

PRODUCTS CATALOGUE

"AT EASE IN YOUR CONSTRUCTION SITE"

www.ritmo.it





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



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Since 1979 RITMO S.P.A. is a world leader in 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.

MADE IN ITALY

DESIGNED & MANUFACTURED
IN ITALY

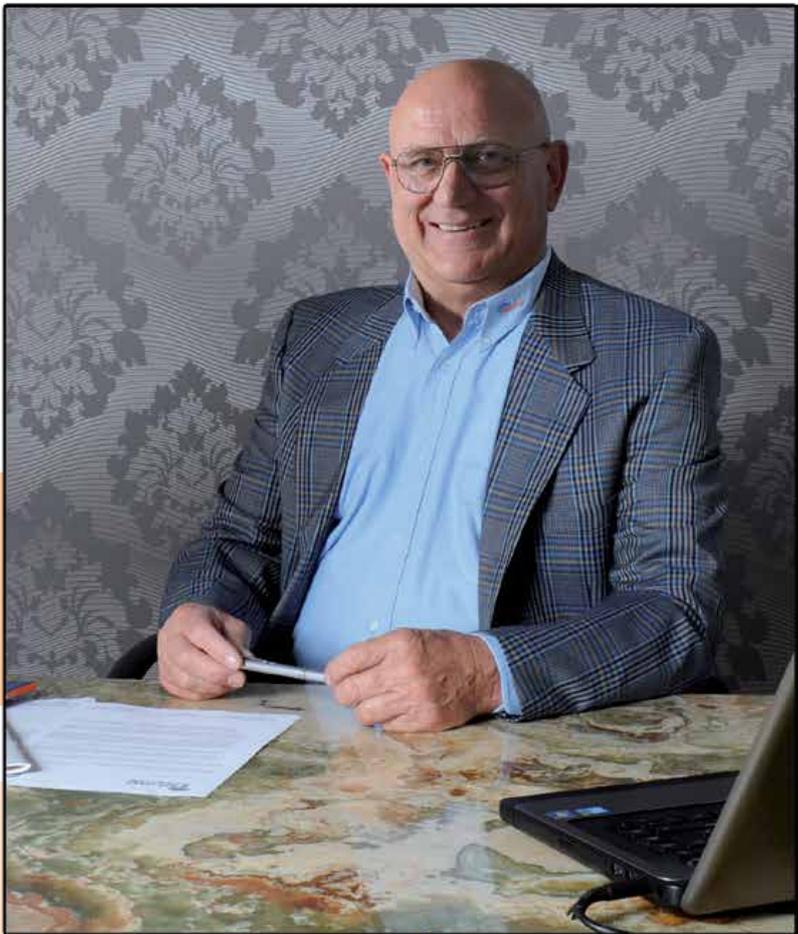


watch the video

www.ritmo.it



Rossella Contiero - Managing Director



Renzo Bortoli - President



ISO 9001
Quality System



www.youtube.com/user/RitmoPlasticWelding

Follow RITMO on
YouTube



1979 year of RITMO's foundation
1979 launched Delta line
1983 launched Alfa line
1986 moved into the new headquarters
1995 reached 50 employees
2002 first Easy Life welding machine
2003 reached 100 employees
2006 launched All Terrain line
2008 launched Elektra line
2009 launched Basic line
2010 launched Omega line
2012 launched Polyfusion line
2015 launched APP "Set & Go"
2017 launched K-SB extruder welders
2017 launched Prisma UP 90



- **OVER 100 PRODUCTS ON CATALOG**
- **90% EXPORT**
- **130 countries where RITMO has been supplying products**



A DVANTAGE

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.



IMPROVE YOUR KNOWLEDGE ON RITMO'S EQUIPMENT

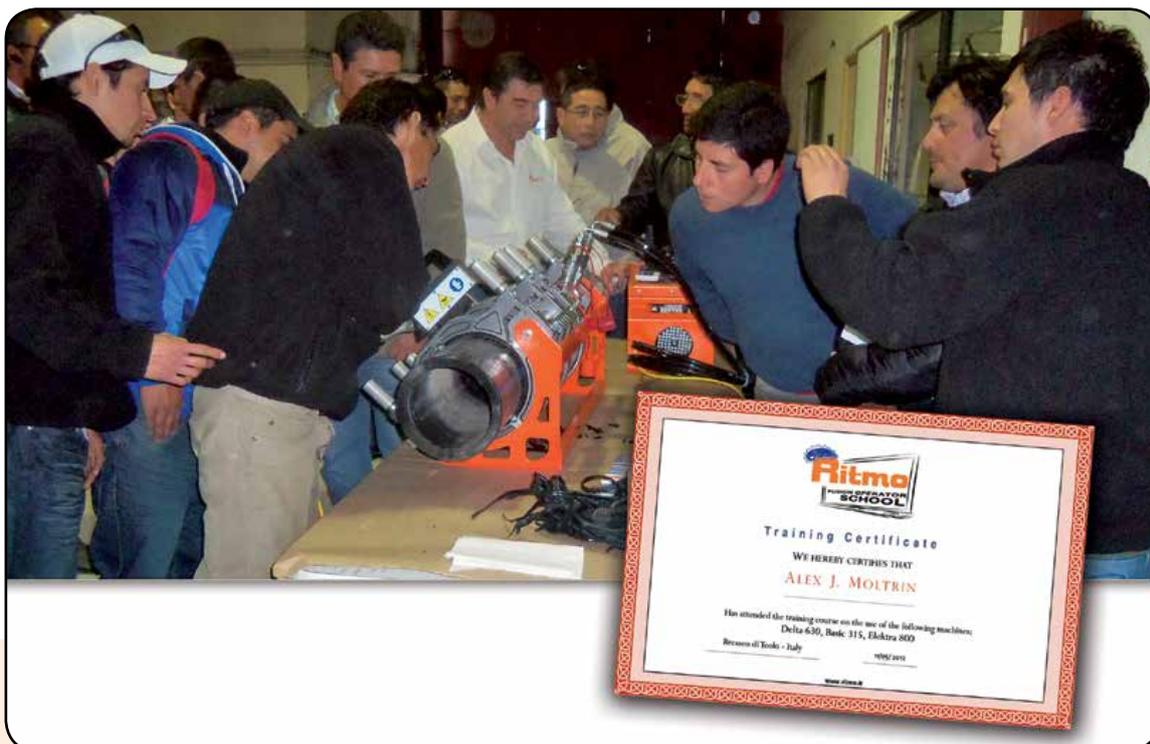
The aim of the course is to prepare specialized operators on the use of Ritmo Products.

Some of the subjects discussed such as the correct preparation of pipes, welding parameters and welding techniques, allow to learn essential information; not only for those who are new in the field but also for experts. The course includes theory and practice.

At the end of the course, participants will receive a Training Certificate.

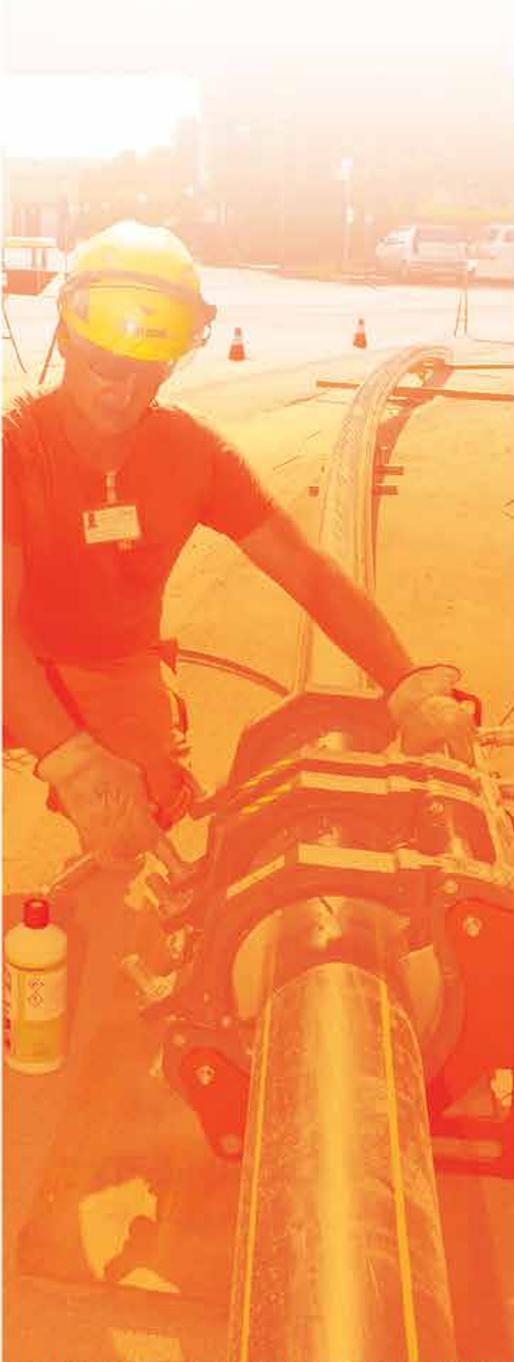


for more details: info@ritmo.it





**Ritmo**
PLASTIC WELDING TECHNOLOGY



RITMO'S BUTT FUSION MACHINES: WORK PHILOSOPHY AVAILABLE TO EVERYONE!

- **MANUAL**

welding machines without hydraulic gearcase



- **HYDRAULIC**

welding machines with hydraulic gearcase



- **EASY LIFE SYSTEM** *HIGH LEVEL PERFORMANCE*

automated welding cycle

welding machines with special hydraulic gearcase

Hardware and Software interact to the entire workflow

repetition of welding cycles

GPS, data-logging and report PDF



- **ALL TERRAIN** *HIGH LEVEL PERFORMANCE*

self-contained generator on board

self-propelled

trolley with wheels

welding machines with special hydraulic gearcase

automated welding cycle

Hardware and Software interact to the entire workflow

repetition of welding cycles

GPS, data-logging and report PDF



- **CNC** *HIGH LEVEL PERFORMANCE*

automatic welding cycle

special hydraulic gearcase and machine body with

integrated mechanical extraction of heating plate

Hardware and Software interact to the entire workflow

repetition of welding cycles

GPS, data-logging and report PDF



BUTT FUSION MACHINES REFERENCE



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

CTS	IPS																																					
	1"	1¼"	1½"	2"	1"	1¼"	1½"	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"						
GAMMA 160																																						
DELTA 160 M	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
DELTA 200 M																																						
BASIC 160					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
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DELTA 160 M	•	•																																				
DELTA 200 M	•	•	•																																			
BASIC 160	•	•																																				
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BASIC 250	•	•	•	•																																		
BASIC 315	•	•	•	•	•																																	
BASIC 355	•	•	•	•	•	•																																
COMPACT 355	•	•	•	•	•	•	•																															
BASIC 160 EASY LIFE	•	•																																				
BASIC 200 EASY LIFE	•	•	•																																			
BASIC 250 EASY LIFE	•	•	•	•																																		
BASIC 315 EASY LIFE	•	•	•	•	•																																	
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DELTA 355 TRAILER	•	•	•	•	•																																	
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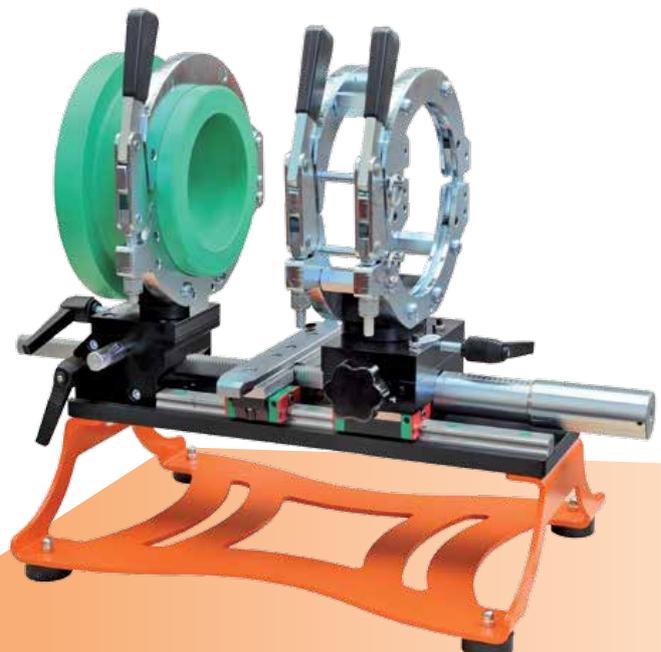


GAMMA 160

GAMMA 160 is a manual butt welding machine for HDPE and PP pipes up to \varnothing 160 mm (4" IPS). GAMMA 160 features special jaws for **manufacturing elbows**. Machine can also weld moulded fittings like bends, tees, wyes (Y) and flange necks up to \varnothing 160 mm; short flange necks can be welded with the help of a stub end holder (on request), applied to the clamps. Machine body of GAMMA 160 is compact and easy to transport. Available in the 110 V or 230 V version.

STANDARD COMPOSITION

- A machine body with pressure regulating device of the bench vice closure
- A steel frame for the support of the machine body
- Steel sliding clamps with fast closing system
- An heating plate with an electronic temperature control device
- An electrically controlled milling cutter for levelling the ends of the pipe and/or fitting, with safety micro-switch against accidental starters
- A support for the milling cutter and the heating plate
- Steel adapters \varnothing 40, 50, 63, 75, 90, 110, 125, 140 mm (1 1/4" IPS ÷ 4" IPS)
- A case for the adapters



TECHNICAL FEATURES

PLUS

**MANUFACTURING
ELBOWS**

**SPECIAL CLAMP
FOR FITTINGS**

Working range	40 ÷ 160 mm; 1½" IPS ÷ 4" IPS
Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A.
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	2020 W (110 V) 1600 W (230 V)
Weight machine body	25 Kg (55.1 lb)
Weight standard composition	85 Kg (187,4 lb)
Dimensions machine body	610 x 300 x 470 mm 24" x 11.8" x 18,5"

ON REQUEST

Ø 1½" ÷ 4" IPS;
tool for flange necks,
thin single clamp.



PLUS

32 ÷ 160 mm

**CLAMP-ALIGNER
SYSTEM PATENTED
BY RITMO**



DELTA 160 M

DELTA 160 M is a manual butt fusion welder for pipes up to \varnothing 160 mm up to 4" DIPS. Leading particulars are the restricted weight, minimum overall dimensions and versatility. Featuring: a machine body, two clamps, an extractable electric milling cutter provided with a safety micro-switch, an extractable heating plate (with an independent thermometer to see the real working temperature and an electronic thermoregulator "Digital Dragon" with display), and two lateral supports on request. DELTA 160 M have a locking device clamps - aligner RITMO Patented, that helps the operator to apply the necessary welding force. The Digital Dragon is an high precision electronic thermoregulator ($\pm 1^\circ$ C accuracy) 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.

STANDARD COMPOSITION

- Machine body
- Heating plate with digital electronic temperature control
- Milling cutter
- Milling cutter/Heating plate support

ON REQUEST

Clamps' inserts from \varnothing 32 to 140 mm;
 \varnothing 1" ÷ 2" CTS; \varnothing 1" ÷ 4" IPS; \varnothing 3" ÷ 4" DIPS
 Lateral support (while stocks last)
 Trolley for machine transportation and support (while stocks last)



TECHNICAL FEATURES

Working range	32 ÷ 160 mm: 1" CTS ÷ 4" DIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	2020 W (110 V) 1600 W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Weight machine body	35 Kg (77.1 lb)
Dimensions machine body	450 x 384 x 830 mm 17.7" x 15.1" x 32.6"

* Suggested power generator 3,5 ÷ 4kVA

PLUS

63 ÷ 200 mm

DIGITAL DRAGON

High-Precision
Electronic
Thermoregulator



DELTA 200 M

DELTA 200 M is a manual butt fusion welder for pipes up to \varnothing 200 mm (6" DISP). Leading particulars are the restricted weight, minimum overall dimensions and versatility. Featuring: a machine body, two clamps, an extractable electric milling cutter provided with a safety micro-switch, an extractable heating plate (with an independent thermometer to see the real working temperature and an electronic thermoregulator "Digital Dragon" with display), DELTA 200 M have a locking device clamps - aligner that helps the operator to apply the necessary welding force. The Digital Dragon is an high precision electronic thermoregulator ($\pm 1^\circ$ C accuracy) 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.

STANDARD COMPOSITION

- Machine body
- Heating plate with digital electronic temperature control
- Milling cutter
- Milling cutter/Heating plate support with pre-insulated bag for heating plate

ON REQUEST

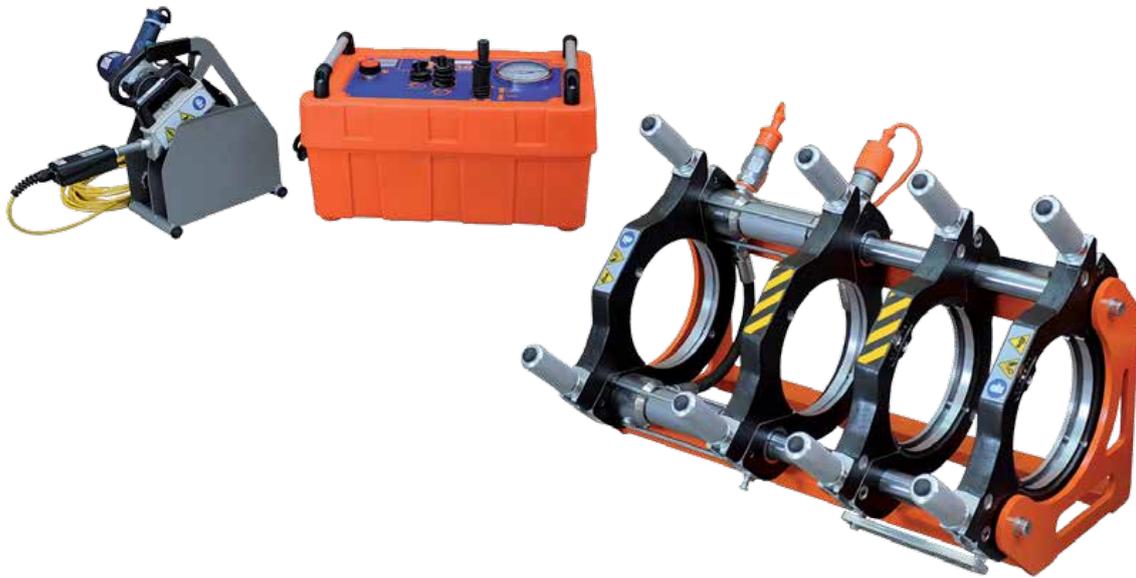
Clamps' inserts from \varnothing 63 to 180 mm;
 \varnothing 2" ÷ 6" IPS; \varnothing 3" ÷ 6" DIPS
Trolley for machine transportation and support



TECHNICAL FEATURES

Working range	63 ÷ 200 mm: 2" IPS ÷ 6" DIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	3000 W (110 V) 3000 W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C; (14° ÷ 104° F)
Weight machine body	30 Kg (66.1 lb)
Dimensions machine body	529 x 499 x 1100 mm 20.8" x 19.6" x 43.3"

* Suggested power generator 5,5 ÷ 6kVA



BASIC 160

Self-aligning hydraulic butt fusion machine, suitable for welding under-pressure pipes for water, gas and other fluids up to Ø160 mm 5" IPS. Built according to the International standards (UNI 10565, ISO 12176-1), BASIC 160 includes:

- A machine body built with a supporting frame, four clamps and two hydraulic cylinders with fast non-drip coupling connections.
- 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 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.
- An extractable electric milling cutter to face the heads of the pipes and/or fittings. It includes a safety micro-switch and a thermal circuit breaker.
- An electro-hydraulic 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). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- A milling cutter/ heating plate support

BASIC 160 is 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



Gearcase



Heating plate
with Digital
Dragon



Milling cutter



Support

TECHNICAL FEATURES

PLUS

DIGITAL DRAGON

High-Precision
Electronic
Thermoregulator

* Suggested power generator
3,5 ÷ 4kVA

Working range	40 ÷ 160 mm; 1" IPS ÷ 5" IPS
Materials	HDPE, PP, PP-R, PVDF For other materials contact RITMO S.P.A.
Power supply *	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	2320 W (110 V) 2220 W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	606 x 365 x 375 mm (24" x 14.5" x 15")
Weight machine body	22 Kg (48.5 lb)
Weight standard composition	69 Kg (152.1 lb)

ON REQUEST



Inserts
Ø 40 ÷ 140 mm



Trolley



The INSPECTOR
Data-logging



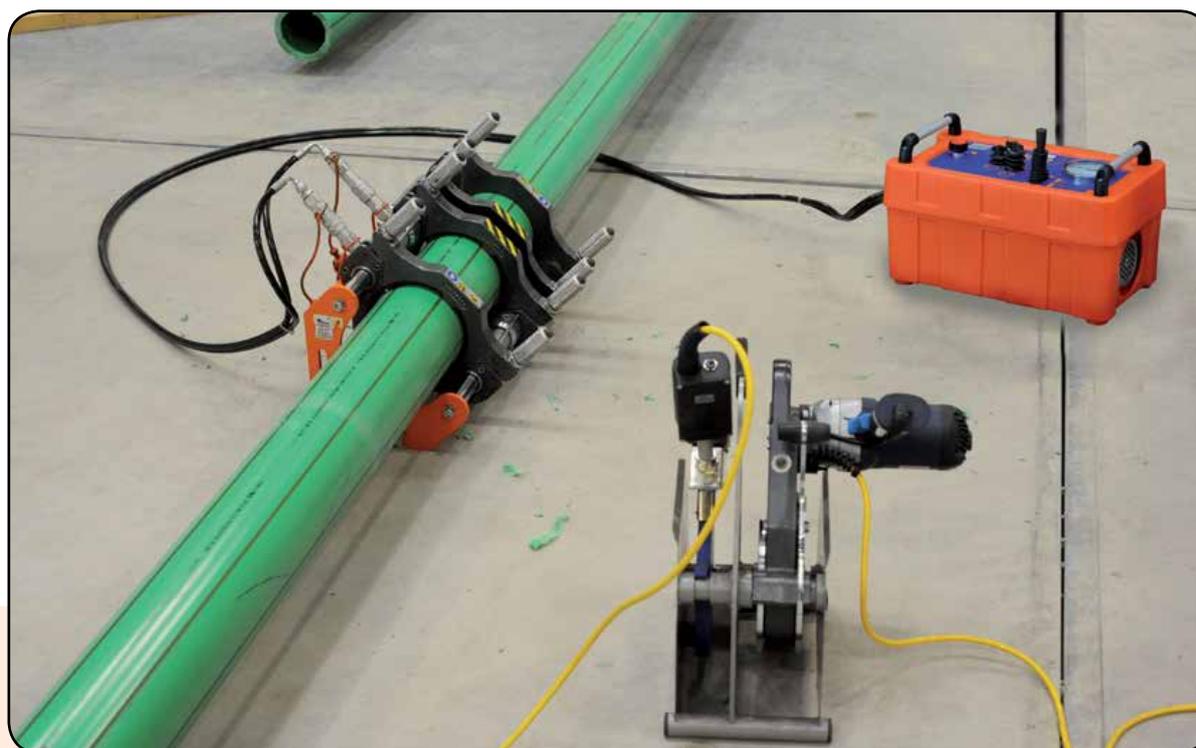
Rollers

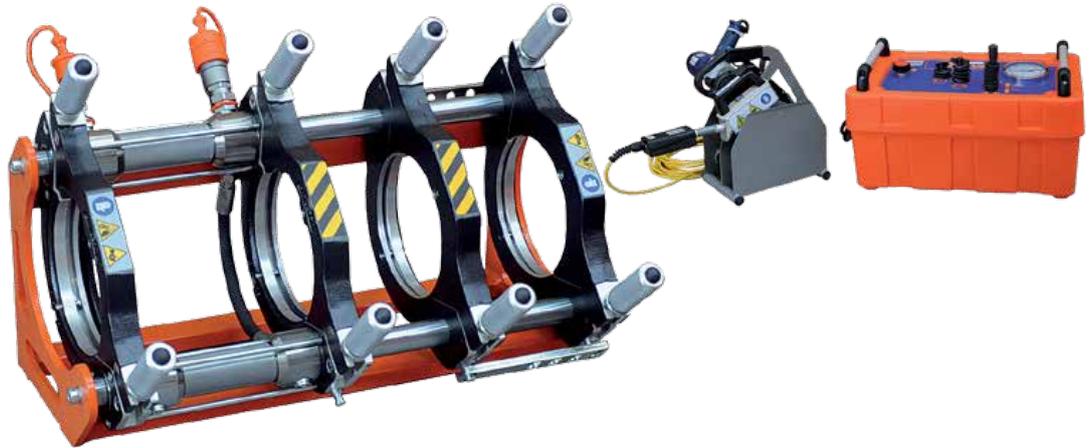


watch the video

and:
Inserts Ø 1" ÷ 5" IPS; 3" ÷ 4" DIPS
pre-insulated bag for heating plate

Italy





BASIC 200

Self-aligning hydraulic butt fusion machine, suitable for welding under-pressure pipes for water, gas and other fluids up to Ø200 mm. Built according to the International standards (UNI 10565, ISO 12176-1), BASIC 100 includes:

- A machine body built with a supporting frame, four clamps and two hydraulic cylinders with fast non-drip coupling connections.
- 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 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.
- An extractable electric milling cutter to face the heads of the pipes and/or fittings. It includes a safety micro-switch and a thermal circuit breaker.
- An electro-hydraulic 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). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- A milling cutter/ heating plate support

BASIC 200 is 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



Gearcase



Heating plate
with Digital
Dragon



Milling cutter



Support

TECHNICAL FEATURES

PLUS

DIGITAL DRAGON

High-Precision
Electronic
Thermoregulator

* Suggested power generator
5,5 ÷ 6kVA

Working range	63 ÷ 200 mm; 2" IPS ÷ 6" DIPS
Materials	HDPE, PP, PP-R, PB, PVDF For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	3250 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	685 x 460 x 420 mm (27" x 18" x 15.5")
Weight machine body	39 Kg (86 lb)
Weight standard composition	93 Kg (205 lb)

ON REQUEST



Inserts
Ø 63 ÷ 180 mm



Tool for flange
necks



Trolley



The INSPECTOR
Data-logging



Rollers



watch the video

and:
Inserts Ø 2" ÷ 6" IPS; 3" ÷ 6" DIPS
pre-insulated bag for heating plate

Italy





BASIC 250

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), BASIC 250 includes:

- A machine body built with a supporting frame, four clamps and two hydraulic cylinders with fast non-drip coupling connections. It comes with the fast-locking-adapters system SMARTLock patented by Ritmo
- 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 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.
- An extractable electric milling cutter to face the heads of the pipes and/or fittings. It includes a safety micro-switch and a thermal circuit breaker.
- An electro-hydraulic 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). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- A milling cutter/ heating plate support

BASIC 250 is 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



Detach device
for heater



Gearcase



Heating plate
with Digital
Dragon



Milling cutter



Support

TECHNICAL FEATURES

PLUS

SMARTLOCK
PATENTED BY RITMO
fast-locking
adapters system

DIGITAL DRAGON
High-Precision
Electronic
Thermoregulator

* Suggested power generator
5,5 ÷ 6kVA

Working range	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS
Materials	HDPE, PP, PP-R, PB, PVDF For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	3450 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	850 x 470 x 400 mm (33.5" x 18.5" x 16")
Weight machine body	63 Kg (139 lb)
Weight standard composition	124 Kg (273.4 lb)

ON REQUEST



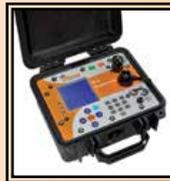
Inserts
Ø 75 ÷ 225 mm



Tool for flange
necks



Trolley for
machine body



The INSPECTOR
Data-logging



Top Clamp Short
Elbows/Tee



Rollers



watch the video

and:

Inserts Ø 2" ÷ 8" IPS; 3" ÷ 8" DIPS

pre-insulated bag for heating plate, trolley for milling cutter/heating plate, wooden case for inserts

Italy





BASIC 315

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), BASIC 315 includes:

- A machine body built with a supporting frame, four clamps and two hydraulic cylinders with fast non-drip coupling connections. It comes with the fast-locking-adapters system SMARTLock patented by Ritmo
- 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 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.
- An extractable electric milling cutter to face the heads of the pipes and/or fittings. It includes a safety micro-switch and a thermal circuit breaker.
- An electro-hydraulic 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). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- A milling cutter/ heating plate support

BASIC 315 is 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



Detach device
for heater



Gearcase



Heating plate
with Digital
Dragon



Milling cutter



Support

TECHNICAL FEATURES

PLUS

SMARTLOCK
PATENTED BY RITMO
 fast-locking
 adapters system

DIGITAL DRAGON
 High-Precision
 Electronic
 Thermoregulator

* Suggested power generator
 6,5 ÷ 7kVA

Working range	90 ÷ 315 mm; 3" IPS ÷ 10" DIPS
Materials	HDPE, PP, PP-R, PVDF For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	3900 W (110 V) 4500W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	981 x 586 x 520 mm (37" x 23" x 20.5")
Weight machine body	86 Kg (190 lb)
Weight standard composition	166 Kg (366 lb)

ON REQUEST



Inserts
 Ø 90 ÷ 280 mm
 master Ø 250 mm



Tool for flange
 necks



Trolley for
 machine body



The INSPECTOR
 Data-logging



Rollers



watch the video

and:

Inserts Ø 3" ÷ 10" IPS; 3" ÷ 10" DIPS

pre-insulated bag for heating plate, trolley for milling cutter/heating plate, wooden case for inserts

Italy





BASIC 355

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), BASIC 355 includes:

- A machine body built with a supporting frame, four clamps and two hydraulic cylinders with fast non-drip coupling connections. It comes with the fast-locking-adapters system SMARTLock patented by Ritmo
- 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 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.
- An extractable electric milling cutter to face the heads of the pipes and/or fittings. It includes a safety micro-switch and a thermal circuit breaker.
- An electrohydraulic gearcase with a clamps opening and closing lever, maximum pressure and release valves (also useful when welding with the "Dual Pressure" procedure), hydraulic hoses with non-drip quick couplings, a timer (for the heating and welding phases). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- A milling cutter/ heating plate support

BASIC 355 is able to weld fittings like elbows, tees, Y-branches and flanges necks.
Available in the 230 V versions.

STANDARD COMPOSITION



Machine body



Detach device
for heater



Gearcase



Heating plate
with Digital
Dragon



Milling cutter



Support

TECHNICAL FEATURES

PLUS

**SMARTLOCK
PATENTED BY RITMO**

fast-locking
adapters system

DIGITAL DRAGON

High-Precision
Electronic
Thermoregulator

* Suggested power generator
8 ÷ 8,5kVA

Working range	125 ÷ 355 mm; 4" IPS ÷ 14" IPS
Materials	HDPE, PP, PP-R, PVDF For other materials contact RITMO S.P.A.
Power supply*	230 V Single Phase 50/60 Hz
Total absorbed power	5750 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	1077 x 510 x 715 mm (42.5" x 20" x 28")
Weight machine body	100 Kg (220.5 lb)
Weight standard composition	205 Kg (452 lb)

ON REQUEST



Inserts
Ø 125 ÷ 315 mm
master Ø 250 mm



Tool for flange
necks



Trolley



The INSPECTOR
Data-logging



Rollers



watch the video

and:
Inserts Ø 4" ÷ 12" IPS; 4" ÷ 12" DIPS master Ø 250 mm
pre-insulated bag for heating plate, wooden case for inserts

Peru





COMPACT 355

COMPACT 355 is a worksite machine for pre-insulated pipes in PE, HDPE, PP, from OD 125 to 355 mm (4" IPS ÷ 14" IPS).

Its small dimensions allow it to operate easily inside a dig, plus:

- the machine has a 2-clamp machine body, to lock the outer coating of the pre-insulated pipe
- its heating plate features the well known Digital Dragon high precision thermoregulator
- the electrohydraulic gearcase comes inside a protective box
- the milling cutter has a safety microswitch

STANDARD COMPOSITION

Machine body, electrohydraulic gearcase, milling cutter, heating plate with high precision thermoregulator, milling cutter/heating plate support, tool kit.

ON REQUEST

OD \varnothing 125 ÷ 315 mm inserts with a Master \varnothing 250 mm adapter, \varnothing 4" ÷ 12" IPS; 4" ÷ 12" DIPS Master \varnothing 250 mm adapter, tool for flange necks.

TECHNICAL FEATURES

Working range	125 ÷ 355 mm
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	230 V Single Phase 50/60 Hz
Total absorbed power	5100 W
Weight machine body	59 Kg (130 lb)
Weight standard composition	144 Kg (317,5 lb)
Dimensions machine body	458 x 790 x 580 mm 18" x 31.1" x 22,8"



HIGH QUALITY ON BUTT FUSION WELDING “JUST A TAP FOR THE TOP”

A NEW HARDWARE shares information by WI-FI with the APP “SET & GO! PRO”

With the APP “SET & GO! Pro” and a smartphone is possible to calculate welding parameters according to the International Standards (ISO, DVS, ASTM etc). Sync and transfer data to the Easy Life machine by Wi-Fi.

This technology just needs a small investment and it is much cheaper than a CNC or dedicated systems for Data-Logging.

Besides, it allows to take advantage of a new, easy and connected work-flow.



ADVANTAGES

1 - EASY SETTING

- Apply the correct welding parameters according to the international standards
- Immediate set-up
- Store the settings for future jobs
- Fast and safe hardware sync

2 - GPS AND TRACEABILITY

- Exact location of jobsite
- Bar-code scan on pipes to weld
- ID operator (badge scan)

3 - DETAILED REPORT

- The new graphic indicates tolerance gaps in pressure according to the standards in use for each weld.
- It's possible to add pictures before and after each welding

4 - EASY SHARING

- Reports can be shared directly from the jobsite through e-mail or other networks.

5 - SMART INVESTMENT





EASY LIFE CONCEPT



EASY LIKE PUSHING A BUTTON

This is the concept that developed the EASY LIFE welding system: *“to simplify the work in the jobsite avoiding human mistakes”*; this is the philosophy that it hold in its name *“Style and Technology”* by RITMO. EASY LIFE is a whole RITMO’s project for all and accessible to everybody. Easy Life is *“Wi-Fi” ready and works together with the App “SET & GO - PRO”*.

HOW DOES IT WORK

Hardware and software have been developed to interact to each other sharing data during the entire workflow. Once set the welding parameters up, the system guarantees the repetition of the welding cycle, avoiding errors. The operator only have to confirm the work phases on the gear case when asked to, just pushing a button. Besides, during the “welding phase”, where sometimes some pressure adjustments are needed, the electronics system solve automatically this specific problem.

QUALITY IN WELDING

The Easy Life system incorporates a data-logging that saves the data in an internal hard-drive capable to store up to 4000 welds. Possibility to pre-set 50 customized welding cycles. The data will be available through PDF reports, downloadable in a USB pen drive.

