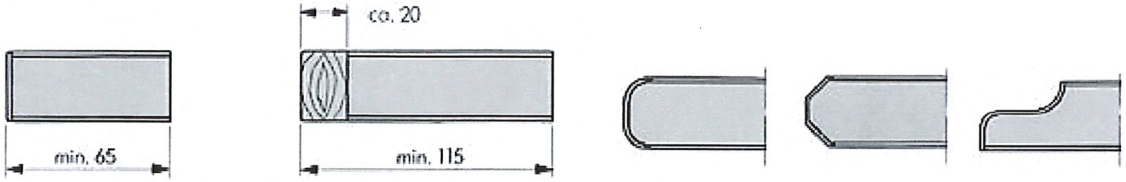
AVM/K/I
AVM/PC/I
AVM/PC/K/I

Design Features

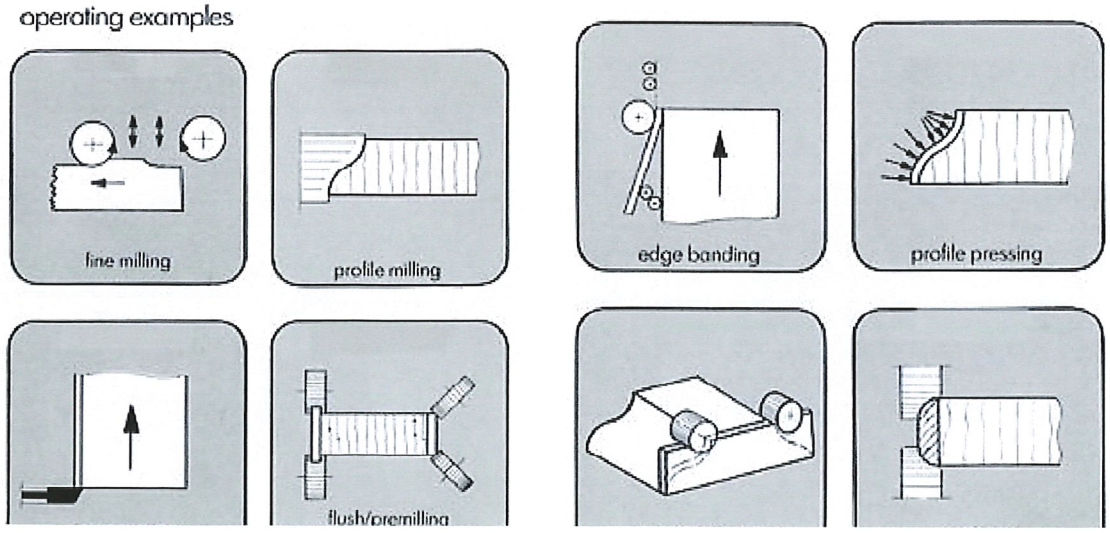
The machine consists of a heavy steel **base structure** on which the processing units are mounted. The panels are transported via the **transport chain** and the driven **top pressure belt.** The steel transport roller chain has easily replaceable hard plastic chain plates with rubber surface inserts. The chain plates are accurately guided through the machine via half round and flat chain support beams. The top pressure system is effected by an all metal construction of spring loaded pressure rollers with sealed for life needle roller bearings. These exert pressure onto a heavy duty V-belt ensuring accurate panel transport.
The **top pressure system** is offered as standard with manual height control with the option of motorised control to adapt to various panel thicknesses. As standard all edge processing units which are operating on the top panel edge are automatically adjusted with changes to the top pressure system height. On request the top pressures can also have lateral adjustment.

