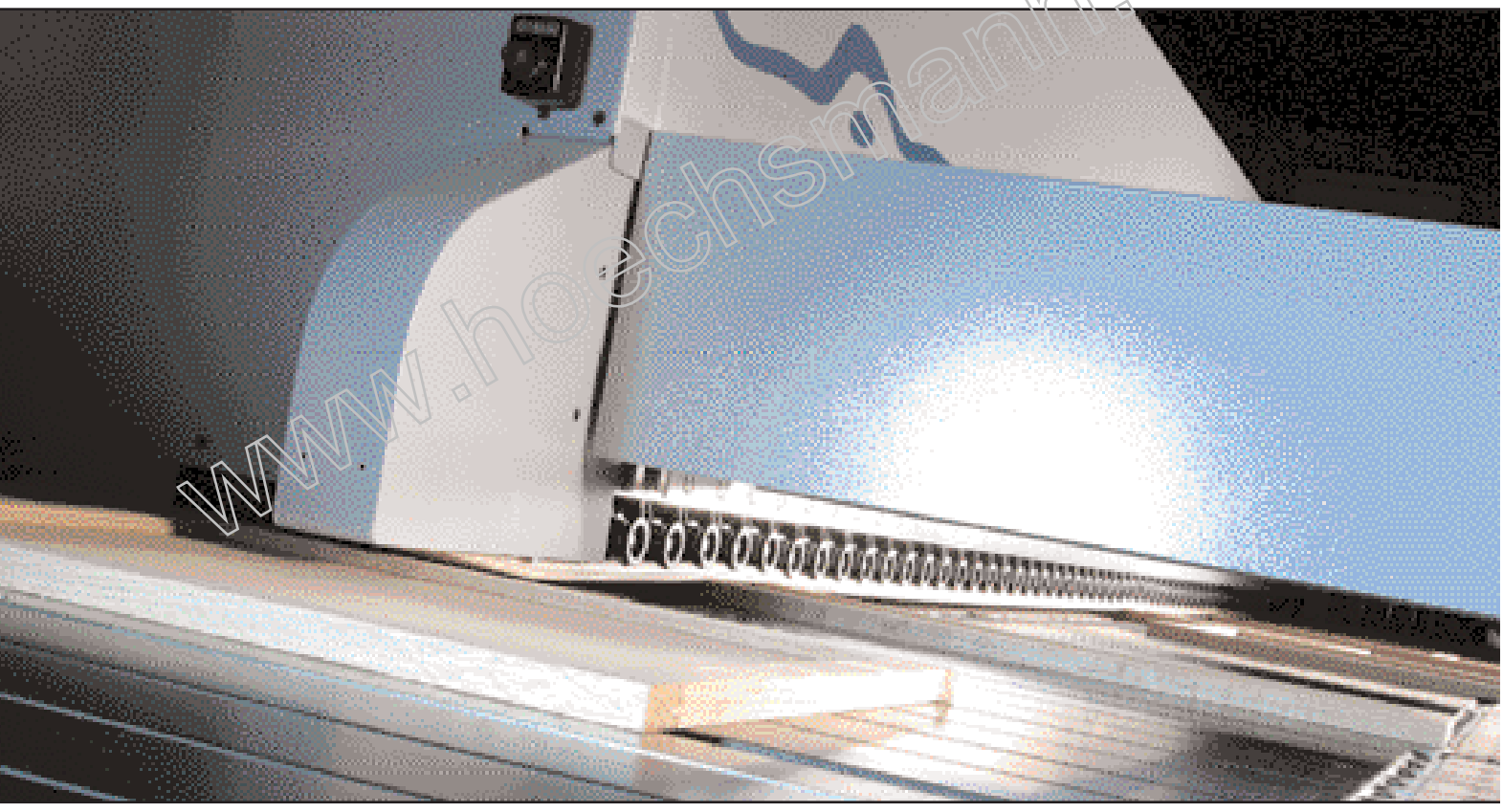
HOMAG

Sizing and profiling machine FPL 614 and FPL 624

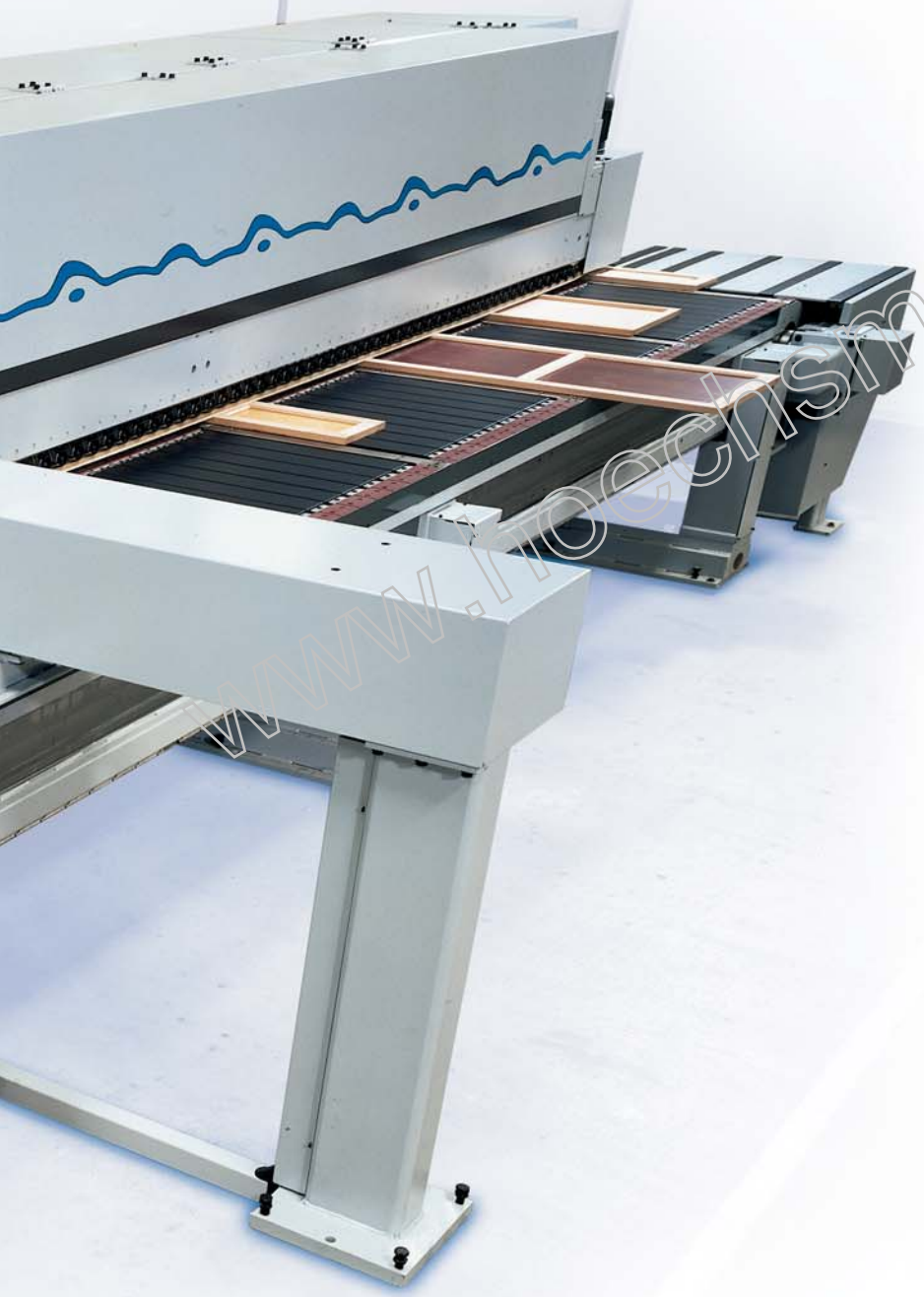


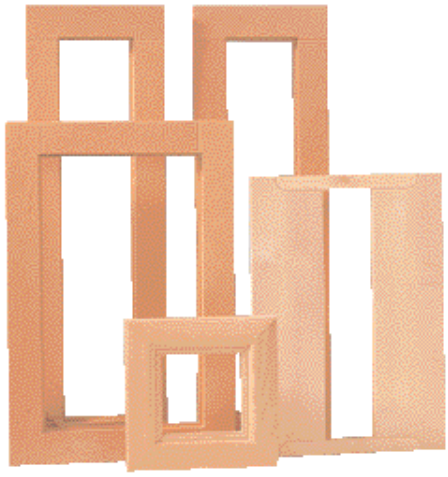
Optimat | **profi** line | **power** line

FPL 614

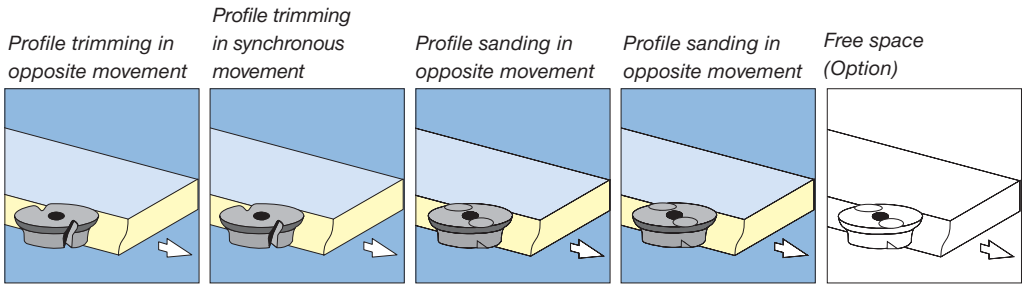
Solid wood is their speciality: Sizing and profiling machine FPL 614 and FPL 624

