## HSS and cemented carbide milling bits
**For electric and compressed air operated machines and systems with flexible shafts**

**Recommendations for use:**

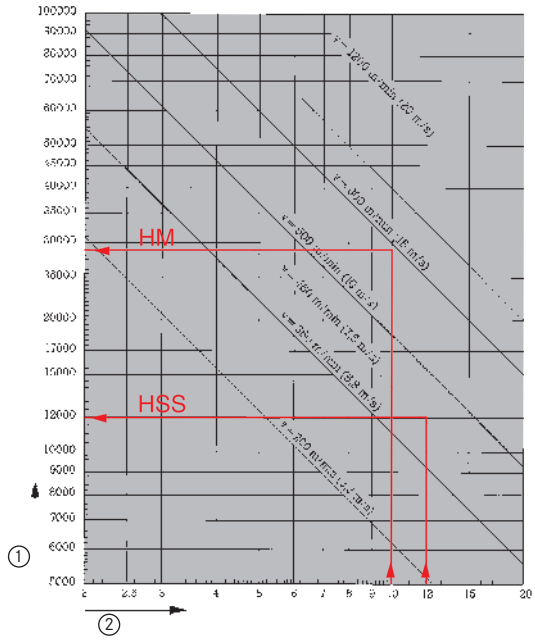
**Optimal rotation speed and performance of the tool drive (compressed air, electrics, flexible shaft) are crucial for efficient use of cemented carbide milling bits.**

- Use the highest possible rotation speeds within the recommended ranges of rotation speed/cutting speed.
- Pay particular attention to the rotation speed recommendations when working with materials with poor thermal conductivity, such as stainless steel, titanium alloys etc. so that you do not damage the tool. Blue colouration of the shaft and tool should be avoided.
- Only use clamping systems/drives without play; knocking and rattling of the tools results in premature wear.
- Do not choose a milling bit clamping length that is too small. Rule: Minimum clamping length is 2/3 of the shaft length.

**When selecting the milling bits, take into account the material to be processed and the rotation speed.**

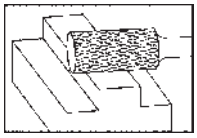
**To determine the correct rotation speed range for the particular HSS or cemented carbide milling bit in your application, please note the following:**

- Choose the toothing you want based on the material that will be processed and the resulting cutting speed.
- Find your required cutting diameter and the calculated cutting speed for the chosen toothing in the diagram on the right. The point where the lines cross gives you the required rotation speed range.

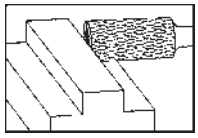



① Rotation speed (rpm), ② Cutting diameter (mm)

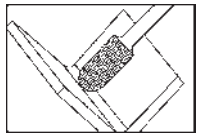
**Milling bit shapes and their applications:**



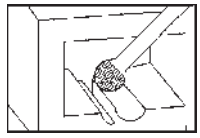
**Shape:** Cylindrical without end cut (ZYA)



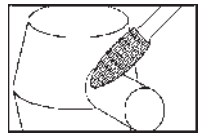
**Shape:** Cylindrical with end cut (ZYAS)



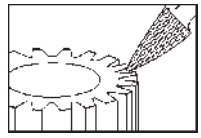
**Shape:** Cylindrical with radius end (WRC)



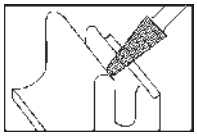
**Shape:** Ball (KUD)



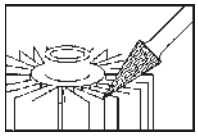
**Shape:** Flame (SH)



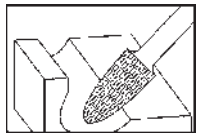
**Shape:** Pointed tree shape (SPG)



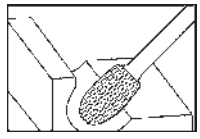
**Shape:** Conical shape with radius end (KEL)



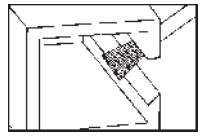
**Shape:** Pointed tree shape (SPG)



**Shape:** Tree shape with radius end (RBF)



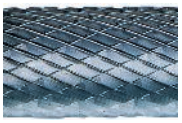
**Shape:** Oval (TRE)



**Shape:** Inverted cone (WKN)

## Carbide burrs
**Shank diameter: 3 mm**

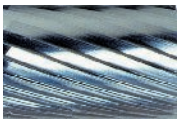
**Application:**
For deburring and finishing work on cast parts, roughly machined work-pieces or welding seams - can be used in hand-guided or on stationary machines.



**TOOTHING 6**
Staggered tooth system, universal application

**Cutting speed:**
450-900 m/min

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



**TOOTHING 2**
Standard tooth system, universal application

**Cutting speed:**
400-800 m/min

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

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

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

Prod. Gr. 6CG

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

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

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

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

**Technical data:**
- Number of pieces in assortment/set: 10 PCS

| 76003... | Ident. No. | 921 |
|---|---|---|
| | | ● |

Prod. Gr. 6CG


Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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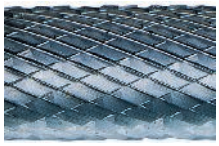
## Carbide burrs
**Shank diameter 6 mm**

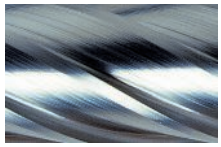
**Application:**
For deburring and finishing work on cast parts, roughly machined workpieces or welding seams - can be used in hand-guided or on stationary machines.



