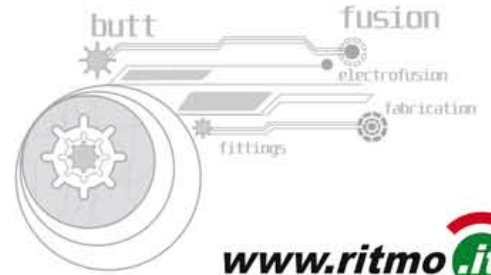




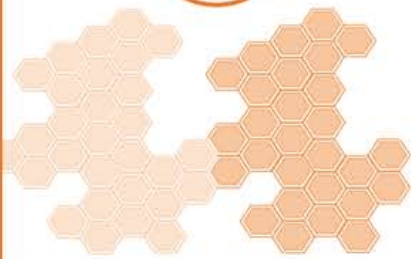
Italian Technology for "The Welding People"



Ritmo
PLASTIC WELDING TECHNOLOGY



www.ritmo.it



HDPE PP
PVDF PB





MADE IN ITALY

DESIGN, CREATE
IN ITALY



RITMO S.P.A. is a world leader with over 35 years of experience in the manufacturing of plastic welding equipment. All products are designed and built according to International standards and directives (UNI, ISO, CEE). Since the very beginning, quality and technology innovation are RITMO's milestones, and time after time, this philosophy is always more recognized by the global market. RITMO strong points are its ideas to design and produce accurate, fast, versatile, modular and easy-to-use welding machines. Products range includes butt fusion, electrofusion and extrusion equipment. Ritmo is also providing a complete line of accessories and useful instruments for pipe cutting and weld preparation such as the band saws. RITMO's regards towards the client has brought to the new-born "RITMO FUSION OPERATOR SCHOOL", which is a welding school with the goal of building qualified personnel and spread the knowledge about the technical potentiality of RITMO's equipment: **TECHNOLOGY MADE IN ITALY.**

... the result of
our joint
efforts



ISO 9001
Quality System



A

D V A N T A G E

RITMO SERVICE

RITMO WORLDWIDE

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

BUTT FUSION MACHINES



WORKING RANGE Ø mm

MODEL	32	40	50	56	63	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	1200	1400	1600	
DELTA 160 M	•	•	•	•	•	•	•	•	•	•	•																				
GAMMA 160	•	•	•	•	•	•	•	•	•	•	•																				
BASIC 160		•	•	•	•	•	•	•	•	•	•																				
BASIC 160 EASY LIFE		•	•	•	•	•	•	•	•	•	•																				
DELTA DRAGON	•	•	•	•	•	•	•	•	•	•	•																				
BASIC 200					•	•	•	•	•	•	•	•	•																		
BASIC 200 EASY LIFE					•	•	•	•	•	•	•	•	•																		
DELTA TRAILER 250							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA DRAGON 250 CNC							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA DRAGON 250 B							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 250							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 250 EASY LIFE							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 315								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 315 EASY LIFE								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA DRAGON 315 CNC								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA DRAGON 315 B								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA 355 ALL TERRAIN									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA 355 TRAILER									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 355									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BASIC 355 EASY LIFE									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA DRAGON 355 B									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
COMPACT 355 L									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DELTA 500 TRAILER																															
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DELTA 500 EASY LIFE																															
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DELTA 630 EASY LIFE																															
DELTA 800																															
DELTA 1000																															
DELTA 1200																															
DELTA 1600																															



Manual butt fusion welder



For pre-insulated pipes

DELTA DRAGON 250 B DELTA DRAGON 315 B



Self-aligning hydraulic butt fusion machines, suitable for welding under-pressure pipes for water, gas and other fluids. Built according to the International standards (UNI 10565, ISO 12176-1), **DELTA DRAGON 250 B** and **DELTA DRAGON 315 B** presents very interesting innovations.

A machine body able to assume two working position: inclined or horizontal. The rotation of the machine body INCLINED/HORIZONTAL is very fast, by adjusting only 4 screws on the machine frame is possible to choose the best configuration for the working conditions. It comes with the **fast-locking-adapters system SMARTLock patented by Ritmo** (with master adapters DELTA DRAGON 315 B), which speed up the welding preparation time without using any additional equipment. It features a device (applicable on every welding configuration: between the 2nd and 3rd clamps or 3rd and 4th clamps) which allows the automatic detach of the heating plate from the pipes/fittings. Two rollers can be lodged very quickly on the sides of the machine body. These accessories allow lifting up the welded pipes to make them roll and quickly prepare a new weld.

