

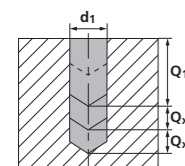
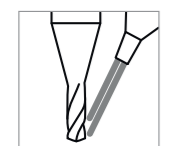
Steel - 20 x d - unbeschichtet

ANWENDUNGSEMPFEHLUNG

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



BOHREN MIT AUSSENKÜHLUNG | SCHNITTDATENÜBERSICHT



| Werkstoffgruppe | Werkstoff | Wr.Nr. | DIN | AISI/ASTM/UNS | v _c [m/min] | | Q ₁ | Q ₂ | f [mm/U] | | | | | | | | | | | | | | | | | |
|--|---|-------------------------|-----------------------|-----------------------|------------------------|-----------|----------------|----------------|-------------|---------------|---------------|---------------|---------------|-------------|---|--------|----------|------|------|-------|-------|-------|-------|-------|-------|-------|
| | | | | | ∅d1 ≤ 0.4 | ∅d1 > 0.4 | | | ∅d1 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 0.1 mm f | 0.2 mm f | 0.3 mm f | 0.4 mm f | 0.6 mm f | 0.8 mm f | 1.0 mm – 1.2 mm f | | | | | | | | | | | |
| P | Stähle unlegiert Rm < 800 N/mm ² | 1.0301 | C10 | AISI 1010 | 5 – 40 | 40 – 60 | 7xd1 | 0.5xd1 | 0.002 | 0.005 | 0.010 | 0.015 | 0.030 | 0.040 | 0.060 | | | | | | | | | | | |
| | | 1.0401 | C15 | AISI 1015 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.1191 | C45E/CK45 | AISI 1045 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.0044 | S275JR | AISI 1020 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.0715 | 11SMn30 | AISI 1215 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.5752 | 15NiCr13 | ASTM 3415 / AISI 3310 | | | | | | | | | | | | | | | | | | | | | | |
| | Stähle niedriglegiert Rm > 900 N/mm ² | 1.7131 | 16MnCr5 | AISI 5115 | 5 – 25 | 25 – 50 | 7xd1 | 0.5xd1 | 0.002 | 0.003 – 0.005 | 0.008 – 0.010 | 0.012 – 0.015 | 0.020 – 0.025 | 0.035 | 0.050 | | | | | | | | | | | |
| | | 1.3505 | 100Cr6 | AISI 52100 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.7225 | 42CrMo4 | AISI 4140 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.2842 | 90MnCrV8 | AISI O2 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.2379 | X153CrMoV12 | AISI D2 | | | | | | | | | | | | | | | | | | | | | | |
| | | 1.2436 | X210CrW12 | AISI D4/D6 | | | | | | | | | | | | | | | | | | | | | | |
| Werkzeugstähle hochlegiert Rm < 1200 N/mm ² | 1.3343 | HS6-5-2C | AISI M2 / UNS T11302 | 5 – 20 | 20 – 35 | 7xd1 | 1xd1 | 0.0005 | 0.004 | 0.008 | 0.010 | 0.015 | 0.025 | 0.040 | | | | | | | | | | | | |
| | 1.3355 | HS18-0-1 | AISI T1 / UNS T12001 | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.4016 | X6Cr17 | AISI 430 / UNS S43000 | | | | | | | | | | | | Empfohlen: CrazyDrill Flex SST-Inox 30 x d1 | | | | | | | | | | | |
| | 1.4105 | X6CrMoS17 | AISI 430F | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.4034 | X46Cr13 | AISI 420C | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.4112 | X90CrMoV18 | AISI 440B | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4542 | X5CrNiCuNb 16-4 | AISI 630 / ASTM 17-4 PH | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4545 | X5CrNiCuNb 15-5 | ASTM 15-5 PH | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4301 | X5CrNi 18-10 | AISI 304 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4435 | X2CrNiMo 18-14-3 | AISI 316L | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4441 | X2CrNiMo 18-15-3 | AISI 316LM | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4539 | X1NiCrMoCu 25-20-5 | AISI 904L | | | | | | | | | | | | | | | | | | | | | | | | |
