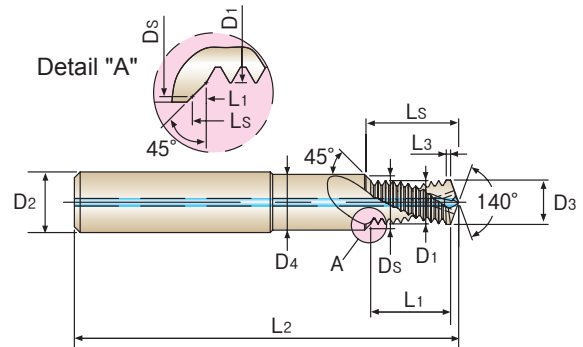




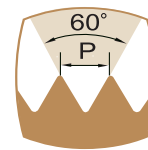
M Solid Carbide Drill and Thread Mill with Chamfer for ISO Metric Internal Thread - DIN 13

VOLLHARTMETALL BOHRGEWINDEFÄSER MIT SENKFASE für ISO METRISCHE INNENGEWINDE - DIN 13



- ▶ Material : Solid Carbide
- ▶ Shank : DIN6535 HA
- ▶ Thread Length : $2 \times D$
- ▶ No. of Flute : 2
- ▶ 140° Drill Point, 90° Countersink
- ▶ Drilling, Chamfering and Thread milling

- ▶ Material : Vollhartmetall
- ▶ Schaft : DIN 6535 HA
- ▶ Gewindelänge : $2 \times D$
- ▶ Anz. der Nuten : 2
- ▶ 140° Spitzenwinkel, 90° Senkwinkel
- ▶ Bohren, Senken und Gewindefräsen



Unit : mm

| EDP No. | | Nominal Diameter [D] | Pitch P | Cutter Diameter D1 | Shank Diameter D2 | Effect. Diameter Ds | Drill Diameter D3 | Max. C'sink D4 | Thread Length L1 | Effect. Length Ls | Drill Length L3 | Over All Length L2 |
|----------|----------|------------------------|---------|--------------------|-------------------|---------------------|-------------------|----------------|------------------|-------------------|-----------------|--------------------|
| UNCOATED | TiAlN | | | | | | | | | | | |
| L41A1310 | L42A1310 | M6 | 1.0 | 4.75 | 8 | 6.3 | 5.00 | 6.6 | 13.00 | 14.68 | 1.00 | 62 |
| L41A1360 | L42A1360 | M8 | 1.25 | 6.35 | 10 | 8.3 | 6.75 | 9.0 | 16.27 | 18.48 | 1.25 | 74 |
| L41A1420 | L42A1420 | M10 | 1.5 | 7.95 | 12 | 10.3 | 8.50 | 11.0 | 21.05 | 23.77 | 1.50 | 79 |
| L41A1500 | L42A1500 | M12 | 1.75 | 9.95 | 14 | 12.3 | 10.25 | 13.5 | 24.21 | 27.25 | 1.50 | 89 |
| L41A1540 | L42A1540 | M14 | 2.0 | 11.20 | 16 | 14.3 | 12.00 | 15.5 | 29.58 | 33.32 | 1.50 | 102 |

* Other coatings are available on your request

© : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Heat Treated Steels | High Hardened Steel | Cast Iron | Stainless Steels | Titanium Alloy | Chrome-Nickel Alloy | Non Ferrous Materials |
|---------------|--------------|---------------------|---------------------|-----------|------------------|----------------|---------------------|-----------------------|
| | | | | ○ | | | | ○ |

RECOMMENDED CUTTING SPEED
EMPFOHLENE SCHNEIDKONDITIONEN
RECOMMENDED CUTTING CONDITION for Thread Mills

unit : mm

| Materials | Cutting Speed (m/min) | Feed per Tooth (fz) | |
|---|--------------------------|---------------------------|---------------------------|
| | | Cutter Diameter ≤ Ø8.0 | Cutter Diameter > Ø8.0 |
| Low Carbon Steels Medium Carbon Steels | 80 - 120 | 0.02 - 0.04 | 0.04 - 0.10 |
| High Carbon Steels | 80 - 120 | 0.02 - 0.04 | 0.04 - 0.10 |
| Alloy Steels | 80 - 120 | 0.02 - 0.04 | 0.04 - 0.10 |
| Heat Treated Steels | 60 - 100 | 0.02 - 0.04 | 0.04 - 0.10 |
| Stainless Steels | 40 - 80 | 0.01 - 0.02 | 0.02 - 0.06 |
| Cast Iron | 50 - 100 | 0.02 - 0.04 | 0.04 - 0.10 |
| Chrome-Nickel Alloys Titanium Alloys | 20 - 60 | 0.01 - 0.02 | 0.02 - 0.06 |
| Non Ferrous Materials | 100 - 300 | 0.03 - 0.07 | 0.05 - 0.10 |

RECOMMENDED CUTTING CONDITION for Drill and Thread Mills

unit : mm

| Material | Cutting Speed (m/min) | Fz(Thread Milling) - Feed per tooth | | Fdr(Drilling) - Feed per revolution | |
|---|--------------------------|-------------------------------------|---------------------------|-------------------------------------|---------------------------|
| | | Cutter Diameter ≤ Ø8.0 | Cutter Diameter > Ø8.0 | Cutter Diameter ≤ Ø8.0 | Cutter Diameter > Ø8.0 |
| Cast Iron | 80-150 | 0.03-0.08 | 0.08-0.12 | 0.10-0.20 | 0.20-0.25 |
| Aluminium Aluminium-alloy Magnesium | 100-300 | 0.05-0.10 | 0.10-0.15 | 0.10-0.20 | 0.20-0.30 |
| Plastics | 80-150 | 0.05-0.10 | 0.10-0.15 | 0.10-0.20 | 0.20-0.30 |

**RECOMMENDED CUTTING CONDITION
for Hard Material Miniature Thread Mills**

unit : mm

| Materials | Cutting Speed (m/min) | Feed(mm/tooth) | |
|---|--------------------------|---------------------------|---------------------------|
| | | Cutter Diameter ≤ Ø6.0 | Cutter Diameter > Ø6.0 |
| Alloy Steel ≥ HB325 | 80-120 | 0.02-0.04 | 0.04-0.06 |
| Stainless Steel ≥ HB330 | 40-80 | 0.02-0.04 | 0.04-0.06 |
| Cast Iron | 50-100 | 0.03-0.05 | 0.05-0.07 |
| Chrome-Nickel Alloys Titanium Alloys | 20-60 | 0.02-0.03 | 0.03-0.05 |
| Hardened Material | 45~50HRc | 25-70 | 0.03-0.05 |
| | 51~55HRc | 25-60 | 0.02-0.04 |
| | 56~62HRc | 25-50 | 0.01-0.03 |