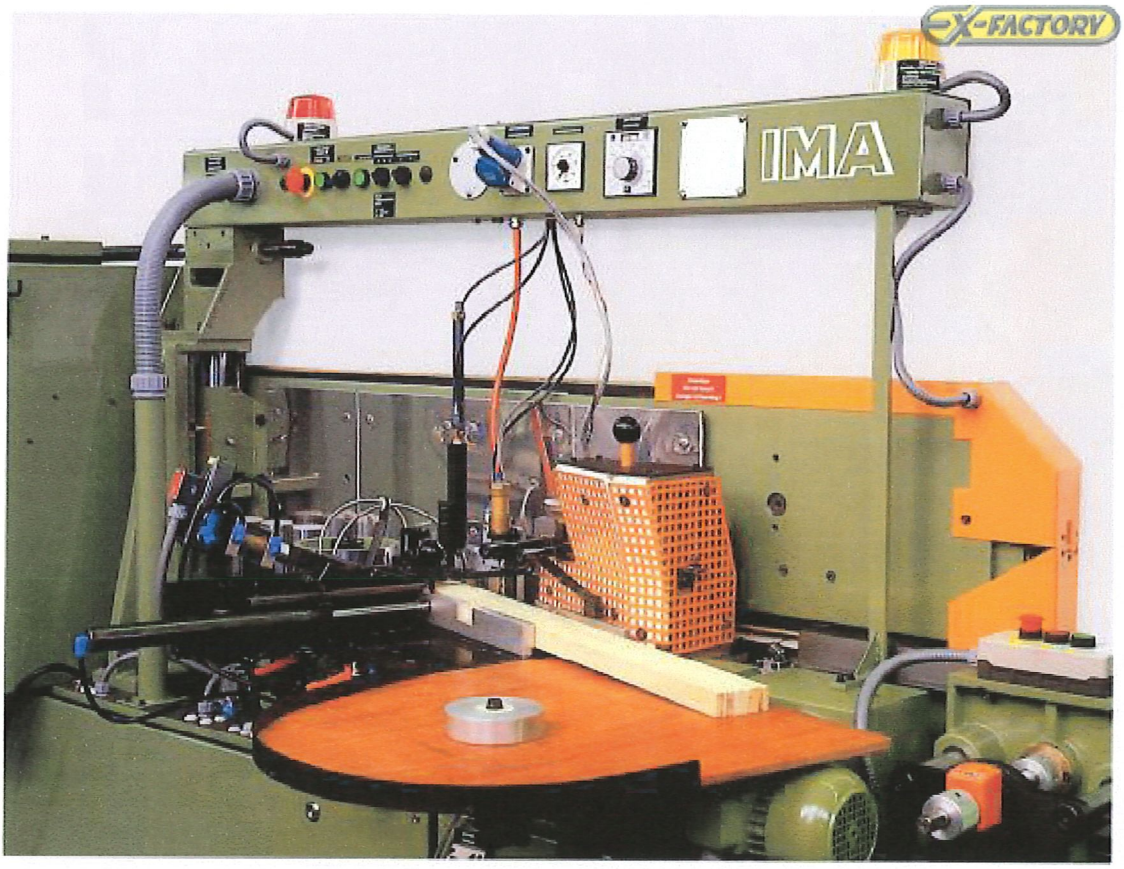
The transport chain and top pressure belt speeds are adjusted synchronously by the infinitely variable drive.
Throug long experience in good design and construction of operating units and base frame, IMA ensure a long operating life with high efficiency whilst achieving quality and quantity in production.
The **electrical controls** are located in a separate switch cabinet and comply with VDE-regulations.
All processing units can be utilized according to the working symbols as shown. The machine is of **modular design** so that the number and type of processing units determine the length of the machine.
With the following **additional equipment** the machine can be adapted to the individual conditions:
Infeed chain track extension – Infeed device – Dust and noise suppression hoods – Program and line control systems.