- **A Teflon-coated (PTFE)** heating plate with a built-in independent thermometer, to check the working temperature, and an high-precision electronic thermoregulator "Digital Dragon" ($\pm 1^{\circ}\text{C}$) with digital display and regulating buttons. This new system includes Led indicators to check if the machine is working normally (live tension and working temperature), contingent probe's failures and/or temperature anomalies.

- **A milling cutter** that is equipped with a safety micro-switch to prevent from accidental starts, a thermal circuit breaker to protect the engine and also features an ergonomic docking system and on/off switches.

- **An electrohydraulic gearcase** protected from crashes and atmospheric corrosion by a plastic box. It includes a control lever to open and close the clamps, maximum pressure and discharge valves (useful also for the "Dual Pressure" welding process), hydraulic connection hoses with non-drip fast couplings and timer (to check the warming and welding time).

- **A milling cutter/heating plate support** which comes with a high-temperature-proof bag, which also avoid the heating element from being scratched.

DELTA DRAGON 250 B and **DELTA DRAGON 315 B**, thanks to the machine body configurations, are able to weld fittings like elbows, tees, Y-branches and flanges necks. Available in the 110 V and 230 V versions.

STANDARD COMPOSITION:

- Machine body with bag and service keys
- Heating plate TP DELTA TE
- Milling cutter
- Electrohydraulic gearcase
- Milling cutter/Heating plate support



Machine body trolley

TECHNICAL FEATURES

DELTA DRAGON 250 B

DELTA DRAGON 315 B

Working range	75 ÷ 250 mm		90 ÷ 315 mm	
Power supply	110 V	230 V	110 V	230 V
	Single phase - 50/60 Hz		Single phase - 50/60 Hz	
Total absorbed power	3470 W	3470 W	3900 W	4500 W
Working temperature	180° ÷ 280° C		180° ÷ 280° C	
Outside temperature range	-10° ÷ 40° C		-10° ÷ 40° C	
Time to reach welding temperature	< 20 min.		< 20 min.	
Materials	HDPE, PP, PB, PVDF <small>For other materials contact RITMO S.P.A.</small>		HDPE, PP, PB, PVDF <small>For other materials contact RITMO S.P.A.</small>	

DIMENSION (W x D x H)		
Machine body	1000 x 543 x 418 mm	1150 x 530 x 531 mm

WEIGHT		
Machine body	58 Kg	86 Kg
Standard composition	118 Kg	160 Kg

ON REQUEST (ACCESSORIES)

- Delta Dragon 250 B Clamps' inserts from Ø 75 to 225 mm
- Delta Dragon 315 B Clamps' inserts from Ø 90 to 280 mm with 250 mm Master adapters
- Tool to weld flange necks/stub-end holder
- Roller kit with lever applicable on the sides of the machine body
- Clamps' wooden transportation box
- Machine body trolley
- THE INSPECTOR Data-logging



Roller kit



Master Insert



Detach device for heater

THE INSPECTOR



THE INSPECTOR - DATA LOGGING that controls, records and generates a PDF report of the entire welding process. The Inspector is an "open system" that can be used with Ritmo machines or others. The large graphic display allows an easy reading of welding reports.

THE INSPECTOR is installed in a hard case made of PP, with protection degree IP 67. It is sold with a bag that contains the data logging and the battery charger with international adapters.

- Preloaded Major Welding Standard (ISO, DVS, and others)
- Memory of 1000 cycles
- USB port for Welding Report in PDF
- Integrated GPS
- Firmware upgradable via USB
- Battery operated (24 hr of operational work)
- Battery charger with international adapters
- Built-in plastic case in PP with IP67 protection class
- Transport bag
- Applicable to Ritmo machines and other

POWER SUPPLY 24 V DC

Outside Temperature Range -10° C 40° C

Protection Degree IP 67

Dimensionis Data Logging 240 x 265 x 110 mm

Weight 2,6 Kg

STANDARD COMPOSITION

- THE INSPECTOR, transport bag, battery, charger and International adapters

ON REQUEST

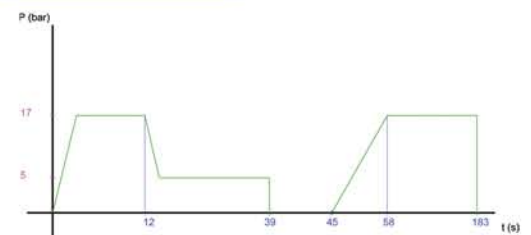
- Transducer connection cables; the cable and the transducer may vary according to the welder model (see price list for the correspondent codes).

