

Edge banding machines KAL 310



Chip disposal with the I-system



reddot design award
winner 2004



design award
winner

2004

Optimat | profi line | power line



Optimat KAL 310: the range for every edging material

The new Optimat concept: An optimum cost-to-performance ratio and perfect design

With its new Optimat series, the Homag Group is setting a whole new standard in terms of performance, engineering, quality and price. And because there is more to manufacturing excellence than what lies "on the inside", particular importance was attached to an attractively designed "outside". In keeping with its striking and sophisticated new design, the Optimat machine series is the perfect embodiment of outstanding ergonomic engineering, functionality and aesthetic appeal – making the legendary Homag quality standard instantly recognizable.

Superb engineering from every angle

Interior fitters and industrial manufacturers alike are confronted today with an ever increasing number of different materials. At the same time, growing cost pressure necessitates extremely careful investment planning. As a result, any practically-oriented edge banding machine has to permit efficient, flexible application for any type of edging material. This was the guiding principle behind the development of the KAL 310 series. The outcome: A modular range offering outstanding performance and design at an affordable price.

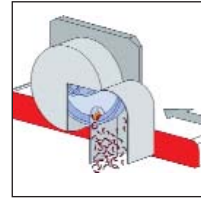
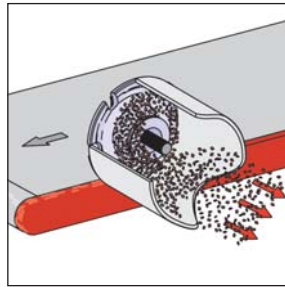
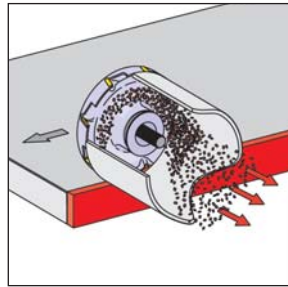
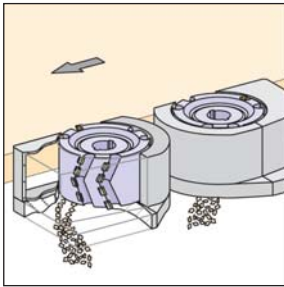
As individual as it is universal: The modular Optimat concept

Two basic models are available: The edging Optimat and the jointing Optimat. In addition, you can choose precisely the processing units you require from the wide modular range available.

Automation

All Optimats can be fitted as an optional extra with automated sequences (almost) throughout. From automatic resetting of individual motors through to full automation with CAN axes and precision adjustment of units from the control panel.





New: The I-system

The new tool generation with internal extraction provides a revolutionary new technology for controlled chip pick-up. While conventional tools allow chips to fly away uncontrolled and in some cases adhere to the workpiece, with the I-system, they are fed directly to the extraction hood.

The benefits:

- Optimum processing quality, as the tracing rollers are not impaired by adhering glue or chips
- Substantially increased availability of machine and tools
- Greater economy due to minimized extraction output
- Improved workpiece quality



With and without jointing trimming: Two efficient models for precise edges

Optimat KAL 310: An overview

This series comprises two basic models: The edging **Optimat** and the **jointing edging Optimat**, each with their own fixed basic equipment and a free space for customer-specific options.

Each basic model can be fitted with two gluing variants: A3 for edges up to 3 mm and A20 for solid wood up to 20 mm.

Free space for additional units

The free space in the finish processing section can be freely equipped as required.

The most important features of the two basic models

- Compact design
- Low-maintenance machine structure
- Environmentally friendly technology
- Optimum operator convenience
- Modern, functional design
- Optimum cost-to-performance ratio

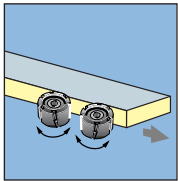
Highlights for wide-ranging and tangible benefits

Optimum edge quality

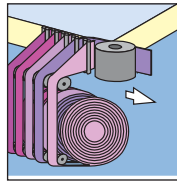
No need for reworking, thin, almost invisible glue joint, optimum gluing quality due to the quick melt system. Quickly ready for operation, continuous supply of fresh glue, energy saving. The optionally available PU 34 gluing system permits highly resistant waterproof and heatproof gluing on a polyurethane basis – for the best gluing results ever.

