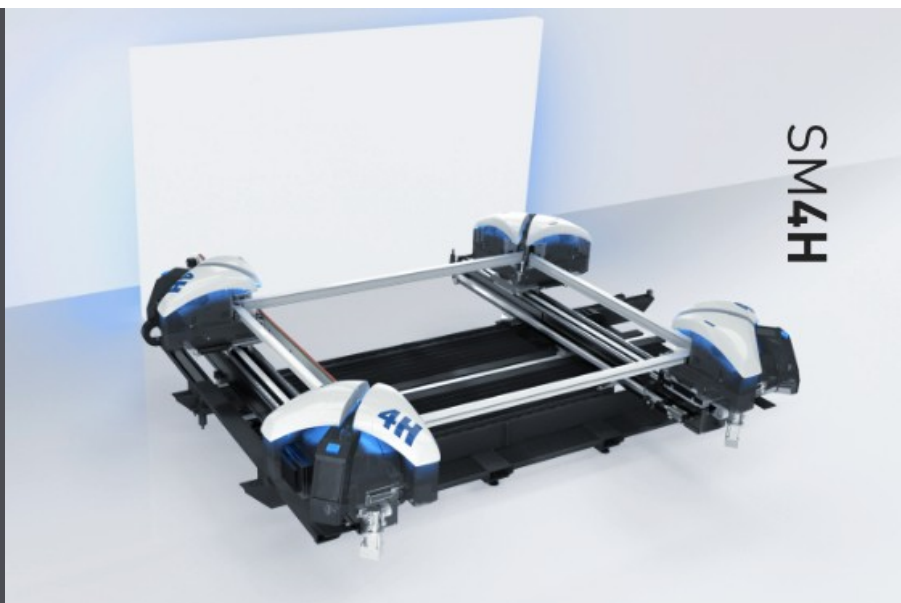


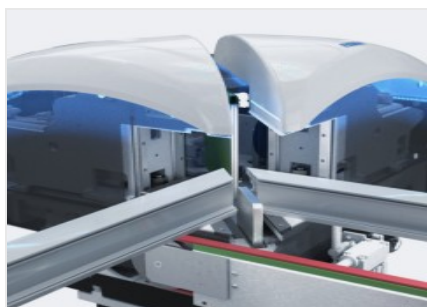


## SM 4H

Welding and cleaning machines



SM 4H is a fully digital horizontal CNC welding machining machine for welding PVC profiles. Coming in 2 sizes, the 4-head model allows fabricating frames through simultaneous welding of the 90° corners or welding of the selected items. SM 4H, which has manual loading and unloading, also has predisposition for automatic unloading of the finished product. The machine is designed to satisfy ergonomic and safety principles: the indicator lamps and welding head movements make for user-friendly dialog between operator and machine, whether in the profile loading phase or during the subsequent heating and welding phases. Such indicator lamps on the welding heads clearly show the profile to be positioned, with approach (when required) of the pair of welding heads to the operator, thereby allowing correct and easy workpiece positioning. All cycle variables (times, speed, etc.) are programmable and can be preset in the machine automatically. Of the special (patented) features of the SM 4H machines, outstanding is the provision for controlling the welding bead size, which can be set by program within a range from a minimum of 0.2 mm up to a maximum of 2 mm. SM 4H can be fitted with counterblocks (optional) for standard and Seamless welding and can handle all type of standard profiles, including acrylic and coated profiles.



### Digital adjustment system

The joint of the PVC frame is made by means of controlled axes that regulate the synchronous handling of the individual profiles. In the standard configuration, this solution guarantees precision, quality and repeatability of the welds, ensuring perfect execution of the bead size set (0.2 / 2.0 mm). With dedicated optional, it is possible to set the bead size within a range of 0,2 to 2,0 mm.



### Ergonomics and easy programming

Special care has been given to the ergonomic aspects of the machine: the innovative look stems from integrating protection and accessibility purposes with an optimised human-machine interface. The light signals given by built-in LEDs in the guards of the welding units indicate at all times the status of the machine and any situations that require special attention by the operator, such as high temperature stages or movements in the movable units.



### Seamless finish with Seamless technology counterblocks

SM 4H, together with the Seamless technology counterblocks, enables making the perfect weld with seamless finish. Precision is assured as PVC segments are handled by controlled axes. This system enables significantly simplifying and reducing the subsequent machining cycle with major benefits on productivity and result quality.



### Field bus connection system

Selecting the interconnection between the central unit and the welding heads is based on the use of a field BUS. Such solution allows remote control and monitoring directly on the operating units. Thus it is possible to implement wiring which is structured, simple and readily accessible. The efficient communication network ensures the complete integration between the various mechanical, pneumatic and electronic components of the machine.

**SM 4H / WELDING AND CLEANING MACHINES**
**WORK AREA**

Maximum dimensions of the frame with automatic unload (Y-X mm)	3.500 x 2.700 / 2500 x 2700
Minimum dimensions of the frame with automatic unload (Y-X mm)	400 x 350
Minimum dimensions of the frame with longitudinal frame loading device and door sill assembling (Y-X mm)	400 x 430
Maximum profile height (mm)	200
Minimum profile height (mm)	35
Maximum width of the profile (mm) - Frame	150
Maximum width of the profile (mm) - Door	150

**SEAMLESS WORKING AREA**

Maximum dimensions of the frame with automatic unload - seamless mode (Y-X mm)	3.430 x 2.630
Minimum dimensions of the frame with automatic unload - seamless mode (Y-X mm) - Z Frame	450 x 370
Minimum dimensions of the frame with automatic unload - seamless mode (Y-X mm) - L Frame	420 x 300
Minimum dimensions of the frame with automatic unload - seamless mode (Y-X mm) - Door	450 x 330
Minimum dimensions of the frame with longitudinal frame loading device and door sill assembling - seamless mode (Y-X mm) - Z Frame	450 x 460
Minimum dimensions of the frame with longitudinal frame loading device and door sill assembling - seamless mode (Y-X mm) - L Frame	420 x 410
Minimum dimensions of the frame with longitudinal frame loading device and door sill assembling - seamless mode (Y-X mm) - Door	450 x 440
Minimum profile height (mm)	35
Maximum profile height (mm)	110
Maximum width of the profile (mm) - Frame	115
Maximum width of the profile (mm) - Door	130

**POSITIONING SPEED**

X AXIS (m/min)	50
Y AXIS (m/min)	40

**FUNCTIONS**

Compatible with Seamless counterblocks	<input checked="" type="checkbox"/>
Plate temperature control (°C)	200 ÷ 300
Bead temperature control: up to 70°C	<input type="checkbox"/>
Longitudinal frame loading device and door sill assembling	<input type="checkbox"/>
Frame unloading unit from welding machine	<input checked="" type="checkbox"/>



**SAFETY DEVICES AND PROTECTIONS**

- Perimetric welding machine guard on three sides ●
- Heads guard and indicator lamps ●
- Photoelectric barrier system to protect access to work zone ●

**COMMAND AND CONTROL UNIT**

- Ventilated electrical cabinet ●
- Pneumatic panel ●
- CNC-PC with Intel® processor ●
- 15" LCD-TFT graphic colour ●
- RJ45 network card ●

Included ● Available ○