**TOOTHING 6**
Staggered tooth system, universal application

**Cutting speed:**
450-900 m/min

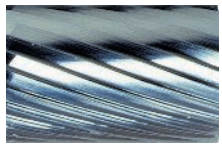
**Material:** brass, copper, cast iron, bronze, unhardened and hardened steel, stainless steel, titanium



**ALU TOOTHING**

**Cutting speed**:
600-960 rpm

**Material:** aluminium, plastics, non-ferrous metals, light metals



**TOOTHING 2**
Standard tooth system, universal application

**Cutting speed:**
400-800 m/min

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

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

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

Prod. Gr. 6CG

## ATORN® Cemented carbide milling bit sets (DIN Similar to 8033)

**Shaft diameter 6 mm, teeth 6**

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

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

**Advantage:**
- **Ident. No. 920:** With TiAlN coating for longer service life, strength and effective manufacture

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

Ident. No. 920

Ident. No. 931

| Number of pieces in assortment/set (PCS) | | 5 | 10 |
|---|---|---|---|
| 76006... | Ident. No. | 920 | 931 |
| | | ● | ● |

Prod. Gr. 6CG

## PFERD cemented carbide milling bits

**Shaft diameter 3 and 6 mm, toothing 3 Plus**

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

**PFERD TOOTHING 3 PLUS:**
Universal staggered tooth system for rough machining

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

### PFERD Carbide burrs

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

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

Prod. Gr. 6AB

### PFERD Carbide burrs

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

| | Form | Head Ø x cutting edge length | Length (mm) | Serration type 3 PLUS 76007... Ident. No. | |
|---|---|---|---|---|---|
| | Cylindrical shape with spur cut | 6 x 16 mm | 55 | 375 | ● |
| | Cylindrical shape with spur cut | 8 x 20 mm | 60 | 380 | ● |
| | Cylindrical shape with spur cut | 10 x 20 mm | 60 | 385 | ● |
| | Cylindrical shape with spur cut | 12 x 25 mm | 65 | 390 | ● |
| | Cylindrical shape with spur cut | 16 x 25 mm | 65 | 395 | ● |
| | Ball shape | 6 x 5 mm | 45 | 425 | ● |
| | Ball shape | 8 x 7 mm | 47 | 430 | ● |
| | Ball shape | 10 x 9 mm | 49 | 435 | ● |
| | Ball shape | 12 x 10 mm | 51 | 440 | ● |
| | Ball shape | 16 x 14 mm | 54 | 445 | ● |
| | Cylindrical shape | 6 x 16 mm | 55 | 470 | ● |
| | Cylindrical shape | 8 x 20 mm | 60 | 475 | ● |
| | Cylindrical shape | 10 x 20 mm | 60 | 480 | ● |
| | Cylindrical shape | 12 x 25 mm | 65 | 485 | ● |
| | Flame configuration | 8 x 20 mm | 60 | 500 | ● |
| | Flame configuration | 12 x 30 mm | 70 | 505 | ● |
| | Flame configuration | 16 x 35 mm | 75 | 510 | ● |


Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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| | Form | Head Ø x cutting edge length | Length (mm) | Serration type 3 PLUS 76007... Ident. No. | |
|---|---|---|---|---|---|
| | Ogive shape | 6 x 18 mm | 55 | 540 | ● |
| | Ogive shape | 8 x 20 mm | 60 | 545 | ● |
| | Ogive shape | 10 x 20 mm | 60 | 550 | ● |
| | Ogive shape | 12 x 25 mm | 65 | 555 | ● |
| | Cone with rounded end | 8 x 20 mm | 60 | 570 | ● |
| | Cone with rounded end | 10 x 20 mm | 60 | 575 | ● |
| | Cone with rounded end | 12 x 25 mm | 65 | 580 | ● |
| | Cone with rounded end | 16 x 30 mm | 70 | 590 | ● |
| | Conical pointed | 6 x 18 mm | 55 | 620 | ● |
| | Conical pointed | 10 x 20 mm | 60 | 625 | ● |
| | Conical pointed | 12 x 25 mm | 65 | 630 | ● |
| | Semicircular shape | 6 x 18 mm | 55 | 660 | ● |
| | Semicircular shape | 8 x 20 mm | 60 | 665 | ● |
| | Semicircular shape | 10 x 20 mm | 60 | 670 | ● |
| | Semicircular shape | 12 x 25 mm | 65 | 675 | ● |
| | Semicircular shape | 16 x 30 mm | 70 | 680 | ● |
| | Drop shape | 6 x 10 mm | 50 | 710 | ● |
| | Drop shape | 10 x 16 mm | 56 | 715 | ● |
| | Drop shape | 2 x 20 mm | 60 | 720 | ○ |

Prod. Gr. 6AB

## Cemented carbide milling bit sets

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

**Application:**
For deburring, processing contours, fettling, altering geometries.

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

**Delivery:**
**Ident. No. 750:** ZYA 0616/6 Z3 PLUS, KUD 0605/6 Z3 PLUS, WRC 0616/6 Z3 PLUS, SPG 0618/6 Z3 PLUS, RBF 0618/6 Z3 PLUS
**Ident. No. 760:** ZYA 1225/6 Z3 PLUS, KUD 1210/6 Z3 PLUS, WRC 1225/6 Z3 PLUS, SPG 1225/6 Z3 PLUS, RBF 1225/6 Z3 PLUS

