.5
650/4	○	50 × 2.50	10.5
650/6	●	50 × 2.50	10.5
700/4	○	50 × 2.50	10.5

Machine saw blade HSS-VP7, variable toothing

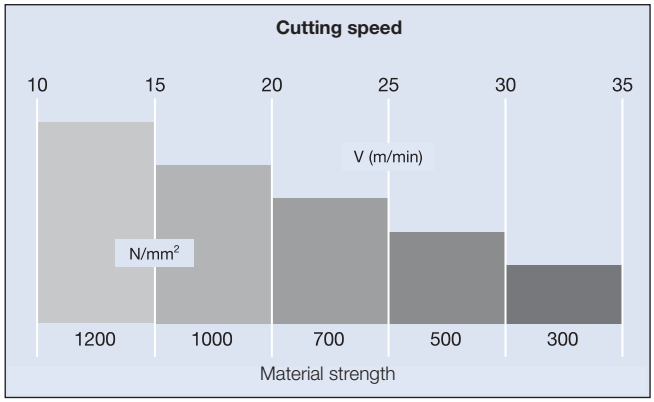
Design:
- **variable tooth pitch, 7° positive rake angle**
- pilot teeth for straight cut, variable tooth pitch for vibration-free and clean cut
- the advertised cutting data require a proper employment of the blade

HSS

Note:
Type S: Especially for Kasto machines with offset clamping bore

Use:
For stainless steel grades, long-chipping and stringy materials

With variable tooth pitch for a clean cut with low vibrations



491550 Type VP-7

Length mm / Teeth per inch	491550	Width × thickness mm	Clamping hole mm
300 - 4/7	●	30 × 2.0	8.5
350 - 3/4	●	35 × 2.0	8.5
350 - 4/7	●	35 × 2.0	8.5
350 - 6/10	●	35 × 2.0	8.5
400 - 3/4	●	30 × 2.0	8.5
400 - 4/7	●	30 × 2.0	8.5
400 - 6/10	●	30 × 2.0	8.5
400 - 3/4S	○	35 × 2.0	10.5
400 - 4/7S	●	35 × 2.0	10.5
400 - 6/10S	○	35 × 2.0	10.5
450 - 3/4	●	35 × 2.0	10.5
450 - 4/7	●	35 × 2.0	10.5
450 - 2/3S	○	40 × 2.0	Kasto
450 - 3/4S	●	40 × 2.0	Kasto
450 - 4/7S	●	40 × 2.0	Kasto

Length mm / Teeth per inch	491550	Width × thickness mm	Clamping hole mm
500 - 3/4	●	40 × 2.0	Kasto
500 - 4/7	○	40 × 2.0	Kasto
550 - 4/7S	○	50 × 2.5	13.0
575 - 2/3	○	50 × 2.5	Kasto
575 - 3/4	●	50 × 2.5	Kasto
575 - 4/7	○	50 × 2.5	Kasto
600 - 2/3	○	50 × 2.5	Kasto
600 - 3/4	●	50 × 2.5	Kasto
600 - 4/7	○	50 × 2.5	Kasto
650 - 3/4	○	55 × 2.5	Kasto
650 - 4/7	○	55 × 2.5	Kasto
700 - 2/3	○	55 × 2.5	Kasto
700 - 3/4	○	55 × 2.5	Kasto
700 - 4/7	○	55 × 2.5	Kasto
—	—	—	—

Machine saw blade HSS-P-13

Design:
- **claw tooth, 13° positive rake angle**
- excellent cutting results through cutting edge geometry; minor cutting edges stabilise the blade in the cutting duct
- esp. for the cutting of rust- and acid-resistant steels

HSS

Cutting data:
Tooth spacing:
3 teeth/inch for profiles from 50 - 200 mm
2 teeth/inch for profiles from 150 mm

Cutting speed: 10 to 20 m/min.

