



E5400 SERIES

PLAIN SHANK
GLATTER ZYLINDERSCHAFT

CARBIDE, 2 FLUTE DRILL MILLS
VOLLHARTMETALL, 2 SCHNEIDEN BOHRNUTEN FRÄSER



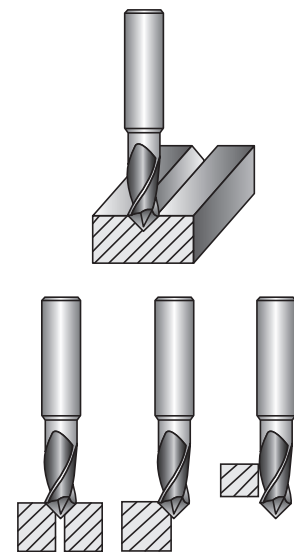
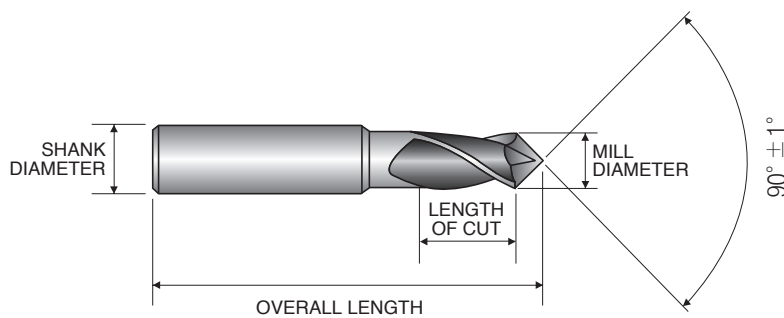
P.1127, 1128, 1129, 1130, 1131, 1132

Unit : mm

| EDP No. | Mill Diameter | Shank Diameter h6 | Length of Cut | Overall Length |
|----------|---------------|----------------------|---------------|----------------|
| PLAIN | | | | |
| E5400030 | 3.0 | 4 | 6 | 50 |
| E5400040 | 4.0 | 5 | 8 | 50 |
| E5400050 | 5.0 | 6 | 10 | 50 |
| E5400060 | 6.0 | 8 | 12 | 60 |
| E5400080 | 8.0 | 10 | 16 | 70 |
| E5400100 | 10.0 | 12 | 18 | 70 |
| E5400120 | 12.0 | 12 | 20 | 70 |
| E5540140 | 14.0 | 14 | 24 | 80 |
| E5400160 | 16.0 | 16 | 26 | 80 |
| E5400200 | 20.0 | 20 | 32 | 100 |

► TIN, TiCN-COATING & TiAlN-COATING are available on your request.

- Performs many drilling and milling operations are not presently done with the standard end mill.
- Among the many vertical milling machine operations, the Drill Mill performs are : Drilling, Slotting, NC Milling
Drilling & Slotting, Profile Milling, Chamfering.



| Mill Dia. Tolerance(mm) | Shank Dia. Tolerance |
|-----------------------------|----------------------|
| Ø3 ~ Ø10=h9 Ø12 ~ Ø20=d9 | h6 |

◎ : Excellent ○ : Good

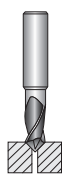
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | High Hardened Steels | Copper | Graphite | Cast Iron | Aluminum | Stainless Steels | Titanium | Inconel | Acrylic | CFRP |
|---------------|--------------|--------------------|-----------------|----------|----------------------|--------|----------|-----------|----------|------------------|----------|---------|---------|------|
| ~HB225 | HB225~325 | HRC30~40 | HRC40~45 | HRC45~55 | HRC55~70 | | | | | | | | | |
| ◎ | ◎ | ◎ | | | | | | ○ | ○ | ○ | | | | |

