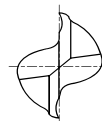




HSSCo8, 2 FLUTE 42° HELIX LONG LENGTH for ALUMINUM

- HSSCo8, 2 SCHNEIDEN 42° RECHTSSPIRALE KURZ für ALUMINIUM
- Fraise HSSCo8, 2 dents, hélice 42°, pour aluminium, longue
- 2 TAGLIENTI, ELICA 42°, SERIE LUNGA - HSSCo8

for ALUMINUM
für ALUMINIUM



P.748~749

Unit : mm

| EDP No. | Mill Diameter | Shank Diameter | Length of Cut | Overall Length |
|----------|---------------|----------------|---------------|----------------|
| UNCOATED | e8 | h6 | | |
| E2509020 | 2.0 | 6 | 10 | 54 |
| E2509030 | 3.0 | 6 | 12 | 56 |
| E2509040 | 4.0 | 6 | 19 | 63 |
| E2509050 | 5.0 | 6 | 24 | 68 |
| E2509060 | 6.0 | 6 | 24 | 68 |
| E2509070 | 7.0 | 10 | 30 | 80 |
| E2509080 | 8.0 | 10 | 38 | 88 |
| E2509090 | 9.0 | 10 | 38 | 88 |
| E2509100 | 10.0 | 10 | 45 | 95 |
| E2509110 | 11.0 | 12 | 45 | 102 |
| E2509120 | 12.0 | 12 | 53 | 110 |
| E2509130 | 13.0 | 12 | 53 | 110 |
| E2509140 | 14.0 | 12 | 53 | 110 |
| E2509150 | 15.0 | 12 | 53 | 110 |
| E2509160 | 16.0 | 16 | 63 | 123 |
| E2509180 | 18.0 | 16 | 63 | 123 |
| E2509200 | 20.0 | 20 | 75 | 141 |

- ▶ Other shank design on your request.
- ▶ TiN and TiCN Coatings are available on your request.

Tolerances according to DIN 7160 & 7161

| | Tolerance range in μm | | | | | |
|----|----------------------------------|-------------|--------------|---------------|---------------|---------------|
| | Nominal-Diameter in mm | | | | | |
| | from 1 to 3 | over 3 to 6 | over 6 to 10 | over 10 to 18 | over 18 to 30 | over 30 to 50 |
| e8 | -14 | -20 | -25 | -32 | -40 | -50 |
| | -28 | -38 | -47 | -59 | -73 | -89 |
| h6 | 0 | 0 | 0 | 0 | 0 | 0 |
| | -6 | -8 | -9 | -11 | -13 | -16 |

◎ : Excellent ○ : Good

| ISO | P | | | | | | | | | | M | | | | K | | | | | | |
|----------------------|------------------------|-----|------------------------|-----|-----|---|-----|-----|------------------------|-----|------------------------------------|-----|-----|-----|-----------------|--------|-----------------|-----|-------------------|-------------------|---------------------|
| | Non-alloy steel | | | | | Low alloy steel | | | | | High alloyed steel, and tool steel | | | | Stainless steel | | Grey cast iron | | Nodular cast iron | | Malleable cast iron |
| Material Description | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
| VDI 3323 | | | | | | | | | | | | | | | | | | | | | |
| HRc | 13 | 25 | 28 | 32 | 10 | 29 | 32 | 38 | 15 | 35 | 15 | 23 | 10 | 10 | 26 | 3 | 25 | 42 | 55 | | |
| HB | 125 | 190 | 250 | 270 | 300 | 180 | 275 | 300 | 350 | 200 | 325 | 200 | 240 | 180 | 180 | 260 | 160 | 250 | 130 | 230 | |
| Recommend | ○ | ○ | | | | ○ | | | | ○ | | | | | | | | | | | |
| ISO | N | | | | | | | | | | S | | | | | | H | | | | |
| | Aluminum-wrought alloy | | Aluminum-cast, alloyed | | | Copper and Copper Alloys (Bronze / Brass) | | | Non Metallic Materials | | Heat Resistant Super Alloys | | | | | | Titanium Alloys | | Hardened steel | Chilled Cast Iron | Hardened Cast Iron |
| Material Description | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 |
| VDI 3323 | | | | | | | | | | | | | | | | | | | | | |
| HRc | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 15 | 30 | 25 | 38 | 34 | 34 | 34 | 55 | 60 | 42 | 55 |
| HB | 60 | 100 | 75 | 90 | 130 | 110 | 90 | 100 | | | 200 | 280 | 250 | 350 | 320 | 400 Rm | 1050 Rm | 550 | 630 | 400 | 550 |
| Recommend | ◎ | ◎ | ◎ | ◎ | ○ | | | | | | | | | | | | | | | | |



