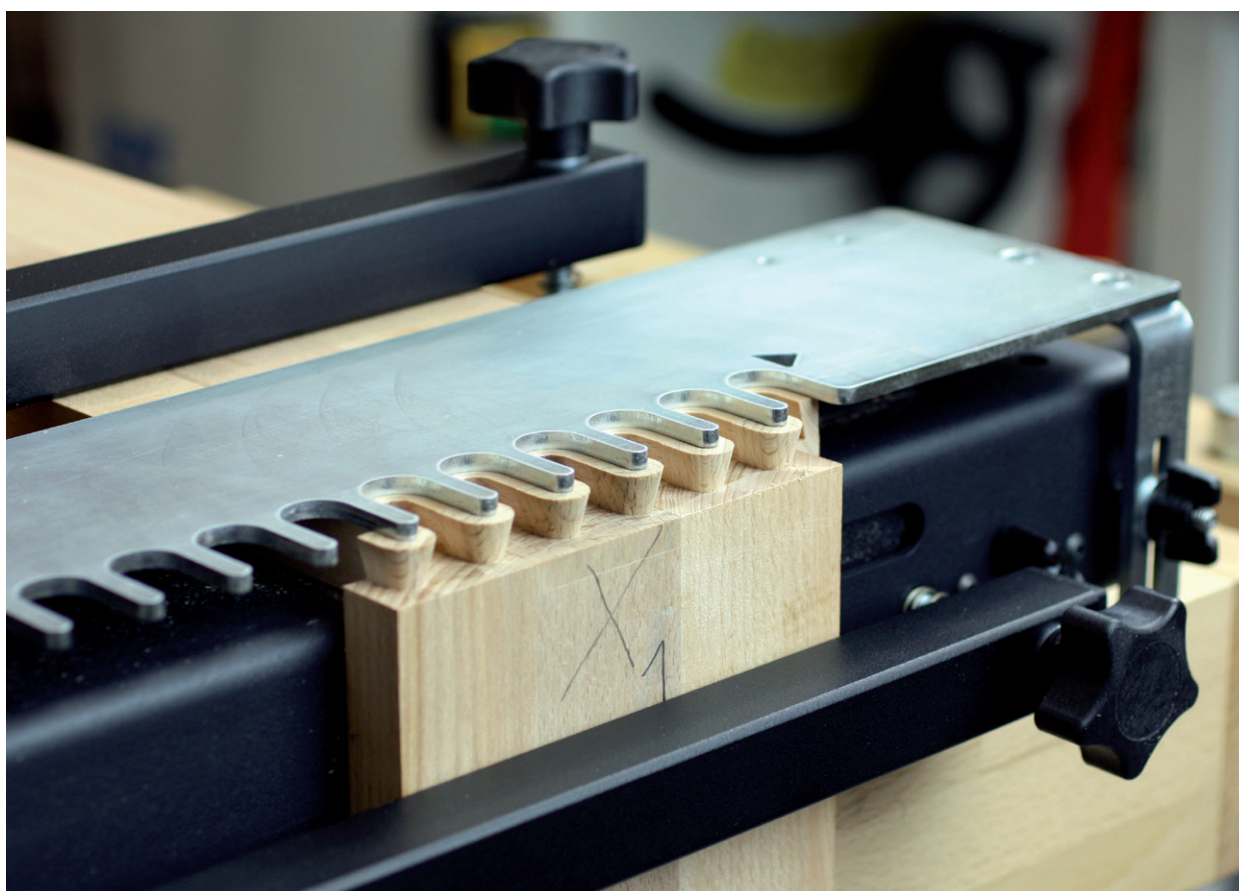




FD300 & 600

Dovetail jig

Operating instructions



Producer:

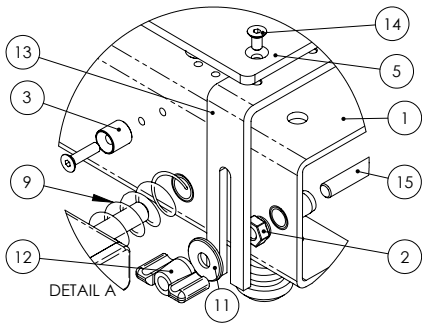
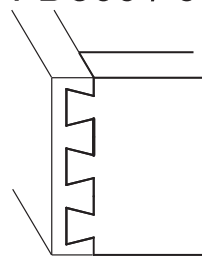
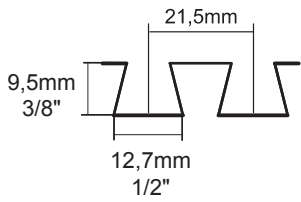
IGM nástroje a stroje s.r.o.
Ke Kopanině 560, 252 67, Tuchoměřice
Czech Republic, EU
Phone: +420 220 950 910
E-mail: sales@igmttools.com
Website: www.igmttools.com