CARBIDE, 2 FLUTE - CHAMFERING
VOLLHARTMETALL, 2 SCHNEIDEN - SENKEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|----|-------|--|------|----|-------|--|------|----|-------|
| HARDNESS | ~ HRc20 | | | | HRc20 ~ HRc30 | | | | HRc30 ~ HRc40 | | | |
| STRENGTH | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 4400 | 220 | 40 | 0.025 | 3500 | 160 | 35 | 0.023 | 3000 | 140 | 30 | 0.023 |
| 4.0 | 3600 | 220 | 45 | 0.031 | 3000 | 160 | 40 | 0.027 | 2500 | 140 | 30 | 0.028 |
| 5.0 | 2860 | 230 | 45 | 0.040 | 2400 | 170 | 40 | 0.035 | 2000 | 140 | 30 | 0.035 |
| 6.0 | 2300 | 240 | 45 | 0.052 | 2000 | 170 | 40 | 0.043 | 1600 | 140 | 30 | 0.044 |
| 8.0 | 1760 | 250 | 45 | 0.071 | 1540 | 180 | 40 | 0.058 | 1200 | 145 | 30 | 0.060 |
| 10.0 | 1500 | 250 | 45 | 0.083 | 1300 | 190 | 40 | 0.073 | 1100 | 145 | 35 | 0.066 |
| 12.0 | 1300 | 260 | 50 | 0.100 | 1100 | 200 | 40 | 0.091 | 900 | 150 | 35 | 0.083 |
| 10.0 | 1000 | 250 | 30 | 0.125 | 950 | 200 | 30 | 0.105 | 700 | 160 | 20 | 0.114 |
| 20.0 | 950 | 260 | 60 | 0.137 | 750 | 210 | 45 | 0.140 | 600 | 160 | 40 | 0.133 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| HARDNESS | | | | | | | | |
| STRENGTH | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 2400 | 100 | 25 | 0.021 | 11000 | 550 | 105 | 0.025 |
| 4.0 | 2000 | 100 | 25 | 0.025 | 9000 | 580 | 115 | 0.032 |
| 5.0 | 1760 | 105 | 30 | 0.030 | 6900 | 620 | 110 | 0.045 |
| 6.0 | 1400 | 105 | 25 | 0.038 | 5600 | 640 | 105 | 0.057 |
| 8.0 | 1000 | 110 | 25 | 0.055 | 4400 | 660 | 110 | 0.075 |
| 10.0 | 870 | 110 | 25 | 0.063 | 4000 | 680 | 125 | 0.085 |
| 12.0 | 730 | 115 | 30 | 0.079 | 3500 | 700 | 130 | 0.100 |
| 10.0 | 550 | 120 | 15 | 0.109 | 2750 | 740 | 85 | 0.135 |
| 20.0 | 530 | 130 | 35 | 0.123 | 2200 | 770 | 140 | 0.175 |