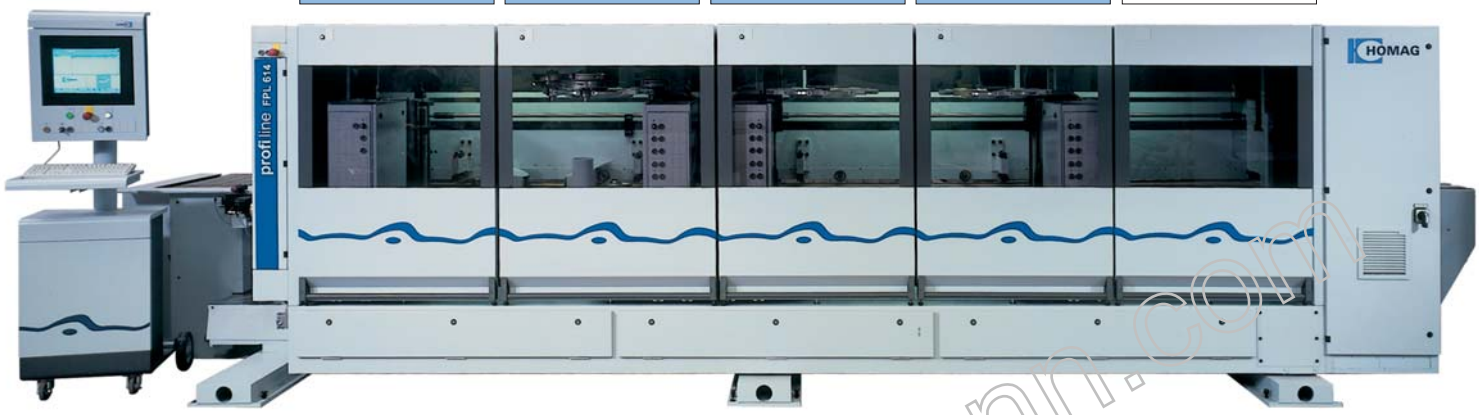
Solid wood fronts enjoy widespread popularity in many markets. High-grade furniture fronts and doors constructed in solid wood are generally manufactured using a frame and panel design. Homag has launched new machines designed specifically for the efficient, precise processing of many different formats and profiles in the field of solid wood: The FPL 614 and FPL 624. Whether large or small batch sizes, profile processing of panels, internal or external profiling – its fast, simple tool changing technology makes these two unbeatable solution in terms of flexibility and economy.

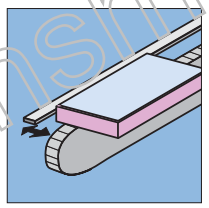




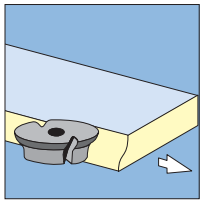
One machine, five units – endless opportunities







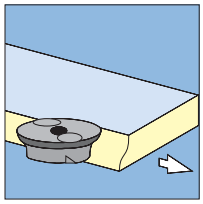
Infeed
Workpieces are fed in straight alignment into the machine. Option: Measurement stop with width adjustment via servo axis.



Trimming unit
For processing different profiles. Fast profile changes are possible.

Workpieces of different dimensions can easily be processed on the FPL 614. The wide chain transport system with its cams was designed specifically for the economical production of batch sizes as small as one, and is suitable for the production of both narrow frame components and panels, or for sizing ready-to-use doors.

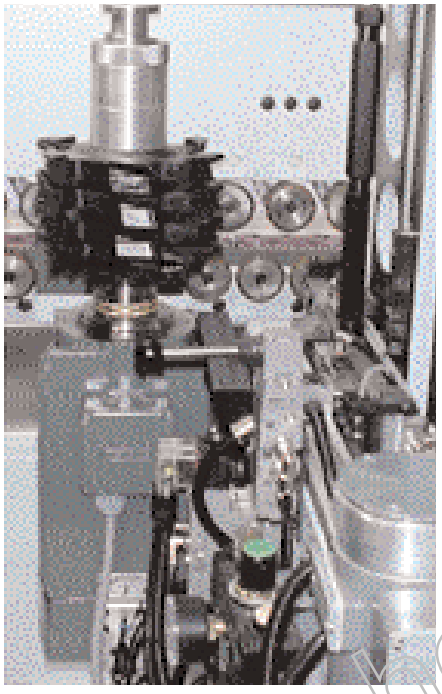
For straight profiling, up to five spaces are provided for units: One free space, two trimming units (synchronous movement controlled and opposite movement) as well as two sanding units.