examples of application



operating examples



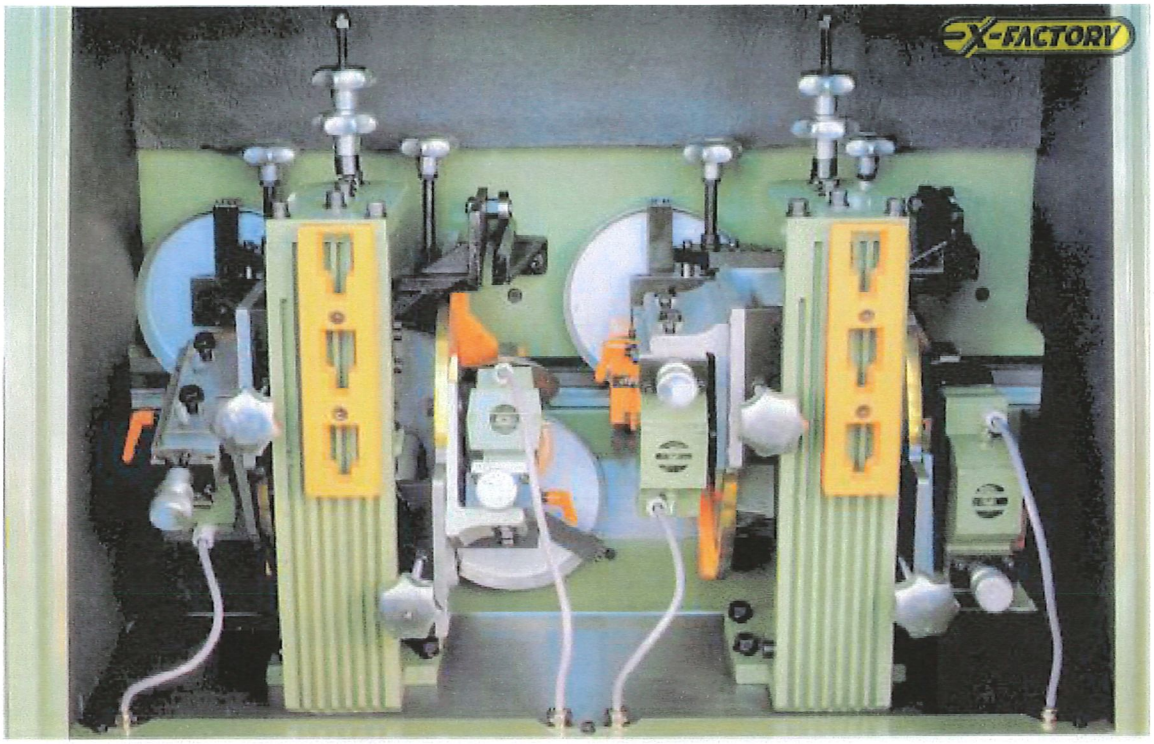


Hotmelt glue application unit 101.921
for veneer/plastic strip edging material and up to 8 mm wide lippings

The glue application unit consists of:
a) an oil sealed enclosed drive housing, b) a **hotmelt glue application unit 04.08** with electronic temperature regulation, c) a **combined AEROMAT strip single roll magazine** for pulling in cut-to-length veneer/plastic strips of max. 3 mm thickness as well as lippings of max. 8 mm thickness. Single roll material up to max. 3 mm PVC edging with cutter blade and horizontal roll magazine for **one roll** of approx. 500 mm max. diameter, d) one 24 V strip control device (if due to a fault a strip cannot be fed, the machine feed switches off), e) one infrared radiator approx. 250 mm long, for hotmelt reheating, f) one main pressure roller and four additional pressure rollers, g) one operating panel directly above the glue application.

Additional equipment as option:
- h) one separate temperature controlled glue roller drive
- i) one electronic timer with weekday program for the glue container.

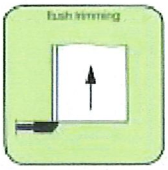
Unit **mounting length:** approx. 1500 mm.