491650 Type P-13

Length mm / Teeth per inch	491650	Width × thickness mm	Clamping hole mm
350 - 3	○	35 × 2.0	8.5
400 - 3	●	35 × 2.0	10.5
450 - 3	○	40 × 2.0	Kasto
500 - 3	○	48 × 2.5	Kasto
575 - 2	○	50 × 2.5	Kasto

Length mm / Teeth per inch	491650	Width × thickness mm	Clamping hole mm
575 - 3	○	50 × 2.5	Kasto
600 - 2	○	50 × 2.5	Kasto
650 - 3	○	55 × 2.5	Kasto
700 - 3	○	55 × 2.5	Kasto
—	—	—	—

Metal Saw Band Bimetal

WIKUS Präzision an der Schnittstelle

Cutting Parameter Recommendations

Materials		Material dimensions Ø [mm] up to 50	51-75	76-100	101-150	151-200	201-250	251-300	Cooling [% oil]
		5-8	4-6	4-6 / 3-4	3-4	2-3	2-3	2-3	ZpZ
Structural, deep-drawing and machining steels: St37: 1.0037, C10: 1.0031 St42: 1.0040, C15: 1.0401	Vc	90	90	85-87	80-82	74-76	73-75	70-72	10-15
	Vf	83-85	67-69	60-63	37-40	32-34	24-26	20-23	
Structural and Q × T steels St52: 1.0057, St60: 1.0060 C35: 1.0501, C45: 1.0503	Vc	72-75	72-75	72-75	68-70	68-70	64-66	64-66	10-15
	Vf	70-75	56-58	50-52	32-35	28-31	23-25	18-20	
Case hardening and Q × T steels 16MNCr5: 1.17311 42CrMo4: 1.7225	Vc	63-65	63-65	63-65	58-60	58-60	55-57	55-57	10-15
	Vf	60-65	48-52	43-46	28-30	24-27	18-21	15-17	
Low alloy hot-working steels 40CrMnMo7: 1.2311, 55NiCrMoV6: 1.2713	Vc	42-45	42-45	42-45	38-40	38-40	38-40	36-37	10-15
	Vf	43-45	31-33	29-31	19-22	17-19	13-15	10-12	
Nitriding steels, higher alloy hot-working steels X40CrMoV51: 1.2344, 40CrMnNiMo864: 1.2738	Vc	41-42	41-42	37-39	37-39	35-36	35-36	34-35	10-15
	Vf	40-42	30-32	26-28	16-18	14-16	11-12	9-10	
Unalloyed tool steels 100Cr6: 1.3505, C125W: 1.1663	Vc	58-60	58-60	54-56	54-56	51-53	50-51	50-51	10-15
	Vf	59-61	43-44	39-41	24-26	22-24	17-18	14-15	
Cold-work steels X210Cr 12: 1.2080, X155CrVMo121: 1.2379	Vc	34-35	34-35	33-31	31-33	29-30	29-30	28-29	10-15
	Vf	33-35	24-26	20-21	14-15	12-13	9-10	7-8	
High speed steels S6-5-2: 1.3343, S2-10-1-8: 1.3247	Vc	48-50	48-50	45-47	43-44	43-44	40-42	40-42	10-15
	Vf	48-51	35-37	32-34	20-22	17-19	13-15	10-12	
Rust- and acid-resistant steels (light) X17CrNi16-2: 1.4057, X30Cr13: 1.4028, X42Cr13: 1.2083	Vc	45-47	45-47	42-44	42-44	40-41	40-41	38-38	10-15
	Vf	47-49	33-35	30-32	19-21	17-18	12-14	9-10	
Rust- and acid-resistant steels (heavy) X5CrNi18-10: 1.4301, X2CrNiMo17-12-2: 1.4404, X6CrNiMoTi17-12-2: 1.4571	Vc	38-40	38-40	36-37	35-36	33-34	33-34	31-32	10-15
	Vf	39-41	29-30	22-23	16-17	14-15	11-12	7-8	
Duplex and heat-resistant steels X15CrNiSi2525: 1.4841	Vc	27	26	25	23	22	21	20	10-15
	Vf	20	14	11	9	7	6	5	
Horizontale machines Alumining, Al-alloys: Al99,9 - AlMg4 - AlSi6Cu4	Vc	100	100	100	100	100	100	100	10-15
	Vf	95-100	80-85	75-80	50-55	45-50	40-45	35-40	
Copper / Brass KE-Cu: 2.0050 CuZn37: 2.0321, CuZn40Pb2: 2.0402	Vc	90	90	90	90	90	90	90	10-15
	Vf	85-90	65-70	60-65	45-50	40-45	30-35	25-30	

Vc: Cutting speed [m/min]
Vf: Feed [mm/min]

For proper breaking in use a new blade with approx. 50 % of the feed rate and 75 % of the cutting speed for a period of about 15 min. Specified parameters are only valid for untempered, annealed materials and are only guide values. If vibrations occur, the cutting speed has to be reduced gradually.

