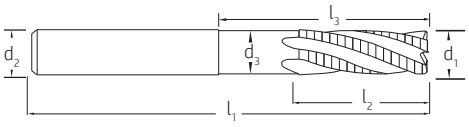



*Technical Info. Page No.* ***131***

| Steels | Stainless Steels | Cast Irons | Hardened Steels | Titaniums | Super Alloys | Aluminiums |
|---|---|---|---|---|---|---|
| <45HRC | - | <390 HB | - | - | - | - |

| $d_1$ | $d_1$ | $d_2$ | $d_3$ | $l_2$ | $l_3$ | $l_1$ | CCx45° | z | EDP No. HA | EDP No. HB |
|---|---|---|---|---|---|---|---|---|---|---|
| | *tol.* | *h6* | *-0.2* | *±0.50* | *±0.50* | *±0.80* | *-0.05* | | AlCrN | AlCrN |
| 4.0 | -0.025 | 6 | 3.8 | 11.0 | 17 | 57 | 0.15 | 4 | EMCA 0500M 0400 | EMCA 0501M 0400 |
| 5.0 | -0.025 | 6 | 4.8 | 13.0 | 19 | 57 | 0.15 | 4 | EMCA 0500M 0500 | EMCA 0501M 0500 |
| 6.0 | -0.025 | 6 | 5.8 | 13.0 | 21 | 57 | 0.20 | 4 | EMCA 0500M 0600 | EMCA 0501M 0600 |
| 8.0 | -0.025 | 8 | 7.6 | 19.0 | 27 | 63 | 0.20 | 4 | EMCA 0500M 0800 | EMCA 0501M 0800 |
| 10.0 | -0.035 | 10 | 9.5 | 22.0 | 32 | 72 | 0.30 | 4 | EMCA 0500M 1000 | EMCA 0501M 1000 |
| 12.0 | -0.035 | 12 | 11.5 | 26.0 | 38 | 83 | 0.35 | 4 | EMCA 0500M 1200 | EMCA 0501M 1200 |
| 16.0 | -0.035 | 16 | 15.5 | 32.0 | 44 | 92 | 040 | 4 | EMCA 0500M 1600 | EMCA 0501M 1600 |
| 20.0 | -0.035 | 20 | 19.5 | 38.0 | 54 | 104 | 0.50 | 4 | EMCA 0500M 2000 | EMCA 0501M 2000 |