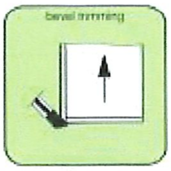


Milling/chamfering unit 08.055

Edge banding and finishing machines as well as automatic combined edge processing machines can be equipped with this unit. If **pre-/flush mills** the **veneer/plastic strips or solid lippings** banded onto panel edges **projecting at top and bottom** and/or carries out **fine milling/chamfering** operations. In case of very thin edging materials and particularly if special PVAc glue is used, one unit is sufficient to simultaneously do pre/flush milling and chamfering. In most cases, however, it will be necessary to install two units. The first one for pre/flush milling and the second one for fine milling/chamfering. The milling/chamfering unit 08.055 is also used for **profiling of banded thick PVC edging materials or solid lippings at top and bottom** panel edges (small quarter circle profiles with a **max. radius of 3 mm approx.)** According to the actual requirements the second unit is either used for chamfering or profiling purposes. In some cases it might even be advisable to install after the pre/flush milling unit (first set) and the fine milling/chamfering unit (second set) an additional third unit 08.055 for profiling purposes. Stability and hence vibration-free performance as well as **altitudinal and lateral tracing facilities** with large and precisely adjustable tracer rollers directly adjacent to the **carbide-tipped cutter heads or cutters** provide first class finishing results. The milling/chamfering units are vertically and horizontally adjustable by means of encased dust-protected ball guides on hardened and ground shafts and can be tilted towards the panel edge. On all machines with height-adjustable top pressures via threaded spindles the **upper milling/chamfering units** are **attached to the top pressure beam and hence simultaneously adjusted in height** if the machines have to be adapted to different panel thicknesses. Short setting-up times. **Ordinary tools for milling and chamfering form part of the supply contract, profiling tools, however, are excluded.** According to the milling cross section, the type of material to be processed and the desired feed speed the tools are driven by **middle frequency motors.** The required frequency changer capacities for one motor are shown in brackets – 150 W (0,323 kVA), 400 W (0,72 kVA), 1000 W (1,73 kVA) or 1850 W (3,23 kVA), 133 V, 200 c/s, 12000 rpm, or 220 W (0,52 kVA), 400 W (0,75 kVA) or 600 W (1,2 kVA), 200 V, 300 c/s, 18000 rpm. **Motors of 150 or 220 Watts can be tilted up to 45°, all other motors up to 30°.** The units are normally set in such a way that the tools are rotating **against the passing panel.** When using edging material of a coarse-pored and splintery nature it is, however, advisable to have them running **with the feed speed.** Upon request **additional equipment** is available, s.a. DC-brakes and noise-supression/dust collection hoods (regulated in the Federal Republic of Germany!). **The pipe connection** of the noise suppression/dust collection hood has a **diameter of 160 mm.** If a noise suppression/dust collection hood is not required, each unit is equipped with a separate exhaust pipe of 80 mm diam. Required **mounting space for one unit:** 600 mm approx., **for two tandem-joined units** 1000 mm approx.

Safety and protection arrangements of the milling/chamfering unit 08.055 are based on the regulations which are in force in the Federal Republic of Germany. **All particulars stated are standard.** Whether technical deviations are possible must be examined in each case. Of the units shown below the right hand one is equipped with two motors of 400 W each and carries out the pre-milling functions; the left hand one is equipped with two motors of 150 W each for line milling or chamfering. If two units are mounted tandem-joined and if the tiltability of the first one is not of vital importance a **pre/flush milling unit 08.0555** should be provided as against the 08.055-version. This one is of a more simple technique and, therefore, more economical and it requires less mounting space.