※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t



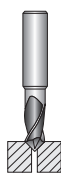
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE TiAIN-COATED - CHAMFERING
VOLLHARTMETALL, 2 SCHNEIDEN TiAIN-BESCHICHTET - SENKEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|----|-------|--|------|----|-------|--|------|----|-------|
| HARDNESS | ~ HRc20 | | | | HRc20 ~ HRc30 | | | | HRc30 ~ HRc40 | | | |
| STRENGTH | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 6160 | 310 | 60 | 0.025 | 4900 | 225 | 45 | 0.023 | 4200 | 195 | 40 | 0.023 |
| 4.0 | 5040 | 310 | 65 | 0.031 | 4200 | 225 | 55 | 0.027 | 3500 | 195 | 45 | 0.028 |
| 5.0 | 4005 | 320 | 65 | 0.040 | 3360 | 240 | 55 | 0.036 | 2800 | 195 | 45 | 0.035 |
| 6.0 | 3220 | 335 | 60 | 0.052 | 2800 | 240 | 55 | 0.043 | 2240 | 195 | 40 | 0.044 |
| 8.0 | 2465 | 350 | 60 | 0.071 | 2155 | 250 | 55 | 0.058 | 1680 | 2030 | 40 | 0.604 |
| 10.0 | 2100 | 350 | 65 | 0.083 | 1820 | 265 | 55 | 0.073 | 1540 | 2030 | 50 | 0.659 |
| 12.0 | 1820 | 365 | 70 | 0.100 | 1540 | 280 | 60 | 0.091 | 1260 | 210 | 50 | 0.083 |
| 16.0 | 1400 | 350 | 70 | 0.125 | 1330 | 280 | 65 | 0.105 | 980 | 225 | 50 | 0.115 |
| 20.0 | 1330 | 365 | 85 | 0.137 | 1050 | 295 | 65 | 0.140 | 840 | 225 | 55 | 0.134 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| HARDNESS | | | | | | | | |
| STRENGTH | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 3360 | 140 | 30 | 0.021 | 15400 | 770 | 145 | 0.025 |
| 4.0 | 2800 | 140 | 35 | 0.025 | 12600 | 810 | 160 | 0.032 |
| 5.0 | 2465 | 145 | 40 | 0.029 | 9660 | 870 | 150 | 0.045 |
| 6.0 | 1960 | 145 | 35 | 0.037 | 7840 | 895 | 150 | 0.057 |
| 8.0 | 1400 | 155 | 35 | 0.055 | 6160 | 925 | 155 | 0.075 |
| 10.0 | 1220 | 155 | 40 | 0.064 | 5600 | 950 | 175 | 0.085 |
| 12.0 | 1020 | 160 | 40 | 0.078 | 4900 | 980 | 185 | 0.100 |
| 16.0 | 770 | 170 | 40 | 0.110 | 3850 | 1035 | 195 | 0.134 |
| 20.0 | 740 | 180 | 45 | 0.122 | 3080 | 1080 | 195 | 0.175 |



※The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE - CHAMFERING & SIDE CUTTING
VOLLHARTMETALL, 2 SCHNEIDEN - SENKEN & SEITENFRÄSEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|----|-------|--|------|----|-------|--|------|----|-------|
| | ~ HRC20 | | | | HRC20 ~ HRC30 | | | | HRC30 ~ HRC40 | | | |
| HARDNESS | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| STRENGTH | | | | | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 5900 | 95 | 55 | 0.008 | 3900 | 65 | 35 | 0.008 | 3300 | 50 | 30 | 0.008 |
| 4.0 | 4800 | 95 | 60 | 0.010 | 3200 | 65 | 40 | 0.010 | 2800 | 50 | 35 | 0.009 |
| 5.0 | 3800 | 100 | 60 | 0.013 | 2500 | 65 | 40 | 0.013 | 2200 | 55 | 35 | 0.013 |
| 6.0 | 3000 | 110 | 55 | 0.018 | 2000 | 70 | 40 | 0.018 | 1800 | 60 | 35 | 0.017 |
| 8.0 | 2300 | 115 | 60 | 0.025 | 1540 | 75 | 40 | 0.024 | 1300 | 65 | 35 | 0.025 |
| 10.0 | 2000 | 120 | 65 | 0.030 | 1300 | 80 | 40 | 0.031 | 1200 | 65 | 40 | 0.027 |
| 12.0 | 1760 | 130 | 65 | 0.037 | 1100 | 90 | 40 | 0.041 | 1000 | 70 | 40 | 0.035 |
| 16.0 | 1300 | 140 | 65 | 0.054 | 900 | 90 | 45 | 0.050 | 770 | 70 | 40 | 0.045 |
| 20.0 | 1100 | 140 | 70 | 0.064 | 700 | 90 | 45 | 0.064 | 600 | 70 | 40 | 0.058 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 2400 | 40 | 25 | 0.008 | 14000 | 230 | 130 | 0.008 |
| 4.0 | 2000 | 40 | 25 | 0.010 | 12000 | 240 | 150 | 0.010 |
| 5.0 | 1760 | 45 | 30 | 0.013 | 9500 | 250 | 150 | 0.013 |
| 6.0 | 1400 | 50 | 25 | 0.018 | 7700 | 300 | 145 | 0.019 |
| 8.0 | 1100 | 55 | 30 | 0.025 | 5800 | 350 | 145 | 0.030 |
| 10.0 | 1000 | 55 | 30 | 0.028 | 5100 | 380 | 160 | 0.037 |
| 12.0 | 840 | 60 | 30 | 0.036 | 4400 | 400 | 165 | 0.045 |
| 16.0 | 660 | 60 | 35 | 0.045 | 3300 | 330 | 165 | 0.050 |
| 20.0 | 440 | 60 | 30 | 0.068 | 2640 | 340 | 165 | 0.064 |