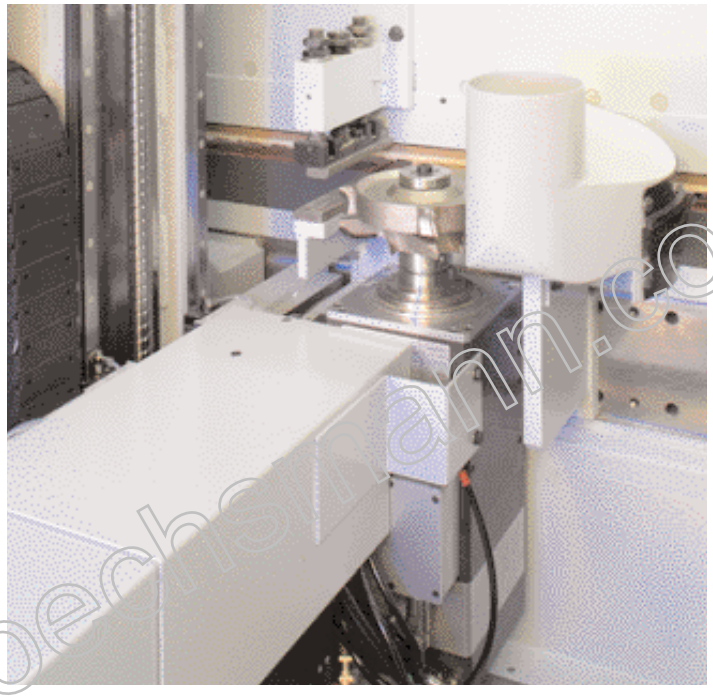


Disk sanding unit
With profile disk for profiled edges. For sanding constant radii (solid wood, MDF).

Three different automation levels for fast tool change when trimming and sanding profiles

The benefits of the changing device:
- Optimum processing quality coupled with maximum service life of abrasive due to a high degree of axial and radial concentricity
- Fast, simple and reliable tool changeover including clamping fixture (change time appr. 1 minute)
- Up to 5 profile tools possible
- Different hydraulic shafts can be used, allowing the fixture of a variety of tool bore diameters
- Extremely cost-effective solution
- Development of an optimum tool management system

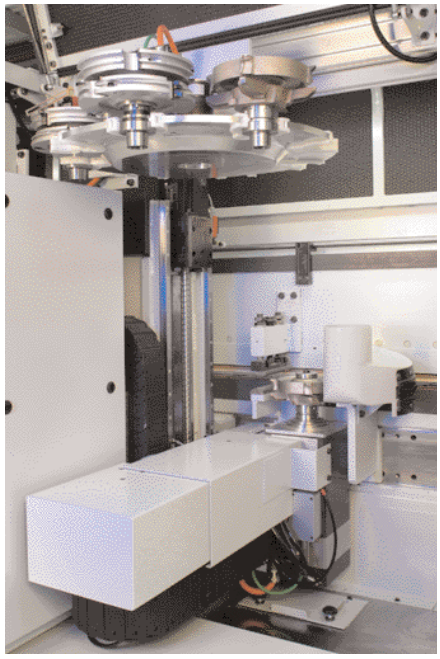




Trimming unit for profile trimming

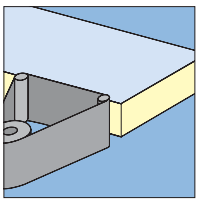
Automation level 1
The tool fixture is released and the new tool mounted manually. The maximum admissible height for the trimming tool is 200 mm, and for the sanding tool 240 mm. The tools are exchanged manually, supported by a tool changing aid.

Automation level 2
The tool fixture is released by pressing a button.



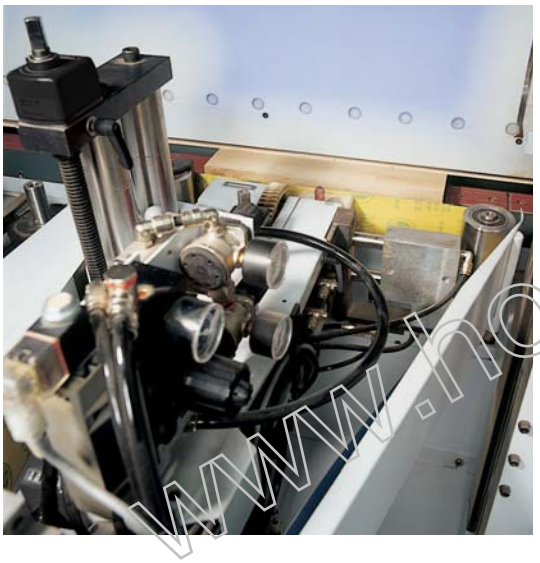
Automation level 3
The tool fixture is released by the control system. The tools are automatically exchanged by the 8-fold plate changer, with a maximum diameter of 200 mm and two profiles per exchange position. This allows 16 different profiles to be exchanged. The processing motors of the tool changers are fitted with HSK 63 interfaces. All motor and changer movements are servo axis controlled.

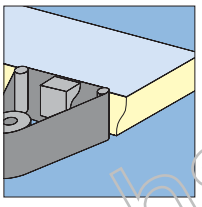
Sanding units for every requirement



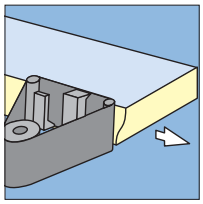
KS 10 belt sanding unit
For sanding straight edges. Vertical oscillation ensures an even sanding finish and optimum utilization of the entire belt width. Large belt length (2100 mm), two belt speeds.