Metal saw band Bi-metal, welded standard lengths

WESPA

Design:
- bi-metal with **variable toothing**
- wearproof HSS M42 tooth tips
- for profiles and pipes please observe wall thickness
- powerful industrial saw band with high cutting performancel

Use:
Universal (type U):
Large application range, for sawing diverse material shapes
Solid material (type V):
Preferably for sawing solid material

HSS Bi metal

492000 Dimensions 2450 x 27 x 0.9 mm

Tooth pitch	492000	type	Solid material mm	Application
4/6	●	V	50 - 100	Solid material
5/8	●	U	35 - 90	Universal
6/10	●	U	25 - 70	Universal
8/12	●	U	20 - 40	Universal
10/14	●	U	< 25	Universal

492001 Dimensions 2710 x 27 x 0.9 mm

Tooth pitch	492001	type	Solid material mm	Application
3/4	●	V	80 - 150	Solid material
4/6	●	V	50 - 100	Solid material
5/8	●	U	35 - 90	Universal
6/10	○	U	25 - 70	Universal

492002 Dimensions 2750 x 27 x 0.9 mm

Tooth pitch	492002	type	Solid material mm	Application
4/6	●	V	50 - 100	Solid material
5/8	●	U	35 - 90	Universal
6/10	●	U	25 - 70	Universal
8/12	●	U	20 - 40	Universal

492004 Dimensions 3660 x 27 x 0.9 mm

Tooth pitch	492004	type	Solid material mm	Application
3/4	●	U	80 - 150	Universal
3/4V	●	V	80 - 150	Solid material
4/6	●	U	50 - 100	Universal
4/6V	●	V	50 - 100	Solid material
5/8	●	U	35 - 90	Universal
6/10	●	U	25 - 70	Universal
8/12	●	U	20 - 40	Universal
10/14	●	U	< 25	Universal

492006 Dimensions 3830 x 27 x 0.9 mm

Tooth pitch	492006	type	Solid material mm	Application
3/4	●	V	80 - 150	Solid material
4/6	○	V	50 - 100	Solid material
5/8	○	U	35 - 90	Universal
6/10	○	U	25 - 70	Universal

Metal saw band Bi-metal, welded standard lengths

WIKUS

Design:
- **Type VARIO® M42 / MARATHON® M42**
- bi-metal, with wear-resistant tooth edges made of HSS M42
- high tooth tip hardness, for steels up to 40 HRC
- **Variable tooth pitch:**
  Differing tooth distance within one toothing interval means **less vibrations, greater application range**

HSS Bi metal

Cutting parameters see page 49/935

Tooth shapes:
Standard tooth (S), rake angle 0°, for:
- short-chipping materials
- steels with high carbon content, cast iron
- workpieces with small cross-sections
- thin-walled profiles

Hook tooth (K), rake angle positive, for:
- universal use, especially for long-chipping, tough materials
- NF metals, construction steel, Q&T steel, stainless and acid-resistant steels
- workpieces with large cross-sections (profiles, solid material)

492010 Dimensions 1138 x 13 x 0.65 mm

Teeth per inch	492010	Design	Tooth profile
8/12S	●	VARIO® M42	S
10/14S	●	VARIO® M42	S

492015 Dimensions 1325 x 13 x 0.65 mm

Teeth per inch	492015	Design	Tooth profile
8/12S	●	VARIO® M42	S
10/14S	●	VARIO® M42	S

492020 Dimensions 2375 x 20 x 0.9 mm

Teeth per inch	492020	Design	Tooth profile
6/10S	●	VARIO® M42	S
8/12S	○	VARIO® M42	S
10/14S	●	VARIO® M42	S

492050 Dimensions 2450 x 27 x 0.9 mm

Teeth per inch	492050	Design	Tooth profile
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
6/10S	●	VARIO® M42	S
8/12S	●	VARIO® M42	S

492055 Dimensions 2710 x 27 x 0.9 mm

Teeth per inch	492055	Design	Tooth profile
5/8K	●	MARATHON® M42	K
8/12S	●	VARIO® M42	S

