

Einsatzwerte Spiralbohrer Typ VA HSSE unbeschichtet (Art.-Nr. 1010526 250-300)

| Materialgruppen für Schnittwerte | Festigkeit [N/mm ²] | Bezeichnung nach DIN | Vc [m/min] | f [mm/U] bei Durchmesser | | | | | |
|-------------------------------------|--|-------------------------|-----------------------|--------------------------|-----------|-----------|----------|-----------|----------|
| | | | | 0-3 | 3-8 | 8-16 | 16-25 | 25-60 | |
| 1. Stähle | | | | | | | | | |
| 1.1 | Automatenstahl | < 900 | 9 S 20 | 30-55 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 1.2 | Baustahl | <500 | ST 37-2 | 30-55 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 1.3 | Baustahl | > 500 | ST 60-2 | 20-50 | 0.02-0.04 | 0.04-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.4 |
| 1.4 | Vergütungsstahl | <1000 | 42 CrMo 4 | 20-30 | 0.02-0.04 | 0.04-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.4 |
| 1.5 | Stahlguss | <1000 | GS-45 | 20-30 | 0.02-0.04 | 0.04-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.4 |
| 1.6 | Einsatzstahl | <1200 | 16 MnCr 5 | 10-30 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 1.7 | Edelstahl ferritisch/ martensitisch | <1100 | X 10 Cr 13 | 8-17 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 1.8 | Vergütungsstahl | >1000 | 43 CrMo 4 | 8-18 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 1.9 | Nitrierstahl | <1300 | 31 CrMoV 9 | 8-20 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 1.10 | Werkzeugstahl | <1300 | X 38 CrMoV 5 1 | 6-14 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 2. Rostfreie Stähle | | | | | | | | | |
| 2.1 | Edelstahl, austenitisch | <1100 | G-X 2 CrNiMo 18 15 | 12-22 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 3. NE-Metalle | | | | | | | | | |
| 3.1 | Aluminium, langspanend | <500 | Al99.9 | 40-120 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.2 | Aluminium, kurzspanend | <500 | G-AlSi12 | 30-80 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.3 | Kupferleg. Bronze langspanend | <1200 | CuSn4 | 15-40 | 0.02-0.04 | 0.04-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.4 |
| 3.4 | Kupferleg. Bronze kurzspanend | <850 | CuNi12Zn24 | 30-55 | 0.02-0.04 | 0.04-0.15 | 0.15-0.2 | 0.2-0.25 | 0.25-0.4 |
| 3.5 | Kupferleg. Messing langspanend | <600 | Cu Zn 20 | 35-65 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.6 | Kupferleg. Messing kurzspanend | <600 | Cu Zn 39 Pb 3 | 60-120 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.7 | Thermoplastic | <100 | PVC, Acrylglas | 20-50 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.8 | Duroplast | <150 | Bakelit, Melamin | 10-30 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 3.9 | Faserverstärkte Kunststoffe | <1500 | CFK, GFK | 10-30 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 3.10 | Graphite | <60 | C8000 | | | | | | |
| 3.11 | Verbundwerkstoffe | | | | | | | | |
| 4. Guss | | | | | | | | | |
| 4.1 | Grauguss | <260 HB | GG10 | 20-35 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 4.2 | Sphäroguss | <310 HB | GGG 40 | 20-35 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 4.3 | Gusseisen mit Kugelgraphit | <280 HB | GTW-55 | 20-35 | 0.02-0.06 | 0.06-0.2 | 0.2-0.28 | 0.28-0.35 | 0.35-0.5 |
| 5. Sonderlegierungen | | | | | | | | | |
| 5.1 | Titanlegierung | <1200 | TiAl5Sn2,5 | 3-10 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 5.2 | Nickelbasislegierung | <1400 | NiCr21Mo | 3-10 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |
| 5.3 | Superlegierungen | <1400 | X45CrSi 9 3 | 3-10 | 0.02-0.04 | 0.04-0.1 | 0.1-0.18 | 0.18-0.2 | 0.2-0.3 |

