

# PRODUCTS CATALOGUE

"AT EASE IN YOUR CONSTRUCTION SITE"

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





# **Ritmo meets all your welding needs in your jobsite**



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# ADVANTAGE RITMO



## **RITMO WORLDWIDE**

Ritmo has professional distributors and resellers all over the world. Our staff is ready to assist you in English, Spanish, French, German, Arab, Italian, Russian and Portuguese.

## **TRAINING**

From many years now, we have decided that the best way to grant a client/distributor a perfect knowledge of our products is to invest in custom training, in our own premises. These courses are aimed to teach how to operate the products in the best way, and how to supply the "first aid" when necessary.

## **PRESALES TECHNICAL ASSISTANCE**

When a client or a potential client wants to buy us a product, it is our standard procedure to help find the best solution to its needs.

## **GLOBAL ADVICE**

In such a technical field as ours, the customer requires the best assistance. Thanks to the experience developed along the years, and to the co-operation with several manufacturers, institutions, schools and training institutes, RITMO is able to give the most comprehensive advice to no matter which related issue. Our company is a long-time member of a UNIPLAST's (UNI-Italian National Plastics Standards Body) working group dedicated to the study and draw up of new standards within our field. The importance of this group is linked to the fact that the expansion of the plastic welding field ought to be followed by a crescent sensitivity for safety issues, so to have a sustainable and continuous growth. The working group prepares draws, hence present them to the UNI to be discussed and eventually transformed into new standards.

## **AFTER SALES TECHNICAL ASSISTANCE**

Ritmo's Service Centre can solve all kind of technical issues, as well as overhaul our machines. Ritmo has other Service Centres abroad, linked to its official distributors.

## **STARTING AND TESTING**

RITMO' technicians are prepared to make the starting and testing of workshop machines at the client' own premises, so that the fittings production can start almost immediately.

# ***PLASTIC FABRICATION SHEET WELDING***







# POLYFUSION 1-25

POLYFUSION 1-25 is compact and easy to use manual welders for HDPE and PP sheets from one meters wide and 2 mm to 25 mm thickness ( $1/8'' \div 1''$ ). The welding cycle is handled by a control panel which commands the hydraulic gearcase. The control panel can be adjusted horizontally to assist the operator. The machine can operate in compliance with the DVS 2207-1 and DVS 2207-11.

The sheets are fixed to the machine body by manual handwheels; the locking arm has an articulated joint that allows its opening and the easy extraction of the welded sheets. The working surface of the machine body has a graduated scale on both sides, which speeds the positioning and centering of the pieces to be welded.

The manual heating plate, located under the machine body, has a height adjustment handwheel. The temperature is controlled by a built-in high-precision electronic thermoregulator, "Digital Dragon".

The welding machine has a small modulated sustaining frame to perform 90 ° weldings.

The machine can also weld twin-wall HDPE sheets.

There's a practical shelf at the base of the steel frame, which can be used to place some tools.

POLYFUSION 1-25 is available in 230 V (110 V on request).

## TECHNICAL FEATURES



Model	Polyfusion 1-25
Working range	2 ÷ 25 mm; $1/8'' \div 1''$
Materials	HDPE, PP
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	1580 W (230 V)
Types of welding	line, 90°
Max. working width	1000 mm; 3.28 ft
Min. weldable thickness	2 mm ; $1/8''$
Max. weldable thickness	25,4 mm; 1"
Pressure range	0 ÷ 150 bar
Weight standard composition	118 Kg (260 lb)
Dimensions machine body	1420 x 900 x 1190 mm 56" x 35.4" x 46.8"

## PRODUCTS OVERVIEW

	MANUAL				PNEUMATIC		HYDRAULIC			
MODELS	POLYFUSION 1 - 25	POLYFUSION 2 - 25	POLYFUSION 2 - 50	POLYFUSION 2 - 100	POLYFUSION 3	POLYFUSION 4	POLYFUSION 3 - 30	POLYFUSION 3 - 50	POLYFUSION 4 - 30	POLYFUSION 4 - 50
Min. weldable thickness	2 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"	3 mm 1/8"
Max. weldable thickness ****	25 mm 1"	25 mm 1"	50 mm 2"	100 mm 4"	50 mm 2"	50 mm 2"	30 mm - 1.18"	50 mm 2"	30 mm 1.18"	50 mm 2"
Max working width ****	1 m 3.28 ft	2 m 6.56 ft	2 m 6.56 ft	2 m 6.56 ft	3050 mm 10 ft	4050 mm 13.2 ft	3 m 9.84 ft	3 m 9.84 ft	4 m 13.12 ft	4 m 13.12 ft
Materials**	HDPE; PP,	HDPE; PP,	HDPE; PP,	HDPE; PP,	HDPE; PP, PVC-C, PVC-U ** PVDF	HDPE; PP, PVC-C, PVC-U ** PVDF	HDPE; PP, PVC **	HDPE; PP, PVC **	HDPE; PP, PVC **	HDPE; PP, PVC **
Twin wall sheets	√	√	√	√	√ up to 60 mm	√ up to 60 mm	√	√	√	√
Welding line	√	√	√	√	√	√	√	√	√	√
Welding 90° (A)	√	√	√	-	√	√	√	√	√	√
Welding circular (A) *** Contact RITMO S.P.A.		-	-	-	min Ø 500 mm needs optional kit	min Ø 500 mm needs optional kit	min Ø 500 mm needs optional kit	min Ø 700 mm needs optional kit	min Ø 500 mm needs optional kit	min Ø 700 mm needs optional kit
Sheet locking clamps	mechanical manual	mechanical manual	mechanical manual	hydraulic	pneumatic	pneumatic	hydraulic	hydraulic	hydraulic	hydraulic
Locking 90° sheets	mechanical	mechanical	mechanical	mechanical	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic	pneumatic
Adjusted control panel	√	√	√	√	-	-	-	-	-	-
Heating plate lift	mechanical manual	mechanical manual	mechanical manual	mechanical manual	automatic	automatic	automatic	automatic	automatic	automatic
Welding System	manual hydraulic	manual hydraulic	manual hydraulic	manual hydraulic	CNC	CNC	CNC	CNC	CNC	CNC
PRE-SET customized welding cycles	-	-	-	-	√	√	√	√	√	√
Report	-	-	-	-	CSV	CSV	PDF	PDF	PDF	PDF
Memory	-	-	-	-	limitless reports	limitless reports	4000 reports	4000 reports	4000 reports	4000 reports
Display	-	-	-	-	LCD 12"	LCD 12"	LCD	LCD	LCD	LCD

(A) On request

\*\* Contact RITMO

\*\*\* The minimum diameter is calculated based on the geometric characteristics of the machine. The range of diameters that can be produced and their thickness are bound to the use of external systems such as overhead cranes, forklifts etc. and the permissible strain of the outer fibers of the material. Refer to the material datasheet of the manufacturer for further information in this regard.

\*\*\*\* The welding dimensions refer to PP / HDPE with welding pressure of 0.17 N / mm<sup>2</sup>



## MAIN APPLICATIONS

- Mining technology
- Building industry
- Mechanical engineering
- Livestock breeding
- Aquaculture and swimming pools
- Chemical engineering and tank building
- Surface treatment metals
- Buffer tanks
- Beverage and food industry
- Pump manufacturing
- Ventilation system and ventilator manufacture
- Environment and waste water tanks
- Nautical sector

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