2022-06-17

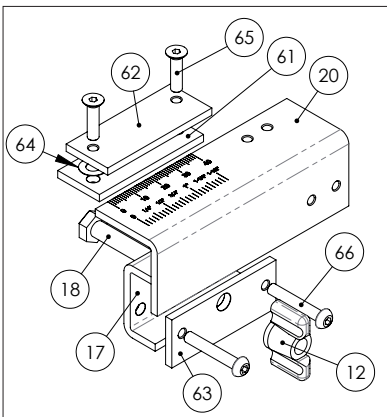
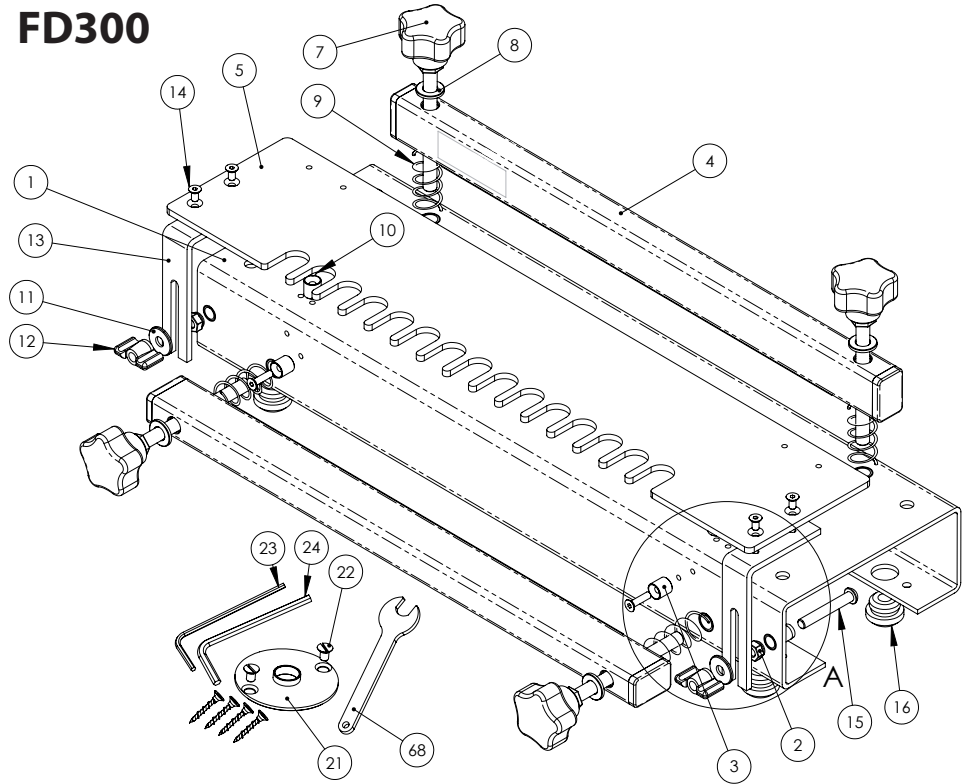
FD300 FD600 IGM Dovetail Jig Manual EN v5.10 A4ob



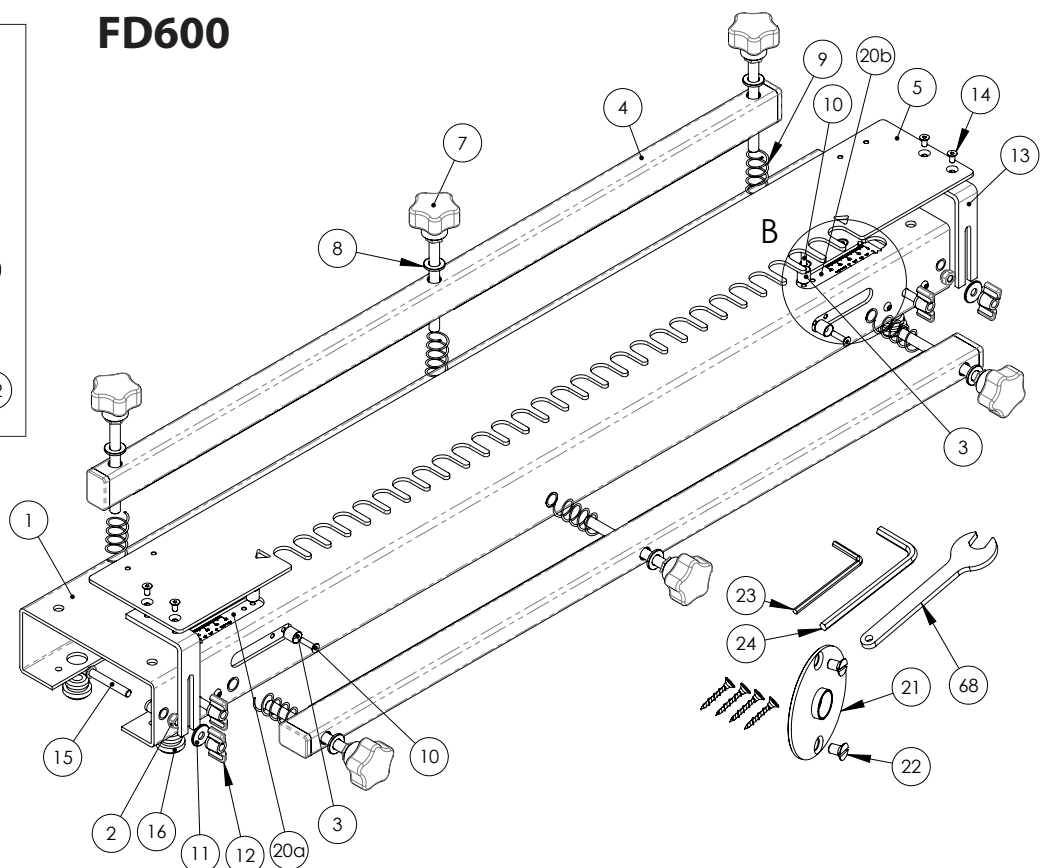
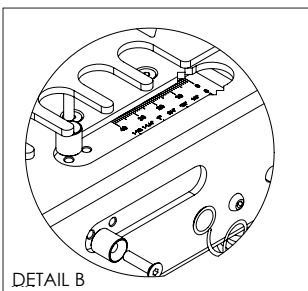
FD300 / 600 1



