

# RECOMMENDED CUTTING CONDITIONS

## EHC570 / EHC571 SERIES

### 2 FLUTES - **SLOTING**

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

| ISO  | VDI 3323                           | Material Description   | Ae(mm) | Ap(mm) | Parameter | Diameter (Ø) |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|------|------------------------------------|------------------------|--------|--------|-----------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|      |                                    |                        |        |        |           | 2.0          | 3.0   | 4.0   | 5.0   | 6.0   | 8.0   | 10.0  | 12.0  | 14.0  | 16.0  | 18.0  | 20.0  | 22.0  | 25.0  | 28.0  | 30.0  | 32.0  |
| P    | 1                                  | Non-alloy steel        | 1D     | 0.5D   | Vc        | 50           | 45    | 50    | 50    | 45    | 50    | 50    | 45    | 50    | 50    | 50    | 50    | 50    | 50    | 45    | 50    |       |
|      |                                    |                        |        |        | fz        | 0.004        | 0.008 | 0.013 | 0.020 | 0.025 | 0.036 | 0.045 | 0.062 | 0.070 | 0.078 | 0.078 | 0.088 | 0.100 | 0.096 | 0.100 | 0.100 | 0.100 |
|      |                                    |                        |        |        | RPM       | 7850         | 4900  | 3900  | 3100  | 2500  | 1950  | 1550  | 1250  | 1100  | 1000  | 900   | 800   | 700   | 650   | 550   | 500   | 500   |
|      |                                    |                        |        |        | FEED      | 55           | 75    | 100   | 125   | 125   | 140   | 140   | 155   | 155   | 140   | 140   | 140   | 140   | 125   | 110   | 100   | 100   |
|      |                                    |                        | 2      | 1D     | 0.5D      | Vc           | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 45    | 40    | 40    | 40    | 45    | 45    | 45    | 40    |
|      | fz                                 |                        |        |        |           | 0.003        | 0.007 | 0.012 | 0.020 | 0.024 | 0.040 | 0.050 | 0.064 | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.100 | 0.100 | 0.094 | 0.094 |
|      | RPM                                |                        |        |        |           | 6300         | 4500  | 3100  | 2500  | 2250  | 1550  | 1250  | 1100  | 1000  | 800   | 700   | 650   | 650   | 550   | 500   | 450   | 400   |
|      | FEED                               |                        |        |        |           | 40           | 65    | 75    | 100   | 110   | 125   | 125   | 140   | 125   | 125   | 125   | 125   | 125   | 110   | 100   | 85    | 75    |
|      | 3                                  |                        | 1D     | 0.5D   | Vc        | 35           | 35    | 30    | 35    | 30    | 30    | 35    | 35    | 35    | 35    | 35    | 30    | 35    | 35    | 35    | 35    | 30    |
|      |                                    |                        |        |        | fz        | 0.004        | 0.008 | 0.013 | 0.019 | 0.025 | 0.040 | 0.050 | 0.061 | 0.069 | 0.077 | 0.091 | 0.091 | 0.100 | 0.094 | 0.094 | 0.100 | 0.108 |
|      |                                    |                        |        |        | RPM       | 5600         | 3500  | 2500  | 2250  | 1700  | 1250  | 1100  | 900   | 800   | 650   | 550   | 550   | 500   | 450   | 400   | 350   | 300   |
|      |                                    |                        |        |        | FEED      | 40           | 55    | 65    | 85    | 85    | 100   | 110   | 110   | 110   | 100   | 100   | 100   | 100   | 85    | 75    | 70    | 65    |
|      | 4                                  | 1D                     | 0.5D   | Vc     | 35        | 35           | 30    | 35    | 30    | 30    | 35    | 35    | 35    | 35    | 35    | 30    | 35    | 35    | 35    | 35    | 30    |       |
|      |                                    |                        |        | fz     | 0.004     | 0.008        | 0.013 | 0.019 | 0.025 | 0.040 | 0.050 | 0.061 | 0.069 | 0.077 | 0.091 | 0.091 | 0.100 | 0.094 | 0.094 | 0.100 | 0.108 |       |
