

Dowelling Jig

Model # 08370

JessEm
Tool Company

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Thank you for choosing this product from JessEm Tool Company. We appreciate your support and hope that our product serves you well. This product is designed to provide many years of reliable service provided it is used as intended and taken care of.

This user manual will assist you in assembly and general operation of this product. It is not our intent to teach you about woodworking. It is assumed that you are an experienced woodworker with the basic skills and experience necessary to use this product safely. If after reading the following instructions, if you are unsure or uncomfortable about safely using this product we urge you to seek additional information through widely available woodworking books or classes.

As part of our Continuous Product Improvement Policy, JessEm products are always advancing in design and function. Therefore there may be differences between what is shown in our catalogs, website or at retail display and what is sold at time of purchase. We reserve the right to make positive changes to our products at our discretion.

IMPORTANT SAFETY PRECAUTIONS

- Before operating any hand held drill, read and understand all safety instructions in the owner's manual that came with the drill.
- If you do not have a manual, contact the manufacturer and obtain one before using any power tool.
- Always wear eye protection in compliance with ANSI safety standards when operating any power tool.
- Do not wear loose clothing or jewelry that may catch on tools or equipment.
- Unplug the tool or machine when making any adjustments.

Laying out the desired position of your dowels is important before using the jig. There are numerous configurations of hole spacing that can be used depending on the stock thickness and desired location.

Contents: #08370

- (1) 8 mm Dowelling Jig
- (1) 8mm Drill Bit
- (1) 8mm Stop Collar
- (1) 8mm Indexing Pin
- (1) 1/8" Hex Key

Note: Your JessEm Dowelling Jig comes standard with a 8 mm drill bit and bushings

THERE ARE MANY VARIATIONS OF DOWEL JOINTS POSSIBLE. WE HAVE PROVIDED A FEW POSSIBLE JOINTS IN THIS MANUAL TO FAMILIARIZE YOURSELF WITH THE #08370 DOWELLING JIG.

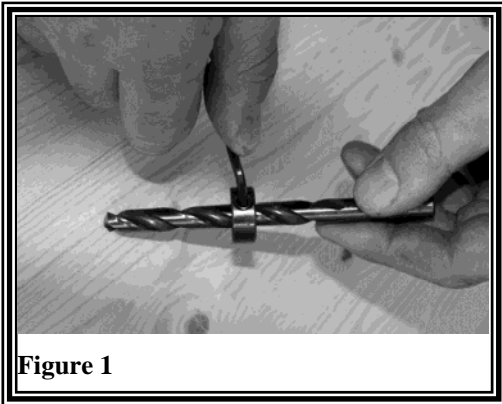
08370 DOWELLING JIG PARTS LIST

	DESCRIPTION	PART NUMBER	REQUIRED		DESCRIPTION	PART NUMBER	REQUIRED
1	MAIN JIG BODY	P0033-1-3-C	1	2	REFERENCE/CLAMPING ANGLE	E0064-2-3-C	1
				3	8 MM DRILL GUIDE ASSEMBLY	E00231-5-6-C	1
4	8 MM INDEXING PIN	E0210-11-C	1	5	CLAMPING KNOB	S0054-1-C	1
6	8 MM DRILL BIT	M0334	1	7	8 MM STOP COLLAR	S0012-11-C	1
8	1/4"-20 SET SCREW	F0054	(1) FOR EACH STOP COLLAR	9	1/4"-20 X 3/8" LOW HEAD SCREW	F0302	4
10	1/4" FLAT WASHER	F0270	1	11	1/8" HEX KEY	M0045	1

