| Material Group		vc (m/min)	fn (mm/rev)													
			ø1.0 -1.9	ø2.0 -2.9	ø3.0 -3.9	ø4.0 -4.9	ø5.0 -5.9	ø6.0 -6.9	ø7.0 -7.9	ø8.0 -9.9	ø10.0 -11.9	ø12.0 -13.5	ø14.0 -15.5	ø16.0 -17.5	ø18.0 -19.5	ø20.0
P	11 12	95 (65-125)	-	-	0.09	0.12	0.15	0.18	-	0.22	0.28	0.33	0.37	-	-	-
	13 14	85 (60-115)	-	-	0.09	0.12	0.15	0.18	-	0.22	0.28	0.33	0.37	-	-	-
K	31 32	95 (65-125)	-	-	0.09	0.12	0.15	0.18	-	0.22	0.28	0.33	0.37	-	-	-
	33 34	70 (60-80)	-	-	0.09	0.12	0.15	0.18	-	0.22	0.28	0.33	0.37	-	-	-

▶ For recommended coolant pressure refer to p.191
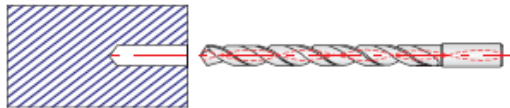
1. Guide drilling should be carried out with 5xD drill 0.1mm larger than finished hole diameter and drilled between 3xD and 5xD depth.
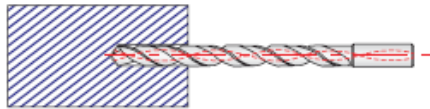
2. For main drilling, reduce to 300RPM and feed in at 400mm/min while entering pilot hole.
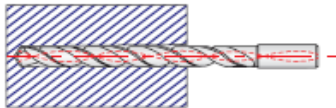
3. Just before the end of the pilot hole, reduce feed rate to zero and increase the RPM according to the recommended cutting condition shown in the chart above.

4. Increase feed rate and drill to depth without step drilling.

5. When extracting drill after drilling, reduce to 300RPM and feed rate of 1000mm/min when drill reaches pilot hole depth.

6. When exiting hole reduce feed by 50%.

v_c - cutting speed (m/min)
n - RPM (rev/min)
f_n - feed rate (mm/rev)
ø - drill diameter (mm)

To calculate RPM from cutting speed: $n = \dfrac{v_c * 1000}{\pi * \text{ø}}$

To calculate cutting speed from RPM: $v_c = \dfrac{n * \pi * \text{ø}}{1000}$

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.