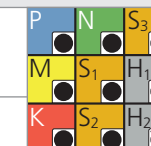


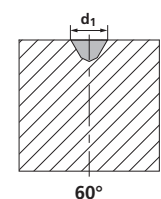
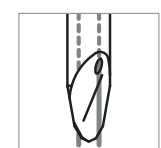
CrazyDrill Twicenter 60° / 90°

ANWENDUNGSEMPFEHLUNG

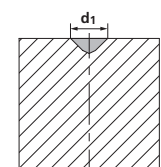
● Sehr gut geeignet | ● Gut geeignet | ○ bedingt geeignet | ☒ Nicht empfohlen



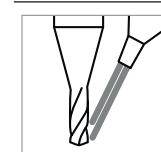
ZENTRIEREN MIT INTEGRIERTER KÜHLUNG | SCHNITTDATENÜBERSICHT



60°



90°



Bemerkung:
Bei Aussenkühlung
v_c und f um 20%
reduzieren

| Werkstoffgruppe | Werkstoff | Wr.Nr. | DIN | AISI/ASTM/UNS | v _c [m/min] | f [mm/U] | | | | | | | |
|--------------------------------------|--|--------------|-------------------------|-------------------------|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | | 0.3 mm f | 0.5 mm f | 1.0 mm f | 1.5 mm f | 2.0 mm f | 3.0 mm f | 4.0 mm f | 6.0 mm f |
| P | Stähle unlegiert Rm < 800 N/mm ² | 1.0301 | C 10 | AISI 1010 | 120 | 0.030 | 0.050 | 0.080 | 0.100 | 0.120 | 0.150 | 0.200 | 0.250 |
| | | 1.0401 | C 15 | AISI 1015 | | | | | | | | | |
| | | 1.1191 | C 45E/CK45 | AISI 1045 | | | | | | | | | |
| | | 1.0044 | S 275JR | AISI 1020 | | | | | | | | | |
| | | 1.0715 | 11SMn30 | AISI 1215 | | | | | | | | | |
| | Stähle niedriglegiert Rm > 900 N/mm ² | 1.5752 | 15NiCr13 | ASTM 3415 / AISI 3310 | 80 | 0.030 | 0.050 | 0.080 | 0.100 | 0.120 | 0.150 | 0.200 | 0.250 |
| | | 1.7131 | 16MnCr5 | AISI 5115 | | | | | | | | | |
| | | 1.3505 | 100Cr6 | AISI 52100 | | | | | | | | | |
| | | 1.7225 | 42CrMo4 | AISI 4140 | | | | | | | | | |
| | | 1.2842 | 90MnCrV8 | AISI O2 | | | | | | | | | |
| | Werkzeugstähle hochlegiert Rm < 1200 N/mm ² | 1.2379 | X 153CrMoV12 | AISI D2 | 60 | 0.020 | 0.030 | 0.040 | 0.060 | 0.080 | 0.120 | 0.180 | 0.230 |
| | | 1.2436 | X 210CrW12 | AISI D4/D6 | | | | | | | | | |
| 1.3343 | | HS 6-5-2C | AISI M2 / UNS T11302 | | | | | | | | | | |
| 1.3355 | | HS 18-0-1 | AISI T1 / UNS T12001 | | | | | | | | | | |
| | | | | | | | | | | | | | |
| M | Rostfreie Stähle- ferritisch | 1.4016 | X 6Cr17 | AISI 430 / UNS S43000 | 50 | 0.020 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | 0.120 | 0.150 |
| | | 1.4105 | X 6CrMoS17 | AISI 430F | | | | | | | | | |
| | | 1.4034 | X 46Cr13 | AISI 420C | | | | | | | | | |
| | Rostfreie Stähle- martensitisch | 1.4112 | X 90CrMoV18 | AISI 440B | 60 | 0.020 | 0.030 | 0.040 | 0.060 | 0.080 | 0.120 | 0.180 | 0.230 |
| | | 1.4542 | X 5CrNiCuNb 16-4 | AISI 630 / ASTM 17-4 PH | | | | | | | | | |
| | | 1.4545 | X 5CrNiCuNb 15-5 | ASTM 15-5 PH | | | | | | | | | |
| | Rostfreie Stähle- martensitisch – PH | 1.4301 | X 5CrNi 18-10 | AISI 304 | 50 | 0.020 | 0.030 | 0.040 | 0.060 | 0.070 | 0.090 | 0.110 | 0.130 |
| | | 1.4435 | X 2CrNiMo 18-14-3 | AISI 316L | | | | | | | | | |