**Technical data:**
- Number of pieces in assortment/set: 5

Ident. No. 760

Ident. No. 750

| Head Ø (mm) | 76007... Ident. No. | |
|---|---|---|
| 6 | 750 | ● |
| 12 | 760 | ● |

Prod. Gr. 6AB

## PFERD cemented carbide milling bits
**shaft diameter 6 mm, high-performance STEEL and INOX toothing**

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

**PFERD STEEL TOOTHING**
High-performance toothing for rough machining

**Cutting speed:** 450-750 m/min

**Material:**
Unhardened, non-tempered steels up to 1200 N/mm² (< 38 HRC)
Hardened, tempered steels over 1200 N/mm² (> 38 HRC)

**PFERD INOX TOOTHING**
High-performance toothing for rough machining

**Cutting speed:** 450-600 m/min

**Material:** stainless and acid-resistant steels

## Cemented carbide milling burrs
**shaft diameter 6 mm, high-performance toothing, STEEL and STAINLESS STEEL (according to DIN 8033)**

| | Form | Head Ø x cutting edge length | Length (mm) | Serration type STEEL 76007... Ident. No. | | INOX 76007... Ident. No. | |
|---|---|---|---|---|---|---|---|
| | Cylindrical | 6 x 16 mm | 55 | 010 | ● | - | - |
| | Cylindrical | 8 x 20 mm | 60 | 020 | ● | 015 | ● |
| | Cylindrical | 12 x 25 mm | 65 | 030 | ● | 025 | ● |
| | Cylindrical | 10 x 20 mm | 60 | - | - | 035 | ● |
| | Cylindrical shape with spur cut | 10 x 20 mm | 60 | 040 | ● | - | - |
| | Cylindrical shape | 6 x 16 mm | 55 | 065 | ● | 060 | ● |
| | Cylindrical shape | 8 x 20 mm | 60 | 075 | ● | 070 | ● |
| | Cylindrical shape | 10 x 20 mm | 60 | 085 | ○ | 080 | ● |
| | Cylindrical shape | 12 x 25 mm | 65 | 095 | ● | 090 | ● |
| | Cylindrical shape | 16 x 25 mm | 65 | 100 | ● | - | - |
| | Ball shape | 6 x 5 mm | 45 | 125 | ● | 120 | ● |
| | Ball shape | 8 x 7 mm | 47 | 135 | ● | 130 | ● |
| | Ball shape | 10 x 9 mm | 49 | 145 | ● | 140 | ● |
| | Ball shape | 12 x 10 mm | 51 | 155 | ● | 150 | ● |
| | Ball shape | 16 x 14 mm | 54 | 160 | ● | - | - |
| | Semicircular shape | 6 x 18 mm | 55 | 185 | ● | 180 | ● |
| | Semicircular shape | 8 x 20 mm | 60 | 200 | ● | 195 | ● |
| | Semicircular shape | 10 x 20 mm | 60 | 210 | ● | 205 | ● |
| | Semicircular shape | 12 x 25 mm | 65 | 225 | ● | 220 | ● |
| | Ogive shape | 6 x 18 mm | 55 | 245 | ● | 240 | ● |
| | Ogive shape | 8 x 20 mm | 60 | 255 | ● | 260 | ● |
| | Ogive shape | 10 x 20 mm | 60 | 270 | ● | 265 | ● |
| | Ogive shape | 12 x 25 mm | 65 | 280 | ● | 275 | ● |
| | Cone with rounded end | 10 x 20 mm | 60 | 305 | ● | 300 | ● |
| | Cone with rounded end | 12 x 30 mm | 70 | 315 | ● | 310 | ● |

Prod. Gr. 6AB

## Cemented carbide milling bits set, 1812 STEEL
**5 cemented carbide milling bits, shaft diameter 6 mm, toothing STEEL**

**Application:**
For deburring, processing contours, fettling, altering geometries.

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

**Advantage:**
- Up to 50% higher cutting performance when used on steel and cast steel in comparison to milling bits with conventional cross splines
- Noticeably increased aggressiveness, large chips and very good chip removal through innovative tooth geometry
- Preservation of tool and workpiece through significantly lower thermal load

**Delivery:**
1 piece each: ZYA 1225/6 STEEL, KUD 1210/6 STEEL, WRC 1225/6 STEEL, RBF 1225/6 STEEL, SPG 1225/6 STEEL

**Technical data:**
- Number of pieces in assortment/set: 5

| 76007... Ident. No. | |
|---|---|
| 350 | ● |

Prod. Gr. 6AB


Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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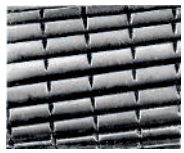
## ATORN HSS milling bits
**Shank diameter 6 mm**

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

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

**Cutting speed:**
200-300 m/min

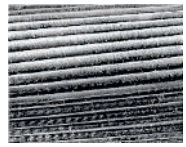
**Material:** Aluminium (long-chipping), light metal alloys, lead, tin, plastic materials (thermoplastics and duroplastics) fibre, rubber, wood



