

## Edge banding machines KAL 310



A member of the Homag Group



**Homag Holzbearbeitungssysteme AG**  
Homagstraße 3-5  
72296 SCHOPFLOCH  
GERMANY  
Tel.: +49 (74 43) 13-0  
Fax: +49 (74 43) 13 23 00  
E-Mail: [info@homag.de](mailto:info@homag.de)  
Internet: [www.homag.com](http://www.homag.com)

Edge banding machines KAL 310 GB 08.04

### Chip disposal with the I-system



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

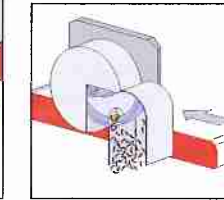
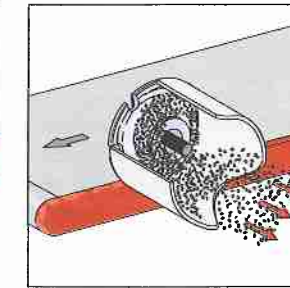
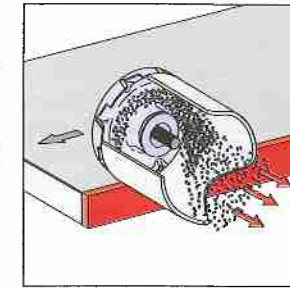
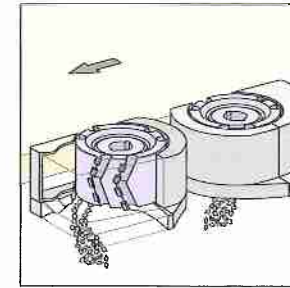
Interior fitters and industrial manufacturers alike are confronted today with an ever increasing number of different materials. At the same time, growing cost pressure necessitates extremely careful investment planning. As a result, any practically-oriented edge banding machine has to permit efficient, 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

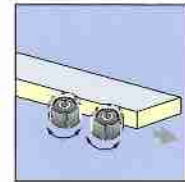
## Highlights for wide-ranging and tangible benefits

### Optimum edge quality

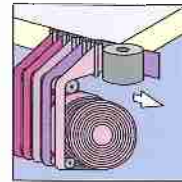
No need for reworking, thin, almost invisible glue joint, optimum gluing quality due to the quick melt system. Quickly ready for operation, continuous supply of fresh glue, energy saving. The optionally available PU 34 gluing system permits highly resistant waterproof and heatproof gluing on a polyurethane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

## Future oriented technology

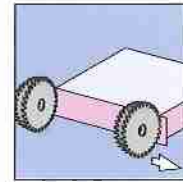
- PLC control system without limit switches, low-wear and trouble-free
- Frequency converter technology, low-noise, no maintenance, automatic braking of motors for optimum personal safety
- Flexible clamping system for processing units (also simplifies subsequent upgrading)
- Central waste and chip disposal,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



**Option:** 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
	Solid wood	Fixed lengths	Coils	
Edging Optimat KAL 310	A 3	3	65	With workpiece thickness 22/60 workpiece width min 85/125
	A 20	20		
Jointing edging Optimat KAL 310	A 3	65	0,3 - 3,0	
	A 20	0,4 - 3,0	min/max 12/60	

