

T20

BISCUIT JOINTER



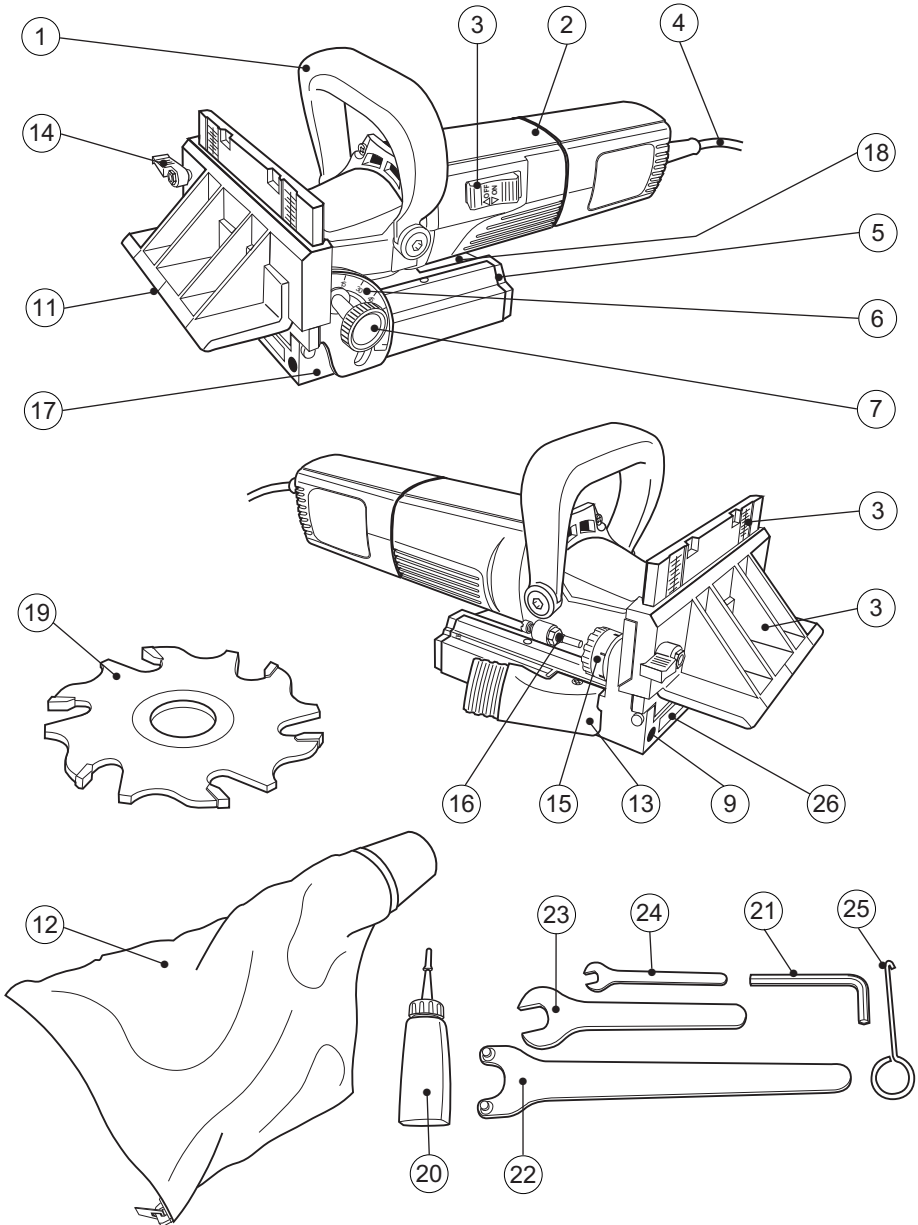
trend[®]
routing technology

ITEMS ENCLOSED

- 1 x Blade (fitted to machine)
- 1 x Lubricant bottle to lubricate slider
- 1 x Pin spanner to change blade
- 1 x Hex key (6mm A/F) to adjust angle of handle
- 1 x Spanner (17mm A/F) to lock armature
- 1 x Spanner (8mm A/F) to adjust blade depth
- 1 x Spring locating hook to assist blade change
- 1 x Dust extractor spout fitted to machine
- 1 x Dust bag
- 1 x Instructions
- 1 x Guarantee registration card

DESCRIPTION OF PARTS

- ① Top handle
- ② Motor housing
- ③ On/Off switch
- ④ Power cable
- ⑤ Rear blade housing end cap
- ⑥ Tilt base scale
- ⑦ Tilt base locking knob
- ⑧ Rise and fall scale
- ⑨ Anti-slip rubber studs
- ⑩ Sliding right angle fence
- ⑪ Centre sight line
- ⑫ Dust bag
- ⑬ Dust spout (O/D diameter 28mm)
- ⑭ Sliding fence locking lever
- ⑮ 6 position turret depth stop
- ⑯ Depth stop adjustment screw
- ⑰ Base plate
- ⑱ Sliding carriage
- ⑲ Six wing blade fitted to machine
- ⑳ Lubricant bottle to lubricate slides
- ㉑ Hex key (6mm A/F) to adjust angle of handle
- ㉒ Pin spanner for blade change
- ㉓ Spanner (17mm A/F) for blade change
- ㉔ Spanner (8mm A/F) for depth stop
- ㉕ Slide spring locating hook for blade change
- ㉖ Register face and blade aperture



SAFETY

General Safety

- Make sure the machine is switched off before inserting the plug in the socket.
- Do not switch on the biscuit jointer with the blade in contact with the workpiece.
- Clamp all workpieces securely to prevent them from moving during the cutting operation.
- Always trail the cable away from the working area.
- Always remove the plug from the socket before making any adjustments to the machine.
- Check that the blade is fitted securely. Be careful when handling blades as they are sharp.
- Check before starting to cut that clamps will not obstruct the path of the biscuit jointer.
- Always keep the area around the workpiece and the floor clear of obstacles.
- Always allow the blade to reach full speed before plunging cutting into the workpiece.
- Always guide the biscuit jointer with both hands.
- When the recess is cut, retract the blade from the material but allow the machine to come to a complete stop before lifting the tool from the workpiece.
- Do not allow objects to dangle over the work area i.e. do not wear loose clothing such as a tie. Roll sleeves back and ensure long hair is tied back.
- Do not use electrical power tools in wet or damp areas or conditions.
- Do not feed the blade into the workpiece until it is at full speed.

Noise

The level of noise when machining may exceed 85 db(A). It is therefore advisable to wear ear defenders especially if routing for long periods of time.

Eye Protection

Goggles, safety spectacles or visors must be worn to protect the eyes from ejected waste particles.

Dust Protection

- The fine dust created when machining presents a severe health risk if inhaled.
- Always wear a dust protection mask or respirator and use the dust spout connected to a suitable extractor.
- Dust masks and filters should be changed regularly.

Electrical Safety

Power Supply

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate. Machines marked for 230 volt can also be operated from a 220 volt supply.



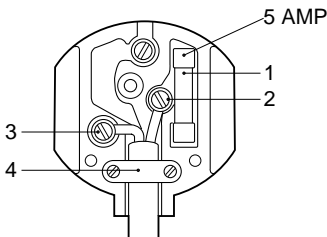
The T20 is double insulated in accordance with EN 50144; therefore no earth wire is required.

Mains Plug Replacement (UK & Ireland only)

Always check the condition of the cable and plug before starting with your work.

Should your mains plug need replacing and you are competent to do this, proceed as instructed below. If you are in doubt, contact an authorised Trend repair agent or a qualified electrician.