EXTREME RELIABILITY

Born on 2002, the EASY LIFE system is now at its fourth evolution.

PLUS

EASY SETTING
WI-FI READY

CONTINUOUS
REPEAT OF THE
WELDING CYCLES

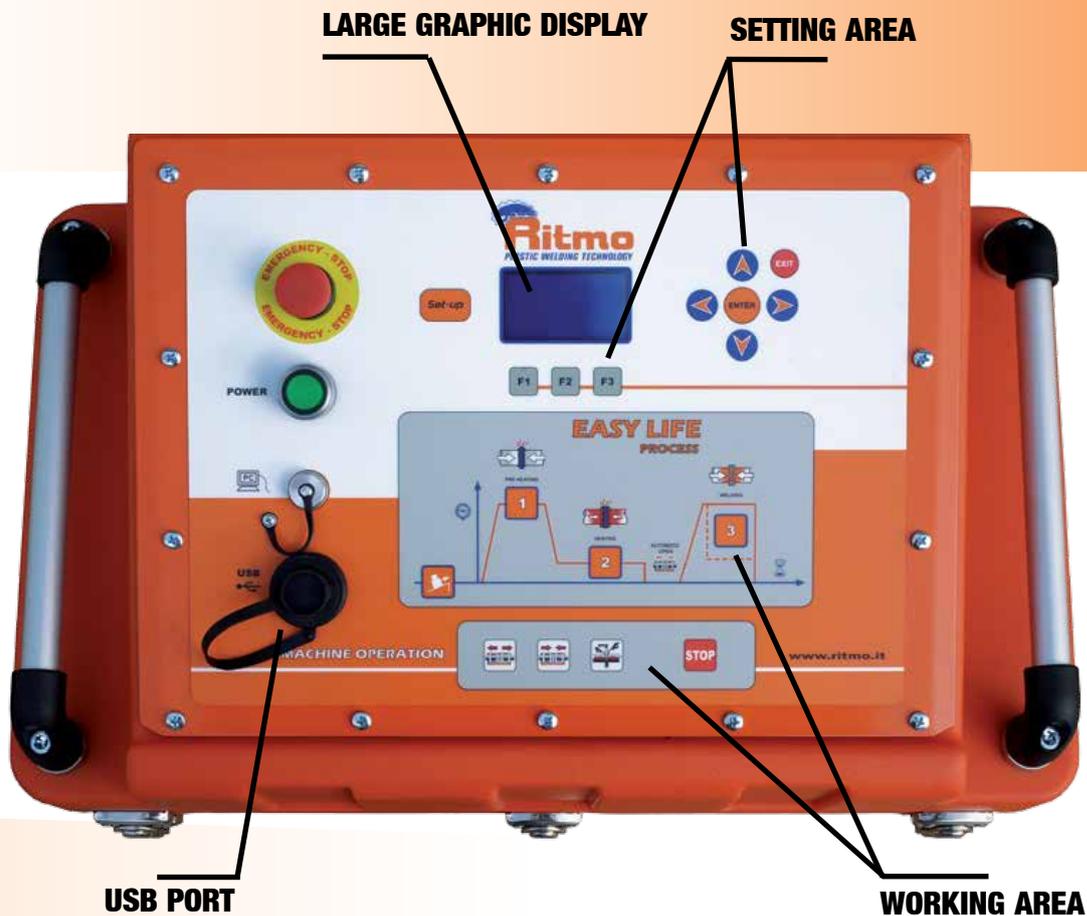
DATA-LOGGING
REPORT PDF



***** REPORT n.9 Easy Life v1.09 *****

Date: 02/02/16
Hour: 12:58
Set temperature HP: 200 C
Revision: 11/15
Serial number: 111200000
Diameter: 75 mm
Material: PP
SDR: 7.4
Operator: GIA
Job site: RIT
Remark:
*** WELDING DATA ***
Welding number: 8
Drag Pressure: 5 bar
P1: 40 bar
P2: 2 bar
P5: 40 bar
T1: 2s
T2: 30s
T3: 6s
T4: 4s
T5: 180s
Total joint time: 3:42"

EASY USE ...EASY LIFE





BASIC EASY LIFE



BASIC EASY LIFE, thanks to a special gearcase, is able to manage the automated welding process. The electronic system guarantees the continuous repeat of the welding cycles and automatic control of the preset parameters, therefore the operator needs only to validate the welding phases. **Easy Life is “Wi-Fi” ready and works together with the App “SET & GO - PRO”.**

The user-friendly graphic display allows a quick setting of the desired parameters. The EASY LIFE system can store up to 4000 welding cycles and sum them up into a PDF file. This report can be transferred to a PC/laptop through a USB port and data-management software. Possibility to pre-set 50 customized welding cycles. The EASY LIFE system data logging now shows the time!

BASIC EASY LIFE system is available in five models with working range from OD 40 mm to 355 mm (1” IPS ÷ 14” IPS)

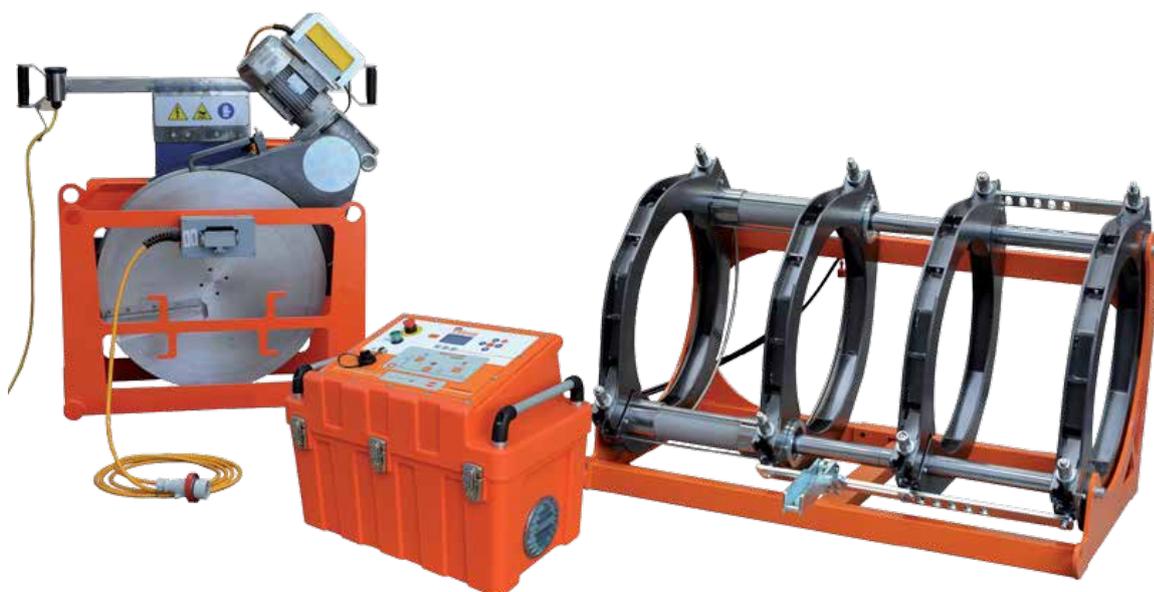
TECHNICAL FEATURES

Gearcase	BASIC EASY LIFE
Working range (LINE)	40 ÷ 355 mm; 1” IPS ÷ 14” IPS
Dimensions	585 x 384 x 463 mm (23” x 15” x 18.5”)
Power supply	230 V Single Phase 50/60 Hz
Total absorbed power	1100 W
Memory	4000 cycles
Pre-set welding cycles	50 customized
Wi-Fi	“SET & GO - PRO” ready
Weight	37 Kg (81.5 lb)

Models

BASIC 160 EASY LIFE
BASIC 200 EASY LIFE
BASIC 250 EASY LIFE
BASIC 315 EASY LIFE
BASIC 355 EASY LIFE





DELTA 500 / 630 EASY LIFE



Thanks to a special gearcase, the DELTA 500 EASY LIFE and the DELTA 630 EASY LIFE are able to manage the automated welding process from OD 200 to 500 mm - 8" IPS ÷ 18" DIPS (DELTA 500 EASY LIFE) and from OD 280 to 630 mm - 10" IPS ÷ 24" IPS (DELTA 630 EASY LIFE). **Easy Life is "Wi-Fi" ready and works together with the App "SET & GO - PRO".**

The electronic system guarantees the continuous repeat of the welding cycles and automatic control of the preset parameters, therefore the operator needs only to validate the welding phases. The user-friendly graphic display allows a quick setting of the desired parameters. The EASY LIFE system can store up to 4000 welding cycles and sum them up into a PDF file. This report can be transferred to a PC/laptop through a USB port. Possibility to pre-set 50 customized welding cycles. The EASY LIFE system data logging now shows the time!

The DELTA 630 EASY LIFE version has a useful trolley, easily maneuverable with its handgrip.

The welding cycle is handled in the same manner as the DELTA 250 TRAILER, DELTA 355 ALL TERRAIN and TRAILER, DELTA 500 ALL TERRAIN and TRAILER, DELTA 630 ALL TERRAIN and TRAILER, DELTA 1000 TRAILER.

TECHNICAL FEATURES

Gearcase	DELTA 500 EASY LIFE	DELTA 630 EASY LIFE
Working range	200 ÷ 500 mm; 8" IPS ÷ 18" DIPS	280 ÷ 630 mm; 10" IPS ÷ 24" IPS
Dimensions	585 x 384 x 463 mm (23" x 15" x 18.5")	1000 x 580 x 680 mm (39.5" x 23" x 27")
Power supply	230 V Single Phase 50/60 Hz 400 V Three Phase 50/60 HZ	230 V Three Phase 50/60 Hz 400 V Three Phase 50/60 HZ
Total absorbed power	1100 W	1500 W
Memory	4000 cycles	4000 cycles
Pre-set welding cycles	50 customized	50 customized
Wi-Fi	"SET & GO - PRO" ready	"SET & GO - PRO" ready
Weight	37 Kg (81.5 lb)	50 Kg (110,2 lb)



Gearcase
DELTA 630 EASY LIFE



DELTA 500

This is a self-aligning machine, suitable for welding ducts for the transport of water, gas and other fluids under pressure, up to \varnothing 500 mm 18" DISP). The DELTA 500 was designed in accordance to the International correspondent standards (UNI 10565, ISO 12176-1), and consists of:

- A machine body with a steel bearing frame, four steel clamps and two hydraulic thrust cylinders with non-drip quick couplings and steel inserts.
- Self detaching device: helps removing the heating plate during welding procedure.
- An extractable heating plate with separate thermometer for reading the working temperature.
- An extractable electric milling cutter for leveling the ends of the pipe and/or fitting, with a safety microswitch and overload cutout. Milling cutter's plastic control box is protected by a metal frame, and equipped with a fast removing system to speed up the extraction from machine body.
- An electrohydraulic gearcase with a clamps opening and closing lever, maximum pressure and release valves (also useful when welding with the "Dual Pressure" procedure), hydraulic hoses with non-drip quick couplings, a timer (for the heating and welding phases). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- Digital electric connections box with the high precision ($\pm 1^\circ\text{C}$) "Digital Dragon" temperature controller protected by a special container and equipped with a reading display and keys for temperature adjustment.
- A milling cutter/heating plate support.

With DELTA 500 it is possible to weld fittings such as elbows, tees, wyes and stub ends. This is possible because the 3rd clamp can be anchored to the 1st and 2nd (movable) and slide along with the pipe. The fitting have to be locked in the 4th clamp. Short neck stub ends can be welded with the help of a special tool (on request). Available in 230 V and 400 V.

STANDARD COMPOSITION



Machine body



Detach device for heater



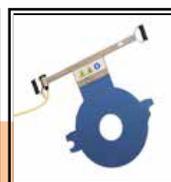
Gearcase



Electronic thermoregulator



Milling cutter



Heating plate



Support

TECHNICAL FEATURES

PLUS

**200 ÷ 500 mm
water - gas - oil**

**FACER
fast removing system**

“DIGITAL DRAGON”

* Suggested power generator
12kVA

Working range	200 ÷ 500 mm; 8" IPS ÷ 18" DIPS
Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A.
Power supply*	230 Single Phase 50/60 Hz 400 V Three Phase 50/60 HZ
Total absorbed power	7950 W (230 V) 7200 W (400 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	1265 x 790 x 780 mm (50" x 31" x 31")
Weight machine body	230 Kg (507 lb)
Weight standard composition	408 Kg (900 lb)

ON REQUEST



Inserts
Ø 200 ÷ 450 mm



Tool for flange
necks



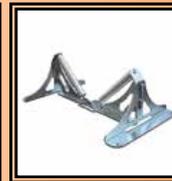
Trolley



Electrical crane



The INSPECTOR
Data-logging



Rollers

and:

Inserts Ø 8" ÷ 18" IPS; 8" ÷ 18" DIPS

pre-insulated bag for heating plate, special transport wooden case or metal cage for:
body machine/trolley - gearcase/plate/cutter

Russia





DELTA 630

This is a self-aligning machine, suitable for welding ducts for the transport of water, gas and other fluids under pressure, up to \varnothing 630 mm - 24" IPS. The DELTA 630 was designed in accordance to the International correspondent standards (UNI 10565, ISO 12176-1), and consists of:

- A machine body with a steel bearing frame, four steel clamps and two hydraulic thrust cylinders with non-drip quick couplings and steel inserts.
- Self detaching device: helps removing the heating plate during welding procedure.
- An extractable heating plate with separate thermometer for reading the working temperature.
- An extractable electric milling cutter for leveling the ends of the pipe and/or fitting, with a safety microswitch and overload cutout. Milling cutter's plastic control box is protected by a metal frame, and equipped with a fast removing system to speed up the extraction from machine body.
- An electrohydraulic gearcase with a clamps opening and closing lever, maximum pressure and release valves (also useful when welding with the "Dual Pressure" procedure), hydraulic hoses with non-drip quick couplings, a timer (for the heating and welding phases). The machine is preset for the connection of the electronic controller THE INSPECTOR.
- Digital electric connections box with the high precision ($\pm 1^\circ\text{C}$) "Digital Dragon" temperature controller protected by a special container and equipped with a reading display and keys for temperature adjustment.
- A milling cutter/heating plate support.

With DELTA 630 it is possible to weld fittings such as elbows, tees, wyes and stub ends. This is possible because the 3rd clamp can be anchored to the 1st and 2nd (movable) and slide along with the pipe. The fitting have to be locked in the 4th clamp. Short neck stub ends can be welded with the help of a special tool (on request).

STANDARD COMPOSITION



Machine body



Detach device for heater



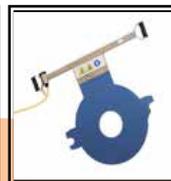
Gearcase



Electronic thermoregulator



Milling cutter



Heating plate



Support

TECHNICAL FEATURES

PLUS

280 ÷ 630 mm
water - gas - oil
FACER
fast removing system

“DIGITAL DRAGON”

* Suggested power generator
18kVA

Working range	280 ÷ 630 mm; 10" IPS ÷ 24" IPS
Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A.
Power supply*	230 V three phase 50/60 HZ 400 V three phase 50/60 HZ
Total absorbed power	12350 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	1550 x 1010 x 1000 mm (61" x 40" x 40")
Weight machine body	415 Kg (915 lb)
Weight standard composition	708 Kg (1560 lb)

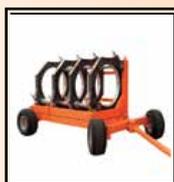
ON REQUEST



Inserts
Ø 280 ÷ 560 mm



Tool for flange
necks



Trolley



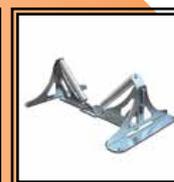
Electrical crane



The INSPECTOR
Data-logging



Hydraulic
Rollers



Rollers

and:

Inserts Ø 10" ÷ 24" IPS; 10" ÷ 20" DIPS;
special transport wooden case or metal cage for body machine/trolley - gearcase/plate/cutter

Brazil





DELTA 800

This is a self-aligning machine, suitable for welding ducts for the transport of water, gas and other fluids under pressure, up to \varnothing 800 mm 30" IPS. The DELTA 800 was designed in accordance to the International correspondent standards (UNI 10565, ISO 12176-1), and consists of:

- A machine body with a bearing frame, four clamps and two hydraulic thrust cylinders with non-drip quick couplings, and steel inserts.
- An extractable heating plate with separate thermometer for reading the working temperature.
- An extractable electrically controlled milling cutter for levelling the ends of the pipe and/or fitting, with a safety microswitch and overload cutout.
- An electrohydraulic gearcase with a clamp opening and closing lever, maximum pressure and discharge valves (useful also during the "Dual Pressure" welding), hydraulic hoses with non-drip quick couplings, a timer (for the heating and welding phases), an extractable electrical panel with power outlet for the heating plate, an electronic thermoregulator for the control of the working temperature, a differential circuit breaker, and a special connection for the electronic data-logging THE INSPECTOR.
- A milling cutter/heating plate support.

The DELTA 800 can weld fittings such as bends, tees, branches and flange necks. This is possible because the 3rd clamp can be anchored to the 1st and 2nd (movable) and slide along with the pipe. The fitting must be locked in the 4th clamp. Necks with a highly reduced tang can be welded with the help of a special tool (on request), applied to the clamps.

STANDARD COMPOSITION



Machine body



Detach device for heater



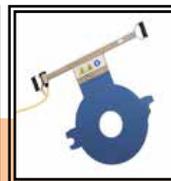
Gearcase



Electronic thermoregulator



Milling cutter



Heating plate



Support

TECHNICAL FEATURES

PLUS

**500 ÷ 800 mm
water - gas - oil
FACER
fast removing system**

“DIGITAL DRAGON”

* Suggested power generator
30kVA

Working range	500 ÷ 800 mm 20" IPS ÷ 30" IPS
Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A.
Power supply*	400 V 3F+N+PE 50/60 HZ
Total absorbed power	16500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 45'
Dimensions machine body (W x D x H)	2100 x 1350 x 1300 mm (83" x 53" x 51")
Weight machine body	821 Kg (1810 lb)
Weight standard composition	1260 Kg (2777 lb)

ON REQUEST



Inserts
Ø 500 ÷ 710 mm



Tool for flange
necks



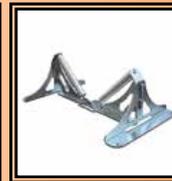
Trolley



Electrical crane



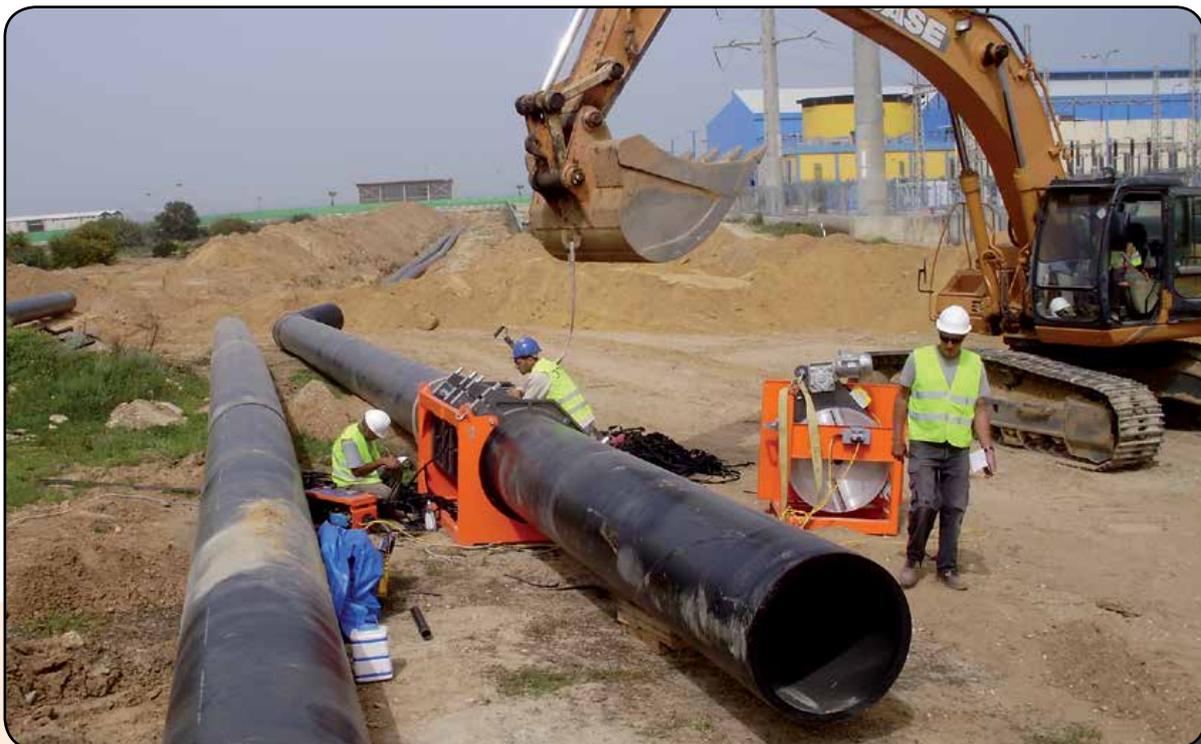
The INSPECTOR
Data-logging



Rollers

and:
Inserts Ø 20" ÷ 30" IPS; 18" ÷ 24" DIPS

Israel





DELTA 1000

This is a self-aligning machine, suitable for welding ducts for the transport of water and other fluids under pressure, up to \varnothing 1000 mm 36" DIPS. The DELTA 1000 was designed in accordance to the International correspondent standards (UNI 10565, ISO 12176-1), and consists of:

- A machine body with a bearing frame, four clamps and two hydraulic thrust cylinders with non-drip quick couplings and steel inserts.
- An extractable heating plate with separate thermometer for reading the working temperature.
- An extractable electrically controlled milling cutter for levelling the ends of the pipe and/or fitting, with a safety microswitch and overload cutout, and a fast removing system to speed up the extraction from machine body.
- An electrohydraulic gearcase with clamp opening and closing lever, maximum pressure and discharge valves (useful also during the "Dual Pressure" welding), hydraulic hoses with non-drip quick couplings, an electrical panel with power outlet for the heating plate and crane, an electronic thermoregulator for the control of the working temperature, a differential circuit breaker, and a special connection for the electronic data-logger INSPECTOR.
- A milling cutter/heating plate support.

DELTA 1000 can weld fittings such as bends, tees, branches and flange necks. This is possible because the 3rd clamp can be anchored to the 1st and 2nd (movable) and slide along with the pipe. The fitting must be locked in the 4th clamp. Necks with a highly reduced tang can be welded with the help of a special tool (on request), applied to the clamps.

STANDARD COMPOSITION



Machine body



Detach device for heater



Gearcase



Heating plate



Milling cutter



Support

TECHNICAL FEATURES

PLUS

630 ÷ 1000 mm

HEAVY DUTY
CHASSIS 2,5 Ton

* Suggested power generator
40kVA

Working range	630 ÷ 1000 mm; 24" IPS ÷ 36" DIPS
Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A.
Power supply*	400 V 3F+N+PE 50/60 HZ
Total absorbed power	25000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 45'
Dimensions machine body (W x D x H)	2463 x 1780 x 1700 mm (97" x 70" x 67")
Weight machine body	2500 Kg (5510 lb)
Weight standard composition	3315 Kg (7308 lb)

ON REQUEST



Inserts
Ø 630 ÷ 900 mm



Tool for flange
necks



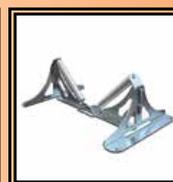
Trolley



Electrical crane



The INSPECTOR
Data-logging



Rollers

and:

Inserts Ø 24" ÷ 36" IPS; 24" ÷ 36" DIPS

Oman





DELTA 1200 and DELTA 48"

Self-aligning welding machines, suitable for welding HDPE pipes and ducts for the transport of water and other fluids under pressure, up to Ø 1200 - Delta 1200; 48" IPS - DELTA 48". The DELTA 1200 was designed in accordance to international standards (UNI 10565, ISO 12176-1), and consists of:

- Machine body with a bearing frame, four steel clamps and two hydraulic thrust cylinders with non-drip quick couplings and steel inserts.
- Extractable heating plate with separate thermometer for reading the working temperature.
- Extractable electrically controlled milling cutter (with self detaching device) for levelling the ends of the pipe and/or fitting, with a safety microswitch, overload cut out, and emergency push button.
- Electrohydraulic gearcase with a clamp opening and closing lever, maximum pressure and discharge valves (useful also during the "Dual Pressure" welding), hydraulic hoses with non-drip quick couplings, a timer (for the heating and welding phases) and an electrical panel with a differential circuit breaker.
- Milling cutter/heating plate support with an electronic thermoregulator for the control of the working temperatures.

Holes on the chassis to hook the machine for a rapid and easier handling.

DELTA 1200 and DELTA 48" can weld fittings such as elbows, tees, branches and flange necks. This is possible because the 3rd clamp can be anchored to the 1st and 2nd (movable) and slide along with the pipe. The fitting must be locked in the 4th clamp. Necks with a highly reduced tang can be welded with the help of a special tool (on request), applied to the clamps.

STANDARD COMPOSITION



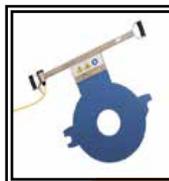
Machine body



Detach device for heater



Gearcase



Heating plate



Milling cutter



Support

TECHNICAL FEATURES

PLUS

710 ÷ 1200 mm
28" IPS ÷ 48" IPS

MASTER 1000 mm

* Suggested power generator
50kVA

Working range	710 ÷ 1200 mm 28" IPS ÷ 48" IPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	400 V 3F+N+PE 50/60 HZ
Total absorbed power	28200 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 45'
Dimensions machine body (W x D x H)	2465 x 1870 x 1900 mm (97" x 73.5" x 75")
Weight machine body	2500 Kg (5510 lb)
Weight trolley	830 Kg (1830 lb)

ON REQUEST



Inserts
Ø 710 ÷ 1100 mm
Master Ø 1000 mm



Tool for flange
necks



Trolley for
machine body



Electrical crane



The INSPECTOR
Data-logging



Rollers

and:

Inserts Ø 28" ÷ 48" IPS; 30" ÷ 42" DIPS, Trolley for support Heating Plate/Facer

Venezuela





DELTA 1600 HDR

This is a self-aligning welding machine with hydraulic clamps suitable for welding HDPE pipes for the transport of water and other fluids under pressure, up to \varnothing 1600 mm.

The DELTA 1600 HDR is designed in accordance to International standards (UNI 10565, ISO 12176-1). The DELTA 1600 HDR can weld fittings such as elbows, tees, branches and flange necks.

- Robust machine body made of steel
- Steel hydraulic clamping
- Automatic detaching device of heating plate
- Raised platform deck for perfect monitoring of fusion process
- Easy to operate control panel
- THE INSPECTOR data-logging compatible
- On board hydraulic control gearcase
- Pressure adjustment and pressure release valves for easy operations
- Hydraulically controller facer with safety microswitch
- Teflon coated heating plate with independent thermometer



STANDARD COMPOSITION



Machine body



Detach device for heater



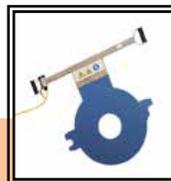
Hydraulic clamps



Working area



Milling cutter



Heating plate



Support

TECHNICAL FEATURES

PLUS

800 ÷ 1600 mm

**HYDRAULIC
CLAMPS
and ROLLERS**

**HEAVY DUTY
CHASSIS 4,8 Ton**

Working range	800 ÷ 1600 mm; 32" IPS ÷ 60" DISP
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	400 V 3F+N+PE 50/60 HZ
Total absorbed power	45000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H)	3550 x 2400 x 2550 mm (140" x 94.4" x 100.5")
Weight machine body	4800 Kg (10585 lb)
Weight milling cutter/heating plate/support	1580 Kg (3485 lb)

* Suggested power generator
75kVA

watch the video



ON REQUEST



Inserts
Ø 800 ÷ 1400 mm



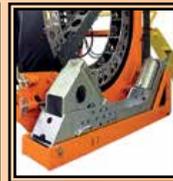
Tool for flange
necks



Trolley



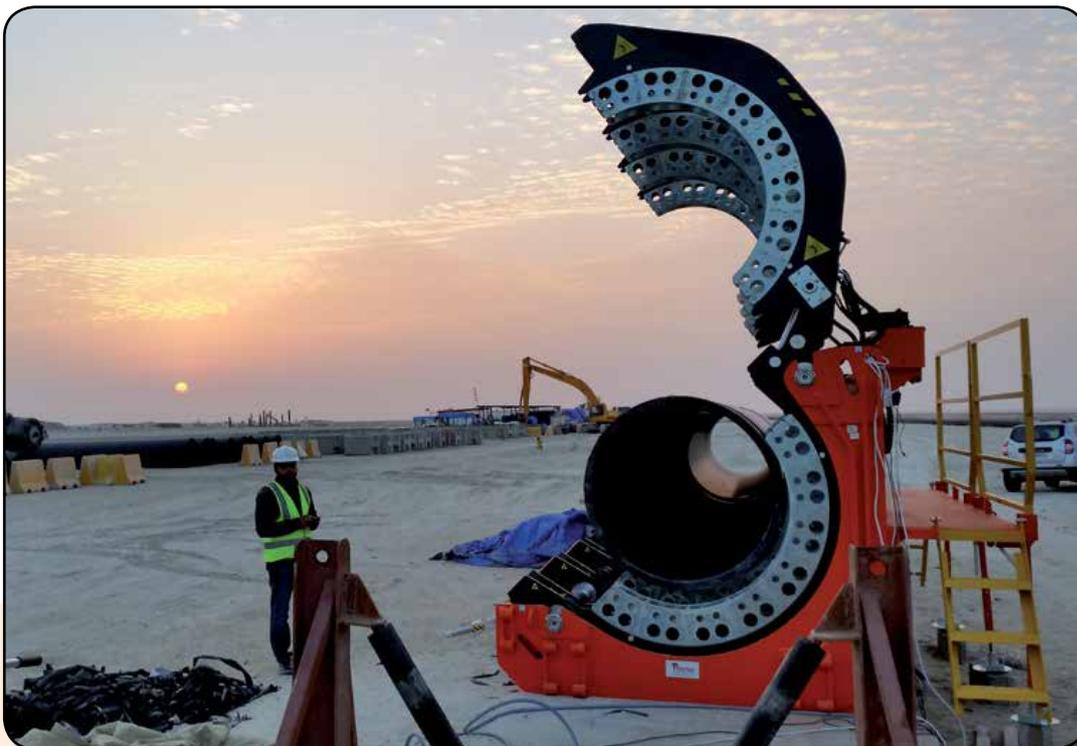
The INSPECTOR
Data-logging



Hydraulic Rollers

and:
Inserts Ø 32" ÷ 54" IPS; 30" ÷ 60" DIPS

Bahrein





DELTA DRAGON CNC

Butt fusion welding can be managed automatically by using the Delta Dragon CNC system; this would eliminate any risk of error due to the operator. It is available in two versions: **SA with manual extraction of heating plate, FA with integrated mechanical extraction of heating plate.**

The CNC system is available for two machines: Delta Dragon 250 and 315. The gearcase it is equipped with a compact and innovative plastic casing, which can resist to the most extreme job site working conditions; particular attention was paid to the connections as well, by applying military type plugs. An easy to use software and control panel allow to view the most widely used welding standards (ISO, GIS, DVS and other). By selecting any one of the standard and pipe diameter/SDR, all the welding parameters (pressure, time, temperature) would be automatically calculated according to the standard itself. If the chosen welding cycle is not included in the standards listed above, it is possible to manually input the welding parameters (diameter, SDR, type of material, welding time and pressure...) by simply entering the "out of standard" mode. In both cases, the machine is able to automatically manage all the phases of the welding cycle, including milling and heating control. At the end of the welding cycle, all data are stored in the in-built memory, up to 4000 records. Serial ports enable the operator to connect the gearcase to a portable serial printer (to obtain an immediate report) or to a PC. The gearcase is equipped with GPS, USB port for welding report in PDF and to firmware upgrade.

The complete configuration includes:

- a linear transducer applied to the machine body
- a manually extractable heating element (SA) or an automatically extractable heating element (FA)
- hydraulic hoses with non-drip quick couplings for connecting the gearcase to the machine body
- a milling cutter
- a transducer cable for connecting the gearcase to the machine body
- a milling cutter/heating plate support

ON REQUEST



Inserts smartlock
Ø 75 ÷ 225 mm
Ø 90 ÷ 280 mm



Tool for flange necks



Bar code reader



Rollers

PLUS

GPS
CNC
ELIMINATE
ANY
RISK OF ERROR

TECHNICAL FEATURES

	DELTA DRAGON CNC 250	DELTA DRAGON CNC 315
Working range	75 ÷ 250 mm	90 ÷ 315 mm
Materials	HDPE, PP, PB, PVDF For other materials contact RITMO S.P.A.	HDPE, PP, PB, PVDF For other materials contact RITMO S.P.A.
Power supply*	110 Vac 50/60 HZ 230 Vac 50/60 HZ	110 Vac 50/60 HZ 230 Vac 50/60 HZ
Total absorbed power	4000 W (110 V) 4150 W (230 V)	4500 W (110 V) 5150 W (230 V)
Welding cycle	Semi-Automatic Fully-Automatic	Semi-Automatic Fully-Automatic
Memory capacity	4000 welding cycles	4000 welding cycles
Dimensions machine body (W x D x H)	1000 x 820 x 1000 mm	1150 x 970 x 1170 mm
Dimensions gearcase (W x D x H)	580 x 461 x 490 mm 22.8" x 18.2" x 19.3"	580 x 461 x 490 mm 22.8" x 18.2" x 19.3"
Weight machine body	90 Kg (198.5 lb)	125 Kg (275.6 lb)
Weight gearcase	39 Kg (86 lb)	39 Kg (86 lb)
Protection degree	IP 54	IP 54

* Suggested power generator
6,5 ÷ 7kVA

* Suggested power generator
8 ÷ 8,5kVA



INTUITIVE CONTROL PANEL
GPS
LARGE GRAPHIC DISPLAY
EASY TO USE
USB PORT
REPORT PDF

Italy



ALL TERRAIN LINE - TRAILER LINE

HIGH LEVEL PERFORMANCE



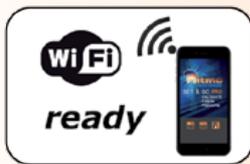
DIFFERENCES BETWEEN ALL TERRAIN LINE AND TRAILER LINE

PLUS

**HIGH
PERFORMANCE**

**ENHANCES
PRODUCTIVITY**

	ALL TERRAIN LINE	TRAILER LINE
Working standards mm	√	√
Working standards "IPS /"DIPS	√	√
International standards ISO 21307 HIGH PRESSURE	√	√
Welds fittings	√	√
Easy Life Welding System	√	√
Data-logging	√	√
Wi-Fi Ready	√	√
PRE-SET 20 customized welding cycles	√	√
Intuitive control panel	√	√
GPS traceability	√	√
Report PDF	√	√
Self-contained Generator on-board	√	-
Heater/Facer on-board	√	√
Insert - Fast-locking system	√	√
Trolley with wheels	√	√
Self-propelled	√	-
Remotely wire-controlled up to 12 m (39 ft)	√	√
Carriage can be removed for in-ditch use	√	√
Lateral rollers	√	√





DELTA 250 TRAILER

Self-aligning hydraulic butt fusion machine, suitable for welding underpressure pipes for water, gas and other fluids up to \varnothing 250 mm (8" DIPS). Built according to the International standards ISO 21307 HIGH PRESSURE (the clamps cylinders work with a pressure range that is three times and a half higher than the ISO Low Pressure ones. This enhances productivity, with a welding time saving of 60%). DELTA 250 TRAILER includes:

- A trailer-mounted machine body, easily removable from the trolley in order to perform also into the ditch, adapting to the conditions of the job site. It comes with the fast-locking adapters system SMARTLock RITMO Patented, thanks to which is possible to change adapters in few seconds.
- An on-board electric milling cutter that is equipped with a safety microswitch to prevent from accidental starts, a thermal circuit breaker to protect the engine and also features an ergonomic docking system and on/off switches. To allow the weld in ditches, the milling cutter is easily removable from the trolley/machine body in order to reduce the overall dimensions of the machine and ease the load/unload process.
- An extractable heating plate Teflon-coated (PTFE) equipped with an independent thermometer to check the working temperature.
- An EASY LIFE control panel which is also removable from the machine body to be able to check the welding phases outside from the ditches. It allows the operator to program and pilot all the welding duty cycle in an easy, fast and very intuitive way. It also controls the temperature of the heating plate, always visible on the display. It includes GPS and a data-logging system to store the welding data; USB port for download welding report PDF, or a printer ESC-POS connection, or firmware upgrade. The EASY LIFE system can store up to 4000 joint reports. Possibility to pre-set 20 customized welding cycles. **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO".**
- A heating plate support which comes with a high-temperature-proof bag, which also avoid the heating element from being scratched.

