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The specified illustrations can be found at the beginning of the operating instructions.

1 Introduction

Thank you very much for purchasing the Domino Dowel Jointer DF 500 Q from Festool. Please observe the information in these Operating Instructions and the enclosed documents. They are for your own safety and to help prevent damage to the machine.

2 Technical data

Power	420 W
Speed (no load)	24 300 rpm
Jointing depth, max.	28 mm
Jointing width, max. diameter	23 mm + jointer bit diameter
Jointing bit diameter, max.	10 mm
Connecting thread of drive shaft	M6 x 0.75
Weight (excluding cable)	3.2 kg
Degree of protection	□ / II

3 Pictograms



Note, Danger!

4 Intended use

The Domino dowel jointer is designed to produce Domino dowelled joints in soft and hard wood, chip board, plywood and fibre boards. All applications beyond this are regarded as unspecified use.

The Domino dowel jointer is designed and approved for use by trained persons or specialists.



The user is liable for damage and injury resulting from incorrect usage!

5 Safety instructions



It is essential that you observe the following safety information. Nonobservance can result in electric shock, fire and/or serious injuries.

5.1 General Safety Rules



Before using the machine, read the enclosed safety instructions and these operating instructions carefully and thoroughly.

Save all enclosed documents and pass the machine with all these documents only.

5.2 Tool-specific safety rules

- The tools must be designed for the speed specified on the power tool at a minimum. Tools running at overspeeds can fly apart and cause injury.
- Use the machine only with the guide frame mounted. The guide frame protects the user against broken-off parts of the jointer bit and accidental contact with the jointer bit.
- The DF 500 Q must only be fitted with the jointer bits offered by Festool for this purpose. The use of other jointer bits is prohibited due to the increased risk of injury.
- Never work with blunt or damaged jointer bits. Blunt or damaged jointer bits can lead to a loss of control of the power tool.
- When the motor unit is released, it must move back actuated by spring force so that the jointer bit disappears completely in the protective cover. If this does not happen, the machine must be switched off immediately and repaired before reuse.

5.3 Noise and vibration information

The typical values determined in accordance with EN 60745 are:

Sound-pressure level	84 dB(A)
Sound-power level	95 dB(A)
Measuring uncertainty allowance	K = 4 dB
Measured acceleration	6.8 m/s ²



Wear ear protection!

6 Control elements

- (1.1) ON/OFF switch
- (1.2) Rotary switch for Domino dowel-hole width
- (1.3) Unlocking device for motor unit / guide frame
- (1.4) Auxiliary handle
- (1.5) Clamping lever for angle guide
- (1.6) Selection slide for material thickness
- (1.7) Notch lever for Domino dowel-hole depth
- (1.8) Notch lever lock
- (2.1) Spindle lock
- (2.2) Extraction nozzle
- (2.3) Clamping lever for jointing height adjustment
- (2.4) Stop pins

7 Power supply and start-up



The mains voltage must correspond to the specification on the rating plate. Always switch the machine off before connecting or disconnecting the mains lead!

See Fig. 2 for connection and disconnection of the power cable.

To switch on, push the switch (1.1) forwards until it engages. Pressing the back end of the switch is sufficient to release the switch-on lock and switch the machine off.

8 Machine settings



Always remove the power supply plug from the socket before carrying out any work on the machine.

8.1 Changing tools

Required tools: fork wrench a/f 8 (supplied). Always wear protective gloves during tool change due to the risk of injury from the sharp tool cutters.

a) Removing the tool

- Lift the unlocking lever (4.2) until it audibly engages with the fork wrench (4.1).
- Separate the motor unit (4.5) and the guide frame (4.4).
- Press and hold in the spindle lock (5.1).
- Release and unscrew the jointer bit (5.2) with the fork wrench.
- Release the spindle lock.

b) Inserting the tool

- Before inserting a new jointer bit, ensure that the machine, the guide frame and the guides (4.3) are clean. Remove any contamination that may be present. Only use sharp, undamaged and clean tools.
- Press and hold in the spindle lock (5.1).
- Use the fork wrench to screw on the jointer bit (5.2).
- Release the spindle lock.
- Slide the guide frame onto the motor unit until it audibly engages.