- Disconnect the plug from the supply.
- Cut off the plug and dispose of it safely. (Note a plug with bared copper conductors is dangerous if engaged in a live socket outlet).
- Only fit a 5 Amperes BS 1363A approved plugs fitted with a 5 Amp A.S.T.A approved BS 1362 fuse (1).
- The cable wire colours or a letter, will be marked at the connection points of most good quality plugs. Attach the wires to their respective points in the plug (see below). Brown is for Live (L) (2) and Blue is for Neutral (N) (3).
- Before replacing the top cover of the mains plug ensure that the cable restraint (4) is holding the outer sheath of the cable firmly and that the two leads are correctly secured in the terminal screws.



IMPORTANT!

Never connect the live (L) or neutral (N) wires to the earth pin marked E or \perp

Using an Extension Cable

- If an extension cable is required, use an approved triple core extension cable suitable for the power input of this tool (see technical data).
- When using a cable reel, always unwind the cable completely.
- Also refer to the table below.

Cable Rating (Amperes)

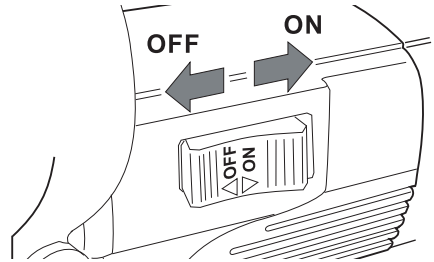
		Voltage 240V
Cable length (m)	7.5	6A
	15	6A
	25	6A
	30	6A
	45	10A
	60	15A

Conductor size (mm ²)	Cable rating (Amperes)
0.75	6
1.00	10
1.50	15
2.50	20
4.00	25

ASSEMBLY & ADJUSTMENT

Switching On & Off

- To use the T20 Biscuit Jointer safely, always hold the machine by gripping the body of the motor housing in one hand and holding the top handle with the other.
- The slide switch on the left hand side of the body can then be operated with either the thumb or forefinger.
- To switch **ON**, slide the switch back until it clicks and locks into the **ON** position.
- To switch **OFF**, press the front of the switch and allow it to spring forward.



IMPORTANT!

Make sure the machine is switched off before connecting it to the power supply!

Fitting and Removing the Dust Collection Bag

- A dust extraction spout is already fitted to the T20. To remove the spout for cleaning, first remove the screw from the top of the plastic spout.
- To fit the collection bag, push the nozzle firmly onto the dust extraction spout on the machine.
- To empty the bag, remove it from the machine and empty it by undoing the zip on the bottom of the bag. Empty the bag into an enclosed container, ensuring that waste material cannot blow around.
- Ensure that the zip is closed before re-using the machine.



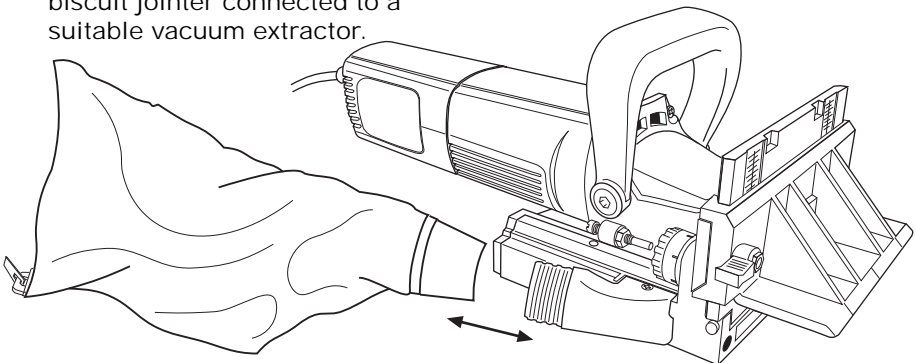
Dust Spout

- The extractor spout is also suitable for connection to a vacuum extractor with a inside hose diameter of 28mm. Alternatively use a stepped adaptor for connection to hoses of other diameters.
- If using the T30 Vacuum Extractor with the T20, the power adaptor supplied with the T30 will need to be cut down to the 32mm diameter segment. This adaptor is also available as an accessory, Ref. WP-T30/056.
- Always ensure that the collection bag is fitted correctly, as its design should prevent interference with the machines operation.



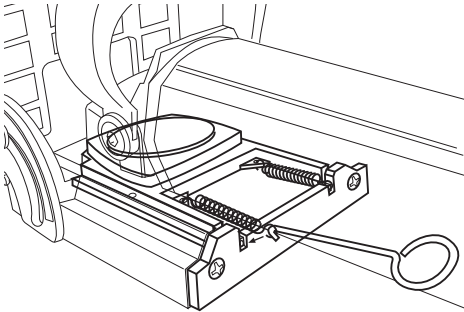
IMPORTANT!

Whenever possible, use the biscuit jointer connected to a suitable vacuum extractor.

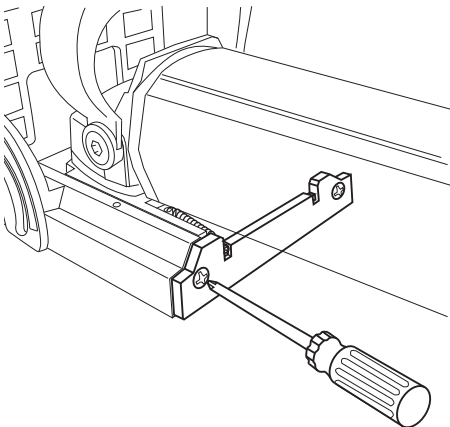


Blade Removal and Replacement

- Unplug the biscuit jointer before beginning the following procedure.
- Use the spring release / locating hook supplied with the machine to disconnect the two springs, one on either side of the machine.



- Remove the two horizontal screws holding the plastic end cap at the rear of the blade housing and remove the end cap.



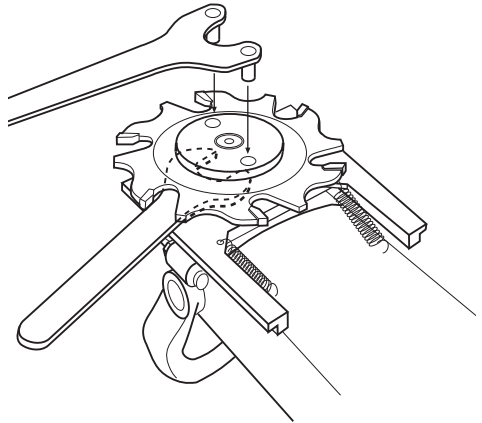
- Slide the blade housing forwards and remove completely.

- Hold the lower flange beneath the blade using the 17mm spanner. Use the pin wrench to release the top flange on top of the blade.



IMPORTANT!

Be careful, the teeth on the blade are sharp and can cause injury.



- Remove the top flange, blade and lower flange completely and clean any sawdust and resin from the spindle, blade flanges, blade housing and slide tracks.
- Ensure that the lower flange and blade seat correctly before fitting the top flange. (Only use the Trend Ref. CR/BJB/100T biscuit jointer blade).



IMPORTANT!

Ensure that the blade is fitted the correct way up.