Future oriented technology

- PLC control system without limit switches, low-wear and trouble-free
- Frequency converter technology, low-noise, no maintenance, automatic braking of motors for optimum personal safety
- Flexible clamping system for processing units (also simplifies subsequent upgrading)
- Central waste and chip disposal, energy saving, environmentally friendly

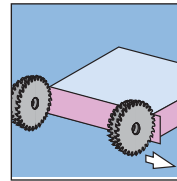


A jointing trimming unit has been positioned in front of the gluing unit in the **jointing-edging Optimat** for any necessary trimming, treatment or repair work on panels whether for longitudinal or transverse processing.



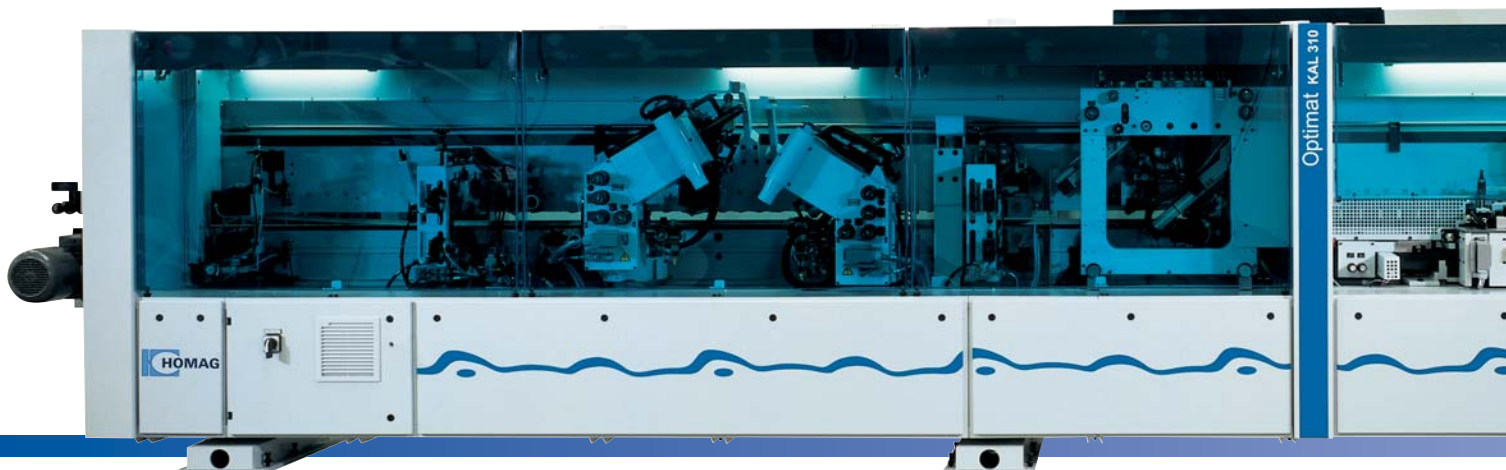
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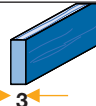
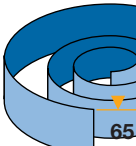
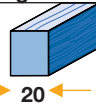
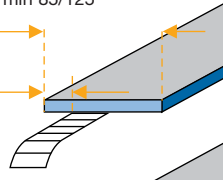
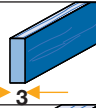
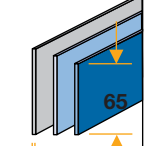

Coil magazines are optionally available with 2, 6, 12 or 24 slots.



The basic equipment also includes the **snipping unit** for flush trimming of all overhanging edging materials with manual resetting from chamfer to straight cuts.

Option: Automatic chamfer/straight adjustment.

