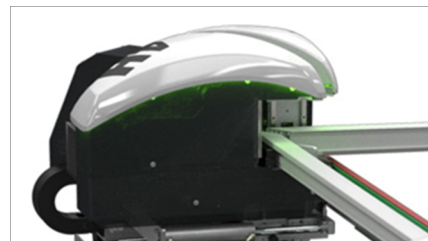


Digital adjustment system

01



Ergonomics

02

Fusion 4H

Welding machine compatible with Seamless technology



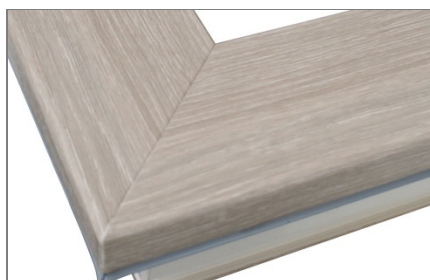
FUSION 4H is the horizontal CNC welding machine for welding PVC profiles. Coming in two different sizes, it allows making frames through the simultaneous welding of the four 90° corners. The standard version controls the size of the weld bead, whose thickness can be pre-set based on the finish specifications required by the subsequent cleaning operations. An electronic adjustment system, patented, that enables managing the size of the weld bead, ranging from a minimum of 0.2 mm up to a maximum of 2 mm, is available as optional.

FUSION 4H is compatible with the Seamless technology counterblocks that enable making the perfect weld with seamless finish. This welding mode significantly simplifies and reduces the subsequent machining cycle, with major benefits on productivity and result quality. The machine comes with manual loading and automatic unloading. Designed to best meet the principles of ergonomics and safety, the light indicators and the movements of the welding heads make communication between the operator and the machine simple and intuitive, both in the profile-loading phase and in the subsequent heating and welding phases.

All cycle variables (welding times, speed, etc.) are programmable and can be pre-set in the machine automatically.

Seamless finish with Seamless technology counterblocks

03



Field bus connection system

04



The pictures are provided by way of illustration only

Fusion 4H

Welding machine compatible with Seamless technology

01	02	03	04
Digital adjustment system	Ergonomics	Seamless finish with Seamless technology counterblocks	Field bus connection 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.

This allows a clear improvement in performance, particularly compared with traditional solutions, where handling of segments in PVC is carried out by pneumatic cylinders that do not allow incremental adjustments.

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 man-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.

The various colours indicate to the operator the progression of the various stages, thus fostering not just peace of mind, but also a sense of practicality and efficiency in terms of safety.

FUSION 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.

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.

DIMENSIONS

Max frame size with automatic unload in standard mode (Y-X mm)	3,500 x 2,700 2,500 x 2,700
Min frame size with automatic unload in standard mode (mm)	400 x 350
Min frame size with lengthwise load system of the frame and assembly of the threshold in standard mode (mm)	400 x 430
Max frame size with automatic unload with Seamless counterblocks (Y-X mm)	3,430 x 2,630 2,430 x 2,630
Min frame size with automatic unload with Seamless counterblocks (mm)	420 x 300
Min frame size with lengthwise load system of the frame and assembly of the threshold with Seamless counterblocks (mm)	420 x 410

POSITIONING SPEED

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

WORK AREA

Maximum profile height (mm)	110
Minimum profile height (mm)	35
Maximum profile width (frame / sash mm)	115 / 130
Weld bead size in standard mode (mm)	2 / 0.2
Weld bead size with Seamless counterblocks (mm)	0
Weld bead variable electronically (optional) (mm)	0.2 ÷ 2

FUNCTIONS

Seamless counterblocks compatibility	●
Temperature control, heating plate (°C)	200 ÷ 300
Temperature control, weld bead limiters (optional) (°C)	up to 70
Gasket checking system (for welding with Seamless counterblocks: requires feasibility study)	○
Lengthwise load system of the frame and assembly of the threshold (for welding with Seamless counterblocks: requires feasibility study)	○
Frame unloading unit from welding machine to CNC	●

SAFETY DEVICES AND PROTECTIONS

Perimeter guard, welding machine	●
Perimeter guard, welding machine with in-line unloading	●
Welding head guard and indicator lights	●

CONTROL UNIT

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

- included
- available