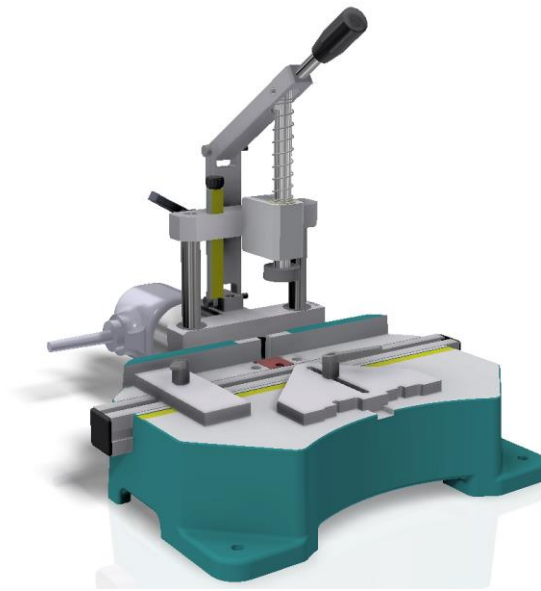




01/2023



HOFFMANN GmbH
Maschinenbau

Copy of USER MANUAL
Hoffmann Frame Joiner 10585



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Intended Use




The HOFFMANN Frame Joiner routing machines are intended exclusively for milling grooves in connection with the Hoffmann dovetail connection system.

The use of the machines is only permitted for grooves of the Hoffmann works standards W-0, W-1, W-2, W-3 and for wood or wood-like materials, as well as MDF and multiplex.

Any other use of the Hoffmann Frame Joiner routing machines can lead to hazards and is prohibited. The manufacturer is not liable for damage caused by improper use. The user alone bears the risk for this.

Technical changes to the system may only be made with the express written approval of the manufacturer. All unauthorized modifications to the machine exclude the manufacturer's liability for the resulting damage.

The operator of the machine must make the operating manual accessible to the people who operate and work with the machine. The operator must ensure that these people are sufficiently trained and have read and understood the operating instructions before working with the machine.

Sign explanation	
	Mandatory sign. It is imperative that the instructions accompanying this sign are followed.
	This symbol indicates a possible hazard that can lead to serious, moderate or light injuries or damage to property or the machine itself.
	This note contains no warning. Here you will find application instructions and other useful information.



Safety instructions and safety devices



Danger: The following safety instructions must be observed!

Read these operating instructions carefully and keep them safe. Observe all instructions and safety information, as well as all applicable safety and occupational health standards, guidelines and laws when handling electrical products.


1. The HOFFMANN Frame Jointing machines may only be operated after the operating personnel have read and understood the operating instructions. The manual should be kept ready to hand as a reference work.
2. Only persons who are authorized to do this and who are familiar with the handling may work on the HOFFMANN Frame Jointing machines ! Keep all persons not working on the milling machine away! The operating personnel must switch off the machine electrically as long as the machine is not being supervised or is not being worked on.
3. Work on the electrical equipment may only be carried out by a qualified electrician!
4. Before connecting the Frame Joiner routing machine electrically, the connection values must be checked using the "Technical Data"!
5. Safety devices must not be disabled!
6. The Frame Joiner routing machine may only be switched on if there is no danger to persons or property!
7. The function and condition of the safety devices must be checked quarterly!



8. If damage or errors are found on the Frame Joiner routing machine that could endanger persons or property, the Frame Joiner machine must be shut down immediately and further use prevented until it has been completely repaired! The operating personnel must report any faults on the machine and its protective devices immediately after they have been noticed.
9. If the Frame Joiner routing machine is shut down for a longer period of time, the safety devices must be checked and, if necessary, repaired before it is put back into operation.
10. Always wear close-fitting work clothing and a hair guard (if you have long hair) to prevent clothing or hair from getting caught in the machine. Wear protective goggles for every work step and wear hearing and respiratory protection when working for longer periods.
11. Ensure there is sufficient lighting at the workplace with a room temperature of approx. 20°. It is important to ensure that the floor around the machine is free of waste, chips and leftovers.
12. Do not reach into the area of the cutting tools. Protective gloves are recommended when working in the area of the milling tools and when handling milling tools! The milling tools must be checked daily for sharpness and breakage.
13. Do not allow the machine to come into contact with moisture, water, or flammable liquids or gases.
14. Lay out the power-carrying lines so that nobody can trip over them and the lines can be damaged
15. Disconnect the machine from the electrical power supply during maintenance and repair work.