|      |                                    |                        |        | RPM    | 5600      | 3500         | 2500  | 2250  | 1700  | 1250  | 1100  | 900   | 800   | 650   | 550   | 550   | 500   | 450   | 400   | 350   | 300   |       |
|      |                                    |                        |        | FEED   | 40        | 55           | 65    | 85    | 85    | 100   | 110   | 110   | 110   | 100   | 100   | 100   | 100   | 85    | 75    | 70    | 65    |       |
|      | 5                                  | 1D                     | 0.5D   | Vc     | 20        | 20           | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |       |
|      |                                    |                        |        | fz     | 0.003     | 0.007        | 0.013 | 0.020 | 0.025 | 0.041 | 0.050 | 0.064 | 0.070 | 0.081 | 0.093 | 0.108 | 0.108 | 0.100 | 0.100 | 0.100 | 0.100 |       |
|      |                                    |                        |        | RPM    | 3100      | 2250         | 1550  | 1250  | 1100  | 800   | 650   | 550   | 500   | 400   | 350   | 300   | 300   | 250   | 200   | 200   | 200   |       |
|      |                                    |                        |        | FEED   | 20        | 30           | 40    | 50    | 55    | 65    | 65    | 70    | 70    | 65    | 65    | 65    | 65    | 50    | 40    | 40    | 40    |       |
|      | 6                                  | Low alloy steel        | 1D     | 0.5D   | Vc        | 40           | 40    | 40    | 40    | 40    | 40    | 40    | 40    | 45    | 40    | 40    | 40    | 45    | 45    | 45    | 40    | 40    |
|      |                                    |                        |        |        | fz        | 0.003        | 0.007 | 0.012 | 0.020 | 0.024 | 0.040 | 0.050 | 0.064 | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.100 | 0.100 | 0.094 | 0.094 |
| RPM  |                                    |                        |        |        | 6300      | 4500         | 3100  | 2500  | 2250  | 1550  | 1250  | 1100  | 1000  | 800   | 700   | 650   | 650   | 550   | 500   | 450   | 400   |       |
| FEED |                                    |                        |        |        | 40        | 65           | 75    | 100   | 110   | 125   | 125   | 140   | 125   | 125   | 125   | 125   | 110   | 100   | 85    | 75    |       |       |
| 7    |                                    |                        | 1D     | 0.5D   | Vc        | 35           | 35    | 30    | 35    | 30    | 30    | 35    | 35    | 35    | 35    | 30    | 35    | 35    | 35    | 35    | 35    | 30    |
|      |                                    |                        |        |        | fz        | 0.004        | 0.008 | 0.013 | 0.019 | 0.025 | 0.040 | 0.050 | 0.061 | 0.069 | 0.077 | 0.091 | 0.091 | 0.100 | 0.094 | 0.094 | 0.100 | 0.108 |
|      |                                    |                        |        |        | RPM       | 5600         | 3500  | 2500  | 2250  | 1700  | 1250  | 1100  | 900   | 800   | 650   | 550   | 550   | 500   | 450   | 400   | 350   | 300   |
|      |                                    |                        |        |        | FEED      | 40           | 55    | 65    | 85    | 85    | 100   | 110   | 110   | 110   | 100   | 100   | 100   | 100   | 85    | 75    | 70    | 65    |
| 8    |                                    |                        | 1D     | 0.5D   | Vc        | 20           | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |
|      |                                    |                        |        |        | fz        | 0.003        | 0.007 | 0.013 | 0.020 | 0.025 | 0.041 | 0.050 | 0.064 | 0.070 | 0.081 | 0.093 | 0.108 | 0.108 | 0.100 | 0.100 | 0.100 | 0.100 |
|      | RPM                                | 3100                   |        |        | 2250      | 1550         | 1250  | 1100  | 800   | 650   | 550   | 500   | 400   | 350   | 300   | 300   | 250   | 200   | 200   | 200   |       |       |