**TOOTHING 2:**
Robust plain toothing, with chip breaker groove

**Cutting speed:**
150-300 m/min

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



**TOOTHING 3:**
Medium plain toothing, with chip breaker groove

**Cutting speed:**
60-180 m/min

**Material:** steel and steel casting, alloyed and unalloyed

## ATORN® HSS milling bit
**Shaft diameter 6 mm**

| | Form | Cutting edge Ø x cutting edge length | Length (mm) | Serration type 2 | | 3 | | 1 | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 76001... Ident. No. | | 76001... Ident. No. | | 76001... Ident. No. | |
| | Ball shape | 4.5 x 4.0 mm | 60 | 222 | ● | 223 | ● | - | - |
| | Ball shape | 6.0 x 5.0 mm | 60 | - | - | 226 | ● | - | - |
| | Ball shape | 8.0 x 7.0 mm | 60 | 232 | ● | 233 | ● | 231 | ● |
| | Ball shape | 12.0 x 10.0 mm | 60 | 242 | ● | 243 | ● | 241 | ● |
| | Ball shape | 16.0 x 14.0 mm | 60 | 252 | ● | 253 | ● | 251 | ● |
| | Cone with rounded end | 16.0 x 30.0 mm | 70 | 362 | ● | 363 | ● | 361 | ● |
| | Conical | 12.0 x 30.0 mm | 70 | 292 | ● | - | - | - | - |
| | Conical pointed | 10.0 x 20.0 mm | 60 | 152 | ● | 153 | ● | - | - |
| | Conical pointed | 6.0 x 18.0 mm | 58 | 192 | ● | 193 | ● | - | - |
| | Conical pointed | 12.0 x 30.0 mm | 70 | 312 | ● | 313 | ● | 311 | ● |
| | Cylindrical shape | 6.0 x 20.0 mm | 60 | 172 | ● | 173 | ● | 171 | ● |
| | Cylindrical shape | 12.0 x 25.0 mm | 65 | 322 | ● | 323 | ● | 321 | ● |
| | Cylindrical | 10.0 x 13.0 mm | 53 | 112 | ● | 113 | ● | - | - |
| | Cylindrical | 6.0 x 16.0 mm | 56 | 162 | ● | 163 | ● | 161 | ● |
| | Cylindrical | 12.0 x 25.0 mm | 65 | 332 | ● | 333 | ● | 331 | ● |
| | Cylindrical | 16.0 x 25.0 mm | 65 | 342 | ● | 343 | ● | 341 | ● |
| | Drop shape | 12.0 x 20.0 mm | 60 | 262 | ● | 263 | ● | - | - |
| | Ogive shape | 6.0 x 18.0 mm | 58 | 182 | ● | 183 | ● | 181 | ● |
| | Ogive shape | 12.0 x 20.0 mm | 60 | 272 | ● | 273 | ● | - | - |
| | Ogive shape | 12.0 x 30.0 mm | 70 | 302 | ● | 303 | ● | - | - |
| | Ogive shape | 16.0 x 30.0 mm | 70 | 352 | ● | 353 | ● | 351 | ● |

Prod. Gr. 6CF

## ATORN® Cylinder wire brushes with braided wire
**For use on all commercially available angle grinders and angle polishers**

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

**Advantage:**
- Long life, even with diagonal application

Ident. No. 021–061, 121–161

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

Prod. Gr. 6CM

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

## ATORN® Wire cup brushes with crimped or braided wire

**For use on all commercially available angle grinders and angle polishers**

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

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

No. 76085 007

No. 76088 066

| Version | | | | | | Corrugated | | Braided | |
|---|---|---|---|---|---|---|---|---|---|
| Edging material | | | | | | Steel | | Steel | |
| Material to be processed | | | | | | Steel \| Cast steel \| Softwood \| Hardwood | | Steel \| Cast steel \| Softwood \| Hardwood | |
| Head Ø (mm) | Number of braids (PCS) | Connection thread | Wire Ø (mm) | Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | 76085... Ident. No. | | 76088... Ident. No. | |
| 60 | 0 | M14 | 0.3 | 12500 | 1 | 007 | ● | - | - |
| 100 | 0 | M14 | 0.3 | 8500 | 1 | 011 | ● | - | - |
| 65 | 18 | M14 | 0.5 | 12500 | 1 | - | - | 066 | ● |
| 80 | 22 | M14 | 0.5 | 8500 | 1 | - | - | 111 | ● |
| 100 | 26 | M14 | 0.5 | 8500 | 1 | - | - | 121 | ● |

Prod. Gr. 6CM

## ATORN® Conical brushes with wire braided anti-clockwise

**For use on all commercially available angle grinders and angle polishers**

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

**Advantage:**
- Long life, even with diagonal application

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

Ident. No. 081–091, 191

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

Prod. Gr. 6CM



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

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ICON RIDGE

## ATORN® Cylinder wire brushes with braided or crimped wire

**For bench grinder**

**Application:**
**No. 76092–76093:** For removing rust and scale and for grinding.
**No. 76094:** For heavy demands and heavy-duty brush work, for removing rust and scale, for grinding and roughing, for removing varnish and for machining weld seams and stone.