Welding Report

Date: 10:26 19/02/14
 Temperature: 29C
 Version: 107
 Serial number: 149900004
 Calibration: 01/16
 DIXON 225 413669 194.70mm
 D:160(mm) S:10.00(mm)
 PE-100
 ISO21307 11 low-p
 Operator name DARREN
 Job TEST1
 T: 222 C
 Pd:11(bar) P1:52(bar)
 P2:11(bar) T2:110s
 T3:5s T4:6s
 P5:52(bar) T5:780s
 INSPECTOR
 Total time: 16'5"
 GPS DATA NOT AVAILABLE

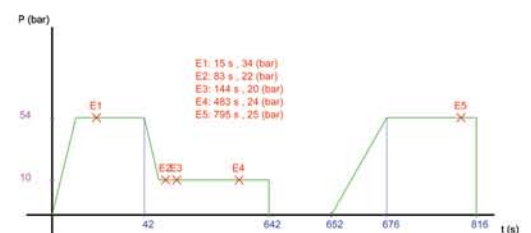
perfect welding

Welding #: 50 NO ERROR!



reporting error

Welding #: 42 5 ERRORS!



INTERNAL DEBEADER



Internal Debeader by RITMO S.p.A. covering a range from \varnothing 90 up to 500 mm! A complete kit set is composed by:

- 6 pcs of alloy rods 2,15 mtr each (one is acting as turn handle)
- 5 pcs of center rings to ensure that the rods are in center of the pipe.
- Alloy rods are delivered in a special carrying bag with a handle
- Internal Debeader Head 90 - 110 mm
- Internal Debeader Head 125 - 160 mm
- Internal Debeader Head 160 - 200 mm
- Internal Debeader Head 225 - 315 mm
- Internal Debeader Head 355 - 500 mm

Internal Debeader Head can be ordered separately too.

ADVANTAGES:

Intuitive and easy to use, accurate, versatile, composed of few parts.

TECHNICAL FEATURES

Model	SDR range
\varnothing 90 mm	17 + 26
\varnothing 110 + 450 mm	11 + 26
\varnothing 500 mm	17 + 26



BUTT FUSION MACHINES REFERENCE

IPS PIPE SIZE

MODEL	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	42"	48"	52"	54"	63"	
DELTA 160 M	*	*	*	*	*	*	*																						
DELTA DRAGON 160	*	*	*	*	*	*	*																						
BASIC 160	*	*	*	*	*	*	*																						
BASIC 160 EASY LIFE	*	*	*	*	*	*	*																						
BASIC 200			*	*	*	*	*	*																					
BASIC 200 EASY LIFE			*	*	*	*	*	*																					
DELTA TRAILER 250			*	*	*	*	*	*	*																				
DELTA DRAGON 250 CNC			*	*	*	*	*	*	*	*																			
DELTA DRAGON 250 B			*	*	*	*	*	*	*	*																			
BASIC 250			*	*	*	*	*	*	*	*																			
BASIC 250 EASY LIFE			*	*	*	*	*	*	*	*																			
DELTA DRAGON 315 CNC					*	*	*	*	*	*	*																		
DELTA DRAGON 315 B					*	*	*	*	*	*	*																		
BASIC 315					*	*	*	*	*	*	*																		
BASIC 315 EASY LIFE					*	*	*	*	*	*	*																		
DELTA 355 ALL TERRAIN					*	*	*	*	*	*	*	*																	
DELTA 355 TRAILER					*	*	*	*	*	*	*	*																	
DELTA DRAGON 355 B					*	*	*	*	*	*	*	*																	
BASIC 355					*	*	*	*	*	*	*	*																	
BASIC 355 EASY LIFE					*	*	*	*	*	*	*	*																	
COMPACT 355 L					*	*	*	*	*	*	*	*																	
DELTA 500 EASY LIFE						*	*	*	*	*	*	*	*																
DELTA 500						*	*	*	*	*	*	*	*																
DELTA 500 TRAILER						*	*	*	*	*	*	*	*																
DELTA 630 TRAILER							*	*	*	*	*	*	*	*															
DELTA 630 ALL TERRAIN							*	*	*	*	*	*	*	*															
DELTA 630							*	*	*	*	*	*	*	*															
DELTA 630 EASY LIFE							*	*	*	*	*	*	*	*															
DELTA 800															*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DELTA 1000															*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DELTA 1200															*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DELTA 1600															*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

