Machine Technology

Routing Machines, Double Mitre Saw
& CNC Controlled Machining Centres

...die Hoffmann-Schwalbe

HOFFMANN®

Machine Technology

1 Special machine

for the processing of the “Hoffmann-Dovetail Window"
PP 2-FR

2 Double Mitre Saw

MS 35

3 CNC Controlled Machining Centres

Sawing, Routing and Drilling Machining Centre - SO 7.146
Post and Beam Machining Centre - SO 7.134

4 Hand Routing Unit

Machine Technology

Hoffmann offers a complete range of machinery.

The working cycle of each machine is designed to be as efficient and safe as possible, therefore the right machine for each application can be selected.

From the manually operated bench-top models to free-standing machines with multifunctional characteristics.

- **Manual**
- **Semi-automatic**
- **CNC-controlled processing**

Double Mitre Saw

MS 35

The Hoffmann MS 35 Double mitre saw is the perfect machine for precise mitre cuts.

The machine is designed with consideration not only for high productivity but most important for quality of cut. Veneered or polished profiles, aluminium parts, plastic extrusions and many other materials can be processed with this double mitre machine.

An in-feed table (2.5 m net) is attached to the left of the machine for optimal positioning of the material. The fence table with digital stop (2.5 m net)is attached to the right of the machine for precise measurement control.

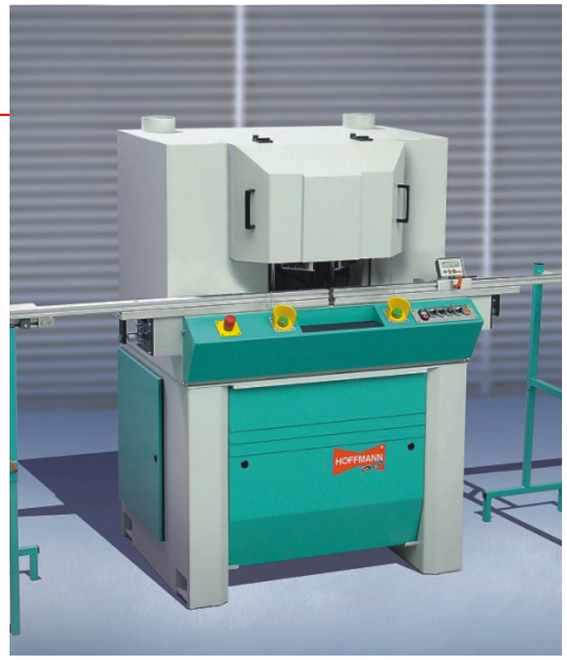
Technical specifications

Power supply	3ph/n/PE 230/400V 50/60Hz 3.6 kW
Pneumatic supply	6 bar
Motors	2 x 1.8 kW / spindle 30 mm
Speed	4000 1/min.
Control panel / Clamping	pneumatic / pneumatic
Material section	W 0-90 mm H 0-90 mm

Features

- Staunch cast table.
- Waste shute
- Feed control
- Bosch pneumatics
- Emergency stop
- 8 individually selective clamping cylinders.
- Precision linear guides
- Efficient 3 phase motors
- Tungsten carbide tipped saw blades
  Ø 350 mm x 30mm

Tooling	Tungsten carbide tipped saw blade Ø 350 mm x 30 mm
Dust extraction duct	2 x Ø 100 mm
Overall dimensions W/D/H	1470/950/1620 mm
Weight	620 kg
Order No.	W 105 0000



Pneumatic Dovetail Routing Machine

PU 2-32/100

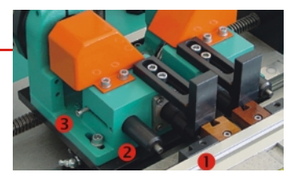
Free standing pneumatic model with 2 motors for processing work-pieces with 2 dovetail slots in each machine cycle. The motor cross-centres have fine adjustment between 32 mm and 100 mm. Fitted with 1000 W motors as standard. Solid cast table and large working surface.

Technical specifications

Power supply	1ph/N/PE 230V 50/60Hz 2 kW
Air supply	6 bar
Motors	2 x 1000 W
Motor speed	33000 1/min.
Controls/work-piece clamping	pneumatic / pneumatic
Height capacity	210 mm
Routing depth	0-115 mm
Dust extraction duct	Ø 100 mm
Hoffmann-key sizes	W-1/2/3/4 (opt.)
Overall dimensions W/D/H	1000/750/1500 mm

Chip breaker

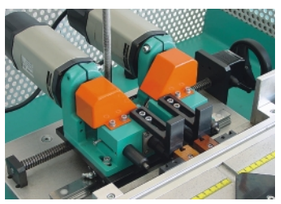
1. Chip breaker carriage
2. Chip breaker positioning
3. Positioning bolt



Operation

The machine cycle is activated by pressing the foot-pedal. The work-piece is clamped, the routers start and rise to the preset depth and then return to the home position at which the clamps are released. Positioning of the fence and router depth is made manually. The adjustments to the motor centres are made manually with a hand wheel and are set with the digital reader.