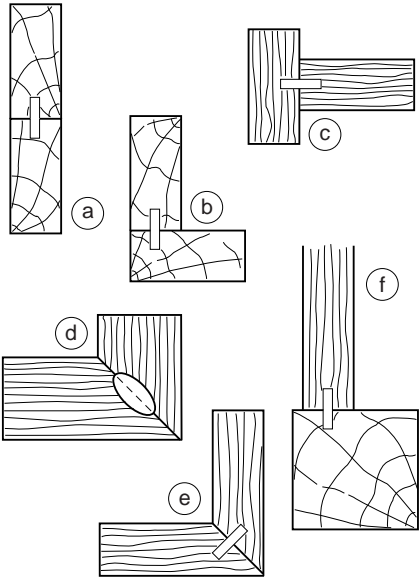
- Fit the top flange, check that it seats correctly and finger tighten. Fully tighten the flange using the pin wrench and 17mm spanner.
- Lightly oil the slide assembly using the plastic lubricating bottle supplied (use a thin machine oil to refill the bottle when empty).
- Replace the plastic end cap and tighten the two screws.
- Use the spring release / locating hook to refit the two springs.

FLAT DOWEL / BISCUIT JOINTING

Introduction to Biscuit Jointing

Flat dowel or biscuit jointing offers one of the strongest methods of joining timber and timber based board. This method of reinforcing simple butt joints utilises flat oval dowels set into semi-circular recesses or 'pockets'. When cut with the T20 Biscuit Jointer each pair of pockets are accurately aligned along both faces of the joint. This ensures that when the joint faces are brought together, the biscuits fit equally into both sides of the joint.

Made from compressed timber fibre, flat dowel biscuits swell rapidly when a water based woodworking adhesive (i.e. PVA, white glue or aliphatic resin) is correctly applied. This causes the dowel to tighten in the recess to produce a strong and reliable finished joint. This initial rigidity in the joint also speeds up the assembly process by reducing the necessary clamping time (compared to conventional jointing methods). Also, unlike traditional tongue and groove or loose tongue joints, each biscuit is fitted in a separate recess or pocket rather than a continuous groove. This retains far more strength in the edge of the workpiece and in the case of natural timber, eliminates the risk of the edge cupping outwards.

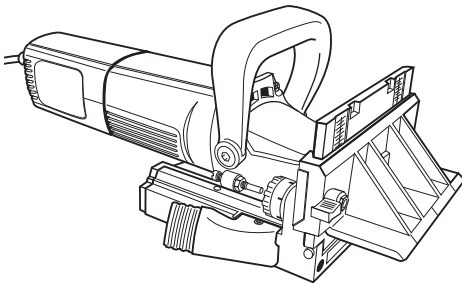


Trend T20 Biscuit Jointer

The T20 Biscuit Jointer is ideally suited to cabinet and furniture making applications where it can be used to form many different butt joint formations. These include (a) edge to edge, (b) right angle, (c) T-joints (d) mitre (e) bevel and (f) frame to panel joints.

It can be used on natural timber, particle board, fibre board, plywood and other timber based materials. An adjustable precision fence allows biscuits to be positioned accurately across the width of the joint faces, leaving the top faces perfectly flush or offset by an exact amount. The fence can also be adjusted to any angle between 0° and 90°, allowing the biscuit to be used to join mitred and bevelled butt joints as well squared edged joints. Biscuit joints can be used in both conventional frame or panel construction.

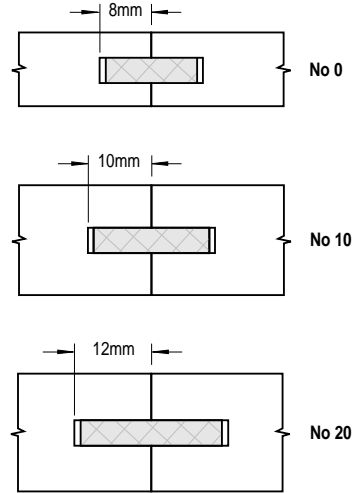
Using the T20 Biscuit Jointer, you will, with experience, discover many other ways of using the advantages of biscuit jointing to produce accurate, strong and easily assembled joints for all your woodworking projects.



Biscuit Selection and Setting the Depth of Cut

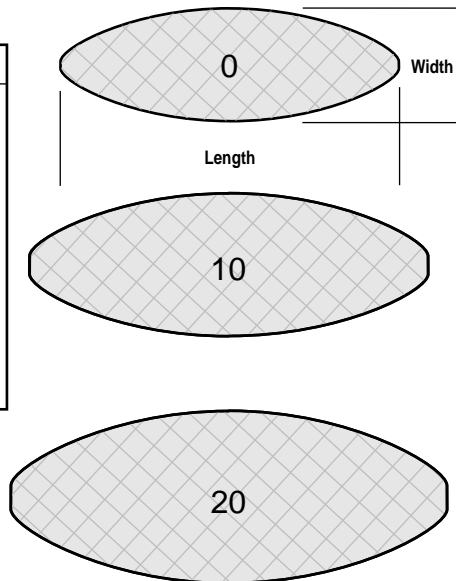
- Three biscuit sizes are suitable for use with the Trend T20 Biscuit Jointer. These are No's 0, 10, and 20. When selecting the size of biscuit best suited to the application, always take into consideration the dimensions of the components to be joined and any situation where that may cause the biscuit or recess to show on the face of the finished work (i.e. where further cleaning up, planing or machining will reduce the size of the assembled components).
- As a general rule, all workpieces over 19mm thick should be jointed using the largest biscuit size possible.
- Remember to set the depth of cut on the T20 Biscuit Jointer to suit the selected biscuit size. Always check that the depth of cut is correctly set by testing it on scrap timber.
- All biscuits are pressed to produce a loose sliding fit (before glue is applied) in the 4mm kerf cut by the biscuit jointer blade.

Standard Groove Depths



Biscuit Dimensions (nominal)

Size	Length	Width	Thickness
No. 0 suitable for 8-12mm board	45mm	15mm	4mm
No. 10 suitable for 13-18mm board	53mm	19mm	4mm
No. 20 suitable for 19mm+ board	58mm	23mm	4mm



OPERATION

Anti-slip Rubber Studs

All biscuit jointers tend to pull to the right as the blade enters the wood. This tendency will be increased if the blade is dull or if the blade is plunged too rapidly into the surface of the workpiece.

To reduce this tendency, anti-slip rubber studs are fitted to the front of the machine, either side of the blade aperture (i.e. on the front register face).

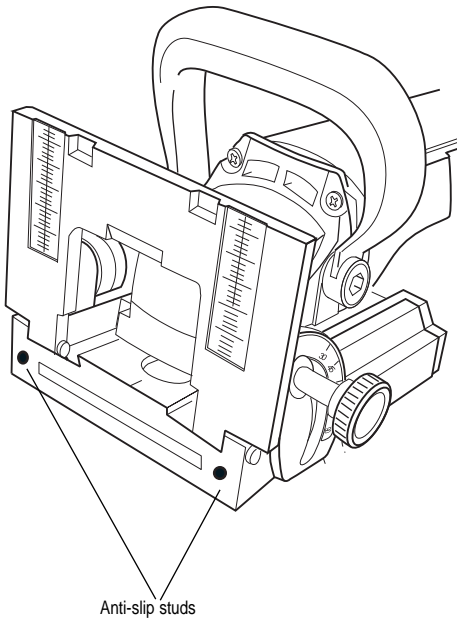
In use, the front register face should be pressed firmly against the workpiece to allow the stops to grip and resist this movement.



IMPORTANT!

Always hold the machine firmly with both hands.

Always press the machine firmly against the face of the work to ensure that the anti-slip studs prevent it from sliding sideways.



Setting the Depth of Cut

The depth stop on the T20 Biscuit Jointer has six stop positions. Three of these relate to the three standard biscuit sizes 0, 10 and 20).

The three remaining positions, A, B and Max, are used for alternative recessing and grooving operations or where alternative biscuit recess depths are required.

