

Tools Versus Joint & Profile Making Capability

The comparison below is NOT intended to be an all-encompassing review of the joint or profile making capabilities of a particular machine or jig. It is ONLY a brief overview of several systems and their capabilities. The listing of systems covers every major type that I thought prudent; there are few others out there as well but those represented below are the types most often discussed on the Net. Some of the devices below could be substituted for other brands; for example, the "Generic Half Blind Dovetail Jig" is representative of an entire class of jigs.

The costs given below are for rough comparison purposes. Some of these systems can be quite a bit more than listed if every system accessory and cutter is included into the price. This is actually how total system cost should be compared; however, since an individual's needs vary, this is best done by the reader.

One could also quibble with a few comparisons within the chart itself. Again this is not a detailed analysis, just a brief overview. It is theoretically possible to do all the operations listed below with a shop-made router table. It is not really practical to do so however and it would take quite a bit of effort and skill to achieve the same results of a commercial system that excels in some particular operation. There are also many other considerations not shown by this chart that should be taken into account. For instance, some will be easier than others to set up, some come with better instructions, some take up less space, some are more accurate, some have good dust collection ability, some have none.

Joint / Profile Task	Shop Made Router Table (no precision fence)	Router Table with Inkra LS Joinery System 17"	Tablesaw	Bandsaw, 17"	Leigh D4 Dovetail Jig	Through Dovetail Jig (fixed spacing)	Generic Half Blind Dovetail Jig	Leigh Mortise & Tenon Jig	JDS Multi-Router	RouterBoss 470	Chisel Mortiser	Slot Mortiser	Legacy 1200	Small CNC Router
Unit cost not including router, cutters, or accessories	\$200	\$300	\$795	\$850	\$500	\$160	\$75	\$400	\$2,699	\$830	\$239	\$995	\$3,195	\$5,500
Accuracy	medium	very high	medium	medium	high	high	high	high	high	medium	medium	medium	low	very high
Router dedicated	yes	n/a	n/a	n/a	no	no	no	no	yes	yes	n/a	n/a	yes	n/a
Dust collection	good	good	some	some	good(1)	none	none	some	none	good	none	some	no	good
Half Blind Dovetails	no	yes	no	no	yes	no	yes	no	no	yes	no	no	no	yes(1)
Through Dovetails	no	yes	no	no	yes	yes	no	no	yes(1)	yes	no	no	no	yes(1)
Variably Spaced Dovetails	no	yes	no	no	yes	yes	no	no	no	yes	no	no	no	yes(1)
Variably Sized Dovetails	no	yes	no	no	yes	no	no	no	no	yes	no	no	no	yes(1)
Sliding Dovetail	yes	yes	no	no	yes	no	no	no	yes	yes	no	no	yes	yes
Sliding Dovetail (tapered)	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
Finger / Box Joints	yes(1)	yes	yes	no	yes(1)	yes	yes	no	yes	yes	no	no	no	yes(1)
Variably Sized Pins	no	yes	no	no	yes(1)	no	no	no	no	yes	no	no	no	yes(1)
Variably Spaced Pins	no	yes	no	no	yes(1)	no	no	no	no	yes	no	no	no	yes(1)
Specialized (eg: isoloc) joint	no	no	no	no	yes(1)	no	no	no	no	no	no	no	no	yes
Mortise (end)	no	no	no	no	yes(1)	no	no	yes	yes	yes	yes	yes	yes	yes(1)
Mortise (field)	no	no	no	no	yes(1)	no	no	no	limited	limited	no	no	yes	yes
Tenon	yes	yes	yes(1)	yes	yes(1)	no	no	yes	yes	yes	no	yes	yes	yes(1)
Lap / Half Lap	yes	yes	yes(1)	yes	yes(1)	no	no	yes	yes	yes	no	yes	yes	yes
Doweling (end)	no	no	no	no	no	no	no	yes	yes	yes	yes	yes	yes	yes(1)
Doweling (field)	no	no	no	no	no	no	no	yes	limited	limited	yes	limited	yes	yes(1)
Rail & Stile profile	yes	yes	yes(1)	no	no	no	no	no	no	n/r	no	no	no	n/r
Raised panel (square)	yes	yes	yes(1)	no	no	no	no	no	limited	yes	no	no	yes	yes
Raised panel (curved)	yes	yes	no	no	no	no	no	no	no	no	no	no	yes(1)	yes
Curved edge profiles	yes	yes	no	no	no	no	no	no	no	no	no	no	yes(1)	yes
Dado	yes	yes	yes(1)	no	yes	no	no	no	no	yes	no	no	yes	yes
Rebate / Rabbet	yes	yes	yes	no	yes	no	no	no	yes	yes	no	no	yes	yes
Surfacing	no	no	no	no	no	no	no	no	no	yes	no	no	yes	yes
Lathe turning	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes(1)
Rotational Index	no	no	no	no	no	no	no	no	no	no	no	no	yes(1)	yes
Spiral turning	no	no	no	no	no	no	no	no	no	no	no	no	yes	yes(1)
Case work pieces	no	no	yes	no	no	no	no	no	no	no	no	no	no	no
Bevel cutting	limited	limited	yes	limited	no	no	no	no	limited	limited	no	limited	limited	limited
Miter cutting	n/a	n/a	yes	limited	n/a	n/a	n/a	n/a	n/r	n/r	n/a	n/a	n/r	limited
32mm system holes	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
Circle / oval cutting (exterior)	yes(1)	yes(1)	no	yes	no	no	no	no	no	no	no	no	yes	yes
Circle / oval cutting (interior)	yes(1)	yes(1)	no	no	no	no	no	no	no	no	no	no	yes	yes
Veneer slicing	no	no	yes	yes	no	no	no	no	no	no	no	no	no	no
Lettering, 2d carving	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
3d Carving	no	no	no	no	no	no	no	no	no	no	no	no	no	yes
Inlay	no	no	no	no	no	no	no	no	no	no	no	no	no	yes

Definitions:

- yes tool will do this
- no only through great difficulty or complicated technique or very limited
- n/a not applicable for this tool
- n/r advert claims will do, I do not recommend it
- limited limited in size of material or working stroke.
- (1) with additional jig or accessory