PCB Routers Application Chart

IND-SPHINX
PCB DRILLS | PCB ROUTERS

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Base Materials

S.No	Article	Description	Dia Range mm	FR4		FR2	CEM3	CEM1	PE	PTFE	PMMA	Polymide	AL	Cu / Brass	Remarks
				OC	IC										
1	P626	Diamond cut router	0.70-3.175	●	●	●	●	●	○	○	○	○	○	○	Standard router for routing of all standard PCBs
2	P660	Diamond cut router	0.50-2.50	●	●	●	●	●	○	○	○	○	○	○	High performance router with aggressive feed rates, long life and excellent performance
3	P728	NexGen high precision chip breaker router	1.50-2.40	●	●	●	●	●	○	○	○	○	○	○	Better Dimension control of PCB size Both Internal and External side
4	P738	High feed chip breaker router	0.60-3.175	●	●	●	●	●	○	○	○	○	○	○	High feed routers for inner slot and complex contour routing in close tolerances routing applications
5	P926	Single flute router	0.40-3.175	○	●	◒	◒	◒	●	●	●	●	●	●	Burr - free and good edge quality for soft and flexible materials
6	P826	2 flute router	0.25-3.175	○	●	◒	◒	◒	●	●	●	●	◒	●	Universal tool for working with plastic and metal
7	P820	2 flute router	0.25-3.175	○	●	◒	◒	◒	●	●	●	●	●	●	Universal tool for working with plastic, metal, aluminium and flex board etc
8	P436	3 flute router	0.60-3.175	○	●	◒	◒	◒	◒	◒	◒	●	◒	◒	For metallized slot applications
9	C681	Chamfering cutter	6.00/6.35	●	●	●	●	●	●	●	●	●	●	●	For Chamfering and Deburring application of PCBs
10	P650	High performance depaneling router	1.40-2.50	●	●	●	●	●	○	○	○	○	○	○	For Depaneling of all types of glass epoxy based materials
11	P627	Diamond cut router	0.70-3.175	●	●	●	●	●	○	○	○	○	○	○	For Depaneling of all types of glass epoxy based materials
12	P727	Chip breaker router	0.40-3.175	●	●	●	●	●	○	○	○	○	○	○	For Depaneling of all types of glass epoxy based materials
13	P024	2 flute Aluminium router	0.60-3.00	○	○	○	○	○	○	○	○	○	●	○	For Depaneling of all types of glass epoxy based materials

Description :
- ● Optimal
- ◒ Suitable
- ○ Not Recommended

- **OC** : Outer Contour
- **IC** : Inner Contour

Formula :
- Cutting speed Vc : $\frac{\pi dn}{1000}$ m/min
- Chip load f : $\frac{F}{n}$ mm
- n : Spindle Speed in rpm
- RPM n : $\frac{Vc \times 1000}{\pi d}$
- XY Feed F : $\frac{f \times n}{1000}$ m/min