Hoffmann offset-drive unit



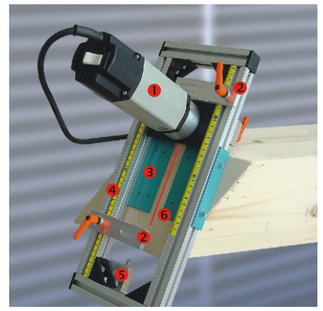
Hoffmann offset-drive unit, designed for high cutting speeds (up to 33000 1/min.)

Hand Routing Unit

MF-4

Portable, hand routing unit. For W-4 applications as in post and beam construction. Simple, hand held and light. Ideal for producing keyways in various on site situations.

Standard motor 1000 W.



1. Routing motor
2. Routing depth adjustment
3. Positioning plate
4. Measuring scale
5. Positioning bolt
6. Pencil mark

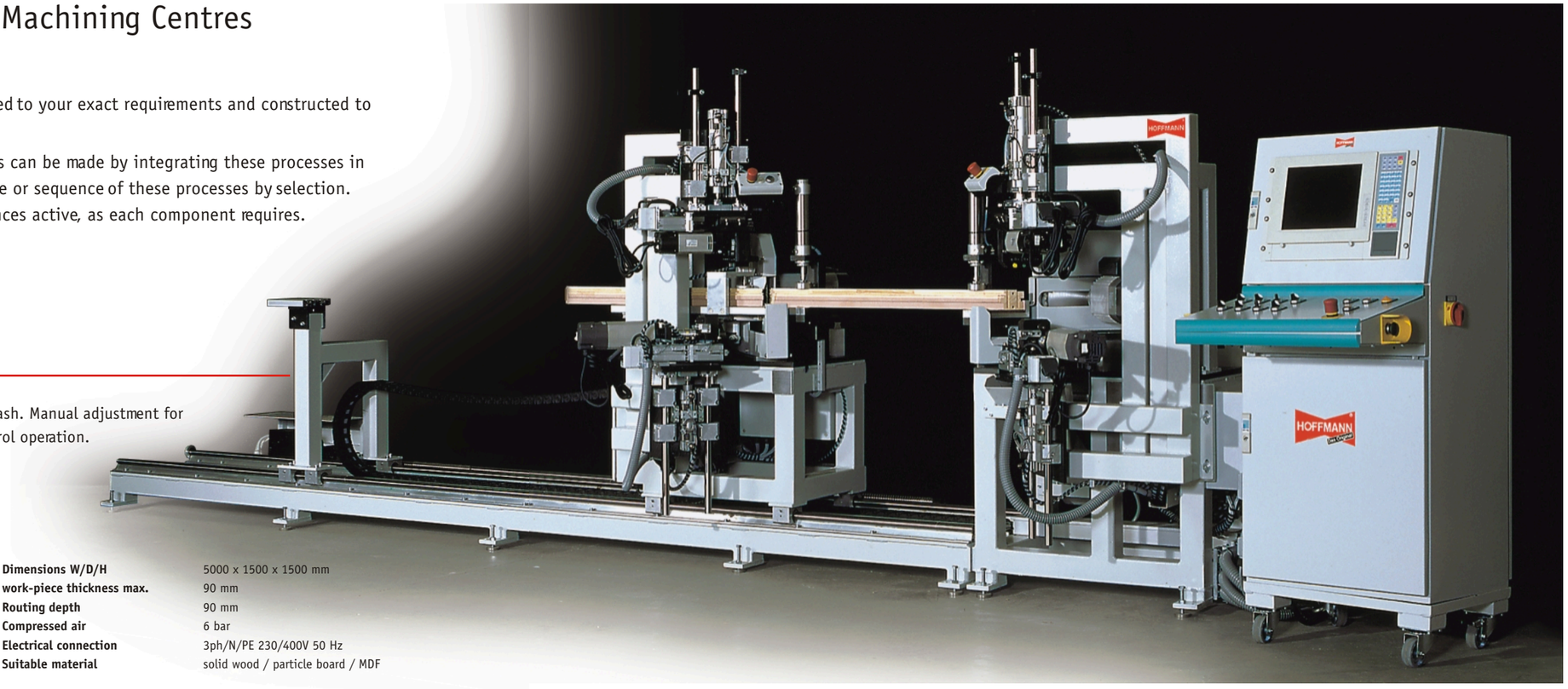
Technical specifications

Power supply	1ph/N/PE 230V 50/60Hz 1 kW
Motor	1 x 1000 W
Motor speed	33000 1/min.
Controls/work-piece clamping	manual / manual
Routing depth	0-220 mm
Hoffmann-key size	W-4
Overall dimensions w/d/h	200/300/460 mm
Weight	5 kg
Order No	W 101 2000

Hoffmann-Special - CNC Controlled Machining Centres

These CNC controlled multi-axis machining centres can be designed to your exact requirements and constructed to your desired specification.

