

• **Schnittwerte Gewindebohrer**

| Katalognummern 1410... | | 015 100, 101 108, 250 400, 401 408, 550 801,901 921 | 020 021 110 111 415 416 | 025 026 770 791 870 891 | 030 031 | 060 061 |
|---|---------------------------------|---|--|--|--------------|--------------|
| Gewindebohrertyp | | ST VAP | VA VAP | VA TIN | VA TICN | AL |
| Schneidstoff | | HSSE | HSSE | HSSE | HSSE | HSSE |
| Anschnitt | | B | B | B | B | B |
| Toleranz | | ISO2(6H) | ISO2(6H) | ISO2(6H) | ISO2(6H) | ISO2(6H) |
| Beschichtung | | VAP | VAP | TiN | TiCN | |
| Werkstoffgruppe | Beispiele | Schnittgeschwindigkeit Vc in m/min | | | | |
| Baustähle, unlegierte Stähle | St 37-3; St52-3; C45; 16 MnCr 5 | 10-15 | 10-15 | 15-18 | 18-22 | |
| legierte Stähle (Rm < 800N/mm ²) | 31 CrMoV 9; 20 Mn5; 42CrMo4 | 10-12 | 10-12 | 12-15 | 15-18 | |
| legierte, vergütete Stähle (800-1200N/mm ²) | 100Cr6; StE690V; HARDOX400 | | 8-10 | 10-12 | 12-15 | |
| Werkzeugstähle (Rm < 1300N/mm ²) | X 210 Cr 12; X 155 CrMoV 12 1 | | 8-10 | 10-12 | 12-15 | |
| Rost-, säure- und hitzebeständige Stähle | X 10 CrNiS 18 9; X 5 CrNi 18 10 | | 6-8 | 8-10 | 10-12 | |
| Gusseisen mit Lamellengraphit | GG 10; GG 25; GG 40 | | 12-15 | 15-20 | 20-25 | |
| Kugelgraphitguss, Temperguss | GGG 40; GTW 55; GTS 55-04 | | 10-12 | 12-15 | 15-20 | |
| Gusseisen mit Vermikulargraphit | GGV 30; GGV 40 | | 10-12 | 12-15 | 15-20 | |
| Kupfer und Kupferlegierungen (langsp.) | E-Cu; CuZn 36 (MS63); CuZn 30 | | | | 18-22 | 12-15 |
| Kupferlegierungen (kurzspanend) | CnZn 39 Pb 2 (MS58); (MS60) | | 12-15 | 15-18 | 18-22 | |
| Kupfer-Sonderlegierungen (<200HB) | CuAl 5; CuBe2Fe 40; AMPCO16 | | | 15-18 | 18-22 | |
| Kupfer-Sonderlegierungen (200-300HB) | CuBe1,7 F55; AMPCO 20 | | 8-10 | 12-15 | 15-18 | |
| Kupfer-Sonderlegierungen (>300HB) | CuBe 2 F125; AMPCO 22 | | | | 26-32 | |
| Aluminium / Aluminiumlegierungen (<0,5% Si) | Al 99,5; AlCuMg 1; AlMgSiPb | | | | 26-32 | 20-26 |
| Aluminiumlegierungen (0,5-15% Si) | GD-AISI 6 Cu 4; A-AISI 9 Mg | | | 20-26 | 22-26 | |
| Aluminium / Aluminiumlegierungen (>15% Si) | GD-AISI17 Cu 4; G-AISI 21 | | 15-18 | 18-22 | | |
| Reintitan | Ti 99,5; Ti 99,7 | | 3-4 | | | |
| Titanlegierungen (RM < 900 N/mm ²) | TiCu 2; TiAl 6 V 4 | | 3-4 | | | |
| Titanlegierungen (RM 900-1500 N/mm ²) | TiAl 5 V 4; TiAl 6 V 4 | | | | | |
| Reinnickel | Ni 99,6; NiAlBz; Ni 99,4 Fe | | 3-4 | 4-5 | 5-6 | |
| Nickellegierungen (RM < 900 N/mm ²) | Hastelloy C; Inconel 600 | | 3-4 | 4-5 | 5-6 | |
| Nickellegierungen (RM 900-1500 N/mm ²) | Inconel 718; Nimocast | | | | | |
| Thermoplaste | Makrolon; Hostalen; Polystyrol | | | | 26-32 | 20-26 |
| Duroplaste und Pressstoffe | Bakelit; Pertinax; Resopal | | 18-22 | 22-26 | 26-32 | |
| Faserverstärkte Kunststoffe | CFK; GFK | | 18-22 | 22-26 | 26-32 | |