DELTA 250 TRAILER is 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



Detach device for heater



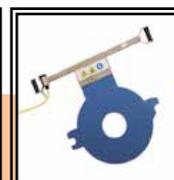
Trolley



Control panel with GPS



Milling cutter



Heating plate

TECHNICAL FEATURES

PLUS

75 ÷ 250 mm
water - gas - oil

SMARTLOCK
fast-locking adapters
system Ritmo
patented

* Suggested power generator
5,5 ÷ 6kVA

Working range	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS
Materials	HDPE, PP, PB, PVDF For other materials contact RITMO S.P.A.
Power supply*	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	4400 W (110 V) 4200 W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 20'
Dimensions machine body (W x D x H)	1080 x 1380 x 1330 mm 42.5" x 54.3" x 52,4"
Weight machine body	85 Kg (187,4 lb)
Weight standard composition	200 Kg (441 lb)

ON REQUEST



Inserts
Ø 75 ÷ 225 mm



Tool for flange
necks



HS rollers 250



App
"Set & Go Pro"

and:
Inserts Ø 2" ÷ 8" IPS; 3" ÷ 8" DIPS

India





DELTA 355 ALL TERRAIN

DELTA 355 ALL TERRAIN welds HDPE, PP pipes and fittings for the transportation of gas, water and other fluids under pressure from 125 mm to 355 mm (4" IPS ÷ 14" IPS). It is designed to work according to welding standard ISO 21307 High Pressure. DELTA 355 ALL TERRAIN can be equipped with two types of engine: diesel low vibration and petrol. The engine, like an electrical generator, independently gives the necessary power supply to the machine during all its working and movement phases.

Machine composition:

- Removable control panel with data-logging, memory up to 4000 welding reports, GPS traceability; USB port for welding PDF report / data download / firmware upgrade .
- Easy-life welding control system: hardware and software have been developed to interact to each other sharing data during the entire workflow. Once set the welding parameters up, the system guarantees the repetition of the welding cycles, avoiding errors. The operator only have to confirm the work phases on the just pushing a button. Possibility to pre-set 20 customized welding cycles. **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO"**
- Chassis is equipped with front steering wheels and rear traction; parking brake, machine frame design for forklift lifting
- Removable machine body to work in tight spaces with shavings collection tray.
- Dragging bar designed to weld between the 3rd and 4th clamp.
- Ritmo patented insert quick release SMARTLOCK SYSTEM.
- On-board electrical milling cutter with integrated locking handle system, safety switch-off device, motor thermic protection and gas spring to easily lift/lower the facer.
- On-board heating plate with protection frame and insulated protection bag; gas-spring for easy lift/lower the heating plate
- Heating plate and facer locking system for safe transportation .
- Two hydraulic rollers for pipe loading and unloading.
- Kit for network power supply connection (upon request) excluding the machine engine and weld in closed environments
- 25 lt capacity tank for more than 12 working hours operating time.

STANDARD COMPOSITION



Machine body



Hydraulic Rollers



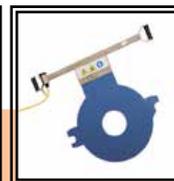
Trolley



Control panel with GPS



Milling cutter



Heating plate

TECHNICAL FEATURES

PLUS

125 ÷ 355 mm
4" IPS ÷ 14" IPS

SELF CONTAINED
GPS

EASY LIFE
WELDING SYSTEM

ON REQUEST

Inserts \varnothing 125 ÷ 315 mm;
 \varnothing 4" ÷ 12" IPS;
 \varnothing 4" ÷ 12" DIPS;

Tool for flange necks,
HS 355 rollers,
Kit for for IN-DITCH use, Plug
for network power supply
connection, Lifting kit.

Working range	125 ÷ 355 mm 4" IPS ÷ 14" IPS
Materials	HDPE, PP, for other materials contact RITMO S.P.A.
Power supply	self contained / indipendent Diesel - Kohler-Lombardini - 8,6 kW Gasoline - Honda - 14,5 kW
Fuel tank capacity	25 Litres
Operational tank capacity	over 12 Hours
Absorbed power Max	5,6 kW (230 V Single Phase) it refers to the welding machine use when connected to network power supply (excluding on-board generator)
Memory	4000 Reports
Dimensions (W x D x H)	2210 x 1600 x 1335 mm 83" x 63" x 52.5"
Weight machine body	275 Kg (606 lb)
Weight standard composition	755 Kg (1665 lb)

DELTA 355 TRAILER

DELTA 355 TRAILER welds HDPE, PP pipes and fittings for the transportation of gas, water and other fluids under pressure from 125 mm to 355 mm (from 4" IPS to 14" IPS). **DELTA 355 TRAILER does not have an on board generator and needs external power supply; no traction.**



Delta 355 All Terrain lifting



Only machine body lifting



Gasoline or Diesel generator available



DELTA 500 TRAILER

DELTA 500 TRAILER is a self-aligning fusion machine, suitable for welding thermoplastic pipes for the transport of water, gas and other fluids under pressure, up to Ø 500 mm (6" IPS ÷ 20" IPS). Machine can fuse pipes according to the ISO 21307 High Pressure standard (pressure range is three times and a half higher than the ISO Low Pressure ones). This greatly enhances productivity allowing 60% time saving. Standard machine features:

- Machine body mounted on a 4 wheeled chassis, easily removable for working in tight spaces.
- New RITMO Patented assisted system to open/close/lift clamps-heater-facer.
- Machine body with an automatic heating plate detaching device: helps removing the heating plate safely and fast
- Fast-locking system which allows to place and remove inserts in seconds.
- 4 wheeled chassis with 2 steering wheels and a safety brake .
- An on-board electric facer that is equipped with a safety microswitch to prevent from accidental starts, a thermal circuit breaker to protect motor and also features an ergonomic docking system and on/off switches.
- An on-board heating plate Teflon-coated (PTFE) which comes with a high-temperature-proof bag, which also avoid the heating element from being scratched.
- Removable control panel with data-logging, memory up to 4000 welding reports, GPS traceability; USB port for welding PDF report / data download / firmware upgrade .
- Easy-life welding control system: hardware and software have been developed to interact to each other sharing data during the entire workflow. Once set the welding parameters up, the system guarantees the repetition of the welding cycles, avoiding errors. The operator only have to confirm the work phases on the just pushing a button. Possibility to pre-set 20 customized welding cycles. **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO"**
- Two hydraulic rollers for pipe loading and unloading.

DELTA 500 TRAILER allows to easily weld fittings like elbows, tees, Y-branches and stub flanges. Available in 230 V single phase or three phase.

STANDARD COMPOSITION



Machine body



Hydraulic
Rollers



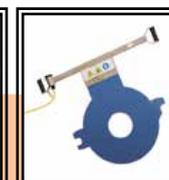
Trolley



Control panel
with GPS



Milling cutter



Heating plate

TECHNICAL FEATURES

PLUS

200 ÷ 500 mm
ISO 21307
HIGH PRESSURE
Enhances productivity
Welding time saving
Assisted system
to open/close/lift
clamps-heater-facer

Working range	200 ÷ 500 mm; 6" IPS ÷ 20" IPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	230 V Single Phase 50/60 Hz 230 V Three Phase 50/60 Hz
Total absorbed power	7250 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H)	1822 x 1152 x 814 mm 71.8" x 45.4" x 32"
Dimensions trolley (W x D x H)	3295 x 1385 x 1331 mm 130" x 53" x 52.4"
Weight machine body	580 Kg (1279 lb)
Weight Trolley	270 Kg (595.3 lb)
Weight standard composition	850 Kg (1830 lb)

* Suggested power generator
12kVA

ON REQUEST



Inserts
Ø 200 ÷ 500 mm



Tool for flange
necks



HS Rollers 630

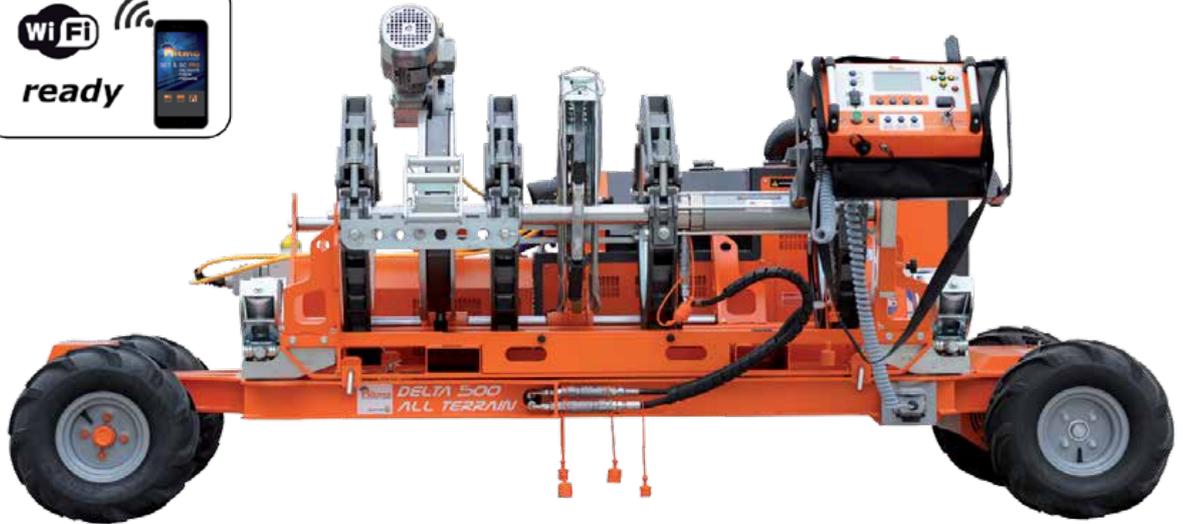


App
"Set & Go Pro"

and:
Inserts Ø 6" ÷ 18" IPS; 6" ÷ 18" DIPS; KIT for IN-DITCH USE

India





DELTA 500 ALL TERRAIN

DELTA 500 ALL TERRAIN is powered by a low-vibration diesel engine and equipped with front steering wheels and rear traction. The machine is suitable for welding pressure pipes (HDPE, PP) for the transportation of water, gas and other fluids up to Ø 500 mm (20 "IPS). Built according to the International standards ISO 21307 HIGH PRESSURE (machine works with a pressure range that is three times and a half higher than the ISO Low Pressure one. This enhances productivity, with a welding time saving up to 60%).

- Working range from Ø 200 to 500 mm (6" IPS ÷ 20" IPS).
- Welds fittings like elbows, tees, Y-branches and stub flanges.
- New RITMO Patented assisted system to open/close/lift clamps-heater-facer.
- Fast-locking system which allows to place and remove inserts in seconds.
- Intuitive control panel and large graphic display.
- Removable control panel with data-logging.
- Memory up to 4000 welding reports.
- GPS traceability.
- USB port for welding PDF report / data download / firmware upgrade
- Easy-life welding control system: hardware and software have been developed to interact to each other sharing data during the entire workflow. Once set the welding parameters up, the system guarantees the repetition of the welding cycles, avoiding errors. The operator only have to confirm the work phases on the just pushing a button. Possibility to pre-set 20 customized welding cycles.
- **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO".**
- Machine body and on-board generator easily removable for working in tight spaces.
- Machine can be powered using 230 V Three phase 50/60 Hz.
- Wheeled chassis designed to be lifted using a forklift.
- Two hydraulic rollers for pipe loading and unloading.
- On-board electric facer that is equipped with a safety microswitch.
- On-board generator removable for independent use.

STANDARD COMPOSITION



Machine body



Hydraulic
Rollers



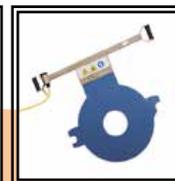
Trolley



Control panel
with GPS



Milling cutter



Heating plate

TECHNICAL FEATURES

PLUS

200 ÷ 500 mm
 ISO 21307
 HIGH PRESSURE
 Enhances productivity
 Welding time saving
 Assisted system
 to open/close/lift
 clamps-heater-facer

Working range	200 ÷ 500 mm; 6" IPS ÷ 20" IPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	self contained - diesel engine 230 V Three Phase 50/60 Hz
Total absorbed power	7250 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H)	1822 x 1152 x 990 mm 71.7" x 45.4" x 39"
Dimensions trailer (W x D x H)	2955 x 1578 x 1370 mm 116.4" x 62.1" x 54"
Weight standard composition	1350 Kg 2976 lb)

ON REQUEST



Inserts
 Ø 200 ÷ 500 mm



Tool for flange
 necks



Track
 Conversion
 System



App
 "Set & Go Pro"

and:
 Inserts Ø 6" ÷ 18" IPS; 6" ÷ 18" DIPS; KIT for IN-DITCH USE,
 HS Roller 630; Plug for network power supply connection

Italy





DELTA 630 TRAILER

DELTA 630 TRAILER is a self-aligning fusion machine, suitable for welding thermoplastic pipes for the transport of water, gas and other fluids under pressure, up to Ø 630 mm. Machine can fuse pipes according to the ISO 21307 High Pressure standard (pressure range is three times and a half higher than the ISO Low Pressure ones). This greatly enhances productivity allowing 60% time saving. Standard machine features:

- Machine body mounted on a 4 wheeled chassis, easily removable for working in tight spaces; steel hydraulic clamping with the fast-locking inserts, which allows to place and remove inserts in seconds; self detaching device: helps removing the heating plate during welding procedure.
- 4 wheeled chassis with 2 steering wheels and a safety brake.
- An on-board hydraulic electric facer that is equipped with a safety microswitch to prevent from accidental starts, a thermal circuit breaker to protect motor.
- An on-board hydraulic heating plate Teflon-coated (PTFE) which comes with a high-temperature-proof bag, which also avoid the heating element from being scratched.
- An EASY LIFE control panel with a large graphic display and GPS traceability, which is also removable from the machine body to be able to weld from outside the ditch. Allows the operator to program and pilot all the welding cycle in an easy, fast and very intuitive way. Includes a data-logging system to store full welding data, downloadable through a USB port. The EASY LIFE system has the capability store up to 4000 joint reports. Possibility to pre-set 20 customized welding cycles. **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO".**
- Two innovative lateral rollers that can be operated by a cordless drill.
- Control panel for hydraulic movements.

DELTA 630 TRAILER allows to easily weld fittings like elbows, tees, Y-branches and stub flanges.

STANDARD COMPOSITION



Machine body



Rollers



Hydraulic clamps



Control panel with GPS



Milling cutter



Heating plate

TECHNICAL FEATURES

PLUS

225 ÷ 630 mm
 ISO 21307
 HIGH PRESSURE
 Enhances productivity
 Welding time saving
 Steel Hydraulic
 clamping

** Suggested power generator
 18kVA

Working range	225* ÷ 630 mm; 8" IPS ÷ 24" DIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply**	230 V Three Phase 50/60 Hz 400 V Three Phase 50/60 Hz
Total absorbed power	9300 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14 ° ÷ 104° F)
Dimensions machine body (W x D x H)	1822 x 1152 x 990 mm 71.7" x 53" x 39"
Dimensions trailer (W x D x H)	2955 x 1578 x 1370 mm 116,3" x 62,1" x 54"
Weight standard composition	1320 Kg (2910 lb)
Weight trolley	435 Kg (960 lb)

* 225 mm from SDR 26 to SDR 7

ON REQUEST



Inserts
 Ø 225 ÷ 630 mm



Tool for flange
 necks



App
 "Set & Go Pro"

and:
 Inserts Ø 8" ÷ 24" IPS; 8" ÷ 20" DIPS; KIT for IN-DITCH USE,
 HS Roller 630, KIT hoist, metal cage for transport

India





watch the video

DELTA 630 ALL TERRAIN

DELTA 630 ALL TERRAIN is powered by a low-vibration diesel engine, suitable for welding thermoplastic pipes for the transport of water, gas and other fluids under pressure, up to \varnothing 630 mm (24" IPS"). Machine can fuse pipes according to the ISO 21307 High Pressure standard (pressure range is three times and a half higher than the ISO Low Pressure ones). This greatly enhances productivity allowing 60% time saving.

Standard machine features:

- Working range: \varnothing 225* - 630 mm (8" IPS - 24" DIPS); * \varnothing 225 mm from SDR 26 to SDR 7
- 4 steering wheels drive
- Diesel-engine 2200 cc 22,7 Kw
- Self-contained with on-board generator
- Sliding 3rd CLAMP for fittings welding
- Automatic welding System "Easy Life". **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO".** possibility to pre-set 20 customized welding cycles
- DATA-LOGGING with GPS; memory 4000 report
- Detachable Control Panel
- Remotely wire-controlled up to 12 m
- Trench-Friendly
- SmartLock Inserts
- Hydraulic Lifts
- Hydraulic-controlled Clamps and Milling cutter
- Climbs rough terrain up to 30%

STANDARD COMPOSITION



Machine body



Hydraulic Rollers



Hydraulic clamps



Control panel with GPS



Hydraulic Milling cutter



Hydraulic Heating plate

TECHNICAL FEATURES

PLUS

225 ÷ 630 mm
4 STEERING WHEELS
DRIVE
SELF CONTAINED
WITH ON-BOARD
GENERATOR

Working range	225* ÷ 630 mm; 8" IPS ÷ 24" dIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Engine	2200 cc - 22,7 Kw
Fuel type	Diesel
Fuel tank capacity	40 Litres
Operational tank capacity	12 Hours
Hydraulics reservoir capacity	80 Litres
Dimensions machine body (W x D x H)	2200 x 3100 x 2000 mm 86.6" x 122" x 78.8"
Weight machine body	800 Kg (1764 lb)
Weight standard composition	3000 Kg (6614 lb)

*225 mm from SDR 26 to SDR 7

ON REQUEST



Inserts
Ø 225 ÷ 630 mm



Tool for flange
necks



App
"Set & Go Pro"

and:

Inserts Ø 8" ÷ 24" IPS; 8" ÷ 20" DIPS; KIT for IN-DITCH USE,
 HS Roller 630, KIT hoist, metal cage for transport



U.S.A.





DELTA 1000 TRAILER

DELTA 1000 TRAILER is a self-aligning fusion machine, suitable for welding thermoplastic pipes for the transport of water, gas and other fluids under pressure, up to \varnothing 1000 mm.

Machine can fuse pipes according to the ISO 21307 High Pressure standard (pressure range is three times and a half higher than the ISO Low Pressure ones). This greatly enhances productivity allowing 60% time saving.

Standard machine features:

- Machine body mounted on a 4 wheeled chassis, easily removable for working in tight spaces; steel hydraulic clamping with the fast-locking inserts, which allows to place and remove inserts in seconds; self detaching device: helps removing the heating plate during welding procedure.
- 4 wheeled chassis with 2 steering wheels and a safety brake.
- An on-board hydraulic electric facer that is equipped with a safety microswitch to prevent from accidental starts, a thermal circuit breaker to protect motor.
- An on-board hydraulic heating plate Teflon-coated (PTFE) which comes with a high-temperature-proof bag, which also avoid the heating element from being scratched.
- An EASY LIFE control panel with a large graphic display and GPS traceability, which is also removable from the machine body to be able to weld from outside the ditch. Allows the operator to program and pilot all the welding cycle in an easy, fast and very intuitive way. Includes a data-logging system to store full welding data, downloadable through a USB port. The EASY LIFE system has the capability store up to 4000 joint reports. Possibility to pre-set 20 customized welding cycles. **Easy Life system is "Wi-Fi" ready and works together with the App "SET & GO - PRO".**
- Two hydraulic lateral rollers.
- Control panel for hydraulic movements.

DELTA 1000 TRAILER allows to easily weld fittings like elbows, tees, Y-branches and stub flanges.

STANDARD COMPOSITION



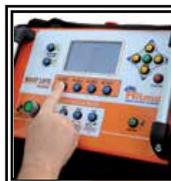
Machine body



Hydraulic Rollers



Hydraulic clamps



Control panel with GPS



Hydraulic Milling cutter



Hydraulic Heating plate

TECHNICAL FEATURES

PLUS

355 ÷ 1000 mm

**HYDRAULIC
MOVEMENTS
CLAMPS, FACER
HEATER**

**Two hydraulic lateral
rollers**

* Suggested power generator
40kVA

Working range	355 ÷ 1000 mm; 14" IPS ÷ 36" IPS/DIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply*	230 V Three Phase 50/60 Hz 400 V Three Phase 50/60 Hz
Total absorbed power	32000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding temperature	< 45'
Dimensions machine body (W x D x H)	3890 x 2890 x 2845 mm 153.1" x 113.8" x 112"
Dimensions trolley (W x D)	4450 x 2285 mm 175,2" x 90"
Weight machine body	4385 Kg (9667 lb)
Weight Trolley	830 Kg (1830 lb)

ON REQUEST



Inserts
Ø355÷900 mm



Tool for flange
necks



Trolley



HS roller 630



App
"Set & Go Pro"

and:

Inserts Ø 14" ÷ 36" IPS; 14" ÷ 36" DIPS; KIT for IN-DITCH USE , KIT hoist, pallet for transport







PLUS
LARGE GRAPHIC DISPLAY
“OPEN SYSTEM”

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

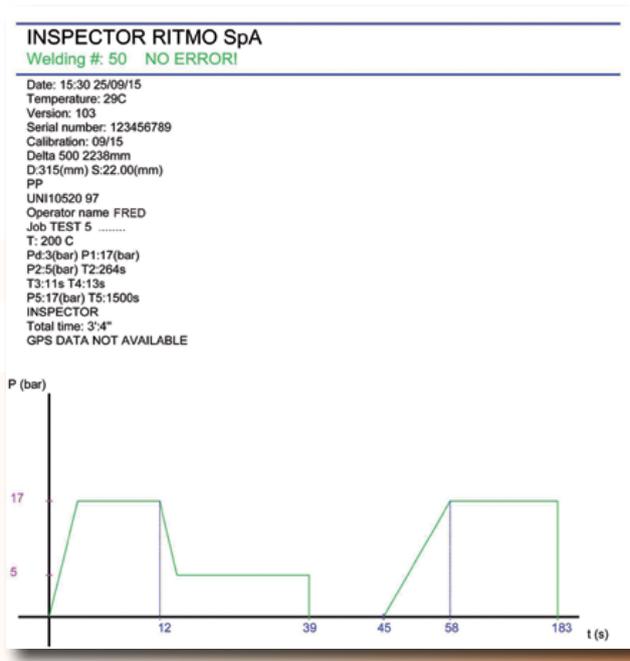
POWER SUPPLY 24 V DC
 Outside Temperature Range -10° C 40° C (14° ÷ 104° F)
 Protection Degree IP 67
 Dimensions Data Logging 240 x 265 x 110 mm (9.4” x 10.4” x 4.3”)
 Weight 2,6 Kg (5,7 lb)

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)
 Infrared thermometer



PLUS

INTUITIVE
EASY TO USE
ACCURATE
VERSATILE

COMPOSED OF FEW
PARTS



RID - RITMO INTERNAL DEBEADER

Internal Debeader by RITMO S.p.A. covering a range from \varnothing 90 up to 500 mm (3" ÷ 18" IPS) A complete kit set is composed by:

- 6 pcs of alloy rods 2,15 mtr (84.6") 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 (* 3" IPS)
- Internal Debeader Head 125 - 160 mm (* 4" ÷ 5" IPS)
- Internal Debeader Head 160 - 200 mm (* 5" ÷ 6" IPS)
- Internal Debeader Head 225 - 315 mm (* 8" ÷ 10" IPS)
- Internal Debeader Head 355 - 500 mm (* 12" ÷ 18" IPS)

Internal Debeader Heand can be ordered separately too



watch the video

TECHNICAL FEATURES

Model	SDR range
\varnothing 90 mm	17 ÷ 26
\varnothing 110 ÷ 450 mm	11 ÷ 26
\varnothing 500 mm	11** ÷ 26 **up to 34 mm
Materials	HDPE, PP, PP-R, PVDF For other materials contact RITMO S.P.A.

*Contact us or your distributor for reference chart of SDR covered

PLUS

INTUITIVE
EASY TO USE
ACCURATE
VERSATILE

FOR PIPES
UP TO 1200 mm
AND SHEETS



RED - RITMO EXTERNAL DEBEADER

External Debeader by RITMO S.p.A. covering a range from \varnothing 63 up to 1200 mm; 2" IPS ÷ 48" IPS

Designed to remove the external bead from a complete butt fusion welded joint. The tool knocks onto the pipe bead, then alignment blocks slide against the pipe surface to guide it around the pipe. The blade cuts the under the bead and the handle helps pull the tool around the pipe, cutting the bead away. RED works on flat surfaces too and removes the bead from plastic sheets without the guides for pipes.

Available in three different sizes

- RED 63 - 125
- RED 90 - 400
- RED 400 - 1200

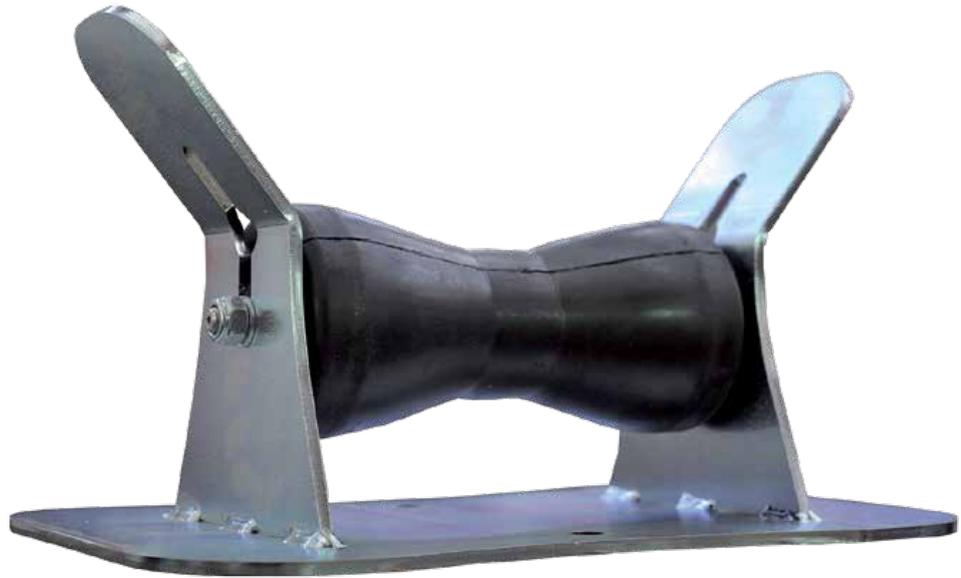
STANDARD COMPOSITION

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



TECHNICAL FEATURES

Models	Working range
RED 63 - 125	\varnothing 63 ÷ 125 mm; 2" IPS ÷ 4" IPS
RED 90 - 400	\varnothing 90 ÷ 400 mm; 3" IPS ÷ 14" DIPS
RED 400 - 1200	\varnothing 400 ÷ 1200 mm; 16" IPS ÷ 48" IPS
Material	HDPE



ROLLERS 355

ROLLERS

This device is essential for supporting the pipes while they are being welded with the butt fusion machines. The roller minimizes pipe friction and drag force independently of the jobsite conditions.

- ROLLER 355 can sustain pipes up to \varnothing 355 mm - 14" IPS. Easy to use and light

- ROLLER 1000 can sustain pipes from up to 1000 mm - 36" DIPS. The structure is light, so it is easy to carry and can be disassembled and reassembled in a few steps. This feature allows to store up to eight rollers in a single pallet thus improving transportation and logistics. Another advantage is the misalignment of the rollers in order to move the pipe easily even with the presence of weld beads. Working range from \varnothing 315 to 1000 mm (10" DISP - 36" DIPS).

STANDARD COMPOSITION

Complete roller with tools



TECHNICAL FEATURES

Rollers 355	
Working range	\varnothing 0 ÷ 355 mm; up to 14" IPS
Dimensions	360 x 220 x 200 mm 14.1" x 8.6" x 7.9"
Weight	6 Kg (13.2 lb)
Rollers 1000	
Working range	\varnothing 315 ÷ 1000 mm \varnothing 10" DIPS ÷ 36" DISP
Dimensions	1040 x 600 x 320 mm 41" x 23.6" x 12.6"
Weight	27 Kg (59.5 lb)



ROLLERS 1000

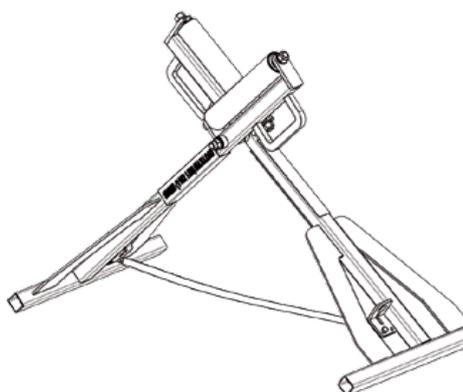


HS ROLLERS

HIGH STAND ROLLERS, this device is essential for supporting the pipes while they are being welded with the butt fusion machines. The rollers minimise pipe friction and drag force no matter which is the construction site condition. Special design for All Terrain / Trailer Line.

HS ROLLERS 250

Working range max: \varnothing 250 mm (8" DIPS)
 Overall dimension (W x D x H):
 1150 x 500 x 756 mm
 45.3" x 19.7" x 29.7"
 Weight: 26 Kg 57.3 lb
 Weight capacity: 500 Kg 1.100 lb

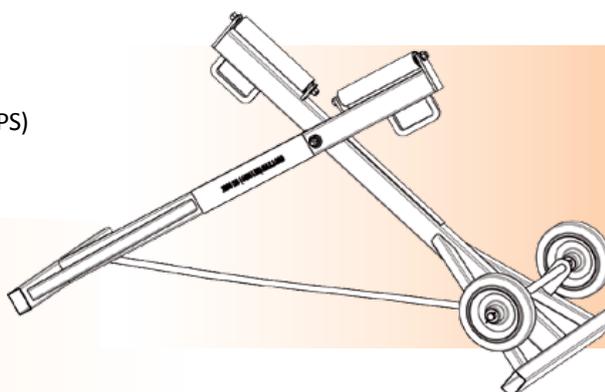


HS ROLLERS 355

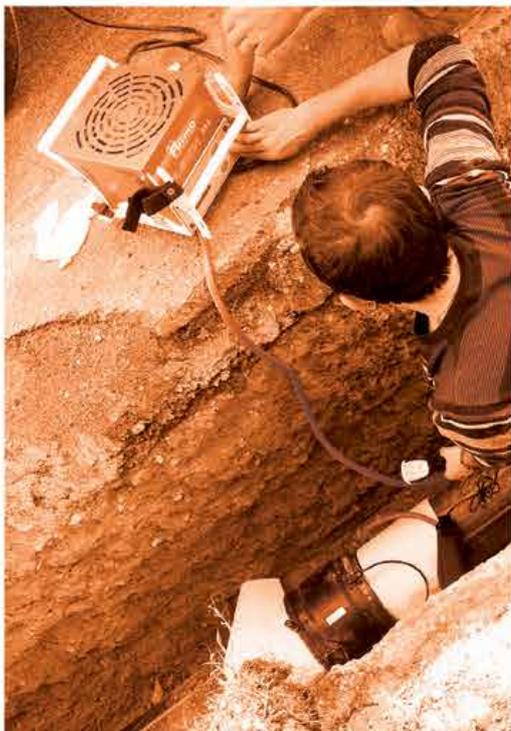
Working range max: \varnothing 355 mm (14" IPS)
 Overall dimension (W x D x H):
 1421 x 600 x 818 mm
 55.9" x 23.6" x 32.2"
 Weight: 33 Kg 72.8 lb
 Weight capacity: 1000 Kg 2.200 lb

HS ROLLERS 630

Working range max: \varnothing 630 mm (24" DIPS)
 Overall dimension (W x D x H):
 1766 x 800 x 982 mm
 69.5" x 31.5" x 38.6"
 Weight: 55 Kg 121.2 lb
 Weight capacity: 2000 Kg 4.400 lb



ELECTROFUSION BY RITMO:



INTUITIVE
CONTROL
PANEL

BARCODE
READING
SYSTEM

EASY
TO USE

USB
PORT

UNIVERSAL
ADAPTER
Ø 4,0 - 4,7 mm

GRAPHIC
DISPLAY
MULTILINGUAL

LARGE
MEMORY

www.ritmo.it

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 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 TOP	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 V1			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



ELEKTRA LIGHT

ELEKTRA LIGHT is an universal electrofusion machine, suitable for welding pipe/fittings for the transport of gas, water and for welding fire sprinkler system (HDPE, PP, PP-R couplings from 8 to 48 V). The Elektra Light machine is made in compliance with international standards. This welding machine's structure is light weight, so it is extremely easy to carry around. Composed of: machine body, an in built memory with 325 welding cycles, featuring the possibility of transferring data to a Pc/Laptop, report in PDF file.

