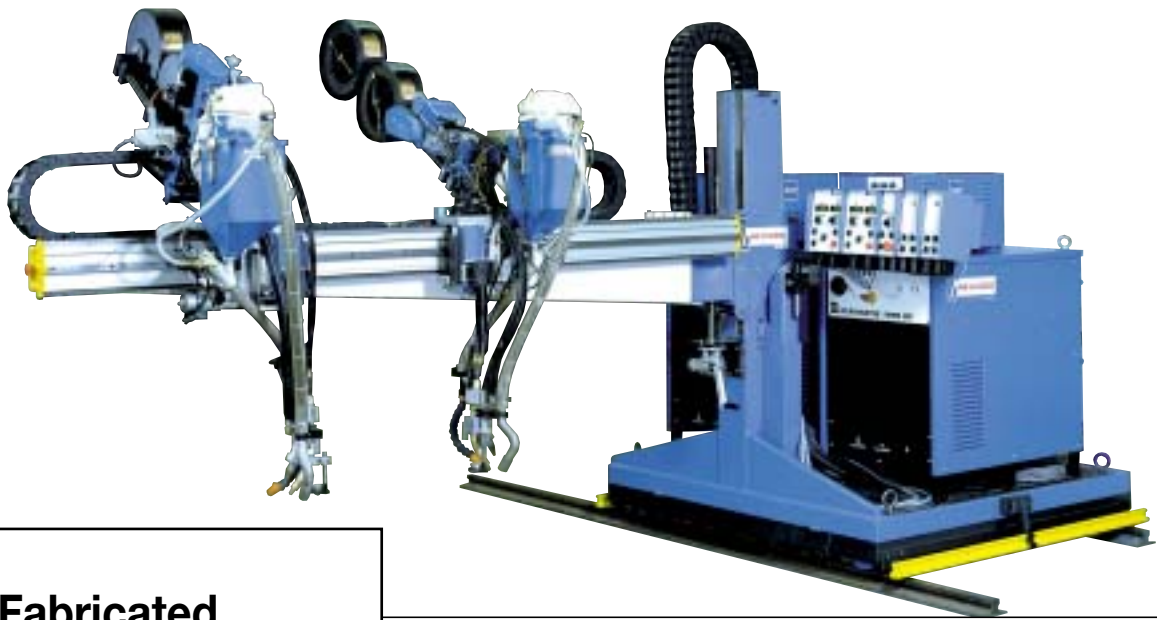


*MECASAF PRS*

*Fabricated  
I-beam  
welding.*



3551-29

## Fabricated I-beam welding: go for quality and performance.

*Companies fabricating metal structures for the public works, construction, transportation and offshore engineering industries have specific requirements to which automated submerged arc welding is a particularly good response.*

*This process, employed in the MECASAF PRS installation, can be applied to fabrication of constant or varying cross section I-beams: two perpendicular flanges, previously tacked or clamped using a jig, are welded simultaneously to respective opposite sides of a flat plate.*

### Remarkable quality

The submerged arc welding process has many advantages: welds of very good appearance with excellent integrity and mechanical properties. The simultaneous use of two welding heads creates symmetrical

deformations which are not detrimental to the end result. Flatness defects and any variations in the cross section of the part are accommodated by the use of bidirectional joint followers.



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### Improved productivity

The twin-wire submerged arc welding process enables high execution speed and guarantees total flexibility of use in assembling thin and medium-thickness materials. When equipped with the pneumatically locked ball adjustment option the welding head support arm swivels through 180° to enable the MECASAF PRS to serve two working areas, one to each side of the runway, for significant time saving as the workpieces are prepared and offloaded during "dead" non-arcing time.



3551-27

## Implementing the process: experience and performance

Strengthened by its many years experience with welding, and especially submerged arc welding, SAF offers you a choice of two automatic installations.

These compact and rugged installations enable optimum working combined with great flexibility in terms of parameter setting.

### *SUBARC 3*

DC welding installation with horizontal and drooping power supply characteristics and with current and voltage parameters stored in memory and shown on digital display after welding.