Optimal = **fett**
geeignet = **dünn**

Vc-Werte beziehen sich auf Gewindetiefe 1-1,5xD - über 1,5xD Vc -20%

| | | | | | | | | | | | | | |
|--------------|--------------|--------------|--|--|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------------|--------------|
| 200 201 | 040 041 | 105 106 | 080 081 120 121 130 131 380 381 | 311 315 316 701 751 851 911 931 | 320 321 | 325 326 | 330 331 | 360 361 | 500 501 | 350 351 | 340 341 | 405 406 420 421 | 603 604 |
| Vau 3 | H TiCN | EFF1 | PM- | ST VAP | VA VAP | VA TiN | VA TiCN | AL | Vau 3 | GG TiCN | H TiCN | EFF1 | Eff1 |
| HSSE V3 | HSSE | HSSE | HSSE PM | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE V3 | HSSE | HSSE | HSSE | HSSE |
| B | C | C | C | C | C | C | C | C | C | C | C | C | C |
| ISO2(6H) | ISO2(6H) | 6HX | 6HX | ISO2(6H) | ISO2(6H) | ISO2(6H) | ISO2(6H) | ISO2(6H) | ISO2(6H) | 6HX | ISO2(6H) | 6HX | 6HX |
| VAP | TiCN | TiN/TiCN | HL | VAP | VAP | TiN | TiCN | | VAP | TiCN | TiCN | TiN/TiCN | TiN |
| 15-18 | | 15-30 | 25-30 | 8-12 | 8-12 | 12-15 | 15-18 | | 12-15 | | | 15-30 | 20-30 |
| 12-15 | | 10-25 | 20-25 | 8-10 | 8-10 | 10-12 | 12-15 | | 10-12 | | | 10-25 | 15-22 |
| 10-12 | 15-18 | 5-15 | 12-15 | 6-8 | 6-8 | 8-10 | 10-12 | | 6-8 | | 12-15 | 5-15 | |
| | 15-18 | 5-15 | 12-15 | 6-8 | 6-8 | 8-10 | 10-12 | | | | 12-15 | 5-15 | |
| 10-12 | | 5-12 | 10-12 | 5-6 | 5-6 | 6-8 | 8-10 | | 6-8 | | | 5-12 | 6-10 |
| 10-12 | 26-32 | 10-20 | 22-26 | 10-12 | 10-12 | 12-15 | 15-20 | | 8-10 | 18-22 | 22-26 | 10-20 | |
| 10-12 | 22-26 | 10-20 | 18-22 | 8-10 | 8-10 | 10-12 | 12-15 | | 8-10 | 15-18 | 18-22 | 10-20 | |
| 10-12 | 22-26 | 10-20 | 18-22 | | 8-10 | 10-12 | 12-15 | | 8-10 | 15-18 | 18-22 | 10-20 | |
| | | 20-30 | 26-32 | | | | 15-18 | 10-12 | | | | 20-30 | 18-25 |
| | 22-26 | 20-40 | 18-22 | | 10-12 | 12-15 | 15-18 | | | 15-18 | 18-22 | 20-40 | |
| | | 20-40 | 18-22 | | | 12-15 | 15-18 | | | | | 20-40 | 15-22 |
| | 15-18 | 10-15 | 12-15 | | 8-10 | 8-10 | 12-15 | | | 10-12 | 12-15 | 10-15 | |
| | 12-15 | 10-12 | 10-12 | | | | | | | 8-10 | 10-12 | 10-12 | |
| | | | 30-40 | | | | 22-26 | 18-22 | | | | | 26-32 |
| 10-12 | | | 26-32 | | | 18-22 | 22-26 | | 10-12 | | | | 22-26 |
| | 26-32 | | 22-26 | | 12-15 | 15-18 | 18-22 | | | 22-26 | 22-26 | | |
| 3,5 | | | | | 2-3 | | | | 2-4 | | | | |
| 3,5 | | | | | 2-3 | | | | 2-4 | | | | |
| | | | | | | | | | | | | | |
| 4-5 | | | 6-8 | | 2-3 | 3-4 | 4-5 | | 2-4 | | | | |
| 4-5 | | | 6-8 | | 2-3 | 3-4 | 4-5 | | 2-4 | | | | |
| | 4-5 | | | | | | | | | | 3-4 | | |
| | | | 30-40 | | | | 22-26 | 18-22 | | | | | 26-32 |
| | 30-40 | | 26-32 | | 15-18 | 18-22 | 22-26 | | | 26-32 | 26-32 | | |
| | 30-40 | | | | 15-18 | 18-22 | 22-26 | | | 26-32 | 26-32 | | |

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