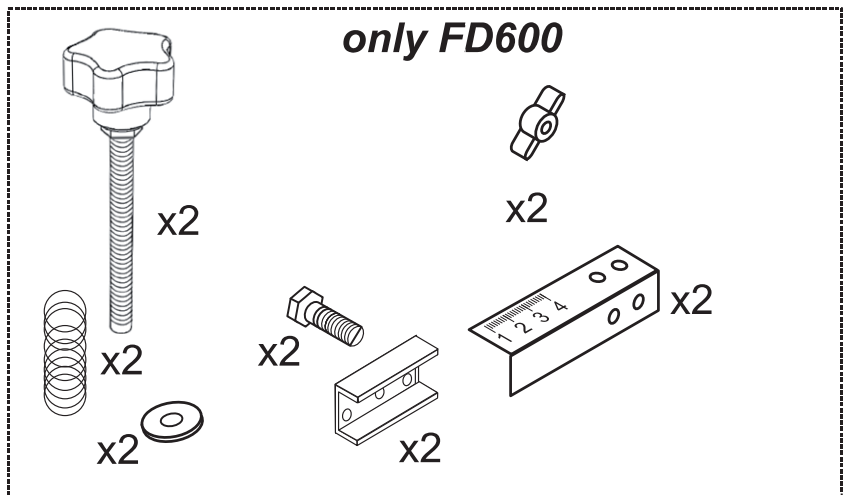
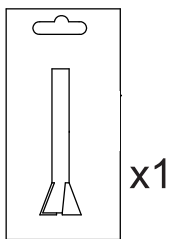
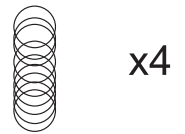
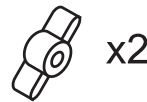
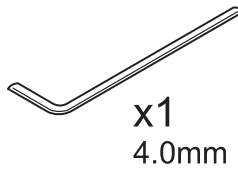
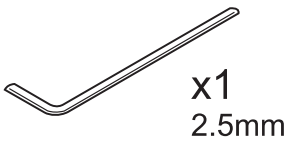
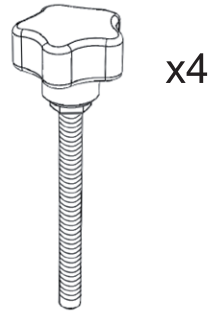
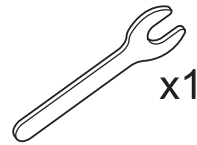
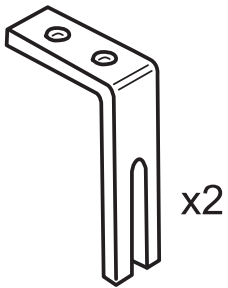
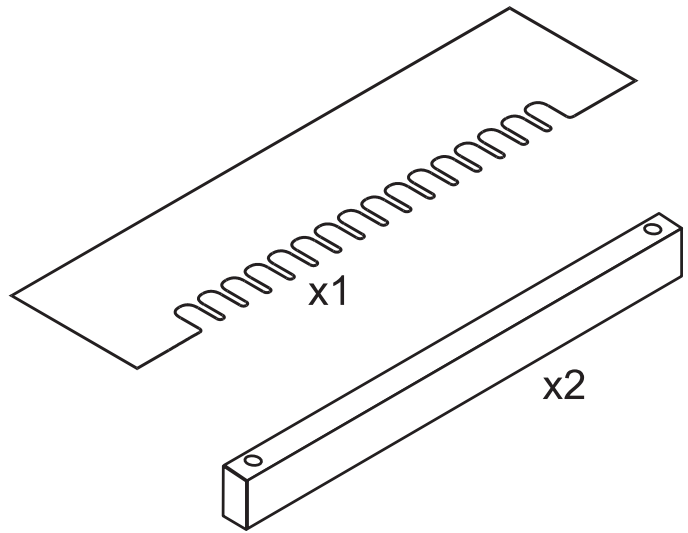
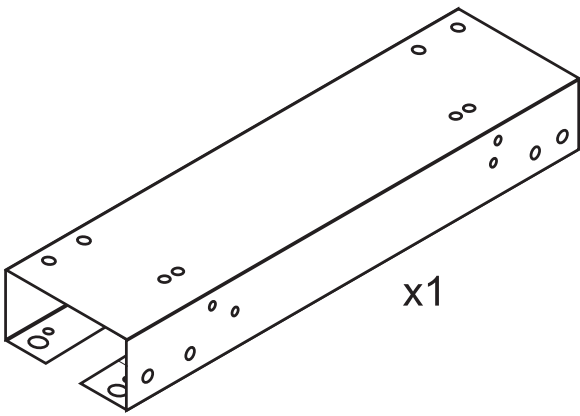
FD300



FD600



2



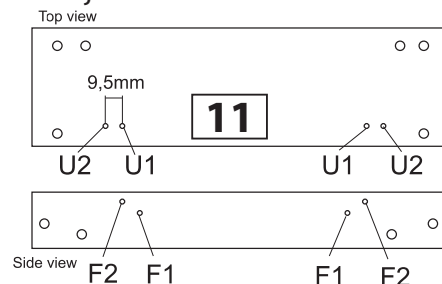
FD300 & 600 DOVETAIL JIG

The **FD300 & 600** Dovetail Jig is designed to rout $\frac{1}{2}$ " half blind dovetails using a dovetail router bit and a template guide bushing. The following optional accessories can be used to rout other kinds of joints:

- 6,35mm ($\frac{1}{4}$ ") half blind dovetails
- 8mm ($\frac{5}{16}$ ") box joints
- 12,7mm ($\frac{1}{2}$ ") box joints
- 12,7mm ($\frac{1}{2}$ ") through dovetails
- 19mm ($\frac{3}{4}$ ") through dovetails
- 32mm dowels joints

Standard Equipment:

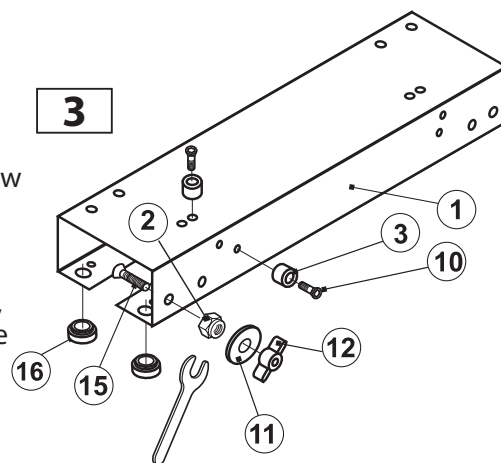
	FD300	FD600
Joint size:	half blind dovetail 12,7mm ($\frac{1}{2}$ ")	
Max. stock width:	305mm (12")	610mm (24")
Stock thickness:	12-25mm ($\frac{7}{16}$ " to 1")	12-25mm ($\frac{7}{16}$ " to 1")
Template guide diameter:	15,8mm ($\frac{5}{8}$ ")	15,8mm ($\frac{5}{8}$ ")
Weight:	6,9kg (15.2 pounds)	12,3kg (27 pounds)
Max. dia. of router base:	180mm ($7\text{-}1/16$ ")	180mm ($7\text{-}1/16$ ")



ASSEMBLY

Illustration 3

Thread the screw # 15 into the body from the inside of the extrusion, using the hex key to tighten the screw. Thread the aircraft-type hex nut #2 onto screw #15 from the front of the jig. Slip on washer #11 and screw on the knob #12. Repeat this procedure on the other end of the jig.