STANDARD COMPOSITION



Universal connectors 90°



Laser scanner



Pen Drive



Manual scraper

ON REQUEST



Software Ritmo Transfer



Adapter DB9M-USB

* 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



TECHNICAL FEATURES

Working range*	20 ÷ 125/160 mm; ½" IPS ÷ 4"/6" IPS
Materials	HDPE, PP, PP-R
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Absorbed power**	1300 W
Max. output current	60 A
60% Duty Cycle output	23 A
Memory capacity	325 report
Protection degree	IP 54
Weight machine body	~ 7 Kg (15.4 lb)
Dimensions machine body	200 x 250 x 210 mm; 7.9" x 9.8" x 8.3"
Languages	19
Suggested power generator for full welding range	3,5 ÷ 4 kVA



ELEKTRA 315

ELEKTRA 315 is an universal electrofusion machine, suitable for welding pipe/fittings for the transport of gas, water and for welding fire sprinkler system (HDPE, PP, PP-R couplings from 8 to 48 V). The Elektra 315 machine is made in compliance with international standards. Composed of: machine body and carrying case, intuitive control panel an in built memory with 500 welding cycles, featuring the possibility of transferring data to a Pc/Laptop and an laser scanner - barcode reading system that allows the automatic setting of the welding parameters. Report in PDF file.

STANDARD COMPOSITION



Universal connectors 90°



Laser scanner



Pen Drive



Manual scraper

ON REQUEST



Software Ritmo Transfer



Adapter DB9M-USB

* 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

TECHNICAL FEATURES



Working range*	20 ÷ 315 mm; ½" IPS ÷ 10" DIPS
Materials	HDPE, PP, PP-R
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Absorbed power**	2600 W
Max. output current	100 A
60% Duty Cycle output	60 A
Memory capacity	500 report
Protection degree	IP 54
Weight machine body	~ 16 Kg (35.2 lb)
Dimensions machine body	263 x 240 x 300 mm; 10.3" x 9.4" x 1.8"
Dimensions transport case	405 x 285 x 340 mm; 16" x 11.2" x 13.4"
Languages	21
Suggested power generator for full welding range	5,5 ÷ 6 kVA



ELEKTRA 500 - ELEKTRA 1000

ELEKTRA is an high performance universal electrofusion machine, suitable for welding HDPE, PP, PP-R couplings (from 8 to 48 V). It is available in two versions: ELEKTRA 500, ELEKTRA 1000, and are composed of:

- machine body surrounded by a tubular steel frame, thus creating a protective structure that gives to the welding design and functionality while also serving as transport handle and cable winding
- large graphic display that stands out for the size and resolution of the icons, making them easy to read in the setting and welding stages
- intuitive control panel that simplifies and speeds up the setting of the welder
- Universal connectors 90° 4 - 4,7 mm; no need of adapters
- Laser scanner - barcode reading system that allows the welding parameters automatic setting. Possibility to set the welding parameters manually: by setting the welding tension/time, or by entering the fitting's numerical code indicated under the bar code. Traceability function ISO 12176
- internal memory of 4000 welds; the name of the operator among with the traditional welding data can be generated in PDF format. These reports can be downloaded to a PC through a USB port
- the USB port allows updating the welder firmware, the reports download or a printer ESC-POS connection
- GPS (on request)

STANDARD COMPOSITION



Universal connectors 90°



Laser scanner



Pen Drive



Manual scraper



Transport case

ON REQUEST



Software Ritmo Transfer

TECHNICAL FEATURES

PLUS

HIGH PERFORMANCE

REPORT PDF

DISPLAY 6,5"

Model	ELEKTRA 500	ELEKTRA 1000
Working range*	20 ÷ 500 mm ½" IPS ÷ 20" IPS	20 ÷ 1600 mm ½" IPS - 63" IPS
Materials	HDPE, PP, PP-R	HDPE, PP, PP-R
Welding output voltage	8 ÷ 48 V	8 ÷ 48 V
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz	230 V Single Phase 50/60 Hz
Absorbed power**	3100 W (110 V) 3100 W (230 V)	3500 W
Max. output current	100 A (110 V) 120 A (230 V)	120 A
60% Duty Cycle output	70 A	90 A
Operating mode	Barcode Manual (Numerical code or tension/time)	Barcode Manual (Numerical code or tension/time)
Connections	USB for external memory and ESC-POS	USB for external memory and ESC-POS
Memory	4000 Reports	4000 Reports
Outside temperature range	-20° ÷ 50° C; (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)
T° reading probe precision	± 1° C (± 33,8° F)	± 1° C (± 33,8° F)
Traceability data	ISO 12176	ISO 12176
Protection degree	IP 54	IP 54
Languages	19	19
Dimensions machine body	255 x 270 x 385 mm 10" x 10.6" x 15.1"	255 x 270 x 385 mm 10" x 10.6" x 15.1"
Dimensions transport case	410 x 290 x 485 mm 16.1" x 11.4" x 19.1"	410 x 290 x 485 mm 16.1" x 11.4" x 19.1"
Weight with cables	~ 18 Kg (39.6 lb)	~ 20 Kg (44.1 lb)
Suggested power generator for full welding range	5,5 ÷ 6 kVA	6,5 ÷ 7 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



watch the video

Italy



75



ELEKTRA TOP

ELEKTRA TOP is a high performance universal electrofusion machine, characterized by its light weight and high efficiency, The machine is suitable to weld HDPE, PP, PP-R couplings (from 8 to 80 V) and has an approximate diameter working range* up to 1600 mm. (½" IPS - 63" IPS)

- Steel machine frame containing the newest Ritmo's electrofusion technology. Safe transportation thanks to Elektra Top's wide handle which enables a perfect grip and cable winding.
- 4000 welding reports memory.
- Welding reports can be downloaded directly in PDF file format, CSV, or BIN (Software Ritmo Transfer required) in to an external pen drive through the machine usb port, which allows also the welder firmware updating, or a printer ESC-POS connection.
- Large graphic display 6,5" LCD.
- Intuitive control panel.
- Universal connectors 90° 4 - 4,7 mm; no need of adapters.
- Laser scanner - barcode reading system that allows the welding parameters automatic setting. Possibility to set the welding parameters manually: by setting the welding tension/time, or by entering the fitting's numerical code indicated under the bar code. Traceability function ISO 12176.
- GPS (on request).

Elektra Top is available in 110 V with approximate diameter working range* $\varnothing 20 \div 500$ mm (½" IPS \div 20" IPS)

STANDARD COMPOSITION



Universal connectors 90°



Laser Scanner



Pen Drive



Manual scraper



Steel transport case

ON REQUEST



Software Ritmo Transfer

PLUS

**LIGHT
WEIGHT**

**HIGH
PERFORMANCE**

DISPLAY 6,5"



* 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

TECHNICAL FEATURES

Working range *	20 ÷ 1600 mm ½" IPS - 63" DIPS
Materials	PE, PP, PP-R
Welding output voltage	8 ÷ 80 V
Power supply	190 ÷ 265 V Single phase
Frequency	40 ÷ 70 Hz
Absorbed power **	3500 W
Nominal Current	15 A
Max. output current	120 A
Operating mode	Barcode Manual (Numerical codes / tension / time)
Connection USB	report PDF / data download firmware upgrade print ESC-POS
Memory	4000 cycles
Report file format	PDF, CSV, BIN
Working Temperature	-20° ÷ 50° C (-4° ÷ 122° F)
T° reading probe precision	± 1° C
Protection degree	IP 54
Connectors	90° Universal 4 - 4.7 mm
Display	6,5" LCD
Dimensions welding machine	259 x 342 x 428 mm 10.3" x 13.5" x 16.8"
Dimensions transport case	480 x 350 x 400 mm 18.9" x 13.8" x 15.7"
Weight with cables	~ 13,9 Kg (30.6 lb)
Languages	19
Traceability data	ISO 12176
Suggested power generator for full welding range	7 kVA

Available in 110 V
Max. absorbed power ** 3100 W
Indicative working range * Ø 20 ÷ 500 mm; 1/2" IPS ÷ 20" IPS



ELEKTRA LINE - OVERVIEW

	ELEKTRA LIGHT	ELEKTRA 315	ELEKTRA 500	ELEKTRA 1000	ELEKTRA TOP
Working range*	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*	20 ÷ 1600* ½" IPS - 63" IPS* 20 ÷ 500 (110 V)* ½" IPS ÷ 20" IPS*
GPS	-	-	on request	on request	on request
Automatic Temperature compensation	√	√	√	√	√
Constantly welding cycle monitored	√	√	√	√	√
Barcode scanner (ISO 13950)	√	√	√	√	√
Manual fusion input	√	√	√	√	√
Welding report	√	√	√	√	√
Connections	Adapter DB9M-USB	Adapter DB9M-USB	USB port Type A	USB port Type A	USB port Type A
Report file format	PDF - BIN	PDF - BIN	PDF - BIN - CSV	PDF - BIN - CSV	PDF - BIN - CSV
Memory	325 cycles	500 cycles	4000 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
Outside Temperature range	-10° ÷ 50° C (-14° ÷ 122° F)	-10° ÷ 50° C (-14° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 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	110 V or 230 V	230 V	110 V or 230 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max output current	60 A	100 A	100 A (110 V) 120 A (230 V)	120 A	100 A (110 V) 120 A (230 V)
Welding output voltage	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 80 V
Absorbed power **	1300 W**	2600 W (110 V) ** 2600 W (230 V)**	3100 W (110 V) ** 3100 W (230 V) **	3500 W **	3100 W (110 V) ** 3500 W (230 V) **
Suggested power generator for full welding range	3,5 ÷ 4 kVA	5,5 ÷ 6 kVA	5,5 ÷ 6 kVA	6,5 ÷ 7 kVA	7 kVA
Protection degree	IP 54	IP 54	IP 54	IP 54	IP 54
Electrical fuse protection	√	√	√	√	√
Display	Single line LCD	Graphic LCD 2,4"	Graphic LCD 6,5"	Graphic LCD 6,5"	Graphic LCD 6,5"
Machine body dimensions	200x250x210mm 7.9" x 9.8" x 8.3"	263 x 240 x 300 mm 10.3" x 9.4" x 1.8"	255 x 270 x 385 mm 10" x 10.6" x 15.1"	255 x 270 x 385 mm 10" x 10.6" x 15.1"	259 x 342 x 428 mm 10.3" x 13.5" x 16.8"
Carrying case dimensions	-	405 x 285 x 340 mm 16" x 11.2" x 13.4"	410 x 290 x 485 mm 16.1" x 11.4" x 19.1"	410 x 290 x 485 mm 16.1" x 11.4" x 19.1"	390 x 350 x 500 mm 15.3" x 13.8" x 19.7"
Weight machine + cables	~ 7 Kg	~ 16 Kg (35.3 lb)	~ 18 Kg (39.6 lb)	~ 20 Kg (44 lb)	~ 13,9 Kg (30.6 lb)
Weight carrying case	-	3.9 Kg (8.6 lb)	4.8 Kg (10.5 lb)	4.8 Kg (10.5 lb)	6,6 Kg (14.55 lb)
Traceability	-	Fitting	Pipe/Fitting/Pipe	Pipe/Fitting/Pipe	Pipe/Fitting/Pipe

* 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

MUSTANG 160 V1

This electrofusion machine is suitable for welding electrofusion fittings in HDPE from \varnothing 32 to \varnothing 160 mm (1" IPS ÷ 5" IPS), for low-pressure conduits. The MUSTANG 160 V1 automatically detects connection to the fitting to be welded and compensates current supplied according to ambient temperature. It is also capable of detecting any malfunction that could occur before or during welding procedures. MUSTANG 160 V1 is made in compliance with the current safety standards and Directives, and the structure is light weight which makes it extremely easy to carry around.

SUPPLIED WITH

- Welding machine complete with cables with pins, transport case and manual scraper.



TECHNICAL FEATURES

Working range	32 ÷ 160 mm; 1" IPS ÷ 5" IPS
Materials	HDPE
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	900 W
Max. output current	4,9 A
Outside temperature range	- 5° ÷ 40° C (23° ÷ 104° F)
Ambient temperature probe	Electronic
Protection degree	IP 54
Weight machine body	2,5 Kg (5.5 lb)
Weight with carrying case	5 Kg (11 lb)
Dimensions machine body	180 x 230 x 75 mm; 7.1" x 9" x 3"
Dimensions carrying case	220 x 450 x 180 mm; 8.7" x 17.7" x 7.1"

UNIVERSAL 315 V1

Electrofusion welding machine:

PP-R from \varnothing 20 mm (optional cables)

- Graphic display
- Auto recognition of fittings
- Memory with 350 welding reports
- Report in PDF File
- Serial/USB connector (optional)
- Self-compensation of the current supplied (according to the ambient temperature)
- Transport case
- Firmware upgradable via USB

STANDARD COMPOSITION

- carrying suitcase
- welding cables (A00, A00+, A01, A02, A04)
- welding extension cable
- manual scraper
- shoulder belt

ON REQUEST

- serial/USB adapter (welding data transfer)
- welding cable (A05)
- Printer



TECHNICAL FEATURES

Working range	20* ÷ 315 mm; ½" IPS ÷ 10" DIPS
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	2470 W
Outside temperature range	-10° ÷ 45° C (14° ÷ 113° F)
Temperature compensation	Automatic Electronic
Protection degree	IP 54
Weight machine body	3,4 Kg (7.5 lb)
Weight with carrying case	7,2 Kg (15.9 lb)
Dimensions machine body	255 x 180 x 110 mm; 10" x 7.1" x 4.3"
Dimensions carrying case	220x450x180mm; 8.7" x 17.7" x 7.1"

*WELDING CABLES

A00 32 ÷ 160 mm (1" IPS ÷ 5" IPS)
Coes, Akatherm, Eurofusion, Geberit, Valsir, Wavin Vulcathene

A00+ 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Wavin (Waviduo)

A01 200 ÷ 315mm (6" DIPS ÷ 10" DIPS)
Akatherm, Valsir, Eurofusion

A02 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Geberit

A04 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Coes (Coestilen)

OPTIONAL CABLE

A05 20 ÷ 63mm (½" IPS ÷ 2" IPS)
(PP-R) Coes (Coestherm - not 8÷48 V)

PIPE CUTTERS

These are professional tools, essential for the manual cut of plastic pipes up to Ø 315 mm (10" DIPS). The TC 108, T1, TU 75, TU 140, T3 and T4 pipe cutters are made with the very best alloys, and are very manageable and practical to use. The pipe cutters can be fitted with various special blades with appropriate cutting heights and penetration capacities to cut pipes of different materials. The TC 108 and T1 pipe cutters (with special blades) can cut Copper (Cu) and multilayer (PEX/Al, PPr/Al, etc.) pipes.

STANDARD COMPOSITION

- Pipe cutter with blade:

TC 108

T 1 + blade Ø 25 mm (1")

TU 75 + blade Ø 44 mm (1.7")

TU 140 + blade Ø 53 mm (2.1")

T 3 + blade Ø 53 mm (2.1")

T 4 + blade Ø 53 mm (2.1")

(HDPE 80 - HDPE 100: Ø 250 SDR 13>; Ø 315 SDR 17,5>)

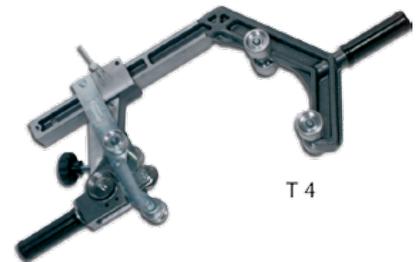
- Carrying case (for the T4 pipe cutter, only)

ON REQUEST

- Blades of different diameters and heights

TECHNICAL FEATURES

MODEL	Working range Ø	Overall dimensions	Weight
TC 108	6 ÷ 50 mm ½" CTS ÷ 1½" IPS	178 x 228 x 65 mm 7" x 9" x 2,5"	0,38 Kg (0.8 lb)
T1	6 ÷ 64 mm ½" CTS ÷ 2" IPS	222 x 282 x 95 mm 8.7" x 11.1" x 3.7"	0,60 Kg (1.3 lb)
TU 75	6 ÷ 76 mm ½" CTS ÷ 2" IPS	247 x 330 x 105 mm 9.7" x 13" x 4.1"	0,68 Kg (1.5 lb)
TU 140	50 ÷ 140 mm 2" IPS ÷ 5" IPS	351 x 483 x 155 mm 18.8" x 19" x 6.1"	1,38 Kg (3 lb)
T3	100 ÷ 160 mm 3" DIPS ÷ 5" IPS	372 x 465 x 200 mm 14.6" x 18.3" x 7.9"	1,65 Kg (3.6 lb)
T4	180 ÷ 315 mm 6" DIPS ÷ 10" DIPS	670 x 880 x 360 mm 26.4" x 34.6" x 14.2"	7 Kg (15.4 lb)



SHEARS

These are professional tools, essential for the manual cut of plastic pipes, such as PP and PP-R up to PN 25; HDPE, PB and PVDF up to Ø 75 mm (2" IPS). The C3 AC shears is entirely made in steel.

SUPPLIED WITH

- Shear body with blade

ON REQUEST

- Plastic case for C 42



C2 AC



C3 AC



C 42

TECHNICAL FEATURES

MATERIALS	HDPE, PP, PP-R, PB, PVDF		
MODEL	Working range Ø	Overall dimensions	Weight
C 42	up to 42 mm 1 ¼" IPS	110 x 27 x 225 mm 4.3" x 1" x 8.9"	0,35 Kg (0.8 lb)
C2 AC	up to 42 mm 1 ¼" IPS	120 x 25 x 225 mm 4.7" x 1" x 8.9"	0,5 Kg (1.1 lb)
C3 AC	up to 75 mm 2" IPS	170 x 35 x 520 mm 6.7" x 1.4" x 20,5"	2,7 Kg (6 lb)



original

step 1 - facing

step 2 - scraping



watch the video

TURBO 20 - 63

TURBO is the pipe scraper patented by RITMO for pipes and fittings ranging from \varnothing 20 to 63 mm SDR 6 to 11 and from $\frac{1}{2}$ " CTS to 2" IPS". TURBO is simple and easy to use. This incredible pipe scraper can work in confined spaces substantially reducing working times, especially during repair operations. The rotating tool allows fast and precise scraping, without defects. Its blades also allow the perfect facing of the pipe ends which have been roughly cut due to a situation which makes the use of a pipe cutter difficult, like narrow spaces.

Fifteen different sizes of the TURBO are available, according to the pipe size (metric or inch). TURBO has to be used with a cordless drill.

TECHNICAL FEATURES



METRIC MODEL	Working range	SDR	SCRAPING LENGHT	Weight
TURBO 20	\varnothing 20 mm	6-11	45 mm	0,37 Kg
TURBO 25	\varnothing 25 mm	6-11	45 mm	0,47 Kg
TURBO 32	\varnothing 32 mm	6-11	45 mm	0,64 Kg
TURBO 40	\varnothing 40 mm	6-11	55 mm	0,82 Kg
TURBO 50	\varnothing 50 mm	6-11	55 mm	1,02 Kg
TURBO 63	\varnothing 63 mm	6-11	55 mm	1,29 Kg

INCH MODEL	Working range	Min ÷ Max Thickness	SCRAPING LENGHT
TURBO $\frac{1}{2}$ " CTS	\varnothing $\frac{1}{2}$ " CTS	0.06" ÷ 0.09"	1.77"
TURBO $\frac{3}{4}$ " CTS	\varnothing $\frac{3}{4}$ " CTS	0.064" ÷ 0.146"	1.77"
TURBO 1" CTS	\varnothing 1" CTS	0.08" ÷ 0.188"	1.77"
TURBO $\frac{1}{2}$ " IPS	\varnothing $\frac{1}{2}$ " IPS	0.09" ÷ 0.17"	1.77"
TURBO $\frac{3}{4}$ " IPS	\varnothing $\frac{3}{4}$ " IPS	0.09" ÷ 0.20"	1.77"
TURBO 1" IPS	\varnothing 1" IPS	0.09" ÷ 0.26"	1.77"
TURBO 1 $\frac{1}{4}$ " IPS	\varnothing 1 $\frac{1}{4}$ " IPS	0.09" ÷ 0.33"	2.17"
TURBO 1 $\frac{1}{2}$ " IPS	\varnothing 1 $\frac{1}{2}$ " IPS	0.09" ÷ 0.38"	2.17"
TURBO 2" IPS	\varnothing 2" IPS	0.09" ÷ 0.47"	2.17"

PIPE SCRAPERS - RTC

These professional rotary scrapers, designed and patented by Ritmo, are essential to prepare the plastic pipes and fittings before electrofusion welding. Practical and handy, the pipe scrapers remove the oxidation layer caused by weather and ultraviolet rays. If not removed, the oxidation layer would severely compromise the quality of the joint. Among the main construction features there is a device that makes it possible to maintain the thickness of the continuous chip constant, even if the pipe is misshaped, and to adjust the length of the surface to scrape according to the depth of the electrical coupler.

The RTC 710 features an extendable arm to scrape the exact length of the electrical coupler, which is an advantage when having to perform maintenance/repair jobs in the building site. The main chuck has four extendable arms that clamps directly the inside diameter of the pipe.

STANDARD COMPOSITION

- Pipe scraper
- Adapters kit (except for RTC 710)
- Spare blade
- Handwheel key (for RTC 315)
- Aluminum transport case
- Screwdriver and small cutter



RTC 160



RTC 315

MANUAL SCRAPER

This manual tool is used with the same principle as the RTC pipe scrapers. The MANUAL SCRAPER features a practical plastic handle and a blade. Recommended work range max. \varnothing 63 mm (2")



Manual scraper



watch the video



RTC 710

TECHNICAL FEATURES

MODEL	RTC 160	RTC 315	RTC 710
Working range	\varnothing 50 ÷ 160 mm	\varnothing 75 ÷ 315 mm	\varnothing 355 ÷ 710 mm
External	2" IPS ÷ 6" IPS	3" IPS ÷ 12" IPS	14" IPS ÷ 28" IPS
Internal	\varnothing 38 ÷ 154 mm (1.5" x 6")	\varnothing 58 ÷ 300 mm (2.2" x 11.8")	\varnothing 290 ÷ 675 mm (11.4" x 26.5")
Max scraping length	114 mm 4.5"	137 mm; 5.4"	530 mm; 28,7"
Max Dimensions	380 x 120 x 250 mm 14.9" x 4.7" x 9.8"	510 x 310 x 410 mm 20" x 12.2" x 16.1"	825 x 805 x 695 mm 32.5" x 31.7" x 27,3"
Dimensions transport case	390 x 210 x 135 mm 15.3" x 8,3" x 5.3"	230 x 500 x 270 mm 9" x 19.7" x 16.1"	800 x 580 x 350 mm 31.5" x 22.8" x 13.8"
Weight only RTC	2,50 Kg (5.5 lb)	4,50 Kg (9.9 lb)	16 Kg (35.8")
Weight standard composition	5,65 Kg (12,5 lb)	7,5 Kg (16.5 lb)	39 Kg (86 lb)

PIPE SCRAPERS - PS

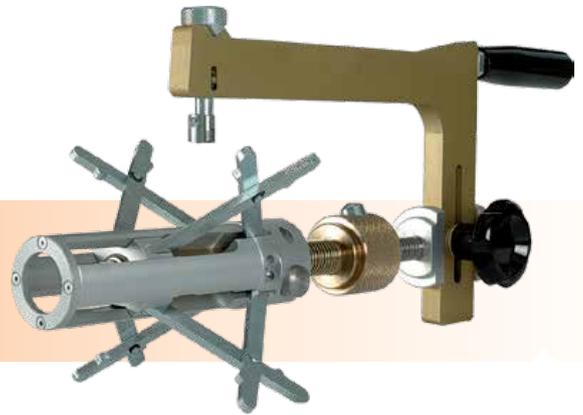
Professional rotary scrapers, essential to prepare the plastic pipes and fittings before electrofusion welding. The tools has an adjustable chuck covering all the \varnothing of the working range, and a blade holder orbital arm. The PS series guarantees a constant and regular removal of the shaving. The scrapers blade holder permits the scraping of the entire electrical sleeve's length, most useful when doing on site repairs.

STANDARD COMPOSITION

- PS 180 supplied with transport bag and spare blade
- PS 400 supplied with transport case and spare blade



PS 180



PS 400

TECHNICAL FEATURES

MODEL	PS 180	PS 400
Working range	\varnothing 75 ÷ 200* mm (*200 mm from SDR 6÷26)	\varnothing 137 ÷ 426 mm
External	(\varnothing 2.95" ÷ 7.87")	\varnothing 130 ÷ 391 mm
Internal	\varnothing 61 ÷ 184 mm (\varnothing 2.40" ÷ 7.24")	
Max scraping length	129 mm (5.1")	160 mm 6,2"
Max Dimensions	595 x 272 x 190 mm (23.4" x 10.7" x 7.5")	790 x 400 x 400 mm (31.1" x 15.7" x 15.7")
Dimensions transport case	453 x 185 x 63 mm (17.8" x 7.3" x 2.5")	550 x 350 x 90 mm (21.6" x 13.7" x 3.5")
Weight standard composition	2,80 Kg (6.2 lb)	5,50 Kg (12.1lb)



UNIVERSAL ALIGNER 63

This professional tool is essential to hold pipes still and aligned during electrofusion. The UNIVERSAL ALIGNER 63 is made almost entirely in a special Aluminium alloy and features a central joint for the fixed positions at 45° and 90°, four self-centring clamps that require no adapters. The possibility to remove one part of the axis that carries the clamps and one clamp it self, allows the use of tapping tees during the fusion.

STANDARD COMPOSITION

- Aligner complete with four clamps, service spanner and transport bag

TECHNICAL FEATURES



Working range	Ø 20 ÷ 63 mm (1/2" IPS ÷ 2" IPS)
Max Dimensions	straight 600 x 160 x 116 mm 22.6" x 6.3" x 4.6"
Transport bag	440 x 190 x 140 mm; 17.3" x 7.5" x 5.5"
Weight aligner	3,40 Kg (7,5 lb)
Weight transport bag	0,50 Kg (1.1 lb)
Weight standard composition	3,90 Kg (8.6 lb)

UNIVERSAL ALIGNER 160 LIGHT

This professional tool is essential to hold pipes still and aligned during electrofusion (from Ø 63 to Ø 160 mm; 2" IPS ÷ 5" IPS). The UNIVERSAL ALIGNER 160 Light is made almost entirely in a special Aluminium alloy and features a central joint for the fixed positions at 45° and 90°, four self-centring clamps that require no adapters, and on request an additional axle complete with two clamps for welding the tees. Its special quick release clamps grants a rapid extraction of the pipe once it has been welded.



STANDARD COMPOSITION

- Aligner complete with four clamps, transport bag or wooden transport case

ON REQUEST

- A 3rd axle complete with two clamps (for welding "Tees")

TECHNICAL FEATURES

Working range	Ø 63 ÷ 160 mm; 2" IPS ÷ 5" IPS
Max Dimensions	straight 980 x 430 x 260 mm 38.5" x 16.9" x 10.2"
Weight aligner	9 Kg (19.8 lb)
Weight transport bag	1,50 Kg (3.3 lb)
Weight transport case	14 Kg (30,8 lb)

ALIGNER ECO 20 - 63

ALIGNER ECO 20-63 is an essential and professional tool for the alignment and support of pipes during electrofusion.

ALIGNER ECO 20-63 is composed by two aluminum axes on which are mounted self-centering clamps made of steel. The clamps, can easily slide through the entire length of the axes. A positioning plate allows to perform welds in line, 30°, 45°, 90° and T-branches in diameters between ½" IPS ÷ 2" IPS (20 ÷ 63 mm).

The fixing of the pipes is done via cable ties (supplied) with fastener and quick release. The aligner is versatile and easy to use.



ITALY SMALL PATENTED APPLICATION
N° 202015000029036

TECHNICAL FEATURES

Working range	Ø 20 ÷ 63 mm - ½" IPS ÷ 2" IPS
Max Dimensions	640 x 120 x 83 mm; 25.2" x 4.7" x 3.3"
Weight aligner	3 Kg (6.6 lb)

ALIGNER ECO 63 - 180

ALIGNER ECO 63 - 180 is an essential and professional tool for the alignment and support of pipes during electrofusion from Ø 63 mm to 180 mm (2" IPS ÷ 6" DIPS).

The ALIGNER is entirely made of steel, featuring a central adjustable joint and pipe fastening clamps fixed on axes. The adjustable joint can be set on 4 different working positions to allow welding at preset angles such as 30°, 45°, 90°, "in line" and T welding.

Axes have V-shaped clamps positioned on them, which are equipped with pipe fastening belts. The system, along with fixing the pipe to the clamp, serves also as a centering device. Each axis has 2 guides on which the clamps are able to slide.

Practical side handles ensure an easy grip during movement and positioning, both during welding procedures, and preparation.

The aligner is available in two configurations: 2 axes and 3 axes (to weld T fittings).



TECHNICAL FEATURES

Working range	Ø 63 ÷ 180 mm; 2" IPS ÷ 6" DIPS
Max Dimensions 2 axes version	915 x 140 x 130 mm 36" x 5.5" x 5.1"
3 axes version	915 x 575 x 130 mm 36" x 22.6" x 5.1"
Weight 2 axes version	7,5 Kg (16.5 lb)
Weight 3 axes version	10 Kg (22 lb)

ALIGNER 125 - 500

ALIGNER 125 – 500 is an essential and professional tool for the alignment and support of pipes during electrofusion from Ø 125 mm to 500 mm (4" IPS ÷ 20" IPS)

The ALIGNER is entirely made of steel, featuring a central adjustable joint and pipe fastening clamps fixed on axes. The adjustable joint can be set on 4 different working positions to allow welding at preset angles such as 45°, 90°, "in line" and T welding. Axes have V-shaped clamps positioned on them, which are equipped with pipe fastening belts. The system, along with fixing the pipe to the clamp, serves also as a centering device. Each axis has 2 guides on which the clamps are able to slide.

Practical side handles ensure an easy grip during movement and positioning, both during welding procedures, and preparation.

The aligner is available in two configurations: 2 axes and 3 axes (to weld T fittings).



TECHNICAL FEATURES

Working range	Ø 125 ÷ 500 mm; 4" IPS ÷ 20" IPS
Max Dimensions 2 axes version	1815 x 610 x 410 mm 71.5" x 24" x 16.1"
3 axes version	1815 x 1230 x 410 mm 71.5" x 48.4" x 16.1"
Weight 2 axes version	38 Kg (83,8 lb)
Weight 3 axes version	52 Kg (114.6 lb)



TECHNICAL FEATURES

CHAMFERING

Chamfering tools are designed to make a bevel on the outside edge of a pipe end for socket fusion and electrofusion.

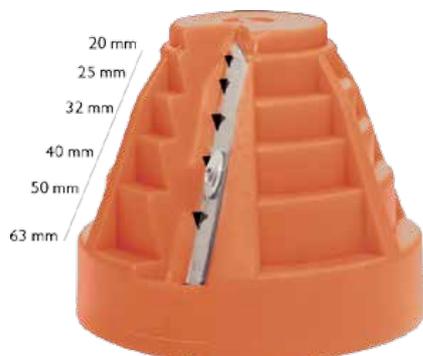
This Chamfer allows heater faces and socket fittings to be easily pushed onto the pipe end.

MODEL	Working range mm	Working range in	Materials
CHAMFERING 20	Ø 20 mm	-	HDPE, PB, PP, PVC, PVDF
CHAMFERING 25	Ø 25 mm	-	HDPE, PB, PP, PVC, PVDF
CHAMFERING 32	Ø 32 mm	-	HDPE, PB, PP, PVC, PVDF
CHAMFERING 40	Ø 40 mm	-	HDPE, PB, PP, PVC, PVDF
CHAMFERING ½" CTS	-	½" CTS	HDPE, PB, PP, PVC, PVDF
CHAMFERING ¾" IPS	-	¾" IPS	HDPE, PB, PP, PVC, PVDF
CHAMFERING 1" IPS	-	1" IPS	HDPE, PB, PP, PVC, PVDF
CHAMFERING 1 ¼" IPS	-	1 ¼" IPS	HDPE, PB, PP, PVC, PVDF
CHAMFERING 1 ½" IPS	-	1 ½" IPS	HDPE, PB, PP, PVC, PVDF
CHAMFERING 2" IPS	-	2" IPS	HDPE, PB, PP, PVC, PVDF

MAYA 20-63

Manual tool for beveling the ends of plastic pipes for electrofusion, socket fusion, pipe connection. Maya 20-63 covers a range from 20 to 63 mm.

Compact and lightweight this chamfering tool proves to be a useful tool to always have in the toolbox.



TECHNICAL FEATURES

Working range	20 ÷ 63 mm
Dimensions	60 x 80 mm 2.6" x 3.1"
Weight	90 gr (0,2 lb)



BEVELERS

SME 1 - SME 2 PLUS

These are professional tools for bevelling the ends of plastic pipes up to \varnothing 315 mm (10" IPS), that will be inserted into electrical couplers or plug-in joints.

The SME 1 is made in plastic; SME 2 PLUS is made in a special Aluminum alloy. The special shape of the blades and the non-stick coating (PTFE) of the walls, allow a quick and easy bevel of the pipe.

SUPPLIED WITH
- Beveler body with blade

TECHNICAL FEATURES

	SME 1	SME 2 PLUS
Working range	\varnothing 32 ÷ 160 mm; 1" IPS ÷ 5" IPS	\varnothing 40 ÷ 315 mm; 1 ¼" IPS ÷ 10" IPS
Materials	HDPE, PB, PP, PVC, PVDF	HDPE, PB, PP, PVC, PVDF
Thickness	max 10 mm; 0.4"	max 35 mm; 1.3"
Dimensions	76 x 107 x 240 mm 3" x 4,2" x 9,4"	195 x 140 x 330 mm 7.7" x 5.5" x 13"
Weight	0,5 Kg (1.1 lb)	1,40 Kg (3.1 lb)



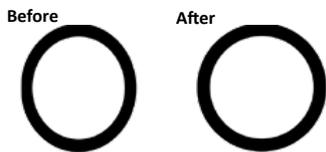
REROUNDERS FOR PLASTIC PIPE

Rerounders for plastic pipes: products for the jobsite.

The mechanical thread of these steel-made products help remodel the ends of ovalized pipes that need to be welded by electrofusion.

The manual clamping of the tool stems pushes the ovalized end till its reshaping respects the ovalization range required by most standards, therefore allowing its insertion into an electrical coupling - and avoiding the cost of eliminating a good pipe. The 3 rerounders cover the following diameters range: 250-400 model for OD from 250 to 400 mm; 450-560 model for OD from 450 to 560 mm, and 630-800 model for OD from 630 to 800 mm.