### *SUBARC 5*

For the more demanding user, SUBARC 5 can be used for DC or AC submerged arc welding as well as MIG/MAG (spray arc) welding. SUBARC 5 provides precise presetting and pre-display of the actual welding parameters (current and voltage), guaranteeing excellent arc striking at all times.



## Continuous production of long lengths

Continuous long welds require mobile welding apparatus. On the MECASAF PRS all the hardware is onboard, including the power sources.

## Ease of use plus operator comfort

After placing the two SUBARC welding heads on the workpiece and giving the command to start the cycle, no further action is required during welding. The bidirectional joint following system and the automatic flux

## Optimum safety

The characteristics of the submerged arc welding process guarantee simple and safe use: no spatter or fume, invisible arc (enabling operators to work without a facemask and without disturbing others in the vicinity). Even the basic version of the MECASAF PRS is equipped with a number of features assuring totally safe operation: very low voltage (42 V) power supply, anti-tipping claws, emergency stop controls on the control console and at the beam end, end of travel limit switches and an anti-collision system for the two head support carriages.



Recycling units mean that the operator can confine his attention to a monitoring role, which is facilitated by grouping all the controls on one console providing access to all essential functions. The console is very user friendly: the digital display is very easy to read.

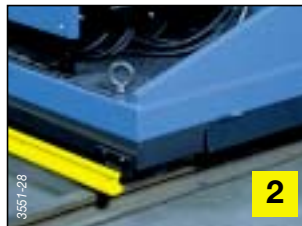


## A made-to-measure installation

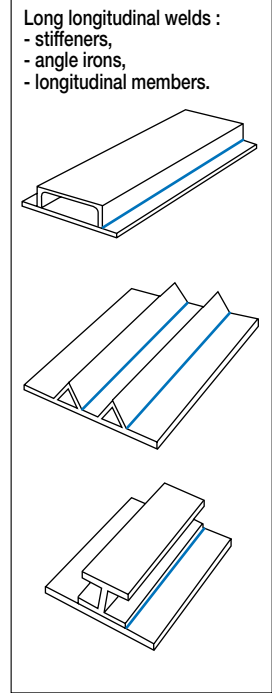
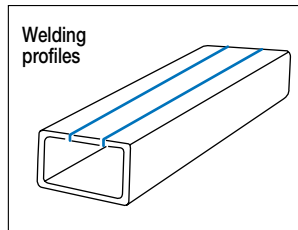
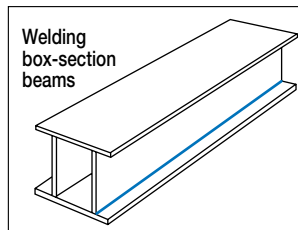
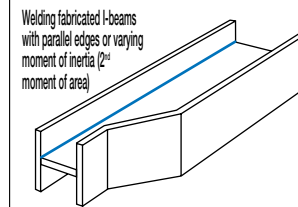
Optional units complement the basic installation and assure total adaptability:

- a manual up-down system with 500 mm travel adapts the MECASAF PRS to the height of the working area (1).
- a safety device stops the carriage if there is an obstacle on the runway (2).
- a cable-support chain guides and protects the electrical cables.
- an end of workpiece detector which fits onto the wire feed unit automatically stops welding and movement of the MECASAF PRS.

The installation is constructed from standard modular units and can be easily and inexpensively adapted to new requirements on site: long longitudinal welds (stiffeners, angle irons, longitudinal members), welding profiles.



## A few applications



Technical specifications	MECASAF PRS
Wire diameters usable : - single-wire - dual-wire	Ø 3.2 or 4 mm, Ø 1.2 or 1,6 mm.
Wire feed rate	0.3 to 16 m/min in 2 ranges
Carriage speed	0.6 to 6 m/min
Minimum separation between workpiece walls	220 mm (others available to order)
Minimum separation between workpiece walls	1.600 mm (others available to order)
Workpieces length	no limit butt-jointed rails: length 6 m
Sensor on each welding head - mechanical vertical - electro-mechanical horizontal	100 mm travel over full width of support arm
Flux recycling unit and earth terminals (1800 A)	supplied with basic version
Weight	1.500 Kg (excluding wire and flux)
Overall dimensions (H x W x D)	2.600 x 4.500 x 2.000 mm

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