492060 Dimensions 2750 x 27 x 0.9 mm

Teeth per inch	492060	Design	Tooth profile
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
8/12S	●	VARIO® M42	S

Metal saw band Bi-metal, welded standard lengths

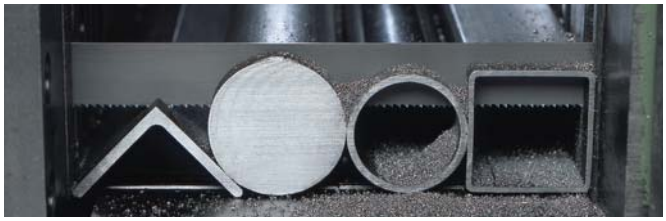
Design:
- bi-metal, with wear-resistant tooth edges made of HSS M42
- high tooth tip hardness, for steels up to 40 HRC
- **variable tooth pitch:**
  differing tooth distance within one toothing interval means
  less vibrations, greater application range

Tooth shapes:
Standard tooth (S), rake angle 0°, for:
- short-chipping materials
- steels with high carbon content, cast iron
- workpieces with small cross-sections
- thin-walled profiles

Hook tooth (K), rake angle positive, for:
- universal use, especially for long-chipping, tough materials
- NF metals, construction steel, Q&T steel, stainless and acid-resistant steels
- workpieces with large cross-sections (profiles, solid material)

HSS
Bi metal

Cutting parameters see page 49/935



492065 Dimensions 2835 x 27 x 0.9 mm

Teeth per inch	492065	Design	Tooth profile
5/8K	●	MARATHON® M42	K
6/10S	●	VARIO® M42	S

492070 Dimensions 2910 x 27 x 0.9 mm

Teeth per inch	492070	Design	Tooth profile
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
6/10S	●	VARIO® M42	S
8/12S	○	VARIO® M42	S

492072 Dimensions 2950 x 27 x 0.9 mm

Teeth per inch	492072	Design	Tooth profile
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
8/12S	○	MARATHON® M42	K

492075 Dimensions 3150 x 27 x 0.9 mm

Teeth per inch	492075	Design	Tooth profile
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
6/10S	●	VARIO® M42	S
8/12S	○	VARIO® M42	S

492080 Dimensions 3660 x 27 x 0.9 mm

Teeth per inch	492080	Design	Tooth profile
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K
4/6S	●	VARIO® M42	S
5/8K	●	MARATHON® M42	K
6/10S	●	VARIO® M42	S
8/12S	●	VARIO® M42	S
10/14S	●	VARIO® M42	S

492087 Dimensions 3800 x 34 x 1.1 mm

Teeth per inch	492087	Design	Tooth profile
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K

492090 Dimensions 3830 x 27 x 0.9 mm

Teeth per inch	492090	Design	Tooth profile
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K
5/8K	●	MARATHON® M42	K
6/10S	○	VARIO® M42	S

492092 Dimensions 4100 x 34 x 1.1 mm

Teeth per inch	492092	Design	Tooth profile
2/3K	●	MARATHON® M42	K
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K

492094 Dimensions 4150 x 34 x 1.1 mm

Teeth per inch	492094	Design	Tooth profile
2/3K	●	MARATHON® M42	K
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K

492096 Dimensions 4400 x 34 x 1.1 mm

Teeth per inch	492096	Design	Tooth profile
2/3K	●	MARATHON® M42	K
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K

492098 Dimensions 4640 x 34 x 1.1 mm

Teeth per inch	492098	Design	Tooth profile
2/3K	●	MARATHON® M42	K
3/4K	●	MARATHON® M42	K
4/6K	●	MARATHON® M42	K

492099 Dimensions 5000 x 34 x 1.1 mm
492097 Dimensions 5090 x 34 x 1.1 mm

Teeth per inch	492097	492099	Design	Tooth profile
2/3K	●	●	MARATHON® M42	K
3/4K	●	●	MARATHON® M42	K
4/6K	●	●	MARATHON® M42	K

Metal saw band Bi-metal, endless welded

Design:
- for customized manufacturing of endless welded saw blades
- base structure made of high-alloyed tempered steel

Variable tooth pitch:
- greater application range
- significant reduction of vibrations

VARIO®/MARATHON® M42:
- **for universal use** in single and serial cuts
- for small and medium size workpieces
- for steels up to 40 HRC and NF metals