Technical data HOFFMANN Frame Joiner

	Frame Joiner	Speed control	
Number of engines	1	1 = 13.000 rpm	
Direction of rotation	to the right	2 = 17.000 rpm	
Speed (milling spindle) adjustable	10.000-30.000 rpm	3 = 22.000 rpm	
Tool holder, collet	Ø6 mm	4 = 29.000 rpm	
Milling height (max)	55 mm	5 = 31.000 rpm	
Dovetail size	W - 1 / 2 / 3	6 = 33.000 rpm	
workpiece height (max)	75 mm		
Table height	80 mm	Optimum speed for:	
Dimensions (W x D x H)	370 x 400 x 400 mm	Cutter: W0 / W1 / W2 / W3	
Weight	7,0 kg	level 3 = 22.000 rpm	
Engine power	710 Watt		
Electrical connection values	230 V 50/60 Hz		
Connection values pneumatic	--		
milling feed	Manually		
workpiece clamping	Manually		
Extraction nozzle - diameter	38mm		
Emission values (noise)	88,43 dB(A)		



Noise level at the machine



The continuous sound pressure level emanating from the machine is approx. 88.43 dB(A). Depending on local conditions, a higher sound pressure level can result, causing hearing damage.

In this case, the operating personnel must be protected with appropriate protective equipment or protective measures.

Notes on the noise specification

The specified values are emission values and therefore do not have to represent safe workplace values at the same time.

Although there is a correlation between emission and emission levels, it cannot be reliably deduced from this whether additional precautionary measures are necessary or not.

Factors that influence the current emission level at the workplace include the nature of the workspace, other sources of noise, e.g. the number of machines and other neighboring work processes. The permissible workplace values can also vary from country to country. However, this information should enable users to make a better assessment of the hazard and risk.



Warranty Statement

Our general terms and conditions (VDMA) apply to warranty services.	
Warranty period	The guarantee period is 12 months from the date of delivery. It extends to the free elimination of all faults that arise as a result of poor workmanship or material defects. A warranty repair does not extend the warranty period for either the replaced parts or the device.
Warranty processing	Warranty services are provided ex works in Bruchsal or by the supplier. Accessories and spare parts are specially designed for the keyway routing machines.
Exceptions and Loss of Warranty	<p>Excluded from the guarantee are damages or malfunctions that are due to improper use, incorrect setup or installation, external influences (e.g., damage in transit, damage caused by shock or impact), repairs and modifications made by third parties, unauthorized bodies and damages that are due to are due to natural wear and tear.</p> <p>We would like to point out that machine parts and accessories not supplied by us have neither been checked nor approved by us. The installation and use of such products may adversely affect the design properties of the device. This will affect safety and functionality.</p> <p>The manufacturer accepts no liability whatsoever for damage caused using "non-original parts" and accessories.</p>



EC Declaration of Conformity
in terms of EU Directive 2006/42/EC



We hereby declare,

Hoffmann GmbH Maschinenbau
Mergelgrube 5 76646 Bruchsal
Deutschland

that the machine
Machine designation
Machine type

Hoffmann Frame Joiner 10585

Machine number

Keyway routing machine

The version supplied complies with the following relevant provisions:

2014/35/EU u. 2014/30/EU
93/68/EWG:1993-07-22

EMC and Low Voltage Directive
EC low-voltage directive and EC EMC directive

Applied harmonized standards, in particular:

DIN EN 61029-1+A11:2010-02-28
DIN EN 61029-2-8:2010-09
EN 61000-3-2:2014
EN 61000-3-3:2013
EN 55014-1:2017
EN 55014-2:2015