When components require a series of processes, huge time savings can be made by integrating these processes in the one machine. Flexibility can be built in, by offering the choice or sequence of these processes by selection. Multi-function machines can operate with a selection of sequences active, as each component requires.



Sawing, Routing and Drilling Machining Centre

SO 7.146

Machining centre for the processing of window frames, main frame and sash. Manual adjustment for length, dowel drilling units, keyway routing stations and dual hand control operation.

Technical specifications

Motors	2 x 2.3 KW saw arbor motors	
	4 x 1.0 KW routing motors	
	2 x 1.1 KW drilling motors	
Nominal speeds	saw blade	3.000 1/min.
	routing	27.000 1/min.
	drilling	3.000 1/min.

Dimensions W/D/H	5000 x 1500 x 1500 mm
work-piece thickness max.	90 mm
Routing depth	90 mm
Compressed air	6 bar
Electrical connection	3ph/N/PE 230/400V 50 Hz
Suitable material	solid wood / particle board / MDF

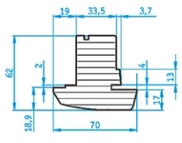
Operation

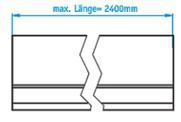
The operator sets the desired work-piece length on the machine stop with the linear measuring system. On the machine control panel, the operator selects the desired machining units (cutting and routing / cutting, routing and drilling). After the work-piece is placed onto the machine table, the operator starts the automatic sequence with a dual hand control device. The work-piece is clamped onto the material support and the machine cuts both ends at 45°, cuts the grooves and drills the dowel holes.

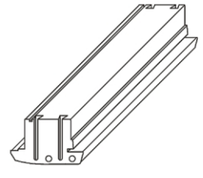
After the sequence has been completed, the processed part can be taken out of the machine.

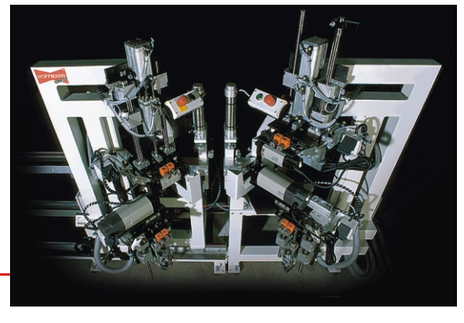
Machine design

Table	steel
Machine stand	solid welded machine stand
Tooling feed	pneumatic
Work-piece clamping	pneumatic
Stops/jigs	interchangeable stops
Dust extraction duct	Ø 100 mm
Key sizes	W-1, W-2, W-3
Tooling	400mm saw blade / drills (8x80)
	W-3 cutter
Set-ups	automatic length adjustment (IPC)
	infinitely adjustable angles 0° to +45°



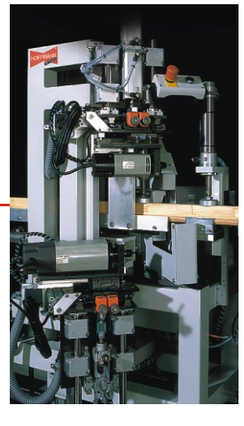




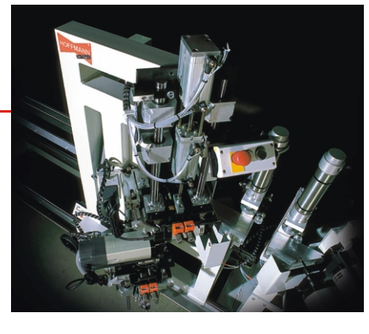


Stations at home position

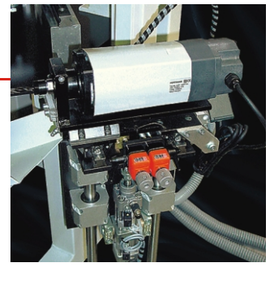
Material support



45°-processing



Drilling motor positioning



Post and Beam Machining Centre

PP 2-FR

Special machine for the processing of the "Hoffmann-Schwalbenfenster".