※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

- CARBIDE
- HSS
- CBN END MILLS
- i-Xmill END MILLS
- i-HS mill END MILLS
- X5070 END MILLS
- 4G MILL END MILLS
- X-SPEED ROUGHER END MILLS
- X-POWER END MILLS
- JET-POWER END MILLS
- TN MILL END MILLS
- V7 Mill END MILLS
- ALU-POWER END MILLS
- CRX S END MILLS
- D-POWER GRAPHITE END MILLS
- D-POWER CFRP END MILLS
- ROUTERS
- K-2 CARBIDE END MILLS
- GENERAL CARBIDE END MILLS
- TANK-POWER END MILLS
- GENERAL HSS END MILLS
- MILLING CUTTERS
- TECHNICAL DATA



RECOMMENDED CUTTING CONDITIONS
EMFOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE TiAlN-COATED - CHAMFERING & SIDE CUTTING
VOLLHARTMETALL, 2 SCHNEIDEN TiAlN-BESCHICHTET - SENKEN & SEITENFRÄSEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|----|-------|--|------|----|-------|--|------|----|-------|
| HARDNESS | ~ HRc20 | | | | HRc20 ~ HRc30 | | | | HRc30 ~ HRc40 | | | |
| STRENGTH | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 8260 | 135 | 80 | 0.008 | 5460 | 90 | 50 | 0.008 | 4620 | 70 | 45 | 0.008 |
| 4.0 | 6720 | 135 | 85 | 0.010 | 4480 | 90 | 55 | 0.010 | 3920 | 70 | 50 | 0.009 |
| 5.0 | 5320 | 140 | 85 | 0.013 | 3500 | 90 | 55 | 0.013 | 3080 | 75 | 50 | 0.012 |
| 6.0 | 4200 | 155 | 80 | 0.018 | 2800 | 100 | 55 | 0.018 | 2520 | 85 | 50 | 0.017 |
| 8.0 | 3220 | 160 | 80 | 0.025 | 2155 | 105 | 55 | 0.024 | 1820 | 90 | 45 | 0.025 |
| 10.0 | 2800 | 170 | 90 | 0.030 | 1820 | 110 | 55 | 0.030 | 1680 | 90 | 55 | 0.027 |
| 12.0 | 2465 | 180 | 95 | 0.037 | 1540 | 125 | 60 | 0.041 | 1400 | 100 | 55 | 0.036 |
| 16.0 | 1820 | 195 | 90 | 0.054 | 1260 | 125 | 65 | 0.050 | 1080 | 100 | 55 | 0.046 |
| 20.0 | 1540 | 195 | 95 | 0.063 | 980 | 125 | 60 | 0.064 | 840 | 100 | 55 | 0.060 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| HARDNESS | | | | | | | | |
| STRENGTH | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 3360 | 55 | 30 | 0.008 | 19600 | 320 | 185 | 0.008 |
| 4.0 | 2800 | 55 | 35 | 0.010 | 16800 | 335 | 210 | 0.010 |
| 5.0 | 2465 | 65 | 40 | 0.013 | 13300 | 350 | 210 | 0.013 |
| 6.0 | 1960 | 70 | 35 | 0.018 | 10780 | 420 | 205 | 0.019 |
| 8.0 | 1540 | 75 | 40 | 0.024 | 8120 | 490 | 205 | 0.030 |
| 10.0 | 1400 | 75 | 45 | 0.027 | 7140 | 530 | 225 | 0.037 |
| 12.0 | 1175 | 85 | 45 | 0.036 | 6160 | 560 | 230 | 0.045 |
| 16.0 | 925 | 85 | 45 | 0.046 | 4620 | 460 | 230 | 0.050 |
| 20.0 | 615 | 85 | 40 | 0.069 | 3695 | 475 | 230 | 0.064 |



