



- 1979 - **45th** - 2024 -
ANNIVERSARY

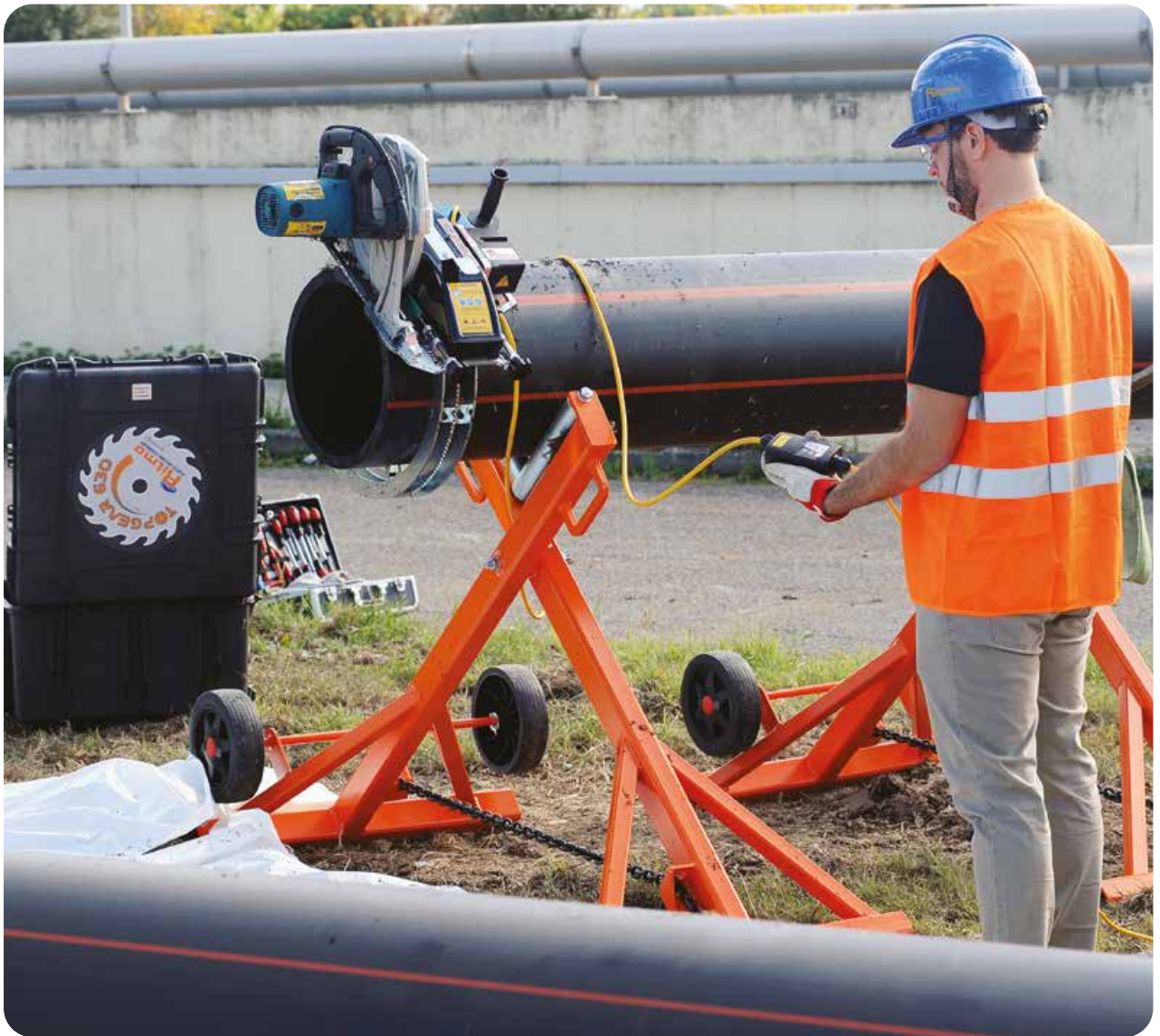
PRODUCTS CATALOGUE

"AT EASE IN YOUR CONSTRUCTION SITE"

www.ritmo.it



Meets all your welding needs on the jobsite



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BUTT FUSION MACHINES

WORK PHILOSOPHY AVAILABLE TO EVERYONE!

MANUAL

- welding machines without hydraulic gearcase



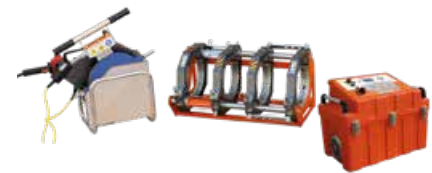
HYDRAULIC

- 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
- APP "SET & GO PRO" (optional)



REMEDY *HIGH LEVEL PERFORMANCE*

- high productivity welding machine
- self-contained generator on board
- self-propelled
- tracked welding machine
- drives over 35% slopes



CNC *HIGH LEVEL PERFORMANCE*

- automatic welding cycle
- special hydraulic gearcase
- 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 MANUAL BUTT WELDING	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																	
WORKING RANGE Ø mm HYDRAULIC BUTT WELDING		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
BASIC 160 BASIC 160 EASY LIFE COMPACT 160		40	50	63	75	90	110	125	140	160																			
BASIC 200 BASIC 200 EASY LIFE				63	75	90	110	125	140	160	180	200																	
BASIC 250 BASIC 250 EASY LIFE DELTA DRAGON 250 CNC DELTA 250 TRAILER DELTA 250 TRAILER MANUAL COMPACT 250					75	90	110	125	140	160	180	200	225	250															
BASIC 315 BASIC 315 EASY LIFE DELTA DRAGON 315 CNC						90	110	125	140	160	180	200	225	250	280	315													
BASIC 355 BASIC 355 EASY LIFE DELTA 355 TRAILER REMEDY 355 COMPACT 355								125	140	160	180	200	225	250	280	315	355												
DELTA 500 DELTA 500 EASY LIFE DELTA 500 TRAILER REMEDY 500 V1												200	225	250	280	315	355	400	450	500									
DELTA 630 TRAILER DELTA 630 ALL TERRAIN													225	250	280	315	355	400	450	500	560	630							
DELTA 630 DELTA 630 EASY LIFE COMPACT 630															280	315	355	400	450	500	560	630							
DELTA 800 DELTA 800 EASY LIFE																				500	560	630	710	800					
DELTA 1000 TRAILER REMEDY 1000																315	355	400	450	500	560	630	710	800	900	1000			
DELTA 1000 DELTA 1000 EASY LIFE																						630	710	800	900	1000			
DELTA 1200																							710	800	900	1000	1200		
DELTA 1600 ECO / 1600 HDR																								800	900	1000	1200	1400	1600
WORKING RANGE Ø mm		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 CTS / IPS MANUAL BUTT WELDING	1" CTS	1¼" CTS	1½" CTS	2" CTS	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					1"	1¼"	1½"	2"	3"	4"	5"																					
DELTA 160 M	1"	1¼"	1½"	2"	1"	1¼"	1½"	2"	3"	4"	5"																					
DELTA 200 M								2"	3"	4"	5"	6"																				
WORKING RANGE Ø IPS HYDRAULIC BUTT WELDING					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"	
BASIC 160 BASIC 160 EASY LIFE					1" 1¼"	1½"	2"	3"	4"	5"																						
BASIC 200 BASIC 200 EASY LIFE							2"	3"	4"	5"	6"																					
BASIC 250 BASIC 250 EASY LIFE DELTA 250 TRAILER DELTA 250 TRAILER MANUAL							2"	3"	4"	5"	6"	8"																				
BASIC 315 BASIC 315 EASY LIFE								3"	4"	5"	6"	8"	10"																			
BASIC 355 BASIC 355 EASY LIFE REMEDY 355 DELTA 355 TRAILER COMPACT 355									4"	5"	6"	8"	10"	12"	14"																	
DELTA 500 TRAILER REMEDY 500 V1											6"	8"	10"	12"	14"	16"	18"	20"														
DELTA 500 DELTA 500 EASY LIFE												8"	10"	12"	14"	16"	18"															
DELTA 630 TRAILER DELTA 630 ALL TERRAIN													8"	10"	12"	14"	16"	18"	20"	22"	24"											
DELTA 630 DELTA 630 EASY LIFE													10"	12"	14"	16"	18"	20"	22"	24"												
DELTA 800 DELTA 800 EASY LIFE																		20"	22"	24"	26"	28"	30"									
REMEDY 1000 DELTA 1000 TRAILER															14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"						
DELTA1000 DELTA 1000 EASY LIFE																			24"	26"	28"	30"	32"	34"	36"							
DELTA 48"																						28"	30"	32"	34"	36"	42"	48"				
DELTA 1600 HDR																								32"	34"	36"	42"	48"	52"	54"	63"	
WORKING RANGE Ø IPS	1" CTS	1¼" CTS	1½" CTS	2" CTS	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"	

WORKING RANGE Ø DIPS MANUAL BUTT WELDING	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"
GAMMA 160	3"	4"															
DELTA 160 M	3"	4"															
DELTA 200 M	3"	4"	6"														
WORKING RANGE Ø DIPS HYDRAULIC BUTT WELDING	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"
BASIC 160 / BASIC 160 EASY LIFE	3"	4"															
BASIC 200 / BASIC 200 EASY LIFE	3"	4"	6"														
BASIC 250 / BASIC 250 EASY LIFE DELTA 250 TRAILER DELTA 250 TRAILER MANUAL	3"	4"	6"	8"													
BASIC 315 / BASIC 315 EASY LIFE	3"	4"	6"	8"	10"												
BASIC 355 / BASIC 355 EASY LIFE REMEDY 355 DELTA 355 TRAILER COMPACT 355		4"	6"	8"	10"	12"											
DELTA 500 TRAILER REMEDY 500 V1			6"	8"	10"	12"	14"	16"	18"								
DELTA 500 / DELTA 500 EASY LIFE				8"	10"	12"	14"	16"	18"								
DELTA 630 TRAILER DELTA 630 ALL TERRAIN				8"	10"	12"	14"	16"	18"	20"	24"						
DELTA 630 / DELTA 630 EASY LIFE					10"	12"	14"	16"	18"	20"							
DELTA 800 / DELTA 800 EASY LIFE									18"	20"	24"						
REMEDY 1000 EL DELTA 1000 TRAILER							14"	16"	18"	20"	24"	30"	36"				
DELTA 48"												30"	36"	42"			
DELTA 1600 HDR												30"	36"	42"	48"	54"	60"
WORKING RANGE Ø DIPS	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"	54"	60"





GAMMA 160

GAMMA 160 is a manual butt welding machine for HDPE and PP pipes up to Ø 160 mm (4" DIPS). GAMMA 160 features special jaws for manufacturing elbows. Machine can also weld moulded fittings like bends, tees, wyes (Y) and flange necks up to Ø160 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 Ø 40, 50, 63, 75, 90, 110, 125, 140 mm (1¼" IPS ÷ 4" DIPS)
- A case for the adapters



**ELBOWS
40 ÷ 160
mm**

**SPECIAL
CLAMP
FOR
FITTING**

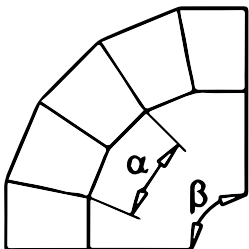
TECHNICAL FEATURES

Working range	40 ÷ 160 mm; 1½" IPS ÷ 4" DIPS Ø 32 mm on request
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:

Insert Ø 32 mm, Ø 1½" ÷ 4" DIPS;

Tool for flange necks, Thin single clamp

Welding angle	
$\beta = \max 90^\circ$	
$\alpha = 10^\circ$	
$\alpha = 15^\circ$	
$\alpha = 22,5^\circ$	
$\alpha = 30^\circ$	





**MANUAL
PRESSURE**

**MECHANICAL
32 ÷ 160 mm**

**HIGH
PRECISION
THERMOREGULATOR**

DELTA 160 M

DELTA 160 M is a manual butt fusion welder for pipes up to Ø 160 mm up to 5" IPS or 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 and two blades, an extractable heating plate with an independent thermometer to see the real working temperature and "Digital Dragon"s is an high precision electronic thermoregulator ($\pm 1^\circ \text{C}$ accuracy) with digital display and regulating buttons. DELTA 160 M have a locking device clamps - helps to keep constant pressure during heat soak and fusion/cooling. Power supply 110 V or 230 V.

STANDARD COMPOSITION:

- Machine body
- Heating plate with digital electronic temperature control
- Milling cutter with two blades
- Milling cutter/Heating plate support with pre-insulate bag

ON REQUEST:

- Clamps' inserts from Ø 32 to 140 mm;
Ø 1" ÷ 2" CTS; Ø 1" ÷ 4" IPS; Ø 3" ÷ 4" DIPS



Inserts



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*	1850 W (110 V) 1700 W (230 V)
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)
Weight machine body	24,8 Kg; (54.8 lb)
Dimensions machine body	384 x 450 x 830 mm 15.1" x 17.7" x 32.7"

* Suggested power generator 3,5 ÷ 4kVA

MANUAL PRESSURE

MECHANICAL
63 ÷ 200 mm

LOCKING DEVICE

HELPS THE OPERATOR
TO APPLY THE
NECESSARY WELDING
FORCE



DELTA 200 M

DELTA 200 M is a manual butt fusion welder for pipes up to Ø 200 mm (6" 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 "Digital Dragon" is an high precision electronic thermoregulator ($\pm 1^\circ \text{C}$ accuracy) with digital display and regulating buttons. DELTA 200 M have a locking device clamps aligner that helps the operator to apply the necessary welding force. Power supply 110 V or 230 V.

STANDARD COMPOSITION:

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

ON REQUEST:

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

Pre-insulated bag
for heating plate



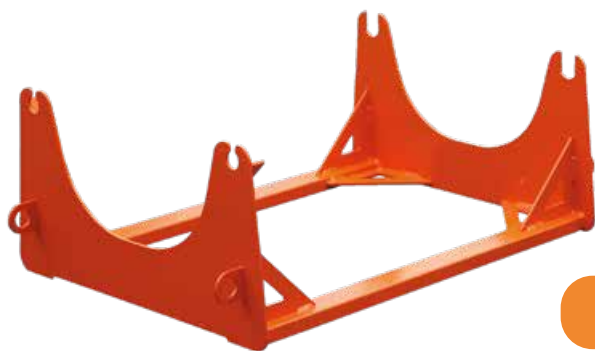
TECHNICAL FEATURES

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



COMPACT LINE



WHEN SPACE IS MISSING

**PE - PP
PIPE**

Compact line, minimalist two-clamp welding machines for welding PE and PP plastic pipes on the ground, suspended or in all those situations with limited spaces. This is why they are created light and designed with ease of use.

Versatile models, designed to become even "smaller" thanks to the machine body that can be easily detached from the frame.

Attention to detail, tested quality and reliability are the basis of the Compact line. Surprising welders, capable of adding another jaw (accessory on request) and finding themselves with extraordinary operational modularity.

The working range of the Compact line is from a diameter of 40 mm up to a size of 630 mm.

INTEGRATED

The Compact concept was created technologically integrated with the Ritmo butt welding machine product line. This means added value for the customer. To work on construction sites, Compact can take advantage of many Ritmo hardware components already in the customer's possession; a necessary requirement is the correspondence of the working field.

COMPACT 160

The Compact 160 machine body can use the following elements of the BASIC 160:

- Hydraulic gearcase
- Facer
- Heating Plate
- Stand
- facer / heating plate
- Inserts

COMPACT 250

The Compact 250 machine body can use the following elements of the BASIC 250:

- Hydraulic gearcase
- Facer
- Heating Plate
- Stand
- facer / heating plate
- Inserts

COMPACT 355

The Compact 355 machine body can use the following elements of the BASIC 355:

- Hydraulic gearcase
- Facer
- Heating Plate
- Stand
- facer / heating plate
- Inserts

COMPACT 630

The Compact 630 machine body can use the following elements of the DELTA 630:

- Hydraulic gearcase
- Facer
- Heating Plate
- Stand
- facer / heating plate
- Inserts



PH. Aquatherm GmbH

LIGHTWEIGHT

HANDY

MODULAR

**IDEAL
FOR TIGHT
SPACES**

**FOR
PRE-INSULATED
PIPE
MODEL
COMPACT 355**

Commands for welding
management

Compact machine
body

Digital Dragon
High precision
digital
thermoregulator

Cutter with safety
microswitch

Electro-hydraulic
power unit with
protective plastic
box

Removable
frame

Plate
detachment

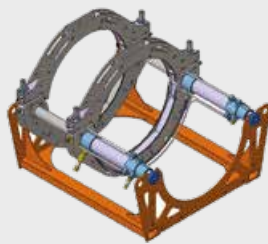
Fixing screws

Lifting and
anchoring points

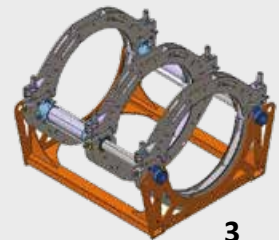
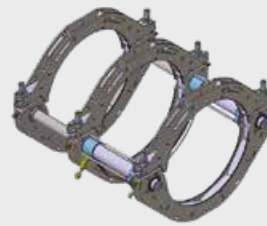
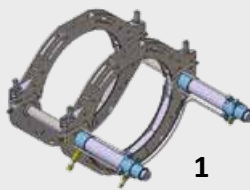
Compact 250

COMPACT MODULARITY: ADDED VALUE

With the use of the third jaw (accessory on request) new potential opens up on your construction site.



Standard configuration



Other configurations

Examples of welding modularity.

Third clamp is an accessory on request for the models:

Compact 160

Compact 250

Compact 630



Compact 160

SMALL MEDIUM LARGE



Compact 630



From diameter 40 mm to 630 mm. There are many combinations where the modularity of the Compact system is used.

Compact 630 can be accessorized on request with slim inserts, while Compact 355 can be supplied with IPS 4" ÷ 14" inch inserts.

COMPACT 355 WITH PRE-INSULATED PIPE

COMPACT 355 is a welding machine with external cylinders which is also suitable for welding pre-insulated pipes between diameters 125 and 355 mm.

The machine body in this welding machine cannot be removed from the frame and it is not possible to add the third jaw.



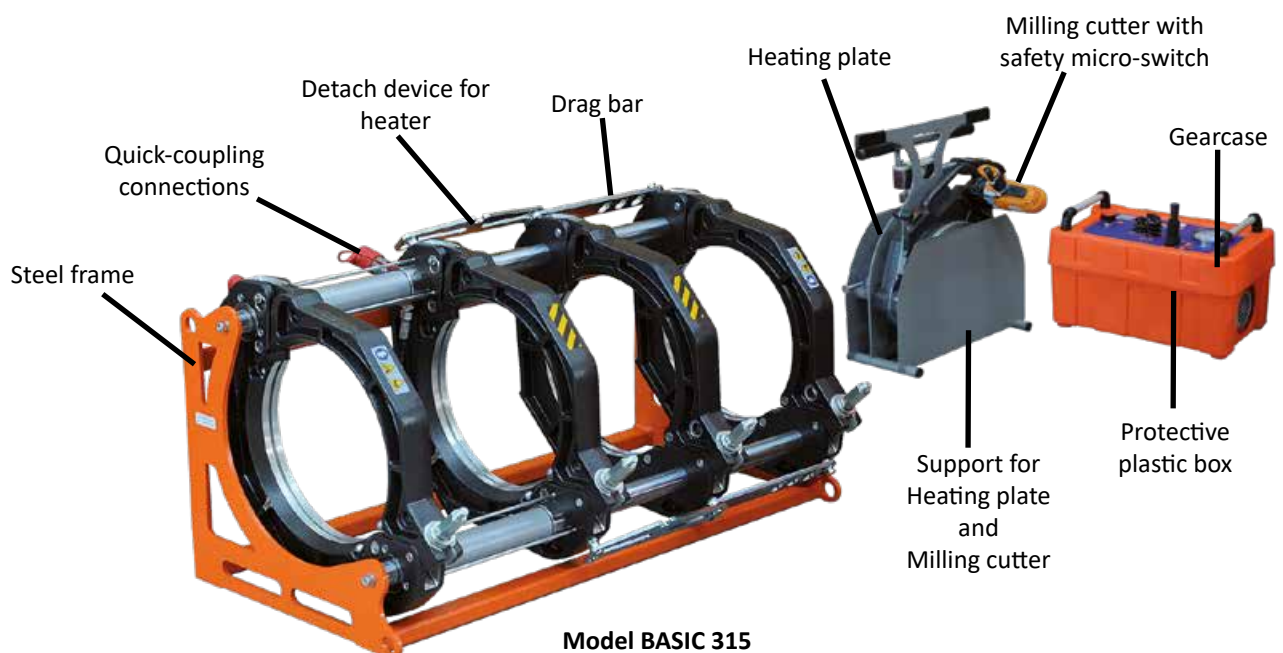
Compact 355

TECHNICAL FEATURES	COMPACT 160	COMPACT 250	COMPACT 355	COMPACT 630
Working Range	40 ÷ 160 mm	75 ÷ 250 mm	125 ÷ 355 mm 4" ÷ 14" IPS	280 ÷ 630 mm
Materials	HDPE - PP Other thermoplastic materials	HDPE - PP Other thermoplastic materials	HDPE - PP Other thermoplastic materials	HDPE - PP Other thermoplastic materials
Pre-insulated pipe	-	-	✓	-
Working ambient temperature	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Power requirements (Vac)	230 V Single phase	230 V Single phase	110 V Single phase or 230 V Single phase	230 V Three phase or 400 V Three phase
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max absorption	2220 W	3420 W	4900 W - 110 V 5300 W - 230 V	12350 W
Machine dimension with chassis	404 x 495 x 294 mm 15.9" x 19.5" x 11.5"	548 x 675 x 385 mm 21.5" x 26.5" x 15.1"	787 x 336 x 560 mm	1120 x 1088 x 852 mm 44.1" x 42.8" x 33.5"
Machine dimension without chassis	404 x 443 x 284 mm 15.9" x 17.4" x 11.1"	548 x 609 x 360 mm 21.5" x 24" x 14.1"	-	1120 x 1000 x 794 mm 44.1" x 39.3" x 31.2"
Machine weight with chassis	22 Kg (48,5 lb)	37 Kg (81.5 lb)	55 Kg (121.2 lb)	200 Kg (441 lb)
Machine weight without chassis	18 Kg (39.6 lb)	29 Kg (63.9 lb)	-	154 Kg (339,5 lb)

BASIC LINE

RELIABILITY SINCE 2009

**A COMPLETE
SYSTEM
FOR
SMALL & MEDIUM
DIAMETERS**



ITALIAN STYLE

**100%
QUALITY**



Reliability and Precision

Thanks to the use of high-quality components and a careful design and manufacturing process, BASIC welding machines guarantee reliable and precise welding results, contributing to the success of your jobsite.

Versatility and Flexibility

The BASIC range includes models capable of working from Ø 40 to 355 mm, to offering a solution suitable for a wide variety of applications, from the water/gas pipeline sector to the industrial sector. This flexibility allows us to tackle even the most complex projects in the best possible way.

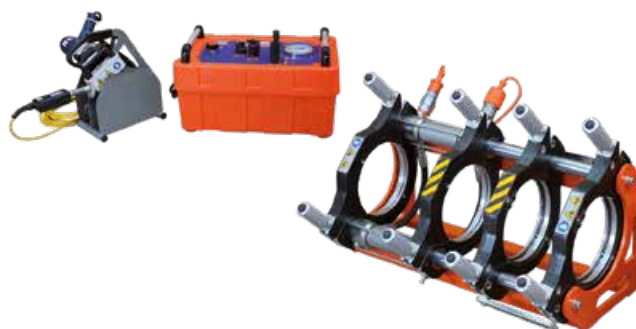
**ALWAYS
PERFECT
WELDS**



PERFECT SET

BASIC 160

Welds under-pressure pipes for water, gas and other fluids up to Ø 160 mm, 5" IPS. Available in the 110 V and 230 V versions.



BASIC 200

Welds under-pressure pipes for water, gas and other fluids up to Ø 200 mm 6", DIPS. Available in the 110 V and 230 V versions.

BASIC 250

Welds under-pressure pipes for water, gas and other fluids up to Ø 250 mm, 8" DIPS. Available in the 110 V and 230 V versions.

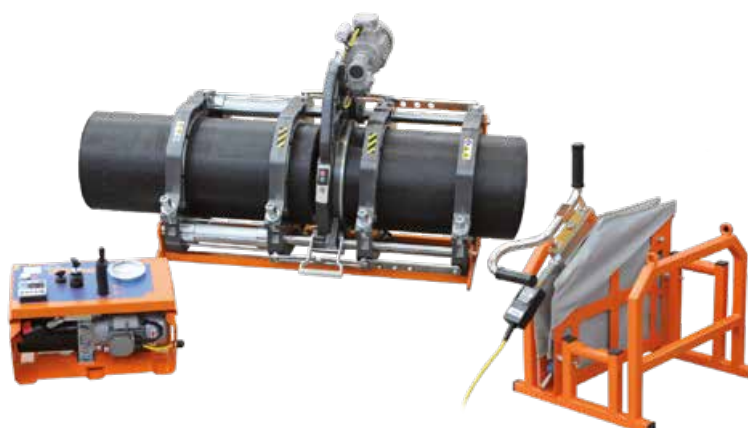


BASIC 315

Welds under-pressure pipes for water, gas and other fluids up to Ø 315 mm, 10" DIPS. Available in the 110 V and 230 V versions.

BASIC 355

Welds under-pressure pipes for water, gas and other fluids up to Ø 355 mm, 12" DIPS. Available in the 230 V version.



**BASIC,
ONLY IN
NAME**

**DIGITAL
DRAGON**

Digital Dragon

Built-in independent
thermometer

Teflon-coated
(PTFE)

Heating plate with 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.

(Standard configuration see table on page 25)



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 (no model Basic 355).

It includes a control lever, to open and close the body machine, 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).

**SMARTLOCK
PATENTED**

Clamps

Master

Inserts (on request)
Available in Metric or
Inch sizes

Smartlock
system

Smartlock patented by Ritmo.
Fast locking/unlocking of inserts.
No tools required.





Detach device for heater applicable on every welding configuration: between the 2nd and 3rd clamps or 3rd and 4th clamps which allows the automatic detach of the heating plate from the pipes/fittings.



With drag bar, Basic is able to weld fittings like elbows, tees, Y-branches and flanges necks.

A COMPLETE SYSTEM



Trolley (on request)



Support for heating plate
and milling cutter



Special clamps Basic 250 /315
(on request)



Tool for flange necks (on request)

TECHNICAL FEATURES	BASIC 160	BASIC 200	BASIC 250	BASIC 315	BASIC 355
Working range	40 ÷ 160 mm; 1" IPS ÷ 5" IPS	63 ÷ 200 mm; 2" IPS ÷ 6" DIPS	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS	90 ÷ 315 mm; 3" IPS ÷ 10" DIPS	125 ÷ 355 mm; 4" IPS ÷ 14" IPS
Materials for more details contact RITMO S.P.A.	HDPE, PP, PP-R, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF
Inserts with Smartlock system	-	-	✓	✓	✓
Master Ø 250 mm	-	-	-	✓	✓
Working temperature	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)
Thermoregulator Digital Dragon	✓	✓	✓	✓	✓
Total absorbed power	2400 W - 110 V 2220 w - 230 V	3220 W	3420 W	4420 W	5600 W - 110 V 6000 w - 230 V
Power supply	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 110 V S. Ph. 50/60 Hz	230 V S. Ph 50/60 Hz 110 V S. Ph. 50/60 Hz	110 V Single Phase 50/60 Hz
Suggested power generator	3,5 ÷ 4kVA	5,5 ÷ 6kVA	5,5 ÷ 6kVA	6,5 ÷ 7kVA	8 ÷ 8,5kVA
Time to reach welding T°	< 20'	< 20'	< 20'	< 20'	< 20'
Outside T° range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Milling cutter with safety micro-switch	✓	✓	✓	✓	✓
Gearcase	Plastic box	Plastic box	Plastic box	Plastic box	Metal box
Pressure range (bar)	0 ÷ 150	0 ÷ 150	0 ÷ 150	0 ÷ 150	0 ÷ 120
Dimensions machine body (W x D x H)	606 x 365 x 375 mm (24" x 14.5" x 15")	685 x 460 x 420 mm (27" x 18" x 15.5")	850 x 470 x 400 mm (33.5" x 18.5" x 16")	981x 586 x 520 mm (38.6" x 23" x 20.5")	1077 x 510 x 715 mm (42,4" x 20" x 28")
Dimensions gearcase (W x D x H)	470 x 250 x 370 mm (18.5" x 9.8" x 14.5")	470 x 250 x 370 mm (18.5" x 9.8" x 14.5")	470 x 250 x 370 mm (18.5" x 9.8" x 14.5")	470 x 250 x 370 mm (18.5" x 9.8" x 14.5")	560 x 300 x 400 mm (21.6" x 11.8" x 15.7")
Weight machine body	31 Kg (68 lb)	39 Kg (86 lb)	63 Kg (139 lb)	86 Kg (190 lb)	100 Kg (220.5 lb)
Weight standard composition	75 Kg (165 lb)	90 Kg (198 lb)	121 Kg (267 lb)	163 Kg (359 lb)	205 Kg (452 lb)

ON REQUEST:**BASIC 160**

Inserts Ø 40 ÷ 140 mm;
1" ÷ 5" IPS; 3" ÷ 4" DIPS
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Data -logging Inspector 2.0

BASIC 315

Inserts Ø 90 ÷ 280 mm
3" ÷ 10" IPS; 3" ÷ 10" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Machine body Trolley
Milling cutter - hating plate Trolley
Rollers
Tool for flange necks
Data -logging Inspector 2.0

BASIC 200

Inserts Ø 63 ÷ 180 mm;
2" ÷ 6" IPS; 3" ÷ 6" DIPS
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Data -logging Inspector 2.0

BASIC 355

Inserts Ø 125 ÷ 315 mm
4" ÷ 12" IPS; 4" ÷ 12" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Data -logging Inspector 2.0

BASIC 250

Inserts Ø 75 ÷ 225 mm;
2" ÷ 8" IPS; 3" ÷ 8" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Machine body Trolley
Milling cutter - hating plate Trolley
Rollers
Tool for flange necks
Top Clamp Short Elbows/Tee
Data -logging Inspector 2.0

"SET & GO PRO" APP

HIGH QUALITY ON BUTT FUSION WELDING



Professional APP with two operating modes: PRO and LIGHT

"SET & GO - PRO" - Annual subscription required

Professional application for smartphones and tablets (Android) that changes forever the way to work with the Ritmo **BASIC EASY LIFE** and **DELTA EASY LIFE** butt fusion machines.