|      | FEED                               | 20                     |        |        | 30        | 40           | 50    | 55    | 65    | 65    | 70    | 70    | 65    | 65    | 65    | 65    | 50    | 40    | 40    | 40    |       |       |
| 9    | 1D                                 | 0.5D                   | Vc     | 20     | 20        | 20           | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |       |       |
|      |                                    |                        | fz     | 0.003  | 0.007     | 0.013        | 0.020 | 0.025 | 0.041 | 0.050 | 0.064 | 0.070 | 0.081 | 0.093 | 0.108 | 0.108 | 0.100 | 0.100 | 0.100 | 0.100 |       |       |
|      |                                    |                        | RPM    | 3100   | 2250      | 1550         | 1250  | 1100  | 800   | 650   | 550   | 500   | 400   | 350   | 300   | 300   | 250   | 200   | 200   | 200   |       |       |
|      |                                    |                        | FEED   | 20     | 30        | 40           | 50    | 55    | 65    | 65    | 70    | 70    | 65    | 65    | 65    | 65    | 50    | 40    | 40    | 40    |       |       |
| 10   | High alloyed steel, and tool steel | 1D                     | 0.5D   | Vc     | 40        | 40           | 40    | 40    | 40    | 40    | 40    | 40    | 45    | 40    | 40    | 40    | 45    | 45    | 45    | 40    | 40    |       |
|      |                                    |                        |        | fz     | 0.003     | 0.007        | 0.012 | 0.020 | 0.024 | 0.040 | 0.050 | 0.064 | 0.063 | 0.078 | 0.089 | 0.096 | 0.096 | 0.100 | 0.100 | 0.094 | 0.094 |       |
|      |                                    |                        |        | RPM    | 6300      | 4500         | 3100  | 2500  | 2250  | 1550  | 1250  | 1100  | 1000  | 800   | 700   | 650   | 650   | 550   | 500   | 450   | 400   |       |
|      |                                    |                        |        | FEED   | 40        | 65           | 75    | 100   | 110   | 125   | 125   | 140   | 125   | 125   | 125   | 125   | 125   | 110   | 100   | 85    | 75    |       |
| 11.1 |                                    | 1D                     | 0.5D   | Vc     | 20        | 20           | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    | 20    |       |
|      |                                    |                        |        | fz     | 0.003     | 0.007        | 0.013 | 0.020 | 0.025 | 0.041 | 0.050 | 0.064 | 0.070 | 0.081 | 0.093 | 0.108 | 0.108 | 0.100 | 0.100 | 0.100 | 0.100 |       |
|      |                                    |                        |        | RPM    | 3100      | 2250         | 1550  | 1250  | 1100  | 800   | 650   | 550   | 500   | 400   | 350   | 300   | 300   | 250   | 200   | 200   | 200   |       |
|      |                                    |                        |        | FEED   | 20        | 30           | 40    | 50    | 55    | 65    | 65    | 70    | 70    | 65    | 65    | 65    | 65    | 50    | 40    | 40    | 40    |       |
| N    | 21                                 | Aluminum-wrought alloy | 1D     | 0.5D   | Vc        | 105          | 145   | 140   | 140   | 150   | 140   | 135   | 130   | 135   | 140   | 140   | 140   | 135   | 135   | 135   | 145   | 140   |
|      |                                    |                        |        |        | fz        | 0.007        | 0.011 | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | 0.079 | 0.088 | 0.098 | 0.1   | 0.108 | 0.115 | 0.123 | 0.123 | 0.12  |
|      |                                    |                        |        |        | RPM       | 16800        | 15400 | 11200 | 8800  | 7850  | 5600  | 4350  | 3500  | 3100  | 2800  | 2500  | 2250  | 1950  | 1700  | 1550  | 1350  | 1400  |
|      |                                    |                        |        |        | FEED      | 225          | 350   | 405   | 435   | 435   | 545   | 560   | 530   | 490   | 490   | 490   | 450   | 420   | 390   | 380   | 380   | 335   |