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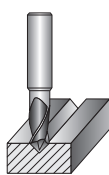
RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t

CARBIDE, 2 FLUTE - V-GROOVING
VOLLHARTMETALL, 2 SCHNEIDEN - ENTGRATEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|----|-------|--|------|----|-------|--|------|----|-------|
| HARDNESS | ~ HRC20 | | | | HRC20 ~ HRC30 | | | | HRC30 ~ HRC40 | | | |
| STRENGTH | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 5900 | 60 | 55 | 0.005 | 4000 | 30 | 40 | 0.004 | 3300 | 25 | 30 | 0.004 |
| 4.0 | 4800 | 60 | 60 | 0.006 | 3300 | 30 | 40 | 0.005 | 2800 | 25 | 35 | 0.004 |
| 5.0 | 3800 | 60 | 60 | 0.008 | 2500 | 30 | 40 | 0.006 | 2200 | 25 | 35 | 0.006 |
| 6.0 | 3000 | 60 | 55 | 0.010 | 2000 | 30 | 40 | 0.008 | 1800 | 30 | 35 | 0.008 |
| 8.0 | 2300 | 65 | 60 | 0.014 | 1540 | 35 | 40 | 0.011 | 1300 | 35 | 35 | 0.013 |
| 10.0 | 2000 | 65 | 65 | 0.016 | 1300 | 35 | 40 | 0.013 | 1200 | 35 | 40 | 0.015 |
| 12.0 | 1760 | 65 | 65 | 0.018 | 1000 | 40 | 40 | 0.020 | 1000 | 35 | 40 | 0.018 |
| 16.0 | 1400 | 65 | 70 | 0.023 | 900 | 40 | 45 | 0.022 | 770 | 35 | 40 | 0.023 |
| 20.0 | 1100 | 65 | 70 | 0.030 | 700 | 40 | 45 | 0.029 | 600 | 35 | 40 | 0.029 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| HARDNESS | | | | | | | | |
| STRENGTH | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 2400 | 20 | 25 | 0.004 | 14000 | 220 | 130 | 0.008 |
| 4.0 | 2000 | 20 | 25 | 0.005 | 11800 | 230 | 150 | 0.010 |
| 5.0 | 1760 | 20 | 30 | 0.006 | 9500 | 240 | 150 | 0.013 |
| 6.0 | 1400 | 20 | 25 | 0.007 | 7700 | 250 | 145 | 0.016 |
| 8.0 | 1100 | 20 | 30 | 0.009 | 5800 | 260 | 145 | 0.022 |
| 10.0 | 1000 | 20 | 30 | 0.010 | 5000 | 260 | 155 | 0.026 |
| 12.0 | 840 | 20 | 30 | 0.012 | 4400 | 260 | 165 | 0.030 |
| 16.0 | 660 | 25 | 35 | 0.019 | 3300 | 270 | 165 | 0.041 |
| 20.0 | 440 | 25 | 30 | 0.028 | 2600 | 270 | 165 | 0.052 |