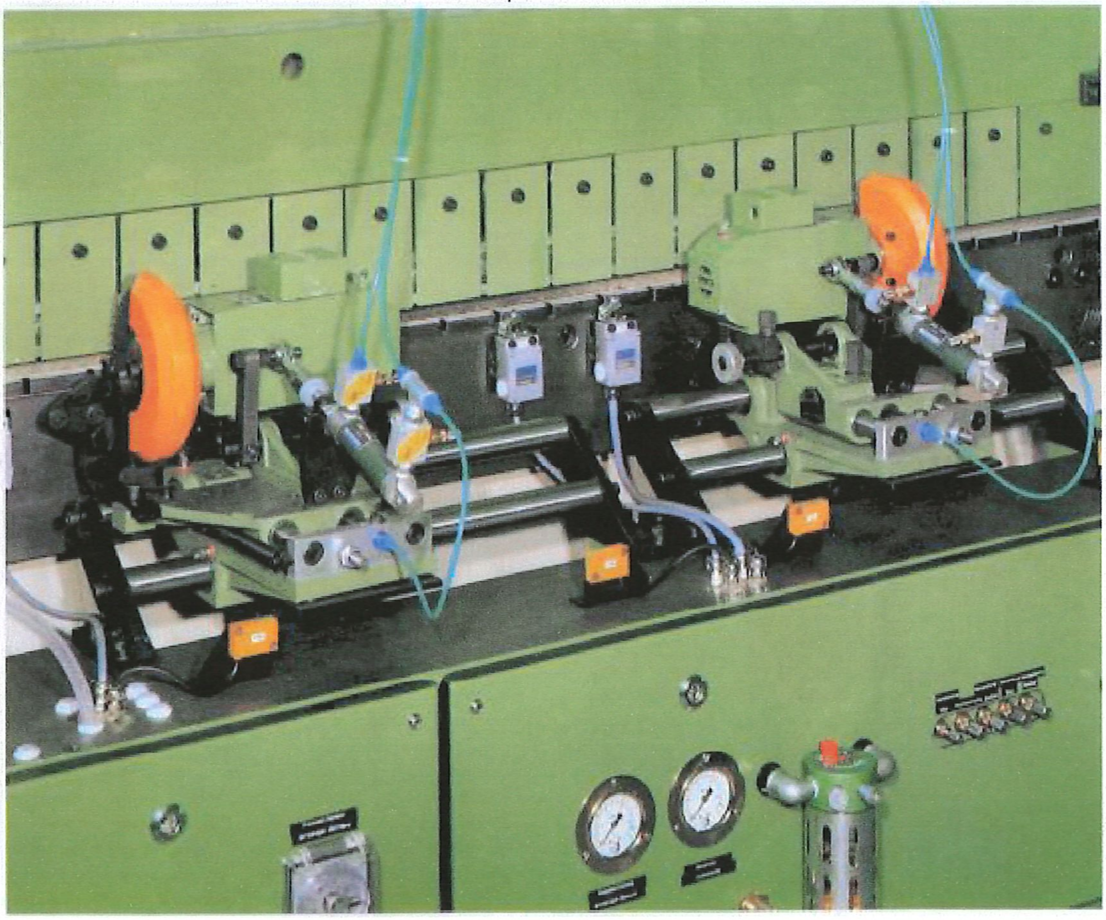


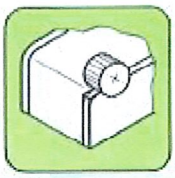
IMA EX-FACTORY

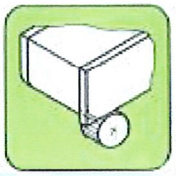
Special machines for furniture industry

End trimming unit 08.41

Mounted on an edge banding and finishing machine or on a combined automatic edge processing machine, this unit reliably and precisely cuts the banded **veneer/plastic strips** or **solid wood** lippings projecting at the **leading** and/or **trailing** edges of the panels. The cutting precision is obtained by means of adjusting screws. Large saw diameters secure high cutting speeds. Rapid tool changes. The tools are laterally engaged via pneumatic cylinders. **Max. cutting depth:** 25 mm approx. The edging material banded onto profiled panel edges according to the SOFTFORMING method can consequently be cut with the end trimming unit 08.41 up to the before mentioned depth of profile. The **horizontal swivel-feature** up to 25° additionally enables bevel cuts within this range. The **carbide-tipped saw blades** 160 x 22 mm Ø 48 teeth form part of the contract supply of the unit. If only veneer/plastic strips of a max. thickness of 1.3 mm approx. are to be cut the tools are driven by middle frequency motors of 150 W (0,323 kVA), 133 V, 200 c/s, 12000 rpm – indicated in brackets is the frequency changer capacity required for one motor – If also lippings are to be processed motors of at least 400 W (0,72 kVA), 133 V, 200 c/s, 12000 rpm will be required. Usually the function of the end trimming saws is controlled via limit switches; upon request, however, an **electronic straight line control** is available. **Min. panel overhang** beyond chain 35 mm approx., **min. panel length** 150 mm approx., **min. gap required** between two panels 300 mm approx. each based on a feed speed of 20 m/min. approx. **Max. cutting cross section** 65 x 15 or 55 x 20 mm approx. The **working speed** is depending on the type of edging material; a max. of 20 m/min. approx. is achievable without suffering a loss of cutting quality. **Mounting space** required for one unit: 1400 mm approx. **Additional equipment** is available upon request such as DC-brakes and noise suppression hood. (Regulated by law in the Federal Republic of Germany). The noise suppression hood is only equipped with a cleaning pipe and will hence not be connected to the central exhaust installation. **Safety and protection arrangements** of the end trimming unit 08.41 are based on the regulations which are in force in the Federal Republic of Germany. **All particulars stated are standard.** Whether technical deviations are possibly must be examined in each case. If only edging material of a max. thickness of 1.3 mm banded onto straight panel edges is to be cut we recommend the use of the **end trimming units 08.0487** or **08.0493** shown and described on leaflets 38 and 16.