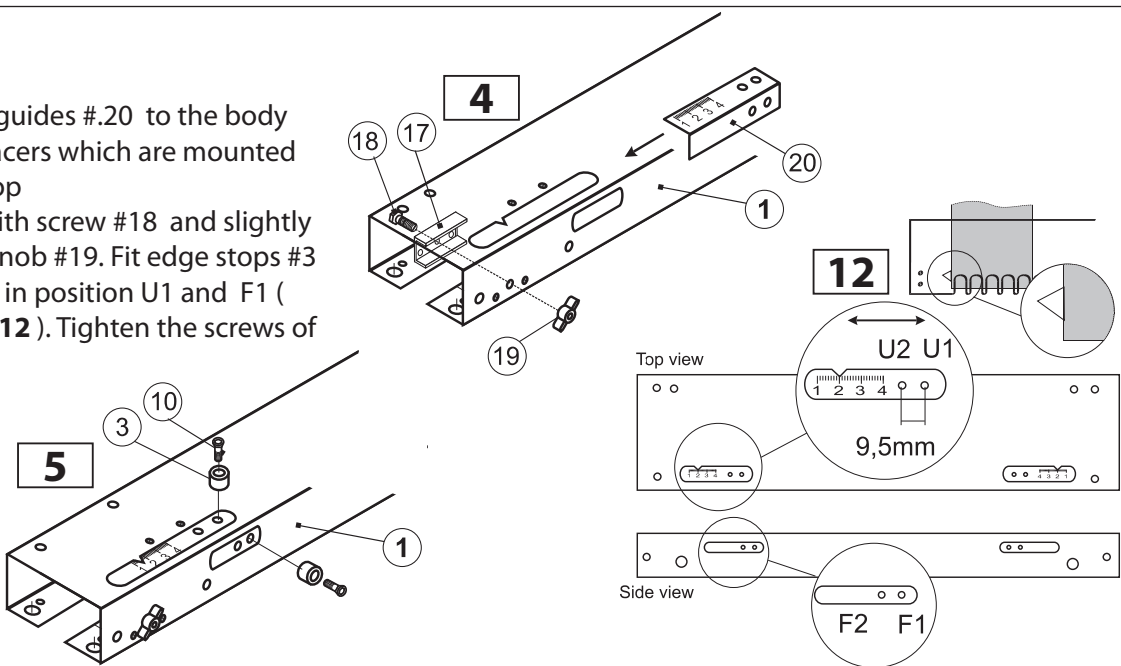
Only for FD300

Attach the edge guides #3 with screws #10. As shown in illustration 11, these guides should be placed in position "U1" on the top surface of the jig, and in position "F1" on the face of the jig. (see illustration 11)

Only for FD600

Illustration 4-5

Put sliding stop guides #.20 to the body between the spacers which are mounted in factory. Fit stop U-bracket #17 with screw #18 and slightly tighten female knob #19. Fit edge stops #3 with screws #10 in position U1 and F1 (see illustration 12). Tighten the screws of the edge stops.



Attach the rubber feet #16 to the bottom of the jig.

Illustration 6

Attach brackets #13 to template #5 with the countersunk holes upward, using screws #14.

Illustration 7

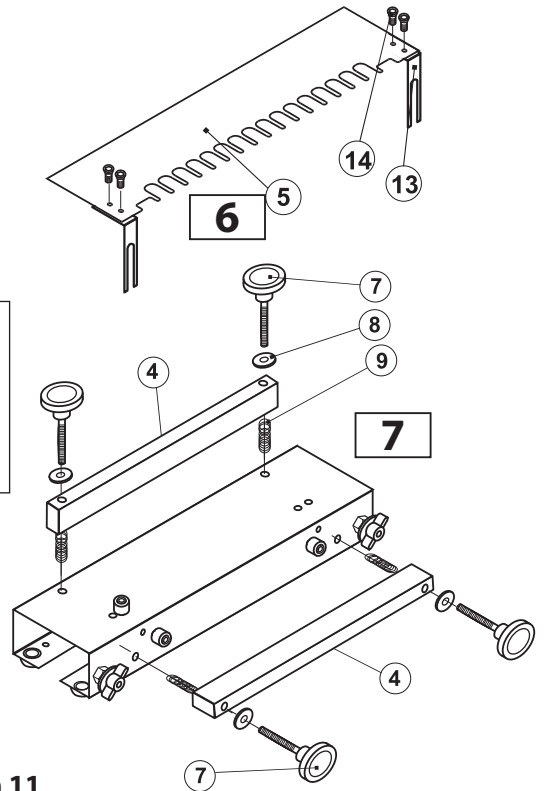
Assemble the clamping bars #4, springs #9 and washers #8 as shown, and attach this assembly using the knobs #7.

Only for FD600

FD600 middle clamp knobs male are provided when using workpiece less than 305mm. This ensures workpiece is held securely. When using workpiece over 305mm wide the middle knobs must be removed.

Illustration 8

Attach the template with brackets to the jig. The template brackets #13 should slip between the template adjustment nut #2 and the washer #11. Tighten the knob #12.

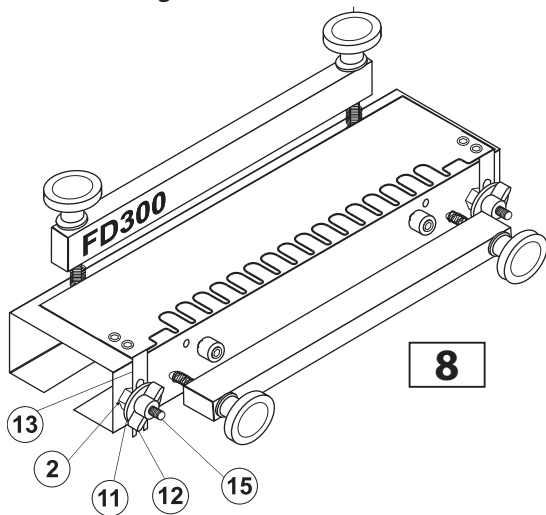


Edge guide system

FD300 Illustration 11

The edge guides are used to position the workpieces in the jig. There are four holes each in the top and face of the jig. The position of the edge guides will dictate whether a whole or partial pin will be cut on the edge of the workpiece. This is called the offset. If you wish to adjust the position of your workpiece to control the size of the first pin and make the joint symmetrical, simply make a spacer to place between the fixed edge guide and your workpiece.