8.2 Adjusting the milling depth

- Open the notch lever lock (1.8) by pressing it.
- Use the locking lever (1.7) to set the desired jointing depth (12 mm, 15 mm, 20 mm, 25 mm, 28 mm). For the jointer bit with a diameter of 5 mm, only jointing depths of 12 mm, 15 mm and 20 mm are permitted due to its short shank length.
- Release the notch lever lock again.



Ensure that the jointing depth is at least 3 mm smaller than the workpiece thickness. Otherwise the jointer bit can emerge from the workpiece at the rear side, which involves an increased risk of injury.

8.3 Setting jointing height with selection slide

- Release the clamping lever (6.1) for jointing height adjustment.
- Using the additional handle (6.2), raise the front section of the guide frame.
- Use the slide (6.6) to set the desired board thickness (16 mm, 19 mm, 22 mm, 25 mm, 28 mm, 36 mm, 40 mm).
- Press the front section of the guide frame downwards as far as the stop.
- Close the clamping lever (6.1).

b) freely selectable

- Release the clamping lever (6.1) for jointing height adjustment.
- Using the additional handle (6.2), raise the front section of the guide frame.
- Push the slide (6.6) to the stop in direction motor unit.
- Set the desired jointing height using the scale (6.3) by moving the front section of the guide frame vertically.
- Close the clamping lever (6.1).

8.4 Setting angle guide

- Release the clamping lever for the angle guide (6.4).
- Set the desired angle: using the scale (6.5) steplessly from 0° - 90°, or in notches at 0°, 22.5°, 45°, 67.5°, 90°.
- Close the clamping lever (6.4).

8.5 Setting dowel-hole width



Reliable setting of the dowel-hole width with the rotary switch (1.2) is only possible with the machine running!

The following dowel-hole settings are possible (image 7):

- 13 mm + jointer bit diameter
- 19 mm + jointer bit diameter
- 23 mm + jointer bit diameter

8.6 Dust extraction



Always connect the machine to a dust extractor. You can connect a Festool extractor with an extractor hose diameter of 27 mm to the extractor connector (2.2).

8.7 Support

The support (8.1) can be used to enlarge the contact area during jointing at the workpiece edge, thus allowing safer guidance of the machine.

Secure the support with both screws (8.2) to the threaded bores (8.3) of the guide frame, whereby the contact areas of the support ring (8.5) and the table (8.4) must be on the same plane.

9 Working with the machine

Prior to processing the final workpiece, it is advisable to optimise the dowel-hole depth, width and diameter using a sample workpiece.



Please observe the following rules when working:

- Always secure the workpiece in such a manner that it cannot move while being sawed.
- Always hold the Domino dowel jointer with both hands at the motor housing and at the additional handle. This reduces the risk of injury and is a prerequisite for precise work.
- Close the clamping lever for jointing height adjustment (2.3) and the clamping lever for the angle guide (1.5) so that accidental release during operation is impossible.
- Adapt the feed rate to the jointer bit diameter and material. Work with a constant feed rate.
- Only lay the Domino dowel jointer aside when the jointer bit has come to a complete standstill.

Procedure

Proceed as follows to create a dowelled joint:

- Select a Domino dowel and insert a matching jointing bit in the Domino dowel jointer (Chap. 8.1).
- Set the jointing depth (Chap. 8.2). The jointing depth must be at least 3 mm smaller than the workpiece thickness so that the dowelled joint is supportable.
- Set the jointing height to correspond to the workpiece thickness (Chap. 8.3).
- Mark the areas on the workpiece that belong together (10.1) so that you will be able to join them correctly again once you have cut the dowel holes.
- Position the two workpieces to be joined against one another and mark the desired positions of the dowels with a pencil (10.2).
- Set the desired dowel-hole width (Chap. 8.5).
Our recommendation: Cut the first hole without play (dowel-hole width = Domino dowel width), and the remaining dowel holes to the next largest dowel-hole width (image 10). The first dowel hole therefore serves as a reference dimension, whereas the remaining dowel holes have tolerance for manufacturing inaccuracies.
- Cut the dowel holes:
 - a) the first dowel hole by placing the stop pin at the side edge of the workpiece,
 - b) the following dowel holes according to the pencil markings made beforehand and the scale of the viewing window (10.3).