"SET & GO PRO" Put together the ease of use, innovation and quality, in a system with the advantages of a CNC welding system, but reducing significantly the costs of it.

ADVANTAGES "SET & GO PRO"

It eliminates the expensive hardware of a data-logging and offer the highest quality at the lowest cost.

"SET & GO - LIGHT" - Free

Welding parameters calculation for RITMO machines. Eliminates welding tables.



From APP STORE you can use only SET & GO
SET & GO PRO isn't available.

WI-FI READY
GEOLOCATION MAP
DATA-LOGGING
REPORT PDF



"SET & GO PRO" - HOW DOES IT WORK?

Set-up the **EASY LIFE** welding machine through your smart-phone/tablet (Android) with few and easy steps: choose the International Welding Standards (ISO, DVS, UNI, ASTM, etc.), pipe diameter and SDR.

With the GPS and smartphone scanner you can collect, transfer, and store information by project name. You can record the exact location of each pipe weld as well as the construction site, you can scan pipe and fitting barcodes, scan operator badge, and take a photo before and after the installation.

With a detailed report at the end of each weld you have all the technical data with exact graphs and parameters to compare against international welding standards and geolocation map.

You can quickly share the welding reports in pdf format via email and whatsapp or save them to your phone or on a cloud archive.

Choose "SET & GO PRO" because safety and quality are part of your job!

Report by
EASY LIFE + "SET & GO! PRO"



EASY LIFE CONCEPT: A BOOSTED WELDING MACHINE

**EASY
SETTING
&
EASY TO USE**

**RELIABILITY
&
PRECISION**

**REPEAT
THE WELDING
CYCLES**

**UP TO 50
PRE-SET
WELDING
CYCLES**

**4000
PDF
WELDING
REPORTS**

**DATA
LOGGING**

WI-FI

**10
LANGUAGES**

**HARDWARE
&
SOFTWARE**

**AUTOMATED
WELDING
PROCESS**

**0%
ERRORS**



Manual Welding Cycle



Easy Life System

GOAL: TO SIMPLIFY THE WORK IN THE JOBSITE



Manual Welding Cycle

THREE OPERATIONS TO DO:
1 - OPEN THE CARRIAGE
2 - REMOVE THE HEATING PLATE
3 - CLOSE THE CARRIAGE / PERFORM WELDING
...POSSIBLE MISTAKES



Easy Life System

JUST ONE OPERATION TO DO:
1 - REMOVE THE HEATING PLATE



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 holds 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 has 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 electronic 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.

EASY LIFE is available for the following models:

BASIC 160 EASY LIFE	DELTA 500 EASY LIFE	DELTA 250 TRAILER
BASIC 200 EASY LIFE	DELTA 630 EASY LIFE	DELTA 355 TRAILER
BASIC 250 EASY LIFE	DELTA 800 EASY LIFE	DELTA 500 TRAILER
BASIC 315 EASY LIFE	DELTA 1000 EASY LIFE	DELTA 630 TRAILER
BASIC 355 EASY LIFE		DELTA 630 ALL TERRAIN
		DELTA 1000 TRAILER



GEARCASE FUNCTIONS

**HEATING
PLATE:
TEMPERATURE
MANAGEMENT**

**MANAGEMENT
MILLING
CUTTER**

**WELDING
CYCLE:
AUTOMATED**

**MACHINE:
CARRIAGE
MOVEMENT**



Gearcase models:
Basic 160 EASY LIFE
Basic 200 EASY LIFE
Basic 250 EASY LIFE
Basic 315 EASY LIFE
Basic 355 EASY LIFE
Delta 500 EASY LIFE



Gearcase models:
Delta 630 EASY LIFE
Delta 800 EASY LIFE
Delta 1000 EASY LIFE



**Control Panel
models:**
Delta 250 TRAILER
Delta 355 TRAILER
Delta 500 TRAILER
Delta 630 TRAILER
Delta 630 ALL TERRAIN
Delta 1000 TRAILER

BASIC 160 EASY LIFE BASIC 200 EASY LIFE

Self-aligning hydraulic butt fusion machines, suitable for welding under-pressure pipes for water, gas and other fluids. Thanks to a special gearcase, is able to manage the automated welding process. Built according to the International standards (UNI 10565, ISO 12176-1).

BASIC 160 EASY LIFE up to Ø 160 mm, 5" IPS - Available in 230 V version.

BASIC 200 EASY LIFE up to Ø 200 mm, 6" DIPS - Available in 230 V version.

- A machine body built with a supporting frame, four clamps, drag bar, hydraulic cylinders with fast non-drip coupling connections.
- A Teflon-coated (PTFE) heating plate with a built-in independent thermometer
- An extractable electric milling cutter with a safety micro-switch and a thermal circuit breaker.
- A milling cutter/ heating plate support
- An Easy Life electro-hydraulic gearcase by a plastic box.

BASIC 250 EASY LIFE BASIC 315 EASY LIFE BASIC 355 EASY LIFE



Self-aligning hydraulic butt fusion machines, suitable for welding under-pressure pipes for water, gas and other fluids. Thanks to a special gearcase, is able to manage the automated welding process. Built according to the International standards (UNI 10565, ISO 12176-1).

BASIC 250 EASY LIFE up to Ø 250 mm, 8" DIPS - Available in 110 V and 230 V versions.

BASIC 315 EASY LIFE up to Ø 315 mm, 10" DIPS - Available in 230 V version.

BASIC 355 EASY LIFE up to Ø 355 mm, 14" IPS - Available in 230 V version.

- A machine body built with a steel frame, four clamps with SmartLock, detach device for heater, drag bar, hydraulic cylinders with fast non-drip coupling connections.
- A Teflon-coated (PTFE) heating plate with a built-in independent thermometer
- An extractable electric milling cutter with a safety micro-switch and a thermal circuit breaker.
- A milling cutter/ heating plate support
- An Easy Life electro-hydraulic gearcase by a plastic box.



TECHNICAL FEATURES	BASIC 160 EASY LIFE	BASIC 200 EASY LIFE	BASIC 250 EASY LIFE	BASIC 315 EASY LIFE	BASIC 355 EASY LIFE
Working range	40 ÷ 160 mm; 1" IPS ÷ 5" IPS	63 ÷ 200 mm; 2" IPS ÷ 6" DIPS	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS	90 ÷ 315 mm; 3" IPS ÷ 10" DIPS	125 ÷ 355 mm; 4" IPS ÷ 14" IPS
Master Ø 250 mm	-	-	-	✓	✓
Inserts with Smartlock system	-	-	✓	✓	✓
Materials more details contact RITMO S.P.A.	HDPE, PP, PP-R, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF	HDPE, PP, PP-R, PB, PVDF
Power supply	230 V Single Phase 50/60 Hz	230 V Single Phase 50/60 Hz	230 V S. Ph 50/60 Hz 110 V S. Ph. 50/60 Hz	230 V Single Phase 50/60 Hz	230 V Single Phase 50/60 Hz
Total absorbed power	3000 W	4100 W	4200 W	5050 W	5750 W
Suggested power generator	5,5 ÷ 6kVA	5,5 ÷ 6kVA	6,5 ÷ 7kVA	8 ÷ 8,5kVA	8 ÷ 8,5kVA
Working temperature	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)
Outside T° range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Time to reach welding T°	< 20'	< 20'	< 20'	< 20'	< 20'
Memory	4000 cycles	4000 cycles	4000 cycles	4000 cycles	4000 cycles
Pre-set welding cycles	50 customized	50 customized	50 customized	50 customized	50 customized
Wi-Fi ready	App "SET & GO PRO"	App "SET & GO PRO"	App "SET & GO PRO"	App "SET & GO PRO"	App "SET & GO PRO"
Dimensions machine body (W x D x H)	606 x 365 x 375 mm (24" x 14.5" x 15")	685 x 460 x 420 mm (27" x 18" x 15.5")	850 x 470 x 400 mm (33.5" x 18.5" x 16")	981x 586 x 520 mm (38.6" x 23" x 20.5")	1077 x 510 x 715 mm (42,4" x 20" x 28")
Dimensions gearcase (W x D x H)	585 x 384 x 463 mm (23" x 15.1" x 18.2")	585 x 384 x 463 mm (23" x 15.1" x 18.2")	585 x 384 x 463 mm (23" x 15.1" x 18.2")	585 x 384 x 463 mm (23" x 15.1" x 18.2")	585 x 384 x 463 mm (23" x 15.1" x 18.2")
Weight machine body	32 Kg (70.5 lb)	39 Kg (86 lb)	63 Kg (139 lb)	86 Kg (190 lb)	100 Kg (220.5 lb)
Weight standard composition	88 Kg (194.1 lb)	100 Kg (220,5 lb)	132 Kg (291 lb)	174 Kg (383 lb)	216 Kg (476 lb)

ON REQUEST:**BASIC 160 EASY LIFE**

Inserts Ø 40 ÷ 140 mm;
1" ÷ 5" IPS; 3" ÷ 4" DIPS
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Annual subscription "Set & Go Pro"

BASIC 315 EASY LIFE

Inserts Ø 90 ÷ 280 mm
3" ÷ 10" IPS; 3" ÷ 10" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Machine body Trolley
Milling cutter - hating plate Trolley
Rollers
Tool for flange necks
Annual subscription "Set & Go Pro"

BASIC 200 EASY LIFE

Inserts Ø 63 ÷ 180 mm;
2" ÷ 6" IPS; 3" ÷ 6" DIPS
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Annual subscription "Set & Go Pro"

BASIC 355 EASY LIFE

Inserts Ø 125 ÷ 315 mm
4" ÷ 12" IPS; 4" ÷ 12" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Trolley
Rollers
Tool for flange necks
Annual subscription "Set & Go Pro"

BASIC 250 EASY LIFE

Inserts Ø 75 ÷ 225 mm;
2" ÷ 8" IPS; 3" ÷ 8" DIPS
Wooden case for inserts
Pre-insulated bag for heating plate
Machine body Trolley
Milling cutter - hating plate Trolley
Rollers
Tool for flange necks
Top Clamp Short Elbows/Tee
Annual subscription "Set & Go Pro"

DELTA 500 EASY LIFE **DELTA 630 EASY LIFE** **DELTA 800 EASY LIFE** **DELTA 1000 EASY LIFE**

**CLAMPS
AND
INSERTS
IN STEEL**

Self-aligning hydraulic butt fusion machines, suitable for welding under-pressure pipes for water, gas and other fluids. Thanks to a special gearcase, is able to manage the automated welding process. Built according to the International standards (UNI 10565, ISO 12176-1).

DELTA 500 EASY LIFE up to Ø 500 mm, 18" DIPS - Available in 230 V S-PHASE or 400 V T-PHASE versions.

DELTA 630 EASY LIFE up to Ø 630 mm, 24" IPS - Available in 230 V T-PHASE or 400 V T-PHASE versions.

DELTA 800 EASY LIFE up to Ø 800 mm, 30" IPS - Available in 400 V T-PHASE version.

DELTA 1000 EASY LIFE up to Ø 1000 mm, 36" IPS - Available in 400 V T-PHASE version.

- A machine body built with a steel frame, four clamps, drag bar, hydraulic cylinders with fast non-drip coupling connections.
- A Teflon-coated (PTFE) heating plate with a built-in independent thermometer
- 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.
- A milling cutter/ heating plate support
- An Easy Life electro-hydraulic gearcase by a plastic box (Delta 500 Easy Life) or gearcase with trolley (Delta 630 Easy Life, Delta 800 Easy Life and Delta 1000 Easy Life).



Model Delta 800 Easy Life



Milling Cutter with fast removing system



**Delta 630 Easy Life
with electrical crane (on request)**



Delta 630 Easy Life with hydraulic lateral roller (on request)

TECHNICAL FEATURES	DELTA 500 EASY LIFE	DELTA 630 EASY LIFE	DELTA 800 EASY LIFE	DELTA 1000 EASY LIFE
Working range	200 ÷ 500 mm; 8" IPS ÷ 18" DIPS	280 ÷ 630 mm; 10" IPS ÷ 24" IPS	500 ÷ 800 mm; 20" IPS ÷ 30" IPS	630 ÷ 1000 mm; 24" IPS ÷ 36" IPS
Materials more details contact RITMO S.P.A.	HDPE, PB, PP PVDF	HDPE, PB, PP, PVDF	HDPE, PP	HDPE, PP
Power supply	230 V S. Ph 50/60 Hz 400 V T. Ph. 50/60 Hz	230 V T. Ph 50/60 Hz 400 V T. Ph. 50/60 Hz	400 V T. Ph. 50/60 Hz	400 V T. Ph. 50/60 Hz
Total absorbed power	7550 W (230 V) 7200 W (400 V)	12350 W	17200 W	17200 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)
Outside T° range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Memory	4000 cycles	4000 cycles	4000 cycles	4000 cycles
Pre-set welding cycles	50 customized	50 customized	50 customized	50 customized
Wi-Fi ready	App "SET & GO PRO"	App "SET & GO PRO"	App "SET & GO PRO"	App "SET & GO PRO"
Dimensions machine body (W x D x H)	1265 x 790 x 780 mm (50" x 31" x 31")	1550x1010x1000mm (61" x 40" x 40")	2100x1350x1300mm (82.7" x 53.1" x 51.1")	2386x1746x1711mm (94" x 69" x 67")
Dimensions gearcase (W x D x H)	585 x 384 x 463 mm (23" x 15" x 18.5")	1000 x 580 x 680 mm (39.5" x 23" x 27")	1543 x 600 x 800 mm (60.7" x 23.6" x 31.5")	1543 x 600 x 800 mm (60.7" x 23.6" x 31.5")
Weight machine body	230 Kg (507 lb)	415 Kg (915 lb)	821 Kg (1810 lb)	2090 Kg (4607 lb)
Weight standard composition	418 Kg (921.5 lb)	700 Kg (1543 lb)	1330 Kg (2932 lb)	2939 Kg (6479 lb)

ON REQUEST:**DELTA 500 EASY LIFE**

Inserts Ø 200 ÷ 450 mm;
 8" ÷ 18" IPS; 8" ÷ 18" DIPS
 Pre-insulated bag for heating plate
 Trolley
 Electrical crane
 Transport wooden case
 Tool for flange necks
 Kit printer
 Annual subscription "Set & Go Pro"

DELTA 800 EASY LIFE

Inserts Ø 500 ÷ 710 mm;
 20" ÷ 30" IPS; 18" ÷ 24" DIPS
 Trolley
 Electrical crane
 Tool for flange necks
 Kit printer
 Annual subscription "Set & Go Pro"

DELTA 630 EASY LIFE

Inserts Ø 280 ÷ 560 mm;
 10" ÷ 24" IPS; 10" ÷ 20" DIPS
 Pre-insulated bag for heating plate
 Trolley
 Electrical crane
 Transport wooden case
 Tool for flange necks
 Right/Left Hydraulic lateral roller
 Kit printer
 Annual subscription "Set & Go Pro"

DELTA 1000 EASY LIFE

Inserts Ø 630 ÷ 900 mm;
 24" ÷ 36" IPS
 Trolley
 Electrical crane
 Tool for flange necks
 Pre-insulated bag for heating plate
 Kit printer
 Annual subscription "Set & Go Pro"

DELTA LINE

SIMPLY THE BEST

**MEDIUM
AND
LARGE
DIAMETERS**



DELTA 500

DELTA 630

DELTA 800

Self-aligning hydraulic butt fusion machines, suitable for welding under-pressure pipes for water, gas and other fluids. Built according to the International standards (UNI 10565, ISO 12176-1).

DELTA 500 up to Ø 500 mm 18" DIPS - Available in 230 V S-PHASE or 400 V T-PHASE versions.

DELTA 630 up to Ø 630 mm 24" IPS - Available in 230 V T-PHASE or 400 V T-PHASE versions.

DELTA 800 up to Ø 800 mm 30" IPS - Available in 400 V T-PHASE version.

- A machine body built with a steel frame, four clamps, drag bar, hydraulic cylinders with fast non-drip coupling connections.
- Removable thermoelement with independent thermometer for reading the operating temperature.
- Electrically controlled extractable milling machine for flattening the ends of the pipe and/or fitting, equipped with safety microswitch and savior.
- Electro-hydraulic control unit equipped with lever for opening and closing vices, maximum pressure valves and exhaust (also useful for welding using "Dual Pressure"), hydraulic hoses with quick couplings anti-drip, timer, predisposition for data-logging.
- Digital electrical panel with high precision electronic thermoregulator .
- Support for milling cutter and heating plate.

PERFECT SET

DELTA 500

DELTA 500 welds under-pressure pipes for water, gas and other fluids up to to Ø 500 mm - 18" DIPS - Available in 230 V S-PHASE or 400 V T-PHASE versions. T-PHASE versions.



DELTA 630

DELTA 630 welds under-pressure pipes for water, gas and other fluids up to Ø 630 mm 24" IPS. Available in 230 V T-PHASE or 400 V T-PHASE versions.

DELTA 800

DELTA 800 welds under-pressure pipes for water, gas and other fluids up to Ø 800 mm - 30" IPS. Available in 400 V T-PHASE version.



**CLAMPS
AND
INSERTS
IN STEEL**



Milling Cutter with fast removing system



Delta 630 with hydraulic lateral roller (on request)

**QUALITY
WITHOUT
COMPROMISES**

The name Delta for Ritmo has always held the philosophy of: quality without compromise! Powerful power gearcase, combined with cylinder thrust sections, enable quality welds to be made even on pipes with large thicknesses. At the same time, the large scale of use, guarantees maximum accuracy and precision even in the case of welds requiring the use of a few bar.



**TOOL FOR
FLANGE NECKS
(ON REQUEST)**



**GEARCASE
UP TO
160 BAR
2321PSI**



Gearcase
Delta 500 and Delta 630

**GEARCASE
UP TO
250 BAR
3626 PSI**



Gearcase
Delta 800

**ELETRICAL
CRANE
230 V or 400 V
(on request)**



DELTA welds 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).



ON REQUEST

DELTA 500

Inserts $\varnothing$ 200 ÷ 450 mm;
8" ÷ 18" IPS; 8" ÷ 18" DIPS
Pre-insulated bag for heating plate
Special transport wooden case or
metal cage
Trolley
Electrical crane
Tool for flange necks
Data -logging Inspector 2.0

DELTA 630

Inserts $\varnothing$ 280 ÷ 560 mm;
10" ÷ 24" IPS; 10" ÷ 20" DIPS
Pre-insulated bag for heating plate
Special transport wooden case or
metal cage
Trolley
Electrical crane
Tool for flange necks
Data -logging Inspector 2.0

DELTA 800

Inserts $\varnothing$ 500 ÷ 710 mm;
20" ÷ 30" IPS; 18" ÷ 24" DIPS
Trolley
Electrical crane
Tool for flange necks
Data -logging Inspector 2.0

TECHNICAL FEATURES	DELTA 500	DELTA 630	DELTA 800
Working range	200 ÷ 500 mm; 8" IPS ÷ 18" DIPS	280 ÷ 630 mm; 10" IPS ÷ 24" IPS	500 ÷ 800 mm; 20" IPS ÷ 30" IPS
Materials more details contact RITMO S.P.A.	HDPE, PP PVDF	HDPE, PP, PVDF	HDPE, PP
Power supply	230 V S. Ph 50/60 Hz 400 V T. Ph. 50/60 Hz	230 V T. Ph 50/60 Hz 400 V T. Ph. 50/60 Hz	400 V 3F+N+PR 50/70 Hz
Total absorbed power	7950 W (230 V) 7200 W (400 V)	12350 W	16500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)
Outside T° range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H)	1265 x 790 x 780 mm (50" x 31" x 31")	1550x1010x1000mm (61" x 40" x 40")	2100x1350x1300mm (82.7" x 53" x 51")
Weight machine body	230 Kg (507 lb)	415 Kg (915 lb)	821 Kg (1810 lb)
Weight standard composition	418 Kg (921.5 lb)	700 Kg (1560 lb)	1260 Kg (2777 lb)



Trolley on request



INTENSIVE USE IN THE JOB SITE



DELTA 1000 **DELTA 1200 - DELTA 48"** **DELTA 1600 ECO**

Self-aligning welding machines, suitable for welding HDPE pipes and ducts for the transport of water and other fluids under pressure. These welding machines are designed in accordance to international standards (UNI 10565, ISO 12176-1).

DELTA 1000 up to Ø 1000 mm 36" IPS - Available in 400 V T-PHASE version.

DELTA 1200 and DELTA 48" up to Ø 1200 mm 48" IPS - Available in 400 V T-PHASE version.

DELTA 1600 up to Ø 1600 mm - Available in 400 V T-PHASE version.

- 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).
- 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.

PERFECT SET

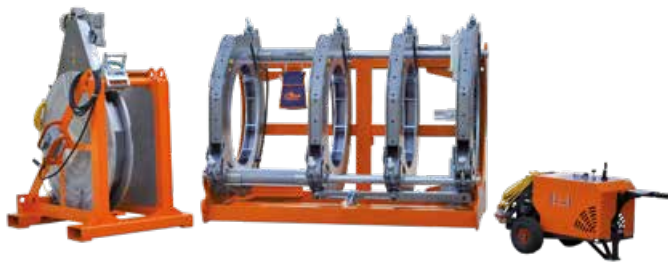


DELTA 1000

DELTA 1000 welds under-pressure pipes for water and other fluids up to $\varnothing 1000$ mm - 36" IPS . Available in 400 V T-PHASE version.

DELTA 1200 and DELTA 48"

DELTA 1200 and DELTA 48" weld under-pressure pipes for water and other fluids up to $\varnothing 1200$ mm - 48" IPS. Available in 400 V T-PHASE version.



DELTA 1600 ECO

DELTA 1600 welds under-pressure pipes for water and other fluids up to $\varnothing 1600$ mm - Available in 400 V T-PHASE version.



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



Gearcase



Lifting holes



**FACER
WITH
FAST
REMOVING
SYSTEM**



**HEAVY DUTY
FRAME**



**MASTER
1000**

DELTA 1200 and DELTA 48"



Necks with a highly reduced tang can be welded with the help of a special tool applied to the clamps. (On request)



Raised Platform Deck (on request)



Machine Body Trolley
(On request)

ON REQUEST:

DELTA 1000

Inserts $\varnothing$ 630 ÷ 900 mm;
24" ÷ 36" IPS;
Machine body trolley
Electrical crane
Tool for flange necks
Data-logging INSPECTOR 2.0

DELTA 1200 and DELTA 48"

Inserts $\varnothing$ 710 ÷ 1100 mm;
28" ÷ 42" IPS; 30" ÷ 42" DIPS
Tool for flange necks
Machine body Trolley
Heating plate / Milling cutter
Trolley
Electrical crane
Raised Platform Deck
Data -logging Inspector 2.0

DELTA 1600 ECO

Inserts $\varnothing$ 800 ÷ 1400 mm;
Tool for flange necks
Raised Platform Deck
Data -logging Inspector 2.0

TECHNICAL FEATURES	DELTA 1000	DELTA 1200 DELTA 48"	DELTA 1600 ECO
Working range	630 ÷ 1000 mm; 24" IPS ÷ 36" IPS	DELTA 1200 710 ÷ 1200 mm DELTA 48" 28" IPS ÷ 48" IPS	800 ÷ 1600 mm
Materials more details contact RITMO S.P.A.	HDPE, PP For other materials contact RITMO S.P.A.	HDPE, PP For other materials contact RITMO S.P.A.	HDPE, PP 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	400 V 3F+N+PE 50/60 HZ
Total absorbed power	25000 W	28200 W	55500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)
Outside T° range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H)	2386 x 1746 x 1711 mm (94" x 69" x 67")	2465 x 1870 x 1900 mm (97" x 73.5" x 75")	3534 x 2236 x 2226 mm (139,1" x 88" x 87,6")
Weight machine body	2090 Kg (4607 lb)	2500 Kg (5510 lb)	4100 Kg (9040 lb)
Weight standard composition	2942 Kg (6486 lb)	3496 Kg (7707,4 lb)	6000 Kg (13230 lb)

**ELETRICAL
CRANE
(on request)**



NO ONE IN THE PIPELINE LIKE HER



DELTA 1600 HDR

Self-aligning welding machine with hydraulic clamps suitable for welding HDPE pipes for the transport of water and other fluids under pressure, up to Ø 1600 mm (63" IPS). The DELTA 1600 HDR is designed in accordance to International standards (UNI 10565, ISO 12176-1)

- 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).
- 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.

ON REQUEST:

Inserts $\varnothing$ 800 ÷ 1400 mm;
32" ÷ 54" IPS; 30" ÷ 60" DIPS
Trolley
Tool for flange necks
Data -logging Inspector 2.0
Hydraulic Rollers



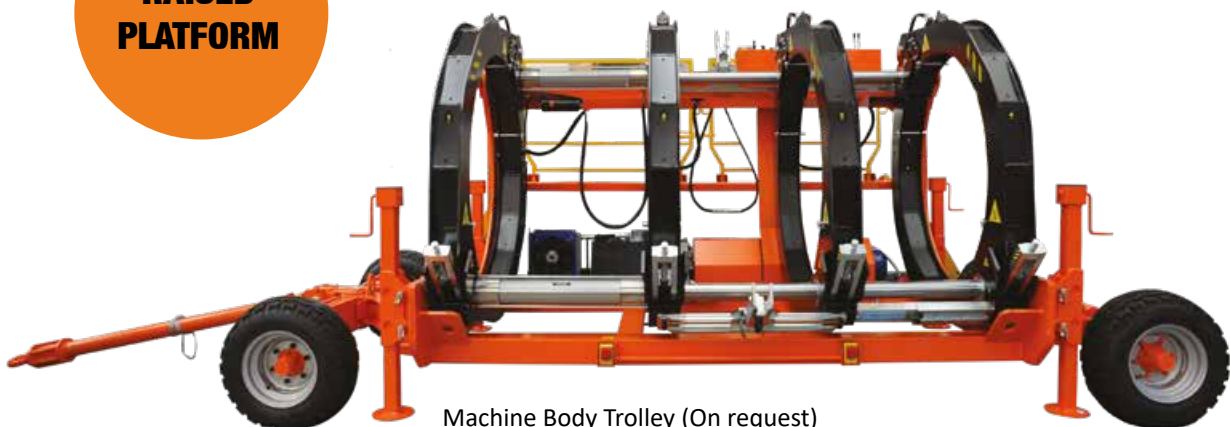
TECHNICAL FEATURES	DELTA 1600 HDR
Working range	800 ÷ 1600 mm; 32" IPS ÷ 63" IPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.
Power supply	400 V 3F+N+PE 50/60 HZ
Total absorbed power	55500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 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)

**HIGH
PERFORMANCE**

**CONTROL
PANEL
ON BOARD**

**HYDRAULIC
CLAMPS**

**RAISED
PLATFORM**



Machine Body Trolley (On request)

NO ERROR PERFECT RESULT



**TRACEABILITY
OPERATOR
(ISO 12176-3)
PIPE
(ISO 12176-4)**

**8
LANGUAGES**

GPS

DELTA DRAGON CNC 250 AND 315

The welding cycle can be managed automatically by using the DELTA DRAGON CNC system; this would eliminate any risk of error due to the operator.

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. 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.