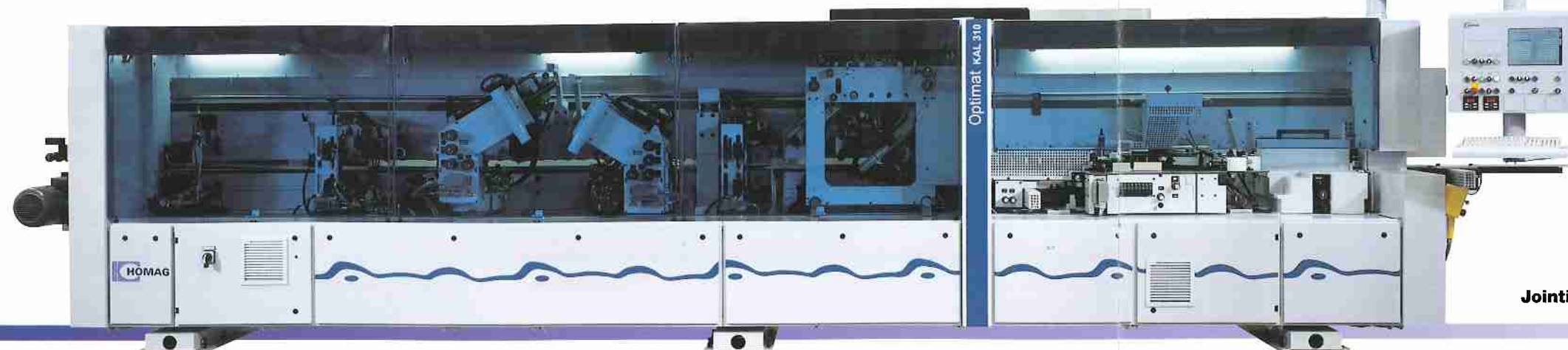
Dimensions in mm

## 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).

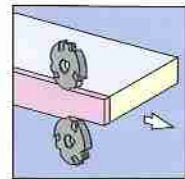


**Jointing Optimat**

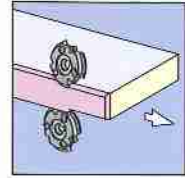
# Your option: The free space you want for the equipment you need

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

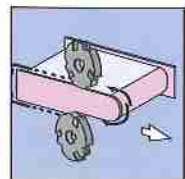
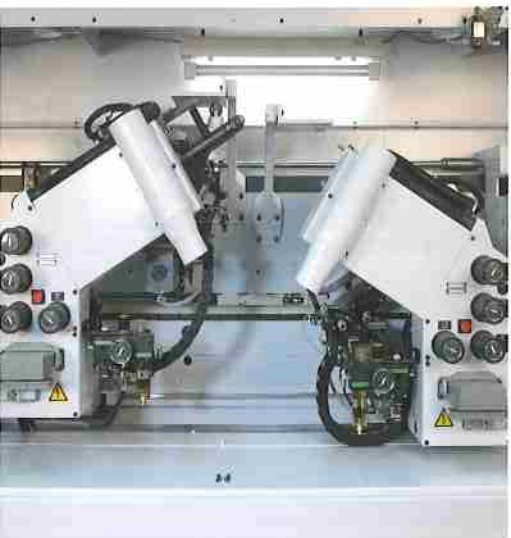
steps. To allow you as much scope for choice as possible, we offer a wide range of units and options – through to the perfect finish.



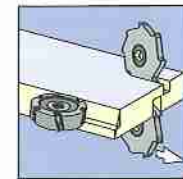
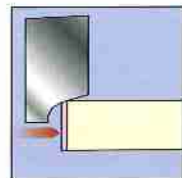
**Rough trimming unit**  
For rough trimming the upper and lower edge overhang.



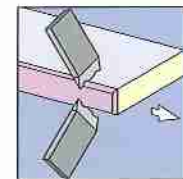
**Trimming unit**  
For trimming chamfers or radii.



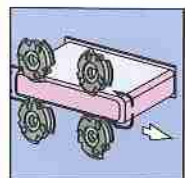
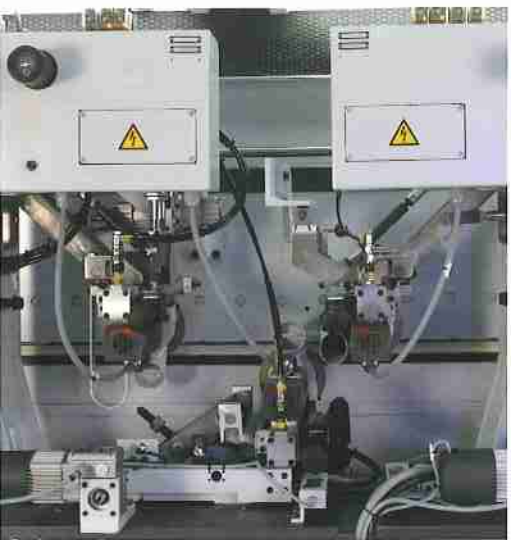
**Profile trimming unit FK 11/FK 13**  
For processing edge overhang, as well as leading and trailing edges.\*



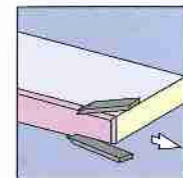
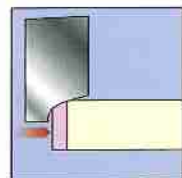
**Universal trimming unit UF 11**  
For grooving, rebating and profiling with swivel-action and controlled motor.



**Multi scraping device MN 20 / MN 21**  
For chamfering or rounding up to three different trimmed PVC edges.

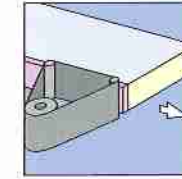


**Profile trimming unit FF 12**  
For all-round finish trimming of workpieces, also those with postforming and softforming profiles.\*

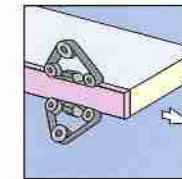


**Finish processing FA 10**  
Comprising a glue joint scraping device for disposal of glue residues above and below on PVC edges.