**Execution:**
- **No. 76092–76093:**
  - Steel pipe body with pressed ring and outer flange
  - With particularly dense material filling

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

No. 76092–76093

No. 76094

| Version | Corrugated | | Corrugated | | Braided | |
|---|---|---|---|---|---|---|
| Edging material | Steel | | Stainless steel | | Steel | |
| Material to be processed | Steel \| Cast steel \| Softwood \| Hardwood | | Stainless steel \| Non-ferrous metal \| Aluminium | | Steel \| Cast steel \| Softwood \| Hardwood | |
| Head Ø (mm) | Wire Ø (mm) | Number of braids (PCS) | Bore Ø (mm) | Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | 76092... Ident. No. | | 76093... Ident. No. | | 76094... Ident. No. | |
| 80 | 0.3 | 0 | 10 | 10000 | 1 | 081 | ● | 081 | ● | - | - |
| 100 | 0.3 | 0 | 10 | 8000 | 1 | 101 | ● | 101 | ● | - | - |
| 150 | 0.3 | 0 | 32 | 6000 | 1 | 151 | ● | - | - | - | - |
| 178 | 0.3 | 0 | 32 | 6000 | 1 | 176 | ● | - | - | - | - |
| 200 | 0.3 | 0 | 32 | 4500 | 1 | 201 | ● | - | - | - | - |
| 150 | 0.3 | 0 | 14 | 6000 | 1 | - | - | 151 | ● | - | - |
| 178 | 0.3 | 0 | 14 | 6000 | 1 | - | - | 176 | ● | - | - |
| 200 | 0.3 | 0 | 20 | 4500 | 1 | - | - | 201 | ● | - | - |
| 100 | 0.5 | 40 | 20 | 11000 | 1 | - | - | - | - | 101 | ● |
| 200 | 0.5 | 102 | 25.4 | 8500 | 1 | - | - | - | - | 201 | ● |

Prod. Gr. 6CM

## ATORN® Shaft-mounted cylinder wire brushes with crimped wire

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

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

**Technical data:**
- Number of braids: 0 PCS
- Number of pieces per packet: 5 PCS

Ident. No. 011–041, 061–171

Ident. No. 051

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

Prod. Gr. 6CM

## ATORN® Shaft-mounted cylinder wire brushes with braided wire

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

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

**Execution:**
- With plaited wire (number of plaits: 15)

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

Ident. No. 091

Ident. No. 181

| Version | Braided | | Braided | |
|---|---|---|---|---|
| Edging material | Steel | | Stainless steel | |
| vvMaterial to be processed | Steel \| Cast steel \| Softwood \| Hardwood | | Stainless steel \| Non-ferrous metal \| Aluminium | |
| Width of head (mm) | 76090... Ident. No. | | 76090... Ident. No. | |
| 13 | 091 | ● | - | - |
| 12 | - | - | 181 | ● |

Prod. Gr. 6CM

## ATORN® Shaft-mounted cylinder wire brushes with silicon carbide sanding bristles

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

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

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

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

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

| Version | | | Corrugated | | Corrugated | |
|---|---|---|---|---|---|---|
| Edging material | | | Nylon with SiC grain 180 | | Nylon with SiC grain 320 | |
| Material to be processed | | | Steel \| Stainless steel \| Non-ferrous metal \| Aluminium \| Wood | | Stainless steel \| Non-ferrous metal \| Steel \| Wood | |
| Head Ø (mm) | Width of head (mm) | Wire Ø (mm) | 76091... Ident. No. | | 76091... Ident. No. | |
| 50 | 15 | 0.90 | 011 | ● | - | - |
| 70 | 18 | 0.90 | 021 | ● | - | - |
| 50 | 15 | 0.55 | - | - | 031 | ● |
| 70 | 18 | 0.55 | - | - | 041 | ● |

Prod. Gr. 6CM

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

## ATORN® Wire end brushes with crimped wire

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

**Application:**
For removing burrs, rust, slag, scale, rubber residues, incineration residues and other impurities from places that are difficult to access and from inner surfaces.

Ident. No. 201

Ident. No. 111

| | | | | | | Edging material | Steel | | Stainless steel | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Material to be processed | Steel \| Cast steel \| Softwood \| Hardwood | | Stainless steel \| Non-ferrous metal \| Aluminium | |
| Head Ø (mm) | Length of bristles (mm) | Length (mm) | Wire Ø (mm) | Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | | 76095... Ident. No. | | 76095... Ident. No. | |
| 10 | 20 | 40 | 0.50 | 20000 | 5 | | 201 | ● | - | - |
| 10 | 20 | 100 | 0.30 | 20000 | 5 | | 211 | ● | - | - |
| 17 | 25 | 45 | 0.50 | 18000 | 5 | | 221 | ● | - | - |
| 25 | 25 | 50 | 0.50 | 18000 | 5 | | 231 | ● | - | - |
| 30 | 25 | 45 | 0.50 | 15000 | 5 | | 241 | ● | - | - |
| 10 | 20 | 40 | 0.30 | 20000 | 5 | | - | - | 101 | ● |
| 11 | 20 | 100 | 0.30 | 9000 | 5 | | - | - | 111 | ● |