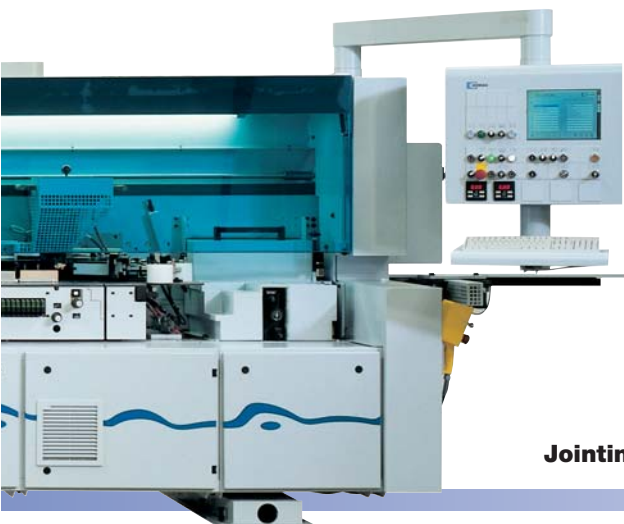


Machine model	Edging material			Workpiece size
Edging Optimat KAL 310	Solid wood	Fixed lengths	Coils	With workpiece thickness 22/60 workpiece width min 85/125
	A 3 			
Jointing edging Optimat KAL 310	A 20 			 min/max 12/60
	A 3 	0,4 - 3,0 	0,3 - 3,0 	
Dimensions in mm				

One series for every material
The new Optimat KAL 310 machines are capable of processing all kinds of edging material. These include, to name just a few examples, solid wood, coil and fixed length material, melamine, PVC, ABS and veneer edges. Although hot-melt glue is primarily used for banding, PU adhesive can also be used for special requirements.



Optimat KAL 310
with Boomerang return feed system (Ligmatech).

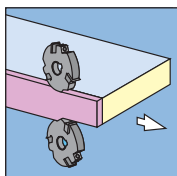
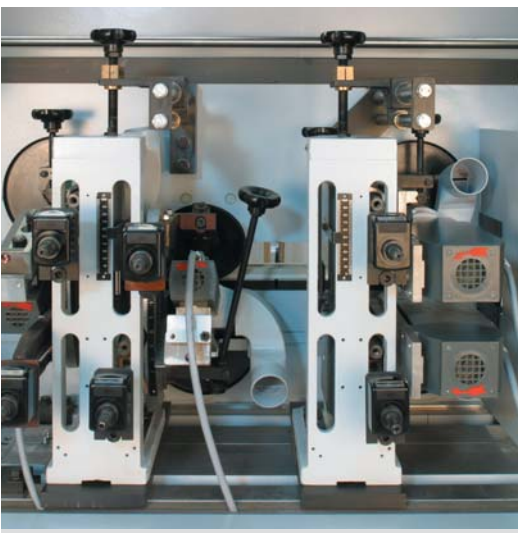


Jointing Optimat

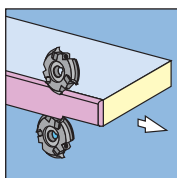
Your option: The free space you want for the equipment you need

The new KAL 310 Optimats are typical throughfeed machines capable of complete workpiece processing. For complete, read: no additional processing

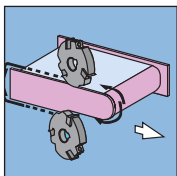
steps. To allow you as much scope for choice as possible, we offer a wide range of units and options – through to the perfect finish.



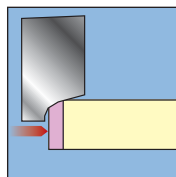
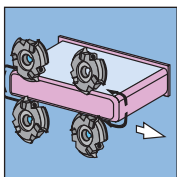
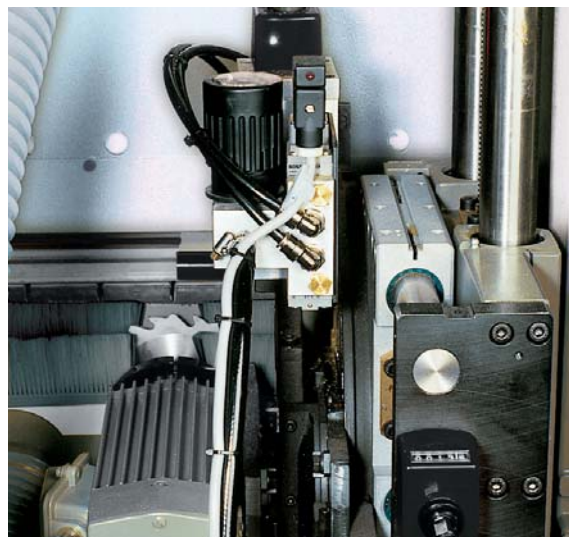
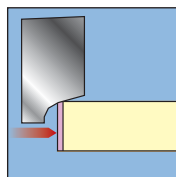
Rough trimming unit
For rough trimming the upper and lower edge overhang.