| | | 1.4441 | X 2CrNiMo 18-15-3 | AISI 316LM | | | | | | | | | |
| | | 1.4539 | X 1NiCrMoCu 25-20-5 | AISI 904L | | | | | | | | | |
| K | Gusseisen | 0.6020 | GG 20 | ASTM 30 | 100 | 0.030 | 0.040 | 0.050 | 0.070 | 0.090 | 0.110 | 0.150 | 0.200 |
| | | 0.6030 | GG 30 | ASTM 40B | | | | | | | | | |
| | | 0.7040 | GGG 40 | ASTM 60-40-18 | | | | | | | | | |
| | | 0.7060 | GGG 60 | ASTM 80-60-03 | | | | | | | | | |
| | | | | | | | | | | | | | |
| N | Aluminium Knetlegierungen | 3.2315 | AlMgSi1 | ASTM 6351 | 150 | 0.040 | 0.060 | 0.090 | 0.110 | 0.130 | 0.180 | 0.230 | 0.300 |
| | | 3.4365 | AlZnMgCu1.5 | ASTM 7075 | | | | | | | | | |
| | Aluminium Druckgusslegierungen | 3.2163 | GD-AlSi9Cu3 | ASTM A380 | 100 | 0.040 | 0.060 | 0.090 | 0.110 | 0.130 | 0.180 | 0.230 | 0.300 |
| | | 3.2381 | GD-AlSi10Mg | UNS A03590 | | | | | | | | | |
| | Kupfer | 2.0040 | Cu-OF / CW008A | UNS C10100 | 100 | 0.040 | 0.060 | 0.090 | 0.110 | 0.130 | 0.180 | 0.230 | 0.300 |
| | | 2.0065 | Cu-ETP / CW004A | UNS C11000 | | | | | | | | | |
| | Messing bleifrei | 2.0321 | CuZn37 CW508L | UNS C27400 | 80 | 0.040 | 0.060 | 0.090 | 0.110 | 0.130 | 0.160 | 0.180 | 0.200 |
| | | 2.0360 | CuZn40 CW509L | UNS C28000 | | | | | | | | | |
| | Messing, Bronze Rm < 400 N/mm ² | 2.0401 | CuZn39Pb3 / CW614N | UNS C38500 | 100 | 0.040 | 0.060 | 0.090 | 0.110 | 0.130 | 0.160 | 0.180 | 0.200 |
| | | 2.1020 | CuSn6 | UNS C51900 | | | | | | | | | |
| Bronze Rm < 600 N/mm ² | 2.0966 | CuAl10Ni5Fe4 | UNS C63000 | 80 | 0.040 | 0.060 | 0.090 | 0.100 | 0.130 | 0.160 | 0.180 | 0.200 | |
| | 2.0960 | CuAl9Mn2 | UNS C63200 | | | | | | | | | | |
| S ₁ | Hitzebeständige Stähle | 2.4856 | | Inconel 625 | 10 – 30 | 0.015 | 0.025 | 0.030 | 0.040 | 0.050 | 0.070 | 0.090 | 0.110 |
| | | 2.4668 | | Inconel 718 | | | | | | | | | |
| | | 2.4617 | NiMo28 | Hastelloy B-2 | | | | | | | | | |
| | | 2.4665 | NiCr22Fe18Mo | Hastelloy X | | | | | | | | | |
| S ₂ | Titan rein | 3.7035 | Gr.2 | ASTM B348 / F67 | 25 | 0.020 | 0.030 | 0.040 | 0.060 | 0.070 | 0.090 | 0.110 | 0.130 |
| | | 3.7065 | Gr.4 | ASTM B348 / F68 | | | | | | | | | |
| S ₂ | Titan Legierungen | 3.7165 | TiAl6V4 | ASTM B348 / F136 | 25 | 0.030 | 0.040 | 0.070 | 0.090 | 0.110 | 0.140 | 0.180 | 0.220 |
| | | 9.9367 | TiAl6Nb7 | ASTM F1295 | | | | | | | | | |
| S ₃ | CrCo-Legierungen | 2.4964 | CoCr20W15Ni CrCoMo28 | Haynes 25 ASTM F1537 | 40 – 50 | 0.020 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | 0.110 | 0.130 |
| H ₁ | Stähle gehärtet < 55 HRC | 1.2510 | 100MnCrMoW4 | AISI O1 | 40 | 0.010 | 0.020 | 0.030 | 0.040 | 0.050 | 0.060 | 0.070 | 0.080 |
| H ₂ | Stähle gehärtet ≥ 55 HRC | 1.2379 | X 153CrMoV12 | AISI D2 | | | | | | | | | |