Note: getting the pin placement symmetrical may require some test cuts in scrap stock.



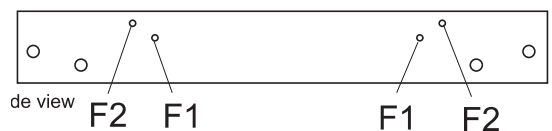
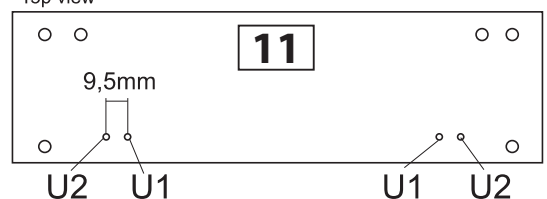
The distance between the edge guide locations marked as "U1" and "U2" on the top is 9,5mm (3/8"). This is for rabbeted drawer fronts.

FD600 Illustration 12

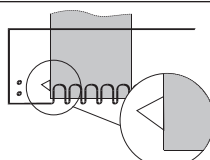
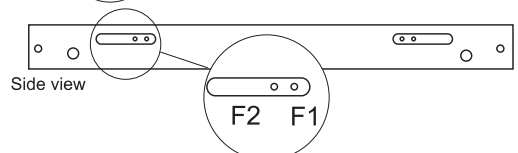
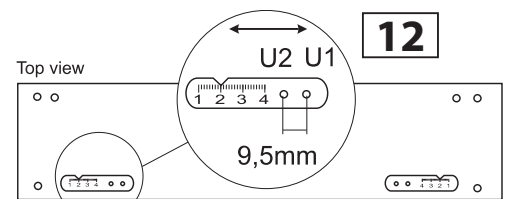
The FD600 has sliding stops. This enables the workpiece to be centered, giving a symmetrical dovetail joint. The sliding stop has a scale to allow a more precise offset to be calculated to ensure symmetrical joints.

- 1/ Loosen knob. Move sliding stop away from center of jig.
- 2/ Loosely fit workpiece under top clamp.
- 3/ Fit comb assembly (template) and tighten knobs.
- 4/ Move workpiece so that edge lines up with edge of sight hole on template - for lapped , dowel and through dovetails only. For the other templates see appropriate section.
- 5/ Lock top clamp bar knobs. Slide sliding stops towards edge of workpiece and lock in position with knob.
- 6/ Repeat for other side.

Top view



Top view

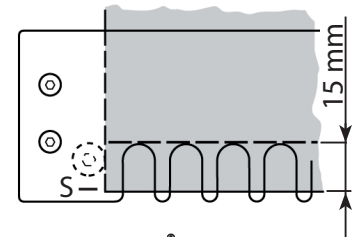
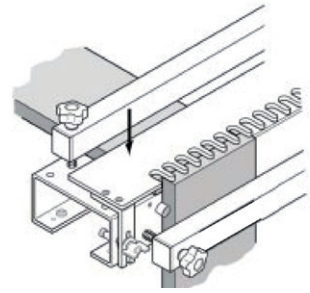


Operating instructions EN

Template adjustment Illustrations 13-14

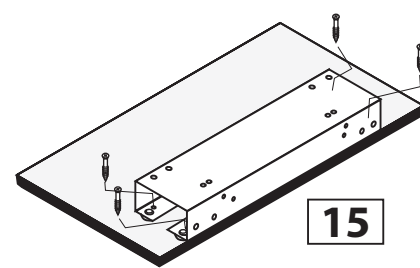
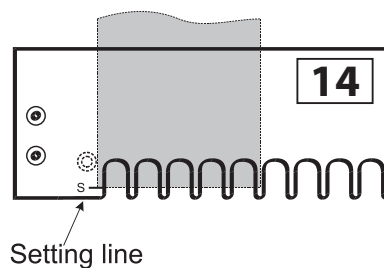
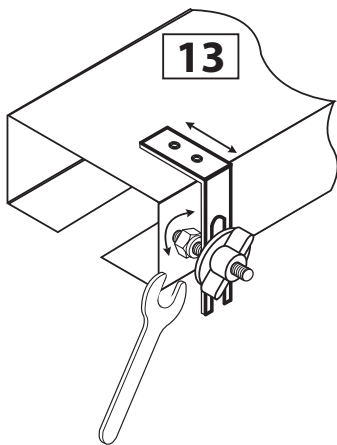
- 1) Depending upon the thickness of your stock, you will need to adjust the position of the template to control the depth of the pin sockets. Loosen the knobs #12, turn the hex nut #2 to move the template in or out in relation to the jig.
- 2) Turn adjustment nut towards jig body for deeper sockets, or out for shallower sockets.
- 3) To set up the position for the template, align the setting line S marked on the template with the front edge of workpiece that is secured by top clamp. This piece will be either the front or back of the drawer.
- 4) One turn of the adjustment nut equals 1 mm movement.
- 5) Once the template is in position, tighten the knob.
- 6) Ensure template is always parallel to workpiece.

If the mark S is illegible draw a line on the workpiece 15 mm from its edge. Align this line with the tops of the template fingers. Along the workpiece edge, there is an imaginary S axis which you can sharpen to produce another joint.



Mounting the jig on a workbench or work board Illustration 15

Attach the jig body to a work board or workbench with the screws supplied.



Aligning workpiece Illustration 16

The top surface of the horizontal workpiece (drawer front or back) must be flush with the end of the vertical workpiece (drawer side). Be sure that both pieces are snug against the underside of the template.

Clamping bars and knobs

Do not overtighten the clamping bars and clamping knobs. The clamping bar must be tightened parallel to the jig. Unless your stock is very wide (nearly 305mm/12" for FD300 and 610mm/24" for FD600), the workpiece will be set to one side of the jig. In this case, it is advisable to release the clamping knob farthest from the workpiece first.