Patent by Ritmo

EP1743741 B1 - US 7334785

**SA
SEMI
AUTOMATIC**

**SA - Heating plate
with Manual extraction**



**FA
FULLY
AUTOMATIC**

**FA - Heating plate
with Mechanical xtraction**



ON REQUEST

DELTA DRAGON CNC 250

Inserts $\varnothing 75 \div 225$ mm;
Tool for flange necks

DELTA DRAGON CNC 315

Inserts $\varnothing 90 \div 280$ mm;
Tool for flange necks



**PLUS
CNC**

**AUTOMATIC
FUSION
MACHINE**

**REPEATABLE
WORK
CYCLE**

**EASY
SETTING**

**BARCODE
READING**

**4000
PDF
WELDING
REPORTS**

**100%
QUALITY**

TECNICAL 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

PRELOADED INTERNATIONAL STANDARDS:

ISO
2130711
low pressure

WIS4
32-08 v4

GIS
PL2-3

GB
50028

GAS
2018

UNI
10520 09

UNI
10967 01

ES0
207GN 11

DVS
2207-1 13

DVS
2207-11 08



TRAILER -ALL TERRAIN - REMEDY LINE HIGH LEVEL PERFORMANCE



DIFFERENCES BETWEEN TRAILER, ALL TERRAIN AND REMEDY LINE

	ALL TERRAIN	TRAILER	REMEDY
Working standards mm	√	√	√
Working standards "IPS /"DIPS	√	√	√
International standards ISO 21307 HIGH PRESSURE and ASTM F2620	√*	√	√*
International standards ISO 21307 LOW PRESSURE; GIS; WIS; DVS	√**	-	√**
Welds fittings	√	√	√
Data-logging (included in FA models; on request in manual models)	√	√	√
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 on wheel	√	-	-
Self-propelled on track	-	-	√
Remote control track	-	-	√
Remotely wire-controlled	√	√	√
Carriage can be removed for in-ditch use	√	√	√
Lateral rollers	√	√	√

*** ISO 21037
HIGH PRESSURE
ASTM F2620**

**** ISO 21037
LOW PRESSURE
DVS, GIS, WIS**

**CNC EASY LIFE
WELDING
SYSTEM**

**INSERT
FAST LOCKING
SYSTEM**

* Manual models

** FA models



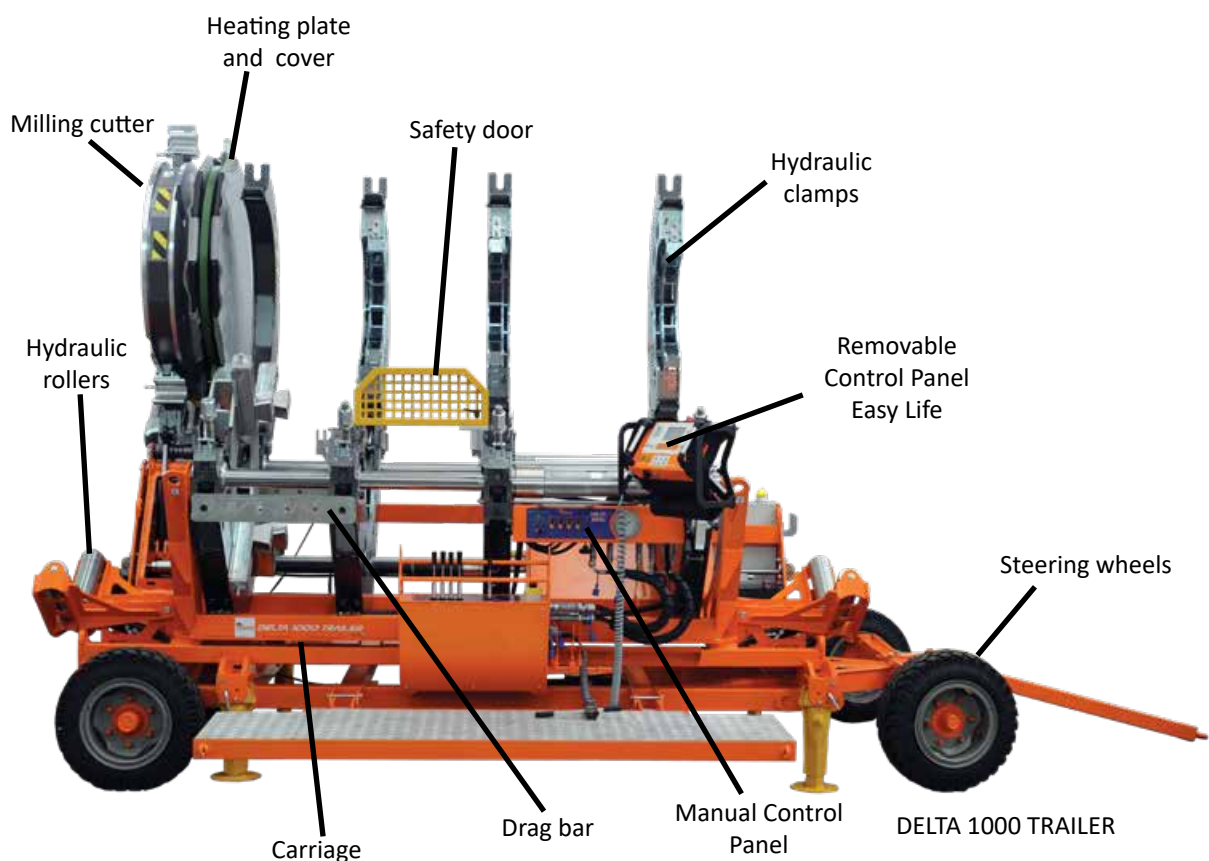
DELTA TRAILER LINE



**HIGH
PERFORMANCE**

**ENHANCE
PRODUCTIVITY**

**TROLLEY WITH
WHEELS**



DELTA 250 TRAILER MANUAL

Self-aligning hydraulic butt fusion machine, suitable for welding underpressure pipes for water, gas and other fluids up to Ø 250 mm (8" DIPS). Complete of: machine body, milling cutter, heating plate with support and 2 lifting rollers. Built according to the International standards ISO 21307 HIGH PRESSURE and ASTM F2620.

**MANUAL
CONTROL
PANEL**



**SMART LOCK
PATENTED**



DELTA 250 TRAILER MANUAL



DELTA 250 TRAILER

DELTA 250 TRAILER

Self-aligning hydraulic butt fusion machine, suitable for welding underpressure pipes for water, gas and other fluids up to Ø 250 mm (8" DIPS). Complete of: machine body, milling cutter, Easy-Life control panel, heating plate with support and 2 lifting rollers. Built according to the International standards ISO 21307 HIGH PRESSURE and ASTM F2620.

**REMOVABLE
EASY LIFE
CONTROL
PANEL**



DELTA 355 TRAILER

Wheeled butt fusion machine complete of: machine body, milling cutter and heating plate on-board, Easy-Life control system, lateral rollers. It 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.



**EASY LIFE
WELDING
SYSTEM**



DELTA 500 TRAILER

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). Complete of: EASY LIFE welding control system, milling cutter and heating plate on-board, assisted system to left clamps/heating plate/milling cutter, data-logging via USB and hydraulic rollers. Machine can fuse pipes according to the ISO 21307 High Pressure standard and ASTM F2620.

**STEEL
HYDRAULIC
CLAMPING**

DELTA 630 TRAILER

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 (from 8" IPS to 24" DIPS). Complete of: CNC EASY LIFE system Trolley, hydraulic movement of heating plate/milling cutter and clamps, data-logging via USB and mechanical rollers, pallet for transport. Machine can fuse pipes according to the ISO 21307 High Pressure standard and ASTM F2620.



DELTA 1000 TRAILER

Self-aligning fusion machine, suitable for welding thermoplastic pipes for the transport of water, gas and other fluids under pressure, up to Ø 1000 mm (from 14" IPS to 36" IPS/ DIPS). Complete of: CNC EASY LIFE system, Trolley, hydraulic movement of heating plate/milling cutter and clamps, data-logging, GPS, USB and hydraulic rollers.

Machine can fuse pipes according to the ISO 21307 High Pressure standard and ASTM F2620.



Automatic welding System "CNC Easy Life", possibility to pre-set 20 customized welding cycles. Once set the welding parameters up, the system guarantees the repetition of the welding cycle, avoiding errors.



**CNC
EASY LIFE**



DELTA TRAILER LINE



REMOVABLE TROLLEY



HYDRAULIC ROLLERS

Delta 500 Trailer and Delta 1000 Trailer have a hydraulic rollers.



SMART LOCK

Delta 250 Trailer and Delta 355 trailer have Smartlock (patented by Ritmo) - fast locking/unlocking inserts, no tools required. The other models have a system for easy removal of the insert.



ASSISTED SYSTEM PATENTED

Delta 500 Trailer has an assisted system to open/close/lift clamps-heater-facer.



HYDRAULIC MOVEMENTS CLAMPS, FACER, HEATER

Delta 1000 Trailer has hydraulic movement of heating plate, milling cutter and clamps.

PRODUCT OVERVIEW

Models	DELTA 250 TRAILER MANUAL	DELTA 250 TRAILER	DELTA 355 TRAILER	DELTA 500 TRAILER	DELTA 630 TRAILER	DELTA 1000 TRAILER
Working range	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS	75 ÷ 250 mm; 2" IPS ÷ 8" DIPS	125 ÷ 355 mm 4" IPS ÷ 14" IPS	200 ÷ 500 mm; 6" IPS ÷ 20" IPS	225* ÷ 630 mm; 8" IPS ÷ 24" DIPS	355 ÷ 1000 mm; 14" IPS ÷ 36" IPS/ DIPS
Materials**	HDPE, PP, PB, PVDF	HDPE, PP, PB, PVDF	HDPE, PP	HDPE, PP	HDPE, PP	HDPE, PP
Power supply 110 V S.Ph. 50/60 Hz	√	√	-	-	-	-
Power supply 230 V S.Ph. 50/60 Hz	√	√	√	√	-	-
Power supply 230 V 3.Ph. 50/60 Hz	-	-	-	√	√	√
Power supply 400 V 3.Ph. 50/60 Hz	-	-	-	√	√	√
Total absorbed power	4600 W (110 V) 4600 W (230 V)	4400 W (110 V) 4200 W (230 V)	6000 W	8000 W (230 V S-PH) 7600 W (230 V 3-PH) 7600 W (400 W)	14300 W	32000 W
Working temperature	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)	180 ÷ 260°C (356 ÷ 500°F)	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)	180° ÷ 260° C (356° ÷ 500° F)
Outside temperature range	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10 ÷ +40°C (14 ÷ 104°F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)	-10° ÷ 40° C (14° ÷ 104° F)
Dimensions machine body (W x D x H) mm	1100x1340x1300 433"x527"x 511"	1080x1380x1330 42.5"x54.3"x 52.4"	2210x1600x1335 83"x 63"x 52.5"	1822x1152x814 71.8"x45.4"x 32"	1822x1152x990 71.7"x 53"x 39"	3890x2890x2845 153.1"x113.8"x112"
Weight machine body	105 Kg (232 lb)	85 Kg (187,4 lb)	275 Kg (606 lb)	580 Kg (1279 lb)	1755 kg (3869 lb)	4385 Kg (9667 lb)
Weight Trolley	122 kg (269 lb)	121 kg (267 lb)	275 Kg (606 lb)	270 Kg (595.3 lb)	435 Kg (960 lb)	830 Kg (1830 lb)
Weight standard composition	227 Kg (500 lb)	220 Kg (485 lb)	550 Kg (1212,5 lb)	850 Kg (1874 lb)	1320 Kg (2910 lb)	4600 Kg (10141,3lb)

* Ø 225 mm from SDR 26 to SDR 7

**For other materials contact RITMO S.P.A.



**DIESEL
GENERATOR
ON BOARD**



**4 STEERING
WHEELS
DRIVE**

DELTA 630 ALL TERRAIN

Wheeled butt fusion machine with traction, 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 Ø 630 mm (24" IPS). Delta 630 ALL TERRAIN is available with Manual Welding Cycle suitable for ISO 21307 High Pressure and ASTM F2620 fusion standards or FA with CNC Welding Cycle for ISO 21307 Low Pressure; GIS/PL2-3:2015; WIS 4-32-08 I4; DVS 2207 -1:2015; DVS 2207- 11: 2017. (See page 57)

Standard machine features:

- 4 steering wheels drive
- Diesel-engine 2200 cc 22,7 Kw
- Self-contained with on-board generator
- Sliding 3rd CLAMP for fittings welding
- *DATA-LOGGING with GPS; memory 4000 report
- Detachable Control Panel
- Remotely wire-controlled up to 12 m
- SmartLock Inserts
- Hydraulic-controlled clamps and milling cutter and heating plate
- Climbs rough terrain up to 30% slope

* DELTA 630 ALL TERRAIN FA included;
DELTA 630 ALL TERRAIN on request

**MANUAL
FUSION
SYSTEM**

**FA - CNC
FUSION
SYSTEM**



TECHNICAL FEATURES

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 Liters (10.5 gal)
Operational tank capacity	12 Hours
Hydraulics reservoir capacity	80 Liters (21.1 gal)
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)

* Ø 225 mm from SDR 26 to SDR 7

**KIT FOR
IN - DITCH USE
(on request)**

**HYDRAULIC
CLAMPS**

**HYDRAULIC
ROLLERS**



REMEDY LINE

**QUALITY
ASSURED**



REMEDY 1000

HDPE and PP pipes
Ø 355 mm to 1000 mm
14" IPS ÷ 36" DIPS



REMEDY 500 V1

HDPE and PP pipes
Ø 200 mm to 500 mm
6" ÷ 20" IPS
6" ÷ 18" DIPS



REMEDY 355

HDPE and PP pipes
Ø 125 mm to 355 mm
4" ÷ 14" IPS
4" ÷ 12" DIPS

MANUAL FUSION

Intuitive control panel allow an easy management of the welding cycle and every phase is manually controlled. Operator experience is fundamental. In compliance with the International Standards **ISO 21307 High Pressure** and **ASTM F2620**.

- **DATA-LOGGING ON REQUEST**
- **AVAILABLE ORANGE CLOUD**



REMEDY 1000

**ISO 21307
HIGH PRESSURE
ASTM F2620**

FA - CNC FUSION SYSTEM

FA: Fully Automatic. Hardware and software have been developed to interact to each other sharing data during the entire workflow. Once set the pipe data and welding standard up, the system guarantees the repetition of the welding cycles, avoiding errors. In the exchange phase, the CNC system automatically manages the opening of the machine, the extraction of the heating plate and the subsequent joining of the pipe according to the requirements of the set standard. In compliance with the International Standards **ISO 21307 Low Pressure**; **GIS/PL2-3:2015**; **WIS 4-32-08 I4**; **DVS 2207 -1:2015**; **DVS 2207- 11: 2017**.



REMEDY 500 V1 FA
REMEDY 355 FA

- **AUTOMATIC WELDING**
- **ELIMINATES OPERATOR ERROR**
- **DATA-LOGGING INCLUDED**
- **PERSONALIZED PARAMETERS**
- **WELDING REPORT**

BSI Certificate N° VC 750599



**ISO 21307
LOW PRESSURE**

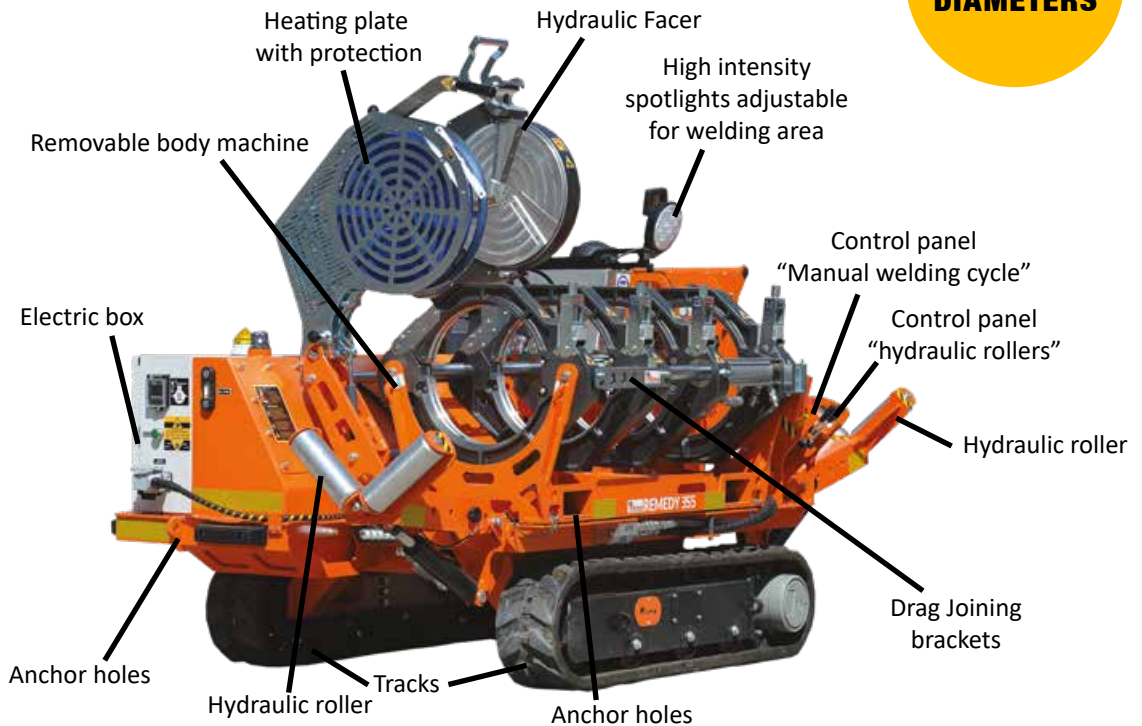
EASY MAINTENANCE FAST SOLUTION

Easy access to periodic maintenance compartments. Cleaning the air filter, checking fuses, radiator cleaning and routine checks are quick and easy to perform.



REMEDY 355

**SMALL
DIAMETERS**



REMEDY 355 is an independent, high-productivity welding machine driven by tracks and powered by a Diesel on-board generator. Designed for butt welding HDPE and PP pipes from Ø 125 to 355 mm (from 4" to 14" IPS; from 4" to 12" DIPS). Remedy 355 is available with Manual Welding Cycle suitable for ISO 21307 High Pressure and ASTM F2620 fusion standards or FA with CNC Welding Cycle for ISO 21307 Low Pressure; GIS/PL2-3:2015; WIS 4-32-08 I4; DVS 2207 -1:2015; DVS 2207- 11: 2017. (See page 57)

VERSATILE

- Working range: from Ø 125 to 355 mm; from Ø 4" to 14" IPS; from Ø 4" to 12" DIPS
- Materials: HDPE, PP
- Manual controls
- Tracked welding machine
- Drives over 35% slopes
- In-ditch/user friendly
- In-ditch hoses/cables range/length 7 m - 23 ft

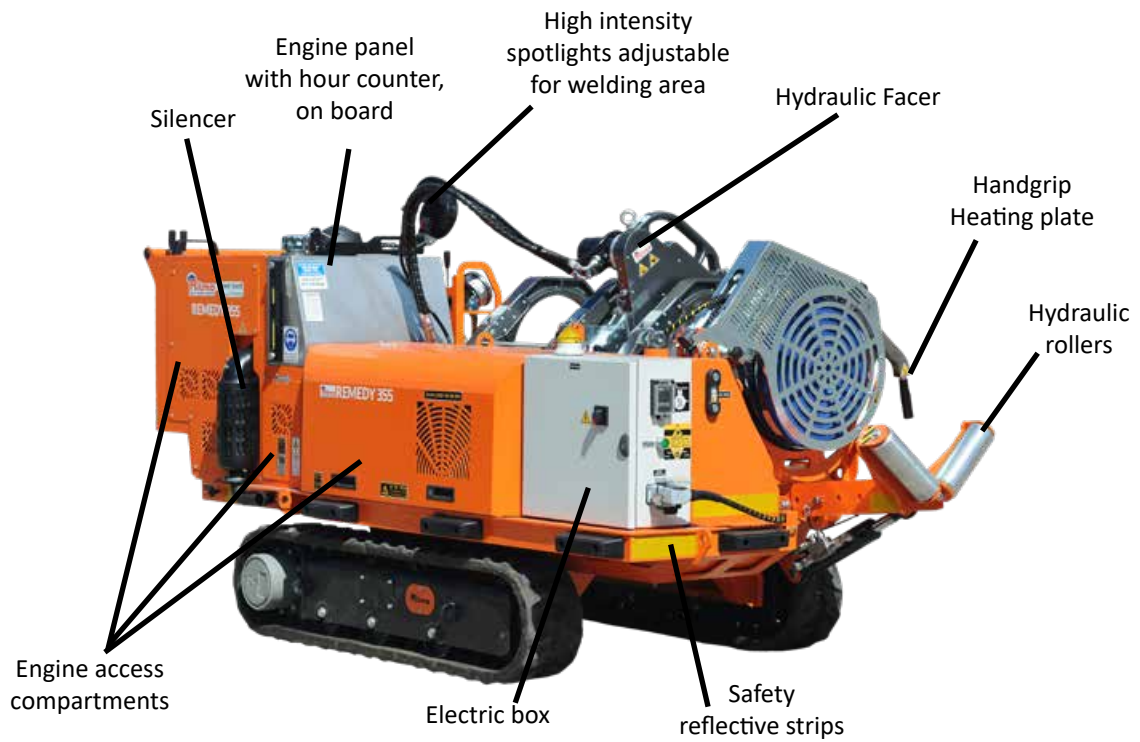
PRECISE

- Removable auxiliary panel to control facer/heating plate
- Easily welds fittings/quick set-up time
- Heating plate with a high temperature protection
- Spotlights on welding area
- Insert with fast-locking system

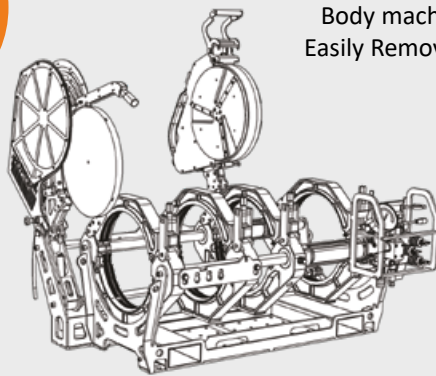
* REMEDY 355 FA included; REMEDY 355 on request

COMPLETE

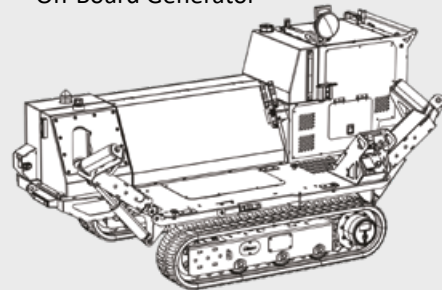
- Self-propelled on track
- Self-contained generator on-board
- Heater/facer on-board
- Patented System to open/close Heating plate and Facer
- Hydraulic side rollers
- Facer with safety microswitch
- *Data-logging with GPS traceability, Pre-set customized welding cycles, Shared Report



IN - DITCH SOLUTION



Tracks along with an On-Board Generator



REMEDY 500 V1



**MEDIUM
DIAMETERS**

REMEDY 500 V1 is an independent, high-productivity welding machine driven by tracks Made in Ritmo and powered by a Diesel on-board generator. Designed for butt welding HDPE and PP pipes from Ø 200 to 500 mm (from 6" to 20" IPS; from 6" to 18" DIPS). Remedy 500 V1 is available with Manual Welding Cycle suitable for ISO 21307 High Pressure and ASTM F2620 fusion standards or FA with CNC Welding Cycle for ISO 21307 Low Pressure; GIS/PL2-3:2015; WIS 4-32-08 I4; DVS 2207 -1:2015; DVS 2207- 11: 2017. (See page 57)

VERSATILE

- Remote control track up to 100 m 328 ft
- Materials: HDPE, PP
- Tracked welding machine
- Drives over 30% slopes
- In-ditch/user friendly
- In-ditch hoses/cables 7 m - 23 ft range/length

PRECISE

- Removable auxiliary panel to control facer/heating plate
- Easily welds fittings/quick set-up time
- Heating plate with a high temperature resistant protection casing
- Spotlights on welding area
- Insert with fast-locking system

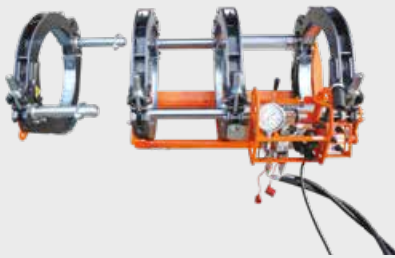
* REMEDY 500 V1 FA included;
REMEDY 500 V1 on request

COMPLETE

- Self-propelled on track
- Patented System to open/close clamps
- Heating plate with hydraulic movement
- Facer with hydraulic movement
- Hydraulic side rollers
- Facer with safety microswitch
- Self-contained generator on-board
- Heater/facer on-board
- *Data-logging with GPS traceability, Pre-set customized welding cycles, Shared Report

Tracks along with an
On-Board Generator

4th Jaw removal

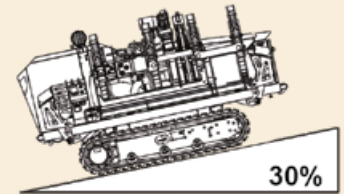
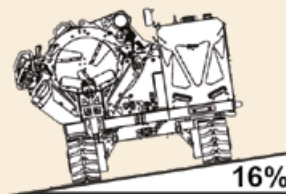


Body machine Easily
Removable for
In-Ditch Use

**IN - DITCH
SOLUTION**



**EASILY
TRANSPORTED**



**PERFORMANCE
IN ALL
TERRAIN**

ON REQUEST:



HYDRAULIC CLAMPING

Remedy 500 V1 (with Manual Welding Cycle) allows the locking of the clamps in a hydraulic way. The kit is designed to work with the removal of the 4th clamp for welding fittings or stub-end/flanges.



HYDRAULIC BUCKET

With the use of two hydraulic bucket, Remedy 500 V1 can be stabilized or slightly lifted to ensure better alignment with the pipe.



THE WINCH

The winch installed on the hydraulic roller bed greatly facilitates the loading of the pipe into the welding machine, eliminating the need to use an additional vehicle for its dragging.

REMEDY 1000



**LARGE
DIAMETERS**

REMEDY 1000 is an independent, high-productivity welding machine driven by tracks and powered by a Diesel 3.6-cylinder in-line Turbo-Common Rail on-board generator. Designed for butt-welding HDPE and PP pipes from Ø 355 mm to 1000 mm (14" IPS ÷ 36" DIPS). REMEDY 1000 is available with Manual Welding Cycle suitable for ISO 21307 High Pressure and ASTM F2620 fusion standards or FA with CNC Welding Cycle for ISO 21307 Low Pressure; GIS/PL2-3:2015; WIS 4-32-08 I4; DVS 2207 -1:2015; DVS 2207- 11: 2017. (See page 57)

VERSATILE

- Working range mm from Ø 355 mm to 1000 mm
- Working range inches from Ø 14" IPS to 36" DIPS
- Materials: HDPE, PP
- Drives over 35% slopes
- In-ditch use friendly
- Controlled welding cycle up to 12 m - 40 ft
- Self-contained Generator on-board
- Heater/Facer on-board
- Insert - Fast-locking system

PRECISE

- Welds fittings/easy set
 - Spotlights on welding area
 - Heating plate with a high temperature resistant casing
 - *Data-logging with GPS traceability, Pre-set customized welding cycles, Shared Report
- * REMEDY 1000 FA included; REMEDY 1000 on request

COMPLETE

- Self-propelled on track
- Hydraulic clamps
- Heating plate and plate with hydraulic movement
- Hydraulic side rollers
- Raised working position
- Remote control track up to 100 m
- Intuitive control panels
- Facer with safety microswitch
- Auxiliary power plug 230 V

THE SAFETY ZONE

Facer and Heating plate can be moved out of the clamping area.



RADIO REMOTE CONTROL

The wireless control allows the operator to always move the welding machine safely and guarantees better management even during the positioning phases.



**TRANSPORT
BY TRUCK**



**REMOVABLE
CARRIAGE**



PRODUCT OVERVIEW	REMEDY 355	REMEDY 500 V1	REMEDY 1000
Working range	125 ÷ 355 mm 4" ÷ 14" IPS 4" ÷ 12" DIPS	200 ÷ 500 mm 6" ÷ 20" IPS 6" ÷ 18" DIPS	355 ÷ 1000 mm; 14" IPS ÷ 36" DIPS
Materials	HDPE, PP For other materials contact RITMO S.P.A.	HDPE, PP For other materials contact RITMO S.P.A.	HDPE, PP For other materials contact RITMO S.P.A.
On board generator	719 cc - 14 kW	1123 cc - 17 kW	3600 cc - 85 kW 2300 rpm
Emmission compliance	EPA US TIER 4 FINAL, UE STAGE V	EPA US TIER 4 FINAL, UE STAGE V	EPA US TIER 4 FINAL, UE STAGE V
Fuel	Diesel	Diesel	Diesel
Fuel tank	25 Liters (6.6 gal)	40 Liters (10.56 gal)	160 Liters (42.2 gal)
Autonomy min	12,5 Hours	13 Hours	10,5 Hours
Hourly consumption	max 2 Liters (0.52 gal)	max 3.2 Liters (0.84 gal)	max 15 Liters (3.9 gal)
Max operator side noise	78 dB	84 dB	79 dB (engine 2300 rpm)
Tracks driving speed	1.5 Km/h or 3 Km/h (0.93 mph or 1.86 mph)	1.5 Km/h or 3 Km/h (0.93 mph or 1.86 mph)	1.5 Km/h or 4,5 Km/h (0.93 mph or 2.79 mph)
Length of tracks	180 mm (7.08")	230 mm (9")	450 mm (17.7")
Max operating slope	35%	30%	35%
Max dimensions on site (W x D x H) mm standard composition	3007 x 1479 x 1690 9.86 x 4.85 x 5.54 ft	2286 x 1668 x 1930 7.5 x 5.5 x 6.3 ft	4414 x 2780 x 3496 14.5 x 9.4 x 11.4 ft
Total weight of the standard composition	1170 Kg (2579 lb)	1750 Kg (3858 lb)	9300 Kg (20.500 lb)



INSPECTOR 2.0

Certify Your Construction Site Welding Quality with Ritmo's Next-Generation Technology. Inspector 2.0 powerful new data-logging system.

