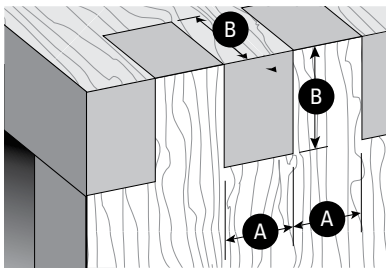
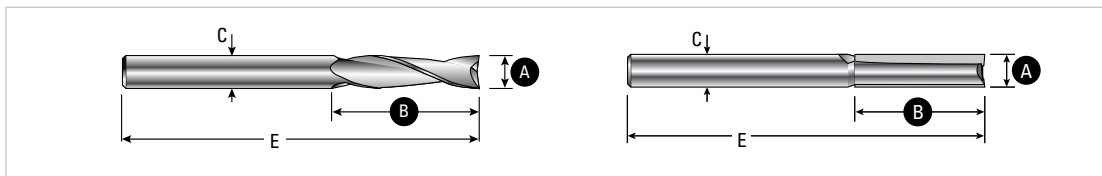


Appendix II

Bit and Joint Specification

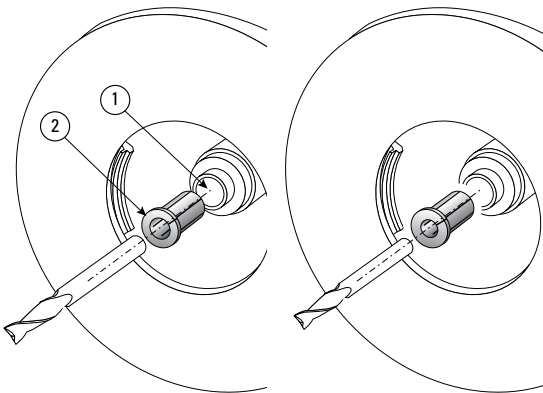
Bit Selection and Joint Specification



Virtually any straight router bit may be used for routing box joints or finger joints. There are two types which each have their own advantages and disadvantages. Generally, the high-speed steel (HSS) spiral upcut bits cut cleaner and have less tendency to cause tear-out. They also tend to pull the waste chips up to and around the guidebush, necessitating the occasional cleaning of the guide surfaces. Straight-flute carbide tipped bits spray the waste out horizontally, but they do not cut quite as cleanly.

“A” is the bit diameter and equals the nominal size of the finger or socket.

“B” is the cutting depth or board thickness, whichever is less.



Check the shank size of each bit selected, then use the appropriate collet ① or collet reducer ②. 1/4" collet reducers come standard with most 1/2" collet routers, but **if 5/16", 8mm or 3/8" collets are not available, use one of the following:**

For all 3/8" shank bits use the Leigh No. 172-375, 1/2" to 3/8" collet reducer.

For all 5/16" and 8mm shank bits (*these are almost the same diameter*), use Leigh No. 172-8, 1/2" to 8mm collet reducer.

See the next page for Bit Selection and Joint Specification charts.

Bit Selection and Joint Specification Charts

Note: In the following charts, the letters A, B, C, and E correspond to the drawings on the previous page.

F3 (Inches)

LEIGH BIT NO.		A	B	C	E	F	G
HSS Spiral	Solid Carbide Spiral	Bit Diameter Finger Size	Max. Cutting Depth Max. Board Thickness	Shank Diameter	Overall Length	eBush	Comb Size
163	—	3/32"	3/8"	1/4"	2 1/2"	e8	3/8"
—	164C	1/2"	3/8"	1/4"	3"	e10	1/2"
—	165C	5/32"	5/8"	1/4"	2 1/2"	e7	5/16"
166	166C	3/16"	5/8" / 3/4"	1/4"	3"	e8	3/8"
—	168C	1/4"	1 1/8"	1/4"	3 1/2"	e10	1/2"
170	170C	5/16"	1" / 1 1/8"	8mm	3"	e7	5/16"
—	173C	3/8"	1"	3/8"	3"	e8	3/8"
180	180C	1/2"	1 1/4" / 1 5/8"	1/2"	3 1/2"	e10	1/2"

F3M (Metric)

A	B	C	E	F	G
Bit Diameter Finger Size	Max. Cutting Depth Max. Board Thickness	Shank Diameter	Overall Length	eBush	Comb Size
2	Leigh does not stock metric sized bits. Please contact your national distributor or dealer for Leigh.			e7	8
4				e7	8
6				e10	12
8				e7	8
10				e8	10
12				e10	12

F18 and F24 (Inches)

LEIGH BIT NO.		A	B	C	E	F	G
HSS Spiral	Solid Carbide Spiral	Bit Diameter Finger Size	Max. Cutting Depth Max. Board Thickness	Shank Diameter	Overall Length	eBush	Comb Size
163	—	3/32"	3/8"	1/4"	2 1/2"	e8	3/8"
—	164C	1/8"	1/2"	1/4"	3"	e10	1/2"
166	166C	3/16"	5/8" / 3/4"	1/4"	3"	e8	3/8"
168	168C	1/4"	1 1/8"	1/4"	3 1/2"	e10	1/2"
—	173C	3/8"	1 1/8"	3/8"	3"	e8	3/8"
180	180C	1/2"	1 1/4" / 1 5/8"	1/2"	3 1/2"	e10	1/2"

F18M and F24M (Metric)

A	B	C	E	F	G
Bit Diameter Finger Size	Max. Cutting Depth Max. Board Thickness	Shank Diameter	Overall Length	eBush	Comb Size
3	Leigh does not stock metric sized bits. Please contact your national distributor or dealer for Leigh.			e10	12
5				e8	10
6				e10	12
10				e8	10
12				e10	12

Note: For wider boards, see www.Leightools.com Click on Support > Technical Bulletins > Finger /Box Joints on Wider Boards. This bulletin applies to F1, F2 and F3 Templates.