



**ALFA 400 TAB**  
**NEW WELDING**  
**EXCELLENCE**



# A STEP FORWARD



ALFA 400 TAB is not only the evolution of a CNC welding machine for making quality fittings from pipe segments, but a new Premium concept where “Welding and Connection” now generate a new work experience. The new graphic interface of ALFA 400 TAB makes welding easier, while the “real-time connected” work cycle opens up new productivity scenarios for the customer.

The welding machine is managed via a 10” Android tablet mounted on an articulated and adjustable support. The graphic resolution of 1920 x 1200 pixels guarantees highly sharp images.

The welding machine creates bends up to  $\varnothing$  400 mm or 16” IPS; wyes, tees or crosses up to  $\varnothing$  315 mm or 12” IPS and thanks to thin clamps it is able to weld fittings or molded bends.

#### Welding standards loaded:

- ISO 21307 (12/17) Single - Low Pressure
- ISO 21307 (12/17) Double - Low Pressure
- ISO 21307 (12/17) Single - High Pressure
- ISO 21307 (12/17) Low Pressure
- DVS 2207 /1 (08/15)
- DVS 2207/11 (02/17)
- DVS 2207/12 (12/06)
- DVS 2207/13 (11/12)
- DVS 2207/15 (12/05)
- ASTM F2620-13
- UNI 10520 (06/09) Single
- UNI 10520 (06/09) Double

**EASIER**

**MORE  
INTUITIVE**

**BETTER  
RESULTS**



# EVERYTHING MADE EASY

## VERSATILE

- Materials\*: PE, PP
- Elbow jaws for metric pipe
- Jaws for wyes, tees, crosses\*\*
- Jaws in IPS, DIPS\*\*
- Metric steel inserts/reducers\*\*
- Steel inserts/reducers in IPS, DIPS\*\*
- Special thin Jaws\*\*
- PVC facer blades\*\*
- Flange neck adapter\*\*

## PRECISE

- CNC welding cycle
- Data logging included
- Customizable welding parameters
- Welding report
- Memory to save work cycles
- Pipe alignment lever
- Control Panel on Tablet
- Intuitive graphics

## COMPLETE

- Fittings that can be made: curves, wyes, tees, and crosses\*\*
- Top cylinder for high pressures or large thicknesses/SDR of the pipe
- Heating plate with automatic extraction even with the upper cylinder in use
- Connection to the customer's LAN network
- Remote connection for remote preliminary diagnostics
- USB and Micro USB port

\* For other materials contact RITMO S.p.A.

