

Parameter recommendation for routing of laminates with fillers and halogen-free material up to Tg 185°C Isola IS400 / IS420, Panasonic R-1566 / R-1755

GCT router type: 1700 / 1200
Cutting speed: $v = 180 \text{ m/min}$

D1	n	fxy	Fxy	Fz	H	Depth
Router diameter	Spindle speed	Chip load	Feed rate	Infeed with pre drilling	Routing depth	into the back up
[mm]	[rpm]	[$\mu\text{m}/1$]	[m/min]	[m/min]	[mm]	[mm]
0.5	115000	2	0.23	0.6	1.2	0.4
0.6	96000	3	0.3	0.6	1.5	0.4
0.8	71000	6	0.4	1.0	3.2	0.6
1.0	57000	8	0.5	1.5	3.2	0.8
1.2	48000	11	0.5	1.5	3.2	1.1
1.5	38000	16	0.6	2.0	4.8	1.1
1.6	36000	20	0.7	2.0	4.8	1.1
1.8	32000	26	0.8	2.0	4.8	1.1
2.0	29000	35	1.0	2.0	4.8	1.5
2.4	24000	45	1.1	2.0	4.8	1.5

General recommendations:

- ⇒ Pre drilling of the entry position.
- ⇒ Pre routing of the back up material.
- ⇒ Extraction at least 50 mbar at the pressure foot.
- ⇒ Follow the GCT check list for machining of PCB's.

Router specifications:

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Overall length: 38.2 -0.3mm
 Flute length: $L \pm 0.2 \text{ mm}$
 Working length: $< 0.85 \times L$
 Nominal diameter: $D1 \pm 0.015 \text{ mm}$ (at 3.175mm: -0.04mm)
 Shank diameter: $D = 3.175 -0.001 / -0.007 \text{ mm}$