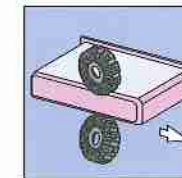
**Finish processing FA 11**  
Comprising a glue joint scraping device, cleaning agent application and buffing for disposal of glue residues on PVC edges.



**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.



**Buffing unit above and below with oscillation**  
To smooth off edges utilizing the entire disk width.

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

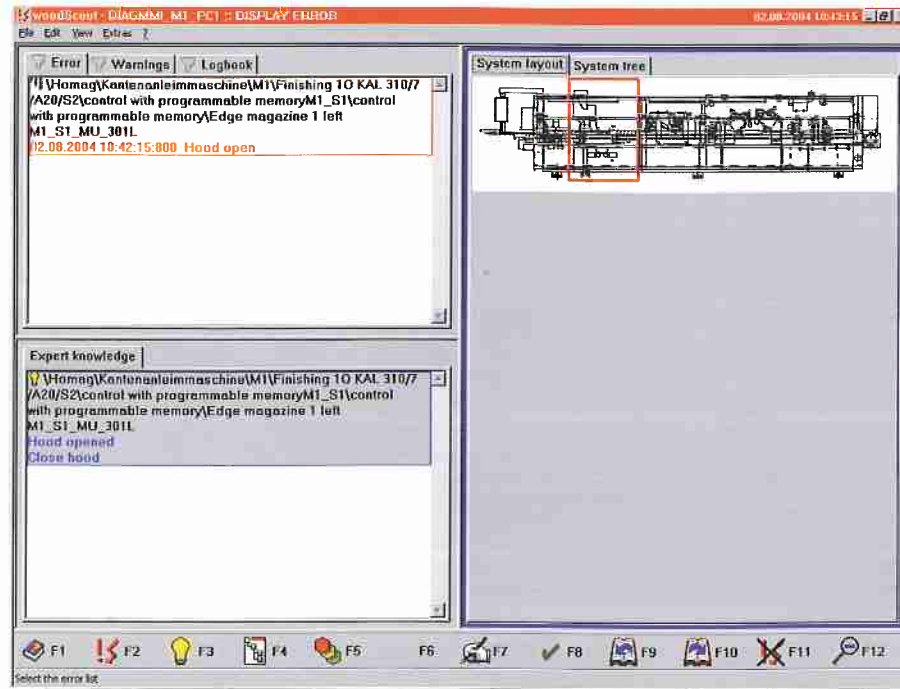
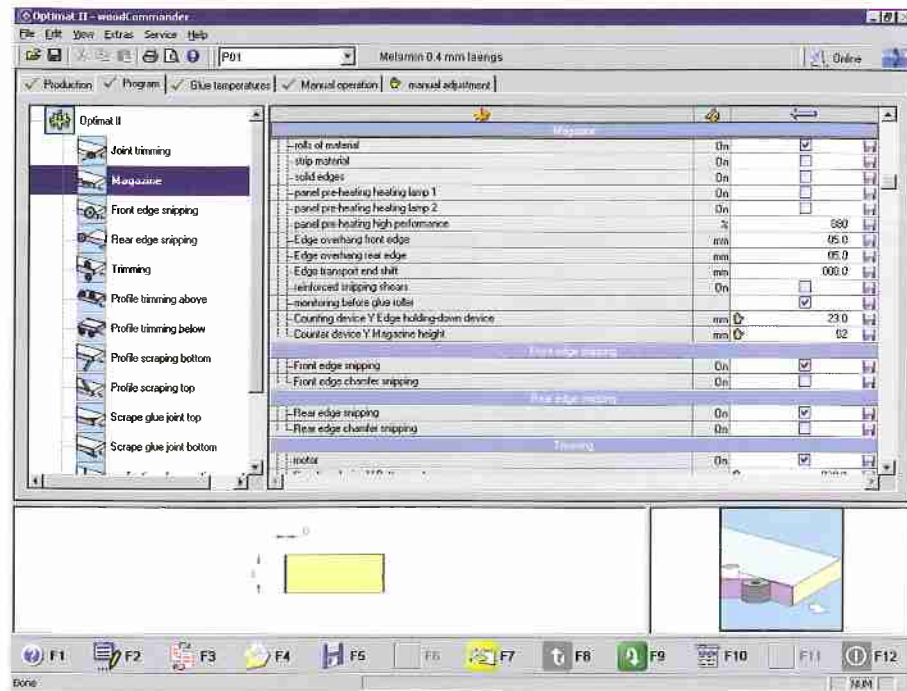
# power control system PC22 for optimum programming and operation