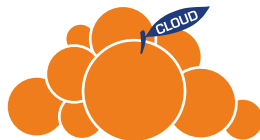
Key Features:

- User-friendly graphical interface for effortless operation and data review
- Real-time pressure and time monitoring with continuous visual feedback
- Ruggedized 7" tablet with IP67 protection
- Full compatibility with Ritmo's hydraulic welding machines (Basic, Delta, and Remedy series) or other brands
- Standard pressure recording up to 160 Bar - 2175 psi (optional accessory extends capacity to 250 Bar - 3670 psi)
- Comprehensive data capture beyond standard parameters
- Welding specifications and standards
- GPS location tracking and Jobsite information
- Operator identification and Equipment details

Inspector 2.0: Your definitive solution for verifiable quality assurance in the field.

CLOUD

WWW.ORANGECLLOUD.RITMO.IT



1 - RECORD

2 - ARCHIVE

3 - DELIVER

4 - ANALYSIS

Orangecloud is Ritmo's innovative service designed to meet the increasing demands for accountability and documentation in the construction industry.

Key Capabilities:

- Secure cloud-based storage for all project documentation
- Structured organization of essential data including: Construction site details - Welding machine identification and serial numbers
- Operator credentials
- Comprehensive welding charts and parameters

Enhanced Security & Collaboration:

- Customizable permission settings for controlled information access
- Confidential data protection with robust security protocols
- Streamlined information sharing across teams and stakeholders

Business Benefits:

- Improved process traceability throughout project lifecycle
- Enhanced team collaboration and communication
- Simplified compliance documentation
- Centralized management of critical operational data

Orangecloud: Elevating construction site efficiency through superior data management.

REAL - TIME COMMUNICATION



Cloud area - www.orangecloud.ritmo.it



Report - www.orangecloud.ritmo.it



RID - RITMO INTERNAL DEBEADER

Internal Debeader by RITMO S.p.A. covering a range from Ø 90 up to 630 mm (3" ÷ 24 IPS).
A complete kit set is composed by:

- **6 pcs of alloy rods 2,15 mtr or 84.6" each (one is acting as turn handle)
- 5 pcs of centering brackets to ensure that the rods are in center of the pipe.
- 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)

Sold separately:

- Internal Debeader Head 560 - 630 mm (* 22" ÷ 24" IPS)

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

** Alloy rods are delivered in a special carrying bag with a handle

**INTUITIVE
EASY TO USE
ACCURATE
VERSATILE**

TECHNICAL FEATURES

Models	Max Bead width
Ø 90 ÷ 110 mm; 3" IPS ÷ 3" DIPS	20 mm
Ø 125 ÷ 160 mm; 4" ÷ 5" IPS	25 mm
Ø 160 ÷ 200 mm; 5" ÷ 6" IPS	25 mm
Ø 225 ÷ 315 mm; 8" ÷ 10" IPS	35 mm
Ø 355 ÷ 500 mm; 12" ÷ 18" IPS	35 mm
Ø 560 ÷ 630 mm; 22" ÷ 24" IPS	45 mm
Materials	HDPE, PP, PP-R, PVDF For other materials contact RITMO S.P.A.

**COMPOSED
OF FEW
PARTS**





**INTUITIVE
EASY TO USE
WIDE USE
VERSATILE**



RED - RITMO EXTERNAL DEBEADER

External Debeader by RITMO S.p.A. covering a range from Ø 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

**PIPES
UP TO 1200 mm
AND
SHEETS**

TECHNICAL FEATURES

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





ROLLER 355

**MINIMIZE
PIPE FRICTION
DRAG FORCE**

ROLLERS

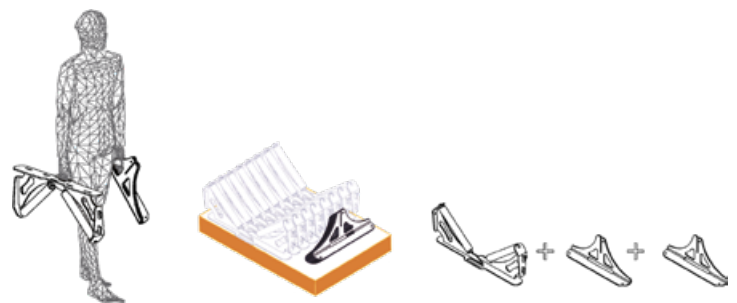
This device is essential for supporting the pipes while they are being welded with the butt fusion machines. The roller minimizes pipe friction and drag force independently of the jobsite conditions.

- 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	Roller 355
Working range	$\varnothing$ 0 ÷ 355 mm; up to 14" IPS
Dimensions	380 x 220 x 200 mm 14.9" x 8.6" x 7.9"
Max pipe load (for single roller)	650 Kg (1433 lb)
Weight	7,8 Kg (17.2 lb)
	Roller 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)



ROLLER 1000



**EASY
LOADING
PIPE**

**FOR
A QUALITY
WORK**

HS ROLLERS AND REMEDY ROLLERS

These devices are essential for supporting the pipes while they are being welded with the butt fusion machines. The rollers minimize pipe friction and drag force no matter which is the construction site condition. Special design for All Terrain, Trailer and Remedy Line.

REMEDY ROLLER 355 - 500 4 - 20 PIPE STANDS

Working range: $\varnothing$ 125 ÷ 500 mm (4" IPS ÷ 20" IPS)

Weight: 72,6 Kg (160,06 lb)

Weight capacity: 1700 Kg (3748 lb)

REMEDY ROLLER 1000 LIGHT 14 - 36 PIPE STAND LIGHT

Working range: $\varnothing$ 355 ÷ 1000 mm (14" IPS ÷ 36" IPS)

Weight: 130 Kg (287 lb)

Weight capacity: 2000 Kg (4400 lb)

REMEDY ROLLER 1000 14 - 36 PIPE STAND

Working range: $\varnothing$ 355 ÷ 1000 mm (14" IPS ÷ 36" IPS)

Weight: 490 Kg (1.080,27 lb)

Weight capacity: 4500 Kg (9900 lb)

HS ROLLER 250

Working range max: $\varnothing$ 250 mm (8" DIPS)

Weight capacity: 500 Kg (1.100 lb)

HS ROLLER 630

Working range max: $\varnothing$ 630 mm (24" DIPS)

Weight capacity: 2000 Kg (4.400 lb)



ELECTROFUSION MACHINES

ELEKTRA LINE: TECHNOLOGY AND PERFORMANCE



ELEKTRA S - V1

ELEKTRA M - V1

ELEKTRA XL - V1

**MENU
20
LANGUAGES**

ELEKTRA is an universal electrofusion machine characterized by high performance and reduced weight. The welding machine has been designed to weld EF fittings: PE, PP, PP-R high pressure pipelines.

ELEKTRA S - V1 up to Ø 200 mm (230 V version) or 315 mm (110 V version).

ELEKTRA M - V1 up to Ø 315 mm (230 V version) or 500 mm (110 V version).

ELEKTRA XL - V1 up to Ø 1600 mm. Available in 230 V.

Provided with:

- High resistance technopolymer shell
- "Defender" protection system against dust and rain complete of removable filter
- Lifting handle and cable wrapping
- In-built memory of 8000 welding report
- Possibility to download the welding report thanks to the USB port in PDF, CSV, BIN format. For BIN format it is necessary the RITMO transfer software. The USB port is also used to upgrade the welding machine firmware and to plug the ESC-POS printer to get immediately the welding report printed on site
- 2,4" LCD Graphic display
- Intuitive control panel with the possibility to customize the menu with 20 different languages
- 90° universal connectors 4.0-4.7mm, no need of adapters
- Laser scanner in order to read the EF fitting barcode and to set automatically the welding parameters according to the ISO 13950. The laser technology of the scanner enhances the reading quality in case of severe light reflections or contrasts. It is also possible to enter manually both the welding parameters (Voltage/Time) and the welding barcode digits
- Traceability: ISO 12176-3 Operator traceability; ISO 12176-4 Fitting/ pipe traceability
- Elektra with GPS device (on request)

HIGH-PRESSURE EF FITTING

DESIGNED FOR
HDPE - PP
8 - 48 V
8 - 80 V*

ELEKTRA S - V1

All the advantages of a welding machine for the small diameters.



8,4 Kg

**THE “SMALL” THAT
COMPETES AGAINST
THE “BIG”**



* up to
Ø 315 mm 110 V
Ø 200 mm 230 V

ELEKTRA M - V1

High-performance welding machine designed for medium diameters. Versatility is its strength!



9,2 Kg

**NO WAIVER,
ALWAYS READY TO
GIVE YOU THE BEST**



* up to
Ø 500 mm 110 V
Ø 315 mm 230 V

ELEKTRA XL - V1

The best of technology in an astonishing weight. No compromise to your weld!



9,4 Kg

**HIGHEST PERFORMANCE,
THE LIGHTEST WEIGHT,
THE SAME TRUSTED
QUALITY!**



* up to
Ø 1600 mm 230 V



90° Universal adapters
Ø 4.0 - 4.7mm

ISO 13950 : 2017

Automatic detection of the welding parameters of the EF fitting barcode thanks to the laser scanner. In case it is possible to enter manually the digits of the welding barcode or the welding parameters only.

TRACEABILITY

All the models are in compliance with the International Standards:
ISO 12176-3
Operator traceability

ISO 12176-4
Fitting/ Pipe traceability

GPS

Job-site location thanks to the GPS device. GPS information is included in the welding report.

Elektra S, M, and XL are also available in a model with GPS.

THE LIGHTEST IN THE MARKET



TECHNICAL FEATURES	ELEKTRA S - V1	ELEKTRA M - V1	ELEKTRA XL - V1
Working range *	110 V 20 ÷ 315 mm ½" IPS ÷ 12 IPS 230 V 20 ÷ 200 mm ½" IPS ÷ 6" DIPS	110 V 20 ÷ 500 mm ½" IPS ÷ 20" IPS 230 V 20 ÷ 315 mm ½" IPS ÷ 12" IPS	230 V 20 ÷ 1600 mm ½" IPS - 63" IPS
Materials	HDPE, PP, PP-R	HDPE, PP, PP-R	HDPE, PP, PP-R
Welding output voltage	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V or 8 ÷ 80 V*
Power supply	110 V ±15% Single Phase 50/60 Hz 230 V ± 15% Single Phase 50/60 Hz	110 V ±15% Single Phase 50/60 Hz 230 V ± 15% Single Phase 50/60 Hz	230 V ± 15% Single Phase 50/60 Hz
Absorbed power **	1700 W (110 V) 1800 W (230 V)	2200 W (110 V) 2300 W (230 V)	3500 W (230 V)
Max. output current	60 A (110 V) 70 A (230 V)	80 A (110 V) 100 A (230 V)	120 A (230 V)
60% Duty Cycle output ISO 12176-2	45 A	60 A	95 A
Operating mode	ISO 13950 welding barcode Manual (barcode digits, tension/time)	ISO 13950 welding barcode Manual (barcode digits, tension/time)	ISO 13950 welding barcode Manual (barcode digits, tension/time)
Connections	USB port for the pen drive and for the ESC-POS printer	USB port for the pen drive and for the ESC-POS printer	USB port for the pen drive and for the ESC-POS printer
Memory	8000 welding report	8000 welding report	8000 welding report
Ambient temperature	-20° ÷ 50° C; -4° ÷ 122° F	-20° ÷ 50° C; -4° ÷ 122° F	-20° ÷ 50° C; -4° ÷ 122° F
T° probe precision	± 1° C	± 1° C	± 1° C
Traceability	ISO 12176-3 ISO 12176-4	ISO 12176-3 ISO 12176-4	ISO 12176-3 ISO 12176-4
Protection degree	IP 54	IP 54	IP 54
Languages	20	20	20
Overall dimensions, machine body	246 x 390 x 240 mm; 7.9" x 15.3" x 9.4"	246 x 390 x 240 mm; 7.9" x 15.3" x 9.4"	246 x 390 x 240 mm; 7.9" x 15.3" x 9.4"
Overall dimensions, carrying case	290 x 445 x 295 mm; 11.4" x 17.5" x 11.6"	290 x 445 x 295 mm; 11.4" x 17.5" x 11.6"	290 x 445 x 295 mm; 11.4" x 17.5" x 11.6"
Weight machine body	5,75 Kg; 12.6 lb	6,55 Kg; 14.4 lb	6,75 Kg; 14.8 lb
Weight, machine body + welding and power supply cable + laser scanner	8,4 Kg; 18,5 lb	9,2 Kg; 20.2 lb	9,4 Kg; 20.7 lb
Recommended generator to cover the complete working range	3,5 ÷ 4 kVA	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



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.

TECHNICAL FEATURES	ELEKTRA LIGHT
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

**90°
UNIVERSAL
ADAPTERS
4.0-4.7 mm**

**LASER
SCANNER**



*workingrangemightvaryaccordingtofitting brand. Check with the fitting manufacturer the power and the welding time required.

** Power at 60% Duty Cycle



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; an laser scanner - barcode reading system that allows the automatic setting of the welding parameters. Report in PDF file.

TECHNICAL FEATURES	ELEKTRA 315
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

**90°
UNIVERSAL
ADAPTERS
4.0-4.7 mm**

**LASER
SCANNER**



*workingrangemightvaryaccordingtofitting brand. Check with the fitting manufacturer the power and the welding time required.

** Power at 60% Duty Cycle



ELEKTRA 500

ELEKTRA 1000

ELEKTRA 500 and ELEKTRA 1000 are an high performance universal electrofusion machines, suitable for welding HDPE, PP, PP-R couplings (from 8 to 48 V). They are composed of:

- Machine body surrounded by a tubular steel frame, thus creating a protective structure
- 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
- 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 Voltage/Time, or by entering the fitting's numerical code indicated under the bar code.
- 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)

TRACEABILITY

All the models are in compliance with the International Standards:

ISO 12176-3

Operator traceability

ISO 12176-4

Fitting/ Pipe traceability



* 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



90° Universal adapters
Ø 4.0 - 4.7mm

TECHNICAL FEATURES	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 Voltage/Time)	Barcode Manual (Numerical code or Voltage/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



ELEKTRA LINE - OVERVIEW

	ELEKTRA S - V1	ELEKTRA M - V1	ELEKTRA XL - V1	ELEKTRA LIGHT	ELEKTRA 315	ELEKTRA 500	ELEKTRA 1000
Working range * 110 V	20 ÷ 315* ½" IPS ÷ 12 IPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	-	20 ÷ 125/160* ½" IPS ÷ 6" IPS*	20 ÷ 315* ½" IPS ÷ 10" DIPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	-
Working range * 230 V	20 ÷ 200* ½" IPS ÷ 6" DIPS*	20 ÷ 315* ½" IPS ÷ 12" IPS*	20 ÷ 1600* ½" IPS - 63" IPS*	20 ÷ 125/160* ½" IPS ÷ 6" IPS*	20 ÷ 315* ½" IPS ÷ 10" DIPS*	20 ÷ 500* ½" IPS ÷ 20" IPS*	20 ÷ 1600* ½" IPS - 63" IPS*
Automatic Temperature compensation	✓	✓	✓	✓	✓	✓	✓
Constantly welding cycle monitored	✓	✓	✓	✓	✓	✓	✓
Barcode scanner (ISO 13950)	✓	✓	✓	✓	✓	✓	✓
Manual fusion input	✓	✓	✓	✓	✓	✓	✓
Welding report	✓	✓	✓	✓	✓	✓	✓
Connections	USB port Type A	USB port Type A	USB port Type A	Adapter DB9M-USB	Adapter DB9M-USB	USB port Type A	USB port Type A
Report file format	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN	PDF - BIN - CSV	PDF - BIN - CSV
Memory	8000 cycles	8000 cycles	8000 cycles	325 cycles	500 cycles	4000 cycles	4000 cycles
Sound allarm	✓	✓	✓	✓	✓	✓	✓
Error recognition	✓	✓	✓	✓	✓	✓	✓
Fusion time	✓	✓	✓	✓	✓	✓	✓
Cooling time	✓	✓	✓	✓	✓	✓	✓
Connectors	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm	90° universal adapters 4.00 - 4,7 mm
Outside T° range	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-10° ÷ 50° C (14° ÷ 122° F)	-10° ÷ 50° C (14° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)	-20° ÷ 50° C (-4° ÷ 122° F)
Power supply (Vac)	110 V or 230 V	110 V or 230 V	230 V	110 V or 230 V	110 V or 230 V	110 V or 230 V	230 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max output current	60 A (110 V) 70 A (230 V)	80 A (110 V) 100 A (230 V)	120 A	60 A	100 A	100 A (110 V) 120 A (230 V)	120 A
Welding output voltage ***	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V or 8 ÷ 80 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V	8 ÷ 48 V
Absorbed power **	1700W (110 V) ** 1800 W (230 V) **	2200W (110 V) ** 2300 W (230 V) **	3500 W (230 V) **	1300 W **	2600 W (110 V) ** 2600 W (230 V) **	3100 W (110 V) ** 3100 W (230 V) **	3500 W **
Suggested power generator for full welding range	3,5 ÷ 4 kVA	5,5 ÷ 6 kVA	6,5 ÷ 7 kVA	3,5 ÷ 4 kVA	5,5 ÷ 6 kVA	5,5 ÷ 6 kVA	6,5 ÷ 7 kVA
Protection degree	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
Electrical fuse protection	✓	✓	✓	✓	✓	✓	✓
Display	Graphic LCD 2,4"	Graphic LCD 2,4"	Graphic LCD 2,4"	Single line LCD	Graphic LCD 2,4"	Graphic LCD 6,5"	Graphic LCD 6,5"
Machine body dimensions	246x390x240mm 7.9"x15.3"x9.4"	246x390x240mm 7.9"x15.3"x9.4"	246x390x240mm 7.9"x15.3"x9.4"	200x250x210mm 7.9"x9.8"x8.3"	263x240x300mm 10.3"x9.4"x1.8"	255x270x385mm 10"x10.6"x15.1"	255x270x385mm 10"x10.6"x15.1"
Carrying case dimensions	290x445x295mm 11.4"x17.5"x11.6"	290x445x295mm 11.4"x17.5"x11.6"	290x445x295mm 11.4"x17.5"x11.6"	-	405x285x340mm 16"x11.2"x13.4"	410x290x485mm 16.1"x11.4"x19.1"	410x290x485mm 16.1"x11.4"x19.1"
Weight machine + cables	8,4 Kg (18.5 lb)	9,2 Kg (20.2 lb)	9,4 Kg (20.7 lb)	~ 7 Kg (15.4 lb)	~ 16 Kg (35.3 lb)	~ 18 Kg (39.6 lb)	~ 20 Kg (44 lb)
Weight carrying case	4.3 Kg (9.4 lb)	4.3 Kg (9.4 lb)	4.3 Kg (9.4 lb)	-	3.9 Kg (8.6 lb)	4.8 Kg (10.5 lb)	4.8 Kg (10.5 lb)
Traceability ISO	12176 - 3 12176 - 4	12176 - 3 12176 - 4	12176 - 3 12176 - 4	-	12176 - 4 (only fitting)	12176 - 3 12176 - 4	12176 - 3 12176 - 4

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

** Power at 60% Duty Cycle

*** Elektra XL is available in two version: for couplings 8 ÷ 48 V and couplings 8 ÷ 80 V

MUSTANG 160 V2

This electrofusion machine is suitable for welding electrofusion fittings in HDPE from Ø 32 to Ø 160 mm (1" IPS ÷ 5" IPS) for low pressure conduits (Akatherm, Geberit, Valsir, Coes, Waviduo). MUSTANG 160 V2 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 V2 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 welding cable with 90° connectors, fixing carabiner, plastic carrying case and manual scraper
- 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	1000 W
Max. output current	5 A (230 V)
Outside temperature range	- 10° ÷ 45° C (14° ÷ 113° F)
Ambient temperature probe	Electronic
Protection degree	IP 54
Weight machine body	1Kg (2.2 lb)
Weight with carrying case	3,5 Kg (7.7 lb)
Dimensions machine body	65 x 185 x 46 mm; 2.5" x 7.2" x 1.8"
Dimensions carrying case	400 x 330 x 160 mm; 15.7" x 13" x 6.2"

UNIVERSAL 315 V1

Electrofusion welding machine:

PP-R from Ø 20 mm** (optional cables)

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



mod. 110 V

mod. 230 V

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

** WELDING CABLES

- A00 YELLOW** 32 ÷ 160 mm (1" IPS ÷ 5" IPS)
Coes, Akatherm, Eurofusion, Geberit, Valsir, Wavin Vulcathene
- A00+ BLACK** 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Wavin (Waviduo)
- A01 BLUE** 200 ÷ 315mm (6" DIPS ÷ 10" DIPS)
Akatherm, Valsir, Eurofusion
- A02 RED** 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Geberit
- A04 WHITE** 200 ÷ 315mm (6" DIPS ÷ 10" DIPS) Coes (Coestilen)

OPTIONAL CABLE

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

TECHNICAL FEATURES

Working range	20** ÷ 315 mm; ½" IPS ÷ 10" DIPS
Power supply	230 V Single Phase 50/60 Hz 110 V Single Phase 50/60 Hz
Max. absorbed power	2470 W (230 V) 2700 (110 V)
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) (230 V) 19 Kg (41.8 lb) (110 V)
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" (230 V) 330 x 270 x 220 mm; 13" x 10.6" x 8.6" (110 V)
Dimensions carrying case	220 x 450 x 180 mm; 8.7" x 17.7" x 7.1" (230 V) 410 x 290 x 485 mm; 16.1" x 11.4" x 19.1" (110 V)

PIPE CUTTERS

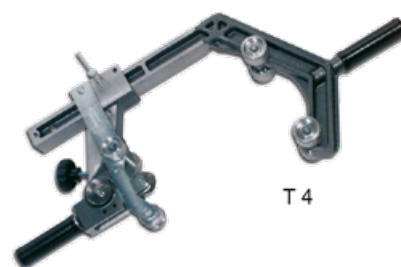
These are professional tools, essential for the manual cut of plastic pipes up to Ø 315 mm (10" DIPS). The TC 108, T1, TU 75, TU 140, T3 and T4 pipe cutters are made with the very best alloys, and are very manageable and practical to use. The pipe cutters can be fitted with various special blades with 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 etc.) pipe.

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

ON REQUEST:

- Blades of different diameters and heights



TECHNICAL FEATURES

MODEL	Working range Ø	Thickness	Overall dimensions	Weight
TC 108	6 ÷ 50 mm ½" CTS ÷ 1½" IPS	up to 4,2 mm	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	up to 5,5 mm	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	up to 11,5 mm	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	up to 17,5 mm	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	up to 17,5 mm	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	up to 13 mm	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



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)



**EASY
SETTING**

**SAFETY
CONDITIONS**

**USER
FRIENDLY**

**OVALIZED
PIPE CUTTING**

TOPGEAR 630

TOPGEAR 630 is the perfect solution to jobsite plastic pipe cutting difficulties, where while safety remains one of the most important points, the cutting time is a key factor for productivity. With the aim of combining these two aspects Ritmo developed an innovative portable pipe saw for jobsite pipe cutting. Whatever the job-site conditions are and wherever the pipe is located, TOPGEAR 630 can be set up for the cutting process and operated in an easy and quick way, ensuring a significant reduction of both preparation and cutting time. Thanks to its clamps which are fastened around the pipe and on which the band-saw moves in a stable and safe way, the cut results accurate and straight even on ovalized pipes.

TOPGEAR 630 is available in 230 V at 50 Hz.

According to the chosen clamp configuration, it is possible to cut pipes with a diameter from 250 to 630 mm; IPS pipes from Ø 10" to 24" and DIPS ones from Ø 8" to 20".

Wherever a pipe has to be cut, TOPGEAR saw is ready!

TECHNICAL FEATURES	TOPGEAR 630
Working range	250 ÷ 630 mm 10" ÷ 24" IPS 8" ÷ 20" DIPS
Materials	PE, PP For other materials contact RITMO S.P.A.
Maximum cut thickness	80 mm (3.15")
Available Power tensions	230 V - 50 Hz
Nominal Power	2100 W
IP class	II
Blade diameter	270 mm (10.6")
Blade speed (without pipe)	3800 rpm
Overall saw dimensions	380 x 577 x 569 mm 15" x 22.7" x 22.4"
Saw weight	20 Kg (44 lb)
Transportation case dimensions	700 x 700 x 400 mm 27.5" x 27.5" x 16"
Case weight	14,3 Kg (31.5 lb)

Minimum recommended generator power 6 Kw. The given data is a minimum suggested power. The pipe saw good functioning depends on the sinusoidal wave stability, which may vary according to the generator brand and its technical characteristics





TURBO 16 - 180

TURBO scrapers are designed to work in confined jobsite spaces, significantly reducing the scraping time. The rotating tool enables a quick and accurate scraping without imperfections. TURBO is patented by Ritmo.

Thanks to the introduction of new models, the diameter range of Turbo is now extended up to 180 mm and 4" IPS. The metal models range from 16 to 63 mm ($\varnothing \frac{1}{2}$ " CTS ÷ 2" IPS) and they carry out two functions: pipe scraping and facing, while the models with diameter from 75 to 180 mm and 3" ÷ 4" IPS are made of technopolymer, carry out only the scraping function.

Each TURBO is equipped with an easily adjustable scraping depth selector, which enables an easy and precise blade positioning. TURBO is available also in inches from $\varnothing \frac{1}{2}$ " CTS ÷ 4" IPS and JIS versions with diameter 20 and 25 mm. All TURBO scrapers can be easily used with any professional electric screwdriver.



**SPEED
TEST**

TURBO 125

PE and PP Pipe $\varnothing$ 125 mm
Scraping Depth 100 mm
Time: about 20"

TURBO 180

PE Pipe $\varnothing$ 180 mm
Scraping Depth 125 mm
Time: about 40"

**PATENTED
BY
RITMO**

PRECISE

FAST

**EASY
TO USE**



SINGLE FUNCTION Metrical - Inch

Scraping



Pipe
to scrape

Scraped
pipe

METRICAL Models	Item Code	Working range	Pipe Thickness min	Scraping Length max	Weight
TURBO 75	99890069	Ø 75 mm	4,5 mm	90 mm	0,9 Kg
TURBO 90	99890071	Ø 90 mm	5,4 mm	99 mm	1 Kg
TURBO 110	99890072	Ø 110 mm	6,6 mm	100 mm	1,2 Kg
TURBO 125	99890073	Ø 125 mm	7,4 mm	100 mm	1,3 Kg
TURBO 160	99890077	Ø 160 mm	9,4 mm	125 mm	1,7 Kg
TURBO 180	99890076	Ø 180mm	10,6 mm	125 mm	1,9 Kg
TURBO 3" IPS	99890074	Ø 3" IPS	0.18" ÷ 0.43"	3.7"	1 Kg
TURBO 4" IPS	99890075	Ø 4" IPS	0.23" ÷ 0.57"	3.9"	1,2Kg



DOUBLE FUNCTION Metrical - Jis - Inch

Scraping and facing,
straightening uneven pipe ends



Uneven
pipe ends

1 - Faced
pipe

2 - Scraped
pipe

METRICAL Models	Item Code	Working range	Pipe Thickness min ÷ max	Scraping Length max	Weight
TURBO 16	99890012	Ø 16 mm	1,5 ÷ 2,28mm	43 mm	0,4 Kg
TURBO 20	99890000	Ø 20 mm	2,3 ÷ 3,8mm	45 mm	0,4 Kg
TURBO 25	99890001	Ø 25 mm	2,3 ÷ 5,3mm	45 mm	0,5 Kg
TURBO 32	99890002	Ø 32 mm	2,3 ÷ 6,8mm	45 mm	0,6 Kg
TURBO 40	99890003	Ø 40 mm	2,3 ÷ 8,3mm	55 mm	0,8 Kg
TURBO 45	99890067	Ø 45 mm	2,6 ÷ 9 mm	55 mm	0,8 Kg
TURBO 50	99890004	Ø 50 mm	2,3 ÷ 10,3mm	55 mm	1 Kg
TURBO 63	99890005	Ø 63 mm	2,3 ÷ 13,3mm	55 mm	1,3 Kg
JIS Models					
TURBO 20	99890013	Ø 27 mm	3,7 ÷ 4,3mm	52 mm	0,5 Kg
TURBO 25	99890014	Ø 34 mm	2,3 ÷ 6,8mm	55 mm	0,6 Kg
INCHES Models					
TURBO ½" CTS	99890012	Ø ½" CTS	0.06" ÷ 0.09"	1.77"	0,4 Kg
TURBO ¾" CTS	99890022	Ø ¾" CTS	0.064" ÷ 0.146"	1.77"	0,4 Kg
TURBO 1" CTS	99890021	Ø 1" CTS	0.08" ÷ 0.188"	1.77"	0,5 Kg
TURBO ½" IPS	99890006	Ø ½" IPS	0.09" ÷ 0.17"	1.77"	0,4 Kg
TURBO ¾" IPS	99890007	Ø ¾" IPS	0.09" ÷ 0.20"	1.77"	0,5 Kg
TURBO 1" IPS	99890008	Ø 1" IPS	0.09" ÷ 0.26"	1.77"	0,6 Kg
TURBO 1¼" IPS	99890009	Ø 1¼" IPS	0.09" ÷ 0.33"	2.17"	0,9 Kg
TURBO 1½" IPS	99890010	Ø 1½" IPS	0.09" ÷ 0.38"	2.17"	1Kg
TURBO 2" IPS	99890011	Ø 2" IPS	0.09" ÷ 0.47"	2.17"	1,3 Kg



Turbo cage set
On request

RTC - PIPE SCRAPERS

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.

