

PRODUCTS CATALOGUE

"AT EASE IN YOUR CONSTRUCTION SITE"

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PLASTIC FABRICATION SHEET WELDING





POLYFUSION 4-50

POLYFUSION 4-50 is CNC automatic butt fusion machine, suitable for welding thermoplastic sheets made of HDPE, PP, PVC*. The butt fusion machine is also able to weld twin-wall HDPE and PP sheets. The machine can operate in compliance with the DVS 2207-1 and DVS 2207-11.

POLYFUSION is an hydraulic welding machine equipped with a control panel, which allows easily and safely setting and performance of the whole welding process.

According to the user's needs, it is also possible to input the type of material and the dimension of the thermoplastic sheet, and therefore proceed to weld. The CNC can store up to 4000 cycles. It is possible to download the PDF file via USB slot; possibility to pre-set 15 customized welding cycles. The machine has foldable side supports.

The machine can be operated both horizontally and vertically, which allow to perform different types of weld (horizontal, circular and vertical joints).

Types of welding



TECHNICAL FEATURES



watch the video

Materials*	PP, PVC*, HDPE, Twin Wall sheets
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	14500 W
Types of welding	Straight 90° (on request) **Circular (on request) min Ø 700 mm For details contact RITMO S.P.A.
Max. working width ***	4000 mm - 13.12 ft
Min. weldable thickness	3 mm - 1/8"
Max. weldable thickness ***	50 mm - 2"
Compress air supply	10 bar
Memory	4000 cycles
Report	PDF
Pre-set customized	15
Dimensions machine body	5200 x 1540 x 840 mm (folded brackets) 204,7" x 60.6" x 33" 5200 x 1540 x 1960 mm 204,7" x 60.6" x 77.2" (unfolded brackets)

* 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 / mm²



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

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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

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.

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