Important notes:

All drawings show left hand edge guides being used. The same procedure is carried out for right hand edge guides

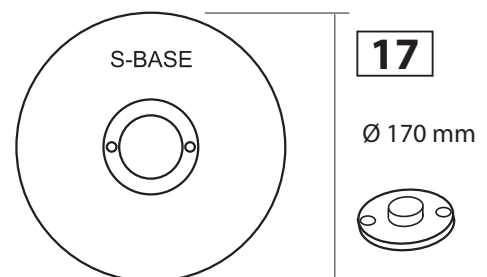
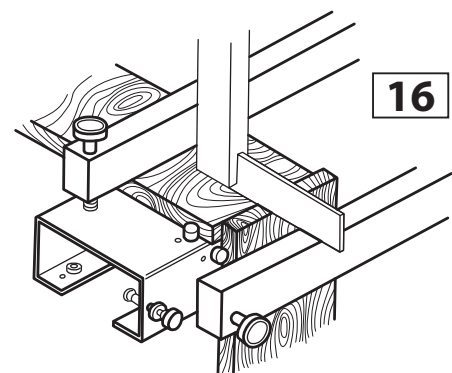
All dimensions are approximate.

All bit depths are as a guide only, make test cuts in scrap stock before routing joints in your workpiece.

Illustration 17

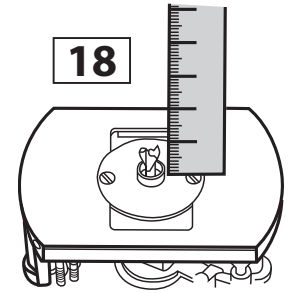
The template guides supplied with the jig and accessories will fit most DeWalt, Elu and other routers directly. For other models of routers an optional sub-base may be required to attach the template guides. The sub-base has been designed for use with a variety of routers. It also provides concentricity between router bit and template ensuring accuracy.

The optional sub-base provides greater accuracy and concentricity of the template guide, resulting in more precise joints. We recommend the use of the sub-base with all types of routers which do not accept our template guides directly.



Setting up the Router

- 1) Always unplug the router before making any adjustments or changing bits.
- 2) Attach the template guide to the router. Refer to the table in each appropriate section.
- 3) To insert the bit, plunge the router so the collet almost touches the template guide.
- 4) Insert the router bit into collet and tighten.
- 5) Set router bit height as shown in illustration 18. Refer to table in relevant section.



STANDARD 12,7mm (1/2") HALF BLIND DOVETAIL JOINT

Illustration 19-26

Use the standard template . Both parts of joint are routed at same time.

Joint Description	Edge Guide Information			Ø Guide Dimensions	Router Bit	Cutting depth
	Diameter	Colour	Position			
12,7mm (1/2") Half Blind FD300 & 600	Ø 10mm	Silver	U1	15,8mm 5/8"	Ø 1/2" x 1/2" Ø 12,7 x 12,7mm x 14°.	13,5mm 17/32"
	Ø 10mm	Silver	F1			

Stock preparation

It is important to plan your work before you start to rout.

Always label the workpieces as shown in Illustration 19.

FRONT / BACK / RIGHT / LEFT .

D = BOTTOM PART

X1 = LEFT PART

Y1 = FRONT PART

X2 = RIGHT PART

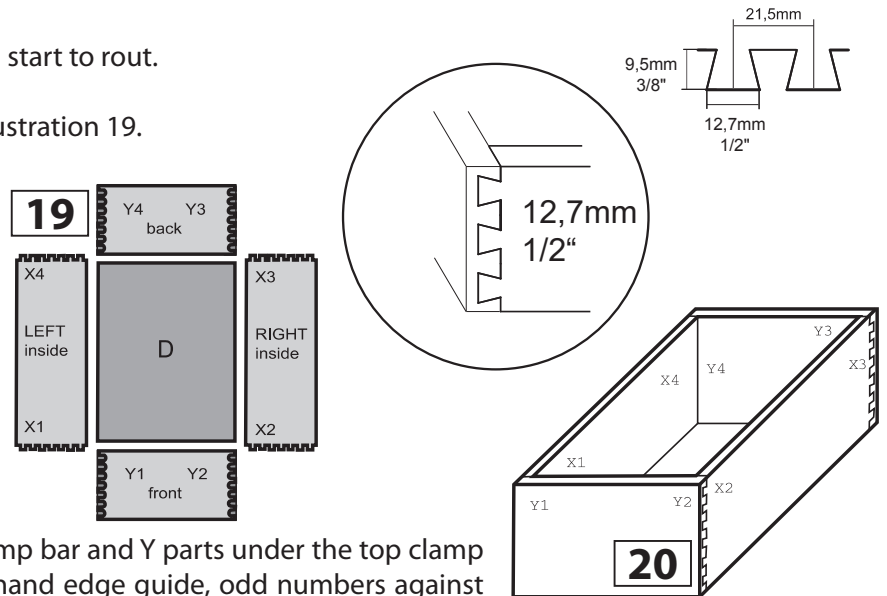
Y2 = FRONT PART

X3 = RIGHT PART

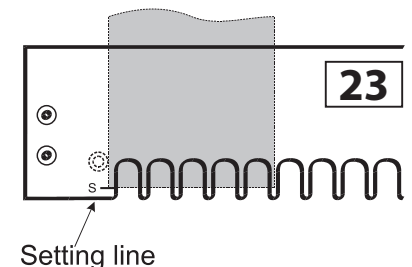
Y3 = BACK PART

X4 = LEFT PART

Y4 = BACK PART

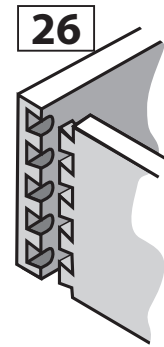


X parts will be clamped under the front clamp bar and Y parts under the top clamp bar. Even numbers are placed against left hand edge guide, odd numbers against right hand edge guide.



Note: All dimensions shown in this manual do not include production tolerances of template guides, templates and router bit. Therefore use these dimensions as a guide only and always make a trial cuts before you start routing your drawers.