With oscillating device and pneumatic belt cleaning jet to increase the service life of the sanding belts.
Optionally with automatic adjustment for different edge thicknesses and belt breakage monitoring.





PS 10 profile sanding unit
For sanding profiles and straight edges. Long belt length (2500 mm), two belt speeds, belt cleaning by air jet. Swivelling range up to 45°. Easily exchangeable sanding pad. **Option:** Belt oscillation.

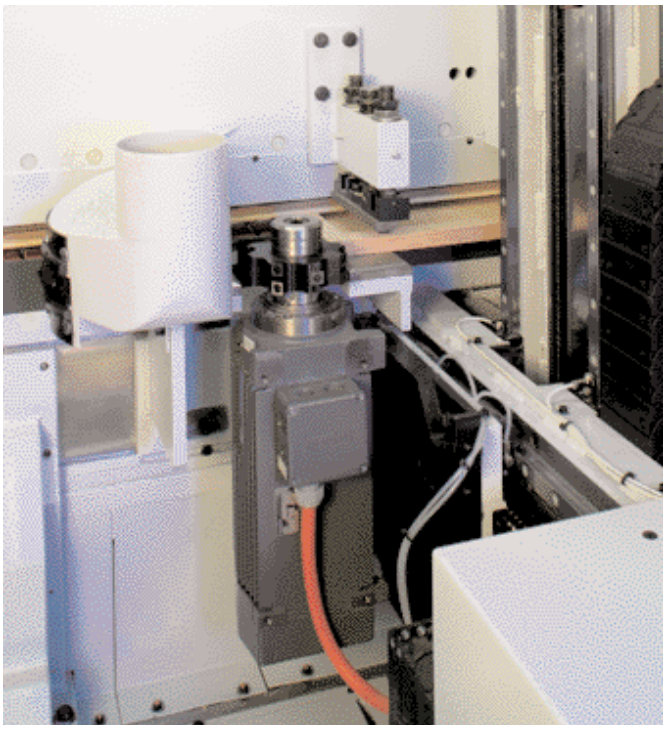


PS 20 profile sanding unit
With a belt length of 3200 mm and facility for sanding special profiles with two separate and independently adjustable sanding pads (dual-pad technique).

CF-technology – precise trimming of contours, round and curved components

The unique Homag control system permits the FPL 614 to be upgraded easily and economically at any time for contour processing – leaving a whole range of options open to you.

Contour trimming
CF technology allows rounded or curved geometries or profiled components on frame and panel doors to be processed in throughfeed. The CNC control system permits trimming and profiling operations to be performed precisely to specification, effectively eliminating the need for templates.

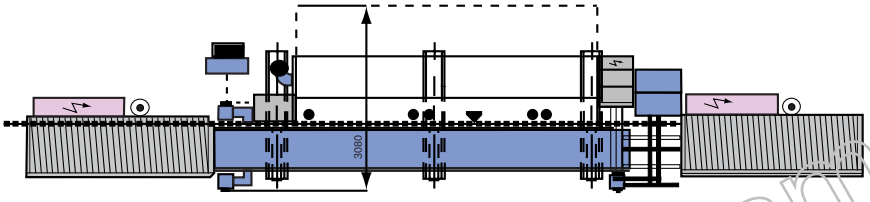


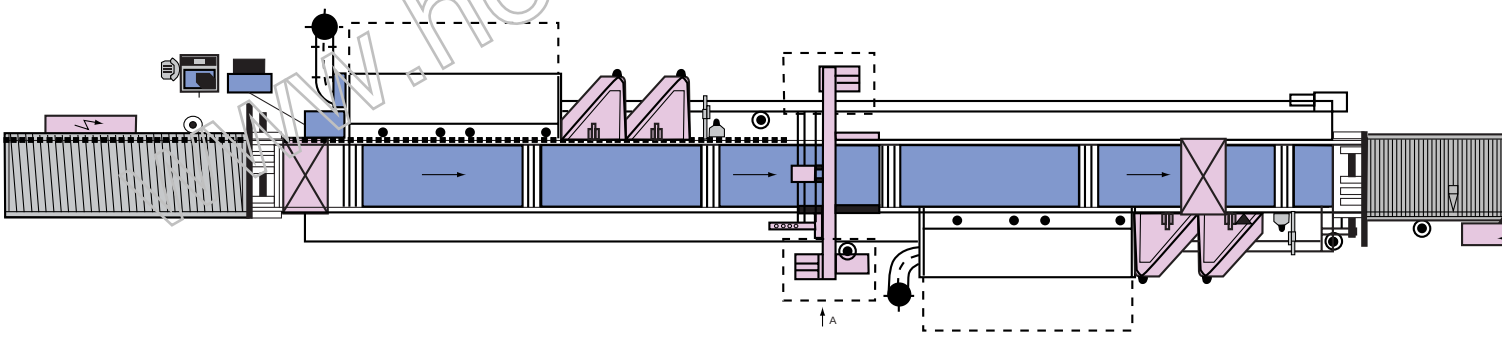
Trimming unit to produce the rough contours