Smooth rotation has always been a virtue of RTC scrapers, and as the working diameters increase, the more this feature is appreciated. The main chuck has four extendable arms that clamps directly the inside diameter of the pipe. A tensioner allows a quality chip with constant thickness even with oval pipe.

The RTC 500 and 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.

STANDARD COMPOSITION:

- Pipe scraper
- Adapters kit (except for RTC 710)
- Spare blade
- Tools
- Transport case
- Screwdriver and small cutter

**PERFECT
EVEN ON
OVALIZED
PIPES***

**QUICK
INSTALL**

**FAST
SCRAPING**

**ACCURATE
SCRAPING**



RTC 160



RTC 315



RTC 710



RTC 500

* According to:
ISO 11922-1; DVS 2207-1; DVS 2207 - 11
UNI 12201-2; ASTM D3035; PIPA : POP001

TECHNICAL FEATURES	RTC 160	RTC 315	RTC 500	RTC 710
Working range	Ø 50 ÷ 160 mm 2" IPS ÷ 6" IPS	Ø 75 ÷ 315 mm 3" IPS ÷ 12" IPS	Ø 180 ÷ 500 mm 8" IPS ÷ 20" IPS	Ø 355 ÷ 710 mm 14" IPS ÷ 28" IPS
External	Ø 38 ÷ 154 mm (1.5" x 6")	Ø 58 ÷ 300 mm (2.2" x 11.8")	Ø 110 ÷ 485 mm (4.3" x 19.1")	Ø 290 ÷ 675 mm (11.4" x 26.5")
Internal				
Max scraping length	114 mm 4.5"	137 mm; 5.4"	465 mm; 18.3"	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"	780 x 500 x 250 mm 31" x 20" x 10"	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"	480 x 280 x 750 mm 19" x 11" x 30"	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)	14 Kg; (31 lb)	16 Kg (35.8 lb)
Weight standard composition	5,65 Kg (12,5 lb)	7,5 Kg (16.5 lb)	10 Kg (22 lb)	28 Kg (61.7 lb)

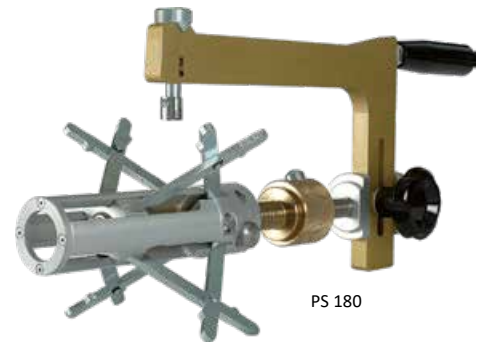
PS - PIPE SCRAPERS

Professional rotary scrapers, essential to prepare the plastic pipes and fittings before electrofusion welding. The tools has an adjustable chuck covering all the Ø 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

**QUICK
INSTALL**

**EASY
TO USE**

**ACCURATE
SCRAPING**

TECHNICAL FEATURES	PS 180	PS 400
Working range	Ø 75 ÷ 200* mm (Ø 2.95" ÷ 7.87")	Ø 137 ÷ 426 mm
External	Ø 61 ÷ 184 mm (Ø 2.40" ÷ 7.24")	Ø 130 ÷ 391 mm
Internal		
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)

(*200 mm from SDR 6 ÷ 26)

MANUAL SCRAPER

Emergency tool, as the scraping is significantly less precise and regular from the use of tools professional such as the use of scrapers TURBO, RTC, PS.

Max working range recommended up to Ø 63 mm. (2")



PIPE SUPPORT



**FASTENING
BELTS**

**EXCELLENT
GRIP**

**EASY
TO USE**

With this practical piece of equipment, the pipe can be locked to let the operator carry out quickly and with precision all operations previous to the welding cycle, like cutting, pickling, scraping, etc.

This support's particular structure helps reach several inclination angles and heights, in order to better adapt to the requirements of the building site.

Locking takes place via a ratchet strap system, allowing safe and fast locking.

TECHNICAL FEATURES

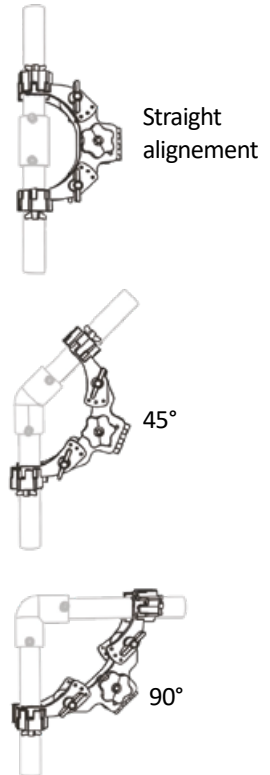
Working range	Ø 40 ÷ 400 mm 1.5" ÷ 15,7"
While being transported	870 x 365 x 785 mm 34.2" x 14.3" x 30.9"
While being used (highest position)	1100 x 365 x 660 mm 43.3" x 14.3" x 30"
While being used (lowest position)	630 x 365 x 760 mm 24.8" x 14.3" 29.9"
Weight	15 Kg (33 lb)

KELA 16-63

UNIVERSAL ALIGNER



Working combinations



Kela is a universal and compact aligner suitable for plastic pipes, fittings and electrofusion saddles. Thanks to its particular clamp design, it is possible to align pipes and fittings in a straight position or at 45° and 90°.

Kela is equipped with two plates: a wide and a narrow one, to be used according to the application.

The wide plates are used for the straight alignment and give a better grip and positioning, while the narrow plates are designed to make Kela more compact and therefore easier to use in the 45° and 90° application, as well as in narrow working conditions or electrofusion saddles welding.

The working range can be easily adjusted thanks to these interchangeable plates.

Kela is supplied with a transport bag and it is available in metric version with working range: Ø 16 ÷ 63 mm; in inches CTS: Ø ½" ÷ 2" CTS in inches IPS: Ø ½" ÷ 2" IPS

TECHNICAL FEATURES

Working range Ø	Metrical: 16 ÷ 63 mm Inches CTS: ½" ÷ 2" Inches IPS: ½" ÷ 2"
Type of alignment	straight, 45°, 90°
Weight	1,4 Kg
Weight including the transport bag	2 Kg
Kela minimum dimensions	206 x 155 x 104 mm
Kela maximum dimensions	298 x 126 x 153 mm
Bag dimensions	400 x 180 x 130 mm



Wide plates for a better grip



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 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



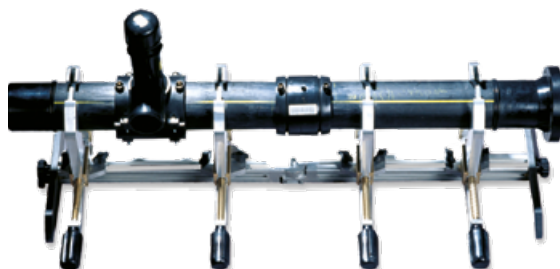
TECHNICAL FEATURES



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 ÷ 6" IPS). The UNIVERSAL ALIGNER 160 Light is made almost entirely in a special 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 ÷ 6" 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 20 ÷ 63 mm (½" IPS ÷ 2" IPS).

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)

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 1" CTS	-	1" CTS	HDPE, PB, PP, PVC, PVDF
CHAMFERING ½" IPS	-	½" IPS	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 beveling the ends of plastic pipes up to Ø 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.

STANDARD EQUIPMENT:

- Beveler body with blade



SME 1

SME 2 PLUS

TECHNICAL FEATURES	SME 1	SME 2 PLUS
Working range	Ø 25 ÷ 160 mm; 1" IPS ÷ 5" IPS	Ø 40 ÷ 315 mm; 1 1/4" 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"	128 x 235 x 310 mm 5" x 9" x 12"
Weight	0,8 Kg (1.4 lb)	1,50 Kg (3.3 lb)

HOLDER

Socket fitting holder for 2"



COLD RING

Useful tool used to clamp, hold and round at the desired place the pipe in order to weld it properly.



TECHNICAL FEATURES	Working range
Cold Ring 20	Ø 20 mm
Cold Ring 25	Ø 25 mm
Cold Ring 32	Ø 32 mm
Cold Ring 40	Ø 40 mm
Cold Ring 50	Ø 50 mm
Cold Ring 63	Ø 63 mm
Cold Ring 1/2" CTS	Ø 1/2" CTS
Cold Ring 1" CTS	Ø 1" CTS
Cold Ring 1/2" IPS	Ø 1/2" IPS
Cold Ring 3/4" IPS	Ø 3/4" IPS
Cold Ring 1" IPS	Ø 1" IPS
Cold Ring 1 1/4" IPS	Ø 1 1/4" IPS
Cold Ring 1 1/2" IPS	Ø 1 1/2" IPS
Cold Ring 2" IPS	Ø 2" IPS

RAP 315

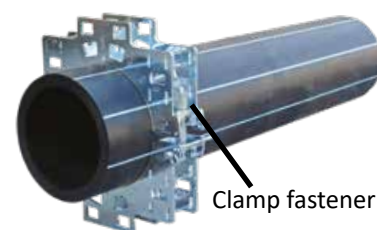
RAP 315 is the new fully modular tool that can be used inside or outside the excavation site for electrofusion installation of pipe/ fittings from Ø 180 to 315 mm. Solid, made entirely of steel to withstand the high mechanical stress to which it is exposed: compression, traction.

Modularity is its strength, and, thanks to this feature, RAP 315 greatly performs three functions:

REROUNDER

Rounds off the end of the ovalized pipe.

It consists of four independent clamps with a large surface area of contact. Used individually, the clamp perform the function of rounding tool. In a few seconds, the clamp is placed around the pipe and with the use of a spanner, the fasteners are closed manually. Mechanical compression corrects the pipe ovality. Inserts can be installed to extend the range of use.

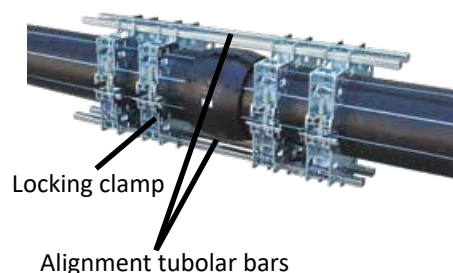


Clamp fastener set

ALIGNER

Aligns and locks the pipes to be welded.

Just a few steps and the it turns into a Universal Aligner! All you need to do is use the four clamps, place the four alignment bars in the appropriate slots, position the clamp's spacer and here you have a practical and tough aligner. Thanks to its modularity, the RAP 315 allows installation and successive removal in restricted excavation sections.



Alignment tubular bars

PULLER

Simplifies pipe and electrofusion fitting installation.

RAP 315 never stops to amaze; the addition of the "Pulling System 315 " puts an end to the trauma to which the fitting has always been exposed during repeated insertion attempts on pipes. Once the setting and the adjustments have been made, a simple rotation of the handle activates the "Pulling System 315", which inserts the fitting to the correct position/depth. The fitting is now held in position and welded.



**PATENT
PENDING**

**COMPLIANT
WITH STANDARD
NTA 8828:2018**

TECHNICAL FEATURES

Working range	Ø 180 ÷ 315 mm
Materials	PP, PE
Dimension Aligner - Positioner	1500 x 483 x 540 mm
Dimension Rerounder clamp	100 x 483 x 540 mm
Weight standard composition Positioner Code 99220010	122 Kg
Weight standard composition Aligner	104 Kg

REROUNDERS FOR PLASTIC PIPE

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).

**PRODUCTS
FOR
JOBSITE**

**RESHAPING
PIPE**

**MANUAL
CLAMPING**



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 16 - 63

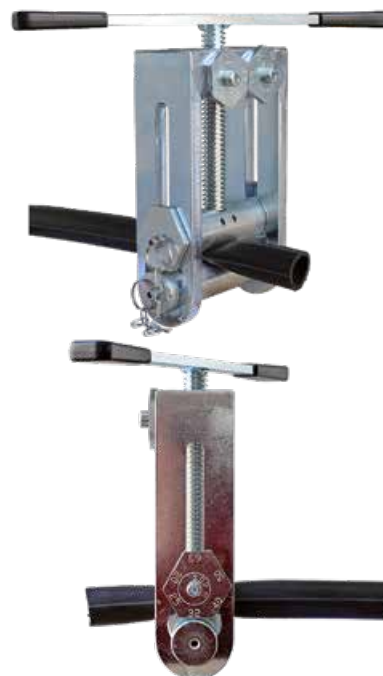
The SQUEEZER 16 - 63 is a manual tool. Easy and fast to apply, the SQUEEZER is useful in the worksite to stop the gas or water flow in the Polyethylene pipelines from Ø 16 to 63 mm / SDR 11 - SDR 17.

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	300 x 70 x 270 mm 12.8" x 2.7" x 10.6"
Weight	7,3 Kg (16.1 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.

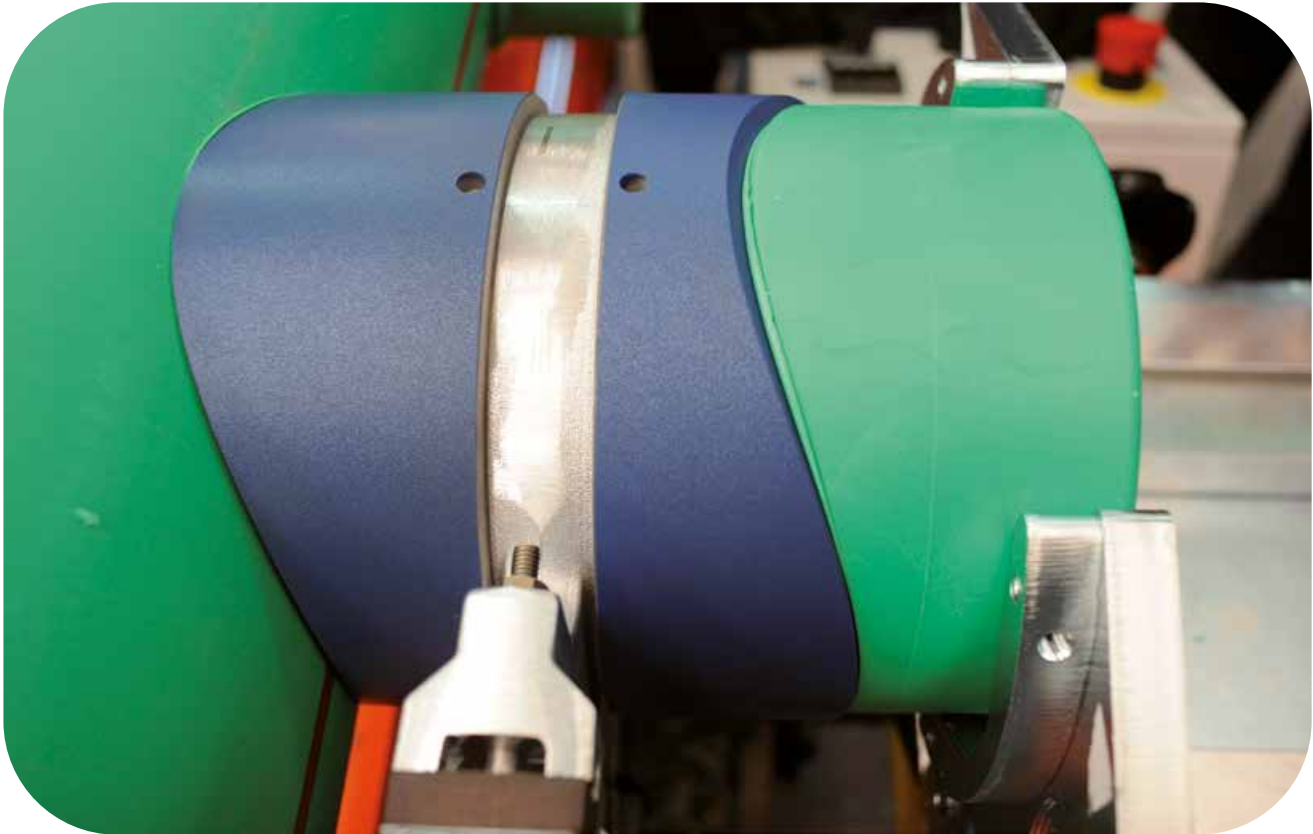
The SQUEEZER 63-200 is easy to transport thanks to two handles and its steel frame. On its sides the SQUEEZER 63-200 is equipped with two metallic rods for safety protection in case of pressure losses or accidental impacts. Moreover the standard configuration of the SQUEEZER 63-200 includes the stoppers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



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 90	20	25	32	40	50	63	75	90		
JIG PRIME	20	25	32	40	50	63	75	90	110	125
SWITCH 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



Ø ON REQUEST

RITMO'S SOCKET FUSION SOLUTIONS:

MANUAL EQUIPMENT

EASY FUSION SYSTEM

- manual welding machine for joining pipes and fittings;
- suitable for welding HDPE, PP, PP-R, PVDF pipes and fittings;
- available with a TE or a TFE;
- PID microcontroller combined with a platinum sensor



WORKSHOP MACHINE

THE PROFESSIONAL TOOL FOR QUALITY WELDING

- workshop welding machine for joining pipes and fittings;
- suitable for welding HDPE, PP, PP-R, PB, PVDF pipes and fittings



FUSION ON-SITE

FLEXIBILITY AND VERSATILITY FOR YOUR PERFECT WORK ON SITE

- on site welding machine for joining pipes and fittings;
- suitable for welding HDPE, PP, PP-R, PB, pipes and fittings



CUSTOM MANIFOLDS

INDEPENDENCE AND PROFESSIONALITY IN ALL SITUATION

- workshop machine for the fabrication manifolds;
- suitable for welding of HDPE, PP, PP-R manifolds



MANUAL EQUIPMENT



R 125 Q



R 63



R 25

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 TFE control system features a 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



**PREMIUM
QUALITY**

**TE
ADJUSTABLE
ELECTRONIC
TEMPERATURE**

**TFE
FIXED
ELECTRONIC
TEMPERATURE**

TECHNICAL FEATURES

TYPE: TE, TFE	R 25	R 63	R 125 Q
Working range	up to Ø 25 mm	up to Ø 63 mm	up to Ø 125 mm
Materials	HDPE, PP, PP-R PB, PVDF	HDPE, PP, PP-R PB, PVDF	HDPE, PP, PP-R PB, PVDF
Power supply (TE)	-	110V / 230V S. Ph. 50/60 Hz	110V / 230V S. Ph. 50/60 Hz
Power supply (TFE)	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 (± 10° C) TFE 500° F (± 50° F) TFE 180° ÷ 290° C TE 356° ÷ 554° F TE	260° C (± 10° C) TFE 500° F (± 50° F) TFE 180° ÷ 290° C TE 356° ÷ 554° F TE	260° C (± 10° C) TFE 500° F (± 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"

SWITCH 125



**SWITCH 125
TURNS INTO
JIG PRIME**

Switch 125 is Ritmo's innovative "TWO products in ONE" solution for welding pipes with thermoplastic fittings up to 125 mm in diameter. The welding machine is versatile and modular, composed of two units for a new way of working on construction sites. With Switch 125, the operator has a powerful tool with many technical advantages.

COMPLETE

- Switch 125 is a bench welding machine with an anodized aluminum frame.
- It is equipped with retractable feet to work on the ground or resting on a table.
- The welding machine has depth selectors and plate separation features to perform high-quality welds easily.
- It comes with convenient side handles for quick positioning.

PRECISE

- Switch 125 features three self-centering clamps that, through side knobs, precisely fix the pipe and fitting.
- The clamps can be easily unhooked or removed from their seat and can be mounted reversibly to quickly adapt the welding machine to the new welding situation.
- The manual socket is equipped with rapid rotation in its seat, which allows changing the socket fusion direction and saving precious time.

UNIQUE FEATURE

- In just a few moments, the operator releases part of the Switch 125 structure, transforming the welding machine into a new product: JIG Prime.



**TWO
PRODUCTS
IN ONE**

TECHNICAL FEATURES

Working range	Ø 25 ÷ 125 mm
Materials	HDPE, PP, PP-R (and other thermoplastic materials)
Power supply	110 V Single Phase 50/60 Hz 220 - 230 V Single Phase 50/60 Hz
Max. absorbed power	1400 W
Working temperature	180°C ÷ 290°C (356 ÷ 554°F) ± 1%
Outside temperature range	-5 ÷ 40°C (23 ÷ 104°F)
Time to operating temperature	~ 10 min
Weight standard composition	49,6 Kg (109.35 lb)
Dimensions machine body	900 x 545 x 503 mm; (35.43" x 21.46" x 19.8")



JIG PRIME



**PATENT
PENDING**

JIG PRIME represents Ritmo's cutting-edge solution for welding pipes with thermoplastic fittings up to 125 mm in diameter, designed to ensure maximum versatility and precision. Its lightweight and maneuverability characteristics make it an indispensable tool for on-site welding, both vertically and overhead. Thanks to reducer inserts, JIG PRIME easily adapts to different work scenarios.

VERSATILE

- JIG Prime is equipped with a functional, modular support that easily transforms into a convenient bench rest.
- The clamps of the welding machine can be easily detached from the frame and allow you to quickly adapt the welding machine to the different operational needs of the construction site.

LIGHTWEIGHT

- A strong point for the welding machine is the excellent balance combined with the comfortable lower handle and a weight of just 8.5 Kg.

TECHNOLOGY

- Specific welding solution: On-site.
- It is equipped with: innovative friction system with patented lock which effectively prevents the gravitational sliding of the trolley and the consequent accidental opening.
- Two self-centering clamps that, through side knobs, precisely fix the pipe and fitting.

TECHNICAL FEATURES

Working range	Ø 25 ÷ 125 mm
Materials	HDPE, PP, PP-R (and other thermoplastic materials)
Power supply	110 V Single Phase 50/60 Hz 220 - 230 V Single Phase 50/60 Hz
Max. absorbed power	1400 W
Working temperature	180°C ÷ 290°C (356 ÷ 554°F) ± 1%
Outside temperature range	-5 ÷ 40°C (23 ÷ 104°F)
Time to operating temperature	~ 10 min
Weight standard composition	10.2 Kg (22.49 lb)
Dimensions machine body	506 x 332 x 259 mm; (19.92" x 13.07" x 10.2")



**VERTICAL
WELDS**



**OVERHEAD
WELDS**



UP 125



**HIGHEST
QUALITY**

**PATENT
PENDING**

**EASY
SETTING**

**PRECISE
DRILLING**

**PERFECT
WELDING**

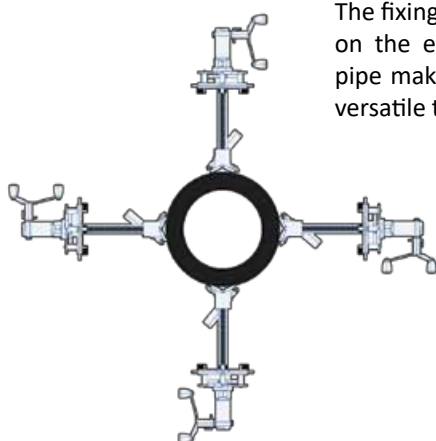
UP 125 is the new Ritmo welding machine for drilling and saddle welding on PP and PE pipes (Patent pending). The main pipe working range goes from Ø 63mm to 630 mm and is possible to weld branches having Ø 32mm to 125 mm. UP 125 is a welding machine that gives you the total control in all phases of work. The welding is performed by using a manual socket fusion heating plate and its Teflon coated saddle spigots. Manufacture collectors has never been that easy!

WELDING QUALITY

From the very first stages of work, the UP 125 stands out for precision and accuracy. The special metric level supplied indicates the working points always aligned to manufacture manifolds even when pipes are curved. The chain safe locker makes the centering handy, easy and safe. Once positioned, UP 125 guarantees the 90° between drilling and welding. The free rotation adjustment of the fitting holder allows maximum control throughout the welding cycle.

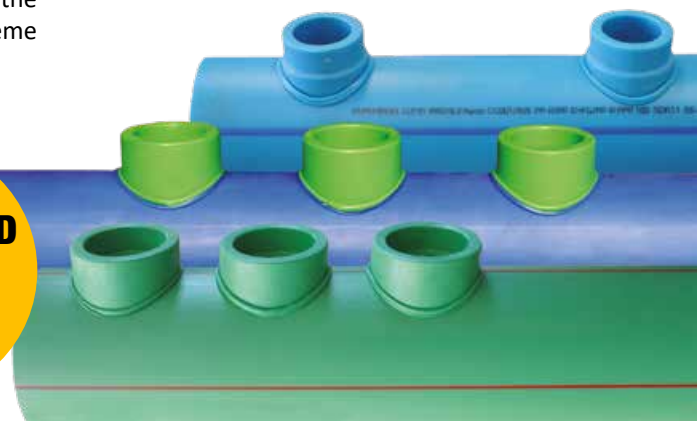
PERFECT COUPLING

Once fixed on the heating plate, the misalignment between male/female spigots is no longer a problem. Whether it is the heating or welding phase, the free rotation of the holding spindle always gives perfect coupling between the socket / fitting holder / pipe. This detail guarantees accuracy throughout the whole welding cycle.



The fixing system is designed to work on the entire circumference of the pipe making the UP 125 an extreme versatile tool.

**MULTIBRAND
PIPES
FITTINGS**





1 - Precise pipe marking system



2 - Accurate centering of drilling area



3 - Heating



4 - Welding

TECHNICAL FEATURES



Welding range (main pipe)	Ø 63 ÷ 630 mm
Welding range (saddle fitting)	Ø 32 ÷ 125 mm
Materials	PP, PE (and other thermoplastic materials)
Weight (machine, fixing tool and flywheel)	8 Kg; 17,6 lb
Case weight	7 Kg; 15.5 lb
Weight tot. Standard composition	22,5 Kg; 49.6 lb
Max. size UP 125 on site	520 x 500 x 260 mm 20.5" x 19.7" x 9.8"
Transport case size	420 x 580 x 177 mm 16.5" x 22.8" x 7"



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 welding machine is available with sockets & spigots supplied: Type A, Type B and Type AQ.
The R 125 Q is available in 110 and 230 V.

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, B or AQ type) sockets & spigots
- Transport case for socket welder and sockets & spigots
- Transport case for machine body
- Sustaining handle and tool kit



**WORKS
IN TIGHT
SPACES**

**TFE
FIXED
ELECTRONIC
TEMPERATURE**

**AUTO
CENTERING
CLAMPS**

**REMOVABLE
FRAME**

**TYPE
A, B AQ
SOCKETS
AND SPIGOTS**



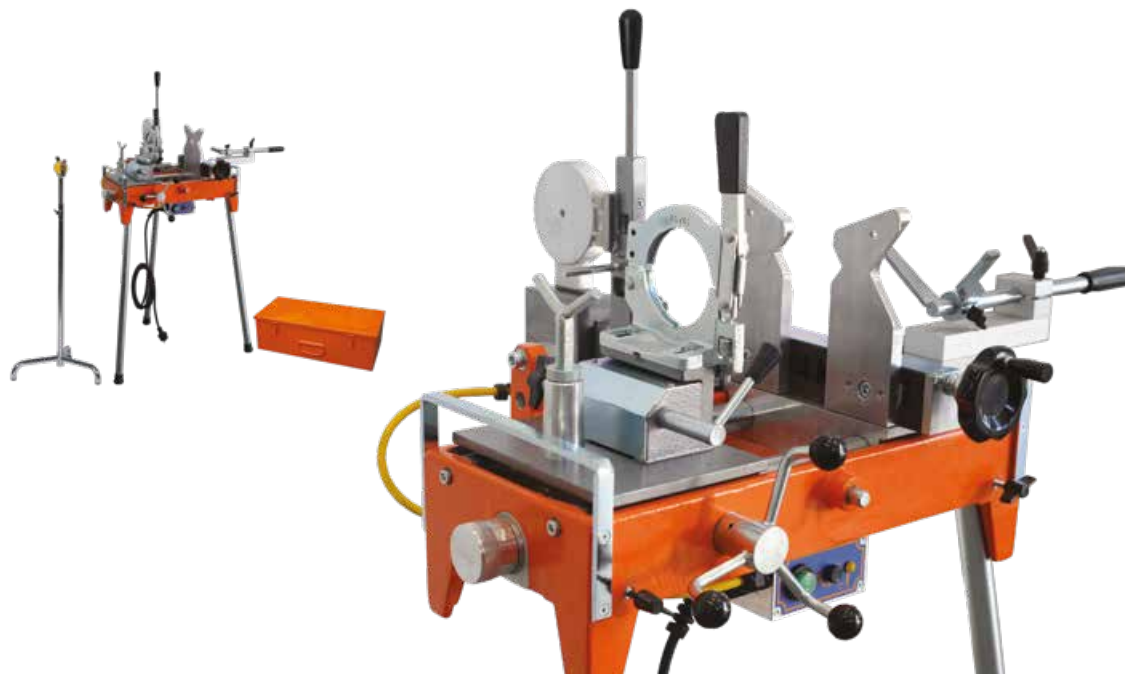
TECHNICAL FEATURES

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
Total absorbed power	1400 W
Outside temperature range	260° (± 10° C) 500° F (± 50° F)
Working temperature	-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"
Dimensions Socket welder	175 x 50 x 395 mm 6.9" x 2" x 15.5"
Transport case Prisma Jig	390 mm 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)

**STEEL
CLAMPS
20÷63 mm
(ON REQUEST)**



PRISMA 90



This workshop/construction site welding machine is suitable for the socket fusion of pipes and fittings up to an OD of 90 mm, in accordance with the standards in force.