| K | Gusseisen | 0.6020 | GG20 | ASTM 30 | 5 – 40 | 50 – 100 | 7xd1 | 1xd1 | 0.002 | 0.005 | 0.010 | 0.015 | 0.020 | 0.035 | | 0.050 | | | | | | | | | | |
| | | 0.6030 | GG30 | ASTM 40B | | | | | | | | | | | | | | | | | | | | | | |
| | | 0.7040 | GGG40 | ASTM 60-40-18 | | | | | | | | | | | | | | | | | | | | | | |
| | | 0.7060 | GGG60 | ASTM 80-60-03 | | | | | | | | | | | | | | | | | | | | | | |
| | | 40 – 80 | | | | | | | | | | | | | | | | | | | | | | | | |
| N | Aluminium Knetlegierungen | 3.2315 | AlMgSi1 | ASTM 6351 | 5 – 40 | 60 – 120 | 7xd1 | 1xd1 | 0.003 | 0.015 | 0.040 | 0.050 | 0.080 | 0.100 | 0.120 | | | | | | | | | | | |
| | | 3.4365 | AlZnMgCu1.5 | ASTM 7075 | | | | | | | | | | | | | | | | | | | | | | |
| | Aluminium Druckgusslegierungen | 3.2163 | GD-ALSi9Cu3 | ASTM A380 | 5 – 40 | 50 – 80 | 7xd1 | 1xd1 | 0.003 | 0.015 | 0.040 | 0.050 | 0.080 | 0.100 | 0.120 | | | | | | | | | | | |
| | | 3.2381 | GD-ALSi10Mg | UNS A03590 | | | | | | | | | | | | | | | | | | | | | | |
| | Kupfer | 2.004 | Cu-OF / CW008A | UNS C10100 | 5 – 40 | 60 – 100 | 7xd1 | 1xd1 | 0.004 | 0.010 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | | | | | | | | | | | |
| | | 2.0065 | Cu-ETP / CW004A | UNS C11000 | | | | | | | | | | | | | | | | | | | | | | |
| | Messing bleifrei | 2.0321 | CuZn37 CW508L | UNS C27400 | | | | | | | | | | | | | | | | | | | | | | |
| | | 2.036 | CuZn40 CW509L | UNS C28000 | | | | | | | | | | | | | | | | | | | | | | |
| | Messing, Bronze Rm < 400 N/mm ² | 2.0401 | CuZn39Pb3 / CW614N | UNS C38500 | | | | | | | | | | | | | | | | | | | | | | |
| | | 2.102 | CuSn6 | UNS C51900 | | | | | | | | | | | | | | | | | | | | | | |
| Bronze Rm < 600 N/mm ² | 2.0966 | CuAl10Ni5Fe4 | UNS C63000 | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.096 | CuAl9Mn2 | UNS C63200 | | | | | | | | | | | | | | | | | | | | | | | |
| S ₁ | Hitzebeständige Stähle | 2.4856 | | Inconel 625 | | | | | | | | | | | | 5 – 40 | 60 – 120 | 7xd1 | 1xd1 | 0.003 | 0.015 | 0.040 | 0.050 | 0.080 | 0.100 | 0.120 |
| | | 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 | 5 – 40 | 60 – 100 | 7xd1 | 1xd1 | 0.004 | 0.010 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | | | | | | | | | | | |
| | | 3.7065 | Gr.4 | ASTM B348 / F68 | | | | | | | | | | | | | | | | | | | | | | |
| S ₃ | Titan Legierungen | 3.7165 | TiAl6V4 | ASTM B348 / F136 | 5 – 40 | 60 – 100 | 7xd1 | 1xd1 | 0.004 | 0.010 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | | | | | | | | | | | |
| | | 9.9367 | TiAl6Nb7 | ASTM F1295 | | | | | | | | | | | | | | | | | | | | | | |
| H ₁ | Stähle gehärtet < 55 HRC | 1.2510 | 100MnCrMoW4 | AISI O1 | 5 – 40 | 60 – 100 | 7xd1 | 1xd1 | 0.004 | 0.010 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | | | | | | | | | | | |
| | | 2.4964 | CoCr20W15Ni | Haynes 25 | | | | | | | | | | | | | | | | | | | | | | |
| H ₂ | Stähle gehärtet ≥ 55 HRC | 1.2379 | X153CrMoV12 | AISI D2 | 5 – 40 | 60 – 100 | 7xd1 | 1xd1 | 0.004 | 0.010 | 0.030 | 0.040 | 0.060 | 0.080 | 0.100 | | | | | | | | | | | |
| | | | CrCoMo28 | ASTM F1537 | | | | | | | | | | | | | | | | | | | | | | |