\*\* Accessory on request

# CNC SAFE FAST WELDING

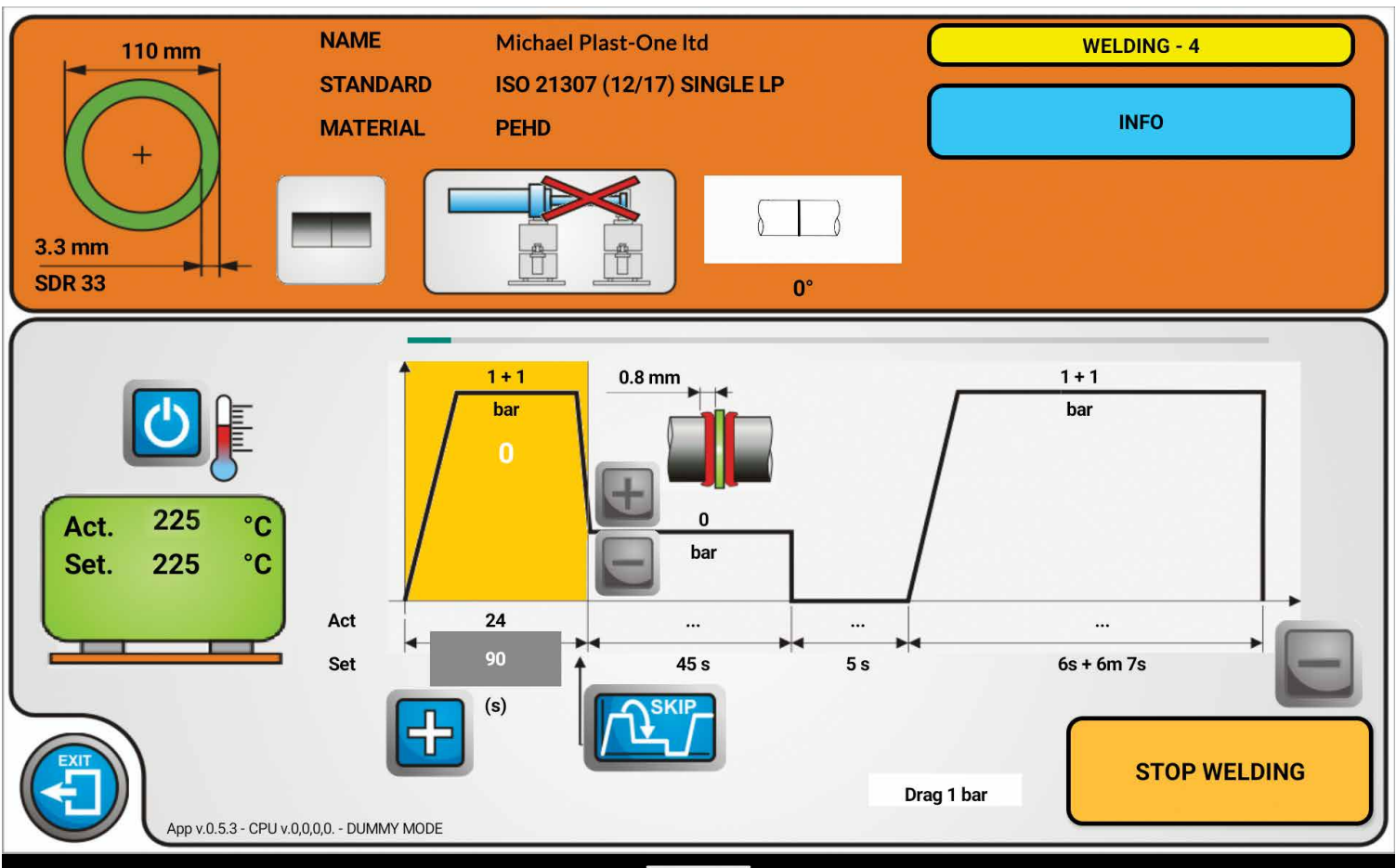
## HOW IT WORKS

Hardware and software communicate continuously with the exchange of information for the correct management of the work phases. The operator is asked to validate the progress of the welding cycle, always highlighted by an intuitive graph that always makes it clear what stage of the work has been reached. In the exchange phase, the CNC system automatically manages the opening of the machine, the extraction of the heating plate and the subsequent joining of the pipe according to the requirements of the set standard. If "one or more resets" are necessary due to any drops in pressure, the system is able to automatically manage this operation.

**CREATE  
VALUE**

- 1 - AUTOMATIC WELDING
- 2 - ELIMINATES OPERATOR ERROR
- 3 - DATA-LOGGING INCLUDED
- 4 - PERSONALIZED PARAMETERS
- 5 - WELDING

[www.ritmo.it](http://www.ritmo.it)



# MORE CONNECTED WITH YOU

## NEW FEATURES



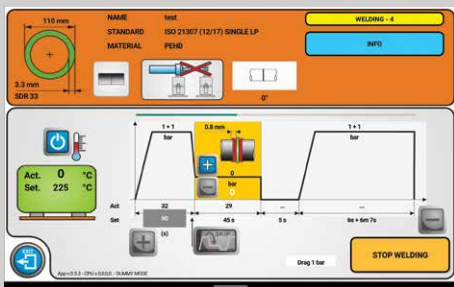
### AUTOMATIC SETTING OF WELDING PARAMETERS

The tablet is the control center of the welding machine and has three specific work areas: SETUP - WELDING - OPTIONS.