Each one of them is sold separately, with a steel transport box. (For model 450 - 560 and 630 - 800 steel case with 2 wheels).



TECHNICAL FEATURES

MODEL	Rerounders 250 - 400 10" IPS ÷ 14" DIPS	Rerounders 450 - 560 18" IPS ÷ 22" IPS	Rerounders 630 - 800 24" DIPS ÷ 30" IPS
Dimensions	610 x 255 x 120 mm 24" x 10" x 4.7"	980 x 495 x 200 mm 38.5" x 19.5" x 7.9"	1240 x 555 x 200 mm 47,2" x 21.8" x 7.9"
Weight	27 Kg (59.5 lb)	41 Kg (90.4 lb)	60 Kg (132.3 lb)

SQUEEZER 63 - 200 HYDRAULIC

SQUEEZER 63-200 is an hydraulic squeezer, very effective and useful in the worksite, to stop the gas or water flow in the HDPE pipelines from Ø 63 to 200 mm - SDR 11, SDR 17.

Thanks to this all the works on the line can be done in the highest safety conditions. The squeezing action on the pipe is possible thanks to a hydraulic cylinder which is manually actuated by the operator with a pressing lever. The resulting strength is transferred to two cylindrical rods which squeeze the pipe till the interruption of the flow.

The SQUEEZER 63-200 is easy to transport thanks to two handles and its steel frame. On its sides the SQUEEZER 63-200 is equipped with two metallic rods for safety protection in case of pressure losses or accidental impacts. Moreover the standard configuration of the SQUEEZER 63-200 includes the stoppers for SDR 11 and SDR 17 to set according to the pipes diameter.



TECHNICAL FEATURES

Working range	Ø 63 ÷ 200 mm SDR 11 SDR 17
Operation	Hydraulic
Overall Dimensions	476 x 165 x 722 mm 18.7" x 6.5" x 28.4"
Weight	45 Kg (99 lb)



SQUEEZER 63

The SQUEEZER 63 is a manual tool. Easy and fast to apply, the SQUEEZER is useful in the worksite to stop the gas or water flow in the Polyethylene pipelines from Ø 16 to 63 mm / SDR 11 - SDR 17.

The squeezing action runs by a movable cylindric bar and by an opposite one.

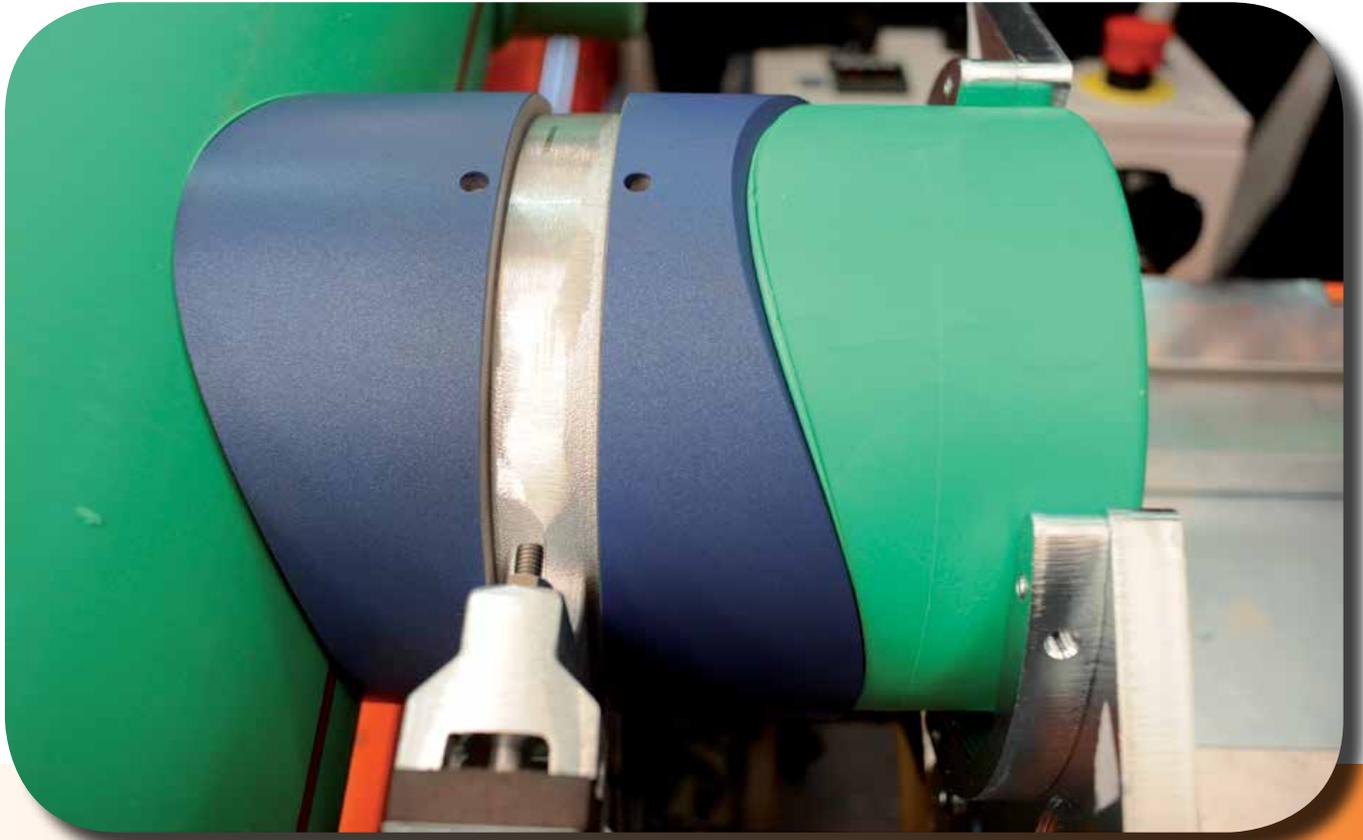
The second bar can be removed to permit the pipe insertion. Two special stop templates with 4 positions (on the movable bar sides) assure a safe pipe squeeze on all working range diameters.



TECHNICAL FEATURES

Working range	Ø 16 ÷ 63 mm SDR 11 SDR 17
Operation	Manual
Overall Dimensions	325 x 70 x 330 mm 12.8" x 2.7" x 13"
Weight	5,3 Kg (11.7 lb)

SOCKET WELDERS

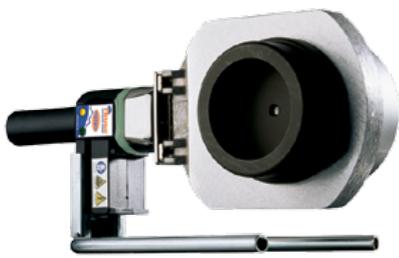


MANUAL EQUIPMENT	WORKING RANGE Ø mm	16	20	25	32	40	50	63	75	90	110	125
	R 25	16	20	25								
	R 63	16	20	25	32	40	50	63				
	R 125 Q	16	20	25	32	40	50	63	75	90	110	125
	WORKING RANGE Ø mm	16	20	25	32	40	50	63	75	90	110	125

SOCKET FUSION MACHINE	WORKING RANGE Ø mm	20	25	32	40	50	63	75	90	110	125
	PRISMA JIG	20	25	32	40	50	63				
							63	75	90	110	125
	PRISMA 125 LIGHT	20	25	32	40	50	63				
							63	75	90	110	125
PRISMA 125	20	25	32	40	50	63	75	90	110	125	
WORKING RANGE Ø mm	20	25	32	40	50	63	75	90	110	125	

 ON REQUEST

SADDLE SOCKET FUSION MACHINE	WORKING RANGE Ø mm	
	PRISMA UP 90	MAIN PIPE 40 ÷ 250 mm (on request up to 630 mm) SADDLE FITTING 20 ÷ 90 mm
	FM 630-125	MAIN PIPE 50 ÷ 630 mm SADDLE FITTING 20 ÷ 125 mm



R 125 Q



R 63



R 25

MANUAL EQUIPMENT

Manual SOCKET welders for joining pipes and fittings, in compliance with the standards in force. They feature an aluminum heating plate and a practical, heat-insulated plastic handle. They can weld HDPE, PP, PP-R, PVDF pipes and fittings, and they're characterized by different shapes and working ranges, suitable for different applications. They're available with an adjustable electronic thermoregulator (TE), or with a fixed electronic thermostat (TFE).

This new TFE control system features a new self-diagnostic device, provided with an alarm, which would alert the operator in case of anomaly; at the same time, the heating element would switch off automatically. Thanks to an algorithm PID microcontroller, combined with a platinum sensor, the temperature control system can react faster to the external temperature fluctuations, and guarantee higher reliability and longer durability.

STANDARD COMPOSITION

- Socket welder
- Fork support
- Bench vice (except R 25)
- Allen wrench
- Pin for sockets & spigots

ON REQUEST

- Bench vice (for R 25)
- Sockets and spigots (male/female)
- Carrying case in electro-painted steel



TECHNICAL FEATURES

TYPE: TE, TFE	R 25	R 63	R 125 Q
Working range	up to \varnothing 25 mm	up to \varnothing 63 mm	up to \varnothing 125 mm
Materials	HDPE, PP, PP-R PB, PVDF	HDPE, PP, PP-R PB, PVDF	HDPE, PP, PP-R PB, PVDF
Power supply (TE)	230 V S. Ph. 50/60 Hz	230 V S. Ph. 50/60 Hz	230 V S. Ph. 50/60 Hz
Power supply (TFE)	110 V S. Ph. 50/60 Hz 230 V S. Ph. 50/60 Hz	110 V S. Ph. 50/60 Hz 230 V S. Ph. 50/60 Hz	110 V S. Ph. 50/60 Hz 230 V S. Ph. 50/60 Hz
Max. absorbed power	500 W	800 W	1400 W
Working temperature	260° C (\pm 10° C) TFE 500° F (\pm 50° F) TFE 180° ÷ 290° C TE 356° ÷ 554° F TE	260° C (\pm 10° C) TFE 500° F (\pm 50° F) TFE 180° ÷ 290° C TE 356° ÷ 554° F TE	260° C (\pm 10° C) TFE 500° F (\pm 50° F) TFE 180° ÷ 290° C TE 356° ÷ 554° F TE
Ambient temperature	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)
Weight	1,44 Kg (3.1 lb)	1,82 Kg (4 lb)	3,16 Kg (7 lb)
Dimensions	115 x 50 x 320 mm 4.5" x 2" x 12.6"	175 x 50 x 360 mm 6.9" x 2" x 14.1"	175 x 50 x 395 mm 6.9" x 2" x 15.5"



PATENT PENDING

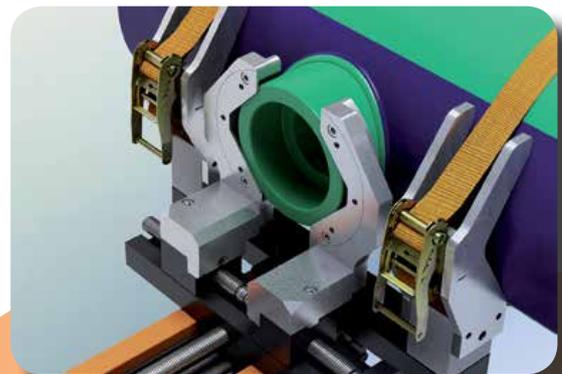
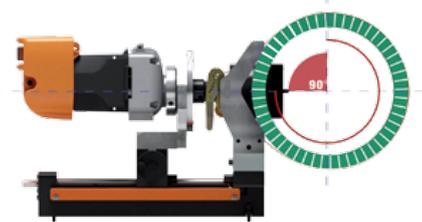
PRISMA UP 90

Prisma Up 90 is a special PP-R saddle socket fusion machine. The machine is designed to weld special PP-R joints like collectors and reduced branches. The light weight of the machine enables an easy fixing. Working range: main pipe \varnothing 40 ÷ 250 mm (on request up to 630 mm); branch pipe: 20 ÷ 90 mm.

The machine is composed of two assembly parts: a main jaws bracket and a frame with fitting carriage jaws. The main jaws bracket is light for an easy fixing on the main pipe. The fitting carriage jaws are designed to mount a driller with hole saw and fitting.

The welding machine makes a perfect centering of drilling and socket weld as well as the perfect alignment between pipe and fitting.

The saddle sockets installed on a manual socket welder, heat up the pipe and fitting surfaces. After the heating phase, the fitting is pushed inside the pipe thanks to a screw system which ensures a perfect alignment of the fittings. Available saddle sockets or major brands.



TECHNICAL FEATURES

PLUS

**WORK
IN TIGHT SPACES**

**PERFECT
CENTERING
PIPE/FITTING**

LIGHT WEIGHT

Working range - main pipe	40 ÷ 250 mm on request up to 630 mm
Working range - branch pipe	20 ÷ 90 mm
Materials	PP-R
Power supply	110 V or 230 V S.Phase 50/60 Hz
Total absorbed power driller	1200 W
Total absorbed power R 125 Q	1400 W
Working temperature R 125 Q	260° (± 10° C)
Overall dimensions (without driller)	389 x 392 x 283 mm 15.3" x 15.4" x 11.4"
Overall dimensions (with driller)	506 x 392 x 283 mm 20" x 15.4" x 11.4"
Weight: machine without driller, heater	10,8 Kg (23.8 lb)
Weight: main jaws bracket	2,7 Kg (5.9 lb)
Weight: frame with fitting carriage jaws	8, 1 Kg (17.8 lb)
Weight: driiller	3, 5 Kg (7.7 lb)
Transport case Prisma UP 90	390 x 350 x 500 mm 15.3" x 13.8" x 19.7"
Transport case Socket welder	490 x 310 x 485 mm 19.2" x 12.2" x 19"

STANDARD COMPOSITION

- Welding machine body complete with: frame, fittings carriage jaws, main jaw bracket assembly
- Electric drill
- R 125 Q TFE hand socket welder with transport case
- Transport case for machine body

ON REQUEST

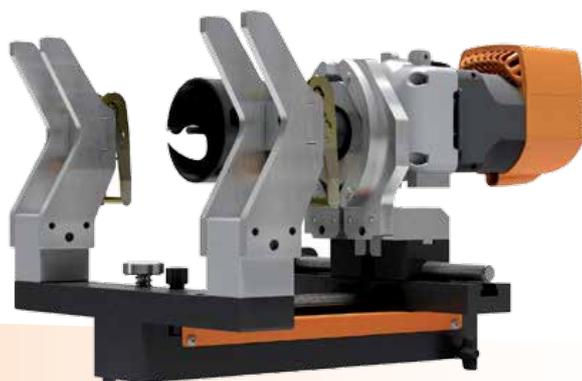


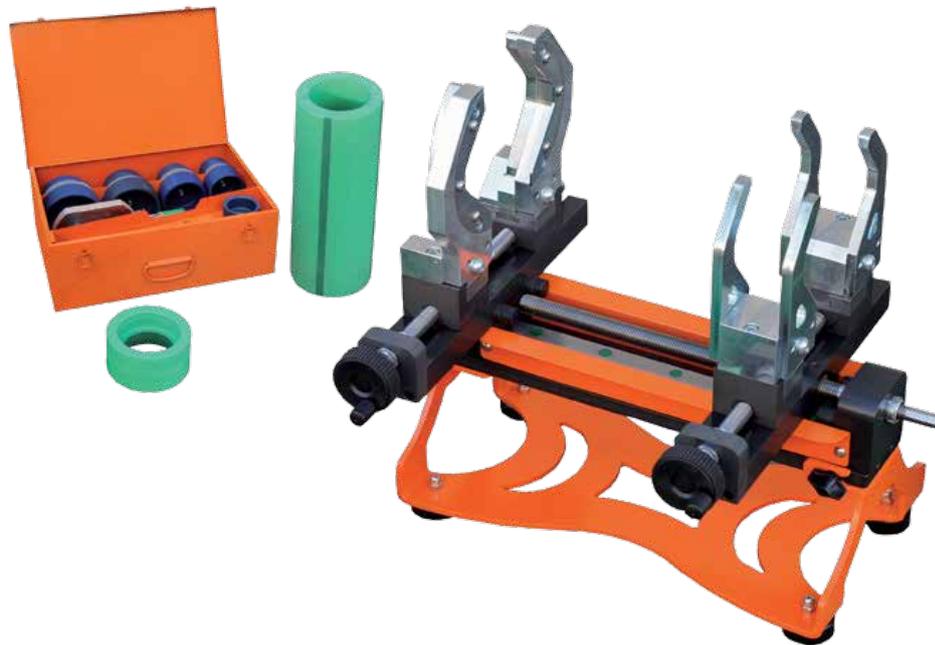
Saddle sockets
of major Brands



Hole Saw

- and:
- Clamp set for socket fusion pipe on reducer
 - Support for manifolds





PRISMA JIG

The PRISMA JIG is a compact socket welding machine for HDPE, PP and PP-R, PVDF, PB OD 20* ÷ 125 mm (standard composition steel clamps from Ø 63 to 125 mm; on request clamps from Ø 20 to 63 mm). The machine displays a steel frame that can be used as a support to the aligning body; the unit distinguishes itself by being able to work in tight spaces, after a swift releasing manoeuvre of the frame.

The PRISMA JIG has two trolleys, a fixed and a movable one, with practical closing handwheels in order to ensure a perfect grip in between clamp and pipe/fitting. The machine also features steel auto-centering clamps: a special clamp for the fitting, and a couple of paired clamps designed to keep the pipe in position. The trolley closing and opening operations are performed by a “mutual” starter. The special fittings clamp is placed on the fixed trolley. Whenever the type of work requires a different clamping configuration, it is rather easy to unlock and change the machine’s operativeness.

The heating operation is performed by the R 125 Q hand socket welder with TFE fixed temperature control. The main distinctiveness of the TFE device is its security: an acoustic auto-diagnosis alarm indicates when the heating plate has reached the working temperature, but also shuts off the heating plate automatically if any anomaly happens. Thanks to a combined control system, the TFE device responds rather quickly to any temperature fluctuation forced by external causes; on the other hand, it also gives a greater stability, welding precision and reliability in time. A sustaining handle may be placed at the heating plate, in order to simplify the working phases.

The R 125 Q is available in 110 and 230 V. The welding machine is available in two versions, depending on the type of sockets & spigots supplied: Type A and Type B.

STANDARD COMPOSITION

- Machine body complete with clamps and frame
- R 125 Q TFE hand socket welder
- Socket welder fork support
- Clamps for OD 63-75-90-110-125 mm (A or B type) sockets & spigots
- Transport case for socket welder and sockets & spigots
- Transport case for machine body
- Sustaining handle and tool kit



TECHNICAL FEATURES

PLUS

**CLAMPS
20 ÷ 63mm
(on request)**

**WORK
IN TIGHT SPACES**

Working range	63 ÷ 125 mm standard 20 ÷ 63 mm clamps on request
Materials	HDPE, PP, PP-R, PB, PVDF
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Total absorbed power	1400 W
Working temperature	260° (± 10° C) 500° F (± 50° F)
Outside temperature range	-5° ÷ 40° C (23° ÷ 104° F)
Dimensions machine body	400 x 337 x 267 mm 15.7" x 13.3" x 10.5"
Dimensions machine body and frame	400 x 337 x 382 mm 15.7" x 13.3" x 15"
Socket welder	175 x 50 x 395 mm 6.9" x 2" x 15.5"
Transport case Prisma Jig	390 x 350 x 500 mm 15.3" x 13.8" x 19.7"
Transport case Socket welder	490 x 310 x 485 mm
Weight machine body	9,55 Kg (21 lb)
Weight frame Prisma Jig	2,5 Kg (5.5 lb)
Weight Socket welder	3,16 Kg (6,8 lb)





PRISMA 125 LIGHT

PRISMA 125 LIGHT is a field machine for socket welding method, for pipe and fittings in HDPE, PP, PP-R, PVDF, PB for diameters included between 20* ÷ 125 mm (standard composition steel clamps from Ø 63 to 125 mm; on request clamps from Ø 20 to 63 mm). Leading particulars are the restricted weight, minimum overall dimensions and versatility.

Featuring: a machine body, a self-centring clamp for locking the pipes, a self-centring clamp for locking the fittings, an extractable socket welder with an automatic electronic temperature, fitting holder and a special bench vice so the machine can be used on a work bench.

STANDARD COMPOSITION

- Welding machine Prisma 125 Light with steel case
- Socket fusion plate R 125 Q TFE
- Socket and spigot Ø 63 ÷ 125 mm
(on request clamps from Ø 20 to 63 mm)
- Carrying box



TECHNICAL FEATURES

Working range	63 ÷ 125 mm standard 20 ÷ 63 mm clamps on request
Materials	HDPE, PP, PP-R, PB, PVDF
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Max. absorbed power	1400 W
Working temperature	260° (± 10° C); 500° F (± 50° F)
Outside temperature range	-5° ÷ 40° C; (23° ÷ 104° F)
Weight standard composition	27 Kg (59.5 lb)
Dimensions machine body	620 x 670 x 610 mm 24.4" x 26.4" x 24"



PRISMA 125

This workshop/construction site welding machine is suitable for the socket fusion of pipes and fittings up to an OD of 125 mm, in accordance with the standards in force.

The PRISMA 125 is composed of a machine body featuring a selector for the welding depths of the different diameters, four self-centering steel clamps for locking pipes and fittings (different brands), a self-centring socket welder with electronic temperature control, a device for the maximum heating depth, a sliding trolley, a tripod to support the pipe, a set of sockets and spigots for socket fusion from \varnothing 25 to \varnothing 125 mm with steel case.

The welding machine is available in two versions, depending on the type of sockets & spigots supplied:

PRISMA 125 type A and PRISMA 125 type B.

STANDARD COMPOSITION

- Machine body complete with an electronic socket welder
- Steel case complete with sockets and spigots from \varnothing 25 to \varnothing 125 mm and tool kit
- Pipe support tripod
- Sliding trolley

RITMO also produces **SPECIAL SOCKETS AND SPIGOTS** that are useful for the on-site repairs of pipes that have been accidentally perforated. They are called hole repairing sockets, available in three different types:

- \varnothing 7 mm hole repairing socket for \varnothing 7 mm holes
- \varnothing 8 mm hole repairing socket for \varnothing 8 mm holes
- \varnothing 11 mm conical hole repairing socket for \varnothing 11 mm holes

TECHNICAL FEATURES

Working range	25 ÷ 125 mm
Materials	HDPE, PP, PP-R, PB, PVDF
Power supply	110 V Single Phase 50/60 Hz 230 V Single Phase 50/60 Hz
Max. absorbed power	1400 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14 ÷ 104° F)
Time to reach welding temperature	~ 10'
Weight Prisma 125 only	100 Kg (200.5 lb)
Dimensions machine working	1080 x 840 x 580 mm 42.5" x 33" x 22.8"
Transport case wood	1500 x 800 x 1300 mm 59" x 31.5" x 51.2"



FM 630 - 125

Workshop Machine for the fabrication of PP-R manifolds

Materials: PP; PP-R

The machine is composed by a support frame with two self-centering clamps that are free to slide independently along the whole length.

An off-set work station also free to move along the frame where are positioned: the welding machine, the driller, two control panels and the power supplier.

The drilling machine always guarantees a centered hole in the middle of the pipe.

The trolley system of the work station, with an electric motion regulated by a potentiometer, always allows easy operations during the movement, drilling and welding phases. The machine is equipped with two anti-tilt systems at the sides.

Hole saws

Dimensions of hole saws and connection shafts depend on physical characteristics of the PP-R fittings.

Welding sockets:

Saddle sockets available for different brands.



TECHNICAL FEATURES

Working range Main Pipe OD range	50 ÷ 630 mm
Working range Reduced Pipe OD range	20 ÷ 125 mm
Inserts	from 50 to 560 mm
Material	PP-R
Power supply	230 V single phase 50/60 HZ
Total absorbed power	3100 W
Dimensions machine	3967 x 1895 x 1571 mm 156.1" x 74.6" x 61.8"
Weight machine	1100 Kg (2.425 lb)



S02 - CROSS-OVER FITTINGS

Pneumatic workshop machine suitable for the construction of cross over special fittings by means of thermo-forming segments of Polypropylene Random (PP-R) pipe.

The S02 features:

- A bench with pneumatic cutter for cutting segments of pipe to size with a box for collecting the pieces, and a heating unit able to prepare up to 10 pipe segments, ranging from \varnothing 20 to 32 mm;
- A dual-station pressing bench with built-in cooling unit.

SUPPLIED WITH

- Bench complete with cutter, box for collecting the pieces, and heater;
- Dual station pressing bench with cooler and one one mould for each diameter previewed (from \varnothing 20 to \varnothing 32 mm).



watch the video



TECHNICAL FEATURES

Working range	\varnothing 20 ÷ 32 mm
Materials	PP-R For other materials contact RITMO S.P.A.
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	4500 W
Hourly output max	~ 140 pieces
Dimensions station one	1500 x 1030 x 1100 mm 59" x 40.5" x 43.3"
Dimensions station Two	1400 x 500 x 1250 mm 55.1" x 19.7" x 49.2"



SOCKET & SPIGOT

These accessories are necessary for the socket fusion of pipes and fittings.

They were designed in accordance to the German standards, for which there are two version, "A" and "B", different in size and welding coupling depths.

Type A

- Ø16 SOCKET & SPIGOT (A)
- Ø 20 SOCKET & SPIGOT (A)
- Ø 25 SOCKET & SPIGOT (A)
- Ø 32 SOCKET & SPIGOT (A)
- Ø 40 SOCKET & SPIGOT (A)
- Ø 50 SOCKET & SPIGOT (A)
- Ø 63 SOCKET & SPIGOT (A)
- Ø 75 SOCKET & SPIGOT (A)
- Ø 90 SOCKET & SPIGOT (A)
- Ø 110 SOCKET & SPIGOT (A)
- Ø 125 SOCKET & SPIGOT (A)

Type B

- Ø16 SOCKET & SPIGOT (B)
- Ø 20 SOCKET & SPIGOT (B)
- Ø 25 SOCKET & SPIGOT (B)
- Ø 32 SOCKET & SPIGOT (B)
- Ø 40 SOCKET & SPIGOT (B)
- Ø 50 SOCKET & SPIGOT (B)
- Ø 63 SOCKET & SPIGOT (B)
- Ø 75 SOCKET & SPIGOT (B)
- Ø 90 SOCKET & SPIGOT (B)
- Ø 110 SOCKET & SPIGOT (B)
- Ø 125 SOCKET & SPIGOT (B)

Type "AQ"

- Ø 20 SOCKET & SPIGOT TYPE-AQ
- Ø 25 SOCKET & SPIGOT TYPE-AQ
- Ø 32 SOCKET & SPIGOT TYPE-AQ
- Ø 40 SOCKET & SPIGOT TYPE-AQ
- Ø 50 SOCKET & SPIGOT TYPE-AQ
- Ø 63 SOCKET & SPIGOT TYPE-AQ
- Ø 75 SOCKET & SPIGOT TYPE-AQ
- Ø 90 SOCKET & SPIGOT TYPE-AQ
- Ø 110 SOCKET & SPIGOT TYPE-AQ
- Ø 125 SOCKET & SPIGOT TYPE-AQ

Saddles socket CTS

- Ø ½" CTS SOCKET & SPIGOT
- Ø ¾" CTS SOCKET & SPIGOT
- Ø 1" CTS SOCKET & SPIGOT
- Ø 1¼" CTS SOCKET & SPIGOT

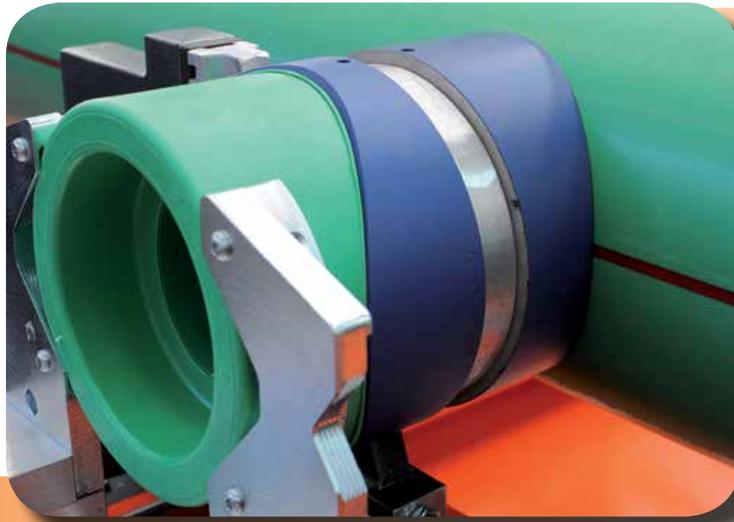
Saddles socket IPS

- Ø ½" IPS SOCKET & SPIGOT
- Ø ¾" IPS SOCKET & SPIGOT
- Ø 1" IPS SOCKET & SPIGOT
- Ø 1¼" IPS SOCKET & SPIGOT
- Ø 1 ½" IPS SOCKET & SPIGOT
- Ø 2" IPS SOCKET & SPIGOT
- Ø 3" IPS SOCKET & SPIGOT
- Ø 4" IPS SOCKET & SPIGOT

Hole repairing Sockets and accessories

- Ø 7 mm HOLE REPAIRING SOCKET & SPIGOT
- Ø 8 mm HOLE REPAIRING SOCKET & SPIGOT
- Ø 11 mm HOLE REPAIRING SOCKET & SPIGOT
- CLOSING TAPS SET - PE (20 PCS)
- CLOSING TAPS SET - ORANGE PP (20 PCS)





*** Saddle sockets metric
"AQ"**

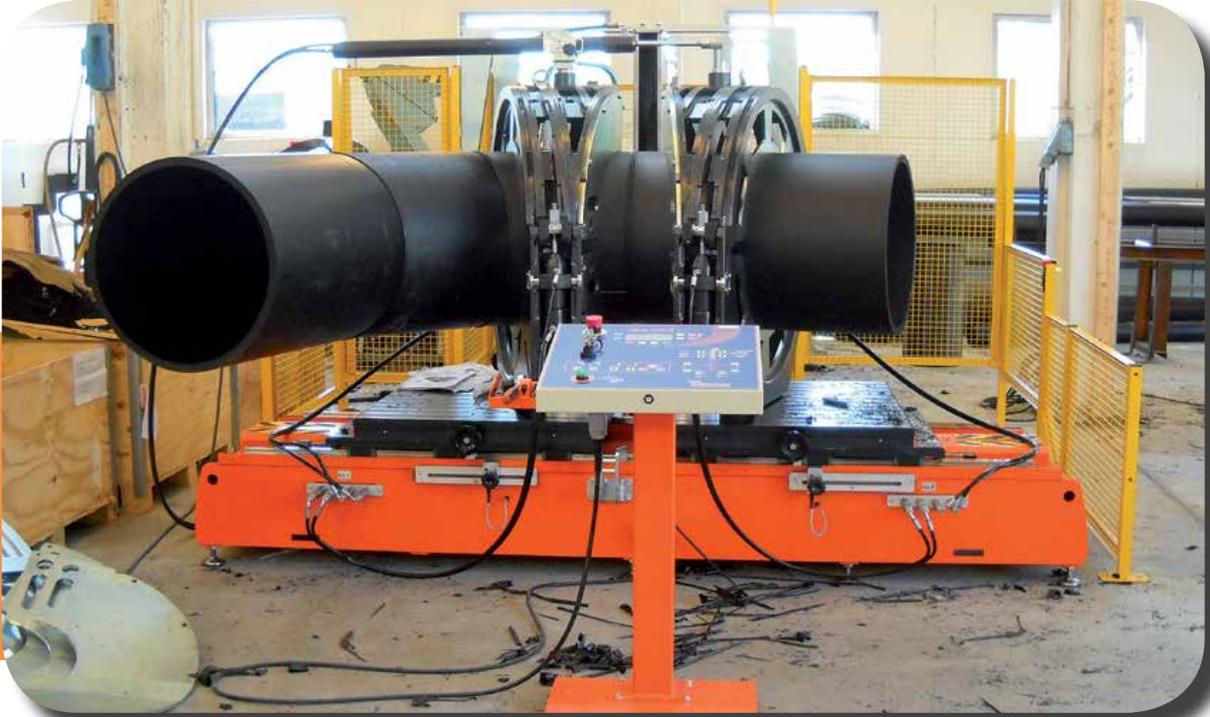
- Ø 40-20/25 AQ SADDLE SOCKET
- Ø 50-20/25 AQ SADDLE SOCKET
- Ø 63-20/25 AQ SADDLE SOCKET
- Ø 63-32 AQ SADDLE SOCKET
- Ø 75-20/25 AQ SADDLE SOCKET
- Ø 75-32 AQ SADDLE SOCKET
- Ø 75-40 AQ SADDLE SOCKET
- Ø 90-20/25 AQ SADDLE SOCKET
- Ø 90-32 AQ SADDLE SOCKET
- Ø 90-40 AQ SADDLE SOCKET
- Ø 110-20/25 AQ SADDLE SOCKET
- Ø 110-32 AQ SADDLE SOCKET
- Ø 110-40 AQ SADDLE SOCKET
- Ø 110-50 AQ SADDLE SOCKET
- Ø 125-20/25 AQ SADDLE SOCKET
- Ø 125-32 AQ SADDLE SOCKET
- Ø 125-40 AQ SADDLE SOCKET
- Ø 125-50 AQ SADDLE SOCKET
- Ø 125-63 AQ SADDLE SOCKET
- Ø 160-20/25 AQ SADDLE SOCKET
- Ø 160-32 AQ SADDLE SOCKET
- Ø 160-40 AQ SADDLE SOCKET
- Ø 160-50 AQ SADDLE SOCKET
- Ø 160-63 AQ SADDLE SOCKET
- Ø 160-75 AQ SADDLE SOCKET
- Ø 160-90 AQ SADDLE SOCKET
- Ø 200-20/25 AQ SADDLE SOCKET
- Ø 200-50 AQ SADDLE SOCKET
- Ø 200-63 AQ SADDLE SOCKET
- Ø 200-75 AQ SADDLE SOCKET
- Ø 200-90 AQ SADDLE SOCKET
- Ø 200-110 AQ SADDLE SOCKET
- Ø 200-125 AQ SADDLE SOCKET
- Ø 250-50 AQ SADDLE SOCKET
- Ø 250-63 AQ SADDLE SOCKET
- Ø 250-75 AQ SADDLE SOCKET
- Ø 250-90 AQ SADDLE SOCKET
- Ø 250-110 AQ SADDLE SOCKET
- Ø 250-125 AQ SADDLE SOCKET

