Ritmo
PLASTIC WELDING TECHNOLOGY

PRODUCTS CATALOGUE

"AT EASE IN YOUR CONSTRUCTION SITE"

www.ritmo.it



Ritmo
PLASTIC WELDING TECHNOLOGY

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.

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ELECTROFUSION MACHINES



*** WORKING RANGE Ø mm**

HIGH PRESSURE	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	> 1000
ELEKTRA LIGHT	20	25	32	40	50	63	75	90	110	125	140	160																	
ELEKTRA S	20	25	32	40	50	63	75	90	110	125	140	160	180	200	X	X	X	X											
ELEKTRA M	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	X	X	X	X							
ELEKTRA 315	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315											
ELEKTRA 500	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500							
ELEKTRA 1000	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	> 1000
ELEKTRA XL	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	> 1000

LOW PRESSURE	20	25	32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315
MUSTANG 160 V2			32	40	50	63	75	90	110	125	140	160						
UNIVERSAL 160 V1			32	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315

* Working range might vary according to fittings brand. Check with the fitting manufacturer the power and the welding time required

x
ONLY 110 V MODEL



ELEKTRA S

ELEKTRA S is an universal electrofusion machine characterized by high performance and reduced weight. It is available in two different power supplies: 230V and 110V. The welding machine has been designed to weld EF fittings up to OD 200* mm (230 V version) or 315* mm (110 V version) for PE, PP, PP-R high pressure pipelines. It can weld EF fittings within the range 8 ÷ 48 V. Provided with:

- High resistance technopolymer shell
- "Defender" protection system against dust and rain
- Lifting handle and cable wrapping
- in-built memory of 4000 welding report
- Possibility to download the welding report thanks to the USB port in PDF, CSV, BIN format. For BIN format it is necessary the RITMO transfer software. The USB port is also used to upgrade the welding machine firmware and to plug the ESC-POS printer to get immediately the welding report printed on site.
- 2,4" LCD Graphic display
- Intuitive control panel with the possibility to customize the menu with 20 different languages
- 90° universal connectors 4.0-4.7mm, no need of adapters
- Laser scanner in order to read the EF fitting barcode and to set automatically the welding parameters according to the ISO 13950. The laser technology of the scanner enhances the reading quality in case of severe light reflections or contrasts. It is also possible to enter manually both the welding parameters (Voltage/Time) and the welding barcode digits.
- Traceability: ISO 12176-3 Operator traceability; ISO 12176-4 Fitting/ pipe traceability
- In-built GPS device (on request)

STANDARD COMPOSITION



90° Universal connectors 4.0-4.7mm



Laser Scanner



Manual scraper



Carrying case

ON REQUEST



Software Ritmo Transfer

TECHNICAL FEATURES

PLUS

HIGH PERFORMANCE

PDF WELDING REPORT

RESISTANT AGAINST GENERATOR POWER SURGES

Model	**ELEKTRA S**
Working range *	20 ÷ 315 mm 110 V* 20 ÷ 200 mm 230 V*
Materials	PE, PP, PP-R
Welding output voltage	8 ÷ 48 V
Power supply	110 V ±15% Single Phase 50/60 Hz 230 V ± 15% Single Phase 50/60 Hz
Absorbed power **	1700 W (110 V) 1800 W (230 V)
Max. output current	60 A (110 V) 70 A (230 V)
60% Duty Cycle output ISO 12176-2	45 A
Operating mode	ISO 13950 welding barcode Manual (barcode digits, tension/time)
Connections	USB port for the pen drive and for the ESC-POS printer
Memory	4000 welding report
Ambient temperature	-20° ÷ 50° C;
T° probe precision	± 1° C
Traceability	ISO 12176-3 ISO 12176-4
Protection degree	IP 54
Languages	20
Overall dimensions, machine body	246 x 390 x 240 mm
Overall dimensions, carrying case	290 x 445 x 295 mm
Weight machine body	5,75 Kg
Weight, machine body + welding and power supply cable + laser scanner	8,4 Kg
Recommended generator to cover the complete working range	3,5 ÷ 4 kVA

***** Working range might vary according to fittings brand. Check with the fitting manufacturer the power and the welding time required.