IMA EX-FACTORY

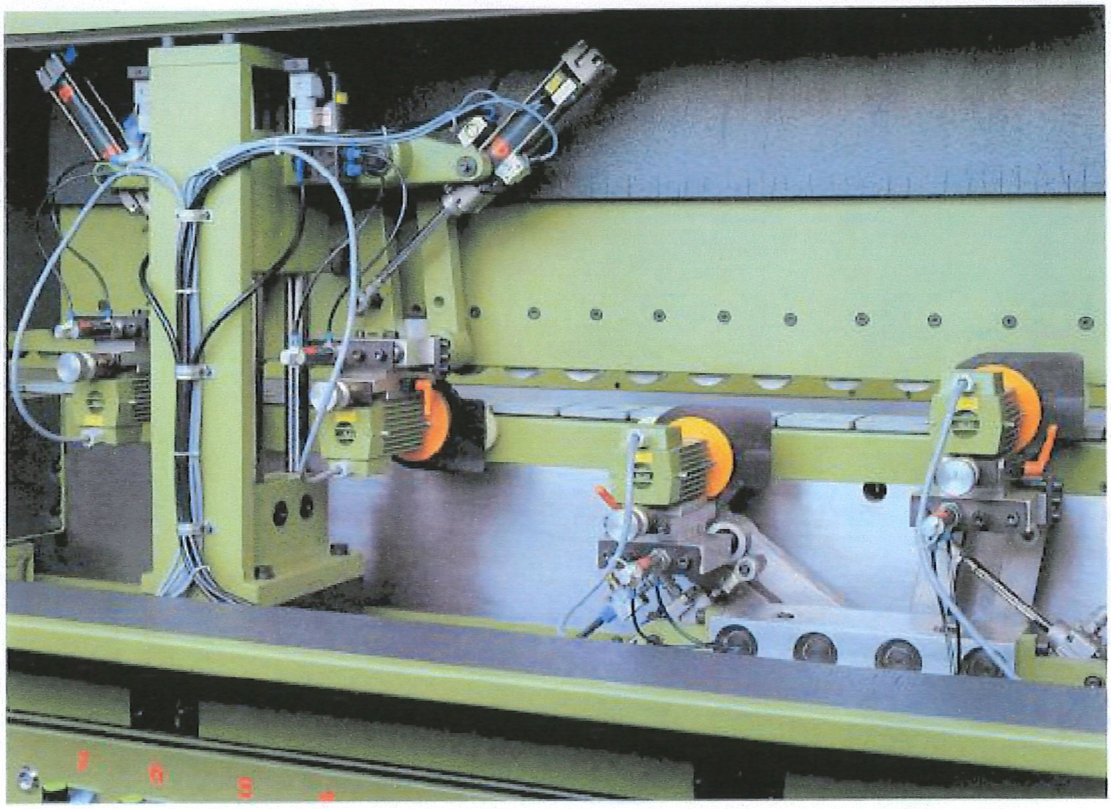
Special machines for the furniture industry

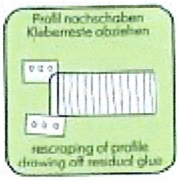
Contour trimming unit 08.46 and 08.47

For milling off edging overhangs on the **top and bottom corners** of workpieces with profiled front and rear edges. The unit **08.46 is designed for the top profiles** and the unit **08.47 for the bottom profiles.**
For workpiece thicknesses from 10 - 60 mm.