Place & Date of production

Bruchsal, .2023

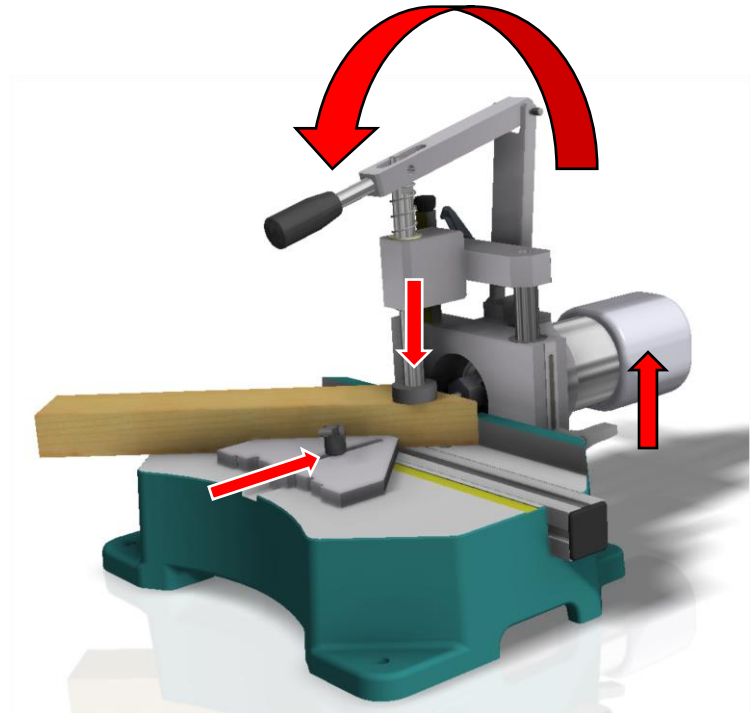
Signature

Thomas Hoffmann
Head of Technology



Function and operation of the machines

Type	Function and working method
Frame Joiner	<p>Manual table routing machine</p> <p>The milling position on the workpiece is determined by moving the stop elements and the desired milled groove length is pre-set using the measuring pin.</p> <p>The workpiece is clamped by pulling the hand lever of the machine.</p> <p>If the hand lever is pulled further down from this position, the milling unit moves up.</p> <p>After the milling unit has reached its end position on the measuring bolt stop, the hand lever is returned to its starting position and the milling process is complete.</p>





Scope of delivery, transport and storage

Scope of delivery:

The HOFFMANN Frame Joiner machines consist of:

- HOFFMANN Frame Joiner machine, ready for connection, ready for operation
- Tool kit, consisting of: Size 22 open-end wrench and a 4mm Allen key.
- Operation manual

Transport:

The machine is delivered in a stable, transport-safe plastic box. Check whether the content of the shipment matches the information on the delivery note. In the event of transport damage, please inform the transport company immediately so that the damage can be determined, as well as the Hoffmann company or your dealer.



Attention:

The machine may fall or tip over.

When transporting, be sure to wear protective gloves and safety shoes with steel toes.

Storage:

The machine should remain in its packaging for storage. The storage room itself must be dry to prevent individual parts from corroding. Optimal storage is at a room temperature of 18-25°C.



Commissioning and maintenance

Setting up the machine

Remove the transport packaging and clean the machine with a suitable machine cleaning agent (e.g. WD40).

The machine is set up on a sufficiently stable table. The table plane must be sufficiently large, evenly flat and level so that the machine is stable.

Electrical connection

Before commissioning, check whether the mains voltage corresponds to the information on the machine type plate and the type of plate of the milling motor. If all information is correct, connect the machine plug directly to the socket.

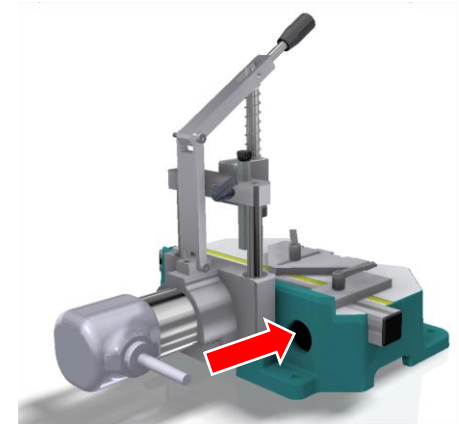
Extraction system connection

The machine type MU-S has an extraction connection on the rear side of the machine. When working with the machine for a long time, the suction must be connected. The suction channel leads directly under the milling unit. This means that the suction has a high efficiency, and the chips are sucked up directly below the milling cutter.

The minimum air speed required for extraction at the extraction nozzle of the machines is 20 m/s for dry chips and 28 m/s for moist chips (humidity >18%).

To do this, an extraction system must be connected that at least achieves the following values:

- 1.) Minimum flow rate at the intake manifold = 250m³/h
- 2.) Minimum vacuum at the intake manifold = 14000 Pa





Maintenance and care of the machine



Attention:

Always pull out the mains plug for all maintenance and care work.

Maintenance interval	Module	Action
Daily	Tool and chip breaker	Checking the tool and the chip breaker for wear, damage and cracks. Replace if necessary.
	Router motor	Check the ventilation slot of the milling motor for dirt and clean if necessary.
Weekly	Machine housing	Clean the complete machine with a suitable machine cleaning agent (e.g., WD40)
	Guides and bearings	Grease the linear unit with machine grease (e.g., ESSO Grease LT2)
Repair work may only be carried out by the manufacturer or authorized persons.		



The Hoffmann Frame Joiner system

Due to the extremely precise double wedge shape of the Hoffmann-dovetail, the parts to be connected are pressed together exactly and permanently due to the forced guidance.

The milling cutter setting dimension must be adhered to exactly for optimal matching.

The correct setting dimension "X" for the

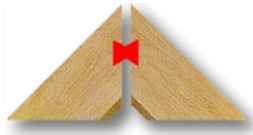
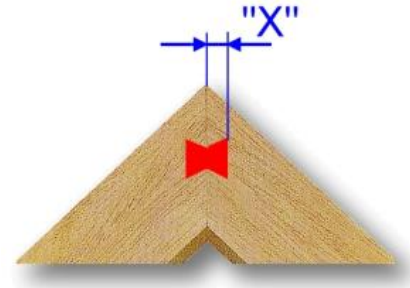
Type W1 be 3,5 mm.

Type W2 be 5,1 mm.