Initially you will need to set the depth stop to suit one specific biscuit size. This will automatically set the stop for the other two biscuit sizes. You will need to check the setting occasionally (i.e. after sharpening the blade).

- Clamp a piece of scrap wood securely.
 - Set the turret stop to the biscuit size 10 position.
 - Plunge cut to the full depth.
 - Insert a No.10 biscuit into the recess and check that it fits slightly more than half its width into the recess.
 - If the setting is correct the biscuit jointer is ready for use. If not:-
1. Slacken off the nut on the threaded stop rod (positioned on the gearbox casing in front of the turret stop) using the 8mm spanner provided.
 2. Increasing the rod length forwards will decrease the depth. Shorting the rod projection will increase the depth.
 3. Tighten the lock nut and check the setting by cutting further test pieces.

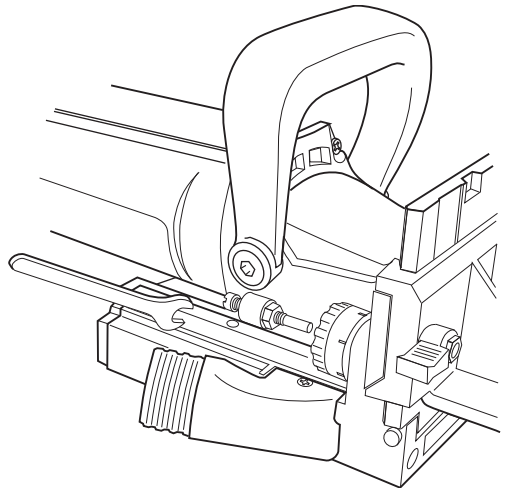


IMPORTANT!

After resetting, check that when the blade is set at the maximum (max.) depth setting, the blade does not foul the blade aperture.

To change between the settings, simply turn the knurled turret to align the appropriate setting mark against the indicator line on the biscuit jointer base casting.

Position	Depth of Groove	Biscuit
0	8mm	No. 0
10	10mm	No. 10
20	12mm	No. 20



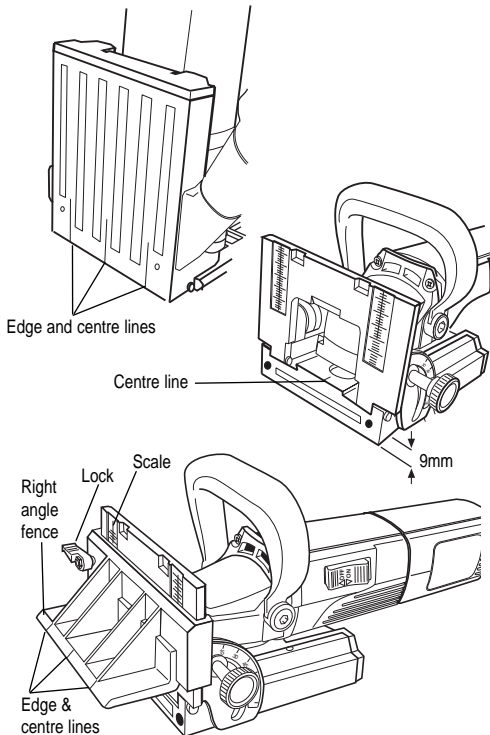
IMPORTANT!

Never make adjustments when the biscuit jointer is plugged in or running.

Biscuit Pocket Alignment

The red indicator lines on the front of the blade aperture, underside of the base and on the right angle fence, are used to align the blade with biscuit position centre lines marked out on the workpiece(s). The three lines indicate the centre of the blade and the approximate maximum width of the largest biscuit (No. 20).

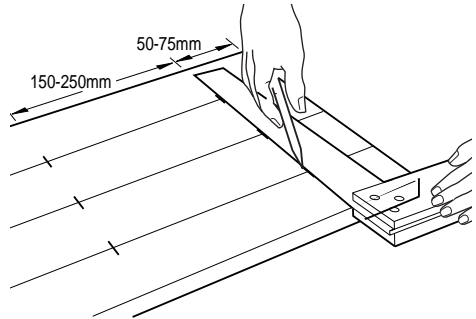
With the machine laid horizontal, the distance from the fence face to the centre of the blade is 9mm. When using the right angle fence, use the two vertical scales on the vertical face of the adjustable angle fence, to set fence height.



Marking Out Workpiece

To produce accurate reliable joints with the biscuit jointer, it is essential that the edges and faces of the materials to be joined are prepared flat and square. It is also essential that the biscuit positions are marked out accurately and that the machine itself is set-up correctly.

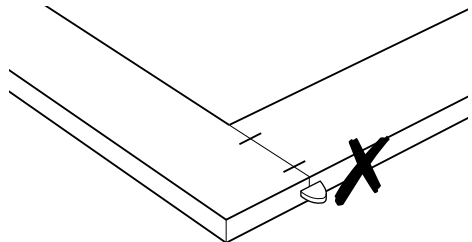
Biscuits are generally spaced at between 150mm and 250mm centres, setting them equally spaced along the length of the workpiece(s). Always avoid setting them too close to the ends of the workpiece, the general rule being that their centre lines are between 50 and 75mm from each end.

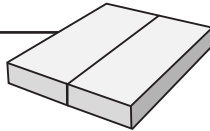


Although it is ideal to measure the spacing accurately, the marking out process can be speeded up by setting out from a pre-marked batten (particularly when marking out workpieces of similar length) or, with practice, by eye.

Mark out the biscuit positions along one joint face and then align and transfer them directly to the mating edge.

In general, always use the largest biscuit that the size of the workpiece(s) will allow. However, check that the pocket or biscuit will not be exposed on the surface of the finished work (i.e. where further cleaning up, planing or machining will reduce the size of the assembled components).



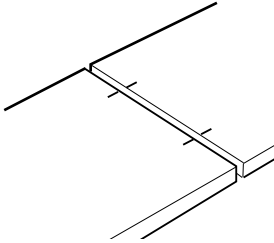


Edge to Edge Joints

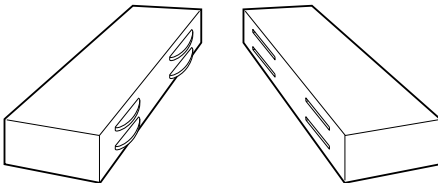
The use of biscuits to reinforce edge to edge butt joints, not only adds to the strength of the finished joint, but because they form a positive fit even before gluing, they can save much time in pre-assembly and simplification of the clamping process.

End to End Butt Joints

Forming end to end butt joints, particularly in small dimension timber, generally results in one of the weakest forms of construction. Inserting biscuit dowels across the joint face increases the glue line and reduces the effect of the porous end grain on the strength of the assembled joint.

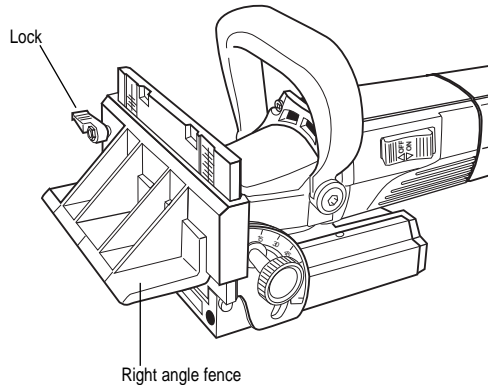


When biscuit jointing materials up to 25mm thick, use a single row of biscuits. For materials over 25mm thick use the biscuit in pairs, either aligned or staggered.



