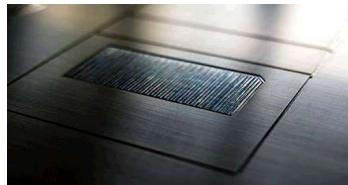
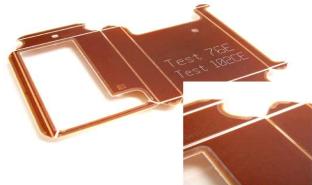
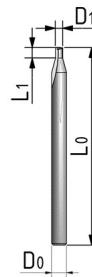


appel

Milling Tools / Cutters for counter-matrix made of Pertinax and Steel, for engraving brass, for milling wood.



Milling of creasing channels on steel plates form 35 HRC to 52 HRC

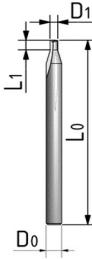


| Art.# | Description | D0 | L0 | L1 | W1 | D1 Cutting-Ø | Material |
|---------|---|----|----|-----|----|--------------|------------|
| SDA0010 | Cutters, double edge | 3 | 40 | 1,2 | | 1,00 | TC + TiAIN |
| SDA0011 | This tools were specially developed for milling/engraving the creasing channel in a steel plate | 3 | 40 | 1,2 | | 1,10 | TC + TiAIN |
| SDA0012 | | 3 | 40 | 1,2 | | 1,20 | TC + TiAIN |
| SDA0013 | They represent the best cutting-life: price ratio. | 3 | 40 | 1,2 | | 1,30 | TC + TiAIN |
| SDA0014 | | 3 | 40 | 1,4 | | 1,40 | TC + TiAIN |
| SDA0015 | | 3 | 40 | 1,4 | | 1,50 | TC + TiAIN |
| SDA0016 | | 3 | 40 | 1,4 | | 1,60 | TC + TiAIN |
| SDA0017 | (revolutions/speed/torque) and depending on the cooling system | 3 | 40 | 1,4 | | 1,70 | TC + TiAIN |
| SDA0018 | | 3 | 40 | 1,5 | | 1,80 | TC + TiAIN |
| SDA0019 | TC (tungsten carbide) coated with TiAIN | 3 | 40 | 1,5 | | 1,90 | TC + TiAIN |
| SDA0020 | | 3 | 40 | 1,8 | | 2,00 | TC + TiAIN |
| SDA0021 | | 3 | 40 | 5 | | 2,10 | TC + TiAIN |
| SDD0022 | | 3 | 40 | 5 | | 2,20 | TC + TiAIN |
| SDD0023 | | 3 | 40 | 5 | | 2,30 | TC + TiAIN |

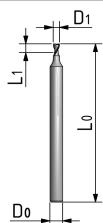
Milling of creasing channels on steel plates form 35 HRC to 52 HRC



| Art.# | Description | D0 | L0 | L1 | W1 | D1 Cutting-Ø | Material |
|---------|---|----|----|-----|----|--------------|--------------|
| SDD0010 | Cutters, double edge | 3 | 40 | 1,2 | | 1,00 | TC + AlTiN-S |
| SDD0011 | This tools were specially developed for milling/engraving the creasing channel in a steel plate. | 3 | 40 | 1,2 | | 1,10 | TC + AlTiN-S |
| SDD0012 | | 3 | 40 | 1,2 | | 1,20 | TC + AlTiN-S |
| SDD0013 | You can cut in steps of 0.05 or 0.10 mm, according to the hardness and constitution of the material, cutting parameters | 3 | 40 | 1,2 | | 1,30 | TC + AlTiN-S |
| SDD0014 | | 3 | 40 | 1,4 | | 1,40 | TC + AlTiN-S |
| SDD0015 | (revolutions/speed/torque) and depending on cooling system | 3 | 40 | 1,4 | | 1,50 | TC + AlTiN-S |
| SDD0016 | TC (tungsten carbide) coated with AlTiN-S | 3 | 40 | 1,4 | | 1,60 | TC + AlTiN-S |
| SDD0017 | | 3 | 40 | 1,4 | | 1,70 | TC + AlTiN-S |
| SDD0018 | | 3 | 40 | 1,5 | | 1,80 | TC + AlTiN-S |
| SDD0019 | | 3 | 40 | 1,5 | | 1,90 | TC + AlTiN-S |
| SDD0020 | | 3 | 40 | 1,8 | | 2,00 | TC + AlTiN-S |
| SDD0021 | | 3 | 40 | 5 | | 2,10 | TC + AlTiN-S |
| SDD0022 | | 3 | 40 | 5 | | 2,20 | TC + AlTiN-S |

