

SM 4H-A PROFAST (PS)

CNC WELDING MACHINES



SM4HPROFAST

SM 4H-A PROFAST is a CNC horizontal welding machine designed for welding PVC profiles. Available in two different sizes, it enables the production of frames by simultaneously welding all four 90° corners. It can perform welds in the traditional mode, producing welding beads that are mechanically removed in a subsequent phase of the production process, or in Seamless mode, which involves a simple profile preparation step that allows for beadless welds on the visible surfaces of the frame. The frame welding process is carried out in asymmetrical (unidirectional) welding mode, which is necessary for completing structures with a transom. The PROFAST version is specifically designed to optimize Seamless welding technology by integrating knives into the welding units to control the quality of the finish. This solution allows the use of simpler counterblocks, reducing costs and testing time. The Seamless welding technology also significantly reduces and simplifies the subsequent processing cycle, delivering major benefits in terms of productivity and final quality. In traditional mode, the generated welding bead is precisely controlled to ensure optimal aesthetic quality after removal. The bead thickness can be predefined according to the finishing specifications required by the subsequent cleaning process. Optionally, an electronically controlled adjustment system is available, allowing bead size management within a range from a minimum of 0.2 mm to a maximum of 2 mm. The machine is configured for manual loading and automatic unloading. Designed to best meet the principles of ergonomics and safety, the light indicators and movements of the welding heads make the interaction between the operator and the machine simple and intuitive: both during the profile loading phase and in the subsequent heating and welding phases, the lights on the heads indicate the machine's operating status; when required, the pair of heads approaches the operator to allow correct and easy positioning of the piece. All the cycle variables (times, speeds, etc.) are programmable and can be set automatically in the machine.

SM 4H-A PROFAST (PS) / CNC WELDING MACHINES**WORK AREA**

Maximum dimensions of the frame with automatic unload (X-Z mm)	3.510 x 2.660
Minimum dimensions of the frame with automatic unload (X-Z mm)	340 x 420
Minimum dimensions of the frame with longitudinal frame loading device and door sill assembling (X-Z mm)	440 x 420
Maximum profile height (mm)	200
Minimum profile height (mm)	38
Maximum width of the profile (mm) - Frame	145 (*)
Maximum width of the profile (mm) - Door	145 (*)

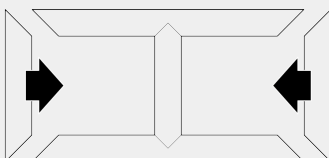
(*) The reported dimensions are measured considering a reference thickness of 40 mm (20 + 20) for the counterblocks, therefore they are indicative measurements. If frame processing with dimensions close to the minimum and maximum limits is planned, it is necessary to consult the technical office to analyze the performance of the individual profile codes.

POSITIONING SPEED

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

MODES OF OPERATION

Asymmetrical unidirectional welding in U for frame welding with transom ●

asymmetrical (unidirectional) welding mode

Standard PVC profile welding	●
Welding with transom	●
Seamless welding bead size (mm)	0
Traditional welding bead size (mm)	2
Adjustable machining allowance	●
Default machining allowance (mm)	3

SAFETY DEVICES AND PROTECTIONS

Photoelectric barrier system to protect access to work zone	●
Perimetric welding machine guard on three sides	●

OVERALL DIMENSIONS AND POWER

Size, machine only (width x length x height) (mm)	4.200 x 5.000 x 1.400
Overall dimensions, machine with safety fences + cooling bench (width x length x height) (mm)	7.600 x 8.500 x 1.800

Included ● Available ○