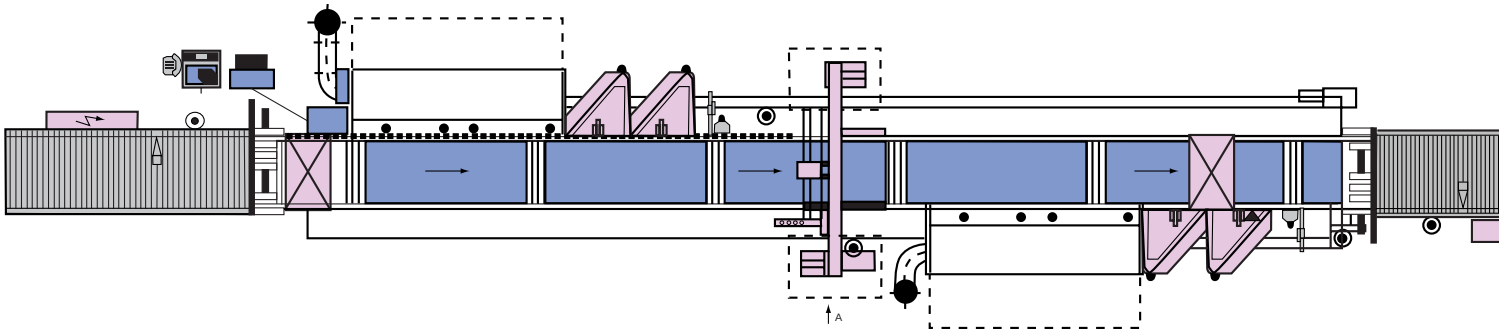
Contour trimming unit
Workpiece contours are trimmed by means of CNC control. Where deep profiles have to be processed, the first trimming tool produces the rough contour by means of line control. The trimming tool line movements are generated by servo drive systems (CNC axes).

Plant concepts

The FPL 614 permits four-sided processing in four passes. If a double-sided machine FPL 624 is installed, four-sided processing is possible in two passes.
When setting up two FPL 624 machines as a machine line, four-sided processing is possible in a single pass, allowing the output to be adjusted to any occurring requirement.







It pays to be a Homag customer

Homag is everywhere
A well-developed servicing, sales and dealer network means even greater proximity, rapid response and improved customer support – all over the world.

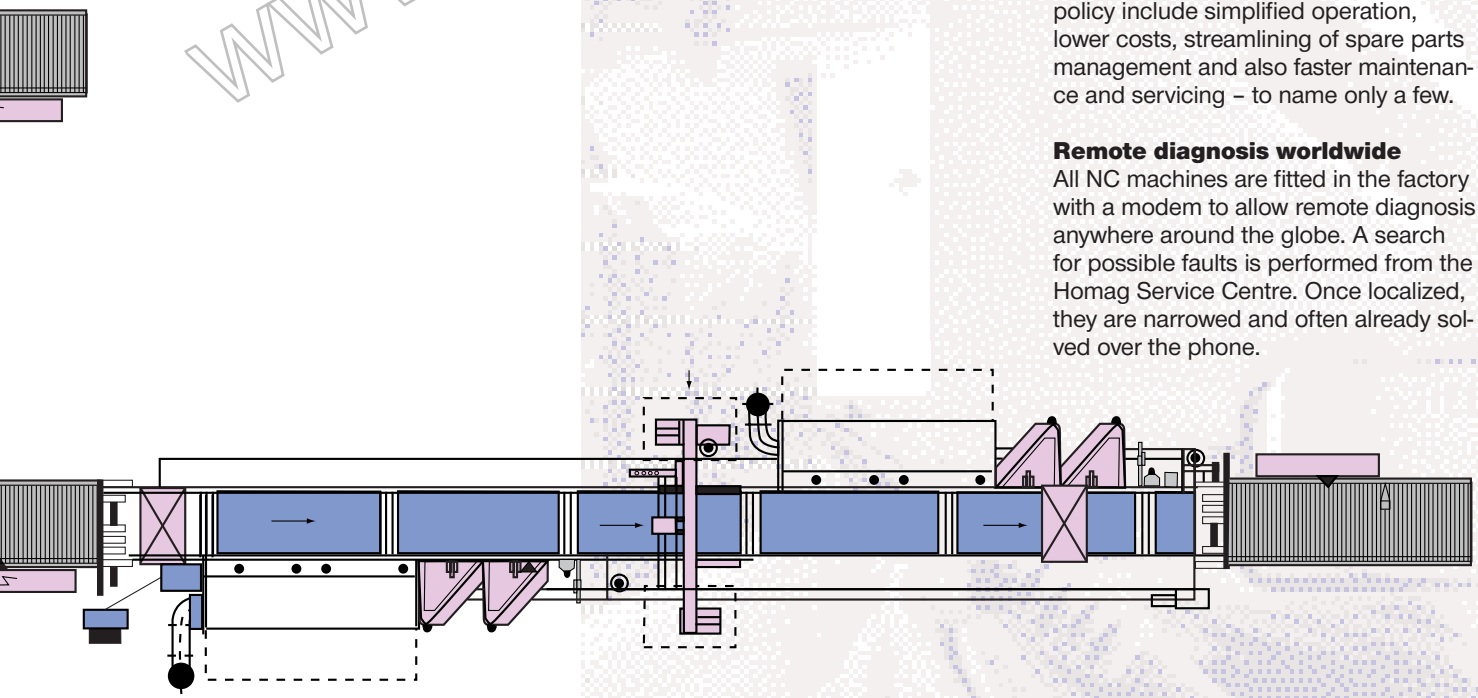
Practically-oriented training
Although Homag products are designed for outstanding operating simplicity, thorough training does help cut down install times, avoids unnecessary trials, helps develop the skills of the operator and generally improves efficiency.