The PRISMA 90 is composed of a machine body featuring a selector for the welding depths of the different diameters, an adjustable clamp for locking the pipes, a self-centring clamp for locking the fittings (different brands), a self-centring socket welder with electronic temperature control, a device for the maximum heating depth, three machine supporting legs, a tripod to support the pipe, a set of sockets and spigots for socket fusion from Ø 20 to Ø 90 mm.

The welding machine is available in two versions, depending on the type of sockets & spigots supplied:
PRISMA 90 type A and PRISMA 90 type B.

STANDARD COMPOSITION:

- Machine body complete with an electronic socket welder, fittings support and a "V" shaped pipe support;
- Machine support (composed of 3 legs);
- Steel case complete with sockets & spigots from Ø 20 to Ø 90 mm, centering devices from Ø 20 to Ø 90 mm, clamp adapters from Ø 20 to Ø 75 mm, and tool kit;
- Pipe support tripod.

ON REQUEST:

- Transport wooden case

TECHNICAL FEATURES

Working range	20 ÷ 90 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	1000 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	54 Kg (119 lb)
Dimensions machine working	650 x 1040 x 450 mm 25.6" x 40.9" x 17.7"
Transport case wood	710 x 630 x 460 mm 27.9" x 24.8" x 18.1"

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.

STANDARD COMPOSITION:

- bench with pneumatic cutter for cutting pipe segments to size
- a box for collecting the pieces.
- heating unit capable of preparing up to 10 shaped pipe segments with diameters from Ø 20 to 32 mm.
- double pressing/cooling station controlled by a control panel for thermoforming the fitting and subsequent cooling.

TECHNICAL FEATURES

Working range	Ø 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"



FM 630 - 125



**BRANCH
MANIFOLD**

**MILLIMETRIC
PRECISION**



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:

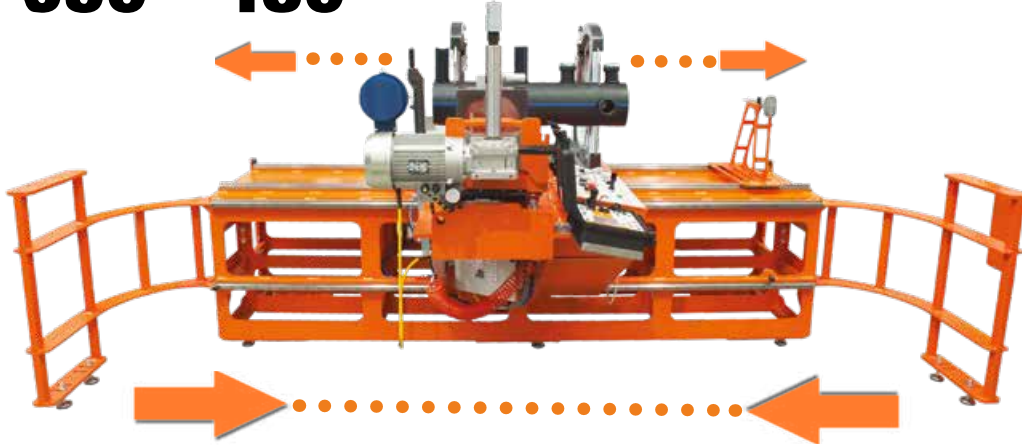
Saddle sockets available for different brands.

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, 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)



FM 630 - 180



With the FM 630-180 we have created a special welding machine that creates value in the construction of quality custom manifolds up to $\varnothing$ 630 mm. It doesn't matter whether you are a large industry or a small craftsman, what matters is that with FM 630-180 we have put ease of use in the work process at the center. With this extraordinary welder the operator is able to standardize the workflow with maximum flexibility and be able to weld with the choice of two work processes: butt or polyfusion in the socket.

The sturdy frame, the use of quality materials, the pneumatic welding cycle, the comfortable workstation, the millimetric positioning by the operator, the large control panel, are just some of the construction details that we have included in this powerful tool for your work. With FM 630-180 we have made something "extraordinary" "normal"!

BUTT FUSION

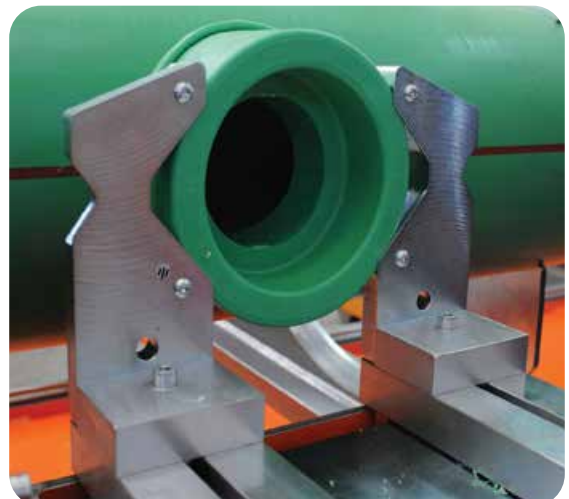
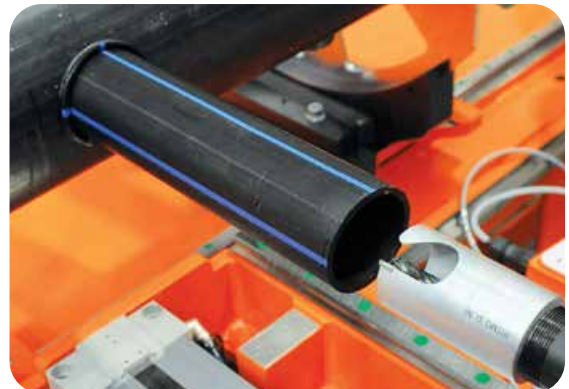
Butt welding allows the main pipe to be joined with pre-molded fittings or customized pipe lengths prepared by a radial cut. Saddle sockets are used for welding, drilling is carried out using special hole cutters.

With butt welding, manifolds from $\varnothing$ 50 ÷ 630 mm or 1" ÷ 24" IPS and with branch from $\varnothing$ 32 ÷ 180 mm or $\varnothing$ 1½" ÷ 6" IPS.

SOCKET FUSION

The self-centering clamp system combined with the perfect alignment between the fitting and the main pipe hole guarantees quality welds.

With socket welding, manifolds with $\varnothing$ 50 ÷ 630 mm and OD 1½" ÷ 24" and with branch from $\varnothing$ 20 ÷ 125 mm; OD ½" ÷ 5".



Materials	HDPE, PP, PP-R
Field of work BUTT FUSION	Main Pipe: $\varnothing$ 50 ÷ 630 mm; 1½" IPS ÷ 24" IPS Branch pipe/fitting: $\varnothing$ 32 ÷ 180 mm; 1" IPS ÷ 6" IPS
Field of work SOCKET FUSION	Main Pipe: $\varnothing$ 50 ÷ 630 mm; 1½" ÷ 24" Branch pipe/fitting: $\varnothing$ 20 ÷ 125 mm; ½" ÷ 4"
Power	230 V - 50 Hz
Max. absorbed power	3400 W
Ambient temperature	-5° ÷ 40° C (23 ÷ 104 F)
Pneumatic system requirements	Minimum 8 bar
Interfacial Pressure	PE 0.15 N/mm ² - PP 0.10 N/mm ²
Weight	1260 Kg (2777 lb)

SOCKET & SPIGOT

**WIDE
CHOICE
OF SIZES**



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

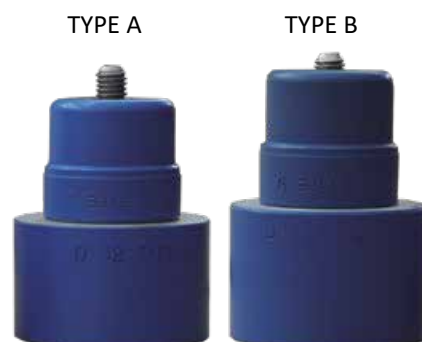
Ø ½" CTS SOCKET & SPIGOT
 Ø ¾" CTS SOCKET & SPIGOT
 Ø 1" CTS SOCKET & SPIGOT
 Ø 1¼" CTS SOCKET & SPIGOT

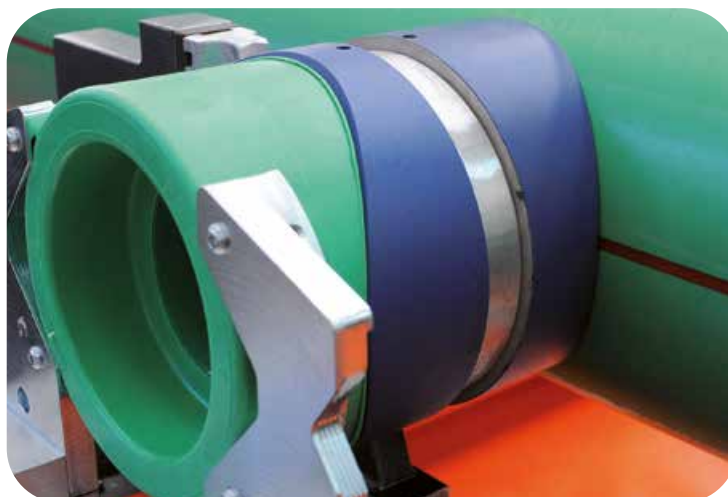
Saddles socket IPS

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 75-40 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

FITTINGS FABRICATION MACHINES

ALFA LINE



**COMPLETE
SYSTEM
METRIC
INCHES**

**EASY
TO USE**

**HIGH
PRODUCTIVITY**

ALFA is our range of workshop machines designed for your needs of simplicity of use and constant quality. For elbows, Ys, Ts or crosses, the complete control over the hydraulic system gives you the security that saves you time and money while also increasing productivity. The welding range is vast and can suit your needs with a capability of welding angles from Ø 90 mm up to 1600 mm or from 4" IPS to 63" IPS.

VERSATILE

- Material*: HDPE, PP
- Fittings: elbows, Ys, Ts, and crosses
- Jaws made for pipe in Millimeters or Inches
- Steel Jaws
- Steel Inserts
- Vast working range
- Welding through the Tablet
- Intuitive set-up

* For other material contact RITMO S.p.A.

PRECISE

- CNC weld cycle
- Data-logging included
- Top cylinder for high pressure
- Personalized welding parameters
- Report in PDF format or CSV
- Memory of welding cycles
- Turn handles to adjust pipe alignment

COMPLETE

- Jaws with hydraulic movement
- Hydraulic jaw closing system
- Electric facer with movement on spherical guide bearings
- Heating plate with movement on spherical guide bearings
- Hydraulic connections with quick disconnect for ease of use

WORKING RANGE Ø mm	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	1100	1200	1400	1600
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 CNC TAB																									
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 630 CNC TAB																									
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 CNC TAB																									
ELBOWS												355	400	450	500	560	630	710	800	900	1000				
Y - T - X												355	400	450	500	560	630	710	800						
ALFA 1200 CNC TAB																									
ELBOWS																	630	710	800	900	1000	-	1200		
Y - T - X																	630	710	800	900	1000				
ALFA 1600 CNC TAB																									
ELBOWS																560*	630*	710	800	900	1000	1100*	1200	1400	1600
Y - T - X																		710	800	900	1000	1100	1200		
WORKING RANGE Ø mm	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560	630	710	800	900	1000	1100	1200	1400	1600

*Standard composition Ø 710 ÷ 1600
On request Ø 560; Ø 630; Ø 1100

WORKING RANGE Ø IPS	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	42"	48"	54"	63"
ALFA 16 CNC TAB																						
ELBOWS	4"	5"	6"	8"	10"	12"	14"	16"														
Y - T - X	4"	5"	6"	8"	10"	12"																
ALFA 24 CNC TAB																						
ELBOWS				8"	10"	12"	14"	16"	18"	20"	22"	24"										
Y - T - X				8"	10"	12"	14"	16"	18"	20"	22"	24"										
ALFA 48 CNC TAB																						
ELBOWS												24"	26"	28"	30"	32"	34"	36"	42"	48"		
Y - T - X												24"	26"	28"	30"	32"	34"	36"				
ALFA 63 CNC TAB																						
ELBOWS												24"	26"	28"	30"	32"	34"	36"	42"	48"	54"	63"
Y - T - X												24"	26"	28"	30"	32"	34"	36"	42"	48"		
WORKING RANGE Ø IPS	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"	34"	36"	42"	48"	54"	63"

WORKING RANGE Ø DIPS	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"
ALFA 16 CNC TAB														
ELBOWS	4"	5"	6"	8"	10"	12"	14"							
Y - T - X	4"	5"	6"	8"	10"									
ALFA 24 CNC TAB														
ELBOWS				8"	10"	12"	14"	16"	18"	24"				
Y - T - X				8"	10"	12"	14"	16"	18"	24"				
ALFA 48 CNC TAB														
ELBOWS										24"	30"	36"	42"	
Y - T - X										24"	30"	36"		
WORKING RANGE Ø DIPS	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"



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 control is in the operator's hands. Every phase of the weld cycle is manually controlled: manual extraction of the heating plate.

Elbows
90 $\div$ 400 mm
4" $\div$ 16" IPS;
4" $\div$ 16" DIPS
0° $\div$ 60°



Wyes
90 $\div$ 355 mm
4" $\div$ 12" IPS;
4" $\div$ 10" DIPS
45° $\div$ 60°



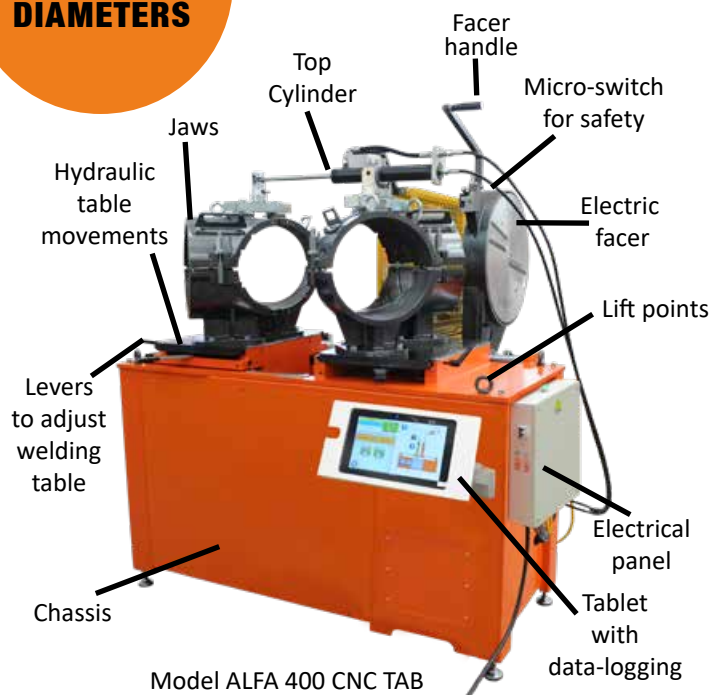
Tees/Crosses
90 $\div$ 355 mm
4" $\div$ 12" IPS;
4" $\div$ 10" DIPS



**SMALL
MEDIUM
DIAMETERS**

ALFA 400 CNC TAB ALFA 16 CNC TAB

Workshop welding machine are composed of 10" Android tablet mounted on an articulated and adjustable support. The new graphic interface of ALFA 400 TAB makes welding easier, while the "real-time connected" work cycle opens up new productivity scenarios for the customer. All jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.



Model ALFA 400 CNC TAB

CNC SAFE FAST WELDING

HOW IT WORKS

The operator is asked to SET-UP the welding cycle and the calculation of the drag pressure to the automatic management of the work cycle. Hardware and software communicate continuously with the exchange of information for the correct management of the work phases. The operator's function is one of control. In the exchange phase, the CNC system automatically manages the opening of the machine, the extraction of the heating plate and the subsequent joining of the pipe according to the requirements of the set standard. If for any reason you have the need to change pressures while the welding cycle is in effect, the software automatically resolves it. This results in more free time for the operator for other activities adding productivity.



- 1 – AUTOMATIC WELDING**
- 2 – ELIMINATES OPERATOR ERROR**
- 3 – DATA-LOGGING INCLUDED**
- 4 – PERSONALIZED PARAMETERS**
- 5 – WELDING REPORT**

**MORE
CONNECTED
WITH YOU**

A NEW MANAGEMENT OF YOUR WORK

Simplify and optimize your processes with our APP. Experience a new way of working.

SETUP AREA

Let our system guide you through the delicate setup phase in an easy and intuitive way. Just a few steps and you'll have the calculation of work parameters right away. Everything is done quickly, accurately, and ready to use. To be even faster, create a "welding archive" with your favorite configurations.

WELDING AREA

Our system automatically manages the work cycle, ensuring precise results and consistent quality over time.

OPTIONS AREA

Whether you are a solo welder or part of a team, activate additional features to work more efficiently, customized, and worry-free.

AND FURTHERMORE, YOU HAVE:

1 -EASY SHARING

Make your work more efficient with welding reports and your preferred setup always accessible quickly and easily via data backup over Wi-Fi, email, or within a shared network folder.

2 - DIAGNOSIS AND SUPPORT

Wherever you are, our technical support is always by your side for remote, real-time diagnosis to resolve minor issues or schedule maintenance.

3 - A NEW VALUE (OPTIONAL)

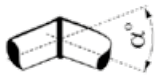
Do you want to monitor your productivity and have a comprehensive analysis in real time? With the OPC UA module (available upon request), you can open new horizons and create new value for your work by integrating the welder into your management system. This requires technical infrastructure and specific development based on customer needs.

ALFA 630 CNC TAB

ALFA 24 CNC TAB

Workshop welding machine designed to fabricate fittings like elbows, wyes, tees and crosses up to Ø 630 mm or 24" DIPS. It is composed of tablet that features the CNC system. All clamps movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

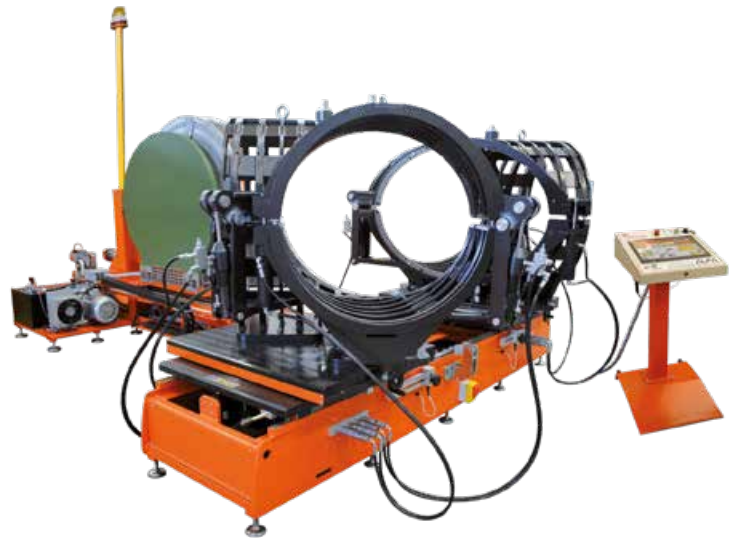
Elbows 225* ÷ 630 mm
8" ÷ 24" IPS;
8" ÷ 24" DIPS
0° ÷ 60°



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



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



Model ALFA 630 CNC

**LARGE
DIAMETERS**

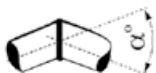


Model ALFA 1000 CNC

ALFA 1000 CNC TAB

Workshop welding machine designed to fabricate fittings like elbows up to Ø 1000 mm; wyves, tees and crosses up to Ø 800 mm. It is composed of tablet that features the CNC system. All jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

Elbows 355 ÷ 1000 mm
0° ÷ 60°



Wyres 355 ÷ 800 mm
45° ÷ 60°



Tees/Crosses
355 ÷ 800 mm



ALFA 1200 CNC TAB ALFA 48 CNC TAB

Workshop welding machine designed to fabricate fittings like elbows up to Ø 1200 mm or 48" DIPS; wyes, tees and crosses up to Ø 1000 mm or 36" DIPS. It is composed of tablet that features the CNC system. All jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

Elbows 630 ÷ 1200 mm
24" IPS ÷ 48" IPS
0° ÷ 60°

Wyes 630 ÷ 1000 mm
24" IPS ÷ 36" DIPS
45° ÷ 60°

Tees/Crosses
630 ÷ 1000 mm
24" IPS ÷ 36" DIPS



Model ALFA 1200 CNC TAB

**LARGE
DIAMETERS**



Model ALFA 1600 CNC TAB



Model ALFA 63" CNC TAB

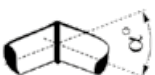
ALFA 1600 CNC TAB ALFA 63 CNC TAB

Workshop welding machine designed to fabricate fittings like elbows up to Ø 1600 mm or 63" IPS; wyes, tees and crosses up to Ø 1200 mm or 48" IPS. It is composed of tablet that features the CNC system. All jaws movements are electro-hydraulically operated, both the open/close movement and the blocking mechanism.

Elbows 710 ÷ 1600 mm
24" IPS ÷ 63" IPS
0° ÷ 60°

Wyes 710 ÷ 1200 mm
24" IPS ÷ 48" IPS
45° ÷ 60°

Tees/Crosses
710 ÷ 1200 mm
24" IPS ÷ 48" IPS



ALFA 400 CNC TAB
ALFA 16 CNC TAB
10" IP65 touchscreen tablet
Video resolution 1920 x 1080 pixel



**EASY
TO USE**



ALFA 630 CNC TAB
ALFA 24 CNC TAB
ALFA 1000 CNC TAB
ALFA 1200 CNC TAB
ALFA 48 CNC TAB
ALFA 1600 CNC TAB
ALFA 63 CNC TAB
15.6" IP65 touchscreen tablet
Video resolution 1920 x 1080 pixel



TOP CYLINDER

The system guarantees a homogenous hydraulic push for a correct application of force on the welding surface of the pipe.

The top cylinder uses are:

- Large wall thickness pipes
- High pressure values



Model ALFA 1600 CNC TAB

**QUALITY
ASSURED**

**SAFETY
FIRST**



EVERYTHING VISIBLE

The basic concept of safety is this with the Alfa: operator has maximum visibility and immediate control of intervention. The control panel is use data safe distance from the machine. Easily spotted and accessible are the emergency stop buttons, while the perimeter of the machine is protected by a cage that limits access to the facer and heater eliminating any risks.



TECHNICAL FEATURES	ALFA 400 MANUAL	ALFA 400 CNC TAB ALFA 16 CNC TAB	ALFA 630 CNC TAB ALFA 24 CNC TAB	ALFA 1000 CNC TAB	ALFA 1200 CNC TAB ALFA 48 CNC TAB	ALFA 1600 CNC TAB ALFA 63 CNC TAB
Hydraulic clamps open/close	-	-	√	√	√	√
Hydraulic closing movements locking/unlocking	-	-	√	√	√	√
Thin jaws	90 ÷ 400 mm on request	90 ÷ 400 mm on request	-	-	-	-
Tool for flange necks	on request	on request	-	-	-	-
Materials	HDPE, PP	HDPE, PP	HDPE, PP	HDPE, PP	HDPE, PP	HDPE, PP
Pressure range	0 ÷ 150 bar	0 ÷ 150 bar	0 ÷ 230 bar	0 ÷ 230 bar	0 ÷ 230 bar	0 ÷ 250 bar
Connections	-	USB port Type A	USB port Type A	USB port Type A	USB port Type A	USB port Type A
Tablet	-	10"	15,6"	15,6"	15,6"	15,6"
Wi-Fi	-	√	√	√	√	√
Welding report format	with Inspector 2.0 (on request)	PDF - CSV	PDF - CSV	PDF - CSV	PDF - CSV	PDF - CSV
Memory	with Inspector 2.0 (on request)	More than 16 Gigabytes	More than 16 Gigabytes	More than 16 Gigabytes	More than 16 Gigabytes	More than 16 Gigabytes
Pre-set customized	-	√	√	√	√	√
Ambient Temperature range	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)	-5° ÷ 40° C (23° ÷ 104° F)
Power supply (Vac)	230 V Single Ph 400 V Three ph	230 V Single Ph 400 V Three ph	400 V Three ph	400 V Three ph	400 V Three ph	400 V Three ph
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Absorbed power max	7400 W	7400 W	30000 W	38000 W	48600 W	92300 W
Dimension	152 x 207 x 180 cm 60" x 81.5" x 70.8"	152 x 207 x 180 cm 60" x 81.5" x 70.8"	294 x 456 x 200 cm 116" x 179" x 78.7"	298 x 456 x 306 cm 117" x 179" x 121"	460 x 325 x 266 cm 183" x 128" x 105"	736 x 448 x 284 cm 290" x 177" x 112"
Weight	647 Kg (1426 lb)	647 Kg (1426 lb)	3000 Kg (66130 lb)	3130 Kg (6900 lb)	6120 Kg (13500 lb)	8800 Kg (19400 lb)

OMEGA 400 - 315

OMEGA 630 - 315

**HYDRAULIC
CLAMPS**



OMEGA 400 - 315 and OMEGA 630 - 315 are a saddle fusion machines for workshop use.
Perfect to manufacture special parts, such as reduced tees and crosses for water pipeline used in drainage/sewerage applications.

OMEGA 400 - 315 Main pipe $\varnothing 90 \div 400$ mm; Branch Pipe $\varnothing 50 \div 315$ mm

OMEGA 630 - 315 Main pipe $\varnothing 90 \div 630$ mm; Branch Pipe $\varnothing 50 \div 315$ mm

Available a model OMEGA IPS (24" IPS - 12" IPS) Main pipe $\varnothing 3" \div 24"$ IPS; Branch Pipe $\varnothing 1\frac{1}{2}" \div 12"$ IPS

STANDARD COMPOSITION:

- Machine body with manual carriage for socket centring
- Hydraulic jaws for locking pipe & branches
- Side support for branches
- Quick release inserts
- Hydraulic movement of heating plate that can host male/female sockets with heating plate detaching device
- Reduced Tee Driller (on request)



**EASY LIFE
WELDING
SYSTEM**



REDUCING BRANCHES

OMEGA 400 - 315

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

OMEGA 630 - 315

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

OMEGA 24" - 12" IPS

Ø IPS BRANCH PIPE		1 1/2	2	2 1/2	3	4	5	6	8	10	12
Ø IPS MAIN PIPE	3	*	*	*	*	*	*	*	*	*	*
	4	*	*	*	*	*	*	*	*	*	*
	5	*	*	*	*	*	*	*	*	*	*
	6	*	*	*	*	*	*	*	*	*	*
	8	*	*	*	*	*	*	*	*	*	*
	10	*	*	*	*	*	*	*	*	*	*
	12	*	*	*	*	*	*	*	*	*	*
	14	*	*	*	*	*	*	*	*	*	*
	16	*	*	*	*	*	*	*	*	*	*
	18	*	*	*	*	*	*	*	*	*	*
	20	*	*	*	*	*	*	*	*	*	*
	22	*	*	*	*	*	*	*	*	*	*
	24	*	*	*	*	*	*	*	*	*	*



TECHNICAL FEATURES	OMEGA 400 - 315	OMEGA 630 - 315
Materials	HDPE, PP	HDPE, PP
Power supply	230 Vac 50/60 Hz	230 Vac 50/60 Hz
Total absorbed power	6500 W	6500 W
Working temperature	180° ÷ 280° C (356° ÷ 536° F)	180° ÷ 280° C (356° ÷ 536° F)
Weight: machine	760 Kg (1675lb)	760 Kg (1675 lb)
Weight: control panel	55 Kg (1740 lb)	55 Kg (1740 lb)
Dimensions: machine	1680 x 1600 x 1690 mm; 66.1" x 63" x 66.5"	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"	600 x 600 x 1150 mm; 23.6" x 23.6" x 45.2"

BAND SAW

FAST AND EXACT CUTTING



RADIUS 40 - 315



**RADIAL
CUT**

**SHORTEST
BRANCH
LENGHT
15 cm**

**MAIN PIPE
UP TO
630 mm**

**BRANCH
PIPE OD
40 ÷ 323 mm**

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 630-315 and OMEGA 400-315



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 60 Hz 230 Vac Single Phase 50 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"



SIGMA 500 PRO

SIGMA 500 PRO and SIGMA 800 PRO

SIGMA 500 PRO and SIGMA 800 PRO are workshop electric band-saw machines for plastic pipes HDPE, PP, PVDF, PVC and FIBERGLASS. They were specially designed to make angular cut, featuring a wide range of angles from - 45° to 67,5°. Thanks to a control blade guide can relieve the stress on the blade and helps reducing the ordinary technical maintenance.