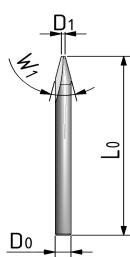


Milling of creasing channels on steel plates form 35 HRC to 52 HRC



Milling of creasing channels on steel plates from 35 HRC to 52 HRC

| Art.# | Description | D0 | L0 | L1 | W1 | D1 | Cutting-Ø | Material |
|---------|--|----|----|----|----|----|-----------|--------------|
| SDH0011 | Cutters, double edge | 3 | 40 | | | | 1,10 | TC + AlTiCrN |
| SDH0012 | TC (tungsten carbide) coated with AlTiCrN, which last longer | 3 | 40 | | | | 1,20 | TC + AlTiCrN |
| SDH0013 | Life-time > 200 m at V=2 m/min. | 3 | 40 | | | | 1,30 | TC + AlTiCrN |
| SDH0014 | | 3 | 40 | | | | 1,40 | TC + AlTiCrN |
| SDH0015 | | 3 | 40 | | | | 1,50 | TC + AlTiCrN |
| SDH0016 | | 3 | 40 | | | | 1,60 | TC + AlTiCrN |
| SDH0017 | | 3 | 40 | | | | 1,70 | TC + AlTiCrN |
| SDH0018 | | 3 | 40 | | | | 1,80 | TC + AlTiCrN |
| SDH0019 | | 3 | 40 | | | | 1,90 | TC + AlTiCrN |



SDE0010 CONICAL Cutters single edge, conical (25°)

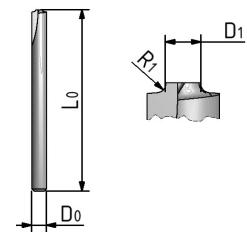
| | | | | | | |
|---------|--|---|-------|-----|------|--------------|
| SDF0010 | CONICAL Cutters, single edge, conical (29°) | 3 | 38/40 | 25° | 1,00 | TC + AITiCrN |
| SDF0011 | For cutting a conical (tapered) channel on steel plates | 3 | 38 | 25° | 1,10 | TC + AITiCrN |
| SDF0012 | Ideal for creasing cardboard laminated with PET / OPP on the inner side, also good to use with facet creasing rules and when the creasing rule is higher than the cutting rule | 3 | 38 | 25° | 1,20 | TC + AITiCrN |
| SDF0013 | | 3 | 38 | 25° | 1,30 | TC + AITiCrN |
| SDF0014 | | 3 | 38 | 25° | 1,40 | TC + AITiCrN |
| SDF0022 | | 3 | 38 | 25° | 2,20 | TC + AITiCrN |
| SDF0023 | | 3 | 38 | 25° | 2,30 | TC + AITiCrN |
| SDF0024 | | 3 | 38 | 25° | 2,40 | TC + AITiCrN |

SDG0010 CONICAL Cutters, single edge, conical (15°)

| SDG0011 | SDG0012 | SDG0013 | SDG0014 | SDG0016 | TC + AITICrN |
|---------|---------|---------|---------|---------|--------------|
| 3 | 40 | 15° | 1,10 | | |
| 3 | 40 | 15° | 1,20 | | |
| 3 | 40 | 15° | 1,30 | | |
| 3 | 40 | 15° | 1,40 | | |
| 3 | 40 | 15° | 1,50 | | |

NEW

Cutters / milling tools to reach a smooth bevel



| | | D0 | L0 | R1 | D1 | Cutting-Ø | Material |
|---------|--|----|----|-----|------|--------------|----------|
| SDI0009 | Milling tools specially designed to sleek and finish the edge of the channel. An 0.3 mm radius will be made, avoiding a sharp border and cleaning/shaving at the same time the edge from the steel chips | 3 | 40 | 0,3 | 0,90 | TC + AlTiCrN | |
| SDI0010 | | 3 | 40 | 0,3 | 1,00 | TC + AlTiCrN | |
| SDI0011 | | 3 | 40 | 0,3 | 1,10 | TC + AlTiCrN | |
| SDI0012 | | 3 | 40 | 0,3 | 1,20 | TC + AlTiCrN | |
| SDI0013 | | 3 | 40 | 0,3 | 1,30 | TC + AlTiCrN | |
| SDI0014 | | 3 | 40 | 0,3 | 1,40 | TC + AlTiCrN | |
| SDI0015 | | 3 | 40 | 0,3 | 1,50 | TC + AlTiCrN | |
| SDI0016 | | 3 | 40 | 0,3 | 1,60 | TC + AlTiCrN | |
| SDI0017 | | 3 | 40 | 0,3 | 1,70 | TC + AlTiCrN | |
| SDI0018 | | 3 | 40 | 0,3 | 1,80 | TC + AlTiCrN | |