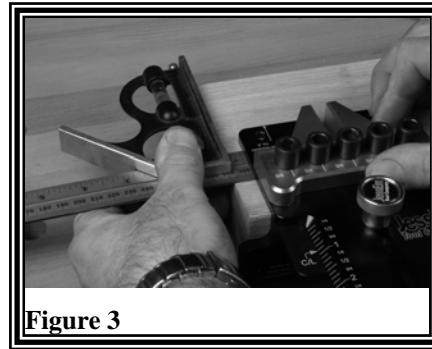
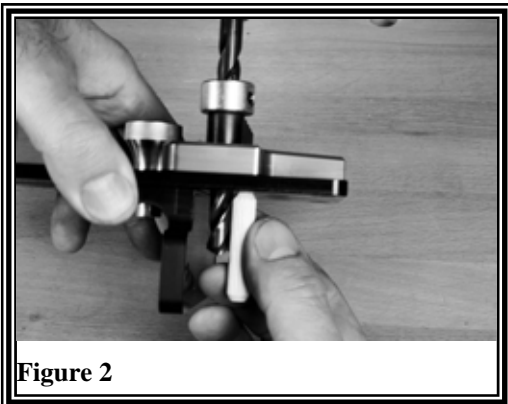
Setting the drill bit depth collar:

Using the matching stop collar for the drill bit you are using, screw the 1/4"-20 set screw into the stop collar. Now slide the stop collar over the drill bit and with the 1/8" hex key snug the set screw to keep the collar in position. (See figure # 1).

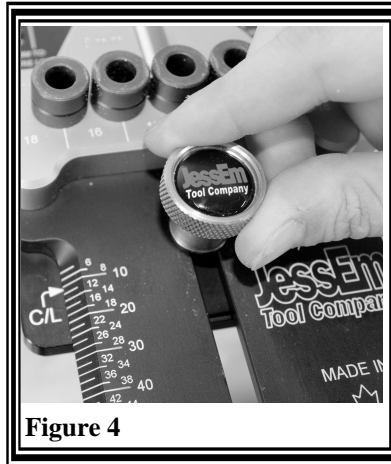
** Note: Locate the set screw on the largest portion of the drill bit not in one of the chip removal flutes. See Figure #1



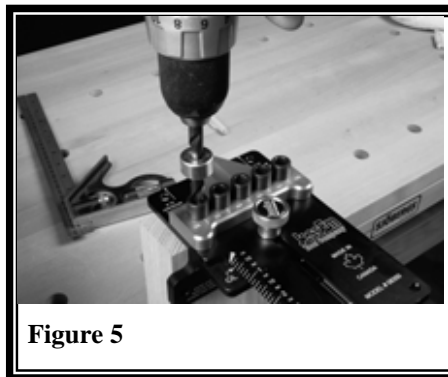
Insert the drill bit into the corresponding drill bushing and measure the amount the drill bit protrudes (See figure # 2). The drill bit should be deep enough to accommodate half the dowel you are using. For thinner stock ensure the dowel pin does not break through your material and compensate by drilling deeper on the corresponding piece.



We have predetermined we want the first row of dowels spaced 10 mm in from the edge. Loosen the adjustment knob and adjust the jig to the 10 mm position. (See Figure #4)

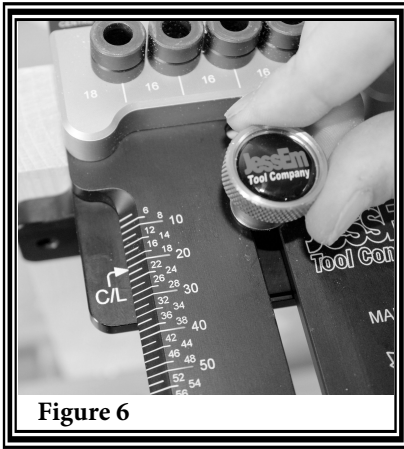


We want three (3) holes in this first row. One (1) in the center and one (1) in each outside hole.