|      | 22                                 | 1D                     | 0.5D   | Vc     | 105       | 145          | 140   | 140   | 150   | 140   | 135   | 130   | 135   | 140   | 140   | 140   | 135   | 135   | 135   | 145   | 140   |       |
|      |                                    |                        |        | fz     | 0.007     | 0.011        | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | 0.079 | 0.088 | 0.098 | 0.1   | 0.108 | 0.115 | 0.123 | 0.123 | 0.12  |       |
|      |                                    |                        |        | RPM    | 16800     | 15400        | 11200 | 8800  | 7850  | 5600  | 4350  | 3500  | 3100  | 2800  | 2500  | 2250  | 1950  | 1700  | 1550  | 1350  | 1400  |       |
|      |                                    |                        |        | FEED   | 225       | 350          | 405   | 435   | 435   | 545   | 560   | 530   | 490   | 490   | 490   | 450   | 420   | 390   | 380   | 380   | 335   |       |
|      | 23                                 | Aluminum-cast, alloyed | 1D     | 0.5D   | Vc        | 105          | 145   | 140   | 140   | 150   | 140   | 135   | 130   | 135   | 140   | 140   | 140   | 135   | 135   | 135   | 145   | 140   |
|      |                                    |                        |        |        | fz        | 0.007        | 0.011 | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | 0.079 | 0.088 | 0.098 | 0.1   | 0.108 | 0.115 | 0.123 | 0.123 | 0.12  |
|      |                                    |                        |        |        | RPM       | 16800        | 15400 | 11200 | 8800  | 7850  | 5600  | 4350  | 3500  | 3100  | 2800  | 2500  | 2250  | 1950  | 1700  | 1550  | 1350  | 1400  |
|      |                                    |                        |        |        | FEED      | 225          | 350   | 405   | 435   | 435   | 545   | 560   | 530   | 490   | 490   | 490   | 450   | 420   | 390   | 380   | 380   | 335   |
| 24   | 1D                                 |                        | 0.5D   | Vc     | 105       | 145          | 140   | 140   | 150   | 140   | 135   | 130   | 135   | 140   | 140   | 140   | 135   | 135   | 135   | 145   | 140   |       |
|      |                                    |                        |        | fz     | 0.007     | 0.011        | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | 0.079 | 0.088 | 0.098 | 0.1   | 0.108 | 0.115 | 0.123 | 0.123 | 0.12  |       |
|      |                                    |                        |        | RPM    | 16800     | 15400        | 11200 | 8800  | 7850  | 5600  | 4350  | 3500  | 3100  | 2800  | 2500  | 2250  | 1950  | 1700  | 1550  | 1350  | 1400  |       |
|      |                                    |                        |        | FEED   | 225       | 350          | 405   | 435   | 435   | 545   | 560   | 530   | 490   | 490   | 490   | 450   | 420   | 390   | 380   | 380   | 335   |       |
| 25   | 1D                                 |                        | 0.5D   | Vc     | 105       | 145          | 140   | 140   | 150   | 140   | 135   | 130   | 135   | 140   | 140   | 140   | 135   | 135   | 135   | 145   | 140   |       |
|      |                                    |                        |        | fz     | 0.007     | 0.011        | 0.018 | 0.025 | 0.028 | 0.049 | 0.064 | 0.076 | 0.079 | 0.088 | 0.098 | 0.1   | 0.108 | 0.115 | 0.123 | 0.123 | 0.12  |       |
|      |                                    |                        |        | RPM    | 16800     | 15400        | 11200 | 8800  | 7850  | 5600  | 4350  | 3500  | 3100  | 2800  | 2500  | 2250  | 1950  | 1700  | 1550  | 1350  | 1400  |       |
|      |                                    | FEED                   |        | 225    | 350       | 405          | 435   | 435   | 545   | 560   | 530   | 490   | 490   | 490   | 450   | 420   | 390   | 380   | 380   | 335   |       |       |