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

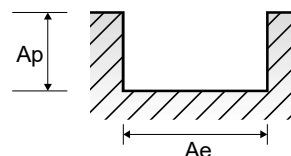
EQ570, EQ571, EQ510 SERIES 2 FLUTE TiAlN COATED - SLOTTING

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

| ISO | VDI 3323 | Material Description | Ae | Ap | Parameter | Diameter (Ø) | | | | | | | | |
|------|----------|------------------------|------|-------|-----------|--------------|-------|-------|-------|-------|-------|-------|-------|----|
| | | | | | | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 8.0 | 10.0 | 12.0 | |
| P | 1 | Non-alloy steel | 1.0D | 0.5D | Vc | 50 | 45 | 50 | 50 | 45 | 50 | 50 | 45 | |
| | | | | | fz | 0.004 | 0.008 | 0.013 | 0.02 | 0.025 | 0.036 | 0.045 | 0.062 | |
| | | | | | RPM | 7958 | 4775 | 3979 | 3183 | 2387 | 1989 | 1592 | 1194 | |
| | 2 | | 1.0D | 0.5D | Vc | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | | | | | fz | 0.003 | 0.007 | 0.012 | 0.02 | 0.024 | 0.04 | 0.05 | 0.064 | |
| | | | | | RPM | 6366 | 4244 | 3183 | 2546 | 2122 | 1592 | 1273 | 1061 | |
| | 3-4 | | 1.0D | 0.5D | Vc | 35 | 35 | 30 | 35 | 30 | 30 | 35 | 35 | |
| | | | | | fz | 0.004 | 0.008 | 0.013 | 0.019 | 0.025 | 0.04 | 0.05 | 0.061 | |
| | | | | | RPM | 5570 | 3714 | 2387 | 2228 | 1592 | 1194 | 1114 | 928 | |
| | 5 | | 1.0D | 0.5D | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| | | | | | fz | 0.003 | 0.007 | 0.013 | 0.02 | 0.025 | 0.041 | 0.05 | 0.064 | |
| RPM | | 3183 | | | 2122 | 1592 | 1273 | 1061 | 796 | 637 | 531 | | | |
| 6 | 1.0D | 0.5D | Vc | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | | | |
| | | | fz | 0.003 | 0.007 | 0.012 | 0.02 | 0.024 | 0.04 | 0.05 | 0.064 | | | |
| | | | RPM | 6366 | 4244 | 3183 | 2546 | 2122 | 1592 | 1273 | 1061 | | | |
| 7 | 1.0D | 0.5D | Vc | 35 | 35 | 30 | 35 | 30 | 30 | 35 | 35 | | | |
| | | | fz | 0.004 | 0.008 | 0.013 | 0.019 | 0.025 | 0.04 | 0.05 | 0.061 | | | |
| | | | RPM | 5570 | 3714 | 2387 | 2228 | 1592 | 1194 | 1114 | 928 | | | |
| 8-9 | 1.0D | 0.5D | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | | |
| | | | fz | 0.003 | 0.007 | 0.013 | 0.02 | 0.025 | 0.041 | 0.05 | 0.064 | | | |
| | | | RPM | 3183 | 2122 | 1592 | 1273 | 1061 | 796 | 637 | 531 | | | |
| 10 | 1.0D | 0.5D | Vc | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | | | |
| | | | fz | 0.003 | 0.007 | 0.012 | 0.02 | 0.024 | 0.04 | 0.05 | 0.064 | | | |
| | | | RPM | 6366 | 4244 | 3183 | 2546 | 2122 | 1592 | 1273 | 1061 | | | |
| 11.1 | 1.0D | 0.5D | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | | | |
| | | | fz | 0.003 | 0.007 | 0.013 | 0.02 | 0.025 | 0.041 | 0.05 | 0.064 | | | |
| | | | RPM | 3183 | 2122 | 1592 | 1273 | 1061 | 796 | 637 | 531 | | | |
| N | 21-22 | Aluminum-wrought alloy | 1.0D | 0.5D | Vc | 105 | 145 | 140 | 140 | 150 | 140 | 135 | 130 | |
| | | | | | fz | 0.007 | 0.011 | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | |
| | | | | | RPM | 16711 | 15385 | 11141 | 8913 | 7958 | 5570 | 4297 | 3448 | |
| N | 23-24 | Aluminum-cast, alloyed | 1.0D | 0.5D | Vc | 68 | 94 | 91 | 91 | 98 | 91 | 88 | 85 | |
| | | | | | fz | 0.007 | 0.011 | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | |
| | | | | | RPM | 10823 | 9974 | 7242 | 5793 | 5199 | 3621 | 2801 | 2255 | |