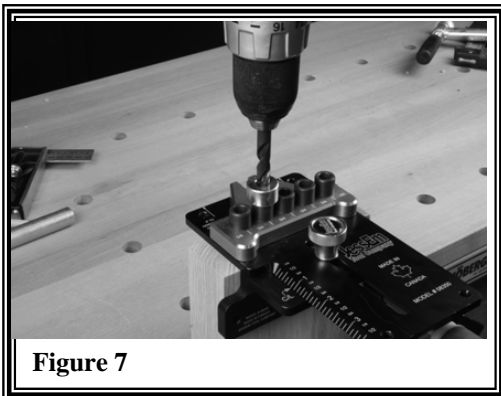
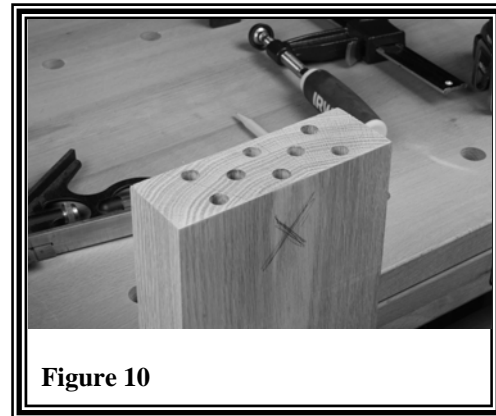
MULTIPLE ROW DOWEL JOINT

The first joint we are going to drill has 3 rows of dowels. We are spacing our jig 12.7mm from the edge. Clamp the jig to your board in this position. (See Figure #3)



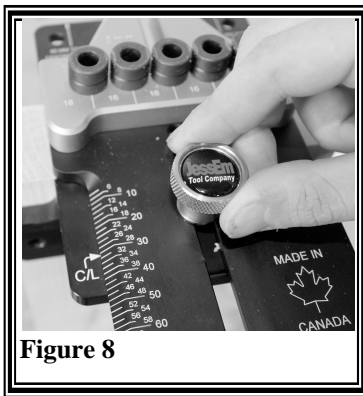
With the first row drilled, adjust the jig to the 20 mm position. Note: Do not unclamp the Jig from your board. (See Figure #6)

We are now drilling a three (3) hole pattern as done in the first row.

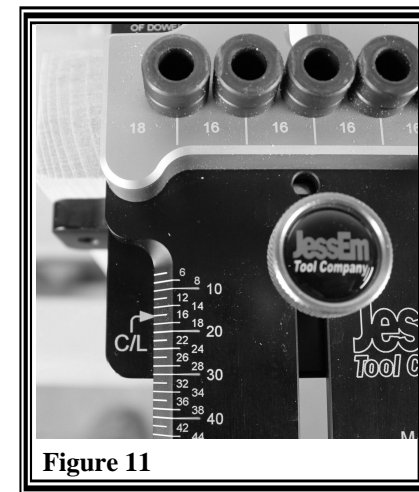


We are drilling two (2) holes here. One (1) hole to the left and right of the centre hole. (See Figure #7)

The holes in the first board are now complete.



Now adjust the jig to the 30 mm position (See Figure #8)



We follow the same procedure to drill the holes in the mating piece. In this joint you would like the first board to be stepped back 6 mm. Set the jig to 16 mm, 26 mm and 36 mm for each row. These are the same settings as drilled in the first board **plus 6 mm**. This will give the 6 mm offset.

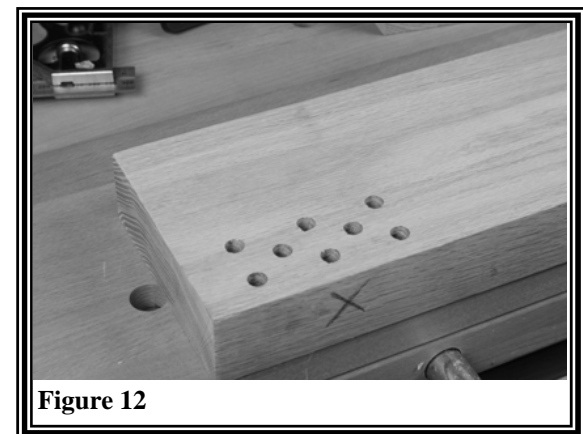
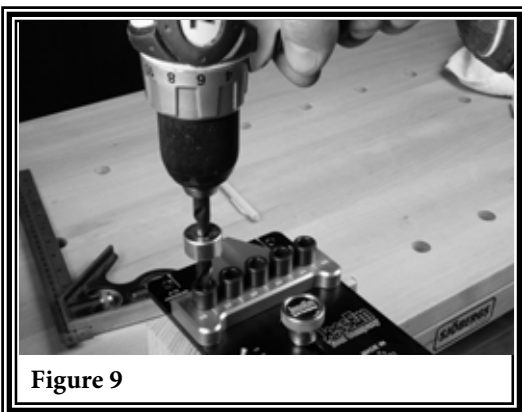