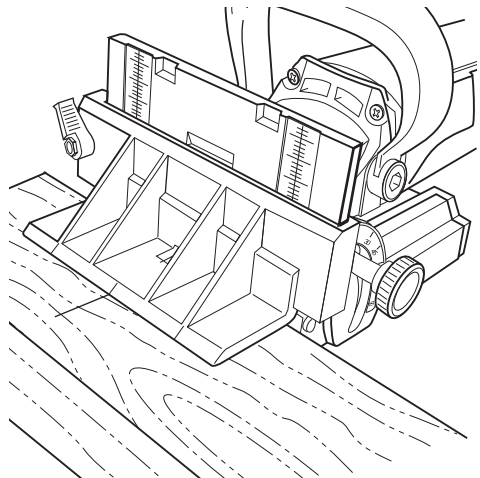
Setting out for edge joints

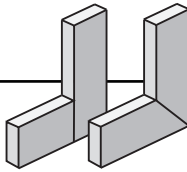
- Prepare the mating joint faces and edges of each component, flat and square.
- Lay out the components exactly as they are to be assembled.
- Mark out the required spacing of the biscuit centre lines along one joint face.
- Transfer the lines to the mating joint face.



Cutting the pockets

- Clamp the workpieces securely.
- Set the turret stop to the required biscuit size.
- Set the front fence and right angle fence to position the biscuit pockets across the thickness of the workpiece. To adjust the right angle fence, release the slide lock and set the fence height off against the vertical scales on the front fence.
- Align the red centre line on the biscuit jointer fence against each biscuit centre line in turn.
- Plunge cut to the full pocket depth.





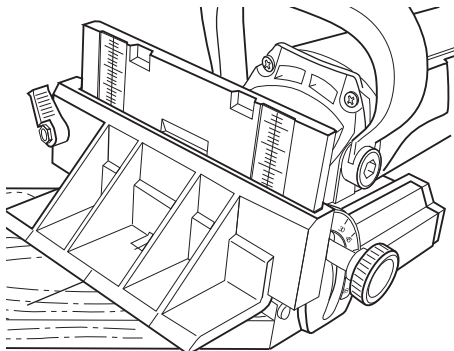
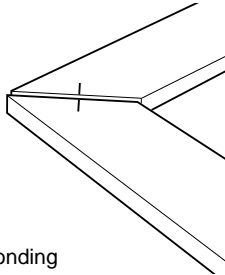
Frame Corner Joints

Mitred and square frame corner joints can be substantially strengthened by using biscuit joints, in particular when forming end grain mitre joints and when aligning square or decorative moulded sections. The positive fit of biscuit dowels helps to locate and align the joint faces, both when forming square mitred rectangular frames or multi-sided mitred frames.

Always identify the face of the workpiece and each pair of joint faces clearly. Always set out both joint faces from the same end, edge, centre line or datum point. When forming drawers or other multi-sided assemblies, ensure that the same reference edge is used for setting out each set of joints (otherwise each set will be offset and the assembled unit will be twisted).

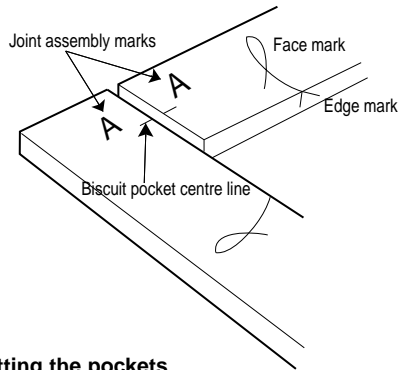
Setting out mitred frame corner joints.

- Measure and cut each frame member to length and mark out and cut the mitre on each end. Lay out the frame to check that all the mitres faces mate precisely.
- Mark out the corresponding biscuit centre lines on each pair of mitre faces. If possible use two biscuits to increase the glue line.
- Do not position the biscuit(s) too close to the toe of the mitre as it may be exposed when cleaning up.



Preparing and cutting square corner joints.

- Prepare the mating end and edges of each frame member, check that the joint faces are square.
- Lay out the components exactly as they are to be assembled and mark each pair of joint faces.
- Mark out the required spacing of the biscuit centre lines along one joint face.
- Transfer the lines to the mating joint face.



Cutting the pockets

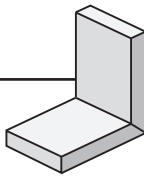
- Clamp the workpieces securely.
- Set the turret stop to the required biscuit size.
- Set the front fence and right angle fence to position the biscuit pockets across the thickness of the workpiece.
- Align the red centre line on the biscuit jointer fence against each biscuit centre line in turn.
- Plunge cut to the full pocket depth.



IMPORTANT!

Always hold the machine firmly with both hands.

Always press the machine firmly against the face of the work to ensure that the anti-slip studs prevent it from sliding sideways.



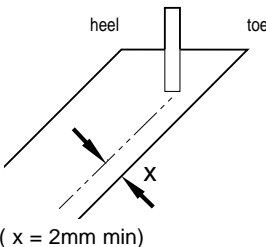
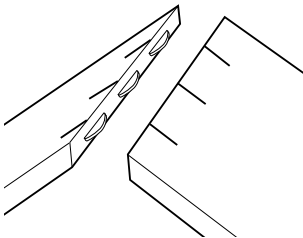
Mitre Corner Joints

Most carcass construction can involve the use of mitred corner joints. These can be formed simply and accurately in timber based panel materials or natural timber using biscuit joints. When forming mitre joints, the joint faces must be cut accurately to ensure that each pair mates correctly on assembly.

Biscuit pockets cut in mitred faces can be cut from either face, using the adjustable mitre fence. When cutting from the inside face (heel), use the adjustable front fence without the right angle fence attachment. When cutting from the outside face (toe) at 45°, fit the right angle fence attachment and set the adjustable front fence vertical. The toe of the mitre can then be fitted into the bevelled rear edge of the right angled fence.

Preparing and cutting mitred corner joints

- Measure and cut each carcass member to length and mark out and cut the mitre(s) on each. Layout the frame to check that all the mitre(s) faces mate precisely.
- Mark out the corresponding biscuit centre lines on each pair of mitre faces.
- Do not position the biscuit(s) too close to the toe of the mitre as the blade may protrude through the face or they may be exposed when cleaning up. ($x = 2\text{mm min}$)

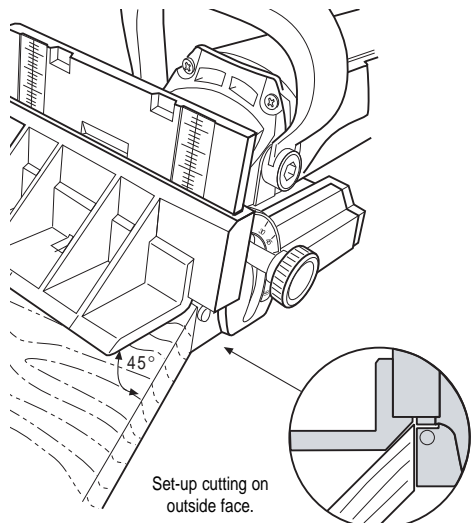
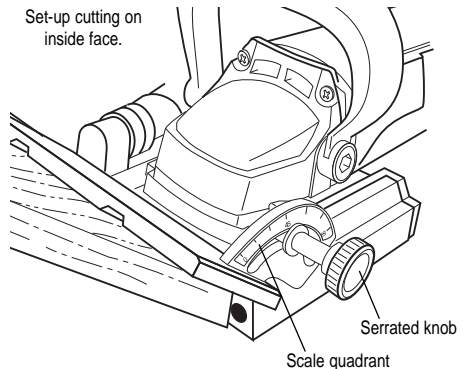


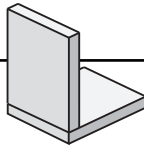
Cutting the pockets

- Clamp the workpieces securely.
- Set the turret stop to the required biscuit size.