Type W3 be 6,9 mm.

With this setting, the Hoffmann dovetail connector optimally pulls the frame parts together.

The machine is preset at the factory to the customer's router and ensures appropriate pressure for the types of wood: hardwood and softwood, MDF, chipboard and multiplex.



Incorrect:

If the adjustment is less than the minimum adjustment, no pressure is generated on the joint surface and a gap is formed.

That is, the two frame parts are not fully assembled.



Incorrect: Milling depth too great.

Cutter change and cutter adjustment



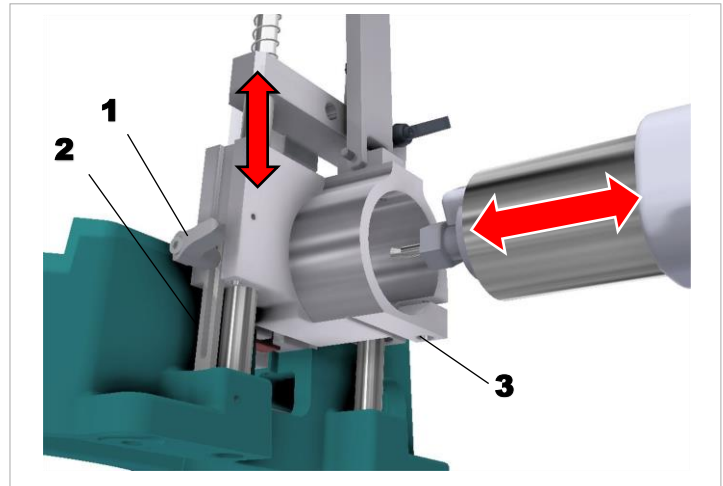
Attention:
Always pull out the mains plug for all adjustment work on the milling motor.

The milling tool has very sharp cutting edges. Protect your hands!

Removing the milling motor from the motor mount



- ⇒ Place the milling unit above the table level and fix this position by clamping the height slider (2) with the clamping lever (1).
- ⇒ Open the clamping screw (3) of the motor mount
- ⇒ The milling motor can now be moved back and forth in the holder.
- ⇒ Remove the motor from the mount or use the setting gauge to set the routing depth of the cutter → See the following chapter.





Adjust cutters and change chip breakers

The cutter setting gauge is part of the 90° stop plate.

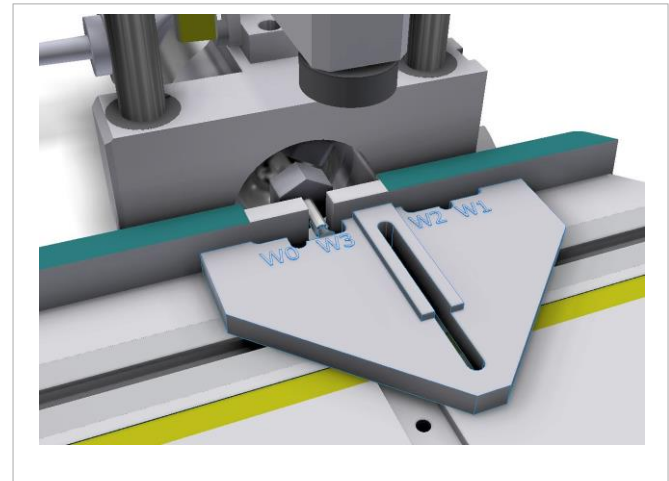
To use the gauge, the stop plate must be removed from the machine table and turned over so that it can be placed directly on the stop edge.



- ⇒ Loosen the motor in the mount as previously described.
- ⇒ The milling motor can now rotate forwards and backwards in the holder be moved back until the cutter tip is flush with the reference surface of the setting gauge.
- ⇒ Clamp the milling motor back into the motor mount by hand-tightening the clamping screw
- ⇒ Put a new chip breaker in the machine.
- ⇒ Switch off the motor at the motor housing and plug the mains into the socket.
- ⇒ Mill through the chip breaker from top to bottom by manually slowly returning the milling motor to its home position.



Attention: Free-running milling spindle.
Be sure to protect your eyes safety goggles and wear protective gloves.

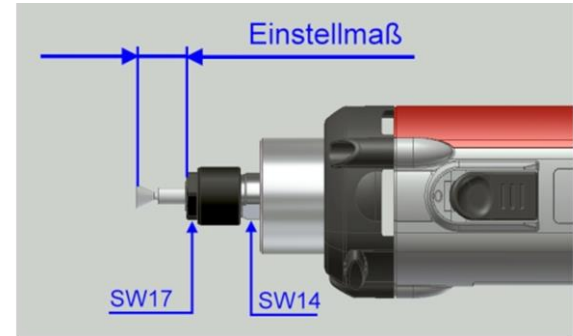




Handling of milling cutter and collet



- ⇒ Open the cutter collet by turning the union nut (1) with an SW22 open-end wrench. The gear shaft is secured against twisting with the locking knob.
- ⇒ Insert a cutter or replace the old cutter with a new one.
- ⇒ If necessary, clean the collet or check whether the collet is firmly anchored in the spring washer of the union.
- ⇒ With the help of a commercially available calliper, the required setting dimension of the milling cutter type used is now set.
- ⇒ Close the collet by turning the union nut while holding the gear shaft with the locking button.
- ⇒ Test the newly adjusted milling depth by making two test pieces and joining them with a Hoffmann dovetail connector.
- ⇒ If the test pieces are connected properly, the adjustment is complete. Otherwise, repeat the steps again.