Figure 9

Figure 12

With the drilling completed in the second board, all we need to do is test fit the joint. (See Figure #13)

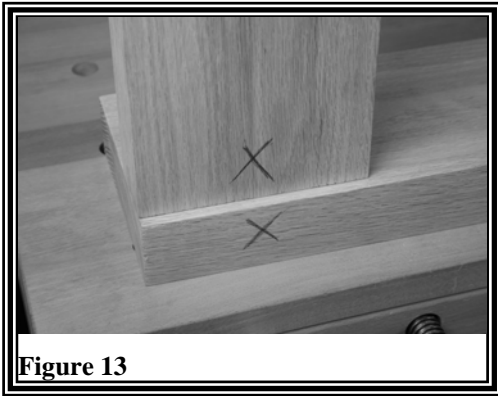


Figure 13

FLUSH JOINING BOARDS

The next joint we are showing is the joining of two boards to make a larger panel. Mark the lines on the board where you would like to place the dowels and clamp the jig centreline to the board on this line. (See Figure #14)

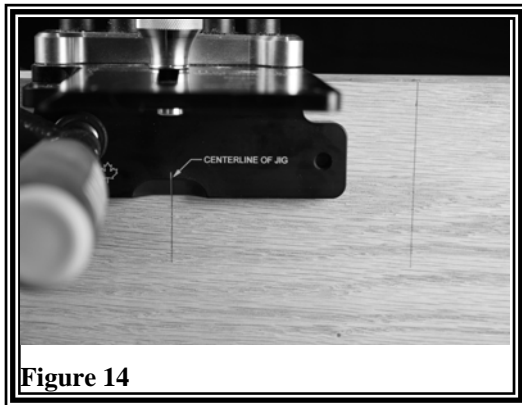


Figure 14

Now, drill a hole in the centre bushing. (See Figure #15)

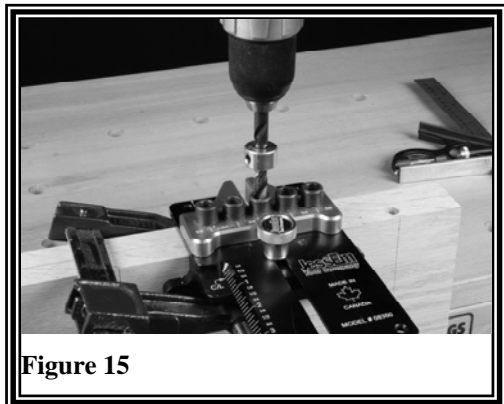


Figure 15

With all of the holes drilled in the first board, clamp this board to the mating board with the edges lined up and install the dowels in the holes previously drilled. Using the alignment slot in the jig, you can align the jig on the mating board using the dowels in the first board and clamp in this position. (See Figure #16)

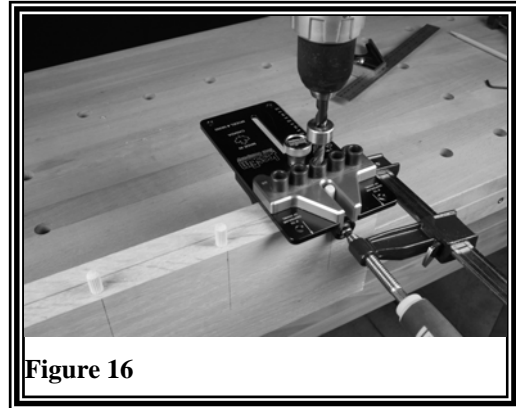


Figure 16

Drill a hole in the centre bushing and repeat for all of the holes.