*** Saddle sockets metric
"N"**

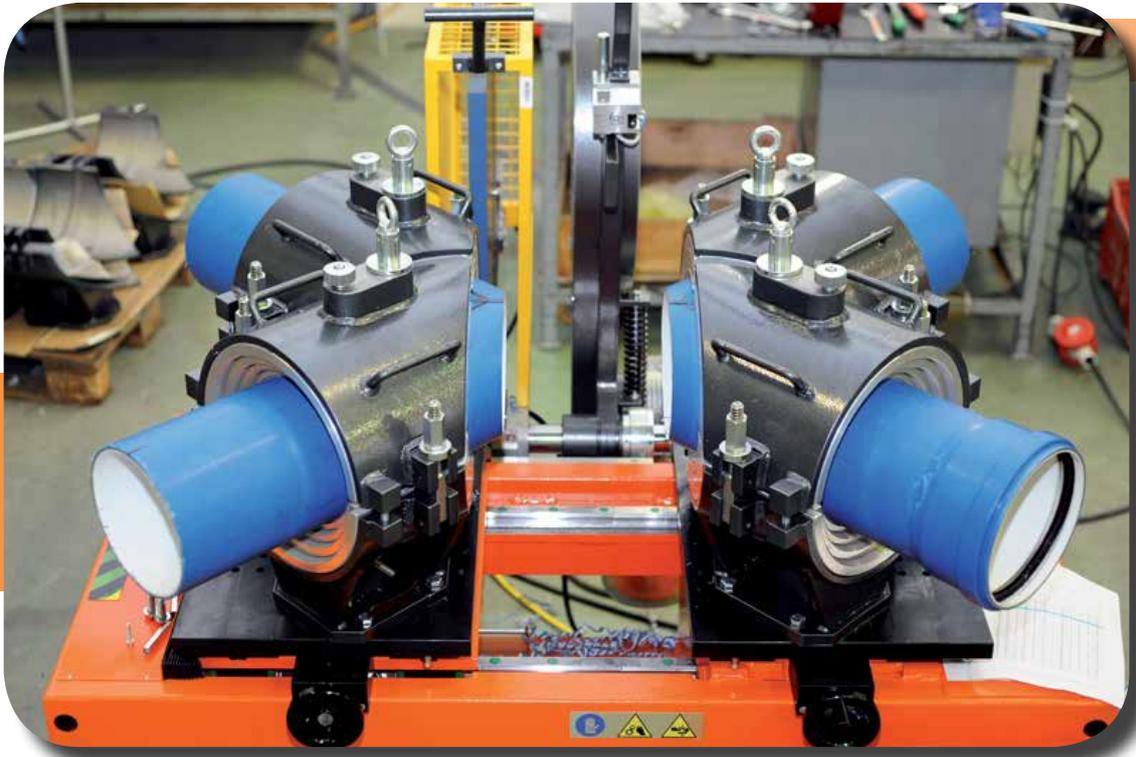
- Ø 40-20/25 N SADDLE SOCKET
- Ø 50-20/25 N SADDLE SOCKET
- Ø 63-20/25 N SADDLE SOCKET
- Ø 63-32 N SADDLE SOCKET
- Ø 75-20/25 N SADDLE SOCKET
- Ø 75-32 N SADDLE SOCKET
- Ø 90-20/25 N SADDLE SOCKET
- Ø 90-32 N SADDLE SOCKET
- Ø 90-40 N SADDLE SOCKET
- Ø 90-50 N SADDLE SOCKET
- Ø 110-20/25 N SADDLE SOCKET
- Ø 110-32 N SADDLE SOCKET
- Ø 110-40 N SADDLE SOCKET
- Ø 110-50 N SADDLE SOCKET
- Ø 110-63 N SADDLE SOCKET
- Ø 125-20/25 N SADDLE SOCKET
- Ø 125-32 N SADDLE SOCKET
- Ø 125-40 N SADDLE SOCKET
- Ø 125-50 N SADDLE SOCKET
- Ø 125-63 N SADDLE SOCKET
- Ø 160-20/25 N SADDLE SOCKET
- Ø 160-32 N SADDLE SOCKET
- Ø 160-40 N SADDLE SOCKET
- Ø 160-50 N SADDLE SOCKET
- Ø 160-63 N SADDLE SOCKET
- Ø 200-20/25 N SADDLE SOCKET
- Ø 200-32 N SADDLE SOCKET
- Ø 200-40 N SADDLE SOCKET
- Ø 200-50 N SADDLE SOCKET
- Ø 200-63 N SADDLE SOCKET
- Ø 250-20/25 N SADDLE SOCKET
- Ø 250-32 N SADDLE SOCKET
- Ø 250-40 N SADDLE SOCKET
- Ø 250-50 N SADDLE SOCKET
- Ø 250-63 N SADDLE SOCKET
- Ø 315-32 N SADDLE SOCKET
- Ø 315-40 N SADDLE SOCKET
- Ø 315-50 N SADDLE SOCKET
- Ø 315-63 N SADDLE SOCKET

* Contact RITMO S.P.A. for more details

FITTINGS FABRICATION MACHINES



WORKING RANGE Ø mm	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	1200	1400	1600	
ALFA 200 CTB																														
ELBOWS				63	75	90	110	125	140	160	180	200																		
Y - T - X				63	75	90	110	125	140	160																				
ALFA 400 MANUAL																														
ELBOWS						90	110	125	140	160	180	200	225	250	280	315	355	400												
Y - T - X						90	110	125	140	160	180	200	225	250	280	315														
ALFA 400 EASY LIFE																														
ELBOWS						90	110	125	140	160	180	200	225	250	280	315	355	400												
Y - T - X						90	110	125	140	160	180	200	225	250	280	315														
ALFA 400 CTB																														
ELBOWS							110	125	140	160	180	200	225	250	280	315	355	400												
Y - T - X							110	125	140	160	180	200	225	250	280	315	355													
ALFA 630 T																														
ELBOWS													225	250	280	315	355	400	450	500	560	630								
Y - T - X													225	250	280	315	355	400	450	500	560	630								
ALFA 1000																														
ELBOWS																	355	400	450	500	560	630	710	800	900	1000				
Y - T - X																	355	400	450	500	560	630	710	800						
ALFA 1200																														
ELBOWS																							630	710	800	900	1000	1200		
Y - T - X																							630	710	800	900	1000			
ALFA 1600																														
ELBOWS																									800	900	1000	1200	1400	1600
Y - T - X																									800	900	1000	1200		
WORKING RANGE Ø mm	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	1200	1400	1600	

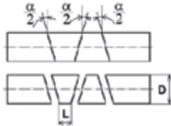
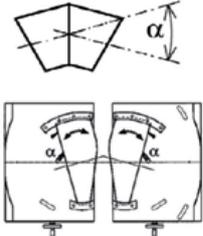
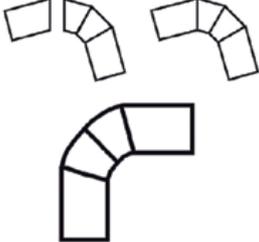


WORKING RANGE Ø IPS	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ALFA 200 CTB														
ELBOWS	2"	3"	4"	5"	6"									
Y - T - X	2"	3"	4"	5"										
ALFA 400 MANUAL														
ELBOWS			4"	5"	6"	8"	10"	12"	14"					
Y - T - X			4"	5"	6"	8"	10"	12"						
ALFA 400 EASY LIFE														
ELBOWS			4"	5"	6"	8"	10"	12"	14"					
Y - T - X			4"	5"	6"	8"	10"	12"						
ALFA 400 CTB														
ELBOWS			4"	5"	6"	8"	10"	12"	14"	16"				
Y - T - X			4"	5"	6"	8"	10"	12"						
ALFA 630 T														
ELBOWS						8"	10"	12"	14"	16"	18"	20"	22"	24"
Y - T - X						8"	10"	12"	14"	16"	18"	20"	22"	24"
WORKING RANGE Ø IPS	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"

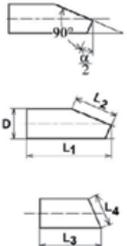
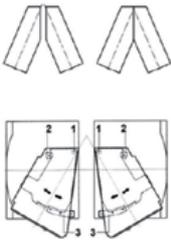
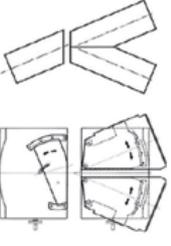
WORKING RANGE Ø DIPS	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"
ALFA 200 CTB														
ELBOWS		3"	4"	5"	6"									
Y - T - X		3"	4"											
ALFA 400 MANUAL														
ELBOWS			4"	5"	6"	8"	10"	12"	14"					
Y - T - X			4"	5"	6"	8"	10"							
ALFA 400 EASY LIFE														
ELBOWS			4"	5"	6"	8"	10"	12"	14"					
Y - T - X			4"	5"	6"	8"	10"							
ALFA 400 CTB														
ELBOWS			4"	5"	6"	8"	10"	12"	14"					
Y - T - X			4"	5"	6"	8"	10"	12"						
ALFA 630 T														
ELBOWS						8"	10"	12"	14"	16"	18"	20"	22"	24"
Y - T - X						8"	10"	12"	14"	16"	18"	20"	22"	24"
WORKING RANGE Ø DIPS	2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"

HOW TO FABRICATE A SPECIAL FITTING

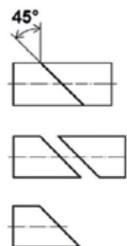
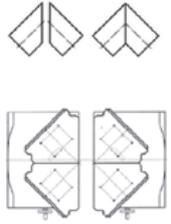
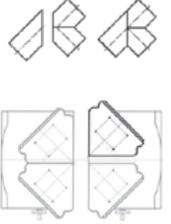
ELBOWS

	Cut	Welding	
			

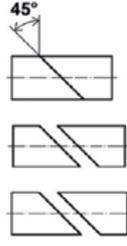
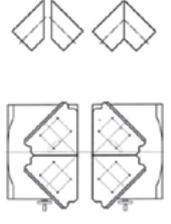
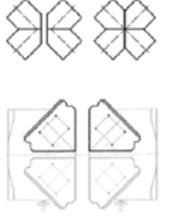
WYES (Y)

	Cut	Welding 1 st stage	Welding 2 nd stage	
				

TEES

	Cut	Welding 1 st stage	Welding 2 nd stage	
				

CROSSES

	Cut	Welding 1 st stage	Welding 2 nd stage	
				



Elbows 40 ÷ 200 mm
2" ÷ 6" IPS; 2" ÷ 6" DIPS
0° ÷ 45°

Wyes 63 ÷ 160 mm
2" ÷ 6" IPS; 3" ÷ 4" DIPS
45° ÷ 60°

Tees/Crosses
63 ÷ 160 mm
2" ÷ 6" IPS; 3" ÷ 4" DIPS



ALFA 200 CTB

This is a workshop welding machine designed to fabricate fittings like elbows (up to \varnothing 200 mm; 6" DIPS), tees, crosses and wyes (Y) (up to \varnothing 160 mm; 6" IPS) by joining pipe segments, with the help of special jaws. The ALFA 200 CTB can also weld special and moulded fittings such as elbows, tees and flange necks, thanks to a different type of special jaws. Composed of:

- A machine body with two carriages, one of which driven by a hydraulic system, and two lateral supports with inserts.
- A control panel that features the Easy Life system, thanks to which it is possible to carry out a whole welding cycle in a simple, intuitive and repeatable way, so that the operator's interference would be reduced to the minimum. An built-in memory allows the machine to store 4000 welding cycles (including the set diameters and SDR); possibility to pre-set 50 customized. It is possible to transfer the PDF report via USB slot.
- 790- A heating plate with lifting sliding arm.
- An electrically controlled milling cutter for levelling the ends of the pipes and/or fittings with built-in overload cutout and safety microswitch.
- An upper cylinder, to be positioned on the jaws, for welding extra thick pipes and/or whenever it's necessary to use high pressures.

ON REQUEST

- **Elbows clamps \varnothing 200 mm**
with lateral support
inserts \varnothing 40 ÷ 180 mm
 \varnothing 2" ÷ 6" IPS
 \varnothing 3" ÷ 6" DIPS
- **Tees/crosses clamps \varnothing 160 mm**
inserts \varnothing 63 ÷ 140 mm
- **Tees/crosses clamps \varnothing 6" IPS**
inserts \varnothing 2" ÷ 5" IPS
 \varnothing 3" ÷ 4" DISP
- **Wyes clamps \varnothing 160 mm**
inserts \varnothing 63 ÷ 140 mm
- **Wyes clamps \varnothing 6" IPS**
inserts \varnothing 2" ÷ 5" IPS
 \varnothing 3" ÷ 4" DISP
- Right or left special clamps \varnothing 200
inserts \varnothing 40 ÷ 180 mm

TECHNICAL FEATURES

Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	230 V Single Phase 50/60 Hz
Total absorbed power	3500 W
Working temperature	165° ÷ 280° C (329° ÷ 536° F)
Outside temperature range	-5° ÷ 40° C (23° ÷ 104° F)
Weight standard composition	250 Kg (550 lb)
Dimensions	1200 x 1300 x 1530 mm 47.2" x 51.2" x 60.2"

- Tool for flange necks
- THE INSPECTOR Data-logging and cables



ALFA 400 MANUAL

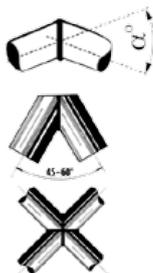
Workshop welding machine designed to fabricate fittings like elbows, tees, crosses and wyes up to \varnothing 400 mm, by joining pipe segments, with the help of special jaws. The ALFA 400 MANUAL welding plastic materials such as:

STANDARD COMPOSITION:

- A machine body with two carriages, one of which driven by a hydraulic system
- A manual hydraulic control panel for the welding cycle
- A milling cutter for levelling the ends of the pipes and/or fittings with built-in overload cutout and safety microswitch.
- A Teflon-coated heating plate, power supply 230 V 50/60 Hz
- Right and left elbows clamps \varnothing 400 mm with steel inserts from \varnothing 90 mm to 355 mm.

ON REQUEST

- Elbows clamps \varnothing 16" IPS;
inserts \varnothing 4" \div 14" IPS; \varnothing 4" \div 14" DIPS
- Tees/crosses clamps \varnothing 315 mm; inserts \varnothing 90 \div \varnothing 280 mm
- Tees/crosses clamps \varnothing 12" IPS;
inserts \varnothing 4" \div 10" IPS; \varnothing 4" \div 10" DIPS
- Wyes clamps \varnothing 160 mm; inserts \varnothing 90 \div \varnothing 280 mm
- Wyes clamps \varnothing 12" IPS;
inserts \varnothing 4" \div 10" IPS; \varnothing 4" \div 10" DIPS
- Right or left special clamps \varnothing 400; inserts \varnothing 110 \div \varnothing 355 mm
- Tool for flange necks
- THE INSPECTOR Data-logging and cables



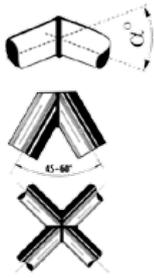
Elbows 90 \div 400 mm
4" \div 16" IPS; 4" \div 14" DIPS
0° \div 45°

Wyes 90 \div 315 mm
4" \div 12" IPS; 4" \div 10" DIPS
45° \div 60°

Tees/Crosses
90 \div 315 mm
4" \div 12" IPS; 4" \div 10" DIPS

TECHNICAL FEATURES

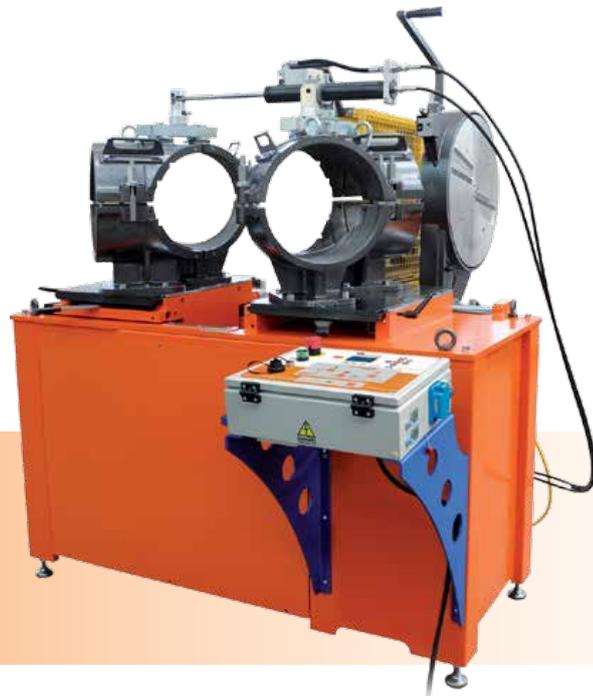
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	230 V Single Phase 50/60 Hz
Total absorbed power	7400 W
Working temperature	180° \div 280° C (356° \div 536° F)
Outside temperature range	-5° \div 40° C (23° \div 104° F)
Weight standard composition	647 Kg (1426 lb)
Dimensions	1490 x 2020 x 1700 mm 58.6" x 79.5" x 67"



Elbows 90 ÷ 400 mm
 4" ÷ 16" IPS; 4" ÷ 14" DIPS
 0° ÷ 45°

Wyes 90 ÷ 315 mm
 4" ÷ 12" IPS; 4" ÷ 10" DIPS
 45° ÷ 60°

Tees/Crosses
 90 ÷ 315 mm
 4" ÷ 12" IPS; 4" ÷ 10" DIPS



ALFA 400 EASY LIFE

This is a workshop welding machine designed to fabricate fittings like elbows (up to \varnothing 400 mm; 16" IPS), wyes (Y), tees and crosses (up to \varnothing 315 mm; 12" IPS) by joining pipe segments, with the help of special jaws.

The ALFA 400 EASY LIFE can also weld special and moulded fittings such as elbows, tees and flange necks, thanks to a different type of special jaws. Composed of:

A machine body with two carriages, one of which driven by a hydraulic system. A control panel that features the CNC system, thanks to this would eliminate any risk of error due to the operator. The CNC incorporates a data-logging that can store up to 4000 cycles; possibility to pre-set 50 customized. It is possible to download the PDF report via USB slot.

A printer can be connected to the serial port, to get a welding report at the end of each welding cycle. A heating plate featuring a new horizontal sliding system, automatically operated, which enables a fast side-sliding of the plate during the exchange period. The whole process is carried out with no need of disconnecting the upper cylinder, whenever it is in use. A milling cutter for levelling the ends of pipes and/or fittings that slides on recirculating ball slideways, with an electronic device for a soft start. An upper cylinder, to be positioned on the jaws, for welding extra thick pipes and/or whenever it's necessary to use high pressures. Available in 230 V and 400 V.

STANDARD COMPOSITION

Welding machine complete with:

- control panel
- heating plate
- milling cutter
- upper cylinder and tools kit
- elbows clamps \varnothing 400 mm;
- inserts \varnothing 90 ÷ 355 mm

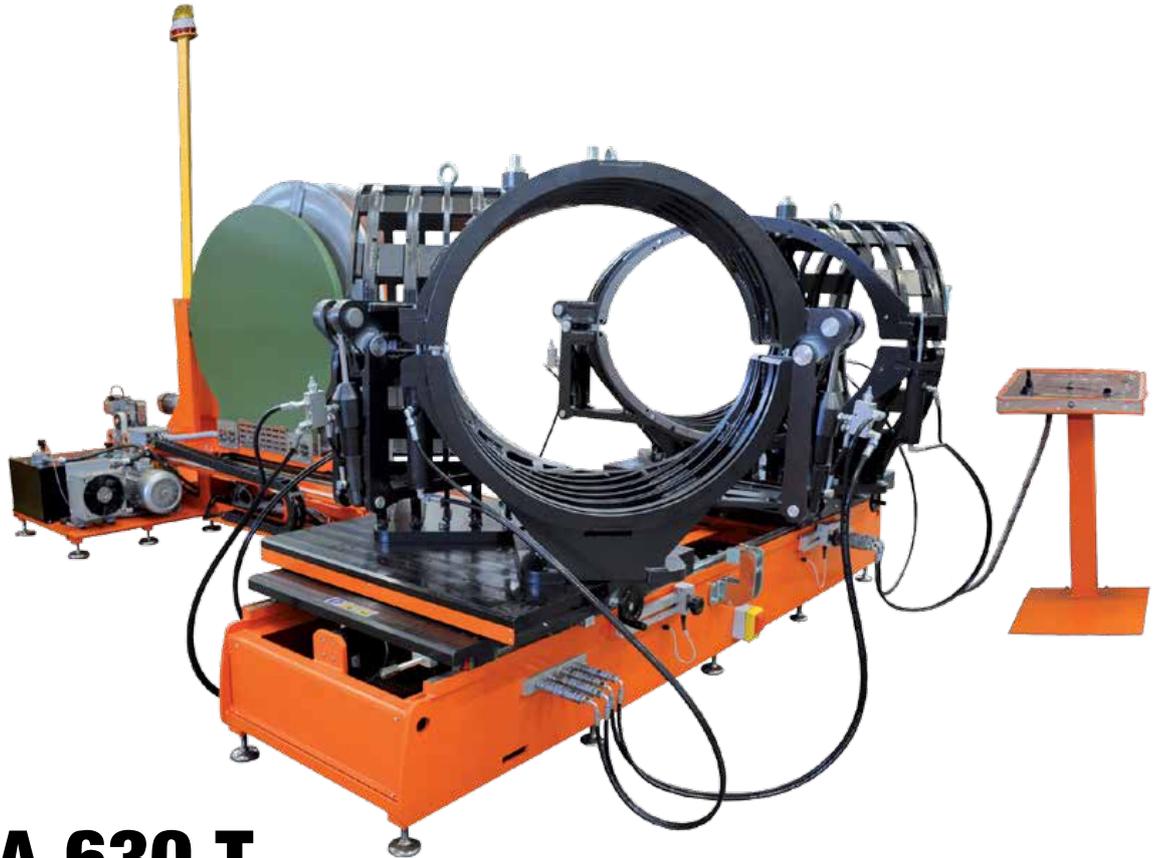
ON REQUEST

- **Elbows clamps \varnothing 16" IPS;**
 inserts \varnothing 4" ÷ 14" IPS; \varnothing 4" ÷ 14" DIPS
- **Tees/crosses clamps \varnothing 315 mm;**
 inserts \varnothing 90 ÷ 280 mm
- **Tees/crosses clamps \varnothing 12" IPS;**
 inserts \varnothing 4" ÷ 10" IPS; \varnothing 4" ÷ 10" DIPS
- **Wyes clamps \varnothing 315 mm;**
 inserts \varnothing 90 ÷ 280 mm
- **Wyes clamps \varnothing 12" IPS;**
 inserts \varnothing 4" ÷ 10" IPS; \varnothing 4" ÷ 10" DIPS

- Right or left special clamps \varnothing 400;
- inserts from \varnothing 110 to \varnothing 355 mm
- Tool for flange necks

TECHNICAL FEATURES

Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	230 V Single Phase 50/60 Hz 400 V Three Phase 50/60 Hz
Total absorbed power	7360 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-5° ÷ 40° C (23° ÷ 104° F)
Weight machine body	647 Kg (1426 lb)
Dimensions	1490 x 2020 x 1700 mm 58.6" x 79.5" x 67"



ALFA 630 T

Workshop welding machine designed to fabricate fittings like elbows, wyes, tees and crosses (up to \varnothing 630 mm or 24" DIPS). All jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

Composed of:

- A machine body with two hydraulically controlled carriages.
- A control panel that features the CNC system, thanks to this would eliminate any risk of error due to the operator. The CNC incorporates a data-logging that can store up to 4000 cycles. It is possible to download the PDF report via USB slot; possibility to pre-set 20 customized
- A Teflon-coated heating plate with electrical movement (in/out) on spherical bearings guides.
- A milling cutter with electrical movement (in/out) on spherical bearings guides, operated by an electrical engine.
- An upper cylinder, to be positioned on the jaws, for welding extra thick pipes and/or whenever it is necessary to apply high pressures.

STANDARD COMPOSITION

- Welding machine complete with control panel
- Heating plate, milling cutter
- Elbows jaws \varnothing 24" DIPS with inserts \varnothing 315 ÷ 630 mm
- Upper cylinder and tool kit

ON REQUEST

- **Elbows jaws \varnothing 24" DIPS** inserts \varnothing 225 ÷ 280 mm
inserts \varnothing 8" ÷ 24" IPS; \varnothing 8" ÷ 24" DIPS
- **Wyes jaws \varnothing 24" DIPS** inserts \varnothing 225 ÷ 630 mm
inserts \varnothing 8" ÷ 24" IPS; \varnothing 8" ÷ 20" DIPS
- **Tees/crosses jaws \varnothing 24" DIPS** inserts \varnothing 225 ÷ 630 mm
inserts \varnothing 8" ÷ 24" IPS; \varnothing 8" ÷ 20" DIPS
- Special milling cutter plates and blades for PVC



TECHNICAL FEATURES

PLUS

**CNC
WELDING SYSTEM**

HYDRAULIC CLAMPS

DATA-LOGGING

USB PORT

Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	400 V 3F+N+PE 50/60 HZ
Total absorbed power	30000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	up to 40° C (104° F)
Angle reading sensivity	± 1° (33.8° F)
Dimensions	2940 x 4000 x 2000 mm 115.7" x 157.5" x 78.7"
Weight	3325 Kg (7330 lb)



Elbows 225* ÷ 630 mm
8" ÷ 24" IPS; 8" ÷ 24" DIPS
0° ÷ 60°



Wyes 225* ÷ 630 mm
8" ÷ 24" IPS; 8" ÷ 24" DIPS
45° ÷ 60°



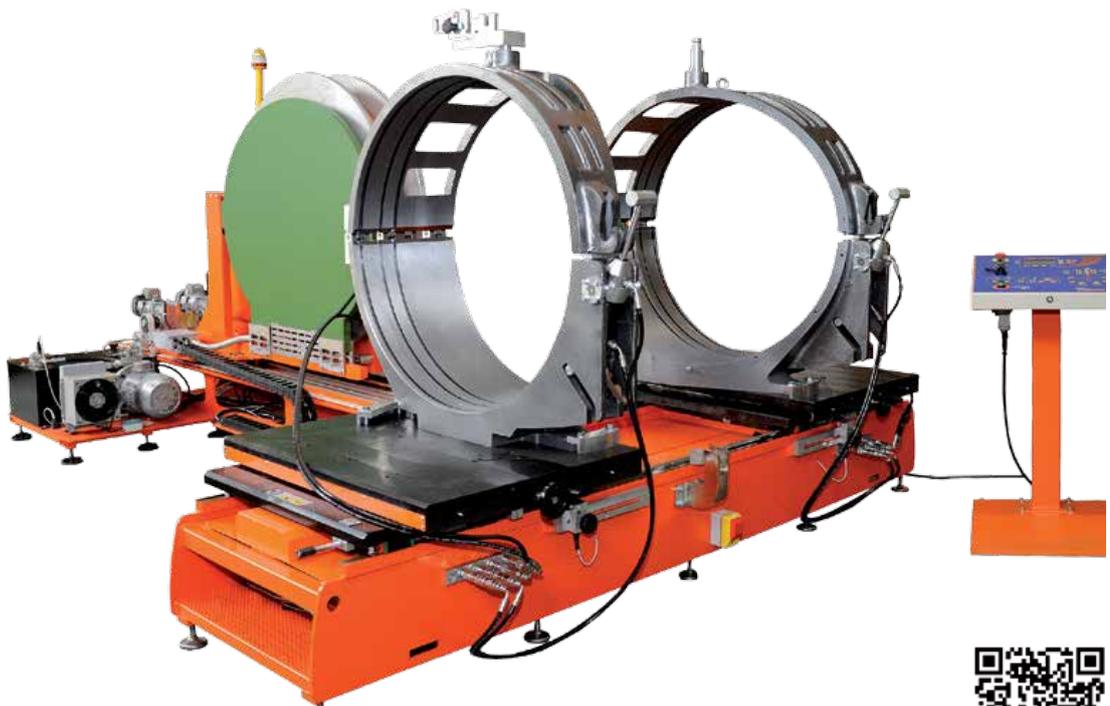
Tees/Crosses
225* ÷ 630 mm
8" ÷ 24" IPS; 8" ÷ 24" DIPS



225* ÷ 280 mm on request
standard composition 315 ÷ 630 mm

Norway





watch the video

ALFA 1000

CNC workshop welding machine designed to fabricate fittings like elbows, wyes, tees and crosses. The jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

Composed of:

- A machine body with two hydraulically controlled carriages.
- A control panel that features the CNC system, thanks to this would eliminate any risk of error due to the operator. The CNC incorporates a datalogging that can store up to 4000 cycles. It is possible to download the PDF report via USB slot; possibility to pre-set 20 customized.
- A Teflon-coated heating plate with electrical movement (in/out) on spherical bearings guides.
- A milling cutter with electrical movement (in/out) on spherical bearings guides, operated by an electrical engine.
- An upper cylinder, to be positioned on the jaws, for welding extra thick pipes and/or whenever it is necessary to apply high pressures.

STANDARD COMPOSITION

- Welding machine complete with control panel
- Heating plate, milling cutter
- Upper cylinder and tool kit
- Elbows jaws complete with inserts from \varnothing 355 to \varnothing 900 mm

ON REQUEST

- Wyes jaws \varnothing 800 complete with inserts from \varnothing 355 to \varnothing 710 mm
- Tees/crosses jaws \varnothing 800 complete with inserts from \varnothing 355 to 710 mm



TECHNICAL FEATURES

PLUS

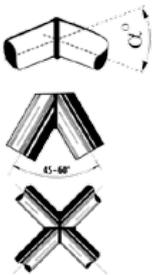
**CNC
WELDING SYSTEM**

HYDRAULIC CLAMPS

DATA-LOGGING

USB PORT

Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	400 V 3F+N+PE 50/60 HZ
Total absorbed power	38000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	up to 40° C (104° F)
Angle reading sensivity	± 1° (33.8° F)
Dimensions	2980 x 4560 x 3060 mm 117.3" x 179.5" x 120.4"
Weight	3130 Kg (6900 lb)



Elbows 355 ÷ 1000 mm
0° ÷ 60°

Wyes 355 ÷ 800 mm
45° ÷ 60°

Tees/Crosses
355 ÷ 800 mm



Egypt



ALFA 1200



Elbows 630 ÷ 1200 mm
0° ÷ 60°

Wyes 630 ÷ 1000 mm
45° ÷ 60°

Tees/Crosses
630 ÷ 1000 mm

Workshop welding machine designed to fabricate fittings like elbows, wyes, tees and crosses up to Ø 1200 mm. The ALFA 1200 welding plastic materials such as: HDPE, PP.*

STANDARD COMPOSITION

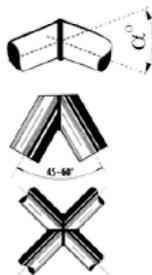
- A machine body with two hydraulically controlled carriages and hydraulic clamps.
- A control panel that features the CNC system, thanks to this would eliminate any risk of error due to the operator. The CNC incorporates a data-logging that can store up to 4000 cycles. It is possible to download the PDF report via USB slot; possibility to pre-set 20 customized.
- A milling cutter with electrical movement (in/out)
- A Teflon-coated heating plate with electrical movement (in/out)



TECHNICAL FEATURES

Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	46000 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-5° ÷ 40° C (23° ÷ 104° F)
Weight machine body	6120 Kg (13500 lb)
Dimensions	4100 x 6000 x 3060 mm 161.4" x 236" x 120.5"

ALFA 1600



Elbows 800 ÷ 1600 mm
0° ÷ 60°

Wyes 800 ÷ 1200 mm
45° ÷ 60°

Tees/Crosses
800 ÷ 1200 mm

Workshop welding machine designed to fabricate fittings like elbows, wyes, tees and crosses up to Ø 1600 mm. The ALFA 1600 welding plastic materials such as: HDPE, PP.*

STANDARD COMPOSITION

- A machine body with two hydraulically controlled carriages and hydraulic clamps.
- A control panel that features the CNC system, thanks to this would eliminate any risk of error due to the operator. The CNC incorporates a data-logging that can store up to 4000 cycles. It is possible to download the PDF report data via USB slot. A milling cutter with electrical movement (in/out). A Teflon-coated heating plate with electrical movement (in/out)







OMEGA 400 - 250

OMEGA 400 - 250 is a fusion welding machine for in shop use for the manufacturing of special parts, such as reducing branches (Tees, Crosses) for the transport of water, gas and other fluids under pressure.

STANDARD COMPOSITION

- Machine body with manual carriage for socket centring
- Hydraulic jaws for locking pipe & branches
- Side support for branches
- Quick release inserts
- EASY LIFE control panel: allows a simple-easy-repeatable welding cycle, reducing the necessity of operator's intervention.
- A built-in memory records 4000 welding cycles; the data will be available through PDF reports, downloadable in a USB pen drive. Possibility to pre-set 20 customized.
- Hydraulic movement of heating plate that can host male/female sockets with heating plate detaching device
- Reduced Tee Driller (on request)

INTEGRATIVE SYSTEMS

RADIUS 40-315 machine for radial cutting

Reduced Tee Driller



FEASIBLE BRANCHES

		Ø mm BRANCH PIPE												
		50	63	75	90	110	125	140	160	180	200	225	250	
Ø mm MAIN PIPE	90	•	•											
	110	•	•											
	125	•	•	•										
	140	•	•	•	•									
	160	•	•	•	•	•								
	180	•	•	•	•	•	•							
	200	•	•	•	•	•	•	•						
	225	•	•	•	•	•	•	•	•					
	250	•	•	•	•	•	•	•	•	•				
	280	•	•	•	•	•	•	•	•	•	•			
	315	•	•	•	•	•	•	•	•	•	•	•		
	355	•	•	•	•	•	•	•	•	•	•	•	•	
400	•	•	•	•	•	•	•	•	•	•	•	•	•	

TECHNICAL FEATURES

Materials	HDPE, PP
Power supply	230 Vac 50/60 Hz
Total absorbed power	6500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Weight: machine	735 Kg (1620 lb)
Weight: control panel	55 Kg (124 lb)
Dimensions: machine	1680 x 1600 x 1690 mm; 66.1" x 63" x 66.5"
Dimensions: control panel	600 x 600 x 1150 mm; 23.6" x 23.6" x 45.2"



OMEGA 630 - 250

OMEGA 630 - 250 (24" IPS - 12" IPS) is a fusion welding machine for in shop use for the manufacturing of special parts, such as reducing branches (Tees, Crosses) for the transport of water, gas and other fluids under pressure.