Operating instructions EN



Workpiece width

This 12,7mm (1/2") half blind template can be used with stock from 21,5mm (7/8") to 305mm (12") wide with FD300 or to 610mm (24") wide with FD600 . Pitch 21,5mm(7/8") with 3mm offset line x no.of tails = ideal stock width. For symmetrical pin placement, use this table as a guide:

#of Whole Tails:		1	2	3	4	5	6	7	8
Ideal stock tails	mm	21,5	43	64,5	86	107,5	129	150,5	172
	inch	7/8"	1-11/16"	2-1/2"	3-3/8"	4-1/4"	5-1/6"	5-15/16"	6-3/4"

SET UP

- Attach edge guides to the jig in the positions listed in the table above.
- Place X workpiece into front clamp bar. Tighten front clamp knobs.
- Place Y workpiece into top clamp bar.
- Push Y workpiece tightly against the edge guide and workpiece X. Tighten top clamp knobs.
- Retighten X workpiece, so that the top of front X workpiece is flush with the top of workpiece Y and snugly against edge guide.
- Tighten front clamp knobs .
- Adjust template position to align the setting line with the edge of the workpiece under the top clamp. One rotation of template adjustment nut stop equals 1mm.
- Tighten template assembly knobs.
- Attach the template guide to the router base.
- Install the dovetail bit in the router.
- Adjust the cutting depth of the dovetail bit according to table.

Note: Recommended bit depths are approximate only, always make test cuts in scrap stock to determine the exact depth for your application!

Caution!

- **Ensure that both workpieces are clamped securely and that they touch the edge guides.**
- **Always clamp only one set of workpieces . Ensure that the router bit does not touch the template brackets before and after cutting the joint.**
- **Do not overtighten the knobs.**
- **Tighten or loosen the joint by increasing or decreasing cutting depth of dovetail bit.**

Routing

- Place the router on the template ensuring that the router bit does not touch the workpiece.
- Switch on. Make one very light cut from left to right, cutting only the front edge. This prevents breakout.
- Rout carefully from left to right following the fingers of the template with the template guide.
- Switch off the router and carefully remove from jig.
- Check that all slots are routed clean. If not, rout again.
- Remove the workpiece from the jig.
- Test joint.

ATTENTION!

Do not lift the router from the template as damage to the template and router bit will occur.

If the joint is not perfect :

- Joint too loose = increase cutting depth of router bit.
- Joint too tight = decrease cutting depth of router bit.
- Joint too shallow = move template towards the jig body.
- Joint too deep = move template away from the jig body.

STANDARD RABBETED 12,7mm (1/2") HALF BLIND DOVETAIL JOINT Illustration 27-30

Use standard template . Each part of joint is routed separately.

Note: In most cases, the rabbeted joint is used only on the drawer front. If you wish to use a standard half blind joint to connect the drawer sides to the back, make this joint using the instructions in the previous section.

Joint Description	Edge Guide Information			Ø Guide Dimensions	Router Bit	Cutting depth
	Diameter	Colour	Position			
12,7mm (1/2") Rabbeted Half Blind FD300 & 600	Ø 10mm	Silver	U2	15,8mm 5/8"	Ø 1/2" x 1/2" Ø 12,7 x 12,7mm x 14°.	13,5mm 17/32"
	Ø 10mm	Silver	F1			

Set up

Attach edge guides to the jig in the positions listed in the table above.

Drawer front preparation

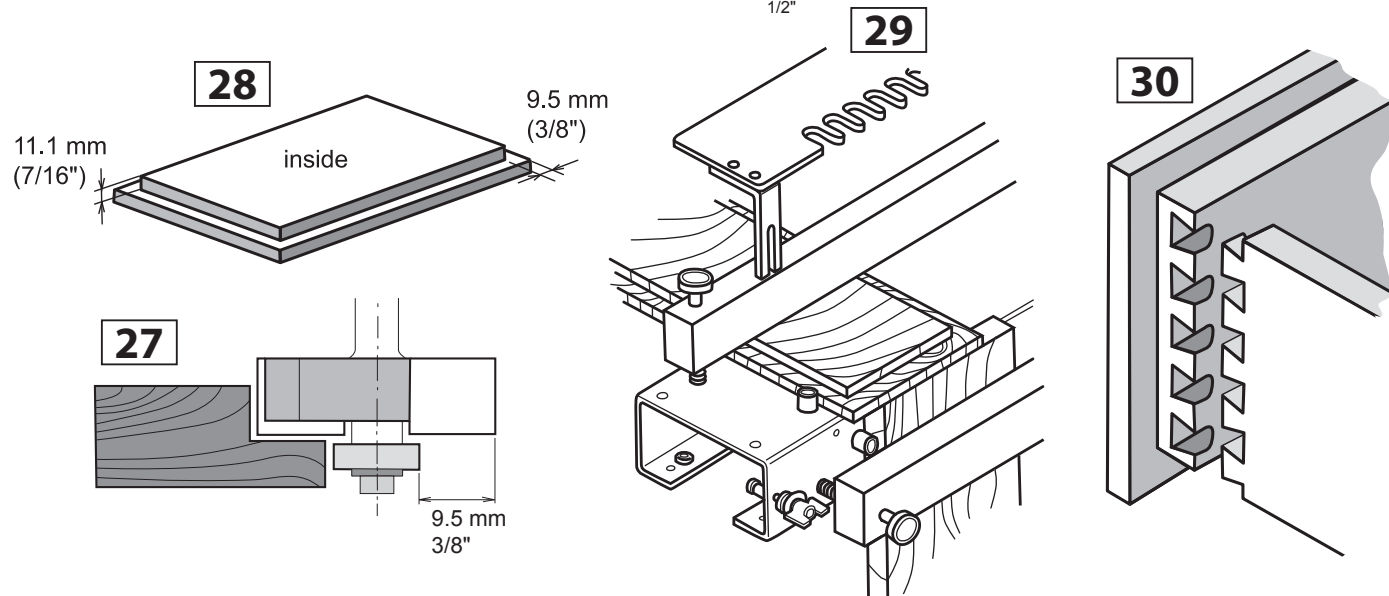
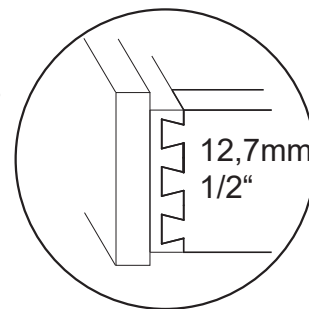
- Prepare workpiece about 19mm (3/4") longer and wider.
- Rout 9,5mm (3/8") wide and 11,1mm (7/16") deep rabbet into the edges of the workpiece.
- Place a 9,5mm (3/8") thick wooden spacer into front clamp and push tight against edge guide.
- Tighten the front clamp bar knobs .
- Place drawer front under the top clamp and butt against the wooden spacer and the edge guides. The top of the drawer front must be flush with the face of the spacer as shown in illustration 29.
- Tighten top clamp bar knobs.
- Remove the spacer from front clamp.
- Adjust the template position to align the setting line with the edge of drawer front. One rotation of adjustment nut equals 1mm.
- Tighten template assembly knobs.
- Attach template guide to router base.
- Install the dovetail bit in the router.
- Adjust the cutting depth of the dovetail bit according to the table.