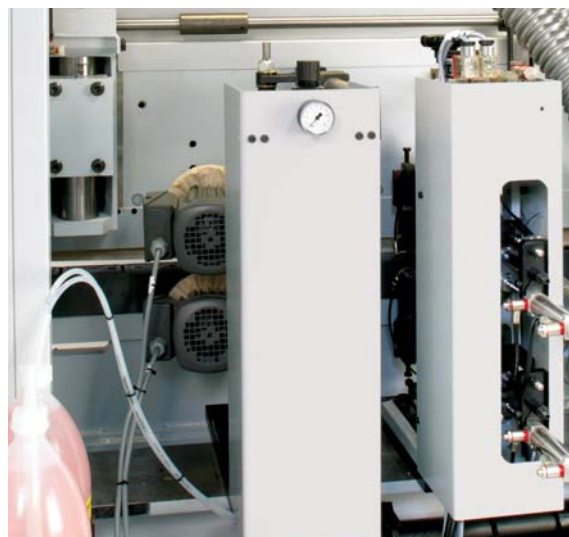
Trimming unit
For trimming chamfers or radii.



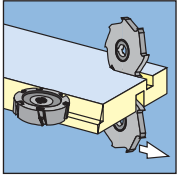
Profile trimming unit FK 11/FK 13
For processing edge overhang, as well as leading and trailing edges.*



Profile trimming unit FF 12
For all-round finish trimming of workpieces, also those with postforming and softforming profiles.*

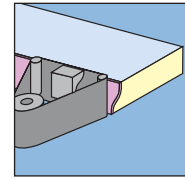


*Options: Chamfer / radius adjustment with stepless axis or manually.



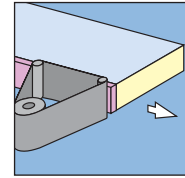
Universal trimming unit UF 11

For grooving, rebating and profiling with swivel-action and controlled motor.



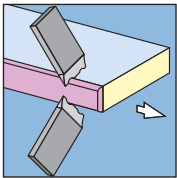
Profile sanding unit PS 10/PS 20

For sanding profiles and straight edges. PS 20 uses the dual-pad technique



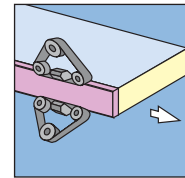
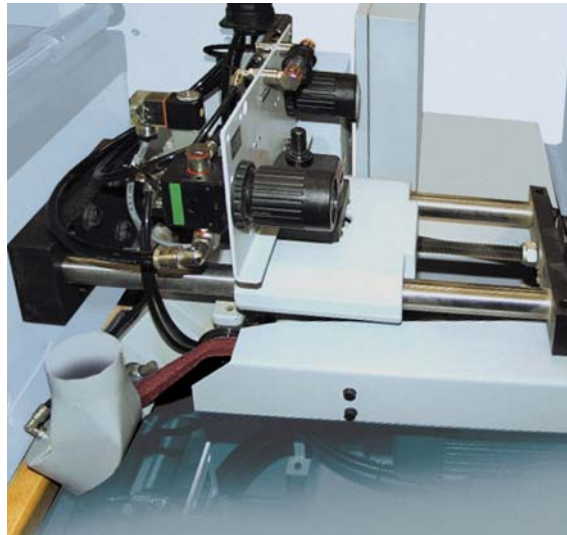
Belt sanding unit KS 10

For sanding straight veneer and solid edges.