• Optional, for more details contact RITMO

DIPS PIPE SIZE

MODEL	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"
DELTA 160 M	*	*															
DELTA DRAGON 160	*	*															
BASIC 160	*	*															
BASIC 160 EASY LIFE	*	*															
BASIC 200	*	*	*														
BASIC 200 EASY LIFE	*	*	*														
DELTA TRAILER 250	*	*	*	*													
DELTA DRAGON 250 CNC	*	*	*	*	*												
DELTA DRAGON 250 B	*	*	*	*	*												
BASIC 250	*	*	*	*	*												
BASIC 250 EASY LIFE	*	*	*	*	*												
DELTA DRAGON 315 CNC	*	*	*	*	*	*											
DELTA DRAGON 315 B	*	*	*	*	*	*											
BASIC 315	*	*	*	*	*	*											
BASIC 315 EASY LIFE	*	*	*	*	*	*											
DELTA 355 ALL TERRAIN	*	*	*	*	*	*	*										
DELTA 355 TRAILER	*	*	*	*	*	*	*										
DELTA DRAGON 355 B	*	*	*	*	*	*	*										
BASIC 355	*	*	*	*	*	*	*										
BASIC 355 EASY LIFE	*	*	*	*	*	*	*										
COMPACT 355 L	*	*	*	*	*	*	*										
DELTA 500 TRAILER			*	*	*	*	*	*									
DELTA 500			*	*	*	*	*	*									
DELTA 500 EASY LIFE			*	*	*	*	*	*									
DELTA 630				*	*	*	*	*	*								
DELTA 630 EASY LIFE				*	*	*	*	*	*								
DELTA 630 TRAILER				*	*	*	*	*	*	*							
DELTA 630 ALL TERRAIN				*	*	*	*	*	*	*							
DELTA 800									*	*	*	*	*	*	*	*	*
DELTA 1000									*	*	*	*	*	*	*	*	*
DELTA 1200									*	*	*	*	*	*	*	*	*
DELTA 1600									*	*	*	*	*	*	*	*	*

• Optional, for more details contact RITMO

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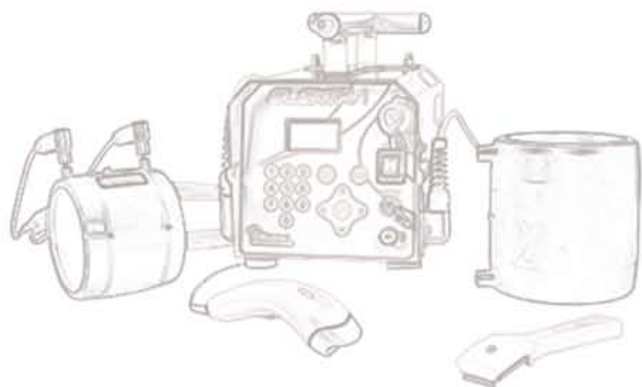
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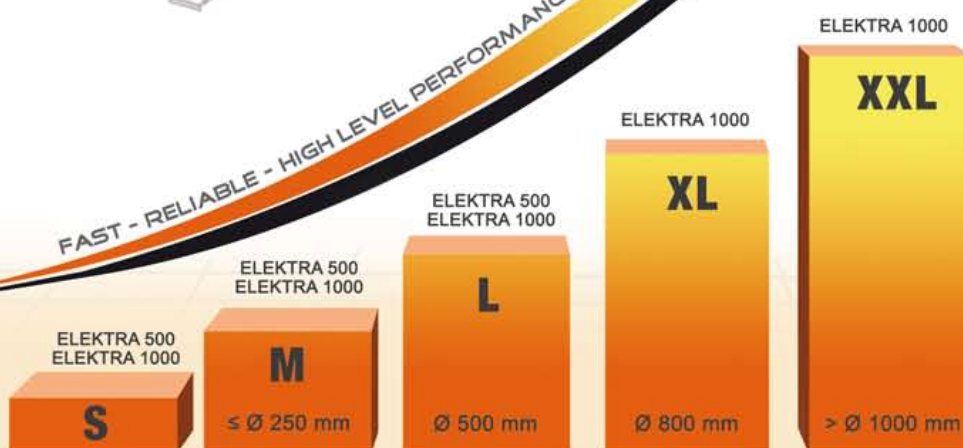
www.youtube.com/user/RitmoPlasticWelding

ELEKTRA 1000

**ELECTROFUSION:
Evolution
of the species!**



FAST - RELIABLE - HIGH LEVEL PERFORMANCE



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