SETUP follows a logical scheme supported by graphics that takes the operator from turning on the heating plate to automatically setting the welding parameters. Having selected the material to be welded, the choice of the standard, the diameter and thickness of the pipe, the ambient temperature, the type of shape to be performed but also if the use of the top cylinder is foreseen, all the pressure/time values are automatically obtained ready to weld or be stored on "favorite" parameters that can be recalled at a later time.

WELDING is the area that manages the entire work process, from the calculation of the drag pressure to the automatic management of the work cycle.

OPTIONS is the area where functions such as downloading welding reports are available but above all where it is possible to use the welding machine in a technologically advanced way.



PROGRAM NAME	STANDARD	OD.	SDR/TINIA	UPCYL.	FRUSE	TYPE	ANGLE
Marc	ISO 21307 (12/17) SINGLE HP	355 mm	SDR 33	No	IN LINE	A	0
	ISO 21307 (12/17) SINGLE LP	315 mm	SDR 11	No	Elbow	A	0
Marc	ISO 21307 (12/17) SINGLE LP	315 mm	SDR 11	No	IN LINE	A	0
Marc	ISO 21307 (12/17) SINGLE HP	355 mm	SDR 11	Yes	IN LINE	A	0

### 1 - LAN CONNECTION (STANDARD)

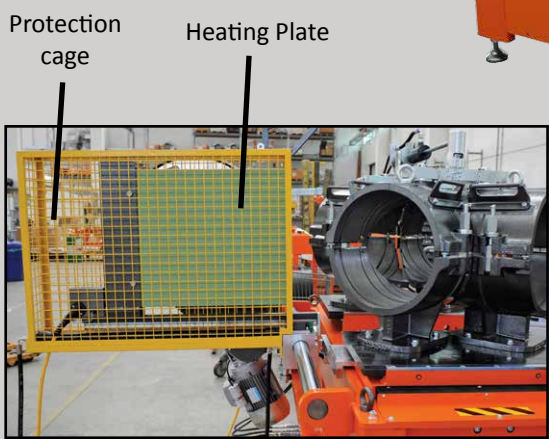
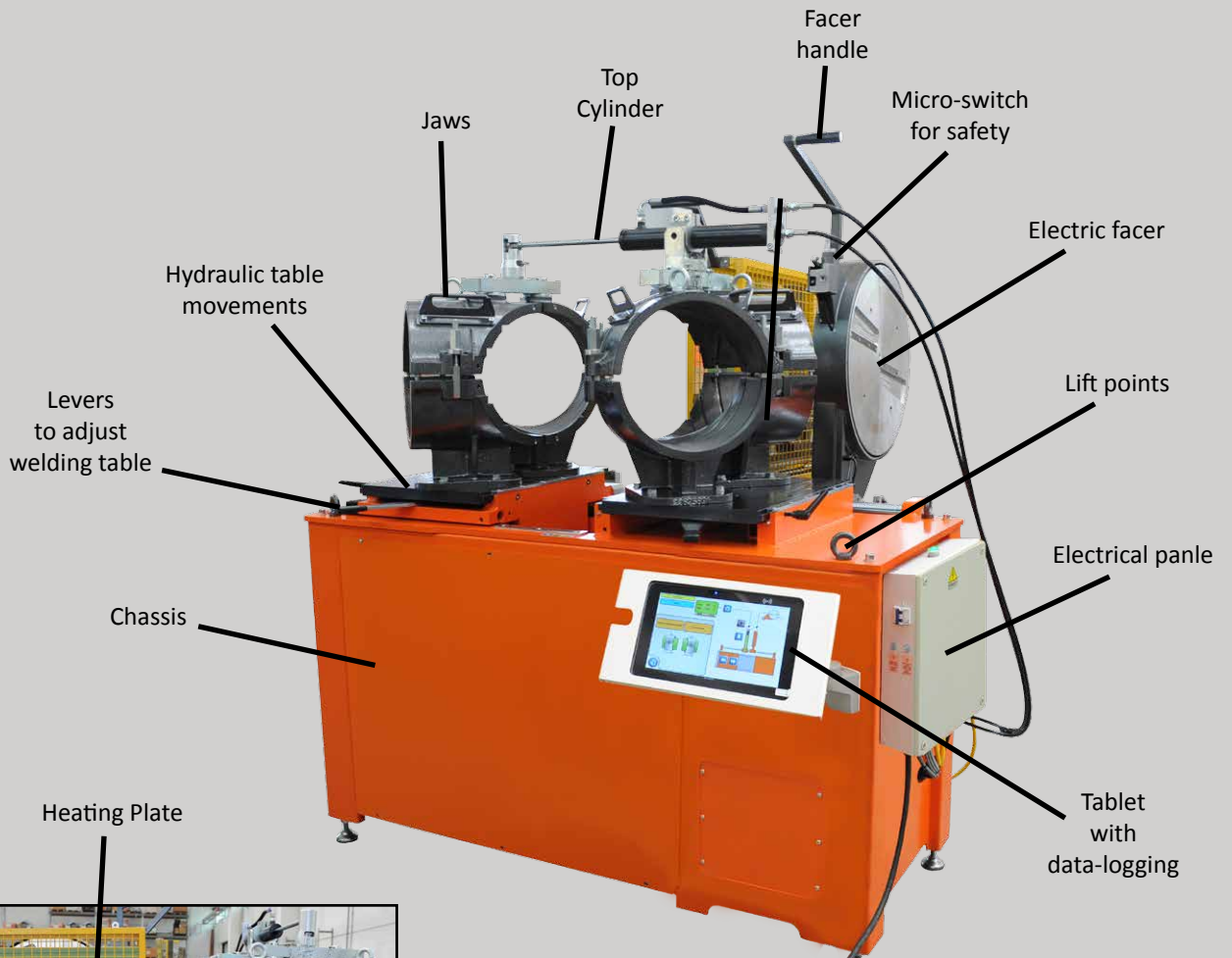
The machine is equipped with an Ethernet/Wi-Fi card to be connected to a LAN and a network folder.