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

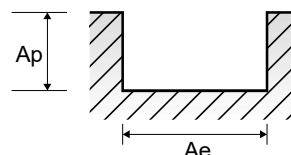
▶ NEXT PAGE



E2464, E2509 SERIES 2 FLUTE - SLOTTING

| ISO | VDI 3323 | Material Description | Ae | Ap | Parameter | Diameter (Ø) | | | | | | | | |
|-----|----------|------------------------|------|------|-----------|--------------|------|-------|------|------|-------|-------|-------|-------|
| | | | | | | 3.0 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 |
| N | 21-22 | Aluminum-wrought alloy | 1.0D | 0.5D | Vc | 75 | 130 | 150 | 155 | 190 | 155 | 175 | 130 | 145 |
| | | | | | fz | 0.035 | 0.05 | 0.071 | 0.12 | 0.12 | 0.177 | 0.177 | 0.283 | 0.283 |
| | | | | | RPM | 7958 | 6897 | 5968 | 4934 | 5040 | 3524 | 3482 | 2299 | 2308 |
| | 23-24 | Aluminum-cast, alloyed | 1.0D | 0.5D | Vc | 557 | 690 | 848 | 1184 | 1210 | 1248 | 1232 | 1301 | 1306 |
| | | | | | fz | 49 | 85 | 98 | 101 | 124 | 101 | 114 | 85 | 94 |
| | | | | | RPM | 5199 | 4509 | 3899 | 3215 | 3289 | 2296 | 2268 | 1503 | 1496 |
| | | | | | FEED | 364 | 451 | 554 | 772 | 789 | 813 | 803 | 851 | 847 |

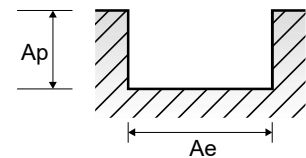
▶ NEXT PAGE



EQ570, EQ571, EQ510 SERIES 2 FLUTE TIALN COATED - SLOTTING

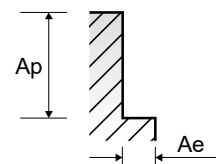
Vc = m/min.
fz = mm/tooth
RPM = rev./min.
FEED = mm/min.