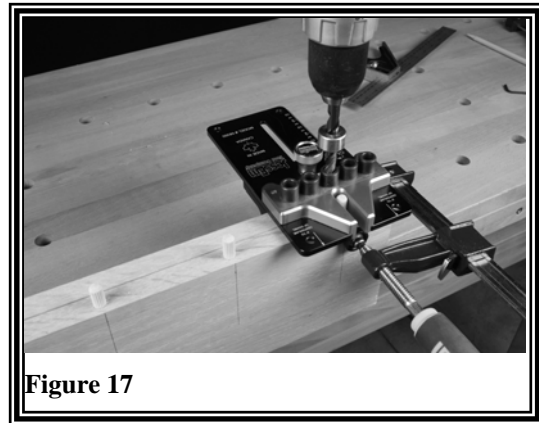


Figure 17

All of the holes are now drilled. (See Figure #18)

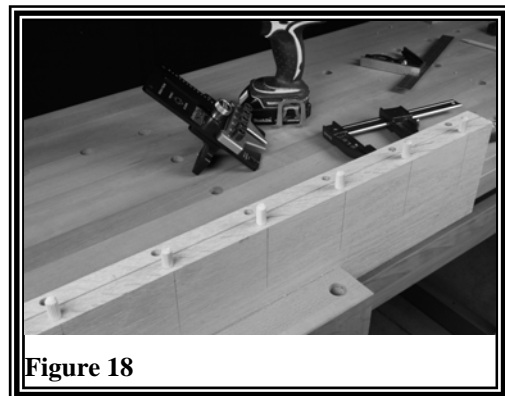


Figure 18

Test fit the joint. (See Figure #19)



Figure 19

Joining a Shelfboard

We are now going to join a shelf board to the mating piece. We marked a centreline on the shelf and aligned and clamped the jig in this position. (See Figure #20)

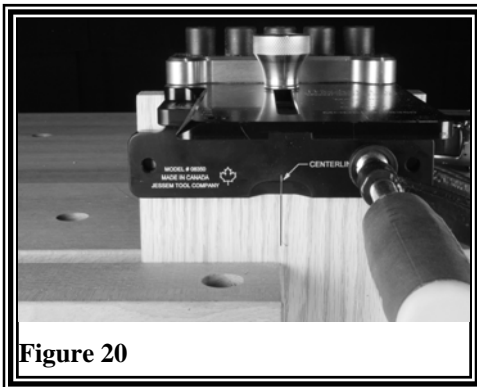


Figure 20

Drill a hole in the centre bushing. (See Figure #21)

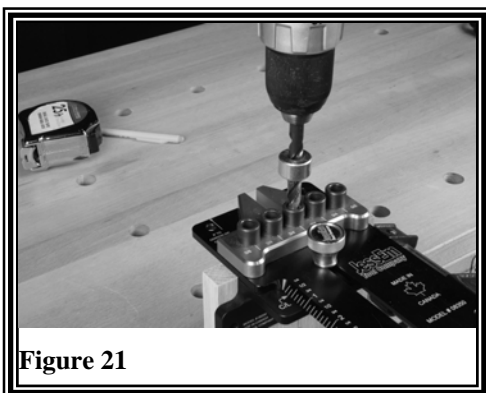


Figure 21

We are using the indexing pin in the centre hole previously drilled to position the jig for the second hole. (See Figure #22) We are going to drill a hole in the far left bushing.

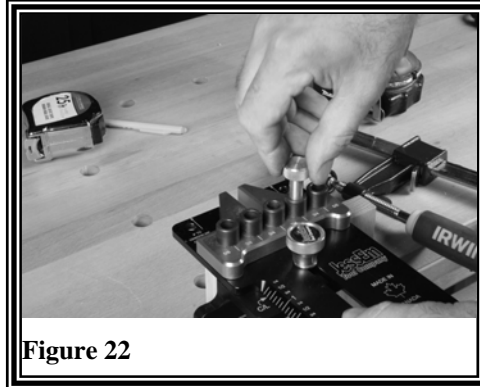


Figure 22

We are using the indexing pin and the centre hole previously drilled to position the jig for the third hole. (See Figure #23)