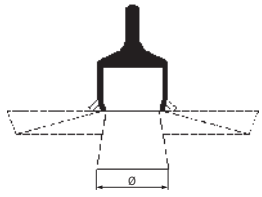
Prod. Gr. 6CM

## ATORN® Wire end brushes with braided wire

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

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

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




| | | | | | | | Edging material | Steel | | Stainless steel | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Material to be processed | Steel \| Cast steel | | Stainless steel \| Non-ferrous metal \| Aluminium | |
| Head Ø (mm) | Length of bristles (mm) | Length (mm) | Wire Ø (mm) | Number of braids (PCS) | Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | | 76096... Ident. No. | | 76096... Ident. No. | |
| 20 | 29 | 44 | 0.25 | 6 | 20000 | 5 | | 111 | ● | 011 | ● |
| 23 | 29 | 44 | 0.35 | 8 | 20000 | 5 | | 121 | ● | 021 | ● |
| 30 | 29 | 44 | 0.35 | 12 | 20000 | 5 | | 131 | ● | 031 | ● |

Prod. Gr. 6CM

## ATORN® Wire end brushes with crimped stranded wire

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

**Application:**
For roughening, deburring, stripping paint or removing burrs, rust and combustion residues in hard-to-reach places in steel machining.

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

**Notes:**
Not suitable for VA machining.

| Head Ø (mm) | Length of bristles (mm) | Length (mm) | Wire Ø (mm) | Number of braids (PCS) | Edging material: Material to be processed: Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | Steel: Steel \| Wood: 76097... Ident. No. | |
|---|---|---|---|---|---|---|---|---|
| 11 | 20 | 40 | 0.20 | 0 | 20000 | 5 | 121 | ● |
| 16 | 25 | 45 | 0.20 | 0 | 20000 | 5 | 171 | ● |
| 22 | 25 | 45 | 0.20 | 0 | 18000 | 5 | 241 | ● |
| 28 | 30 | 45 | 0.20 | 0 | 15000 | 5 | 301 | ● |

Prod. Gr. 6CM

## LESSMANN® Surface brushes with crimped wire

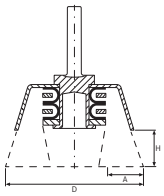
**Shaft diameter 6 mm, for use on fast-running machines**

**Application:**
For cleaning and deburring small and medium surfaces.

**Execution:**
- Use for fast-running machines
- Thick bristles guarantee a long service life

**Advantage:**
- Thick bristles guarantee a long service life

**Technical data:**
- Wire diameter: 0.30 mm
- Number of pieces per packet: 10 PCS



Ident. No. 300

Ident. No. 305–315

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

Prod. Gr. 6CL

## LESSMANN® Miniature brushes with wire bristles

**Shaft diameter 3 mm, for use on straight grinders**

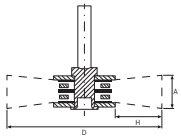
**Application:**
For polishing, cleaning or deburring small surfaces or workpieces. For example: Removal of slag and scale from small welding seams and soldering points. Miniature brushes for use on metal surfaces, steels, aluminium, cast, plastic, stone or wood.

**Execution:**
- Use for fast-running machines

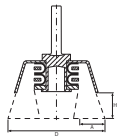
Ident. No. 200–205, 225–270

Ident. No. 210–215

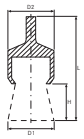
Ident. No. 220



Ident. No. 200–205, 225–230, 250–255 Cylinder wire brush



Ident. No. 210–215, 235–240, 260–265 Wire cup brush



Ident. No. 220, 245, 270 End brush

| Type | Version | Edging material | Wire Ø (mm) | D (mm) | H (mm) | A (mm) | Max. rotation speed (U/min(rpm)) | 76099... Ident. No. | |
|---|---|---|---|---|---|---|---|---|---|
| Cylinder wire brush | Corrugated | Steel | 0.10 | 19 | 5 | 2 | 12000 | 200 | ● |
| Cylinder wire brush | Corrugated | Steel | 0.10 | 22 | 6 | 2 | 10000 | 205 | ● |
| Cylinder wire brush | Corrugated | Stainless steel | 0.10 | 19 | 5 | 2 | 12000 | 225 | ● |
| Cylinder wire brush | Corrugated | Stainless steel | 0.10 | 22 | 6 | 2 | 10000 | 230 | ● |
| Cylinder wire brush | Corrugated | Brass | 0.10 | 19 | 5 | 2 | 12000 | 250 | ● |
| Cylinder wire brush | Corrugated | Brass | 0.10 | 22 | 6 | 2 | 10000 | 255 | ● |
| End brush | Corrugated | Steel | 0.10 | 5 | 8 | - | 15000 | 220 | ● |
| End brush | Corrugated | Stainless steel | 0.10 | 5 | 8 | - | 15000 | 245 | ● |
| End brush | Corrugated | Brass | 0.10 | 5 | 8 | - | 15000 | 270 | ● |
| Wire cup brush | Corrugated | Steel | 0.10 | 15 | 5 | 2 | 15000 | 210 | ● |
| Wire cup brush | Corrugated | Steel | 0.10 | 18 | 6 | 2 | 15000 | 215 | ● |
| Wire cup brush | Corrugated | Stainless steel | 0.10 | 15 | 5 | 2 | 15000 | 235 | ● |
| Wire cup brush | Corrugated | Stainless steel | 0.10 | 18 | 6 | 2 | 15000 | 240 | ● |
| Wire cup brush | Corrugated | Brass | 0.10 | 15 | 5 | 2 | 15000 | 260 | ● |
| Wire cup brush | Corrugated | Brass | 0.10 | 18 | 6 | 2 | 15000 | 265 | ● |

Prod. Gr. 6CL


Source: Hahn+Kolb Werkzeuge GmbH
Technical data subject to change.
Availability subject to country specific rules and regulations.
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## LESSMANN® Micro-abrasive pipe brushes with sanding bristles

**For use on electronic drills**

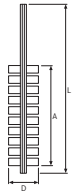
**Application:**
Particularly suitable for deburring bores, horizontal bore holes or O-ring inserts in complex workpieces, as well as for polishing and cleaning nozzles and small holes.