| VDI 3323 | Parameter | Diameter (Ø) | | | | | | | | | | |
|----------|-----------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 | 25.0 | 28.0 | 30.0 | 32.0 | 36.0 | 40.0 |
| 1 | Vc | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 45 | 50 | 50 | 50 |
| | fz | 0.07 | 0.078 | 0.078 | 0.088 | 0.1 | 0.096 | 0.1 | 0.1 | 0.1 | 0.094 | 0.106 |
| | RPM | 1137 | 995 | 884 | 796 | 723 | 637 | 568 | 477 | 497 | 442 | 398 |
| 2 | Vc | 45 | 40 | 40 | 40 | 45 | 45 | 45 | 40 | 40 | 40 | 40 |
| | fz | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.1 | 0.1 | 0.094 | 0.094 | 0.1 | 0.117 |
| | RPM | 1023 | 796 | 707 | 637 | 651 | 573 | 512 | 424 | 398 | 354 | 318 |
| 3-4 | Vc | 35 | 35 | 30 | 35 | 35 | 35 | 35 | 30 | 30 | 35 | 30 |
| | fz | 0.069 | 0.077 | 0.091 | 0.091 | 0.1 | 0.094 | 0.094 | 0.1 | 0.108 | 0.092 | 0.11 |
| | RPM | 796 | 696 | 531 | 557 | 506 | 446 | 398 | 371 | 298 | 309 | 239 |
| 5 | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 15 | 20 |
| | fz | 0.07 | 0.081 | 0.093 | 0.108 | 0.108 | 0.1 | 0.1 | 0.1 | 0.1 | 0.117 | 0.117 |
| | RPM | 455 | 398 | 354 | 318 | 289 | 255 | 227 | 212 | 199 | 133 | 159 |
| 6 | Vc | 45 | 40 | 40 | 40 | 45 | 45 | 45 | 40 | 40 | 40 | 40 |
| | fz | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.1 | 0.1 | 0.094 | 0.094 | 0.1 | 0.117 |
| | RPM | 1023 | 796 | 707 | 637 | 651 | 573 | 512 | 424 | 398 | 354 | 318 |
| 7 | Vc | 35 | 35 | 30 | 35 | 35 | 35 | 35 | 30 | 30 | 35 | 30 |
| | fz | 0.069 | 0.077 | 0.091 | 0.091 | 0.1 | 0.094 | 0.094 | 0.1 | 0.108 | 0.092 | 0.11 |
| | RPM | 796 | 696 | 531 | 557 | 506 | 446 | 398 | 371 | 298 | 309 | 239 |
| 8-9 | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 15 | 20 |
| | fz | 0.07 | 0.081 | 0.093 | 0.108 | 0.108 | 0.1 | 0.1 | 0.1 | 0.1 | 0.117 | 0.117 |
| | RPM | 455 | 398 | 354 | 318 | 289 | 255 | 227 | 212 | 199 | 133 | 159 |
| 10 | Vc | 45 | 40 | 40 | 40 | 45 | 45 | 45 | 40 | 40 | 40 | 40 |
| | fz | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.1 | 0.1 | 0.094 | 0.094 | 0.1 | 0.117 |
| | RPM | 1023 | 796 | 707 | 637 | 651 | 573 | 512 | 424 | 398 | 354 | 318 |
| 11.1 | Vc | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 15 | 20 |
| | fz | 0.07 | 0.081 | 0.093 | 0.108 | 0.108 | 0.1 | 0.1 | 0.1 | 0.1 | 0.117 | 0.117 |
| | RPM | 455 | 398 | 354 | 318 | 289 | 255 | 227 | 212 | 199 | 133 | 159 |
| 21 - 22 | Vc | 135 | 140 | 140 | 140 | 135 | 135 | 135 | 145 | 140 | 140 | 140 |
| | fz | 0.079 | 0.088 | 0.098 | 0.1 | 0.108 | 0.115 | 0.123 | 0.123 | 0.12 | 0.124 | 0.127 |
| | RPM | 3069 | 2785 | 2476 | 2228 | 1953 | 1719 | 1535 | 1538 | 1393 | 1238 | 1114 |
| 23 - 24 | Vc | 88 | 91 | 91 | 91 | 88 | 88 | 88 | 94 | 91 | 91 | 91 |
| | fz | 0.079 | 0.088 | 0.098 | 0.1 | 0.108 | 0.115 | 0.123 | 0.123 | 0.12 | 0.124 | 0.127 |
| | RPM | 2001 | 1810 | 1609 | 1448 | 1273 | 1120 | 1000 | 997 | 905 | 805 | 724 |
| | FEED | 316 | 319 | 315 | 290 | 275 | 258 | 246 | 245 | 217 | 200 | 184 |



E2464, E2509 SERIES 2 FLUTE - SITE CUTTING

| ISO | VDI 3323 | Material Description | Ae | Ap | Parameter | Diameter (Ø) | | | | | | | | |
|-----|----------|------------------------|------------------------------|------|-----------|--------------|-------|-------|------|------|-------|-------|------|------|
| | | | | | | 3.0 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 |
| N | 21-22 | Aluminum-wrought alloy | Ø3~Ø10=0.25D Ø12~Ø20=0.5D | 1.0D | Vc | 75 | 130 | 150 | 155 | 190 | 155 | 175 | 130 | 145 |
| | | | | | fz | 0.046 | 0.064 | 0.092 | 0.15 | 0.15 | 0.229 | 0.229 | 0.37 | 0.37 |
| | | | | | RPM | 7958 | 6897 | 5968 | 4934 | 5040 | 3524 | 3482 | 2299 | 2308 |
| | 23-24 | Aluminum-cast, alloyed | Ø3~Ø10=0.25D Ø12~Ø20=0.5D | 1.0D | Vc | 49 | 85 | 98 | 101 | 124 | 101 | 114 | 85 | 94 |
| | | | | | fz | 0.046 | 0.064 | 0.092 | 0.15 | 0.15 | 0.229 | 0.229 | 0.37 | 0.37 |
| | | | | | RPM | 5199 | 4509 | 3899 | 3215 | 3289 | 2296 | 2268 | 1503 | 1496 |
| | FEED | 478 | 577 | 717 | 964 | 987 | 1052 | 1039 | 1112 | 1107 | | | | |



CBN END MILLS

i-Xmill END MILLS

i-SMART MODULAR END MILLS

X5070 END MILLS

4G MILL END MILLS

X-POWER PRO END MILLS

TitaNox-POWER END MILLS

JET-POWER END MILLS

V7 PLUS END MILLS

ALU-POWER HPC END MILLS

ALU-POWER END MILLS

D-POWER GRAPHITE END MILLS

D-POWER CFRP END MILLS

ROUTERS

CRX S END MILLS

K-2 END MILLS

ONLY ONE COATED PM60 END MILLS

TANK-POWER END MILLS

GENERAL HSS END MILLS

MILLING CUTTERS

TECHNICAL DATA