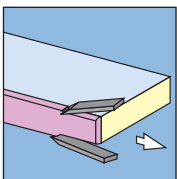
Multi scraping device MN 20 / MN 21

For chamfering or rounding up to three different trimmed PVC edges.



Chamfer/radius sanding unit PS 41/PS 42

For sanding chamfers and radii above and below on veneer and solid wood edges.

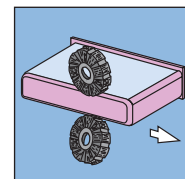


Finish processing FA 10

Comprising a glue joint scraping device for disposal of glue residues above and below on PVC edges.

Finish processing FA 11

Comprising a glue joint scraping device, cleaning agent application and buffing for disposal of glue residues on PVC edges.



Buffing unit above and below with oscillation

To smooth off edges utilizing the entire disk width.

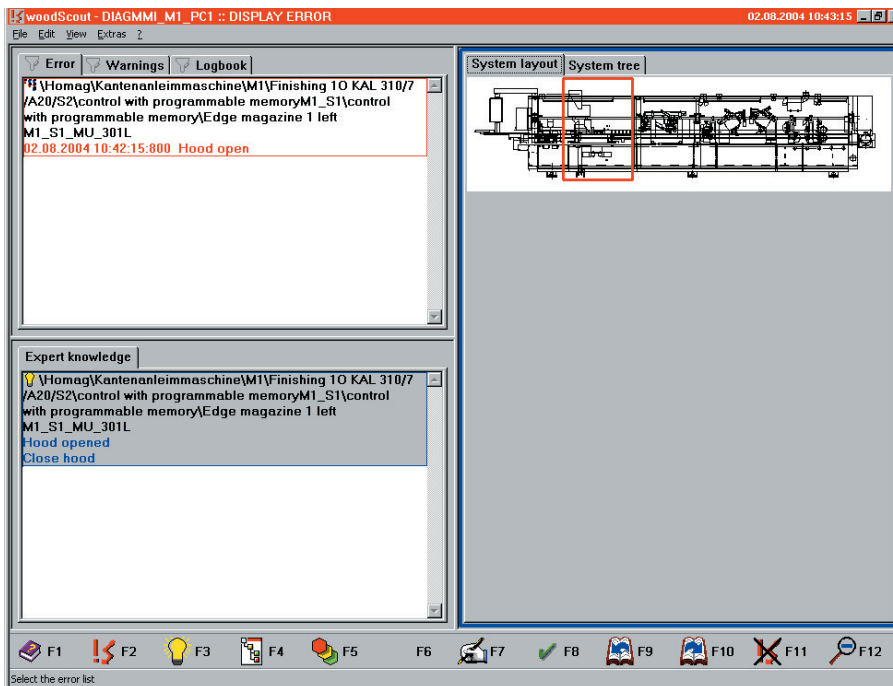
power control system PC22 for optimum programming and operation

The **power** control PC22 system permits efficient operation and simple machine programming. Production problems are quickly detected and remedied without delay.

Efficient programming with woodCommander

The input parameters of all units are entered into the wood**Commander** and stored. The most important characteristics:

- Optimum graphic support
- Simple navigation and operation
- Operator prompting system indicates manual adjustments for non-automated units
- Bar code control possible (option)



PLC programming in accordance with international standard IEC61131

Because the machine logic is implemented in compliance with IEC61131, we are able to guarantee unrestricted servicing convenience.

Online language switchover

The PC22 control system is available in a wide selection of languages. Alongside the European languages, Chinese and Japanese are also supported. Change-over between languages is possible in running operation by pressing a button.

Diagnostic system woodScout

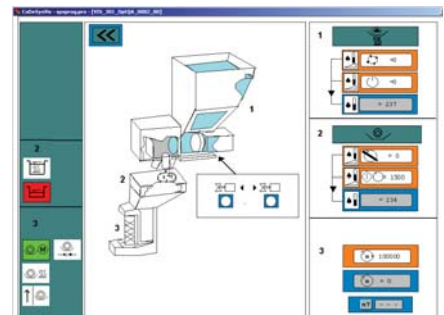
The wood**Scout** system permits systematic troubleshooting, and so increases plant availability.