**Execution:**
- Internal cleaning brushes with galvanised twisted wire and a basic spiral of bristles:
- - aluminium oxide (AO) sanding bristles: For finishing soft metals, for polishing and smoothing, and for processing aluminium during smoothing or polishing.
- - Sanding bristles made of silicon carbide (SIC): for optimum deburring results, for surface repair/processing and especially for processing aluminium and stainless steel.
- Aluminium oxide (AO) sanding bristles are suitable for finishing soft metals, for polishing and smoothing, and for processing aluminium during smoothing or polishing.
- Sanding bristles made of silicon carbide (SIC) are suitable for optimum deburring results, for surface repair/processing and especially for processing aluminium and stainless steel

**Advantage:**
- Can be used flexibly as a conventional internal cleaning brush due to sanding bristles

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

Ident. No. 000–030




| Grid size | Wire Ø (mm) | D (mm) | L (mm) | A (mm) | Shaft Ø (mm) | Max. rotation speed (U/min(rpm)) | Number of pieces per packet (PCS) | 76099... Ident. No. | |
|---|---|---|---|---|---|---|---|---|---|
| AO 600 | 0.30 | 3.2 | 125 | 25 | 1.5 | 800 | 10 | 000 | ● |
| AO 600 | 0.30 | 4.2 | 125 | 25 | 2.2 | 1000 | 10 | 005 | ● |
| AO 600 | 0.30 | 4.8 | 125 | 25 | 2.2 | 1000 | 10 | 010 | ● |
| AO 600 | 0.30 | 5.5 | 125 | 25 | 2.2 | 1000 | 10 | 015 | ● |
| AO 600 | 0.30 | 6.6 | 125 | 25 | 2.5 | 1000 | 10 | 020 | ● |
| AO 600 | 0.30 | 8.2 | 125 | 25 | 3.2 | 2000 | 10 | 025 | ● |
| AO 600 | 0.30 | 9.8 | 125 | 25 | 3.2 | 2000 | 10 | 030 | ● |
| SIC 120 | 0.60 | 10 | 125 | 65 | 3.7 | 2000 | 10 | 035 | ● |
| SIC 120 | 0.60 | 13 | 125 | 65 | 3.7 | 2000 | 10 | 040 | ● |
| SIC 120 | 0.60 | 16 | 125 | 65 | 5.2 | 2000 | 10 | 045 | ● |
| SIC 120 | 0.60 | 19 | 125 | 65 | 5.2 | 2000 | 10 | 050 | ● |
| SIC 120 | 0.60 | 25 | 125 | 65 | 5.7 | 2000 | 10 | 055 | ● |

Prod. Gr. 6CL

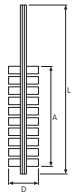
## LESSMANN® Micro-abrasive pipe brushes, IBH, with steel wire bristles

**Shaft diameter 3.8 mm, for manual use or use on electronic drills**

**Application:**
Used as thread brushes for descaling, deburring or cleaning e. g. transverse intersections, drilling overlaps, threaded drill holes or grooves. For polishing and cleaning nozzles and small holes

**Execution:**
- Micro pipe brushes (IBH) with steel wire are internal cleaning brushes with steel wire bristles, and are used as thread brushes for descaling, deburring or cleaning e.g. transverse intersections, drilling overlaps, threaded drill holes or grooves. The brushes can be used either manually or with a machine.

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




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

Prod. Gr. 6CL

## Advantages of 3M Scotch-Brite™ Bristle products

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

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

## 3M Scotch-Brite™ BD-ZB bristle disc for angle grinders

**Specially designed for planar surfaces**

**Application:**
For rust removal, paint removal, removing adhesive residues or other surface contaminants. Specially designed for flat surfaces. Can be used on angle grinders without accessories.

**Advantage:**
- Works without contact pressure with a very long service life
- Integrated M14 thread makes additional accessories unnecessary

**Technical data:**
- Head diameter: 115 mm
- Length of bristles: 19 mm
- Grid size: 50
- Max. rotation speed: 12200 U/min(rpm)
- Colour: Green
- Suitable for machine chuck: M14
- Material of abrasive medium: Ceramic core Cubitron
- Number of pieces per packet: 1 PCS

| 76098... | Ident. No. | 010 |
|---|---|---|
| | | ● |

Prod. Gr. 6DM

## 3M Scotch-Brite™ BB-ZB radial bristle grinding brush, type C

**Specially designed for highly contoured surfaces**

**Application:**
For cleaning, removing paint, deburring and blending on virtually all materials. Specially designed for highly contoured surfaces. For use on robotic machines, sanding blocks, straight grinders or on flexible shafts.