Cutter type	Setting Dimension
W1	20,0 mm
W2	22,0 mm
W3	24,0 mm



Adjusting the routing groove length

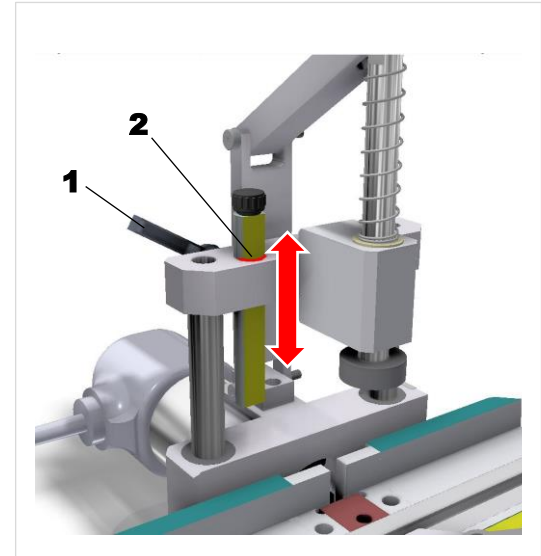
The milling groove length of the machine is limited by setting the measuring bolt.

By setting the measuring pin depending on the corresponding workpiece thickness, a faster work cycle is possible and accidental "milling through" of the workpiece is prevented.

Groove length adjustment



Open the clamping lever (1) and set the measuring pin to the desired milled groove length. The set slot length can be read directly on the ring surface (2) of the motor bracket. Close the lower clamp lever to fix the setting.





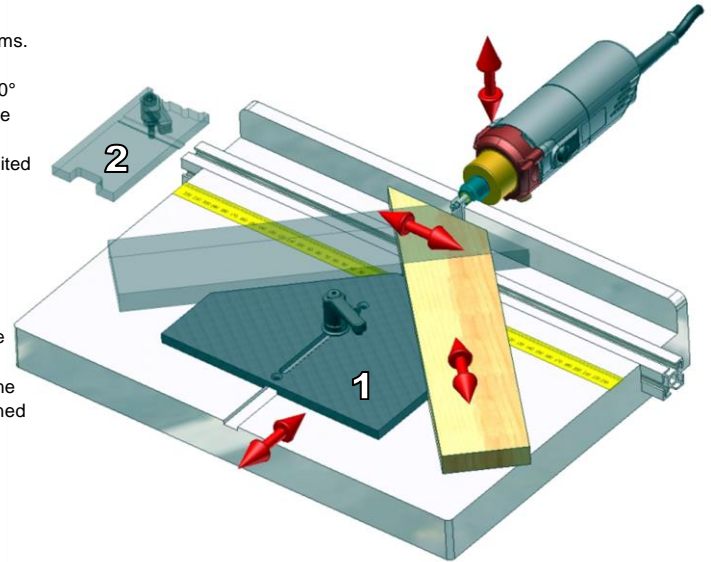
Working with the Hoffmann stop system.

Thanks to the special stop system of the Hoffmann machines, the workpieces can be precisely milled in different variants. Here, workpieces with different angles as well as workpieces with radii can be processed without any problems.

The Frame Jointing machines are equipped with a 45° stop plate (1) and a 90° butt stop (2). By moving the stops, different milling positions can be set on the workpiece. With the 45° stop plate it is possible "right" and "left" 45° cut workpieces in a single stop setting to edit. The workpiece dimensions are limited by the workpiece width, which may not exceed 75mm.

