

Parameter recommendation for routing of Durostone® and Roedurtherm material

GCT router type: 1250 / 1206 / 1938
 Cutting speed: $v = 190 \text{ m/min}$

D1	n	fxy	Fxy	Fz	Fz	H	Depth
Router diameter	Spindle speed	Chip load	Feed rate	Infeed with pre drilling	Infeed without pre drilling	Routing depth	into the back up
[mm]	[rpm]	[$\mu\text{m}/1$]	[m/min]	[m/min]	[m/min]	[mm]	[mm]
1.5	40000	20	0.80	1.5	0.8	5.0	1.1
2.0	30000	37	1.10	2.0	0.8	6.5	1.5
2.4	25000	48	1.20	2.0	1.0	6.5	1.5
3.0	20000	60	1.20	2.0	1.0	7.5	1.5
4.0	15000	70	1.00	3.0	1.5	9.0	2.0
6.0	10000	100	1.00	4.0	1.5	9.0	2.5

General recommendations:

- ⇒ Pre drilling of the entry position.
- ⇒ Pre routing of the back up material.
- ⇒ Routing depth per cut = nominal router diameter [D1].
- ⇒ Extraction at least 50 mbar at the pressure foot.
- ⇒ Max pressure at the pressure foot.
- ⇒ Follow the GCT check list for machining of PCB's.

Router specifications:

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Overall length:	38.2 -0.3 mm	$\varnothing > 3.175 \text{ mm}$: 50.0 $\pm 0.5 \text{ mm}$
Flute length:	L $\pm 0.2 \text{ mm}$	$\varnothing > 3.175 \text{ mm}$: L $\pm 0.5 \text{ mm}$
Working length:	< 0.85 x L	
Nominal diameter:	D1 $\pm 0.015 \text{ mm}$	$\varnothing \geq 3.175 \text{ mm}$: D1 -0.04 mm
Shank diameter:	D = 3.175 -0.001 / -0.007 mm	D = 4.0 and 6.0 -0.008 mm