Cutters / milling tools to engage a chanfer on the border of the channel on Steel Counter Plates. Using i.e an 90° Chanfering, you would get a 45° chanfer at the edge of the channel



| Art.# | Description | D0 | L0 | L1 | W1 | D1 | Head-Ø | Material |
|---------|---|----|----|----|------|------|----------|----------|
| SDJ0340 | Buring / chanfering tool | 3 | 40 | | 40° | 3,00 | AlTiN-S | |
| SDJ0342 | DLC - Diamond like Carbon cutter | 3 | 40 | | 40° | 3,00 | TC + DLC | |
| SDJ0360 | | 3 | 40 | | 60° | 3,00 | AlCrN | |
| SDJ0361 | For chanfering channels of > 2,1 mm | 3 | 38 | | 60° | 3,00 | AlCrN | |
| SDJ0362 | DLC - Diamond like Carbon cutter | 3 | 40 | | 60° | 3,00 | TC + DLC | |
| SDJ0390 | | 3 | 40 | | 90° | 3,00 | AlCrN | |
| SDJ0392 | DLC - Diamond like Carbon cutter | 3 | 40 | | 90° | 3,00 | TC + DLC | |
| SDJ0540 | Chanfering tool MOQ 10 pcs. | 5 | 40 | | 40° | 5,00 | AlTiN-S | |
| SDJ0640 | | 6 | 40 | | 40° | 6,00 | AlTiN-S | |
| SDJ0360 | | 3 | 40 | | 60° | 3,00 | AlTiN-S | |
| SDJ0462 | DLC - Diamond like Carbon cutter | 4 | 40 | | 60° | 3,00 | TC + DLC | |
| SDJ0492 | DLC - Diamond like Carbon cutter | 4 | 40 | | 90° | 3,00 | TC + DLC | |
| SDJ0660 | | 6 | 40 | | 60° | 6,00 | AlTiN-S | |
| SDJ0692 | DLC - Diamond like Carbon cutter | 6 | 50 | | 90° | 6,00 | TC + DLC | |
| SDJ6122 | DLC - For chanfering Pertinax with 120° | 6 | 50 | | 120° | 6,00 | TC + DLC | |
| SDJ6162 | DLC - For chanfering Pertinax with 160° | 6 | 50 | | 160° | 6,00 | TC + DLC | |

Cutter / milling tools for cutting pockets on steel plates up to 52 HRC hardness (To create a gap in which the patrice embossing tools and/or the reverse scoring knives can be placed. Usually with a depth of recess of 0.40 - 0.55 mm)



| Art.# | Description | D0 | L0 | L1 | W1 | D1 | Head-Ø | Material |
|-------------|--|----|----|----|----|------|-----------|----------|
| SDB0001 | Cutter / milling tool with 5 edges for cutting pockets | 6 | 40 | 13 | | 6,00 | TC+ AlCrN | |
| SDB0002 | A tool which allow to mill on steps of 0.15 mm | 6 | 50 | 13 | | 6,00 | TC+ AlCrN | |
| NEW SDB0003 | Cutter with 3 egedes | 5 | 40 | | | 5,00 | TC+ DLC | |
| NEW SDB0005 | Cutter with 4 edges | 4 | 50 | | | 4,00 | AlTin | |
| SDB0006 | Cutter with 4 edges | 6 | 58 | | | 5,00 | AlTinCrN | |

Other types and sizes available upon request

Most cutter for delivery within 24 hours

Prices based EXW Germany

Collets / adapter for different shank-diameters available

Hardening:

TC : Tungsten Carbide

TiAIN : Titanium Aluminium Nitride

AlCrN: Aluminium Chromium Nitride

AlTinCrN: Multilayered coating

DLC : Diamond like Carbon