- Set the front fence (and right angle fence) to position the biscuit pockets across the thickness of the workpiece.
- To adjust the angle, slacken the serrated plastic side knob and set the scale quadrant to the required angle, read off against the raised line on the blade housing. A sprung locating stop engages at the 45° position.
- Re-tighten the serrated knob to secure the fence.
- Align the red centre line on the biscuit jointer fence against each biscuit centre line in turn.
- Plunge cut to the full pocket depth.

Set-up cutting on inside face.

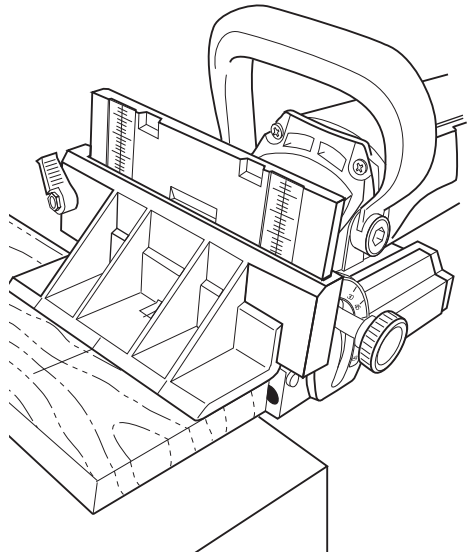
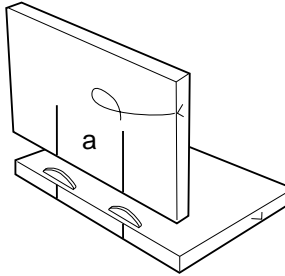




Square Corner Joints

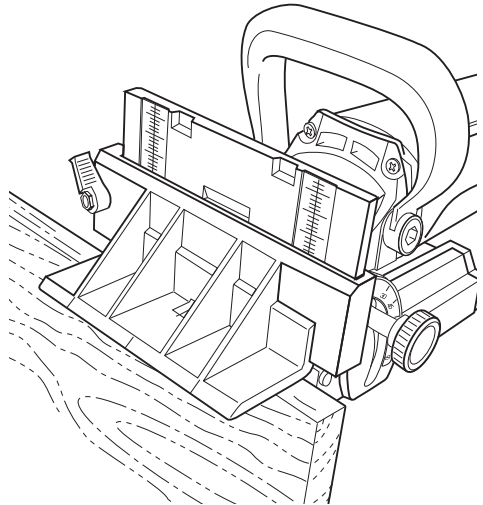
Preparing and cutting square corner joints

- Set out and cut each carcass member to length and mark out and cut the mitre. Check that all faces, edges and ends are flat and square.
- Lay out the components exactly as they are to be assembled and mark the face and face edges. Clearly mark each pair of joint faces.
- Mark out the required spacing of the biscuit centre lines along one joint face.
- Transfer the lines to the mating joint face.



Cutting the pockets

- Clamp the workpieces securely.
- Set the turret stop to the required biscuit size.
- Set the front fence and right angle fence to position the biscuit pockets on the center line of the workpiece.
- Align the red centre line on the biscuit jointer fence against each biscuit centre line in turn.
- Plunge cut to the full pocket depth.



The same set-up is used for the mating board.

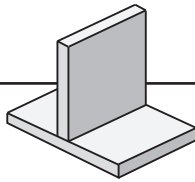


IMPORTANT!
Whenever possible, use the biscuit jointer connected to a suitable vacuum extractor.



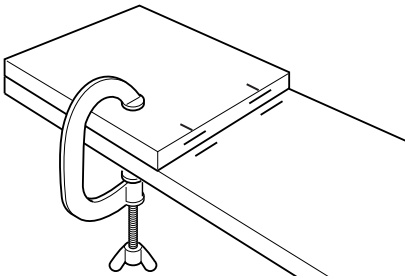
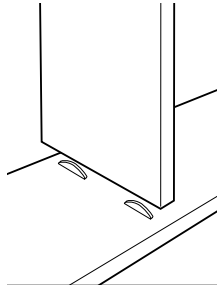
When cutting biscuit pockets in thin material, ensure that the work surface beneath the material does not prevent the right angle fence or the face of the biscuit jointer from being pressed flat against the edge or face of the workpiece.





T-joints

Biscuit jointing can be used as a viable alternative to housing or trenching joints when fitting shelves or dividers. T-joints are formed in two stages. First pockets are cut in the ends of the shelf or divider (see end to end butt joints). Matching pockets are then cut with the biscuit jointer held vertically on the inside face of the cabinet sides.



- Cut all the cabinet/case shelves, dividers and sides to size and finish all shelf ends square.
- Clearly mark the inside face of the sides and each pair of joint faces. Set out the spacing of the shelves along the inside face of one of the cabinet/case sides.
- Stand a piece of the shelf material against each shelf position, checking that it is at right angles to the edge. Lightly but clearly draw along each side of the vertical board. Transfer the lines across the face of the second side exactly as on the first.
- Mark out the required spacing of the biscuit centre lines along the edge of the marker board or alternatively use the end of the previously marked and cut shelf.
- Clamp the marker board (or shelf) at each shelf position in turn. Always use the same line (i.e. top line or bottom line of shelf) to avoid any variation in the pocket positioning.

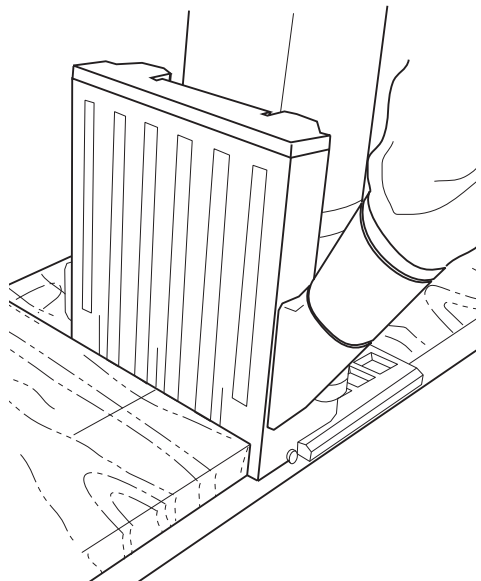


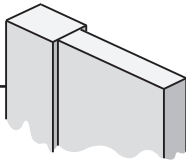
IMPORTANT!

Never make adjustments when the biscuit jointer is plugged in or running.

Cutting the pockets

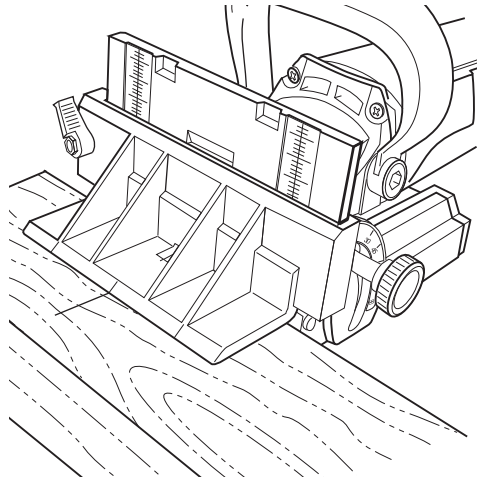
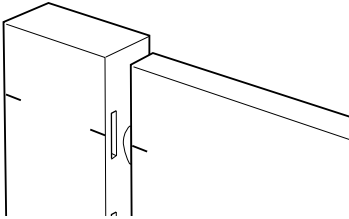
- Set the turret stop to the required biscuit size.
- Set the front fence at right angles to the base of the biscuit jointer.
- Align the centre line on the base of the router with the biscuit centre line on the marker board (or shelf), to position each biscuit pocket across the width of the workpiece.
- Plunge cut to the full pocket depth.