With this aim in mind, customer training courses are held in a number of languages in our own training centre.

Careful maintenance
Scheduled, correctly performed maintenance helps reducing costs and increasing the productivity and service life of plant and machinery.

Identical parts, simple handling
A large number of the parts, control elements and assemblies used in Homag Group plants and machines are identical. The wide-ranging benefits of this policy include simplified operation, lower costs, streamlining of spare parts management and also faster maintenance and servicing – to name only a few.

Remote diagnosis worldwide
All NC machines are fitted in the factory with a modem to allow remote diagnosis anywhere around the globe. A search for possible faults is performed from the Homag Service Centre. Once localized, they are narrowed and often already solved over the phone.



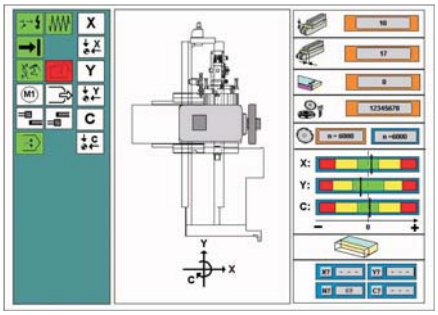
power control **system PC22 for optimum programming and operation**

The **power** control PC22 system permits efficient operation and simple machine programming. Production faults are reliably detected and can be quickly remedied.

Efficient programming with wood**Commander**
In wood**Commander**, the application parameters of the various units are entered and stored in the form of programs. wood**Commander** is characterized by the following performance features:
- Graphic support wherever possible. Each parameter is explained in graphic terms
- Simple navigation and menu prompting
- Graphic preview during program selection
- For improved program management, files are shown with long names and stored on the PC hard disk together with a commentary
- Summary of parameters in macros, e.g. for effective tool management
- Display of parameter status (e.g. axis status) makes for greater transparency
- Operator prompting system to indicate necessary manual adjustments in non-automated units
- Bar code control possible
- Integration possible in production line control system wood**Line**
- Tooling data offset when changing tools

Diagnostic system wood**Scout**
The diagnostic system wood**Scout** allows error messages to be displayed in user-friendly form, and also provides a graphic visualization of machine statuses. The wood**Scout** system permits systematic troubleshooting and helps substantially increase plant availability.
- Easily understandable error messages in plain text
- Avoidance of follow-up error messages
- Localization of faults
- Learning capability through the assignment of root causes and remedial actions (user and expert knowledge)
- Visualization of machine status, sensors and actuators on various levels
- Optimum support to eliminate machine stoppages

wood**Scout** **with graphic PLC diagnostics, e.g. sizing motor**
- Display of all important unit statuses
- Display of tool no., speed, tolerance fields for axis values etc.
- Intuitive mouse-driven navigation