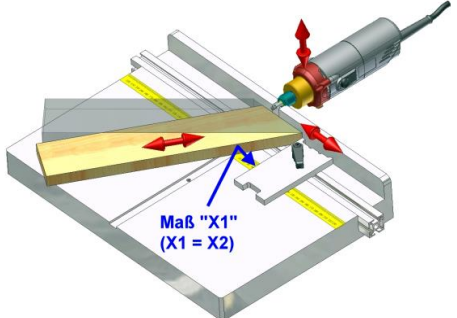
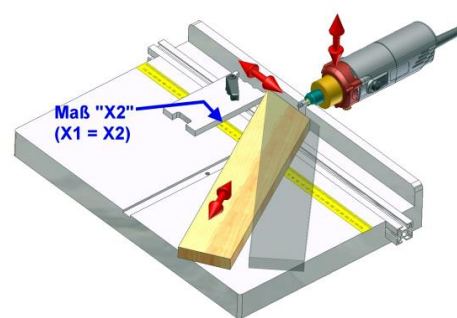
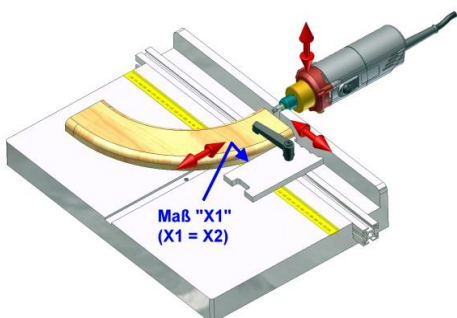
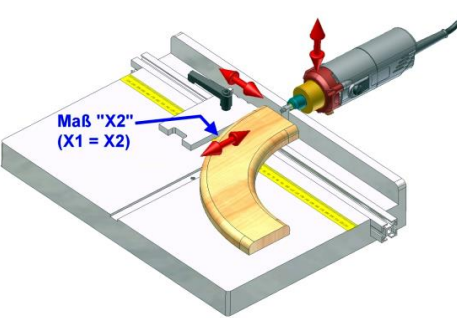
All workpieces that are wider than 75mm or have a different angle or have a radius are machined with the 90° butt stop. To do this, the 45° stop plate is loosened and removed from the machine table.

For "right" / "left" processing, the 90° butt stop is positioned alternately on the right or left side of the machine. The position of the stop at the 90° butt stop edges is read directly on the measuring tape scales on the machine table. The milling position(s) on the workpiece depend on the profile and are freely defined by the operator.



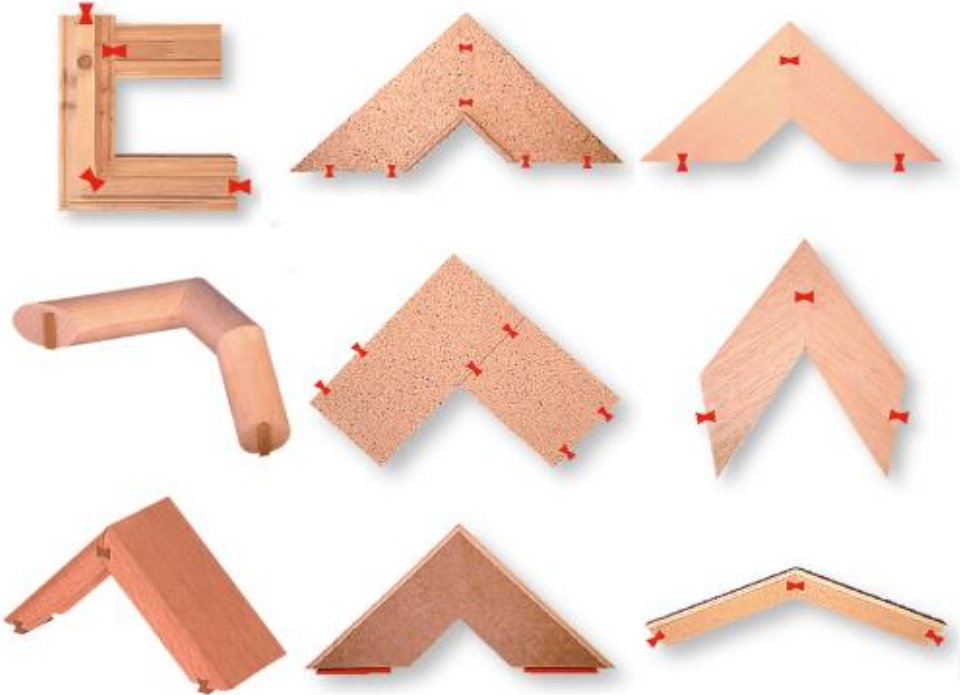
Depiction: machining operation with the 45° stop plate.



Profile shape / cut	Machining workpiece 1	Machining workpiece 2
<p>Connection of workpieces with any angle .</p>	 <p>Maß "X1" (X1 = X2)</p>	 <p>Maß "X2" (X1 = X2)</p>
<p>Connection of radii and arcs with any angle.</p>	 <p>Maß "X1" (X1 = X2)</p>	 <p>Maß "X2" (X1 = X2)</p>