** Power at 60% Duty Cycle



ELEKTRA LINE - OVERVIEW

	ELEKTRA S	ELEKTRA M	ELEKTRA XL	ELEKTRA LIGHT	ELEKTRA 315	ELEKTRA 500	ELEKTRA 1000
Working range * 110 V	20 ÷ 315* ½" IPS ÷ 12 IPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	-	20 ÷ 125/160* ½" IPS ÷ 6" IPS*	20 ÷ 315* ½" IPS ÷ 10" DIPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	-
Working range * 230 V	20 ÷ 200* ½" IPS ÷ 6" DIPS*	20 ÷ 315* ½" IPS ÷ 12" IPS*	20 ÷ 1600* ½" IPS - 63" IPS*	20 ÷ 125/160* ½" IPS ÷ 6" IPS*	20 ÷ 315* ½" IPS ÷ 10" DIPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	20 ÷ 1600* ½" IPS - 63" IPS*
Automatic Temperature compensation	√	√	√	√	√	√	√
Constantly welding cycle monitored	√	√	√	√	√	√	√
Barcode scanner (ISO 13950)	√	√	√	√	√	√	√
Manual fusion input	√	√	√	√	√	√	√
Welding report	√	√	√	√	√	√	√
Connections	USB port Type A	USB port Type A	USB port Type A	Adapter DB9M-USB	Adapter DB9M-USB	USB port Type A	USB port Type A
Report file format	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN - CSV	PDF - BIN - CSV
Memory	4000 cycles	4000 cycles	4000 cycles	325 cycles	500 cycles	4000 cycles	4000 cycles
Sound allarm	√	√	√	√	√	√	√
Error recognition	√	√	√	√	√	√	√
Fusion time	√	√	√	√	√	√	√
Cooling time	√	√	√	√	√	√	√
Connectors	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm
Outside Temperature range	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-10° ÷ 50° C (14° ÷ 122° F)	-10° ÷ 50° C (14° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)
Power supply (Vac)	110 V or 230 V	110 V or 230 V	230 V	110 V or 230 V	110 V or 230 V	110 V or 230 V	230 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max output current	60 A (110 V) 70 A (230 V)	80 A (110 V) 100 A (230 V)	120 A	60 A	100 A	100 A (110 V) 120 A (230 V)	120 A
Welding output voltage * **	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V or 8 ÷ 80 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V
Absorbed power **	1700W (110 V) ** 1800 W (230 V) **	2200W (110 V) ** 2300 W (230 V) **	3500 W (230 V) **	1300 W **	2600 W (110 V) ** 2600 W (230 V) **	3100 W (110 V) ** 3100 W (230 V) **	3500 W **
Suggested power generator for full welding range	3,5 ÷ 4 kVA	5,5 ÷ 6 kVA	6,5 ÷ 7 kVA	3,5 ÷ 4 kVA	5,5 ÷ 6 kVA	5,5 ÷ 6 kVA	6,5 ÷ 7 kVA
Protection degree	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
Electrical fuse protection	√	IP 54	IP 54	√	√	√	√
Display	Graphic LCD 2,4"	Graphic LCD 2,4"	Graphic LCD 2,4"	Single line LCD	Graphic LCD 2,4"	Graphic LCD 6,5"	Graphic LCD 6,5"
Machine body dimensions	246x390x240mm 7.9"x15.3"x9.4"	246x390x240mm 7.9"x15.3"x9.4"	246x390x240mm 7.9"x15.3"x9.4"	200x250x210mm 7.9"x9.8"x8.3"	263x240x300mm 10.3" x 9.4" x 1.8"	255x270x385mm 10" x 10.6" x 15.1"	255x270x385mm 10" x 10.6" x 15.1"
Carrying case dimensions	290x445x295mm 11.4"x17.5"x11.6"	290x445x295mm 11.4"x17.5"x11.6"	290x445x295mm 11.4"x17.5"x11.6"	-	405x285x340mm 16"x11.2"x13.4"	410x290x485mm 16.1"x11.4"x19.1"	410x290x485mm 16.1"x11.4"x19.1"
Weight machine + cables	8,4 Kg (18.5 lb)	9,2 Kg (20.2 lb)	9,4 Kg (20.7 lb)	~ 7 Kg (15.4 lb)	~ 16 Kg (35.3 lb)	~ 18 Kg (39.6 lb)	~ 20 Kg (44 lb)
Weight carrying case	4.3 Kg (9.4 lb)	4.3 Kg (9.4 lb)	4.3 Kg (9.4 lb)	-	3.9 Kg (8.6 lb)	4.8 Kg (10.5 lb)	4.8 Kg (10.5 lb)
Traceability ISO	**12176 - 3** **12176 - 4**	**12176 - 3** **12176 - 4**	**12176 - 3** **12176 - 4**	-	**12176 - 4** (only fitting)	**12176 - 3** **12176 - 4**	**12176 - 3** **12176 - 4**

* Working range might vary according to fittings brand. Check with the fitting manifacturer the power and the welding time required.
** Power at 60% Duty Cycle
*** Elektra XL is available in two version: for couplings 8 ÷ 48 V and couplings 8 ÷ 80 V

RITMO ELECTROFUSION,
THE COMPLETE SYSTEM AROUND YOUR CONSTRUCTION SITE



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