SIGMA 500 PRO is provided with handle with safety micro-switch for manual moving. Handling is easy and is done by a forklift. Lateral motion on wheels has a locking system.

SIGMA 800 PRO is provided with special spherical bearings guides where the machine body can easily move sideward. It is equipped with control panel, located at a safety distance from the cutting area, the operator controls the manual movement of the arch saw (IN/OUT) and also adjusts and regulate the cutting speed.

They're the ideal equipment to match Alfa fittings fabrication machines. Both the preparation and cutting phases are extremely simple and safe to perform.

STANDARD COMPOSITION:

- Auxiliary bench for cutting tees

ON REQUEST:

- Pipe supporting table
- Scraps suction device
- Kit for cutting PP-RTC pipes

**SOLID WALL
PIPE**

**MEDIUM
DIAMETERS**

**SPIRAL
PIPE**

**CORRUGATED
PIPE**



SIGMA 800 PRO

**OPERATOR
SAFETY
POSITION**



****ANGLES 0°**

Ø 90 ÷ 800 mm
3" IPS ÷ 30" IPS

****ANGLES
-30° + 67,5°**

Ø 90 ÷ 800 mm
3" IPS ÷ 30" IPS

****ANGLES**

-45° + 67,5°

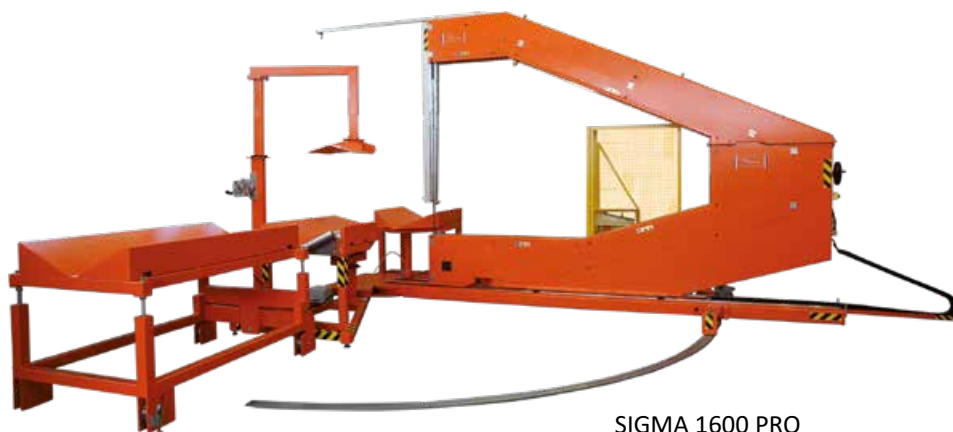
Ø 90 ÷ 655 mm
3" IPS ÷ 24" DIPS



Kit for cutting PP-RTC pipes.
(On request)

TECHNICAL FEATURES	SIGMA 500 PRO	SIGMA 800 PRO
Working range	60 ÷ 500 mm; 90* ÷ 500 mm	**90 ÷ 800 mm; 3" IPS ÷ 30 IPS"
Working range angles	from - 45° to + 67,5°	**from -45° to + 67,5°
Materials	FIBERGLASS, 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 230 V 3F+N+PE 50/60 Hz 230 V Single Phase 50/60 Hz	400 V 3F+N+PE 50/60 HZ
Total absorbed power	860 W	3400 W
Weight	340 Kg (749,5 lb)	950 Kg (2094,4 lb)
Dimensions	2433 x 3105 x 2333 mm 95,7" x 122.2" x 91.8"	4340 x 3460 x 2681 mm 170.9" x 136.2" x 105.5"

*With auxiliary bench for cutting Tees



SIGMA 1600 PRO

SIGMA 1200 PRO and SIGMA 1600 PRO

SIGMA 1200 PRO and SIGMA 1600 PRO are electric workshop band saw machines, for plastic pipes up to OD 1290 mm (48" DIPS) and OD 1702 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:

- Auxiliary bench for cutting tees
- Support kit for the pipe sectors

ON REQUEST:

- Scraps suction device.

**SOLID WALL
PIPE**

**LARGE
DIAMETERS**

**SPIRAL
PIPE**

**CORRUGATED
PIPE**



SIGMA 1200 PRO



**OPERATOR
SAFETY
POSITION**



TECHNICAL FEATURES	SIGMA 1200 PRO	SIGMA 1600 PRO
Working range	200 ÷ 1290 mm; 8" IPS ÷ 48" DIPS OD contact RITMO S.P.A.	200 ÷ 1702 mm; 8" IPS ÷ 67" OD contact RITMO S.P.A.
Working range angles	from -45° to 67,5°	from -45° to 67,5°
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	4600 W	4600 W
Weight	4380 Kg (9656 lb)	4690 Kg (10340 lb)
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"

PLASTIC FABRICATION

THE RESULT ALWAYS DEPENDS ON YOUR CHOICES



NEW TECHNOLOGY BEST PERFORMANCE

STARGUN is a complete extruder line able to offer the best technological solutions for extrusion welding.

**HDPE
PP
PVDF***

* check specifications
on each model

UNO

Quality, ergonomics, precision.
A compact and user-friendly products with an innovative design.



**DOUBLE TEMPERATURE
CONTROL:
AIR / PLASTIFICATION
WELDING ACCORDING
D.V.S. 2207-4**

Stargun LINK models 20/30/40

Quality, manageability, design. Three compact and user-friendly products.
The right choice for those who put quality in first place.



**DOUBLE TEMPERATURE
CONTROL:
AIR / PLASTIFICATION
WELDING ACCORDING
D.V.S. 2207-4**

Stargun K-SB models 50/60

Power and lightness. The strength of these models is their output.
The weight-power ratio combined with the high output make those extruders unique.



**DOUBLE TEMPERATURE
CONTROL:
AIR / PLASTIFICATION
WELDING ACCORDING
D.V.S. 2207-4**

Stargun SOLO models 20/30/40

Reliability and tradition. Three products that are not just a restyling, but a new concept: Simplification.
A reference for those who look for practicality at a fair price.



**SINGLE TEMPERATURE
CONTROL: HOT AIR**

UNO



LIGHT
3,4 Kg - 7.5 lb

COMPACT

POWERFUL
up to 1 Kg/h
2,2 lb/h

UNO – the extruder designed to fill the void, the latest innovative Ritmo concept in hand extrusion welding. UNO is the ultimate result of the dynamic study of perfection, of the attentive care for design and of the meticulous research for values in every detail. This new hand extruder is not only a working tool but the highest expression of welding quality and ergonomics, an unforgettable welding experience characterized by the perfect balance between human mind and technology.

QUALITY

- Compliant with DVS 2207-4 (double temperature control Preheatig - Plastification)
- Double rod inlet
- Materials: HDPE, PP, PVDF
- 360° rotating welding shoe
- Productivity up to 1 Kg/h - 2.2 lb
- Detachable handle
- Extrusion speed control also without handle
- Air cleaning filters
- Extruder support with air deflector

ERGONOMIC

- Design Made in Italy
- Light (weight 3.4 Kg, 7.5 lb)
- Compact
- Non-slip rubber
- One-hand safe grip
- Weight balance
- Retractable hooking system

PRECISION

- Interchangeable welding shoes
- High intensity led ring light
- Preloaded welding parameters
- Possibility to set customized welding parameters
- Handle detachment without switching off
- Motor cold start protection

EASIER THAN THIS !

PATENTED

Dont' stop me!

The handle detachment is easy and fast, the extruder doesn't need to be switched off and in a few seconds it is possible to switch to the compact configuration which is particularly suitable for narrow spaces. The welding speed can be adjusted in both configurations thanks to a potentiometer.

1 - DETACH



2 - INSERT



3 - READY



No thermal dispersion deflectors:
it optimally preheats the Teflon shoe.



Conical
alluminium
welding shoe
76779233B



Materials	HDPE, PP, PVDF For other materials contact RITMO S.P.A
Rods	Ø 3-4 mm 1/8" - 5/32"
Productivity	up to 1 Kg/h rod Ø 4 mm 2.2 lb with rod Ø 5/32"
Power supply	Mod. 110 V - 60 Hz Mod. 230 V - 50÷60 Hz
Absorbed power	1750 W
Weight	3,4 Kg - 7.5 lb without power supply cable
Overall dimensions with handle	354 x 273 x 96 mm 14" x 10.7" x 3.7"
Overall dimensions without handle	354 x 173 x 96 mm 14" x 6.8" x 3.7"
Transport case dimensions	500 x 450 x 140 mm 19.6" x 17.7 x 5.5"
Acoustic emissions	< 70 dBA

LINK 20



Stargun LINK 20 is the most compact and light extruder of the product range. Its geometry combined with the reduced weight make this extruder the ideal solution to work in narrow places. The welding quality is guaranteed by the motor speed adjustment and the thermoregulator with double temperature control: air and plastification.

- Backlight display
- Triple LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Independent blower
- Double T° thermoregulator: air/platification
- Rotating handle
- External fuse with simple access
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

LINK 20 with transport case and

- Rotating welding shoe mod. 90° - a 7 mm cod. 86777821
- Rotating welding shoe mod. V Flat 10/12 mm cod. 86777830

On request:

Wide range of welding shoes

Materials	HDPE, PP, PVDF
Rods	Ø 3 - 4 mm; 1/8" - 5/32"
Sheets	1,5 ÷ 20 mm 1/16" ÷ 0.8"
* Output up to	2,2 Kg/h HDPE rod Ø 4 mm 5/32"
Dimensions	510 x 260 x 110 mm 20" x 10.2" x 4,3"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3100 W
Weight	6,5 Kg (14.3 lb)

Product code

LINK 20 CE plug 97800100

LINK 20 Schuko plug 97800102

LINK 30



Stargun LINK 30 is able to weld wire of Ø 3-4-5 mm. Its output (up to 3,2 kg/h) together with its manageability make the LINK 30 the most versatile of the product range. The welding quality is guaranteed by the motor speed adjustment and the thermoregulator with double temperature control: air and plastification.

- Backlight display
- Triple LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Independent blower
- Double T° thermoregulator: air/platification
- Rotating handle
- External fuse with simple access
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

LINK 30 with transport case and

- Rotating welding shoe mod. 90° - a 10,5 mm cod. 86777823
- Rotating welding shoe mod. V Flat - 15 mm cod. 86777831

On request:

Wide range of welding shoes and Geotextile kit.

Materials	HDPE, PP, PVDF
Rods	Ø 3 - 4 - 5 mm 1/8" - 5/32" - 3/16"
Sheets	1,5 ÷ 30 mm 1/16" ÷ 1.1"
* Output up to	3,2 Kg/h HDPE rod Ø 5 mm 3/16"
Dimensions	540 x 260 x 110 mm 21.2" x 10.2" x 4,3"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3500 W
Weight	6,8 Kg (15 lb)

Product code

LINK 30 CE plug 97800110

LINK 30 Schuko plug 97800112

* The output varies
depending on the material

LINK 40



Stargun LINK 40 is an extruder with high output able to extrude up to 4 kg/h. Its power combined with the manageability make it a high productive extruder. The welding quality is guaranteed by the motor speed adjustment and the thermoregulator with double temperature control: air and plastification.

- Backlight display
- Triple LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Independent blower
- Double T° thermoregulator: air/plastification
- Rotating handle
- External fuse with simple access
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

- Link 40 with transport box and
- Rotating welding shoe mod. 90° - a 10,5 mm cod. 86777823
- Rotating welding shoe mod. V Flat - 15 mm cod. 86777831

On request:

Wide range of welding shoes and Geotextile kit

Materials	HDPE, PP
Rods	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 mm 3/16"
Dimensions	640 x 200 x 100 mm 25.2" x 7.8" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3500 W
Weight	7,6 Kg (16.7 lb)

* The output varies depending on the material

Product code

LINK 40 CE plug 97800120

LINK 40 Schuko plug 97800122



SOLO 20



Product code
SOLO 20 CE plug 97800130
SOLO 20 Schuko plug 97800132

Stargun SOLO 20 is an essential extruder able to perform quality weldings. Solid, compact, reliable, the extruder is equipped with a motor potentiometer for the speed adjustment and a security system "motor block" to prevent cold starts. The temperature control is on the blower and can be set on the control panel.

- Backlight Display
- Double LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Single T° thermoregulator: air
- Rotating handle
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

SOLO 20, transport case and extruder support;
- Rotating welding shoe mod. 90° - a 7 mm cod. 86777821
- Rotating welding shoe mod. V Flat 10/12 mm cod. 86777830

On request:

Wide range of welding shoes

Materials	HDPE, PP
Rods	Ø 3 - 4 mm; 1/8" - 5/32"
Sheets	1,5 ÷ 20 mm; 1/16" ÷ 0.8"
* Output up to	2,2 Kg/h HDPE rod Ø 4 mm; 5/32"
Dimensions	450 x 310 x 100 mm; 17.7" x 12.1" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	2700 W
Weight	6,85 Kg (15.1 lb)

* The output varies depending on the material

SOLO 30



Product code
SOLO 30 CE plug 97800140
SOLO 30 Schuko plug 97800142

Stargun SOLO 30 is essential, versatile, solid combined with qualities such as compactness, quality and reliability. The extruder welds with Ø 3-4-5 mm wire; it is equipped with a motor potentiometer for the speed adjustment and a security system "motor block" to prevent cold starts. The temperature control is on the blower and can be set on the control panel.

- Backlight Display
- Double LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Single T° thermoregulator: air
- Rotating handle
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

SOLO 30, transport case and extruder support;
- Rotating welding shoe mod. 90° - a 105, mm cod. 86777823
- Rotating welding shoe mod. V Flat - 15 mm cod. 86777831

On request:

Welding shoes, KIT Geotextiles

Materials	HDPE, PP
Rods	Ø 3 - 4 - 5 mm; 1/8" - 5/32" - 1/16"
Sheets	1,5 ÷ 30 mm; 1/16 ÷ 1.1"
* Output up to	3,2 Kg/h HDPE rod Ø 5 mm 3/16"
Dimensions	500 x 310 x 100 mm 19.6" x 12.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3100 W
Weight	7,1 Kg (15.6 lb)

SOLO 40



Stargun SOLO 40 is essential, reliable and solid with a high output; it is equipped with a motor potentiometer for the speed adjustment and a security system "motor block" to prevent cold starts. The temperature control is on the blower and can be set on the control panel.

- Backlight Display
- Double LEDs for the lightening of the welding area
- Potentiometer; security system "motor block/cold start"
- Single T° thermoregulator: air
- Rotating handle
- 360° rotating welding shoes. Easily replaceable.

Standard equipment:

- SOLO 40, transport case and extruder support;
- Rotating welding shoe mod. 90° - a 10,5 mm cod. 86777823
 - Rotating welding shoe mod. V Flat - 15 mm 86777831

On request:

Welding shoes, KIT geotextiles, KIT back handle

Product code

SOLO 40 CE plug 97800150

SOLO 40 Schuko plug 97800152

Materials	HDPE, PP
Rods	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 mm 3/16"
Dimensions	550 x 310 x 100 mm 21.6" x 12.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	3300 W
Weight	7,6 Kg (16,7 lb)

* The output varies depending on the material



**KIT
BACK HANDLE**

K-SB 50



The powerful Stargun K-SB 50 is essential for all those jobs that require a high quantity of extruded material. K-SB 50 is suitable for welding linings, geo-textiles, sheets and thick pipes and for all kind of applications that need to resist against continuous stress. Output up to 4,5 kg/h.

- Security system "motor block/cold start"
- Independent blower
- Backlight display
- Double LEDs for the lightening of the welding area
- Double T° thermoregulator: air/plastification
- Rotating handle

Standard equipment:

- K-SB 50 back handle, fixed lateral preheating with nozzle 32 mm (78947864C)
- Transport case with extruder support
- Welding shoe 90° fixed air - a 17,5 mm cod. 86777843
- Welding shoe V Flat fixed air - 25 mm cod. 86777851

On request:

Welding shoes, KIT rotating welding shoes

Materials	HDPE, PP
Rod	Ø 4 - 5 mm; 5/32" - 3/16"
Sheets	1,5 ÷ 40 mm; 1/16" ÷ 1.5"
*Output up to	4,5 Kg/h HDPE rod Ø 5; 3/16"
Dimension: Back Handle	720 x 260 x 100 mm 28.3" x 10.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	4000 W
Weight	9 Kg (19.8 lb)

K-SB 60



The powerful Stargun K-SB 60 is essential for all those jobs that require a high quantity of extruded material. K-SB 60 is suitable for welding linings, geo-textiles, sheets and thick pipes and for all kind of applications that need to resist against continuous stress. Output up to 6,2 kg/h.

- Security system "motor block/cold start"
- Independent blower
- Backlight display
- Double LEDs for the lightening of the welding area
- Double T° thermoregulator: air/plastification
- Rotating handle

Standard equipment:

- K-SB 60 back handle, fixed lateral preheating with nozzle 32 mm (78947864C)
- Transport case with extruder support
- Welding shoe 90° fixed air - a 21 mm cod. 86777844
- Welding shoe V Flat fixed air - 30 mm cod. 86777852

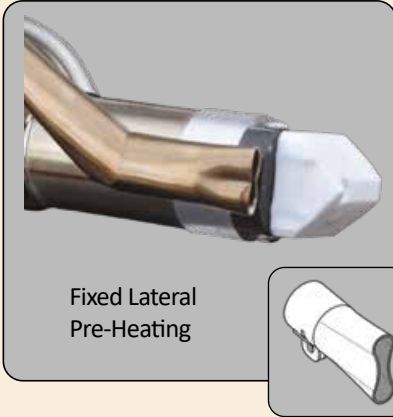
On request:

Welding shoes, KIT rotating welding shoes 360°
KIT Geotextile

Materials	HDPE, PP
Rod	Ø 4 - 5 mm; 5/32" - 3/16"
Sheets	1,5 ÷ 40 mm; 1/16" ÷ 1.5"
*Output up to	6.2 Kg/h HDPE rod Ø 5; 3/16"
Dimension	730 x 260 x 100 mm 28.7" x 10.2" x 3.9"
Power supply	230 Vac 50/60 Hz
Total absorbed power	4200 W
Weight	9,3 Kg (20.5 lb)

* The maximum extruded capacity varies depending on the material

STANDARD COMPOSITION K-SB 50 and K-SB 60



Fixed Lateral
Pre-Heating



Nozzle 32 mm
78947864C

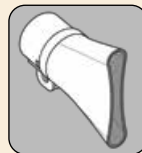
(On request) LATERAL PRE-HEATING NOZZLE



Nozzle 18 mm
78947844C



Nozzle 25 mm
78947854C



Nozzle 48 mm
78947874C



Shoes Fixed Lateral
Pre-Heating
(See table below)

SHOES FIXED - LATERAL PRE- HEATING - ACCORDING TO DVS STANDARD						
Model	Sheets thickness	Article	Model	V weld "S"	X weld "S"	Article
90° - a 7 mm	10 mm	86777839	V Flat - 8	8 mm	16 mm	86777847
90° - a 8,4 mm	12 mm	86777840	V Flat - 10/12	10 - 12 mm	20 - 25 mm	86777848
90° - a 10,5 mm	15 mm	86777841	V Flat - 15	15 mm	30 mm	86777849
90° - a 14 mm	20 mm	86777842	V Flat - 20	20 mm	35 - 40 mm	86777850
90° - a 17,5 mm	25 mm	86777843	V Flat - 25	25 mm	-	86777851
90° - a 21 mm	30 mm	86777844	V Flat - 30	30 mm	-	86777852
90° - a 24,5 mm	35 mm	86777845	V Flat - 35	35 mm	-	86777853
90° - a 28 mm	40 mm	86777846	V Flat - 40	40 mm	-	86777854



Shoes Fixed Lateral
Pre-Heating

ON REQUEST



360° Pre-Heating



Kit 360°
Pre-Heating
adapter
81567801



SHOES 360°
Rotating
(See table
on page 138)

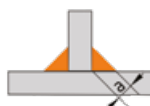


K-SB 50 / K-SB 60
Geo-textiles configuration

360° ROTATING SHOE COMPLETE WITH HOLDER - ACCORDING DVS STANDARD

Model	Sheet thickness	Article	UNO	LINK 20	LINK 30	LINK 40	K-SB 50	K-SB 60	SOLO 20	SOLO 30	SOLO 40
90° - a 2.8 mm	4 mm	86777864	√	-	-	-	-	-	-	-	-
90° - a 4.2 mm	6 mm	86777860	√	-	-	-	-	-	-	-	-
90° - a 5.6 mm	8 mm	86777861	√	-	-	-	-	-	-	-	-
90° - a 7 mm	10 mm	86777862	√	-	-	-	-	-	-	-	-
90° - a 8,4 mm	12 mm	86777863	√	-	-	-	-	-	-	-	-
90° - a 4.2 mm	6 mm	86777819	-	√	-	-	-	-	√	-	-
90° - a 5.6 mm	8 mm	86777820	-	√	√	√	-	-	√	√	√
90° - a 7 mm	10 mm	86777821	-	√	√	√	√*	√*	√	√	√
90° - a 8,4 mm	12 mm	86777822	-	√	√	√	√*	√*	√	√	√
90° - a 10,5 mm	15 mm	86777823	-	√	√	√	√*	√*	√	√	√
90° - a 14 mm	20 mm	86777824	-	√	√	√	√*	√*	√	√	√
90° - a 17,5 mm	25 mm	86777825	-	-	√	√	√*	√*	-	√	√
90° - a 21 mm	30 mm	86777826	-	-	√	√	√*	√*	-	√	√
90° - a 24,5 mm	35 mm	86777827	-	-	-	-	√*	√*	-	-	-
90° - a 28 mm	40 mm	86777828	-	-	-	-	√*	√*	-	-	-

360° ROTATING WELDING SHOE 90° WELDING

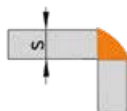


√* require ADAPTER 360° PRE-HEATING

360° ROTATING SHOE COMPLETE WITH HOLDER - ACCORDING DVS STANDARD

Model	Sheet thickness	Article	UNO	LINK 20	LINK 30	LINK 40	K-SB 50	K-SB 60	SOLO 20	SOLO 30	SOLO 40
90° corner outside	4 mm	86777864	-	-	-	-	-	-	-	-	-
90° corner outside	6 mm	86777860	-	-	-	-	-	-	-	-	-
90° corner outside	8 mm	86777861	-	-	-	-	-	-	-	-	-
90° corner outside	10 mm	86777862	-	-	-	-	-	-	-	-	-
90° corner outside	12 mm	86777863	-	-	-	-	-	-	-	-	-
90° corner outside	6 mm	86777819	-	-	-	-	-	-	-	-	-
90° corner outside	8 mm	86777870	-	√	√	√	-	-	√	√	√
90° corner outside	10 mm	86777871	-	√	√	√	√*	√*	√	√	√
90° corner outside	12 mm	86777872	-	√	√	√	√*	√*	√	√	√
90° corner outside	15 mm	86777873	-	√	√	√	√*	√*	√	√	√
90° corner outside	20 mm	86777874	-	-	-	√	√*	√*	-	-	√

360° ROTATING WELDING SHOE 90° CORNER OUTSIDE



√* require ADAPTER 360° PRE-HEATING

360° ROTATING WELDING SHOE V FLAT - ACCORDING DVS STANDARD

Model	V welding "S"	X welding "S"	Article	UNO	LINK 20	LINK 30	LINK 40	K-SB 50	K-SB 60	SOLO 20	SOLO 30	SOLO 40
V Flat - 6	6 mm	12 mm	86777865	√	-	-	-	-	-	-	-	-
V Flat- 8	8 mm	16 mm	86777866	√	-	-	-	-	-	-	-	-
V Flat 10/12	10 - 12 mm	20 - 25 mm	86777867	√	-	-	-	-	-	-	-	-
V Flat - 8	8 mm	16 mm	86777829	-	√	√	√	√*	√*	√	√	√
V Flat 10/12	10 - 12 mm	20 - 25 mm	86777830	-	√	√	√	√*	√*	√	√	√
V Flat 15	15 mm	30 mm	86777831	-	√	√	√	√*	√*	√	√	√
V Flat 20	20 mm	40 mm	86777832	-	√	√	√	√*	√*	√	√	√

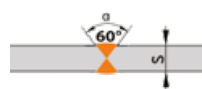
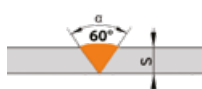
√* require ADAPTER 360° PRE-HEATING

360° ROTATING WELDING SHOE V FLAT



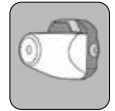
V - saldatura "S"

X - saldatura "S"



ACCESSORIES ON REQUEST ROTATING SHOE										
Model	Article	UNO	LINK 20	LINK 30	LINK 40	K-SB 50	K-SB 60	SOLO 20	SOLO 30	SOLO 40
CONICAL 11	86777868	✓	-	-	-	-	-	-	-	-
CONICAL 14	86777818	-	✓	✓	✓	✓*	✓*	✓	✓	✓
CONICAL 20	86777817	-	✓	✓	✓	✓*	✓*	✓	✓	✓
CONICAL ALUMINIUM SHOE	86777876	✓	-	-	-	-	-	-	-	-
GEOTEXTILE TEFLON SHOE	86777814	-	-	-	✓	✓*	✓*	✓	✓	✓
GEOTEXTILE SHOE 30 / 2,5 mm	86777834	✓	✓	✓	✓	✓*	✓*	✓	✓	✓
GEOTEXTILE SHOE 35 / 2,5 mm	86777836	-	✓	✓	✓	✓*	✓*	✓	✓	✓
TEFLON BLOC 39x37x30 mm	86777812	-	✓	✓	✓	✓*	✓*	✓	✓	✓
SPECIAL SHOE SUPPORT 90°	80047820	-	✓	✓	✓	✓*	✓*	✓	✓	✓
SPECIAL SHOE SUPPORT 45°	80047830	-	✓	✓	✓	✓*	✓*	✓	✓	✓
SPECIAL CORRUGATED SHOE	76777840	-	✓	✓	✓	✓*	✓*	✓	✓	✓
SPECIAL CORRUGATED SHOE 180 mm	86777800	-	✓	✓	-	-	-	✓	✓	-

✓* require ADAPTER 360° PRE-HEATING


Conical 20
86777817

Conical 14
86777818

Geotextile
86777814

PRODUCTS OVERVIEW



	LINK 20	LINK 30	LINK 40	K-SB 50	K-SB 60	SOLO 20	SOLO 30	SOLO 40
Materials	HDPE; PP, PVDF	HDPE; PP, PVDF	HDPE; PP	HDPE; PP	HDPE; PP	HDPE; PP	HDPE; PP	HDPE; PP
Max. Output HDPE the output varies according to the material)	2,2 Kg/h rod Ø 4 mm (5/32")	3,2 Kg/h rod Ø 5 mm (3/16")	4 Kg/h rod Ø 5 mm (3/16")	4,5 Kg/h rod Ø 5 mm (3/16")	6,2 Kg/h rod Ø 5 mm (3/16")	2,2 Kg/h rod Ø 4 mm (5/32")	3,2 Kg/h rod Ø 5 mm (3/16")	4 Kg/h rod Ø 5 mm (3/16")
Usable rod Ø	3-4 mm 1/8" - 5/32"	3-4-5 mm 1/8" 5/32" 1/16"	4-5 mm 5/32" 3/16"	4-5 mm 5/32" 3/16"	4-5 mm 5/32" 3/16"	3-4 mm 1/8" - 5/32"	3-4-5- mm 1/8" 5/32" 1/16"	4-5 mm 5/32" 3/16"
Weldable sheet/foil (thickness)	1,5 ÷ 20 mm 1/16" ÷ 0.8"	1,5 ÷ 30 mm 1/16" ÷ 1.1"	1,5 ÷ 30 mm 1/16" ÷ 1.1"	1,5 ÷ 40 mm 1/16" ÷ 1.5"	1,5 ÷ 40 mm 1/16" ÷ 1.5"	1,5 ÷ 20 mm 1/16" ÷ 0.8"	1,5 ÷ 30 mm 1/16" ÷ 1.1"	1,5 ÷ 30 mm 1/16" ÷ 1.1"
Temperature control	Double	Double	Double	Double	Double	Single	Single	Single
Lateral fix air flow	-	-	-	✓	✓	-	-	-
360° rotating air flow and welding shoe	✓	✓	✓	On request	On request	✓	✓	✓
Graphic display	✓	✓	✓	✓	✓	✓	✓	✓
Potentiometer	✓	✓	✓	✓	✓	✓	✓	✓
Security sistem motor block / cold start	✓	✓	✓	✓	✓	✓	✓	✓
Dimensions cm / in	51 x 26 x 10 20"x10.2"x4.3"	54 x 26 x 10 21.2"x10.2"x4.3"	64 x 26 x 10 25.2"x10.2"x4.3"	Back Handle 72 x 26 x 10 28.3"x10.2"x4.3"	73 x 26 x 10 28.3"x10.2"x4.3"	45 x 31 x 10 17.7"x12.2"x4.3"	50 x 31 x 10 16.9"x12.2"x4.3"	55 x 31 x 10 21.6"x12.2"x4.3"
Power supply	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz	230 V 50/60 Hz
Absorbed power	3100 W	3500 W	3500 W	4000 W	4200 W	2700 W	3100 W	3300 W
Weight Kg / lb	6,5 Kg (14.3 lb)	6,8 Kg (15 lb)	7,6 Kg (16.7 lb)	9 Kg (19.8 lb)	9,3 Kg (20.5 lb)	6,85 Kg (15.1 lb)	7,1 Kg (15.6 lb)	7,6 Kg (16.7 lb)

CADDY - ARM & VEST FOR STARGUN LINK/SOLO



**WEIGHT
REMOVAL**

CADDY ARM & VEST is the solution designed by Ritmo for those who use welding extruders continuously. Thanks to a cushioning articulated arm, CADDY enables complex and fluid operator movements with the minimum effort. It can be used with Link and Solo series.