Note: Recommended bit depths are approximate only, always make test cuts in scrap stock to determine the exact depth for your application!

Operating instructions EN

Routing the drawer front

- Place the router on the template ensuring that the router bit does not touch the workpiece.
- Switch on. Make one very light cut from left to right cutting along the front edge. This prevents breakout.
- Rout carefully from left to right following the fingers of the template with the template guide.
- Switch off the router and carefully remove from jig.
- Check that all slots are routed clean. If not, rout again.
- Remove the workpiece from the jig.
- Test joint.



Drawer side preparation

- Place a 13mm (1/2") thick wooden spacer with the same width as the drawer under the top clamp.
- Place drawer sides into front clamp and push tight against edge guides. Ensure top of the drawer sides is flush with the upper surface of the wooden spacer.
- Tighten top and front clamp knobs.

Routing drawer sides

- Place the router on the template ensuring that the router bit does not touch the workpiece.
- Switch on. Make one very light cut from left to right cutting only the front edge. This prevents the breakout.
- Rout carefully from left to right following the fingers of the template with the template guide.
- Switch off the router and carefully remove from jig.
- Check that all slots are routed clean. If not, rout again.
- Remove the workpiece from the jig.
- Test joint.

If the joint is not perfect :

- Joint too loose = increase cutting depth of router bit.**
- Joint too tight = decrease cutting depth of router bit.**
- Joint too shallow = move template towards the jig body.**
- Joint too deep = move template away from the jig body.**

Operating manuals for OPTIONALS TEMPLATES

- 6,35mm (1/4") HALF BLIND DOVETAIL TEMPLATE
- 8mm (5/16") & 12,7mm (1/2") BOX JOINT TEMPLATES
- 12,7mm (1/2") & 19mm (3/4") THROUGH DOVETAIL TEMPLATE
- 32mm DOWELS JOINT
- see inside each template packaging.

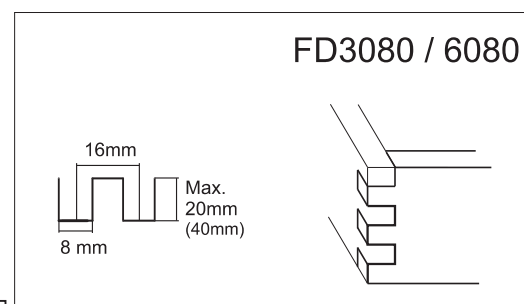
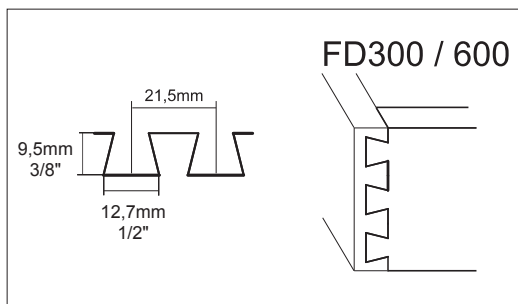
SAFETY

- Before changing router bit or making any kind of adjustment, always turn off and unplug your router.
- Use protective glasses during routing.
- Use hearing protectors.
- Always use a dust-protection mask or respirator.
- Use dust collection.
- Do not wear loose clothes. Make sure that your sleeves are either rolled up or fastened and that you are not wearing a tie.
- Before starting your router remove all tools, nuts and other loose object from the work area.
- Avoid an inadvertent start of your router. Before you plug it in, verify the switch is in "off" position.
- Before you make any adjustments, wait till your router cutter completely stops.

FD300 & 600 SPARE PARTS LIST			v.5	
Pos. #	Description	quantity	code	
1	Body FD300	1		
	Body FD600	1		
2	Adjusting template comb stop FD300 and FD600	2		
3	Edge guide	4	FD3001-03	
4	Clamp bar FD300	2	FD3001-95	
	Clamp bar FD600	2	FD6001-95	
5	Template comb 12,7mm half blind dovetail FD300	1	FD300-07	
	Template comb 12,7mm half blind dovetail FD600	1	FD600-07	
7	Clamp bar knob M8x90 FD300 and FD600	4	FS100119	
8	Washer 8 FD300 and FD600	4	FS101004	
9	Spring FD300 and FD600	4	FD6001-11	
10	Screw M4 x 16	4	FS200126	
11	Washer 6 FD300 and FD600	2		
12	Knob female M6 FD300 and FD600	2	FS100106	
13	Template brackets FD300 and FD600	2	FD6001-22	
14	Screw M4 x 8	4	FS200128	
15	Screw M6 FD300 and FD600	2		
16	Rubber feet	4	FS990002	
17	Sliding stop U-bracket FD600	2	FD6001-17	
18	Screw M6 FD600	2	FS200112	
20	Sliding stop bar right FD600	1	FD6001-08A	
	Sliding stop bar left FD600	1	FD6001-08B	
21	Guide bush D15,8mm x 4mm	1	FGB158-04	
22	Screw M5 x 8	2	FS200143	
23	Hex key 2,5	1	F099-06200	
24	Hex key 4 FD300	1	FS800005	

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68	Spanner 10 for FD300	1	FS800008
61	Sliding stop spacer upper 2 x M4 FD600	2	FD6001-15
62	Sliding stop spacer upper FD600	2	FD6001-16
63	Sliding stop spacer 2 x M4 FD600	2	FD6001-18
64	Shim 0,1mm (0,2mm) FD600	8	FS101013
65	Screw M4 x 12 FD600	4	
66	Screw M4 x 25 FD600	4	



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