PROFLEX® M42
- with profile tooth for universal workshop operation
- for the **cutting of profiles** in single, layer and bundle cut as well as of steel beams
- increased service life span, low burr formation

SELEKTA® GS M42
- with ground guide tooth (hook tooth)
- especially for performance-related use with optimum surface finish
- **Use in tough and long-chipping materials**

MARATHON® X3000:
- **for difficult to machine materials** and high-alloy steels up to 45 HRC
- for solid material
- for layer and bundle cuts

Tooth shapes:
S = standard tooth
K = claw tooth
P = profile tooth

HSS Bi metal | PU 5 pieces

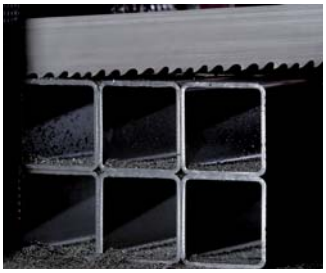
Minimum order quantity: 5 pieces

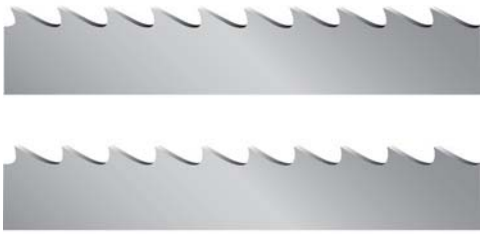
Price per meter!

Welding costs per saw band (SELEKTA):
Blade width 13 mm = 6.45 €
Blade width 20 mm = 6.45 €
Blade width 27 mm = 6.45 € (8.53 €)
Blade width 34 mm = 7.49 € (10.09 €)
Blade width 41 mm = 8.53 € (11.96 €)

Calculation example:
Saw blade length × price/meter + welding costs = final price

Cutting parameters see page 49/935





492170 Combi toothing, VARIO/MARATHON® M42

Width × thickness mm / Teeth per inch	492170	Width × thickness mm / Teeth per inch	492170
13×0,65/6/10S	○	27×0,9/5/8K	○
13×0,65/8/12S	○	34×1,1/2/3K	○
13×0,65/10/14S	○	34×1,1/3/4K	○
NEW! 20×0,9/5/8S	○	34×1,1/4/6K	○
20×0,9/6/10S	○	34×1,1/5/8K	○
20×0,9/8/12S	○	41×1,3/2/3K	○
20×0,9/10/14S	○	41×1,3/3/4K	○
27×0,9/2/3K	○	41×1,3/4/6K	○
27×0,9/3/4K	○	41×1,3/5/8K	○
27×0,9/4/6S	○	—	—

492172 Profile toothing, PROFLEX® M42

Width × thickness mm / Teeth per inch	492172	Width × thickness mm / Teeth per inch	492172
27×0,9/4/6P	○	34×1,1/5/7P	○
27×0,9/5/7P	○	34×1,1/8/11P	○
27×0,9/8/11P	○	41×1,3/3/4P	○
34×1,1/3/4P	○	41×1,3/5/7P	○
34×1,1/4/6P	○	—	—

492174 Combi toothing, SELEKTA® GS M42

Width × thickness mm / Teeth per inch	492174	Width × thickness mm / Teeth per inch	492174
27×0,9/2/3K	○	34×1,1/3/4K	○
27×0,9/3/4K	○	34×1,1/4/6K	○
27×0,9/4/6K	○	41×1,3/1,4/2K	○
34×1,1/2/3K	○	41×1,3/2/3K	○

492180 Combi toothing, MARATHON® X3000

Width × thickness mm / Teeth per inch	492180	Width × thickness mm / Teeth per inch	492180
27×0,9/3/4K	○	34×1,1/3/4K	○
27×0,9/4/6K	○	34×1,1/4/6K	○
27×0,9/5/8K	○	41×1,3/2/3K	○
34×1,1/2/3K	○	41×1,3/3/4K	○

Metal saw band in rolls (30.5 m)

Design:
Type 510 DIAMOND
- made of high-alloy steel
- hardened tooth tips and tempered back
- for low alloy steels with low strength and NF metals
- standard industrial quality

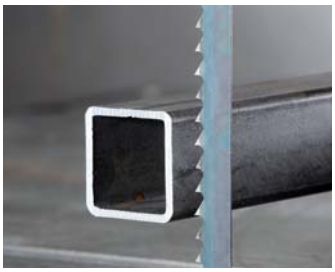
Type 526 BIFLEX® M42 (HSS bimetal)
- base structure made of high-alloyed tempered steel
- tooth tips made of HSS-M42
- constant toothing