STANDARD COMPOSITION

- Machine body with manual carriage for socket centring
- Hydraulic jaws for locking pipe & branches
- Side support for branches
- Quick release inserts
- EASY LIFE control panel: allows a simple-easy-repeatable welding cycle, reducing the necessity of operator's intervention
- A built-in memory records 4000 welding cycles; The data will be available through PDF reports, downloadable in a USB pen drive. Possibility to pre-set 20 customized.
- Hydraulic movement of heating plate that can host male/female sockets with heating plate detaching device
- Reduced Tee Driller (on request)

INTEGRATIVE SYSTEMS

RADIUS 40-315 machine for radial cutting



FEASIBLE BRANCHES

	Ø mm BRANCH PIPE											
	50	63	75	90	110	125	140	160	180	200	225	250
90	•	•										
110	•	•	•									
125	•	•	•	•								
140	•	•	•	•	•							
160	•	•	•	•	•	•						
180	•	•	•	•	•	•	•					
200	•	•	•	•	•	•	•	•				
225	•	•	•	•	•	•	•	•	•			
250	•	•	•	•	•	•	•	•	•	•		
280	•	•	•	•	•	•	•	•	•	•	•	
315	•	•	•	•	•	•	•	•	•	•	•	•
355	•	•	•	•	•	•	•	•	•	•	•	•
400	•	•	•	•	•	•	•	•	•	•	•	•
450	•	•	•	•	•	•	•	•	•	•	•	•
500	•	•	•	•	•	•	•	•	•	•	•	•
560	•	•	•	•	•	•	•	•	•	•	•	•
630	•	•	•	•	•	•	•	•	•	•	•	•

FEASIBLE BRANCHES

	Ø IPS BRANCH PIPE											
	1½	2	2½	3	4	5	6	8	10	12		
3	•	•										
4	•	•	•									
5	•	•	•	•	•							
6	•	•	•	•	•	•						
8	•	•	•	•	•	•	•					
10	•	•	•	•	•	•	•	•				
12	•	•	•	•	•	•	•	•	•			
14	•	•	•	•	•	•	•	•	•	•		
16	•	•	•	•	•	•	•	•	•	•	•	
18	•	•	•	•	•	•	•	•	•	•	•	•
20	•	•	•	•	•	•	•	•	•	•	•	•
22	•	•	•	•	•	•	•	•	•	•	•	•
24	•	•	•	•	•	•	•	•	•	•	•	•

TECHNICAL FEATURES

Reduced Tee Driller



Materials	HDPE, PP
Power supply	230 Vac 50/60 Hz
Total absorbed power	6500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Weight: machine	758 Kg (1671 lb)
Weight: control panel	55 Kg (124 lb)
Dimensions: machine	1680 x 1600 x 1690 mm; 66.1" x 63" x 66.5"
Dimensions: control panel	600 x 600 x 1150 mm; 23.6" x 23.6" x 45.2"



RADIUS 40 - 315

RADIUS 40-315 is designed to perform saddle cuts on plastic pipes made of HDPE, PP, PVC.

The saw performs precise radial cuts, and thanks to a trolley that slide gradually on a scaled instrument, allows a fast configuration of the cutting radius. Even the pipe support can slide and block small pieces of pipes down to 15 cm length (6"). The saw rotation during cutting is executed manually and in complete safe conditions since the control panel and its handles are located behind the machine away from the cutting area.

This machine is not suitable to cut different materials from those specified above, including composite pipes that may contain other substances (polymers, metals, alloys, etc.).

STANDARD COMPOSITION

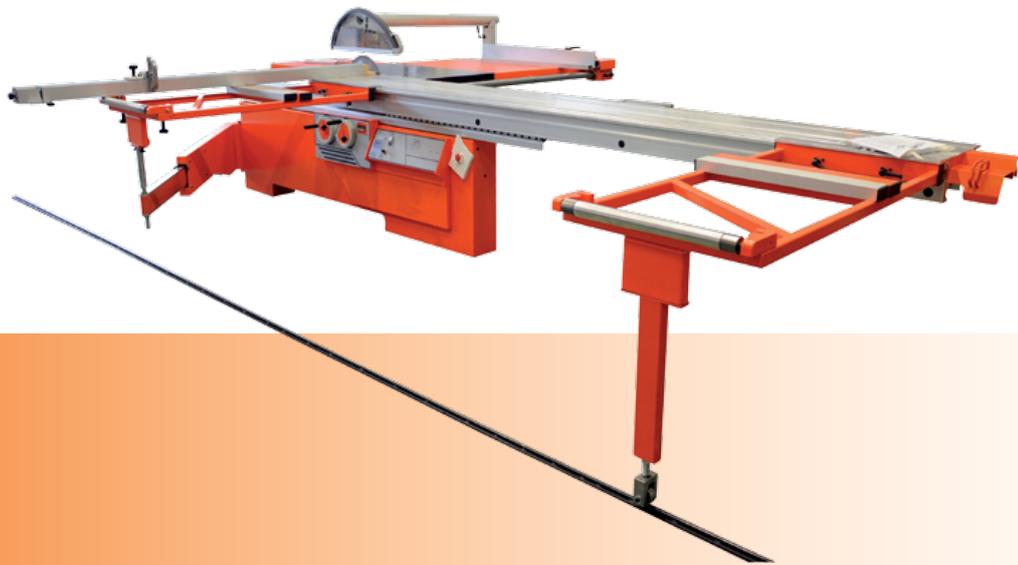
- Machine body with control panel and saw

INTEGRATIVE SYSTEMS for
OMEGA 630-250 and OMEGA 400-250



TECHNICAL FEATURES

Materials	HDPE, PP, PVC
Branch pipe OD	40 ÷ 323 (1.6" x 12.7")
Main pipe OD	Up to 630 mm (24.8")
Shortest branch length	15 cm (6")
Power supply	110 Vac Single Phase 50 Hz 230 Vac Single Phase 60 Hz
Total absorbed power	1100 W
Weight	425 Kg (937 lb)
Dimensions	1000 x 1566 x 1642 mm 39.4" x 61.5" x 64.6"



POLYCUT 4000

Polycut 4000 is a professional saw designed to cut plastic sheets such as HDPE, PP, PVC.

This machine has been specifically designed to work homogeneous plastic sheets. The following cutting operations can be carried out:

- Longitudinal cutting of not-machined or semi-machined parts;
- Parallel cutting of panels of various sizes;
- Squaring of panels of all types and various dimensions;
- Fine groovings
- Shearing;

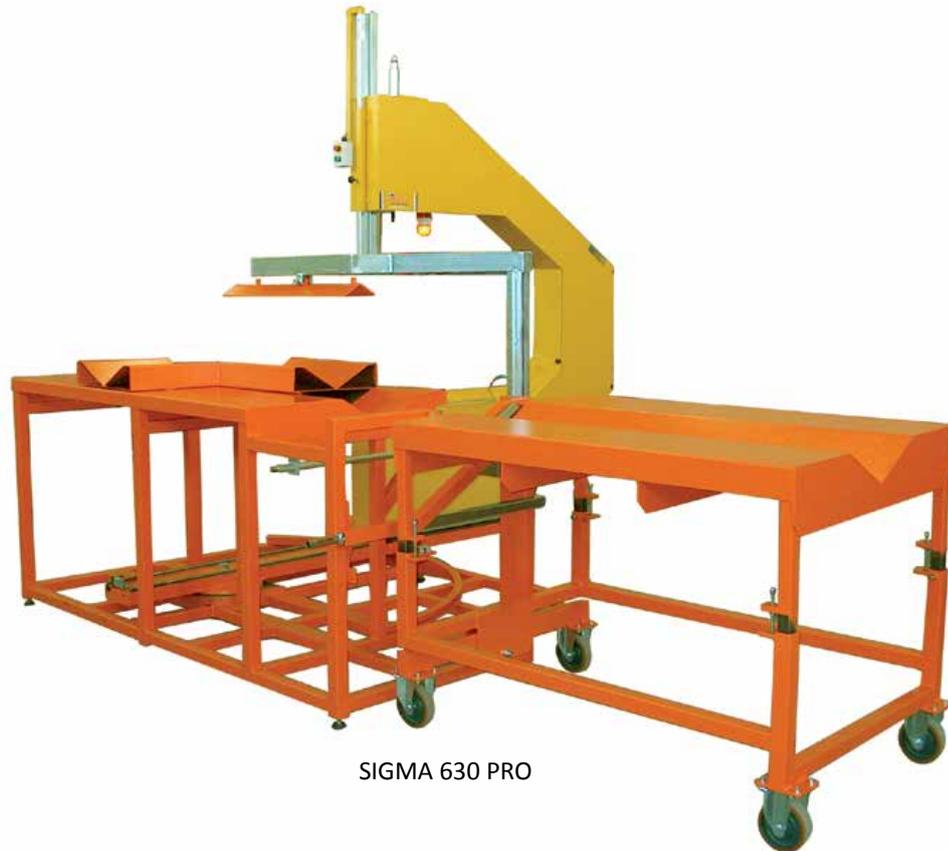
Materials other than homogeneous plastic sheets are not suitable to this machine.

INTEGRATIVE SYSTEMS for
POLYFUSION Line



TECHNICAL FEATURES

Materials	HDPE, PP, PVC
Blade tilting	0° - 45°
3 Saw blade speed	rpm 2800/4000/5600
Power supply	400 Vac Three Phase 50 Hz
Power motor saw	4 kW
Weight	740 Kg (1632 lb)
Dimensions of carriage	3800 x 300 mm; 149.6" x 11.8"
Dimensions of saw bench	1100 x 650 mm; 43.3" x 25.6"
Squaring frame dimensions	1400 x 640 mm; 55.1" x 25.2"



SIGMA 630 PRO

SIGMA 400 PRO - SIGMA 630 PRO

SIGMA 400 PRO and 630 PRO are electric workshop band saw machines for plastic pipes HDPE, PP, PVDF, PVC. The SIGMA PRO were specially designed to make angular cut, featuring a wide range of angles (from - 30° to 67,5°). They're the ideal equipment to match Alfa fittings fabrication machines. Both the preparation and cutting phases are extremely simple and safe to perform.

The machines is provided with special spherical bearings guides where the machine body can easily move sideward. The equipment includes a control panel, located at a safety distance from the cutting area, where the operator can control the automatic movement of the arch saw (IN/OUT) and also adjust and regulate the cutting speed.

Special auxiliary devices can relieve the stress on the blade and help reducing the ordinary technical maintenance

STANDARD COMPOSITION

- Auxiliary bench for cutting tees

ON REQUEST

- Pipe supporting table
- Scraps suction device (SIGMA 630 PRO)



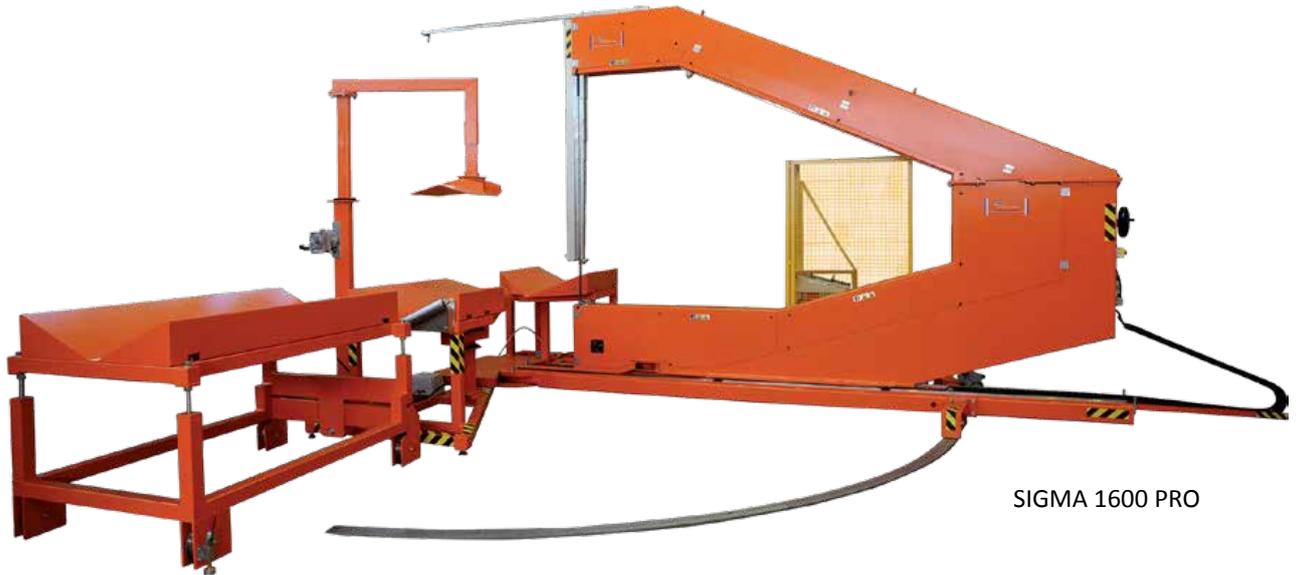
SIGMA 400 PRO

TECHNICAL FEATURES

	SIGMA 400 PRO	SIGMA 630 PRO
Working range	60 ÷ 450 mm; 2" IPS ÷ 18" IPS	90 ÷ 655 mm; 3" IPS ÷ 24" DIPS
Materials	HDPE, PP, PVDF, PVC For other materials contact RITMO S.P.A.	HDPE, PP, PVDF, PVC For other materials contact RITMO S.P.A.
Power supply	400 V 3F+N+PE 50/60 HZ	400 V 3F+N+PE 50/60 HZ
Total absorbed power	860 W	2200 W
Weight	330 Kg (727.5 lb)	925 Kg (2040 lb)
Dimensions	2980 x 2650 x 2290 mm 117.3" x 104.3" x 90.2"	4340 x 3460 x 2650 mm 170.9" x 136.2" x 104.3"



SIGMA 630 PRO



SIGMA 1600 PRO

SIGMA 1200 PRO - SIGMA 1600 PRO

SIGMA 1200 PRO and SIGMA 1600 PRO are electric workshop band saw machines, for plastic pipes up to 1200 mm (48 " DIPS) and 1600 mm (67"). They're the ideal equipment to match Alfa fittings fabrication machines. Both the preparation and cutting phases are extremely simple and safe to perform.

SIGMA 1200 and 1600 were specially designed to perform easy cuts with a wide range of angles (from - 45° to 67,5°). Thanks to a PLC system, the operator can input the exact cutting angles with the highest precision. Composed of:

- Pipe housing bench, a blade-housing arm (belt type), moving on a spherical bearings guide, performing settable advancing speed. It can rotate on an arc system, and perform a wide range of share angles.
- A continuous control blade guide telescopic system, to reduce to the minimum the blade vibration, regardless of the diameter and/or thickness of the pipe being cut. Provided with a laser-beam pointing system to localize the cutting area.
- A safety pilot cabin, where the control panel is located. It is protected by guards for greater operator's safety.
- An easy-to-use control panel, featuring a simplified graphics display, where the inclination degree of the cutting arc is displayed.

STANDARD COMPOSITION

- Band saw machine complete of an auxiliary bench to cut welded pipe sector (for Tees), and support kit for the pipe sectors (to prevent them from being damaged)

ON REQUEST

- Scraps suction device (SIGMA 1200 PRO)



TECHNICAL FEATURES



watch the video

	SIGMA 1200 PRO	SIGMA 1600 PRO
Working range	280 ÷ 1200 mm; 10" IPS ÷ 48" DIPS	280 ÷ 1600 mm; 10" IPS ÷ 67"
Materials	HDPE, PP, PVDF, PVC For other materials contact RITMO S.P.A.	HDPE, PP, PVDF, PVC For other materials contact RITMO S.P.A.
Power supply	400 V 3F+N+PE 50/60 HZ	400 V 3F+N+PE 50/60 HZ
Total absorbed power	3600 W	4600 W (10340 lb)
Weight	4380 Kg (9656 lb)	4690 Kg
Dimensions	7100 x 9200 x 4500 mm 279,5" x 362" x 177.2"	8600 x 11800 x 5500 mm 338,5" x 464,6" x 216.5"



SIGMA 1200 PRO



PLASTIC FABRICATION

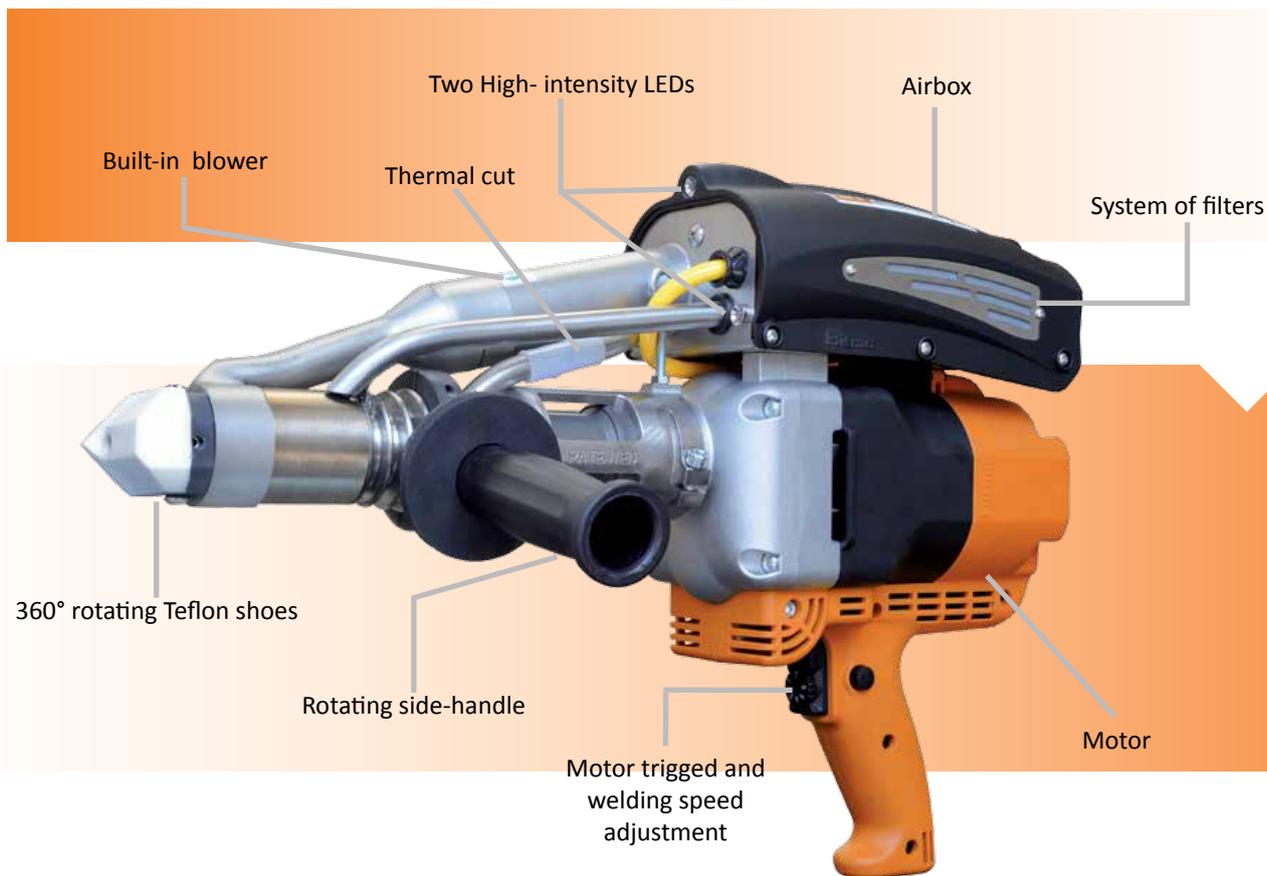


OUTPUT: Kg / h lb / h	2 Kg / h 4.4 lb / h	3 Kg / h 6.6 lb / h	4 Kg / h 8.8 lb / h	5 Kg / h 11.2 lb / h
K-SB 20	•			
K-SB 30	•	•		
K-SB 40	•	•	•	
R-SB 50	•	•	•	•

CUSTOMIZED PLASTIC FABRICATION USING THE STARGUN

STARGUN is the line of handy and easy to use extruder welders. All models distinguish for being light, compact and very smooth during the welding phase. The entire line is supported by a series of interchangeable Teflon® shoes which allow the STARGUN to adapt to every kind of welding situation: from plane sheets to oblique angles. Thanks to their versatility they are able to weld different types of fabrications like: containing tanks, fume treatment towers, scrubbers, chemical hoods, aspiration systems, and for joining linings and geo-textiles.

In the chart below find the main characteristics that make of the STARGUN a unique instrument.



Universal feeding system

K-SB 20



K-SB 20 is a compact and ergonomic extruder equipped with a power control device and the safety system “motor block” that doesn’t allow the machine to start before it reaches the right temperature. The extruder has an innovative universal feeding system that makes possible to use the machine with different diameters of wire.

- Rod \varnothing 3 - 4 mm; 1/8" - 5/32"
- Backlight display
- Two high-brightness LEDs for welding area
- Power regulator; security system “motor block”
- Independent blower
- Thermoregulator double electronic T ° control: for blower and extrusion
- Orientable handle
- 360° orientable and replaceable welding shoes

Standard equipment:

Flat welding shoe, 90° “K14” with supports; rod feeding system up to \varnothing 4 mm, suitcase and extruder support.

Materials	HDPE, PP, PVDF
Rod	\varnothing 3 - 4 mm; 1/8" - 5/32"
Sheets	1,5 ÷ 20 mm; 1/16" ÷ 0.8"
*Output up to	2 Kg/h HDPE rod \varnothing 4 mm; 5/32"
Dimension	450 x 310 x 100 mm; 17.7" x 12.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3100 W
Weight	6.9 Kg (15.2 lb)

K-SB 30



K-SB 30 is a compact and ergonomic extruder equipped with a power control device and the safety system “motor block” that doesn’t allow the machine to start before it reaches the right temperature. The extruder has an innovative universal feeding system that makes possible to use the machine with different diameters of wire.

- Rod \varnothing 3 - 4 - 5 mm; 1/8" - 5/32" - 3/16"
- Backlight display
- Two high-brightness LEDs for welding area
- Power regulator; security system “motor block”
- Independent blower
- Thermoregulator double electronic T ° control: for blower and extrusion
- Orientable handle
- 360° orientable and replaceable welding shoes

Standard equipment:

Flat welding shoe, 90° “K14” with supports; rod feeding system up to \varnothing 5 mm, suitcase and extruder support.

Materials	HDPE, PP, PVDF
Rod	\varnothing 3 - 4 - 5 mm; 1/8" - 5/32" - 3/16"
Sheets	1,5 ÷ 30 mm; 1/16" ÷ 1.1"
*Output up to	3 Kg/h HDPE rod \varnothing 5; 3/16"
Dimension	500 x 310 x 100 mm 19.6" x 12.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3350 W
Weight	7,1 Kg (15.6 lb)





K-SB 40



K-SB 40 is a compact and ergonomic extruder equipped with a power control device and the safety system “motor block” that doesn’t allow the machine to start before it reaches the right temperature. The extruder has an innovative universal feeding system that makes possible to use the machine with different diameters of wire.

- Rod Ø 4 - 5 mm; 5/32” - 3/16”
- Backlight display
- Two high-brightness LEDs for welding area
- Power regulator; security system “motor block”
- Independent blower
- Thermoregulator double electronic T ° control: for blower and extrusion
- Orientable handle
- 360° orientable and replaceable welding shoes

Standard equipment:

Flat welding shoe, 90° “K14” with supports; rod feeding system up to Ø 5 mm, suitcase and extruder support.



Materials	HDPE, PP
Rod	Ø 4 - 5 mm; 5/32” - 3/16”
Sheets	1,5 ÷ 30 mm; 1/16” ÷ 1.1”
Output: up to	4 Kg/h HDPE rod Ø 5; 3/16”
Dimension	640 x 200 x 100 mm 25.2" x 7.9" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3500 W
Weight	7,6 Kg (16.7 lb)





R-SB 50



R - SB 50 is a powerful extruder indispensable for jobs that require a high output of extruded material. R-SB 50 is suitable for joining linings and geo-textiles, sheets, thick pipes and for all those welds that are required to resist to continuous stress. During the welding phase the extruder is very smooth and handy.

Like the other models, R - SB 50 is equipped with the safety system that allows the operator to work only after the right temperature has been reached; display for temperature setting and spot light LEDs to illuminate the welding area. It is capable of up to 5 Kg/h of extruded material.

- Backlight display
- Welding - area spot light LEDs
- Temperature control safety system cold start control
- Built - in blower
- Double T° controller for blower and extrusion chamber
- Rotating side - handle
- Replaceable 360° rotating teflon shoe
- Turnable side-handle
- Replaceable 360° rotating teflon shoe

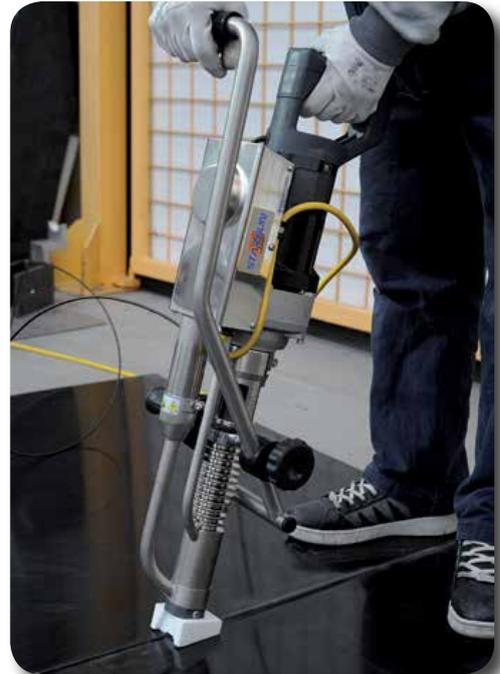
Standard equipment:

Aluminium case, extruder support, rod guide \varnothing 4 - 5 mm, handle for line/geo-textiles.

Teflon shoe support with: 90° "K 14", flat, geo-textiles.



Pistol grip



Handle for liners and geo-textiles

Materials	HDPE, PP
Rod	\varnothing 4 - 5 mm; 5/32" - 3/16"
Sheets	1,5 ÷ 40 mm; 1/16" ÷ 1.5"
Output: up to	5 Kg/h HDPE rod \varnothing 5; 3/16"
Dimension with pistol grip	600 x 330 x 100 mm 23.6" x 13" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	4000 W
Weight	9 Kg (19.8 lb)



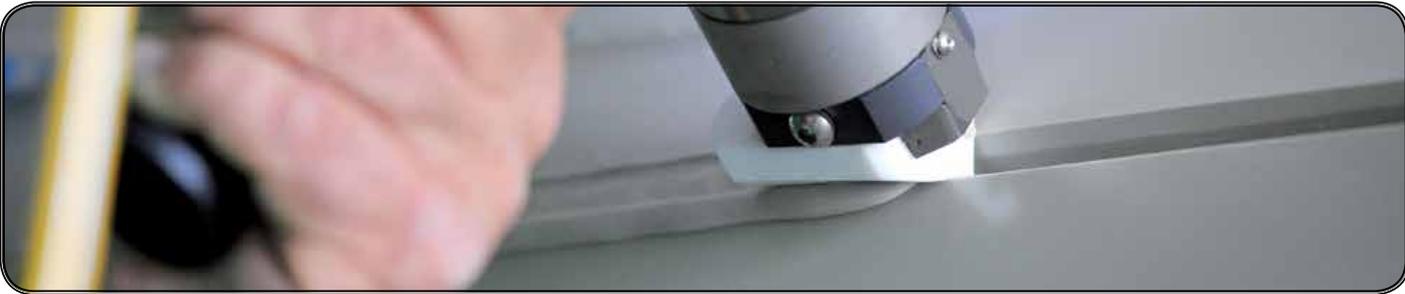
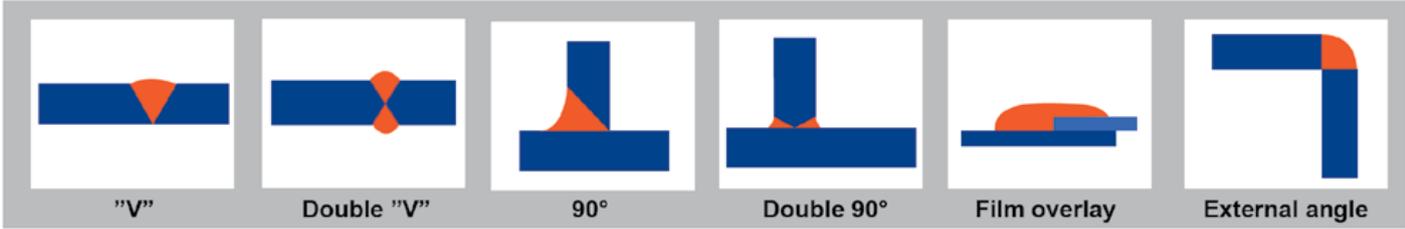


PRODUCTS OVERVIEW

	K - SB 20	K - SB 30	K - SB 40	R - SB 50
MATERIALS	HDPE, PP, PVDF	HDPE, PP, PVDF	HDPE, PP	HDPE, PP
OUTPUT	2 Kg/h HDPE rod Ø 4 mm; 5/32"	3 Kg/h HDPE rod Ø 5; 3/16"	4 Kg/h HDPE rod Ø 5; 3/16"	5 Kg/h HDPE rod Ø 5; 3/16"
ROD	3 - 4 mm 1/8" - 5/32"	3 - 4 - 5 mm; 1/8" - 5/32" - 3/16"	4 - 5 mm; 5/32" - 3/16"	4 - 5 mm; 5/32" - 3/16"
WEIGHT	6.9 Kg (15.2 lb)	7,1 Kg (15.6 lb)	7,6 Kg (16.7 lb)	9 Kg (19.8 lb)
DIMENSIONS	450 x 310 x 100 mm; 17.7" x 12.2" x 3.9"	500 x 310 x 100 mm 19.6" x 12.2" x 3.9"	640 x 200 x 100 mm 25.2" x 7.9" x 3.9"	Back handle 700 x 170 x 100 mm 27.5" x 6.7" x 3.9" Pistol grip 600 x 330 x 100 mm 23.6" x 13" x 3.9"
Max absorbed power	3100 W 230 V 50/60 Hz	3350 W 230 V 50/60 Hz	3500 W 230 V 50/60 Hz	4000 W 230 V 50/60 Hz
GEO-TEXTILE		•	•	•
CONTAINER CONSTRUCTION	•	•	•	•
BUILDING OF TANKS AND FILTERS	•	•	•	•
BUILDING OF FUMES TREATMENT TOWERS	•	•	•	•



Possibilities of welding seams



Available welding shoes

Flat cod. 86777810	90° "K 14" cod. 86777811 14 mm	90° "K 10" cod. 86777815 10 mm	90° "K 8" cod. 86777816 8 mm	90° Small cod. 86777813
Geo-textile cod. 86777814	Conical "20" cod. 86777817	Conical "14" cod. 86777818	Neutral cod. 86777812	

SPECIAL SUPPORT SHOES

45° cod. 80047830	90° cod. 80047820
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Corrugate cod. 76777840

RELATED SERVICES
RITMO offers turnkey solutions to its customers: welding rods and rod dispensers are available

Welding rods:
HDPE Ø 4 - 5 mm; 5/32" - 3/16"
PP Ø 3 - 4 mm; 1/8" - 5/32"



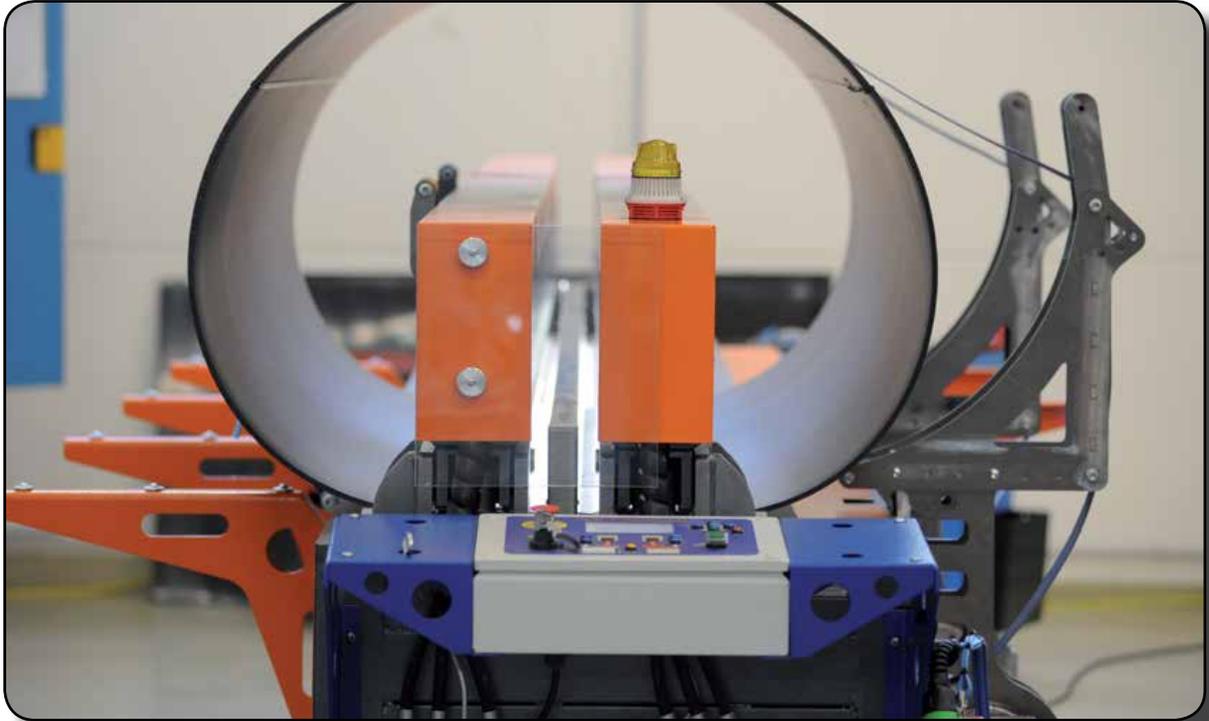
Welding rod dispenser (on request)



Special corrugate shoe 180 mm (on request)



PLASTIC FABRICATION SHEET WELDING



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



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" ÷ 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 D.V.S. 2207.

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" ÷ 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°, circular
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"



POLYFUSION 2-25

POLYFUSION 2-50

- **COMPACT AND EASY TO USE**
- **MAX WORKING WIDTH: 2 M**
- **MIN THICKNESS 3 mm**
- **SHEETS: HDPE, PP, TWIN WALL SHEETS**
- **MANUAL WELDERS**
- **TYPE OF WELDING: STRAIGHT BUTT FUSION, 90°, CIRCULAR**



POLYFUSION 2-25 and POLYFUSION 2-50 are compact and easy to use manual welders for HDPE and PP sheets from two meters wide and 3÷25 mm or 1/8"÷1" thickness (mod. POLYFUSION 2-25); and 3÷50 mm or 1/8"÷2" thickness (mod. POLYFUSION 2-50). The machines can also weld twin-wall sheets. The machine can operate in compliance with the D.V.S. 2207.

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 during the set-up and welding phases, to work always in the clearance.

The sheets are fixed to the machine body by manual handwheel bars; the locking arm has an articulated pivot 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 lever lifting heating plate, located under the machine body, has a height adjustment handwheel to allow the 90° welding.