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 woodCommander 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)



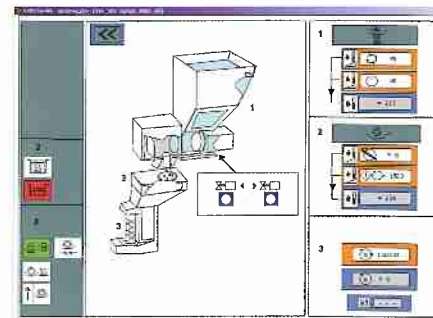
## Diagnostic system woodScout

The woodScout 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.



## PLC programming in accordance with international standard IEC61131

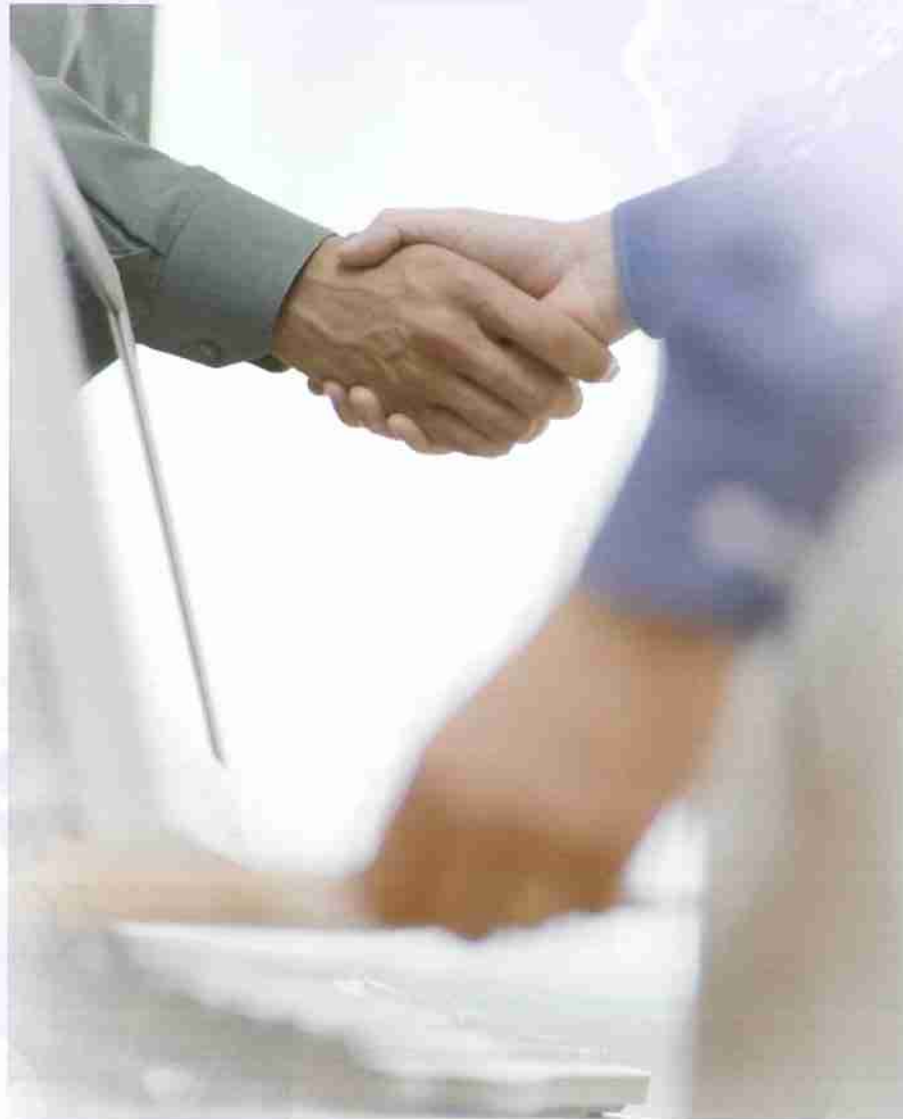
Because the machine logic is implemented in compliance with IEC61131, we are able to guarantee unrestricted servicing convenience.

## 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.



# 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 on commissioning times, reduces scrap from trial and error, 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 reduce costs and increase 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.

# 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 mm (ft/inches)

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

### Processing dimensions mm (ft/inches)

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

### 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<sup>3</sup>/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 \_\_\_\_\_ 18-24 m/min. (60'-80' m/min.)
- Machine weight appr. kg \_\_\_\_\_ depending on machine model

