

820601, 0000, 820801, 820901, 821001, 0162 (HSS Stub, Two Tone, Jobber, Long Series, Extra Long Series)



| Material Group | vc (m/min)     | fn (mm/rev)   |              |              |              |              |              |              |              |                |                |                |                |                |       |       |
|----------------|----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|----------------|----------------|----------------|----------------|-------|-------|
|                |                | ø1.0<br>-1.9  | ø2.0<br>-2.9 | ø3.0<br>-3.9 | ø4.0<br>-4.9 | ø5.0<br>-5.9 | ø6.0<br>-6.9 | ø7.0<br>-7.9 | ø8.0<br>-9.9 | ø10.0<br>-11.9 | ø12.0<br>-13.5 | ø14.0<br>-15.5 | ø16.0<br>-17.5 | ø18.0<br>-19.5 | ø20.0 |       |
| <b>P</b>       | 11<br>12       | 25<br>(22-27) | 0.010        | 0.025        | 0.050        | 0.055        | 0.063        | 0.080        | 0.100        | 0.130          | 0.145          | 0.160          | 0.180          | 0.200          | 0.230 | 0.240 |
|                | 13<br>14       | 22<br>(20-25) | 0.009        | 0.020        | 0.045        | 0.050        | 0.060        | 0.075        | 0.095        | 0.125          | 0.140          | 0.150          | 0.170          | 0.210          | 0.220 | 0.230 |
| <b>M</b>       | 21<br>22       | 18<br>(15-20) | 0.010        | 0.025        | 0.050        | 0.055        | 0.063        | 0.080        | 0.100        | 0.130          | 0.145          | 0.160          | 0.180          | 0.200          | 0.230 | 0.240 |
|                | 31<br>32<br>33 | 18<br>(15-20) | 0.010        | 0.025        | 0.050        | 0.055        | 0.063        | 0.080        | 0.100        | 0.130          | 0.145          | 0.160          | 0.180          | 0.200          | 0.230 | 0.240 |
| <b>S</b>       | 41<br>42       | 10<br>(8-12)  | 0.08         | 0.020        | 0.025        | 0.031        | 0.038        | 0.045        | 0.060        | 0.075          | 0.090          | 0.100          | 0.110          | 0.120          | 0.130 | 0.140 |
|                | 71<br>72<br>73 | 48<br>(45-50) | 0.020        | 0.038        | 0.063        | 0.070        | 0.076        | 0.120        | 0.160        | 0.180          | 0.200          | 0.225          | 0.250          | 0.275          | 0.300 | 0.325 |
| <b>O</b>       | 81<br>82       | 23<br>(22-25) | 0.010        | 0.025        | 0.050        | 0.055        | 0.063        | 0.080        | 0.100        | 0.130          | 0.145          | 0.160          | 0.180          | 0.200          | 0.230 | 0.240 |

vc - cutting speed (m/min)

n - RPM (rev/min)

fn - feed rate (mm/rev)

ø - drill diameter (mm)

To calculate RPM from cutting speed:  $n = \frac{v_c \times 1000}{\pi \times \phi}$

To calculate cutting speed from RPM:  $v_c = \frac{n \times \pi \times \phi}{1000}$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.