### 2 - REMOTE DIAGNOSTICS (STANDARD)

The machine allows remote diagnosis via Ethernet/Wi-Fi card and access software installed on the tablet. Requires the installation of third-party access software (e.g. TeamViewer or Airdroid or etc.) not included.

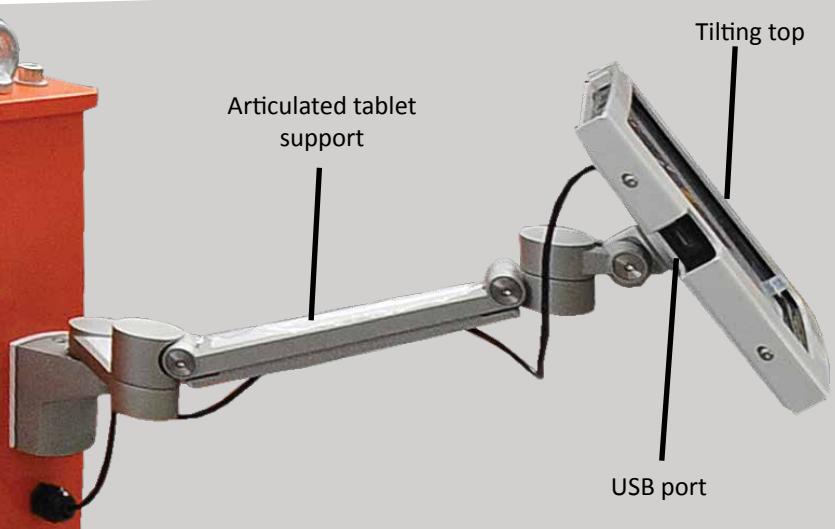
### 3 - CHECK OPERATION STATUS (OPTIONAL)

The machine is able to send information on its status and operation via RS232/ethernet converter OPC UA server (optional accessory) to a compatible data collection system, OPC UA client present in the LAN. Requires specific infrastructure from the customer.