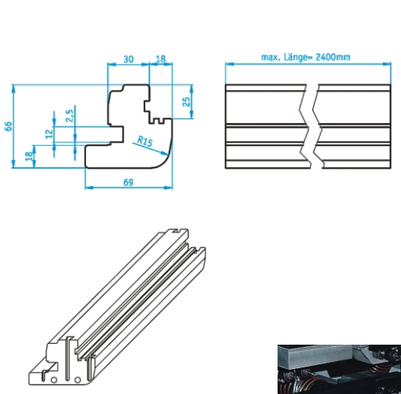
Equipped with 2 x 3 router heads and 2 x 2 boring units. Sashes as well as the main frames are processed with 3 Hoffmann-keys and 2 dowels per corner. Both parts to be joint are routed and drilled in one sequence.

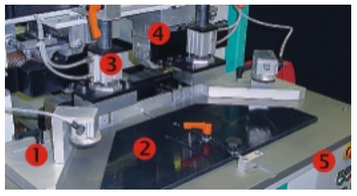
All adjustments are factory set.

Operation

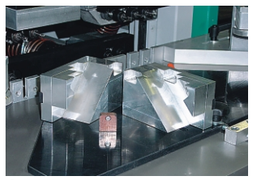
The machine cycle is activated by pressing the foot-pedal. The work-pieces are clamped, the routers start and travel to the pre-set depth and then return to the home position.

Both drilling units advance until they have reached the final hole depth and return to their home position at which the clamps are released. Positioning of the fence and routing/drilling depth is factory set.





1. Positioning fence (sash/main frame)
2. Angle fence (sash/main frame)
3. Work-piece clamping
4. Router heads 5. Control unit (PLC)



Clamping devices

Machine design

Table	heavy aluminium table
Machine stand	solid welded machine stand
Tooling feed	pneumatic
Work-piece clamping	pneumatic
Stops/jigs	interchangeable stops
Dust extraction duct	Ø 100 mm
Key sizes	W-1, W-2, W-3
Tooling	drills (8x80) / W-2 and W-3 cutter
Set-ups	manual adjustments for routing and drilling depth

Technical specifications

Power supply	3ph/N/PE 230/400V 50/60Hz 6.2 kW
Air supply	6 bar
Motors	4x 1000 W / 2x 1100 W
Motor speed	33000 1/min. / 10000 1/min.
Controls/work-piece clamping	PLC / pneumatic
Height capacity	100 mm
Routing depth vertical	100 mm
Dust extraction duct	Ø 100 mm
Hoffmann-key sizes	W-2/3 / Drill bit 8 mm
Overall dimensions W/D/H	1300/900/1500 mm
Weight	320 kg
Order No.	W 108 7000

Post and Beam Machining Centre

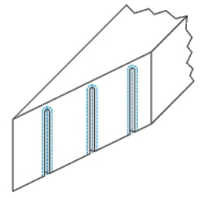
SO 7.134

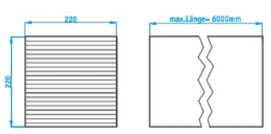
Heavy duty multi-spindle routing machine for large post and beam profiles. Separate routing stations for length and face processing in different angles.

Custom colour available

Technical specifications

Motors	2 x 1.7 KW router motors
Nominal speed	25.000 1/min.
Tooling	router shaft d = 8 mm
Roller conveyor	2 x 4000 mm
Dimensions W/D/H	1850 x 1100 x 1600 mm
work-piece thickness max.	350 mm
Routing depth	250 mm
Compressed air	6 bar
Electrical connection	3ph/N/PE 230/400V 50 Hz
Cycle time	appr. 2 seconds / 20 mm depth
Suitable material	solid wood

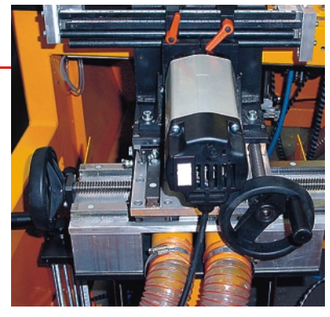




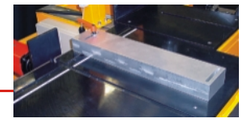
Operation

With the integrated measuring devices, all dimensions are adjusted at the machine units with the work-piece in place. One routing unit cuts the grooves into the side of the post or beam profiles. A 3-axis station can be turned and raised according to the work-piece dimensions, whereby heavy parts can remain in place. The solid design and the choice of premium machine parts allow routing depths of up to 250 mm with high precision.

Face processing



Stop system



3-axis routing station

Machine design

Table	solid steel table
Machine stand	welded machine stand
Tooling feed	pneumatic
Work-piece clamping	pneumatic
Stops/jigs	manual stops with measuring scales
Dust extraction duct	Ø 2 x 100 mm
Tooling	W-4 router cutters manual setting of routing depth and position
Set-ups	