Application examples



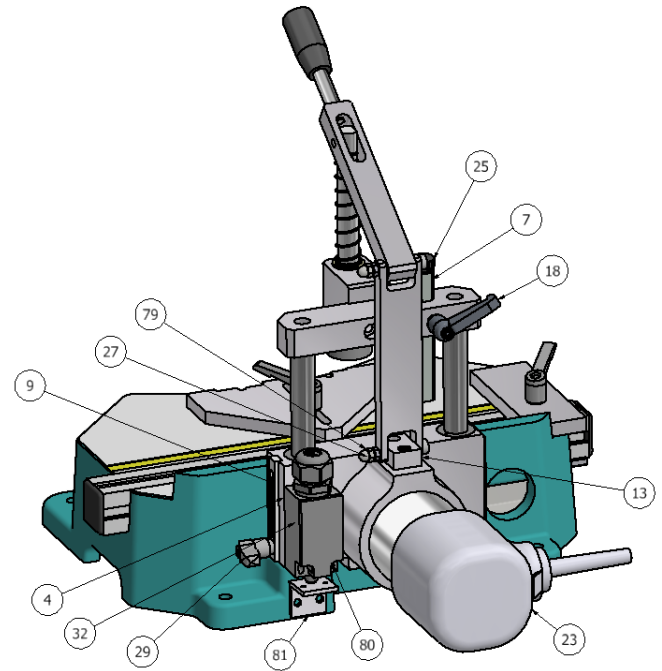
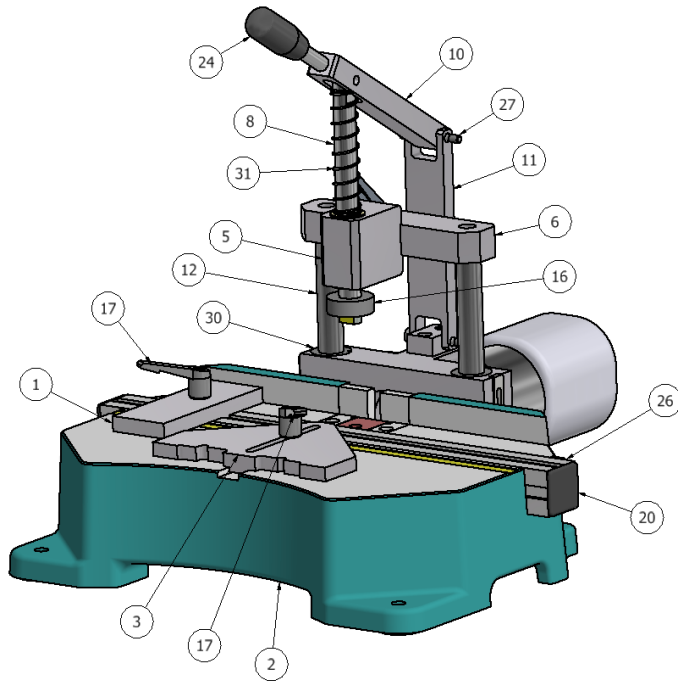


Malfuctions and troubleshooting

Trouble	Cause	Troubleshooting
The motor will not start .	The motor is not switched on. The power supply is interrupted. The motor is overheated.	Set the motor switch to "I". Check the power supply. Let the motor cool down.
RPM drops .	The routing tool is blunt or destroyed. The motor power is unsuitable for the material. Worn motor carbon brushes.	Change the tool. Check the settings. Replace or overhaul milling motor.
The milling unit cannot be moved properly.	The mechanism or guide is dirty. Measuring pin setting to "0" mm milled groove length.	Clean the mechanism. Set the milling groove length correctly.
Hoffmann-dovetail cannot be used or the dovetail too loose in the milled groove.	Incorrect milling depth setting of the Hoffmann milling cutter.	Set the cutter correctly. If necessary, use the cutter setting gauge.
Dovetail positions of right and left workpiece do not match.	Butt stop setting incorrect or too imprecise. Dirt on stop profile.	Read off the exact positions on the measuring scales and set the butt stop position precisely. Clean stop profile



Machine plan Hoffmann Frame Joiner





Parts list Hoffmann Frame Joiner

POS	Part NUMBER	Identification	Parts
1	7.261.00.05	butt stop	1
2	7.300.00.01	Cast iron table	2
3	7.300.00.02-01	Stop plate 45°	1
4	7.300.00.03-03	engine mount	1
5	7.300.00.05-04	Headbridge-Part-01	1
6	7.300.00.06-04	Headbridge-Part-02	2
7	7.300.00.12-01	measuring bolt	1
8	7.300.00.17-01	push rod	1
9	7.300.00.19	height slider	1
10	7.300.00.20-01	lever bridge	1
11	7.300.00.21-02	drawbridge	1
12	7.300.00.22	guide shaft	2
13	7.300.00.25	bearing block	1
14	7.300.00.30	Chip breaker adapter	1
15	7.300.00.31	exhaust plate	1
16	22.D030X10M6X18 RVC	clamping buffer	1
17	06335-106X20	Clamp lever M6X20	2
18	06610-1051X10_10	Clamp lever M5x15	1
19	11260	W1 keyway cutter	1
20	0041922	cover cap	4
21	101108	slot nut	2
22	200015-02-4	Chip breaker MU2	1
23	Router motor	Router motor	1