10 Maintenance and care



Always remove the power supply plug from the socket before carrying out any work on the machine.



All maintenance and repair work which requires the motor casing to be opened may only be carried out by an authorised service centre.

The Domino dowel jointer is to a large extent maintenance-free. However, we recommend an annual inspection and/or a check after approx. 100 operating hours at an authorised customer service workshop. This is for the safety of the user and the value stability of the Domino dowel jointer.

Always keep the machine and the ventilation slots clean.

Dust deposits must be removed from the guides (4.3). Oil the guides regularly and lightly with resin-free oil (e.g. sewing machine oil).

The tool is fitted with special motor brushes with an automatic cut-out. When the brushes become worn the power supply is shut off automatically and the tool comes to a standstill.

11 Accessories, tools



For your own safety, use only original Festool accessories and spare parts.

The accessory and tool order number can be found in the Festool catalogue or on the Internet under "www.festool.com".

12 Warranty

Our equipment is under warranty for at least 12 months with regard to material or production faults in accordance with national legislation. In the EU countries, the warranty period is 24 months (an invoice or delivery note is required as proof of purchase).

Damage resulting from, in particular, normal wear and tear, o-verloading, improper handling, or caused by the user or other damage caused by not following the operating instructions, or any fault acknowledged at the time of purchase, is not covered by the warranty. Complaints will only be acknowledged if the equipment has not been dismantled before being sent back to the suppliers or to an authorised Festool customer support workshop.

Store the operating instructions, safety notes, spare parts list and proof of purchase in a safe place. In addition, the manufacturer's current warranty conditions apply.

Note

We reserve the right to make changes to the technical data contained in this information as a result of ongoing research and development work.

13 Example applications (The following images A1 to A6.3 are on a separate enclosed sheet).	
A1.1 - A1.4	Stable and non-twisting mitred frame joint.
A2	Very stable block frame joint.
A3	Very stable and non-twisting wood joints in frame and chair construction.
A4.1 - A4.3	Stable, non-twisting and precisely fitting board joint (mitred).
A5.1	Stable and precisely fitting board joint (buted).
A5.2	Setting the Domino dowel jointer for board joint (buted), end face dowel hole.
A5.3	Setting the Domino dowel jointer with angle bracket for board joint (buted).
A6.1	Stable and precisely fitting board joint (centred).
A6.2	Setting the Domino dowel jointer for board joint (centred).
A6.3	Setting the Domino dowel jointer for board joint (centred), end face dowel hole.

14 Fault correction (The following images B1 to B6 are on a separate enclosed sheet).			
	Fault	Cause	Adjustment
B1	burns	blunt jointer bit	use sharp jointer bit
B2	expansion of dowel hole	jointing depth excessive (greater than 20 mm) with 5 mm jointing bit	reduce jointing depth
B3	dowel penetrates workpiece	incorrect workpiece thickness and/or jointing depth	adapt workpiece thickness and/or jointing depth
B4	Tears at edge of dowel hole	excessive feed rate	reduce feed rate
B5	dowel hole not parallel to workpiece edge	workpiece has shifted during processing	secure workpiece properly
B6	dowel hole not at right angles (90°) to workpiece surface	a) deposits (e.g. chips) below the base plate b) angle guide not set exactly to 90° c) worked on without angle bracket	a) remove deposits b) set angle guide to 90° exactly c) use angle bracket
	The position of the dowel holes, which were created with the left and right stop pin, does not exactly match (different distance to workpiece edge).	The midpoint between the two stop pins is not exactly in the midpoint of the swivel range of the jointer bit.	Turn the eccentric (9.1) with a screwdriver (clockwise or anticlockwise) until the position of the dowel holes matches for both stop pins.