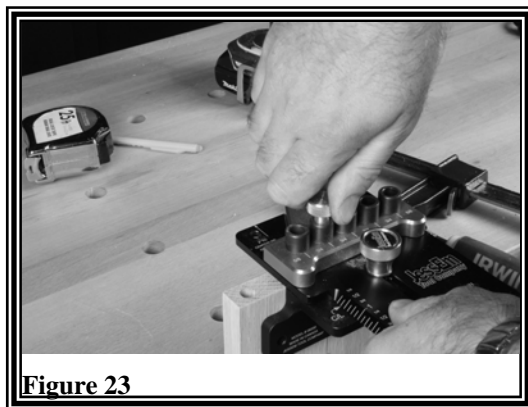


Figure 23

Drill the third hole in the far right bushing. (See Figure #24)

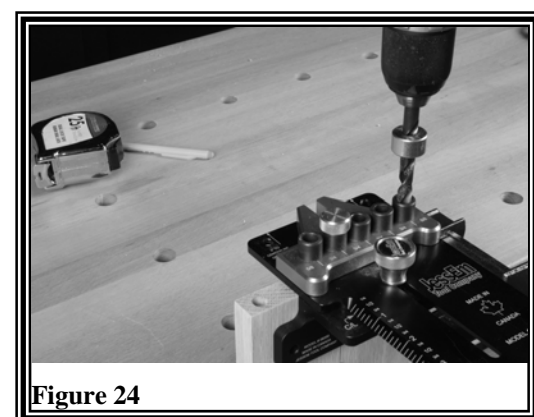


Figure 24

The shelf board is now complete. (See Figure #25)

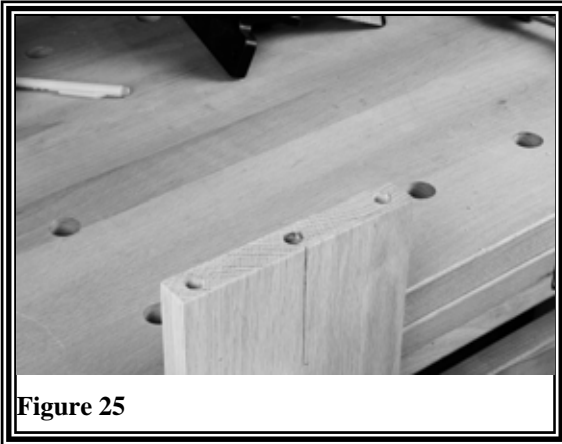


Figure 25

The distance from the front edge of the jig is 50 mm from the centre of the bushings. Mark a line where you want the dowels and also 50 mm from this point. Clamp the shelf board on the 50 mm line.

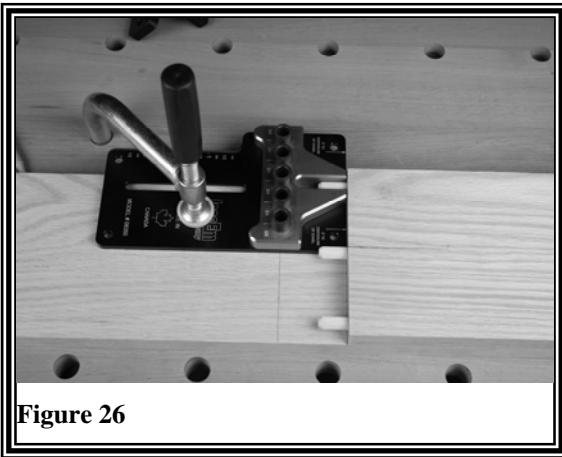


Figure 26

Install dowels in the shelf board and using the alignment slot, align and clamp the jig in position. (See Figure #26)