Tooth shapes:
Standard tooth (S), rake angle 0°, for:
- short-chipping materials
- steels with high carbon content, cast iron
- workpieces with small cross-sections
- thin-walled profiles and thin sheets

Hook tooth (K), rake angle positive, for:
- universal use, especially for long-chipping, tough materials
- NF metals, construction and Q&T steel
- workpieces with large cross-sections (profiles, solid material)

Delivery:
Roll of 30.5 m each

WS | HSS Bi metal



Cutting parameters see page 49/935

492110 HSS, 510 DIAMOND

Width × thickness mm / Teeth per inch	492110	Width × thickness mm / Teeth per inch	492110	Width × thickness mm / Teeth per inch	492110
6×0,65/6K	●	8×0,65/10S	●	13×0,65/6K	●
6×0,65/8S	●	8×0,65/14S	●	13×0,65/8S	○
6×0,65/10S	●	10×0,65/6K	●	13×0,65/10S	●
6×0,65/14S	●	10×0,65/8S	●	13×0,65/14S	●
8×0,65/6K	●	10×0,65/10S	●	16×0,65/6K	○
8×0,65/8S	●	10×0,65/14S	●	16×0,65/14S	○

492120 HSS bi-metal, 526 BIFLEX® M42

Width × thickness mm / Teeth per inch	492120	Width × thickness mm / Teeth per inch	492120	Width × thickness mm / Teeth per inch	492120
6×0,9/6K	●	13×0,65/6K	○	13×0,9/6K	○
10×0,9/6K	●	13×0,65/14S	○	—	—

Metal saw band HM, endless welded

Design:
- carbide tipped metal saw band

DUROSET®:
- hook tooth (K), rake angle positive for universal application, set version
- good performance, good finish
- for universal application, also for no HM-ready machines

ECODUR®:
- trapezoid tooth (T), rake angle positive for high performance, unset version
- high performance, excellent finish

Minimum order quantity: 1 piece

Price per meter!

Welding costs for saw bands:
Blade width 27 mm = 6.45 €
Blade width 34 mm = 7.49 €
Blade width 41 mm = 8.53 €

Calculation example:
Saw blade length × price/meter + welding costs = final price

Carbide

492190 HM, DUROSET®

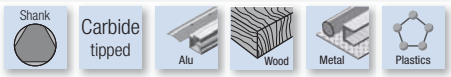
Width × thickness mm / Teeth per inch	492190
27×0,9/3/4K	○
34×1,1/2/3K	○
34×1,1/3/4K	○
41×1,3/2/3K	○

492192 HM, ECODUR®

Width × thickness mm / Teeth per inch	492192
27×0,9/2/3T	○
27×0,9/3/4T	○
34×1,1/2/3T	○
34×1,1/3/4T	○
41×1,3/2/3T	○
41×1,3/3/4T	○

HM hole saw

Design:
- crest and shank **made of one piece**
- with exchangeable spotting drill to prevent damage of the carbide teeth, plus ejector spring
- **shank with 3 clamping surfaces** for secure hold in the chuck
- repeated regrinding possible



493000: Flat cut version for material thickness up to 4 mm and cutting depth 12 mm
493010: Deep cut version for material thickness up to 4 mm and clear width 35 mm (up to ∅ 60 mm) or 60 mm (from ∅ 61)

Use:
- for premium steel up to max. 2 mm thickness
- for unalloyed steel, cast, NF metal and aluminium up to max. 4 mm thickness and for asbestos, glass fibre, plastic, gypsum and wallboards as well as for wood

Note:
For HSS hole saws (bi-metal) see 494000 in catalogue "Elektrowerkzeuge" (Power Tools)