Offset Panel Joints

In frame and panel construction, biscuit dowels can be used to secure the panels into the framework. It is common practice to offset the face of the panel from the face of the frame to mask the joint line (i.e. set back from the face of the legs and rails).



- Prepare the mating joint faces and edges of the panel to fit flat against the frame members.
- Lay out the components exactly as they are to be assembled.
- Transfer the centre lines to the mating joint faces on the frame members.
- Clamp the workpieces securely.
- Set the turret stop to the required biscuit size.
- Align the red centre line on the biscuit jointer fence against each biscuit centre line in turn around the panel.
- Plunge cut to the full pocket depth.
- Re-set the front and right angle fence to allow for the offset between the panel and frame faces. Again align the centre line on the jointer or fence with the biscuit centre line on the frame members and plunge cut to the full pocket depth.

ASSEMBLING WORK

One advantage of using biscuit dowels, is that having cut all the biscuit pockets for each joint, you can dry assemble your work prior to gluing up. In this way you can check that all joints fit and pull together and that each component is cut and located correctly.

- Pre-assembly also allows any moulding or decorative work to be set out prior to being routed or carved.
- For optimum performance, it is essential that the whole surface of each biscuit dowel is in contact with the glue.
- Ensure that glue is applied to the pockets before the biscuit is fitted and that the exposed (prior to closing the joint) biscuit and the joint faces are evenly coated.
- When fitting biscuits, ensure that they are centred on the pockets.
- After clamping the work, check that all joints and mating faces have pulled together tightly.
- Check that all right angles joints are square.
- To protect your work, fit soft pads beneath the clamp heads and wipe any excess glue away before it dries.
- Biscuit dowels can also be used as locating dowels between cupboard units, worktops and in many other applications where two components need to be accurately aligned. In this role biscuits can be either glued as a secondary fixing, the main jointing method, or fitted loose to enable components to be dismantled.

MAINTENANCE AND CARE



Lubrication

- The bearings of the machine need no lubrication as they are sealed. The two slide channels, either side of the gear box, should be lightly oiled occasionally.
- Keep the cooling vents on the motor housing clean and unobstructed at all times. Vacuum out any dust and dirt at regular intervals.
- Visually check the carbon brushes. In the event of excessive sparking, they may need changing.
- After about 40 operating hours, inspection by an authorised Trend service agent is recommended.



Cleaning

- Keep the machine clean at all times. Some maintenance products and solvents may damage the plastic parts, these include products containing Benzene, Trichloroethylene Chloride and Ammonia.
- Never use any caustic agents to clean the plastic parts.

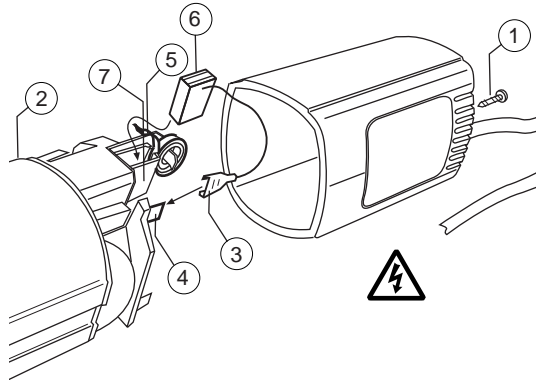
Blade

- Please ensure that the blade is always sharp and well maintained. This will place less load on the motor, increase the working life of the machine and give a perfect cut. TCT/HW blades must be treated especially carefully, because their cutting edges are brittle and could chip if they are mishandled or dropped.
- Replacement parts and accessories can be found in the latest Trend Routing Catalogue.

Changing Brushes



IMPORTANT!
When changing brushes ensure machine is isolated from power supply.



- Undo and remove the single screw on the rear of the switch cover (1).
- Carefully slide the switch cover off of the rear of the motor cover (2).
- Unclip the wire connectors (3) (on the bare copper brush leads) from their electrical contacts (4).
- Carefully pull back the brush retaining springs (5) and pull the carbon brushes (6) out of their holders (7).
- Fit the new brushes in reverse order.
- Always use genuine Trend T20 spare parts.



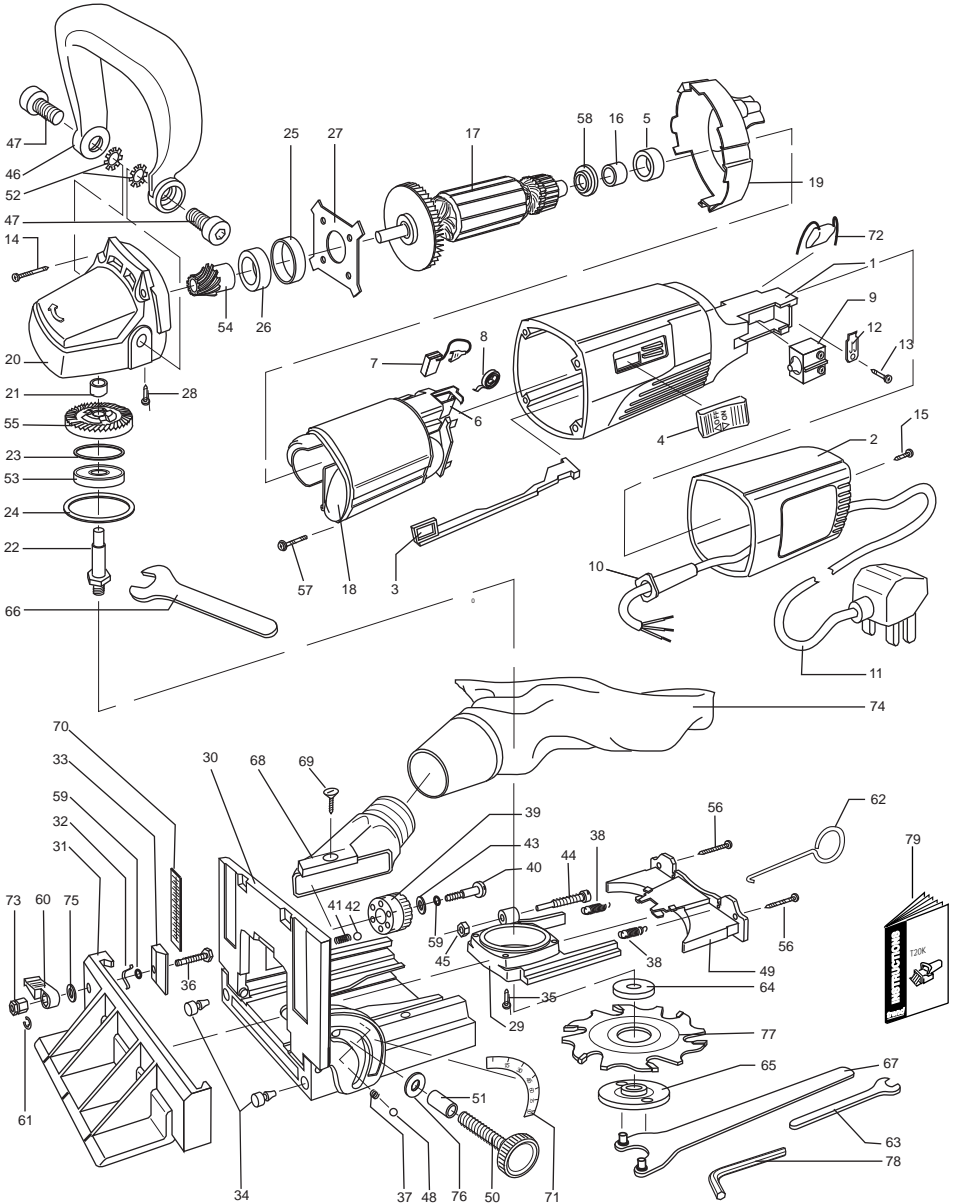
IMPORTANT!
It is advisable to have the brushes replaced by an authorised Trend service agent. The biscuit jointer will also be given a thorough inspection.