**CNC AUTOMATIC MOVEMENT**

The exchange phase is managed automatically by the welding machine with the extraction of the heating plate, the closing of the tables and the application of pressure, according to the welding requirements of the set standard.



10" IP65 touchscreen tablet  
Video resolution 1920 x 1200  
16:10 format

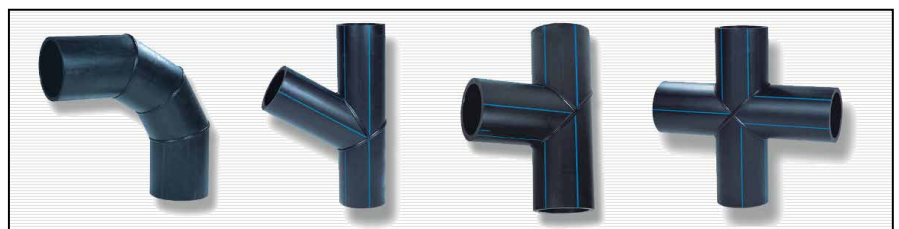
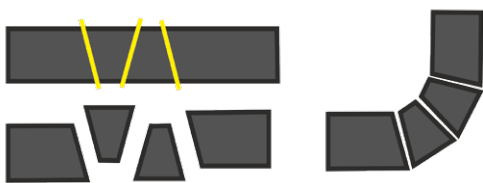
# A COMPLETE SYSTEM

## ASSEMBLED WITH PRIDE

Sigma Pro band saws, Alfa fittings machines.

A perfect combination, in relation: perfect cuts – impeccable welds. Sigma Pro and Alfa, products that complement each other to create a seamless job, with easy and intuitive steps. The Sigma Pro line is capable of cutting pipe with diameters up to  $\varnothing$  1702 mm with angle measurements of  $-45^{\circ}$  to  $+67,5^{\circ}$ .

Sigma Pro and Alfa today represent the best possible choice: the union becomes one system.



Model Sigma 1600 PRO



Models Sigma 1600 PRO and Alfa 1000



Alfa 400 Tablet with special jaws and tool for flange necks



## TECHNICAL FEATURES

	<b>ALFA 400 TAB</b>
<b>BUTT-WELDING Ø</b>	90 ÷ 400 mm 4" ÷ 16 IPS 4" ÷ 14" DIPS
<b>ELBOW/CURVES Ø Angles</b>	90 ÷ 400 mm 4" ÷ 16 IPS 4" ÷ 14" DIPS 0° ÷ 60°
<b>WYES,TEES,CROSSES Ø Angles</b>	90 ÷ 315 mm 4" ÷ 12 IPS 4" ÷ 10" DIPS 45° ÷ 60°
<b>OPENING AND CLOSING OF THE JAWS</b>	Manual
<b>THIN JAWS Ø</b>	90 ÷ 400 mm on request
<b>FLANGE NECK ADAPTER</b>	on request
<b>WELDABLE MATERIALS</b>	PE 80, PE 100, PE-HD, PP, PVDF
<b>WELDING PRESSURE RANGE</b>	0 ÷ 150 bar
<b>PORTS</b>	USB - Micro USB
<b>WELDING REPORTS</b>	√
<b>MEMORY</b>	√
<b>FAVORITE WELD PARAMETER STORAGE</b>	√
<b>COMMAND CENTER</b>	Tablet Android 10" IP65
<b>AMBIENT TEMPERATURE RANGE ALLOWED</b>	-5° ÷ 40° C (23° ÷ 104° F)
<b>POWER REQUIREMENTS (Vac)</b>	230 V Single phase or 400 V Three phase
<b>FREQUENCY</b>	50/60 Hz
<b>MAX POWER ABSORPTION</b>	7400 W
<b>DIMENSIONS</b>	168 x 219 x 180 cm 5.51 x 7.19 x 5.91 ft
<b>WEIGHT</b>	647 Kg (1426 lb)

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