493000
Flat cut version

493010
Deep cut version

493000 Flat-cut version

∅ mm	493000	Shank ∅ mm	∅ mm	493000	Shank ∅ mm	∅ mm	493000	Shank ∅ mm
16	●	9	28	●	11	51	○	11
17	●	9	30	●	11	52	○	11
18	●	9	32	●	11	55	○	11
19	●	9	33	○	11	60/PG48	●	13
20	●	9	34	●	11	62	○	13
20,5/PG13	●	9	35	●	11	64	○	13
21	●	9	38	●	11	65	●	13
22	●	9	40	●	11	70	○	13
22,5/PG16	●	11	41	●	11	75	○	13
23	●	11	42	○	11	80	●	13
24	○	11	43	●	11	85	○	13
25	●	11	45	●	11	90	○	13
26	●	11	48	○	11	—	—	—
27	●	11	50	●	11	—	—	—

493010 Deep cut version

∅ mm	493010	Shank ∅ mm	∅ mm	493010	Shank ∅ mm	∅ mm	493010	Shank ∅ mm
20	●	9	32	○	11	50	●	11
22	○	9	35	○	11	60/PG48	●	13
25	●	11	40	○	11	70	○	13
30	○	11	45	○	11	75	○	13

493030 Spare centre drill HSS for flat cut version

type	493030	fitting for hole saws from - up to mm	type	493030	fitting for hole saws from - up to mm
C6	●	15 - 60	C8	○	61 - 120

493040 Spare centre drill HSS for deep cut version

type	493040	fitting for hole saws from - up to mm	type	493040	fitting for hole saws from - up to mm
C6	○	15 - 60	C8	○	61 - 120

Laplander set

Design:
- Laplander pruning saw with universal knife
- folding pruning saw with patented XT toothing
- including a high-quality Swedish hunting knife

498040 including hunting knife

type	498040	Design
0010	●	Saw 102 mm, total length 220 mm

Hand saw blade Bi-metal, unbreakable

Design:
- high-performance bi-metal saw blade with highest cutting performance and service life
- teeth made of HSS, hardened and straight-set, serrated and proof against chip breaking
- back made of tough spring steel, indissolubly bonded by a special welding process
- huge elasticity with coincident high cutting performance and splendid blade guidance
- guaranteed unbreakable

HSS Bi metal

PU 10 pieces

495990 PRECITOOL, handsaw blade
496000 BAHCO, handsaw blade

Total length mm - Number of teeth per inch	495990	496000	Total length × width × thickness mm
300 - 24	●	●	300 × 13 × 0.65
300 - 18	—	●	300 × 13 × 0.65

Hand saw blade Bi-metal, unbreakable

Design and use:
Like 495990, however with progressive toothing

HSS Bi metal

PU 10 pieces

Progressive toothing:
The toothing starts with 32 teeth/inch at the first cut section, descends to 24 teeth in the middle section and finally to 18 teeth/inch at the lower end

Advantage:
- easy cutting start, crucial higher performance and cutting force
- universal applications ranging from steel to light metal

496080 PRECITOOL, with progressive toothing

Total length mm - Number of teeth per inch	496080	Total length × width × thickness mm
300 - 18/32	●	300 × 13 × 0.65

Metal saw bow

Design:
- sturdy, heavy metal frame made of flat steel with bi-metal blade
- square spanner with cross recesses and captive pegs incl. blade
- positioning of blade from 0 - 90° possible
- 24 teeth per inch

HSS Bi metal

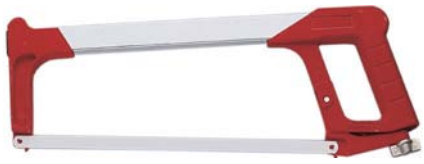
497000 with bi-metal saw blade

Total length mm	497000
530	●

Metal saw bow

Design:
- robust aluminium construction for universal application
- blade tension at 0° and 55°
- with bi-metal blade

HSS Bi metal



497050 with bi-metal blade and hand guard

Total length mm	497050
400	●

Metal saw bow

Design and use:
- high clamping force of 100 kg for straight, clean cuts with exact kerfs
- light-weight two-component frame with steel core
- optional blade clamping at 55° for flush cuts
- clamping mechanism integrated in handle
- with a virtually unbreakable SANDFLEX bi-metal blade

HSS Bi metal

497210 ergo® with rapid clamping

type	497210	Total length mm
319	●	400

Metal saw bow

Design and use:
- with very high clamping force for straight, clean cuts with exact kerfs
- centred blade for proper balance
- spring-supported blade mounting for quick change
- optional blade clamping at 55° for flush cuts
- with a virtually unbreakable SANDFLEX bi-metal blade

HSS Bi metal

497200 ergo® with automatic blade tensioning system

type	497200	Total length mm
325	●	400

Metal compass saw

Design:
- handle made of zinc injection moulding
- clamping bolts for blade integrated in handle
- 8 various blade settings possible
- with SANDFLEX bi-metal blade, 24 teeth per inch

HSS Bi metal

497250 with bi-metal saw blade
497252 Spare compass saw blade, metal
497254 Spare compass saw blade, wood, without fig.

type	497250	497252	497254	Total length mm
321	●	●	●	310

Metal saw PUK

Design:
- with adjustable or rigid handle
- in the adjustable version the handle may be brought to any desired position

Note:
In packaging units only!