| | MATERIAL | Hardness | ap max xD | ae max xD | Vc (m/min) | fz (mm/z) Ø 4 | 5 | 6 | 8 | 10 | 12 | 16 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **SLOTTING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | 1 | 1 | 110 | 0.014 | 0.018 | 0.026 | 0.034 | 0.041 | 0.047 | 0.058 | 0.071 |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm² | 1 | 1 | 70 | 0.013 | 0.016 | 0.024 | 0.031 | 0.037 | 0.042 | 0.052 | 0.064 |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm² | 1 | 1 | 50 | 0.010 | 0.013 | 0.020 | 0.026 | 0.031 | 0.035 | 0.044 | 0.053 |
| M | Stainless Steel : Easy To Machine | <750 N/mm² | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm² | 0.5 | 1 | 50 | 0.010 | 0.013 | 0.020 | 0.026 | 0.031 | 0.035 | 0.044 | 0.053 |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | 1 | 1 | 70 | 0.013 | 0.016 | 0.024 | 0.031 | 0.037 | 0.042 | 0.052 | 0.064 |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm² | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm² | 0.5 | 1 | 30 | 0.012 | 0.015 | 0.018 | 0.024 | 0.029 | 0.033 | 0.041 | 0.050 |
| | **SIDE MILLING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | 1.5 | 0.5 | 130 | 0.020 | 0.025 | 0.031 | 0.041 | 0.049 | 0.056 | 0.070 | 0.085 |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm² | 1.5 | 0.5 | 90 | 0.020 | 0.025 | 0.028 | 0.037 | 0.044 | 0.050 | 0.063 | 0.077 |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm² | 1.2 | 0.3 | 60 | 0.016 | 0.020 | 0.025 | 0.033 | 0.039 | 0.045 | 0.056 | 0.068 |
| M | Stainless Steel : Easy To Machine | <750 N/mm² | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm² | 1.2 | 0.3 | 60 | 0.016 | 0.020 | 0.025 | 0.033 | 0.039 | 0.045 | 0.056 | 0.068 |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | 1.5 | 0.5 | 90 | 0.020 | 0.025 | 0.028 | 0.037 | 0.044 | 0.050 | 0.063 | 0.077 |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm² | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm² | 1.2 | 0.3 | 40 | 0.024 | 0.030 | 0.035 | 0.045 | 0.054 | 0.062 | 0.077 | 0.094 |
| | **RAMPING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | | | | | | | | | | | |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm2 | | | | | | | | | | | |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm2 | | | | | | | | | | | |
| M | Stainless Steel : Easy To Machine | <750 N/mm2 | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm2 | | | | | | | | | | | |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | | | | | | | | | | | |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm2 | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm2 | | | | | | | | | | | |
| | **HELICAL MILLING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | 7° | 04 | 110 | 0.012 | 0.015 | 0.018 | 0.024 | 0.029 | 0.033 | 0.041 | 0.050 |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm² | 5° | 04 | 70 | 0.011 | 0.014 | 0.017 | 0.022 | 0.027 | 0.031 | 0.038 | 0.046 |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm² | 3° | 04 | 50 | 0.010 | 0.013 | 0.016 | 0.020 | 0.025 | 0.028 | 0.035 | 0.043 |
| M | Stainless Steel : Easy To Machine | <750 N/mm² | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm² | 3° | 04 | 50 | 0.010 | 0.013 | 0.016 | 0.020 | 0.025 | 0.028 | 0.035 | 0.043 |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | 5° | 04 | 70 | 0.011 | 0.014 | 0.017 | 0.022 | 0.027 | 0.031 | 0.038 | 0.046 |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm² | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm² | | | | | | | | | | | |
| | **DRILLING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | | | | | | | | | | | |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm² | | | | | | | | | | | |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm² | | | | | | | | | | | |
| M | Stainless Steel : Easy To Machine | <750 N/mm² | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm² | | | | | | | | | | | |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | | | | | | | | | | | |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm² | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm² | | | | | | | | | | | |
| | **TROCHOIDAL MILLING** | | | | | | | | | | | | |
| P | Steels, Alloy Steels and Tool Steels | <850 N/mm² | 2 | 0.1 | 160 | 0.044 | 0.055 | 0.066 | 0.085 | 0.102 | 0.117 | 0.146 | 0.177 |
| | Steels, Alloy Steels and Tool Steels | 850-1200 N/mm² | 2 | 0.1 | 110 | 0.039 | 0.049 | 0.059 | 0.077 | 0.092 | 0.105 | 0.131 | 0.160 |
| | Steels, Alloy Steels and Tool Steels | <1400 N/mm² | 1.5 | 0.05 | 80 | 0.036 | 0.045 | 0.052 | 0.068 | 0.082 | 0.093 | 0.117 | 0.142 |
| M | Stainless Steel : Easy To Machine | <750 N/mm² | | | | | | | | | | | |
| | Stainless Steel : Difficult To Machine | <950 N/mm² | 1.5 | 0.05 | 80 | 0.036 | 0.045 | 0.052 | 0.068 | 0.082 | 0.093 | 0.117 | 0.142 |
| K | Cast Irons, Grey, Spher., Melleable | <300 HB | 2 | 0.1 | 110 | 0.039 | 0.049 | 0.059 | 0.077 | 0.092 | 0.105 | 0.131 | 0.160 |
| N | Aluminiums, Aluminiums Alloys | <6% Si | | | | | | | | | | | |
| S | Titanium , Titanium Alloys | <1100N/mm² | | | | | | | | | | | |
| S | HRSA (Nickel Alloys, Co. Alloys) | <1300N/mm² | 1.5 | 0.05 | 50 | 0.048 | 0.060 | 0.072 | 0.094 | 0.112 | 0.128 | 0.016 | 0.195 |

Technical Data provided should be considered advisory only as variations may be necessary depending on the particular application