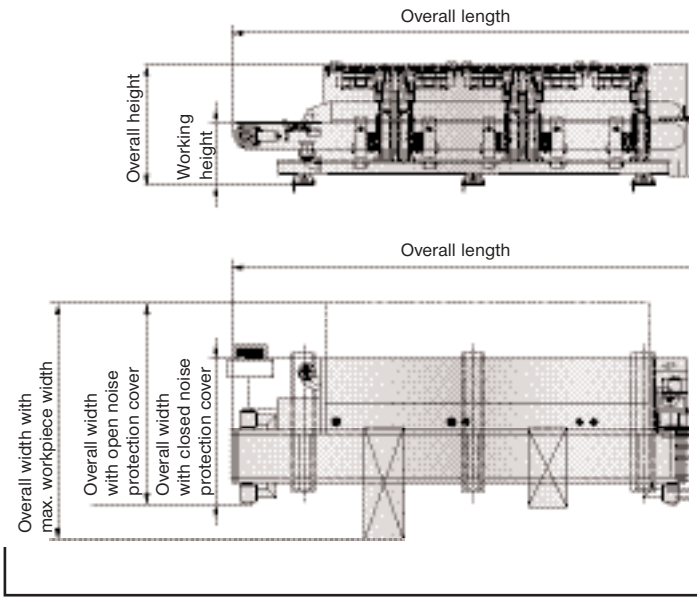
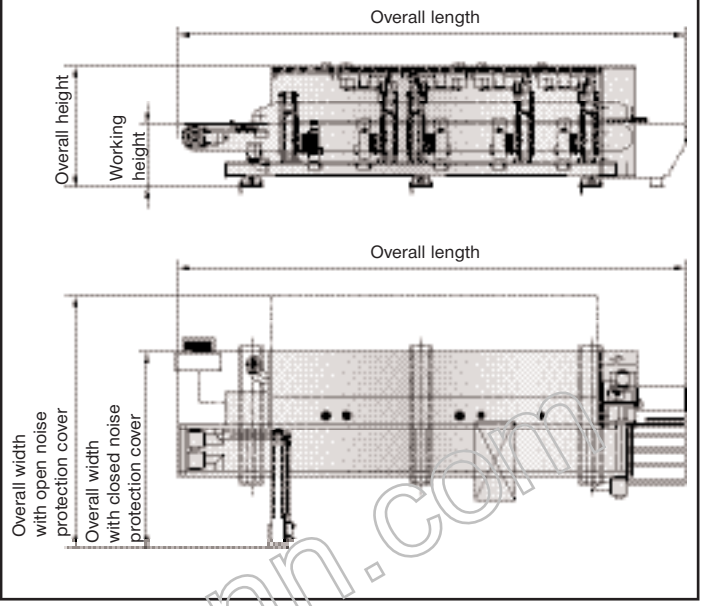


wood**Scout** allows the machine operator to independently and effectively remedy faults, so reducing the need to call on support from the service hotline.

PLC programming in accordance with IEC61131, the only available world-wide standard
The machine's logic is based on the IEC61131 standard, ensuring maximum servicing convenience due to the international availability and development of know-how in this field.
- Defined by PLC-Open, an organization unaffiliated to any product or manufacturer
- Web-Link: http://www.plcopen.org
- Included in the standard EN 660204-1 "Electrical equipment of machines" which forms the basis for the CE mark of approval.

Online language switchover
The PC22 control system is now available in a range of different languages. Alongside the European languages, Chinese and Japanese are also supported. It is possible to change between languages during running o eration by pressing a button. This considerably simplifies the work of our service technicians.

Specifications FPL 614

FPL 614	FPL 614/CF (for contour processing)
	

	FPL 614					
Machine dimensions						
Noise protection cover	**closed/open**					
Overall length [mm]	depending on equipment					
Overall width [mm]	2220 / 3080	(87,401”/121,259”)				
Overall height [mm]	1840	(72,441”)				
Working height [mm]	950	(37,401”)				
Processing dimensions for furniture doors						
	Panels		**Frame parts**		**Glued doors**	
Width min./max. [mm]	165-650	(6,496”/25,590”)	50-114	(1,968”/4,488”)	175-650	(6,890”/25,590”)
Length min./max. [mm]	240-1250	(9,449”/49,212”)	165-1250	(6,299”/49,212”)	240-1350	(9,449”/53,149”)
Thickness min./max. [mm]	6,5-19	(0,256”/0,748”)	16-28	(0,630”/1,102”)	16-28	(0,630”/1,102”)
Profile depth max. [mm]	55	(2,165”)	19	(0,748”)	19	(0,748”)
Dimensional and angular accuracy	± 0,1 (± 0,004”) with smallest part		± 0,1 (± 0,004”) with smallest part		-	
Contour processing (optional)						
Contour depth [mm]	max. 80 (3,150”)					
Contour radii [mm]	Inside min. 95 (3,740”)					
Part width [mm]	min. 40 (1,575”) + 10 (0,394”) + contour depth + profile depth					
Tool changer data						
Tool positions	8					
Tool fixture	HSK63F					
Tool diameter [mm]	max. 200 (7,874”) per changer position					
Tool length trimming [mm]	max. 75 (2,953”)					
Tool length sanding [mm]	max. 120 (4,724”)					
Tool weight [kg]	max. 8 (17,637 lbs)					
Speed [rpm1]	max. 9000					
Connected loads						
Overall extraction output [m³/h]	depending on equipment					
Air speed [m/s]	28 (91,863 ft.p.sec.)					
Pressure loss [mm/Ws]	200 (7,874 in./w.g.)					
Electrical connected load [K/W]	depending on equipment					
Miscellaneous						
Feed [m/min]	6-30 (19,685-98,425 ft.p.min.) depending on processing operation					
Machine weight kg]	depending on equipment					

Specification and photo details without commitment. We reserve the express right to make changes in the interests of progress.

A member of the Homag Group

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