Two technical solutions are offered as standard.

A moving platform on which the cushioned system is installed. It is height-adjustable over one metre and enables both horizontal and vertical welding.

A vest for the operator that enables free movement with the stabilized arm.

Weight vest	3,6 kg
Weight stabilized arm	2,4 Kg
Weight collar for Link	1 Kg
Weight collar for Solo	0,6 Kg
Weight stabilized platform	63 Kg
Total weight KIT	70,6 Kg
Dimensions stabilized base plate	700 x 700 x 1570 mm
Height-adjustability on stabilized base plate	1 m





FLOW LINE

FLOW Line is used for a limitless applications and sectors: plastic works, construction, material recycling, bumpers fixing, signage and so on.

Through a precise hot airflow (maximum temperature at 700° C) is possible to weld a plastic rod, performing repairs, bending materials, shaping, creating joints, overlapping sheaths and sheets, drying non-flammable paints and varnishes, defrosting etc.

The HD-PRO V1 and SPHERA models integrate powerful fan to guarantee a precise hot airflow that is necessary to use the tool at its best.

The STYLO V1 model is equipped with a temperature power regulator but it is very light and versatile as well, in fact it uses an external compressed air supply. These characteristics make STYLO V1 compact and handy. STYLO V1 is supplied with round nozzle 5 mm cod 67204000.

A large number of tips and accessories are available! Providing new solutions to always welding at best.

All models are available in 120V or 230V.



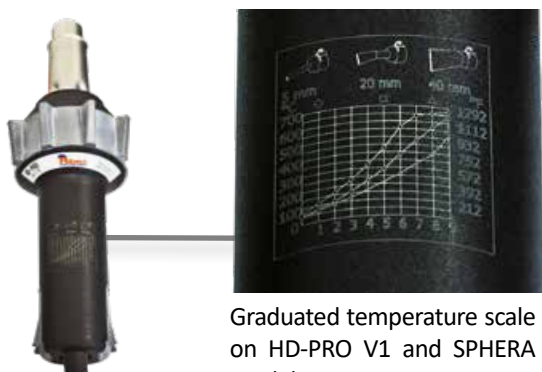
SPHERA



STYLO V1



HD - PRO V1



Graduated temperature scale on HD-PRO V1 and SPHERA models.



KIT HD - PRO v1

	HD - PRO V1	SPHERA	STYLO V1
Power supply	1600 W 230 V 50/60 Hz	1650 W 120 V 50/60 Hz 1500 W 230 V 50/60 Hz	1600 W 1230 V 50/60 Hz
Output Temperature	≤ 700° C	≤ 700° C	≤ 600° C
Air demand/ Air quantity	-	-	80 ÷ 250 l/min
Noise level	< 70 dB	< 70 dB	-
Weight	1,4 Kg with connection cable	1,4 Kg with connection cable	1,15 Kg
Protection class	II (double insulated)	II (double insulated)	II (double insulated)



Round nozzle 5 mm
cod 67204000
Standard composition
with STYLO V1 model

NOZZLES FOR ALL MODELS



Speed welding
round nozzle 3 mm
cod 67205010



Speed welding
round nozzle 4 mm
cod 67205011



Speed welding
round nozzle 5 mm
cod 67205012



Tacking tip
cod 67205015



Speed welding
triangular 5 mm
cod 67205013



Speed welding
triangular 5,7 mm
cod 67205000



Speed welding
triangular 7 mm
cod 67205001



Speed welding
triangular 7,5 mm
cod 67205014



Adapter with
female thread M10
cod 67204007

NOZZLES FOR ALL MODELS



Tacking tip with
thread M10
cod 67205004



Triangular nozzle
5 mm with
thread M10
cod 67205008



Triangular nozzle
5,7 mm with
thread M10
cod 67205002



Triangular nozzle
7 mm with
thread M10
cod 67205003



Triangular nozzle
7,5 mm with
thread M10
cod 67205009



Tacking tip
hooked with
thread M10
cod 67205017



Round nozzle
3 mm with
thread M10
cod 67205005



Round nozzle
4 mm with
thread M10
cod 67205006



Round nozzle
5 mm with
thread M10
cod 67205007

ACCESSORIES AND SPARE PARTS



Flat nozzle
20 mm
cod 67204002



Flat nozzle
20 mm 15°
cod 67204215



Flat nozzle
40 mm
cod 67204003



Flat perforated
nozzle 40 mm
cod 67204004



Shrink round
nozzle 15 mm
cod 67204005



Shrink reflector
cod 67205016



Weld seam slide
cod 67205021



Pressure roller
1-armed 28 mm
bearing mounted
cod 67206994



Pressure roller
2-armed 45 mm
bearing mounted
cod 67207000
cod 67206998



Pressure roller
1-armed 45 mm
bearing mounted
cod 67207001
cod 67206997



Pressure roller
80 mm
bearing mounted
cod 67207002
cod 67206996



Pressure roller
5 mm for round
wire
cod 67207005



Pressure roller
1-armed 45 mm
and 45°
cod 67207006
bearing mounted
cod 67206995



Grooving tool
cod 67207011



Quarter moon
knife
cod 67207010



Seam tester
cod 67207014



Insulating tube
cod 57214011



Heating element
230 V - 1500 W
cod 57102007

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



TECHNOLOGY AND QUALITY FOR PROFESSIONALS

Polyfusion is a complete sheet welding line able to offer the best technological solutions for plastic fabrication sheet welding.

POLYFUSION MANUAL models **2-25, 2-50, 2-100**

Manual hydraulic sheet welding machine up to max 2 m length, max 100 mm thickness.



**MANUAL
WELDING
CYCLE**

POLYFUSION PNEUMATIC models **3, 4**

Pneumatic CNC sheet welding machine up to max 4 m length, 50mm thickness.



**CNC
WELDING
CYCLE**

POLYFUSION HYDRAULIC models **3-30, 3-50, 4-30, 4-50**

Hydraulic CNC sheet welding machine up to max 4m length, 50mm thickness.



POLYFUSION 2-25

POLYFUSION 2-25 is a compact and easy to use manual welder for HDPE and PP sheets from two meters wide and 3÷25 mm or 1/8"÷1" thickness. The machine can operate in compliance with the DVS 2207-1 and DVS 2207-11.



**90° ANGLE
WELDING
DEVICE**
(on request)



Manual Control Panel



**MANUAL
SHEET
WELDING
MACHINE**

POLYFUSION 2-50

POLYFUSION 2-50 is a compact and easy to use manual welder for HDPE and PP sheets from two meters wide and 3÷50 mm or 1/8"÷2" thickness. The machine can operate in compliance with the DVS 2207-1 and DVS 2207-11.



POLYFUSION 2-100

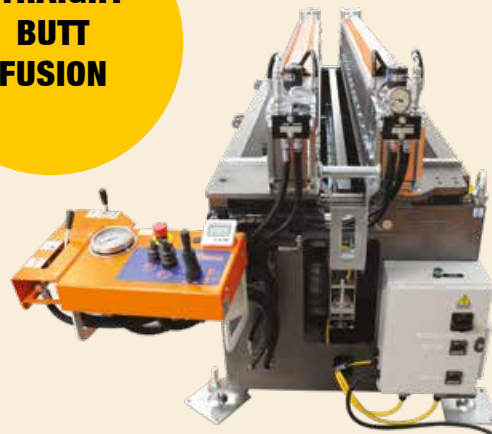
POLYFUSION 2-100 is compact and easy to use manual welders for HDPE and PP sheets from two meters wide and 3 mm to 100 mm thickness. The welding cycle is handled by a control panel which commands the hydraulic gearcase. The control panel can be adjusted horizontally to assist the operator. The machine can operate in compliance with the DVS 2207-1 and DVS 2207-11.



**STRAIGHT
BUTT
FUSION**

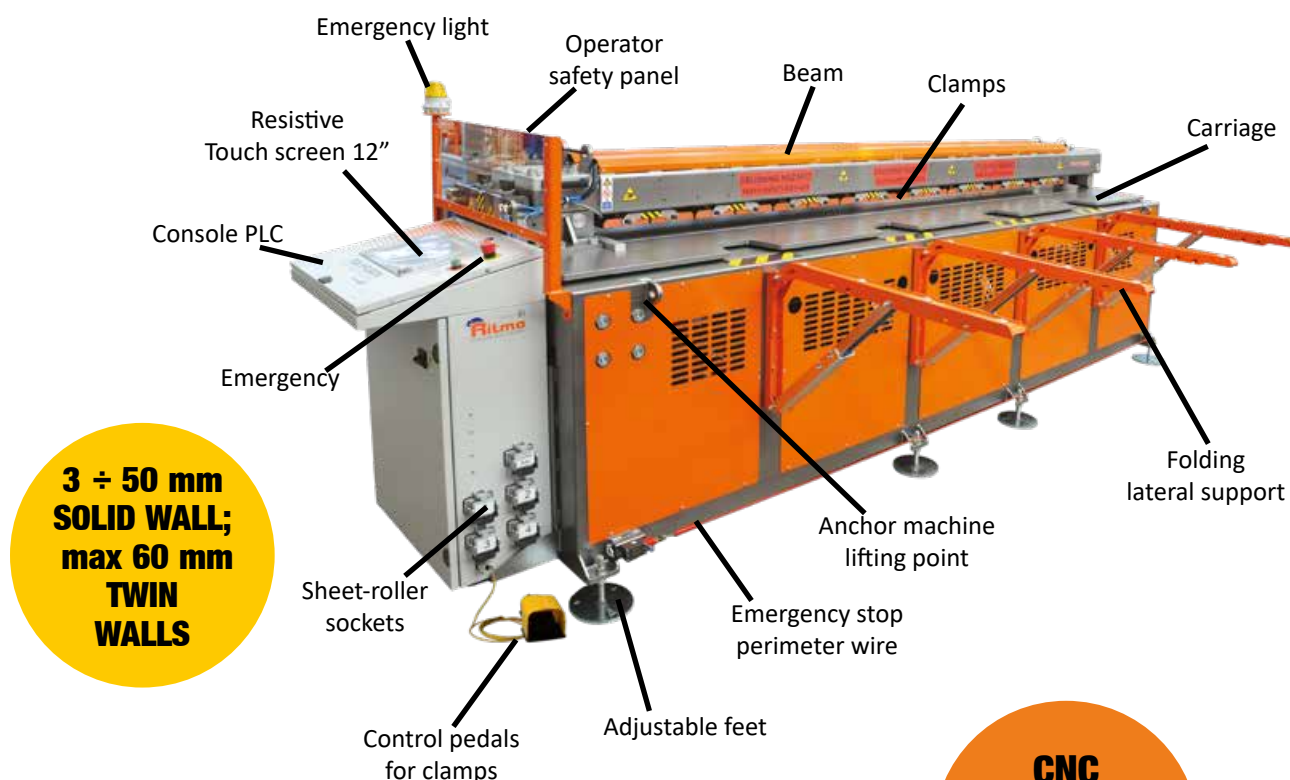


Manual Control Panel



**HDPE, PP,
TWINS WALL
SHEET**

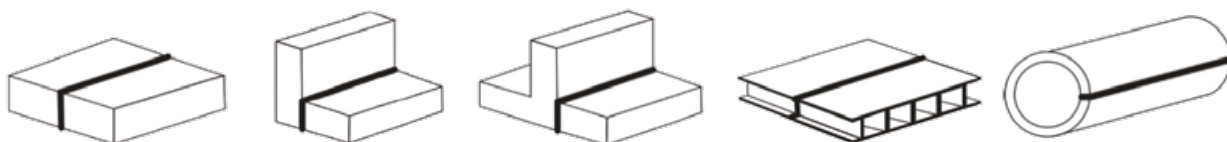
Models	POLYFUSION 2 - 25	POLYFUSION 2 - 50	POLYFUSION 2 - 100
Max. weldable thickness	25 mm - 1"	50 mm - 2"	100 mm - 4"
Max working width	2 m - 6.56 ft	2 m - 6.56 ft	2 m - 6.56 ft
Types of welding	Straight 90° (on request)	Straight 90° (on request)	Straight
Weight standard composition	1100 Kg (2425 lb)	1150 Kg (2535 lb)	1200 Kg (2645 lb)
Dimensions mm (W x D x H)	3200 x 2000 x 1200 126" x 78.7" x 47.2"	3200 x 2000 x 1200 126" x 78.7" x 47.2"	3440 x 2000 x 1450 135.4" x 78.7" x 57"



POLYFUSION 3 POLYFUSION 4

- Folding lateral supports with bearing balls for easy sheet movements
- High density of locking clamps: they provide an homogeneous pressure distribution capable of stopping both thick and thin sheets, and working with long or short sheets.
- Led lights through the entire welding area.
- New Ritmo "AirPlus" system allows to complete a welding cycle even in the event of an unexpected fault of the air supply in your building.
- A PLC control panel allows the operator to program the working cycle quickly with the help of an intuitive touch screen.
- The "Adjusty" system automatically adjusts the distance between heating plate and machine edge according to the thickness of the sheets. With thin sheets the system permits a welding without overlapping while for thick sheets enough space for the bead is guaranteed
- Internal memory for unlimited number of welds.
- Download report in CSV format.
- USB port.
- Unlimited sets of welding parameters (customized or preferred) easy to be recalled.
- Wide range of optionals and accessories to expand its functionality.

**PVC, PE, PP,
PVDF;
TWIN WALL
in PE, PP**



VERSATILE

- **Polyfusion 3**
welds up to 3 mt width
Working pressures:
min 7 bar - max 9,5 bar
- **Polyfusion 4**
welds up to 4 mt width
Working pressures:
min 7 bar - max 8 bar
- Materials: PVC, PE, PP, PVDF
- Designed for both solid and twin wall sheets
- Welds from 3 mm to 50 mm thickness; 60 mm twin wall sheet
- Suitable for small size sheets welding

PRECISE

- High density locking clamps that provide an homogeneous pressure distribution
- Three configurable clamps heights
- Led lights through the entire welding area
- Graduated scales to set the sheet in position
- Constant stabilizing pressure control

COMPLETE

- Type of butt fusion welding:
Straight
90 ° welding **
T welding **
Circular welding **
- 4 independent welding areas
- CNC welding cycle
- Set of parameters store and recall
- PLC control panel
- 12" touch screen
- Remote control and analysis
- Diagnostic feature
- Software update via USB

** Accessory on request

CONTROL PANEL



- PLC Console
- 12" colour touch screen
- VPN - Virtual Private Network
- Remote Diagnostic available
- USB port
- Unlimited store of welding reports
- Unlimited store of parameter sets parameters and possibility to recall them
- Welding cycles management according to the standards or customizable

Pre-set welding standards:

- PE (DVS 2207-1)
- PP (DVS 2207-11)
- PVC-U (DVS 2207-12)
- PVC-C (DVS2207-13)
- PVDF (DVS 2207-15)

Twin wall pre-set parameters on suggested values:

PANELTIM - RÖCHLING - SIMONA

CLAMPS

- Pneumatic clamps
- 4 clamping areas for 4 working areas
- High density of clamps homogeneous pressure distribution
- Suitable for small size sheets welding





**90°
WELDING KIT
ON REQUEST**



90° welding kit is composed of 4 independent elements working together to support one or more sheets in vertical position. A pump provides a constant vacuum to lock the sheet. Graduated scales allow quick and precise centering of the sheets to be welded.

CIRCULAR WELDING KIT (ON REQUEST):

BASIC KIT

Indispensable for circular welding.
For sheets up to max 15 mm* thickness.

PLUS KIT

It needs the sheet rolling device BASIC Kit.

TOP KIT

It needs the sheet rolling device BASIC Kit.

Removable control panel manages different working combinations of the four pulling belts operated by four independent electric motors.



Four independent electric motors pull the belts to help in rolling the sheet.





BASIC KIT

Curved slides for sheets up to 15 mm* thickness. The curved slides can overturn to be used as flat lateral supports.



PLUS KIT

Flat slides for sheets thicker than 15 mm.



TOP KIT

Pushing device works also as lateral supports.

TECHNICAL FEATURES

Models	POLYFUSION 3	POLYFUSION 4
Weldable materials	PE; PP; PVDF; PVC-C; PVC-U***	PE; PP; PVDF; PVC-C; PVC-U***
Sheet type	Solid wall, twin wall	Solid wall, twin wall
Sheet max. width	3050 mm	4050 mm
Min. weldable thickness	3 mm	3 mm
Max. Welding thickness (straight and 90° welding only). Thickness in circular welding, may vary depending on the mechanical setting of the beam hight configuration	Solid wall up to 50 mm** Twin wall up to 60 mm	Solid wall up to 50 mm Twin wall up to 60 mm
Straight butt-fusion	√	√
90° or T shape butt-fusion *	√ (solid wall only)	√ (solid wall only)
Circular welding * Contact Ritmo for more information	√ (solid wall only)	√ (solid wall only)
Sheet clamping	pneumatic in 4 sectors	pneumatic in 4 sectors
Sheet clamping for 90° welding	vacuum and pneumatic in 4 sectors	vacuum and pneumatic in 4 sectors
Sheet clamping for circular welding	pneumatic in 4 sectors	pneumatic in 4 sectors
Control Panel	PLC in fixed position	PLC in fixed position
Coloured Display	LCD 12"	LCD 12"
Welding cycle	CNC	CNC
Pre-set recall	√	√
Reports	CSV	CSV
Memory	limitless	limitless
Power supply	400 V Three Phases 50÷60 Hz	400 V Three Phases 50÷60 Hz
Absorbed power	11.5 kVA	13.6 kVA
Working temperature	180° ÷ 250° C	180° ÷ 250° C
Minimum thrust	600 N	1000 N
Maximum thrust at 7 bar	15.65 kN	28.15 kN
Maximum thrust:	9,5 bar - 22.87 kN	8 bar - 32.17 kN
Minimum requirements pneumatic supply	7 bar capacity= 300 l/min	7 bar capacity= 300 l/min
Maximum requirements pneumatic supply	9,5 bar	8 bar
Machine sizes (standard configuration with opened supports)	4307 x 2673 x 1508 mm	5320 x 2673 x 1508 mm
Weight	2550 Kg	3200 Kg

* on request

** at 7 bar the 50 mm PE (0.15N / mm²) can be welded with max width = 2 m. The 50 mm PP (0.10N / mm²) can be welded with max width = 3 m
at 9.5 bar the 50 mm PE (0.15N / mm²) can be welded with max width = 3 m. The 50 mm PP (0.10N / mm²) can be welded with max width = 3 m

*** PVC - C/U max weldable thickness 15 mm

Max. Weldable thickness (solid wall only)

Model		POLYFUSION 3		POLYFUSION 4	
Material	Interface pressure	7 Bar Max weldable area mm ² (sheet width) x (thickness)	9,5 Bar Max weldable area mm ² (sheet width) x (thickness)	7 bar Max weldable area mm ² (sheet width) x (thickness)	8 bar Max weldable area mm ² (sheet width) x (thickness)
PE	(0,15 N/mm ²)	104337	152492	187600	214400
PP	(0,10 N/mm ²)	156505	228738	281500	321600
PVDF	(0,10 N/mm ²)	156505	228738	281500	321600
PVC - C (max thickness 15 mm)	(0,50 N/mm ²)	31301	45748	56300	64300
PVC - U (max thickness 15 mm)	(0,60 N/mm ²)	26084	38123	46900	53600

EXAMPLE: POLYFUSION 3

- PE material - welding pressure 9,5 bar - DVS 2207-1 : 2015 standard
152492 mm² (Max weldable area) : 3050 mm (sheet width) = 50 mm max weldable thickness
- PVC - C/U material - welding pressure min 8,25 bar, max weldable thickness 15 mm

POLYFUSION 4

- PE Material - welding pressure 8 bar - DVS 2207-1 : 2015 standard
214400 mm² (Max weldable area) : 4050 mm (sheet width) = 52,93 mm max weldable thickness
- PVC - C/U material - welding pressure min 8,25 bar, max weldable thickness 15 mm

PERFORMANCES
DVS 2207
STANDARD

* Example of circular welding

Material	thickness	min diameters	Accessories on request sheet rolling device
pp	6 mm	500 mm	BASIC Kit
	10 mm	600 mm	BASIC Kit
	15 mm	800 mm	BASIC Kit
	20 mm	2000 mm	BASIC Kit + PLUS Kit + TOP Kit
	30 mm	3000 mm	BASIC Kit + PLUS Kit + TOP Kit
PE	12 mm	500 mm	BASIC Kit + TOP Kit

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



POLYFUSION 3-30

POLYFUSION 3-30 is HYDRAULIC CNC automatic butt fusion machine, suitable for welding thermoplastic sheets up to 3 m length, 30 mm thickness made of HDPE, PP, PVC*. The butt fusion machine is also able to weld twin-wall HDPE and PP sheets.



**UP TO
30 mm
THICKNESS**



POLYFUSION 4-30

POLYFUSION 4-30 is HYDRAULIC CNC automatic butt fusion machine, suitable for welding thermoplastic sheets up to 4 m length, 30 mm thickness made of HDPE, PP, PVC*. The butt fusion machine is also able to weld twin-wall HDPE and PP sheets.

POLYFUSION 3-50

POLYFUSION 3-50 is HYDRAULIC CNC automatic butt fusion machine, suitable for welding thermoplastic sheets up to 3 m length, 50 mm thickness made of HDPE, PP, PVC*. The butt fusion machine is also able to weld twin-wall HDPE and PP sheets.



**UP TO
50 mm
THICKNESS**



POLYFUSION 4-50

POLYFUSION 4-50 is HYDRAULIC CNC automatic butt fusion machine, suitable for welding thermoplastic sheets up to 4 m length, 50 mm thickness made of HDPE, PP, PVC*. The butt fusion machine is also able to weld twin-wall HDPE and PP sheets.



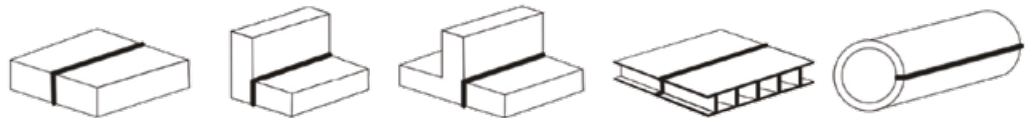
POLYFUSION HYDRAULIC are equipped with a control panel, which allows easily and safely setting and performance of the whole welding process. It is also possible to input the type of material and the dimension of the thermoplastic sheet, and therefore proceed to weld.

CNC WELDING CYCLE



(For more details on the circular working range, see table on page 156.)

STRAIGHT CIRCULAR 90°



**Materials:
HDPE, PP,
PVC***

*Contact RITMO

**DVS 2207-1
DVS 2207-11
COMPLIANCE**



The machine can be operated with sheets positioned both horizontally and vertically.

PRODUCTS OVERVIEW

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

(A) On request

** Contact RITMO

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

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

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					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 / up to	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	√	√	√	√
WORKING RANGE Ø mm / up to	110 mm / 3" DIPS	125 mm / 4" DIPS	180 mm / 6" DIPS	280 mm / 10" DIPS

HEATING PLATES SERIES FOR BUTT WELDING

**PRATICAL
HEAT-INSULATED
PLASTIC
HANDLE**



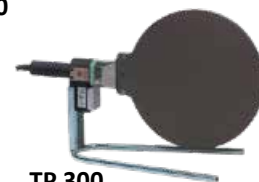
TP 125/45°



TP 125



TP 200



TP 300

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

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	HDPE, PP, PVC, PVDF	HDPE, PP, PVC, PVDF	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



MINI 160 JOYT ELBOW

**EXTRACTABLE
HEATING
PLATE**

MINI 160 JOYT and MINI 160 JOYT ELBOWS are portable butt fusion welders for drainage pipes up to Ø 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 Jolyt 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). Power supply 110 V or 230 V versions.

Key features:

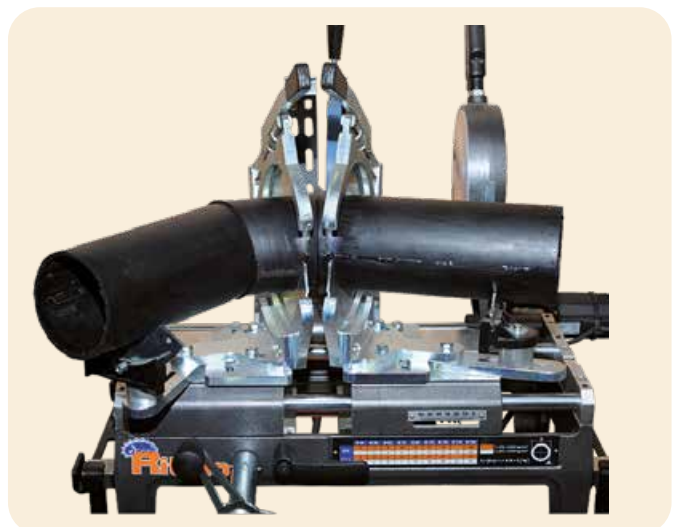
- The machine body includes a spring-loaded pressure-regulating device and the rack-feed movement of the carriage provided by a handwheel.
- The rapid-lock clamps, in order to be able to lock elbows (also with a very short neck), tees and Y-branches without the need of any additional device.
- The protection 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 Ø 160 JOYT
- Left clamp group Ø 160 JOYT
- Frame MINI 160 JOYT
- Case with set of clamps and lateral supports' adapters
Ø 40, 50, 63, 75, 90, 110, 125 mm

ON REQUEST:

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



MINI 160 JOYT ELBOW

VR 160 JOYT

VR 250

VR 160 JOYT and VR 250 are portable butt fusion welders for drainage pipes.

VR 160 JOYT up to Ø 160 mm; VR 250 up to Ø 250 mm.

STANDARD COMPOSITION:

VR 160 JOYT

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

VR 250

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

ON REQUEST:

VR 160 JOYT

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

VR 250

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

MAXI 315

A professional welding machine ideal for medium sized pipes and sewers up to Ø 315 mm it can weld fittings such as bends and tees.

STANDARD COMPOSITION:

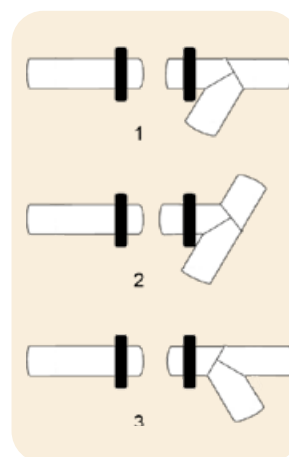
- Machine body with a milling cutter and lateral supports
- TP 315 TE plate
- Right and Left clamp Ø 315
- Steel frame on wheels (for transporting and for use as a work bench)
- Metal case with clamps and lateral supports adapters Ø 200 and 250 mm



VR 160 JOYT



VR 250



VR 160 JOYT

"Joyt" 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).

VR 250

"Supra" 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 (drawings 1, 2, 3).



ON REQUEST:

- Clamp adapters Ø 90, 110, 125, 140, 160, 180, 225, 280 mm
- Lateral supports adapters Ø 90, 110, 125, 140, 160, 180, 225, 280 mm

PRODUCTS OVERVIEW

Models	MINI 160 JOYT	MINI 160 JOYT ELBOW	VR 160 JOYT	VR 250	MAXI 315
Working range	40 ÷ 160 mm	40 ÷ 160 mm	40 ÷ 160 mm	75 ÷ 250 mm	90 ÷ 315 mm
Materials	HDPE, PP, PVDF	HDPE, PP, PVDF	HDPE, PP, PB, PVDF	HDPE, PP, PB, PVDF	HDPE, PP, PB, PVDF
Welding elbow	-	✓	-	-	-
Power supply 110 V S.Ph. 50/60 Hz	✓	✓	✓	-	✓
Power supply 230 V S.Ph. 50/60 Hz	✓	✓	✓	✓	✓
Max. absorbed power	1950 w (110 V) 2250 W (230 V)	1950 w (110 V) 2250 W (230 V)	1950 W (110 V) 2250 W (230 V)	2200 W	3750 W (110 V) 3900 W (230 V)
Working temperature	180° ÷ 280° C (TE) 210° C (TF)	180° ÷ 280° C (TE) 210° C (TF)	180° ÷ 280° C (TE) 210° C (TF)	180° ÷ 280° C	180° ÷ 280° C
Outside temperature range	-5° ÷ 40° C	-5° ÷ 40° C	-5° ÷ 40° C	-5° ÷ 40° C	-5° ÷ 40° C
Time to reach welding temperature	~ 10' (TE)	~ 10' (TE)	~ 10' (TE)	~ 20'	~ 20'
Weight	50 Kg	50 Kg	95 Kg	123 Kg	183 Kg
Dimensions (mm) machine working	664 x 580 x 235	664 x 580 x 235	1055 x 925 x 1235	835 x 1240 x 1530	1420 x 1300 x 1570









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