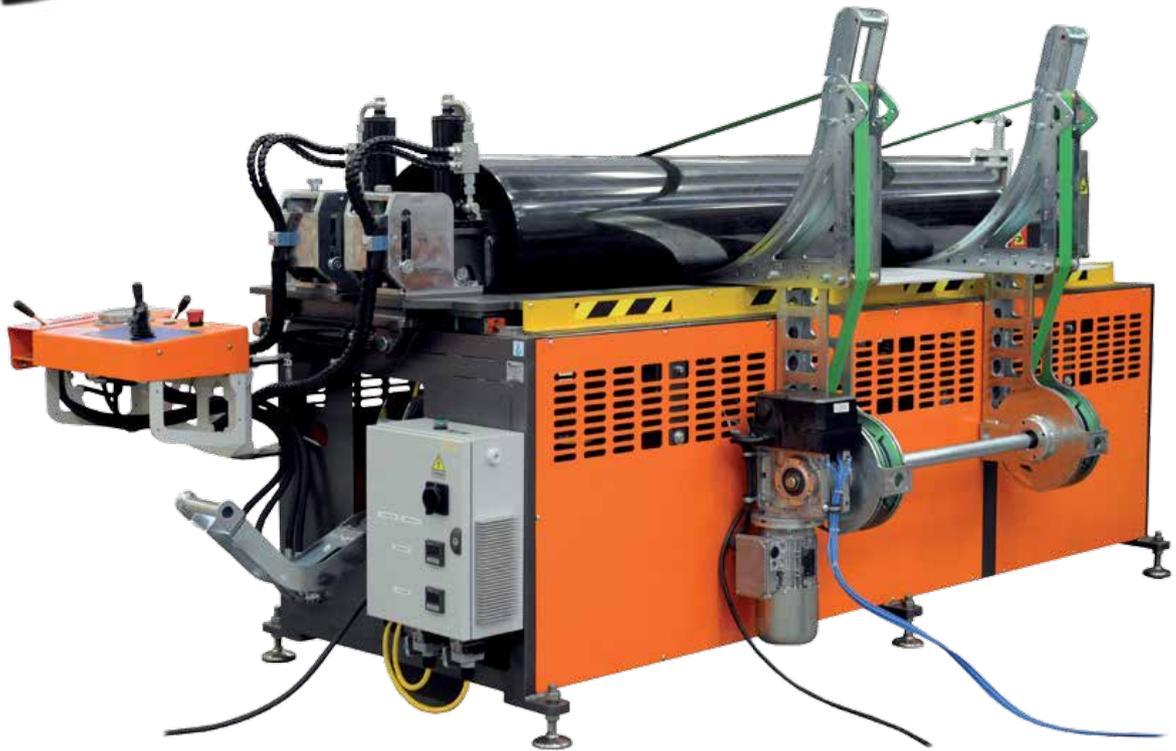
The heater temperature is controlled by a built-in high-precision electronic thermoregulator.



Manual Control Panel

TECHNICAL FEATURES

Model	POLYFUSION 2-25	POLYFUSION 2-50
Working range	3 ÷ 25 mm; 1/8" ÷ 1"	3 ÷ 50 mm; 1/8" ÷ 2"
Materials	HDPE, PP, Twin Wall sheets	HDPE, PP, Twin Wall sheets
Power supply	400 V T. Phase 50/60 Hz	400 V T. Phase 50/60 Hz
Total absorbed power	5900 W	8300 W
Types of welding	Line, 90° and Circular (on request) Ø min 500 mm with 12 mm thickness Ø min 20" with 1/2" thickness	Line, 90° and Circular (on request) Ø min 500 mm with 12 mm thickness Ø min 20" with 1/2" thickness
Max. working width	2000 mm - 6.56 ft	2000 mm - 6.56 ft
Min. weldable thickness	3 mm - 1/8"	3 mm - 1/8"
Max. weldable thickness	25 mm - 1"	50 mm - 2"
Pressure range	0 ÷ 170 bar	0 ÷ 170 bar
Weight standard composition	1100 Kg (2425 lb)	1150 Kg (2535 lb)
Dimensions (W x D x H)	3200 x 2000 x 1200 mm 126" x 78.7" x 47.2"	3200 x 2000 x 1200 mm 126" x 78.7" x 47.2"



POLYFUSION 2-100

- **HYDRAULIC ARM**
- **MAX WORKING WIDTH: 2 M**
- **THICKNESS 3 ÷ 100 mm (1/8" ÷ 4")**
- **SHEETS: HDPE, PP, TWIN WALL SHEETS**
- **MANUAL WELDERS**
- **TYPE OF WELDING: STRAIGHT BUTT FUSION, 90°, CIRCULAR**



Manual control panel

POLYFUSION 2-100 is compact and easy to use manual welders for HDPE and PP sheets from two meters wide and 3 mm to 100 mm thickness. 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 D.V.S. 2207.

The sheets are fixed to the machine body by hydraulic arm. 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.

The machine can also weld twin-wall sheets.



TECHNICAL FEATURES

Materials	HDPE, PP, Twin Wall sheets
Working range	3 ÷ 100 mm; 1/8" ÷ 4"
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	10300 W
Types of welding	Line, 90° and Circular (on request) Ø min 500 mm with 12 mm thickness Ø min 20" with 1/2" thickness
Max. working width	2000 mm - 6.56 ft
Min. weldable thickness	3 mm - 1/8"
Max. weldable thickness	100 mm - 4"
Pressure range	0 ÷ 170 bar
Weight standard composition	1200 Kg (2645 lb)
Dimensions machine body	3440 x 2000 x 1450 mm 135.4" x 78.7" x 57"



POLYFUSION 3-30

POLYFUSION 3-30 is CNC automatic butt fusion machines, 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 D.V.S. 2207.

POLYFUSION 3-30 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 welding area and the clamping bars are compacts; this allow to build a small circular joint (\varnothing min 400 mm with 5 mm thickness; \varnothing min 16" with 1/5" thickness).

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.

POLYFUSION 3-30 performs different types of weld horizontal, circular and 90° joints.

Types of welding



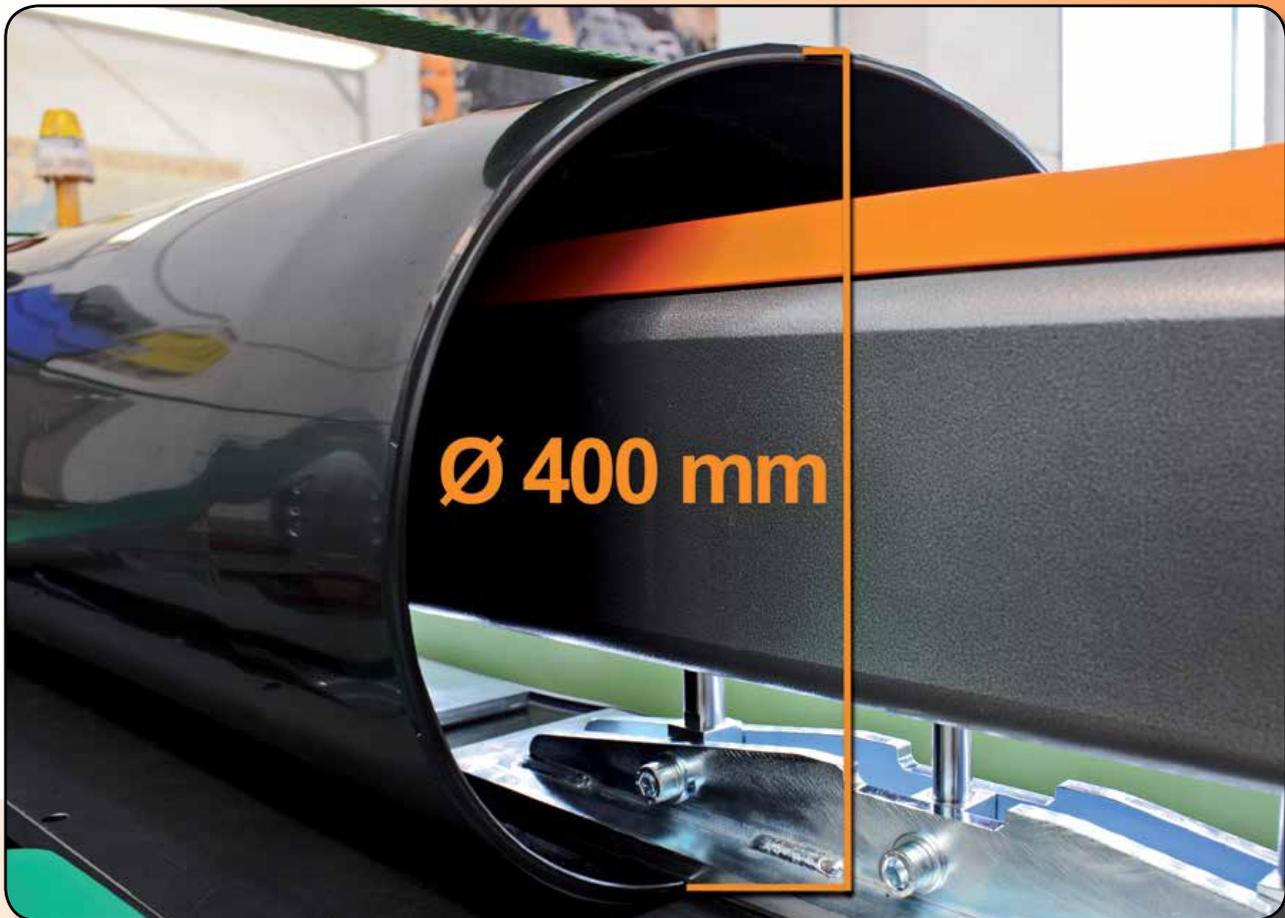


TECHNICAL FEATURES

Materials	PP, PVC*, HDPE, Twin Wall sheets
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	12500 W
Types of welding	Line, 90° and Circular (on request) Ø min 400 mm with 5 mm thickness Ø min 16" with 1/5" thickness
Max. working width **	3000 mm - 9.84 ft
Min. weldable thickness	3 mm - 1/8"
Max. weldable thickness **	30 mm - 1.2"
Compress air supply	10 bar
Memory	4000 cycles
Report	PDF
Pre-set customized	15
Dimensions machine body	4200 x 1540 x 840 mm 165.3" x 60.6" x 33" (folded brackets) 4200 x 1540 x 1960 mm 165.3" x 60.6" x 77.2" (unfolded brackets)

* Contact RITMO

** The welding dimensions refer to PP / HDPE with welding pressure of 0.17 N / mm²





POLYFUSION 3-50

POLYFUSION 3-50 is CNC automatic butt fusion machines, 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 D.V.S. 2207.

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).



TECHNICAL FEATURES

Types of welding



Materials	PP, PVC*, HDPE, Twin Wall sheets
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	12500 W
Types of welding	line, 90° and Circular (on request) Ø min 800 mm with 12 mm thickness Ø min 31.5" with 1/2" thickness
Max. working width **	3000 mm - 9.84 ft
Min. weldable thickness	3 mm - 1/8"
Max. weldable thickness **	50 mm - 2"
Compress air supply	10 bar
Dimensions machine body	4200 x 1540 x 840 mm 165.3" x 60.6" x 33" (folded brackets) 4200 x 1540 x 1960 mm 165.3" x 60.6" x 77.2" (unfolded brackets)

* Contact RITMO

** The welding dimensions refer to PP / HDPE with
welding pressure of 0.17 N / mm²





POLYFUSION 4-30

POLYFUSION 4-30 is CNC automatic butt fusion machines, 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 D.V.S. 2207.

POLYFUSION 4-30 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 welding area and the clamping bars are compacts; this allow to build a small circular joint (\varnothing min 400 mm with 5 mm thickness; \varnothing min 16" with 1/5" thickness).

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.

POLYFUSION 4-30 performs different types of weld horizontal, circular and 90° joints.

Types of welding



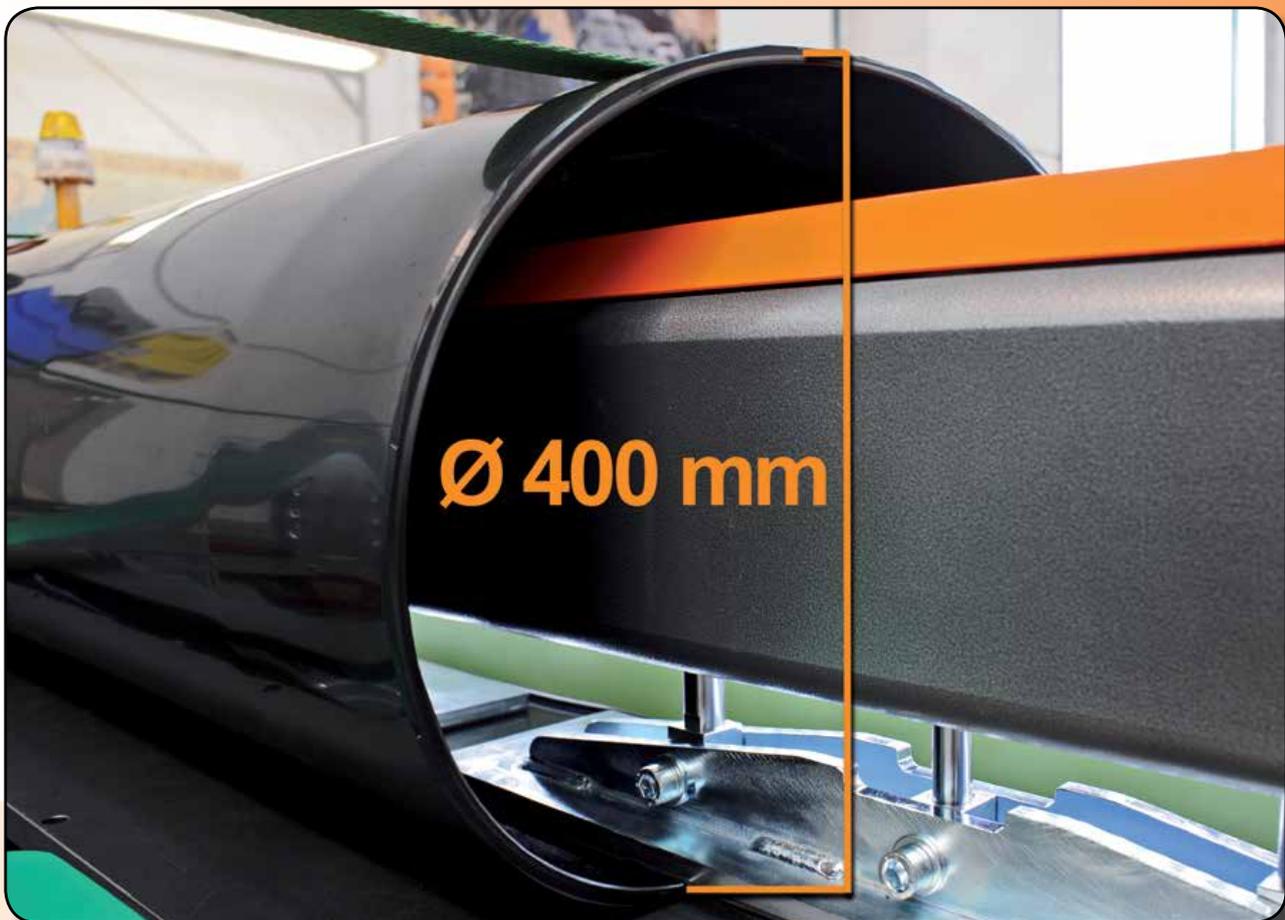


TECHNICAL FEATURES

Materials	PP, PVC*, HDPE, Twin Wall sheets
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	14500 W
Types of welding	Line, 90° and Circular (on request) Ø min 400 mm with 5 mm thickness Ø min 16" with 1/5" thickness
Max. working width **	4000 mm - 13.12 ft
Min. weldable thickness	3 mm - 1/8"
Max. weldable thickness **	30 mm - 1.2"
Compress air supply	10 bar
Memory	4000 cycles
Report	PDF
Pre-set customized	15
Dimensions machine body	5200 x 1260 x 840 mm 204,7" x 49.6" x 33" (folded brackets) 5200 x 1260 x 1960 mm 204,7" x 49.6" x 77.2" (unfolded brackets)

* Contact RITMO

** The welding dimensions refer to PP / HDPE with welding pressure of 0.17 N / mm²





POLYFUSION 4-50

POLYFUSION 4-50 is CNC automatic butt fusion machines, 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 D.V.S. 2207.

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



Materials	PP, PVC*, HDPE, Twin Wall sheets
Power supply	400 V Three Phase 50/60 Hz
Total absorbed power	14500 W
Types of welding	line, 90° and Circular (on request) Ø min 800 mm with 12 mm thickness Ø min 31.5" with 1/2" thickness
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
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)



watch the video

* Contact RITMO

** The welding dimensions refer to PP / HDPE with welding pressure of 0.17 N / mm²

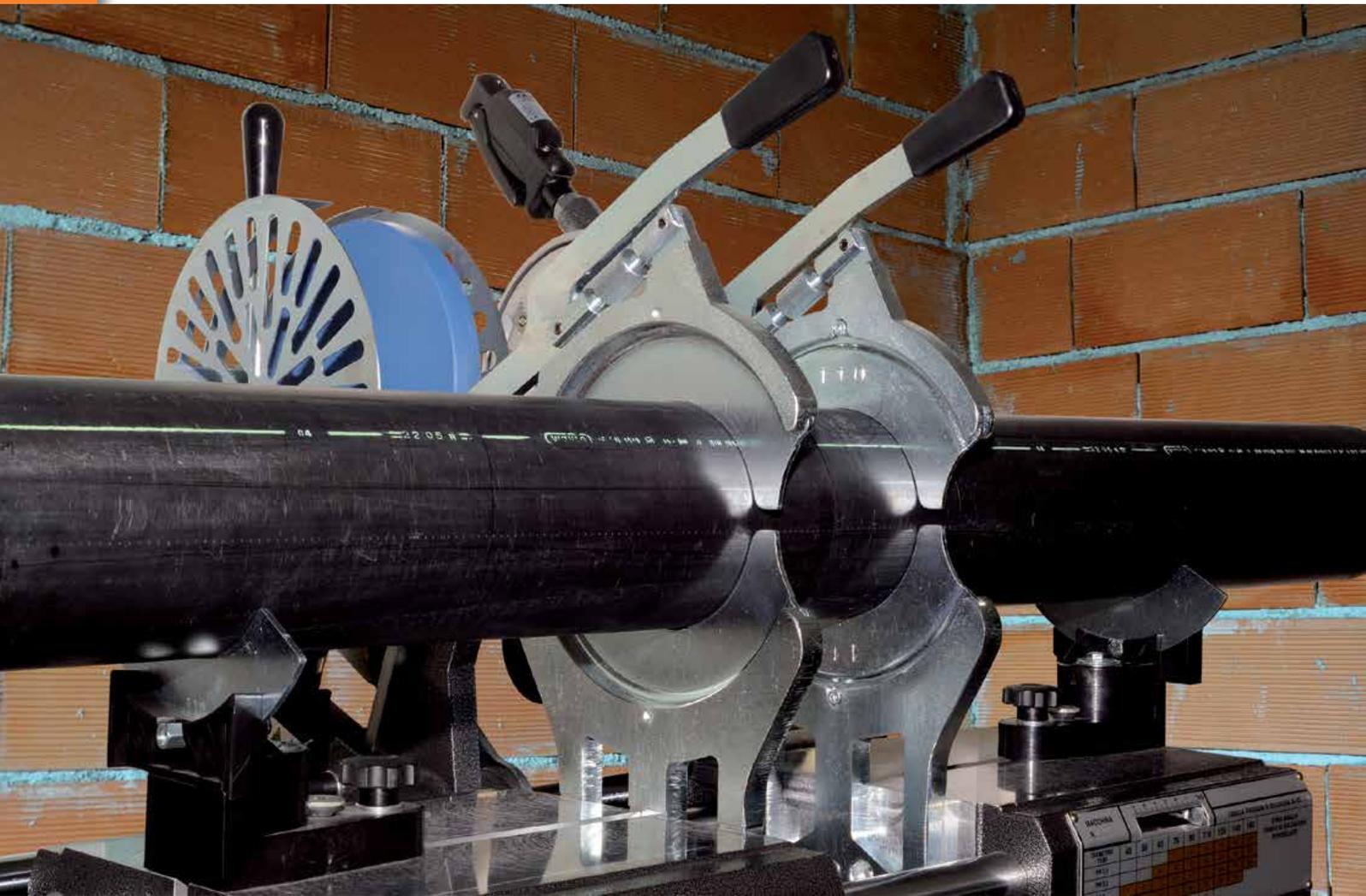


PRODUCTS OVERVIEW

	POLYFUSION 1 - 25	POLYFUSION 2 - 25	POLYFUSION 2 - 50	POLYFUSION 2 - 100	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"
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"
Max working width	1 m - 3.28 ft	2 m - 6.56 ft	2 m - 6.56 ft	2 m - 6.56 ft	3 m - 9.84 ft	3 m - 9.84 ft	4 m - 13.12 ft	4 m - 13.12 ft
Welding line	√	√	√	√	√	√	√	√
Welding 90°	√	√	√	√	√	√	√	√
Welding circular	√	√	√	√	√	√	√	√
Min. welding circular Ø	-	Ø 500 mm with 12 mm thickness; Ø 20" with 1/2" thickness	Ø 500 mm with 12 mm thickness; Ø 20" with 1/2" thickness	Ø 500 mm with 12 mm thickness; Ø 20" with 1/2" thickness	Ø 400 mm with 5 mm thickness; Ø 16" with 1/5" thickness	Ø 800 mm with 12 mm thickness; Ø 31.5" with 1/2" thickness	Ø 400 mm with 5 mm thickness; Ø 16" with 1/5" thickness	Ø 800 mm with 12 mm thickness; Ø 31.5" with 1/2" thickness
Sheet locking clamps	mechanical manual	mechanical manual	mechanical manual	hydraulic	hydraulic	hydraulic	hydraulic	hydraulic
Locking 90° sheets	mechanical	mechanical	mechanical	mechanical	pneumatic	pneumatic	pneumatic	pneumatic
Locking circular sheets	manual	kit	kit	kit	kit	kit	kit	kit
Adjusted control panel	√	√	√	√	-	-	-	-
Heating plate lift	mechanical manual	mechanical manual	mechanical manual	mechanical manual	automatic	automatic	automatic	automatic
Welding system	manual hydraulic	manual hydraulic	manual hydraulic	manual hydraulic	CNC	CNC	CNC	CNC
PRE-SET 15 customized welding cycles	-	-	-	-	√	√	√	√
PDF file	-	-	-	-	√	√	√	√
Memory	-	-	-	-	4000 reports	4000 reports	4000 reports	4000 reports
Display	-	-	-	-	LCD	LCD	LCD	LCD



BUTT FUSION MACHINES *LIQUID DRAINAGE*



WORKING RANGE Ø mm	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315
MINI 160 JOYT	40	50	63	75	90	110	125	140	160						
MINI 160 JOYT ELBOWS	40	50	63	75	90	110	125	140	160						
VR 160 JOYT	40	50	63	75	90	110	125	140	160						
VR 250				75	90	110	125	140	160	180	200	225	250		
MAXI 315				75	90	110	125	140	160	180	200	225	250	280	315
WORKING RANGE Ø mm	40	50	63	75	90	110	125	140	160	180	200	225	250	280	315

WORKING RANGE Ø mm / in	110 mm / 3" DIPS	125 mm / 4" DIPS	180 mm / 6" DIPS	280 mm / 10" DIPS
TP 125 /45°	•			
TP 125	•	•		
TP 200	•	•	•	
TP 300	•	•	•	•



TP 125/45°



TP 125



TP 200



TP 300

HEATING PLATES SERIES FOR BUTT WELDING

Series of manual instruments equipped with an aluminum heating plate Teflon-coated (PTFE) and a practical heat-insulated plastic handle. Available in two versions: one with a fixed mechanical thermostat (TF) and one with an adjustable electronic thermoregulator (TE). The heating plates are available in different shapes and working ranges according to the operator's requirements.

STANDARD COMPOSITION

All the models are supplied with:

- A basic heating plate
- A fork support

ON REQUEST

- Bench vice support (the same for all models except TP 300)
- Transportation box in electro-painted steel

TECHNICAL FEATURES

TYPE: TE, TF	TP 125	TP 125/45°	TP 200	TP 300
Working range	up to Ø 125 mm; 4" DIPS	up to Ø 110 mm; 3" DIPS	up to Ø 180 mm; 6" DIPS	up to Ø 280 mm; 10" DIPS
Materials TE	HDPE, PP, PVC, PVDF			
Materials TF	HDPE	HDPE	HDPE	HDPE
Power supply	230 V S. Ph. 50/60 Hz	230 V S. Ph. 50/60 Hz	110 V S. Ph. 50/60 Hz (TE) 230 V S. Ph. 50/60 Hz	230 V S. Ph. 50/60 Hz
Max. absorbed power	700 W	500 W	850 W (TE 110 V) 1200 W	1300 W
Working temperature	180° ÷ 280° C ± 1% TE (356° ÷ 536° F ± 1% TE) 210° C ± 5% TF (410° F ± 5% TF)	180° ÷ 280° C ± 1% TE (356° ÷ 536° F ± 1% TE) 210° C ± 5% TF (410° F ± 5% TF)	180° ÷ 280° C ± 1% TE (356° ÷ 536° F ± 1% TE) 210° C ± 5% TF (410° F ± 5% TF)	180° ÷ 280° C ± 1% TE (356° ÷ 536° F ± 1% TE) 210° C ± 5% TF (410° F ± 5% TF)
Ambient temperature	-5° ÷ 40° C	5° ÷ 40° C	5° ÷ 40° C	5° ÷ 40° C
Time to reach welding temperature (TE)	~ 10'	~ 10'	~ 10'	~ 10'
Weight	2,16 Kg (4.7 lb)	1,95 Kg (4.3 lb)	3,21 Kg (7 lb)	5,09 Kg (11.2 lb)
Dimensions	140 x 50 x 410 mm 5.5" x 2" x 16.1"	140 x 130 x 370 mm 5.5" x 5.1" x 14.6"	200 x 50 x 440 mm 7.9" x 2" x 17.3"	300 x 50 x 550 mm 11.8" x 2" x 21.6"



MINI 160 JOYT - MINI 160 JOYT ELBOWS

MINI 160 JOYT and MINI 160 JOYT ELBOWS are portable butt fusion welders for drainage pipes up to \varnothing 160 mm. These machines are characterized by the extractable heating plate, the safety microswitches on the milling cutter to avoid accidental starting, the articulated lateral supports. The Mini 160 Joyt has a frame, most useful during working and transportation. MINI 160 JOYT ELBOWS features special jaws for manufacturing elbows.

Available in two versions: one with a fixed mechanical thermostat (TF) and one with an adjustable electronic thermoregulator (TE).

- The machine body includes a spring-loaded pressure-regulating device and the rack-feed movement of the carriage provided by a handwheel.
- The rapid-lock clamps, in order to be able to lock elbows (also with a very short neck), tees and Y-branches without the need of any additional device.
- The protection housing around the heating element.

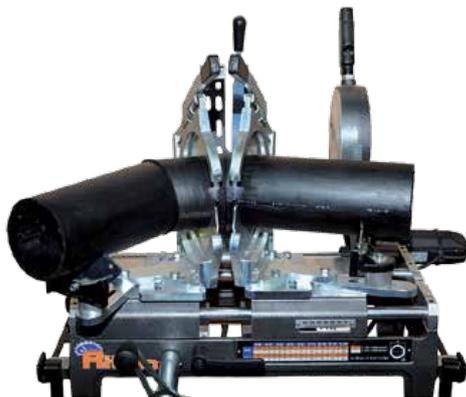
STANDARD COMPOSITION

- Machine body (with milling cutter, lateral supports and keys)
- Heating plate TP 200 TE or TP 200 TF
- Right clamp group \varnothing 160 JOYT
- Left clamp group \varnothing 160 JOYT
- Frame MINI 160 JOYT
- Case with set of clamps and lateral supports' adapters \varnothing 40, 50, 63, 75, 90, 110, 125 mm

ON REQUEST

- Clamps and lateral supports' adapters \varnothing 56, 135, 140 mm
- Milling cutter blade SILENT (for Geberit)

TECHNICAL FEATURES



Working range	40 ÷ 160 mm
Materials	HDPE, PP, PVDF
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	2250 W
Working temperature	180° ÷ 280° C (TE) 210° C (TF)
Outside temperature range	-5° ÷ 40° C
Time to reach welding temperature	~ 10' (TE)
Weight	50 Kg
Dimensions machine working	664 x 580 x 1235 mm



VR 160 JOYT

VR 160 JOYT is portable butt fusion welder for drainage pipes up to \varnothing 160 mm. This machine is characterized by the extractable heating plate, the safety microswitches on the milling cutter to avoid accidental starting, the articulated lateral supports. The VR 160 JOYT has steel box that can be used either as a work bench or as a protection for transportation.

Available in two versions: one with a fixed mechanical thermostat (TF) and one with an adjustable electronic thermoregulator (TE).

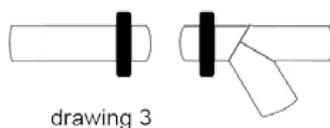
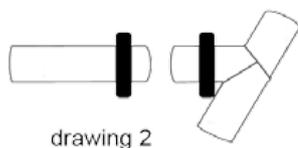
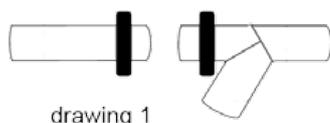
- The machine body includes a spring-loaded pressure-regulating device and the rack-feed movement of the carriage provided by a handwheel.
- The rapid-lock clamps, in order to be able to lock elbows (also with a very short neck), tees and Y-branches without the need of any additional device.
- The protection housing around the heating element.

STANDARD COMPOSITION

- Machine body (with milling cutter, lateral supports and keys)
- Heating plate TP 200 TE or TP 200 TF
- Right clamp group \varnothing 160 JOYT
- Left clamp group \varnothing 160 JOYT
- Frame VR 160 JOYT
- Case with set of clamps and lateral supports' adapters \varnothing 40, 50, 63, 75, 90, 110, 125 mm

ON REQUEST

- Clamps and lateral supports' adapters \varnothing 56, 135, 140 mm
- Milling cutter blade SILENT (for Geberit)



The meaning of JOYT

This word identifies the type of clamps adopted on this machine. They have been specifically designed to be able to lock Y-branches in all the possible positions (drawings 1,2,3).

TECHNICAL FEATURES

Working range	40 ÷ 160 mm
Materials	HDPE, PP, PVDF
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	2100 W
Working temperature	180° ÷ 280° C (TE) 210° C (TF)
Outside temperature range	-5° ÷ 40° C
Time to reach welding temperature	~ 10' (TE)
Weight	95 Kg
Dimensions machine working	1055 x 925 x 1235 mm

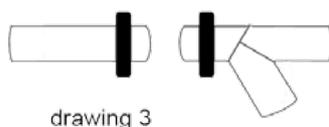
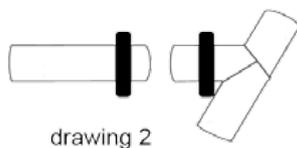
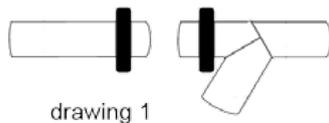


VR 250

A professional welding machine ideal for medium sized pipes and sewers up to \varnothing 250 mm. It consists of a machine body with a pressure regulating device, a pair of clamps, two lateral supports, an electrically controlled milling cutter for levelling the ends of the pipe and/or fitting with a safety microswitch, an extractable heating plate with automatic device to control the temperature, a sliding support and a steel case that acts as a work bench and cover when transporting the machine. The VR 250 can weld fittings such as bends and tees. Branches can also be welded thanks to the upper extractable jaws (on request) called SUPRA.

STANDARD COMPOSITION

- Machine body with a milling cutter, lateral supports, clamps adapters and lateral supports adapters from \varnothing 75 to \varnothing 250 mm (\varnothing 140 and 180 mm on request), working/transport case steel, service spanners
- TP VR 250 TE plate
- Right and left clamp \varnothing 250 mm



The meaning of SUPRA

This word identifies the different type of clamps mounted on this welding machine. They have been specifically designed to be able to lock "branch" fittings: with extractable and interchangeable jaws, shaped according to the diameter to weld, it is possible to lock all branch points (drawings 1, 2, 3).

ON REQUEST

- Clamps adapters \varnothing 140 and 180 mm
- Lateral supports adapters \varnothing 140 and 180 mm
- Sets of extractable upper jaws SUPRA from \varnothing 75 to 225 mm
- Wooden case for SUPRA extractable upper jaws

TECHNICAL FEATURES

Working range	75 ÷ 250 mm
Materials	HDPE, PP, PB, PVDF
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	2200 W
Working temperature	180° ÷ 280° C
Outside temperature range	-5° ÷ 40° C
Time to reach welding temperature	~ 20'
Weight	123 Kg
Dimensions machine working	835 x 1240 x 1530 mm



MAXI 315

A professional welding machine ideal for medium sized pipes and sewers up to \varnothing 315 mm. It consists of a machine body with pressure regulating device, a pair of clamps, two lateral supports, an electrically controlled milling cutter for levelling the ends of the pipe and/or fitting with a safety microswitch, an extractable heating plate with automatic electronic device to control the temperature, a sliding support, a tip-up metal frame on wheels that acts as a work bench and protection when transporting the machine. The MAXI 315 can weld fittings such as bends and tees. Branches can also be welded thanks to the single clamps (available on request) indicated for all diameters in the working range.

STANDARD COMPOSITION

- Machine body with a milling cutter and lateral supports
- TP 315 TE plate
- Right and Left clamp \varnothing 315
- Steel frame on wheels (for transporting and for use as a work bench)
- Wooden case with clamps and lateral supports adapters \varnothing 200 and 250 mm

ON REQUEST

- Clamp adapters \varnothing 90, 110, 125, 140, 160, 180, 225, 280 mm
- Lateral supports adapters \varnothing 90, 110, 125, 140, 160, 180, 225, 280 mm
- Wyes (Y) clamps from \varnothing 90 to 315 mm (while stocks last)

TECHNICAL FEATURES



Working range	90 ÷ 315 mm
Materials	HDPE, PP, PB, PVDF
Power supply	230 V Single Phase 50/60 Hz
Max. absorbed power	3900 W
Working temperature	180° ÷ 280° C
Outside temperature range	-5° ÷ 40° C
Time to reach welding temperature	~ 20'
Weight	183 Kg
Dimensions machine working	1420 x 1300 x 1570 mm



**Ritmo**
PLASTIC WELDING TECHNOLOGY





RITMO S.p.A.
Via A. Volta, 35/37 - 35037
Bresseo di Teolo (PADOVA) ITALY

Ph. +39 049 9901888
Fax +39 049 9901993

info@ritmo.it
www.ritmo.it



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