- Easily understandable error messages
- Clear location of faults
- User and expert knowledge

woodScout with graphic PLC diagnosis: e.g. gluing section

- Display of all important unit statuses
- Display of temperatures and glue level
- Intuitive mouse-driven navigation

These features allow the machine operator to remedy problems independently and effectively, substantially reducing the need to call on service support.



The Homag service program: The all-round convenience package for your machine

Because our versatile range of services has been tailored consistently to the needs of our customers, it guarantees optimum all-round support – from the project planning phase through sales to after-sales.

Planning/advice: working together towards the perfect solution

To provide you with the best and most economical solution to your requirements, we offer a sound and competent advisory service – right from the earliest planning phase of your project.

Financing/leasing: a straightforward solution at favourable rates

We also offer attractive financing arrangements to help keep your equity base intact. Benefit from our range of flexible financing offers.

Installation/commissioning: getting things moving

Our highly skilled and experienced specialists will be in charge of installation and commissioning – making sure that your production gets underway quickly without any hitches.

Practically-oriented training: Fast track to full productivity

We will prepare your staff for safe, efficient machine operation with a choice of selective training events on wide-ranging topics.

Production support/optimization: Long-term efficiency

We will provide sound on-site support and ensure that you fulfil the maximum possible potential of your machine – and so achieve continuous high productivity.

Maintenance/inspections: for maximum availability

Only machines which are producing will return a profit. By performing regular preventive inspections we can help effectively prevent machine standstill.

Modifications/overhauls: the economic alternative

We will adapt your existing machine quickly and cheaply in line with new or changed requirements – to enhance the value and output of your plant and help you make considerable savings.



Remote diagnosis/video diagnosis help reduce costly call-outs

This diagnostic facility helps cut down costs spent for on-site callouts, and offers scope for selective deployment planning and spare part supplies – so providing effective support for your own staff.

Spare part processing: fast and reliable

Many of the components used in our machines are identical. This not only simplifies the stocking of spare parts and ensures fast part availability, but also simplifies operation and maintenance and reduces costs.

World-wide service: Homag is everywhere

The global Homag Service Network guarantees customer proximity and worldwide availability of our services.



lifeline | service

Our **lifeline** | service ensures economical production over the entire life cycle of your machine. If you need us, you can rely on us to be there: From plant planning and installation through to employee training, in-process support and high-speed supply of spare parts – around the world, when and where you need us.

Specifications KAL 310

Machine models	Optimat	Optimat	Optimat	Optimat	Optimat
	KAL 310/3	KAL 310/4	KAL 310/5	KAL 310/6	KAL 310/7
Overall length mm	5.630 (18' 6")	6.130 (20' 2")	6.880 (22' 7")	7.755 (25' 5")	8.545 (28')
	KAL 310/8	KAL 310/9	KAL 310/10	KAL 310/11	KAL 310/12
	9.295 (30' 6")	10.045 (33')	10.860 (35' 8")	11.610 (38' 2")	12.360 (40' 7")

Machine dimensions (ft/inches)

Overall length [mm]	see table above
Noise protection covers	
Overall width closed/open [mm]	910/1.540 (3' 5' 2")
Overall height closed/open [mm]	1.740/2.280 (5' 8 1/2"/7' 8")
Working height [mm]	950 (3' 2")

Processing dimensions (ft/inches)