24	GN 310-10-80-E-NI	handle	1
25	GN 529-15-M5-10	knurled screw	1
26	HM-30-30-350	profile rail	1
27	ISO 7379-6-M5-30	fitting screw	2
28	JFM-1416-10	Plain bearing with collar	2
29	K0122.0041X15	Clamp lever M4x15	1
30	LME-16-UU	ball bushing	3
31	VD-183	compression spring	1
32	Z-057E-12I	tension spring	1
79	DIN 1587-M5	Nut cover	
80	TS 236-02z-M20	Limit-switch	
81	200108-01-4	Valve angle	



Warranty and liability

In principle, the “General Terms and Conditions of Sale and Delivery” apply.

These are available to the operator at the latest when the contract is concluded.

Warranty and liability claims for personal injury and damage to property are excluded if they are due to one or more of the following causes:

- Improper use of the machine.
- Improper assembly, commissioning, operation, and maintenance of the machine.
- Operation of the machine with defective safety devices or safety and protective devices that are not properly installed/functioning.
- Non-observance of the instructions in the operating manual.
- Unauthorized structural changes to the machine or unauthorized changes to fixed parameters
- Use of "non-original Hoffmann accessories"
- Poor monitoring and maintenance of machine parts that are subject to wear.
- Improperly performed repairs.
- Disasters caused by foreign bodies and force majeure.

Address of the manufacturer:



Hoffmann GmbH Maschinenbau

Mergelgrube 5 · D-76646 Bruchsal

Tel: +49 (0) 72 51 - 95 44 0, Fax: +49 (0) 72 51 - 95 44 44

info@hoffmann-schwalbe.de, www.hoffmann-schwalbe.de

Technische Änderungen vorbehalten. Printed in Germany.



Hoffmann Schwalben W0

mittelbraunes Polymer / medium brown polymer

Art./Ref.	Bezeichnung / Description			VE/Qty.
W9001000	W-0	standard	10,0 mm	1000
W9002200	W-0	standard	22,0 mm	1000
W9003500	W-0	standard	35,0 mm	1000



**Neues Format
– ganz klein
und GROSS
im Kommen!**



Hoffmann Schwalben W1

mittelbraunes Polymer / medium brown polymer

Art./Ref.	Bezeichnung / Description			VE/Qty.
W9100600	W-1	standard	6,0 mm	1000
W9101000	W-1	standard	10,0 mm	1000
W9101400	W-1	standard	14,0 mm	1000
W9101800	W-1	standard	18,0 mm	1000
W9102200	W-1	standard	22,0 mm	1000

Art./Ref.	Bezeichnung / Description			VE/Qty.
W9103000	W-1	standard	30,0 mm	1000
W9104000	W-1	standard	40,0 mm	1000
W9105000	W-1	standard	50,0 mm	1000
W9106000	W-1	standard	60,0 mm	1000



Hoffmann Schwalben W2 mittelbraunes Polymer / medium brown polymer

Art./Ref.	Bezeichnung / Description	VE/Qty.
W9200600	W-2 standard 6,0 mm	1000
W9200900	W-2 standard 9,5 mm	1000
W9201200	W-2 standard 12,0 mm	1000
W9201400	W-2 standard 14,0 mm	1000
W9201500	W-2 standard 15,8 mm	1000
W9201800	W-2 standard 18,0 mm	1000
W9202000	W-2 standard 20,6 mm	1000

Art./Ref.	Bezeichnung / Description	VE/Qty.
W9202200	W-2 standard 22,0 mm	1000
W9202500	W-2 standard 25,4 mm	1000
W9203200	W-2 standard 32,0 mm	1000
W9203800	W-2 standard 38,0 mm	1000
W9204600	W-2 standard 46,0 mm	1000
W9206000	W-2 standard 60,0 mm	1000
W9201000	W-2 standard 102,0 mm	1000



Hoffmann Schwalben W3 mittelbraunes Polymer / medium brown polymer

Art./Ref.	Bezeichnung / Description	VE/Qty.
W9301200	W-3 standard 12,7 mm	1000
W9301500	W-3 standard 15,8 mm	1000
W9301700	W-3 standard 17,5 mm	1000
W9301900	W-3 standard 19,0 mm	1000
W9302500	W-3 standard 25,4 mm	1000
W9303100	W-3 standard 31,7 mm	1000

Art./Ref.	Bezeichnung / Description	VE/Qty.
W9303800	W-3 standard 38,1 mm	1000
W9304600	W-3 standard 46,0 mm	1000
W9305200	W-3 standard 52,0 mm	1000
W9306000	W-3 standard 60,0 mm	1000
W9308000	W-3 standard 80,0 mm	1000
W9301000	W-3 standard 100,0 mm	1000