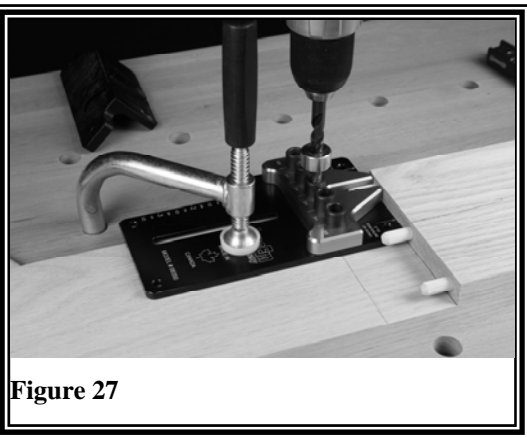


Figure 27

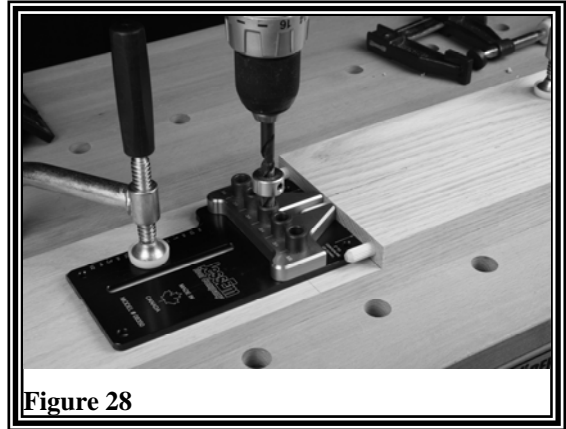


Figure 28

Drill using the centre bushing and repeat for each location. **CAUTION: ADJUST THE DRILL BIT DEPTH COLLAR TO ENSURE NOT TO DRILL COMPLETELY THROUGH YOUR BOARD.** (See

Figure 27,28 and 29)



Figure 29

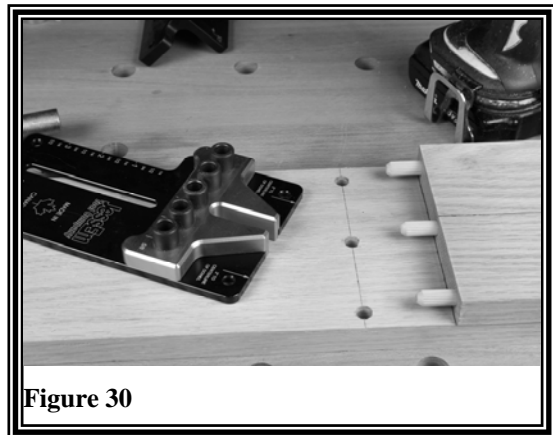
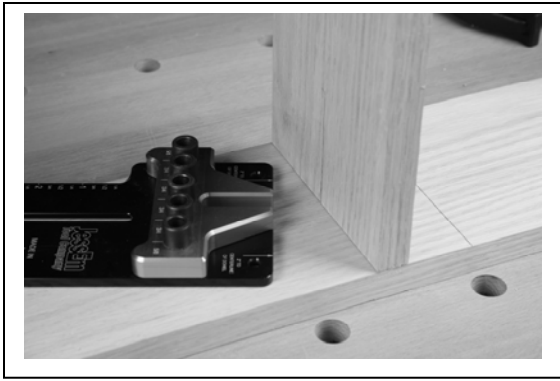


Figure 30



With the holes drilled, test fit the joint. (See Figure #30)

JESSEM TOOL LIMITED WARRANTY

All JessEm products are warranted to be free from defects in material and workmanship. JessEm will repair or replace any product which upon inspection proves to be defective for a period of (1) year from dated receipt and proof of purchase. All warranty claims should be made direct to JessEm Tool Company. Contact JessEm for a warranty claim return authorization and instructions to proceed. The consumer is responsible for shipping costs to return product to JessEm Tool Company. We will repair or replace the product at our discretion and JessEm Tool will return shipment to you at no charge.

WARRANTY LIMITATIONS

This warranty does not cover:

- Repairs or alterations made or attempted by anyone other than JessEm Tool Company or an authorized JessEm service professional.
- Normal wear and tear.
- Abuse, misuse or neglect.
- Improper care or maintenance.
- Continued use after partial failure.
- Products that have been modified in any way.
- Products used with improper accessories.
- Premature thread wear due to adjusting height with electric or cordless drill.

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