※ The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t



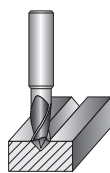
RECOMMENDED CUTTING CONDITIONS
EMPHOHLENE SCHNEIDKONDITIONEN

CARBIDE, 2 FLUTE TiAlN-COATED - V-GROOVING
VOLLHARTMETALL, 2 SCHNEIDEN TiAlN-BESCHICHTET - ENTGRATEN

E5400 SERIES

| MATERIAL | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | | CARBON STEELS ALLOY STEELS TOOL STEELS | | | |
|----------|--|------|-----|-------|--|------|----|-------|--|------|----|-------|
| HARDNESS | ~ HRC20 | | | | HRC20 ~ HRC30 | | | | HRC30 ~ HRC40 | | | |
| STRENGTH | 500 ~ 800N/mm ² | | | | 800 ~ 1000N/mm ² | | | | 1000 ~ 1300N/mm ² | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 8260 | 85 | 80 | 0.005 | 5600 | 40 | 55 | 0.004 | 4620 | 35 | 45 | 0.004 |
| 4.0 | 6720 | 85 | 85 | 0.006 | 4620 | 40 | 60 | 0.004 | 3920 | 35 | 50 | 0.004 |
| 5.0 | 5320 | 85 | 85 | 0.008 | 3500 | 40 | 55 | 0.006 | 3080 | 35 | 50 | 0.006 |
| 6.0 | 4200 | 85 | 80 | 0.010 | 2800 | 40 | 55 | 0.007 | 2520 | 40 | 50 | 0.008 |
| 8.0 | 3220 | 90 | 80 | 0.014 | 2155 | 50 | 55 | 0.012 | 1820 | 50 | 45 | 0.014 |
| 10.0 | 2800 | 90 | 90 | 0.016 | 1820 | 50 | 55 | 0.014 | 1680 | 50 | 55 | 0.015 |
| 12.0 | 2465 | 90 | 95 | 0.018 | 1400 | 55 | 55 | 0.020 | 1400 | 50 | 55 | 0.018 |
| 16.0 | 1960 | 90 | 100 | 0.023 | 1260 | 55 | 65 | 0.022 | 1080 | 50 | 55 | 0.023 |
| 20.0 | 1540 | 90 | 95 | 0.029 | 980 | 55 | 60 | 0.028 | 840 | 50 | 55 | 0.030 |

| MATERIAL | STAINLESS STEELS TITANIUM ALLOYS | | | | ALUMINUM ALLOYS | | | |
|----------|-------------------------------------|------|----|-------|-----------------|------|-----|-------|
| HARDNESS | | | | | | | | |
| STRENGTH | | | | | | | | |
| DIAMETER | RPM | FEED | Vc | fz | RPM | FEED | Vc | fz |
| 3.0 | 3360 | 30 | 30 | 0.004 | 19600 | 310 | 185 | 0.008 |
| 4.0 | 2800 | 30 | 35 | 0.005 | 16520 | 320 | 210 | 0.010 |
| 5.0 | 2465 | 30 | 40 | 0.006 | 13300 | 335 | 210 | 0.013 |
| 6.0 | 1960 | 30 | 35 | 0.008 | 10780 | 350 | 205 | 0.016 |
| 8.0 | 1540 | 30 | 40 | 0.010 | 8120 | 365 | 205 | 0.022 |
| 10.0 | 1400 | 30 | 45 | 0.011 | 7000 | 365 | 220 | 0.026 |
| 12.0 | 1175 | 30 | 45 | 0.013 | 6160 | 365 | 230 | 0.030 |
| 16.0 | 925 | 35 | 45 | 0.019 | 4620 | 380 | 230 | 0.041 |
| 20.0 | 615 | 35 | 40 | 0.028 | 3640 | 380 | 230 | 0.052 |



※The FEED, in long & extra long types, should be reduced by around 50%

RPM = rev./min.
FEED = mm/min.
Vc = m/min.
fz = mm/t