**Execution:**
- 8 separable individual segments, flange with 4 reducers from 25.4 to 13 mm

**Advantage:**
- With curved bristles, ideal for working on profiled surfaces

**Notes:**
For use only with clamping mandrel no. 76098 001

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

Ident. No. 080

Ident. No. 090

| Grid size | Colour | 76098... Ident. No. | |
|---|---|---|---|
| 80 | Yellow | 080 | ● |
| 220 | Red | 090 | ● |

Prod. Gr. 6DM

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

## Scotch-Brite™ BB-ZS radial bristle grinding brush, type C, with shaft

**Specially designed for highly contoured surfaces**

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

**Execution:**
- 6 segments cast with a 6-mm shank

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

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

Ident. No. 110

Ident. No. 120

| Grid size | | 80 | 120 | 220 |
|---|---|---|---|---|
| Colour | | Yellow | White | Red |
| 76098... | Ident. No. | 110 | 120 | 130 |
| | | ● | ● | ● |

Prod. Gr. 6DM

## Scotch-Brite™ MN-AC clamping mandrel

**For bristle brushes and Scotch-Brite™ coarse cleaning discs**

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

**Technical data:**
- Suitable for inner diameter: 12.7 mm
- Number of pieces per packet: 1 PCS

| Shaft Ø (mm) | | 6 | 8 |
|---|---|---|---|
| Max. clamping width (mm) | | 19.0 | 25.4 |
| 76098... | Ident. No. | 001 | 002 |
| | | ● | ● |

Prod. Gr. 6DM

## Scotch-Brite™ non-woven products

**Fineness comparison**

Compared with FEPA grain sizes.
Finish comparison (purely optical comparison) with FEPA grain sizes

| 50 | 80 | 100 | 120 | 150 | 180 | 220 | 240 | 280 | 320 | 360 | 400 | 500 | 600 | 800 | 1000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Extra coarse | | | | | | | | | | | | | | | |
| Coarse SD | Coarse HD | | | | | | | | | | | | | | |
| | | Coarse | | | | | | | | | | | | | |
| | | | | | Medium | | | | | | | | | | |
| | | | | | | | | Fine | | | | | | | |
| | | | | | | | | | Very fine | | | | | | |
| | | | | | | | | | | | Super fine | | | | |
| | | | | | | | | | | | | Ultra fine | | | |
| | | | | | | | | | | | | | | Extra fine | |

## Scotch-Brite™ high-performance coarse cleaning discs – extra coarse

**Fibre fleece discs with shaft attachment, for use on straight grinders and flexible shafts**

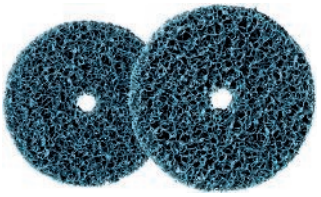
**Application:**
Particularly suited for cleaning before and after welding in metalworking as well as removing rust and other coatings in the workshop or industrial manufacturing. For use on straight grinders or flexible shafts with clamping mandrel no. 76098 001 and 002.

**Execution:**
- **Ident. No. 230–240:** Aggressive disc made from robust nylon fibre fleece with resin-bonded abrasive, for difficult areas of application
- **Ident. No. 250–260:** Flexible fibre fleece with resin-bonded abrasive, for universal cleaning tasks

**Advantage:**
- Metallically pure surface
- Open structure, disc does not clog
- **Ident. No. 230–240:** High edge resistance for improved durability

**Technical data:**
- Bore diameter: 13.00 mm
- Number of pieces per packet: 2 PCS

Ident. No. 230–240



Ident. No. 250–260

| Type description | Colour | Washer Ø (mm) | Max. rotation speed (U/min(rpm)) | 76098... Ident. No. | |
|---|---|---|---|---|---|
| CG-DC | Blue | 100 | 6000 | 250 | ● |
| CG-DC | Blue | 150 | 4000 | 260 | ● |
| XT-DC | Purple | 100 | 6000 | 230 | ● |
| XT-DC | Purple | 150 | 4000 | 240 | ● |

Prod. Gr. 6DM

## Scotch-Brite™ high-performance coarse cleaning discs – extra coarse

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

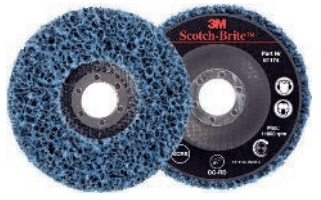
**Application:**
**Ident. No. 210:** For coarse cleaning of surfaces and removing rust, corrosion, old coatings, sealant residue and discolouration.
**Ident. No. 220:** Ideally suited for cleaning heavy surface soiling and surface coatings or for removing varnish.

**Execution:**
- **Ident. No. 210:** Aggressive disc made from robust nylon fibre fleece with resin-bonded abrasive, for difficult areas of application
- **Ident. No. 220:** Flexible fibre fleece with resin-bonded abrasive, for universal cleaning tasks

**Advantage:**
- Strengthened backing for processing surfaces without the use of a support plate
- Open structure, disc does not clog
- Free of corrosive metals
- Does not loosen individual parts

**Technical data:**
- Washer diameter: 115 mm
- Bore diameter: 22.23 mm
- Max. rotation speed: 11000 U/min(rpm)
- Number of pieces per packet: 10 PCS

Ident. No. 210




Ident. No. 220

| Type description | Colour | 76098... Ident. No. | |
|---|---|---|---|
| CG-RD | Blue | 220 | ● |
| XT-RD | Purple | 210 | ● |

Prod. Gr. 6DM


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