T20 - SPARE PARTS LIST			v1.0 10/2001
Item	Qty	Description	Ref.
1	1	Motor Cover	WP-T20/001
2	1	Vent Housing	WP-T20/002
3	1	Switch Control Lever	WP-T20/003
4	1	On/Off Switch Button	WP-T20/004
5	1	Rubber Washer	WP-T20/005
6	2	Brush Holder	WP-T20/006
7	1	Carbon Brush 230V (1 pair)	WP-T20/007
8	2	Brush Spring	WP-T20/008
9	1	Switch 230V	WP-T20/009
10	1	Cable Sleeve	WP-T20/010
11	1	Cable 2 Core with Plug 240V UK	WP-T20/011
12	1	Cable Clamp	WP-T20/012
13	1	Screw Self Tapping 3.5mm x 14mm Pozi	WP-T20/013
14	4	Screw Self Tapping 4/4.5mm x 30mm Pozi	WP-T20/014
15	1	Screw Self Tapping 4mm x 20mm Pozi	WP-T20/015
16	1	Bearing 7mm x 19mm x 6mm 602ZZ	WP-T20/016
17	1	Armature 230V	WP-T20/017
18	1	Field 230V	WP-T20/018
19	1	Deflector	WP-T20/019
20	1	Gear Box	WP-T20/020
21	1	Bush	WP-T20/021
22	1	Spindle M10 x 1.0mm	WP-T20/022
23	1	Washer 0.1mm	WP-T20/023
24	1	Washer 0.2mm	WP-T20/024
25	1	Rubber Washer	WP-T20/025
26	1	Nose Bearing 9mm x 2.4mm x 7mm 609ZZ	WP-T20/026
27	1	Nose Bearing Cover	WP-T20/027
28	1	Screw Self Tapping 4mm x 25mm Pozi	WP-T20/028
29	1	Sliding Bottom Plate	WP-T20/029
30	1	Tilting & Sliding Base Assembly	WP-T20/030
31	1	Right Angle Fence	WP-T20/031
32	1	Spring Clip	WP-T20/032
33	1	Base Flange Clamp	WP-T20/033
34	2	Rubber Anti-Slip Studs	WP-T20/034
35	4	Screw Self Tapping 3.5mm x 10mm Pozi	WP-T20/035
36	1	Screw M5 x 20mm Hex	WP-T20/036
37	1	Spring for Tilt Base Stop	WP-T20/037
38	1	Base Return Spring	WP-T20/038
39	2	Revolving Turret Stop	WP-T20/039
40	1	Screw for Turret	WP-T20/040
41	1	Spring 5mm x 11mm	WP-T20/041
42	1	Ball for Turret Stop	WP-T20/042
43	1	Washer 6.5mm x 11mm x 0.5mm	WP-T20/043
44	1	Stop Screw for Turret	WP-T20/044

T20 - SPARE PARTS LIST			v1.0 10/2001
Item	Qty	Description	Ref.
45	1	Nut M5	WP-NUT/05
46	1	Top Handle	WP-T20/046
47	2	Machine Screw Socket M8 x 18mm	WP-SCW/67
48	1	Ball for Tilt Base Stop	WP-T20/048
49	1	Plastic End Cap	WP-T20/049
50	1	Knob Male M6 x 30mm	WP-T20/050
51	1	Bush for Tilt Base	WP-T20/051
52	2	Star Washer 8mm	WP-T20/052
53	1	Bearing 12mm x 32mm x 10mm 6201-2RS	WP-T20/053
54	1	Pinion Gear	WP-T20/054
55	1	Crown Gear	WP-T20/055
56	1	Screw Pan M4 x 10mm Pozi	WP-SCW/68
57	1	Screw Self Tapping 3.6mm x 25mm Pozi	WP-T20/057
58	1	Ring Stop	WP-T20/058
59	2	Rubber Washer Stop 6mm x 10mm x 1.8mm	WP-T20/059
60	1	Lever for Right Angle Fence Lock	WP-T20/060
61	1	Circlip 7mm	WP-T20/061
62	1	Spring Locating Hook	WP-T20/062
63	1	Spanner 8mm A/F	WP-SPAN/8
64	1	Blade Support Flange	WP-T20/064
65	1	Blade Locking Flange	WP-T20/065
66	1	Spanner 17mm	WP-SPAN/17P
67	1	2 Pin Spanner 32mm x 6mm	WP-T20/067
68	1	Dust Spout	WP-T20/068
69	1	Machine Screw Csk M4 x 8mm Pozi	WP-SCW/54
70	2	Vertical Scale Label	WP-T20/070
71	1	Degree Scale Label	WP-T20/071
72	1	Condenser	WP-T20/072
73	1	Special Hex Nut M4	WP-T20/073
74	1	Dust Bag	WP-T20/074
75	1	Washer 5mm x 10mm x 0.8mm	WP-T20/075
76	1	Washer 6mm x 14mm x 2mm	WP-WASH/12
77	1	Blade 100mm x 22mm x 4mm Thin Body 6T TCT/HW	CR/BJB100T
78	1	Hex Key 6mm A/F	WP-AP/06
79	1	Manual	MANU/T20

T20 SPARE PARTS DIAGRAM

v1.0 10/2001



TECHNICAL DATA

Voltage:	
UK & Ireland	230V
Power input	710W
No load speed (min)	10,000 rpm
Revolver depth stop	6-step, turret stop
Blade size	100mm x 22mm x 4mm 6T
Spindle thread	M10 x 1.0mm
Max blade depth	20.5mm
Tilt base angle	0-90°
Vertical Fence Adjustment	45mm
Weight	2.7kg
Fuse:	
UK & Eire	230V 5 Amperes, in plug
Europe	230V 5 Amperes, mains

Guarantee

- The machine carries a manufacturers guarantee in accordance with the conditions on the enclosed guarantee registration card.

Recycling

- Machine, accessories and packaging should be sorted for environmentally friendly recycling.

CE DECLARATION OF CONFORMITY

Biscuit Jointer T20

We declare under our sole responsibility that this product is in conformity with the following standards of standardised documents:
EN 50144, EN 55014, EN 60555, in accordance with the 73/23/EEC regulations. 89/336/EEC (as of 1/1/1996). 89/392/EEC.

CE Trend Machinery & Cutting Tools Ltd.

Level of sound pressure according to 86/188/EEC & 89/392/EEC, measured according to EN 50144:

Lpa (sound pressure) 89 dB(A)1
Lwa (acoustic power) 102 dB(A)2



INFORMATION ON NOISE/VIBRATION

The noise level when working can exceed 85 dB(A).
Wear ear protection!

Weighted root mean square acceleration value according to EN 50144:
4.5 m/s² (hand arm method)

Stephen Phillips

Managing Director
Stephen Phillips

trend[®]
routing technology

Trend Machinery & Cutting Tools Ltd.
1/9/2001

MANU/T20 V1.0



RECYCLABLE

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