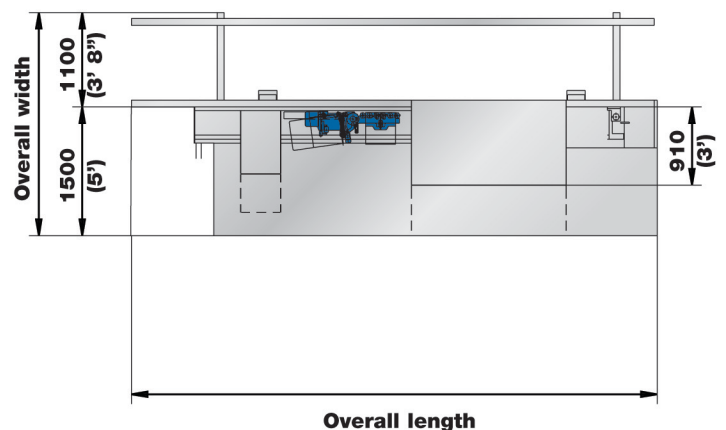
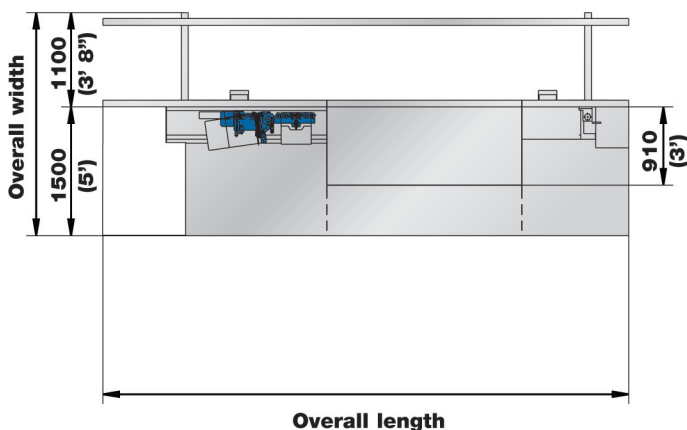
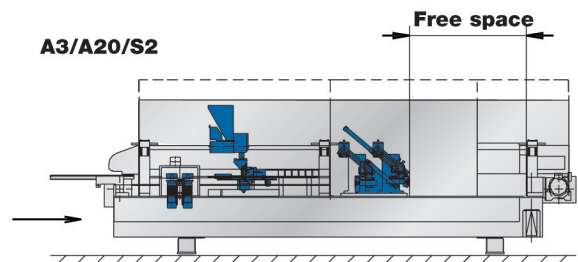
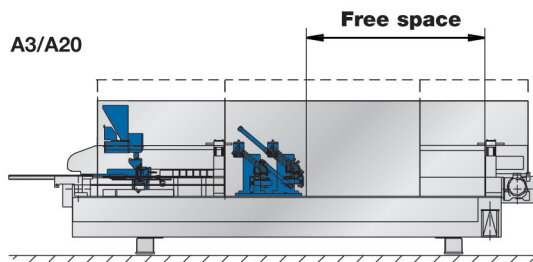
Workpiece width	
for workpiece thickness 22 [mm] (7/8") min.	55 (2-5/32")
for workpiece thickness 60 [mm] (2-3/8") min.	100 (3-15/16")
Workpiece thickness [mm]	min. 12 (15/32")
	max. 60 (2-3/8")
Edge thickness fixed lengths/coils [mm]	min. 0,3 (0,016"-1/8")
A 3 [mm]	max. 3,0 (1/8")
A 20 [mm]	max. 20,0 (25/32")
Edge length coil A 3/A 20 [mm]	min. 150 (5-29/32")
Edge length fixed length A 20 [mm]	min. 200 (7-7/8")
Workpiece overhang [mm]	30 (1-1/8")
	(optional verstellbar)

Connected loads

Operating voltage	400 V
Control voltage	24 V
Frequency	50 Hz
Static converter	integrated
Switch cabinet	mounted
Total connected electrical load kW	depending on equipment
Total extraction output m ³ /h	depending on equipment
Air flow rate	28 m/sec. (92'/sec.)
Compressed air consumption	depending on equipment
Compressed air port	R1/2" female thread, supply line R1"
Pressure loss	appr. 200 mm/w.g. (approx. 8"/w.g.)

Miscellaneous

Feed fixed	18 m/min. (60' m/min.)
Option: Infinitely adjustable feed	18-24m/min. (60'-80' m/min.)
Machine weight appr. kg	depending on machine model





A member of the Homag Group



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