Each unit 08.46 or 08.47 requires a mounting length of approx. 850 mm plus protection hood.
Reference is made to the contour trimming unit 08.34 which offers considerably more processing possibilities and which also permits, for example, the milling of **5 profiles** as well as profile top and bottom processing. **(See brochure sheet 56).**
Additional equipment as option:
- Medium frequency motors 150 W, 133 V, 200 Hz, 12000 rpm or 220 W, 200 V, 300 Hz, 18000 rpm
- Direct current brakes
- Limit switch control (standard) or electronic line controls.

Tools are excluded from the scope of delivery.





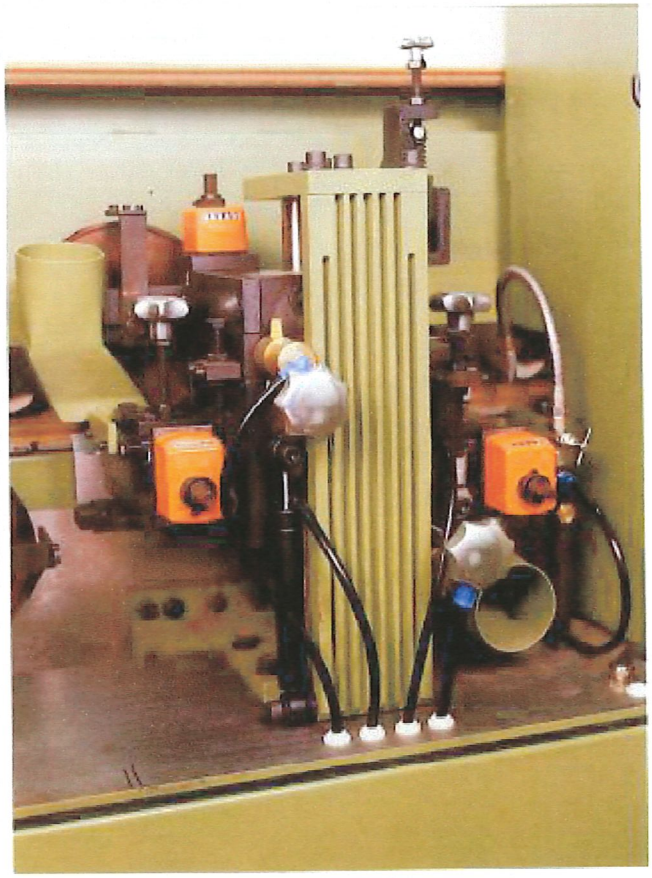
IMA X-FACTORY

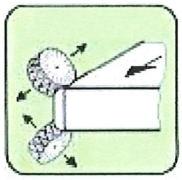
Special machines for the furniture industry

Profile scraper unit 08.263

designed for **scraping** a top and bottom milled profile (e.g. quarter round profile) for PVC edge banding material. The unit has **top, bottom and lateral sensing devices** and gives the trimmed profile the **final "finish".**
Unit **mounting length:** approx. 400 mm with one blade or 550 mm with two scraper blades.
Additional equipment as option:
- Top and/or bottom profile scraper blades
- Mechanical digital display
- Pneumatical lateral disengagement device with manual lever valve
- Electro-pneumatic lateral disengagement device, centrally controlled from the switch panel.

Scraper blades are included in the scope of delivery.
Workpieces with artificial veneer surfaces allow the use of the **less advanced scraper blade unit 08.262** to remove any hotmelt glue beads squeezed out of the joint.





IMA

Special machines for the furniture industry

Buffing unit 08.285, oscillating, with controls, swivelable

The **buffing unit 08.285** is intended for **polishing** PVC edge banding material with milled top and bottom radii. The oscillating operating method permits the use of the complete buffing disc width.

Positional correction in the horizontal and vertical direction as well as swiveling is carried out **manually.** Two drive motors, each 0.25 kW, 220/380 V, 50 Hz, 3000 rpm. The unit **mounting length** with 1 motor is approx. 400 mm, 2 motors requiring approx. 550 mm.

Additional equipment as option:

- With pneumatic controls or without controls
- Buffing disc operating from above and/or from below.

Buffing discs are included in the scope of delivery.