497300 with adjustable handle
497350 with fixed handle
497400 Spare saw blade, metal (PU = 12 pcs)

Total length mm	497300	497350	497400
310	●	—	—
290	—	●	—
150	—	—	●

Backsaw

Design:
- high-performance dovetail saw with hardened tooth tips
- teeth precision ground and straight-set
- universal toothing for cutting along the fibre or crosswise to it
- precise, clean cut, wooden handle

Type 310: Straight handle
Type 311: Cranked handle
Type 312: Foldable handle

497600 for wood and plastic

type	497600	Handle shape
310	●	straight
311	●	cranked
312	●	foldable

Metal saw bow Mini

Design:
- robust mini frame made of aluminium
- with 6-fold non-varying blade adjustment options
- fitting spare blades see 497400

497450 made of aluminium

type	497450
133	●

Mitre block

Design:
- mitre box made of solid wood, screwed and lacquered
- for L.H and R.H. operation at angles of 45°, 90° and 135°

497650 BAHCO

Total length mm	497650	W × H mm
300	●	140 × 50

Fret saw bow

Design:
- robust steel tube frame 12 × 1 mm cross section
- cutting depth 300 mm/12" with clamping jaws and wing nut
- fret saw blades in hardened, extra tough but flexible quality
- price per PU

497800 for metal, with wooden handle (without blade)
497850 Fret saw blade for metal (PU = 12 pieces)

Type/ toothing	497800	497850
502	●	—
GROB	—	●
MITTEL	—	●
FEIN	—	●

Mini bow saw

Design:
- in toolbox size
- oval frame of sturdy steel tube
- with a 300 mm (12'') type 51 blade (peg tooth) for wood cutting and a SANDFLEX® bi-metal hacksaw blade for metal and plastic
- plastic tooth protection, knuckle guard and clamping lever
- fitting spare blades for metal and plastic see 496000

498020 BAHCO
498022 Spare blade for wood

Blade length mm	498020	498022
300	●	●

Rip saw

Design:
- XT toothing with 9/10 teeth/inch, extremely efficient at medium hard materials like chipboard or plastic
- tooth tips ground and hardened
- thicker blade for vibration-free sawing
- two-component ERGO™ handle for comfortable handling
- rustproof, with tooth protection guard
- handle with 45° and 90° angle stop

498000 Superior XT

Blade length mm	498000
475	●
550	●

Design:
- for all kinds of wood
- hardened tooth tips, teeth precision ground for optimum cutting performance
- universal toothing for sawing with or against the fibre direction
- robust, screwed plastic handle with 45° and 90° angle stop

497900 PrizeCut™

Blade length mm	497900	Teeth per inch
375	●	11/12
475	●	7/ 8

Bow saw

Design:
- with very sturdy frame made of high-quality steel
- for sophisticated tasks, e.g. in the building trade

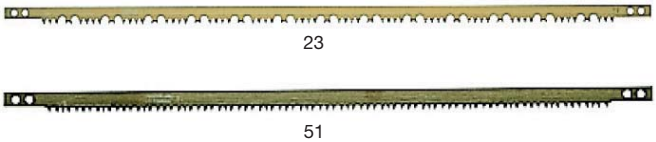
Advantages:
- light frame, 30“, 865 g, for easy handling
- clamping mechanism, for high blade tension (up to 120 kg) ensures straight cutting
- simple and secure change of blades through setscrew
- injection-moulded undetachable ergonomic handle with knuckle shield

498030 Bow saw

Blade length mm	498030
759	●

Design:
- made of hardened Swedish steel
- tooth tips hardened
- teeth precision ground and set

Type 23: Rip toothing
Type 51: Clustered toothing



498035 Saw blade

type	498035
23	●
51	●