

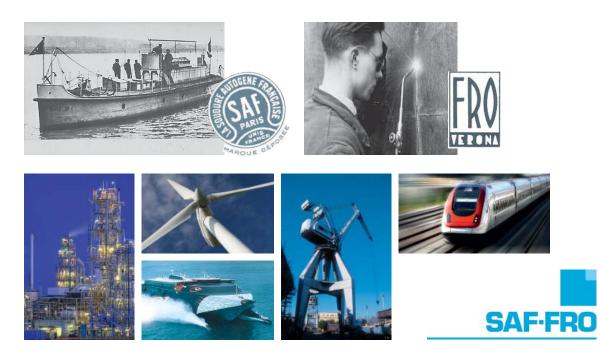
Arc Welding & Cutting Manual Equipment

Welding in Partnership



017

www.saf-fro.com



Since their foundation in 1909 and 1924, SAF and FRO have never ceased to participate in the evolution of the welding and cutting industry. In the early days, using the autogeneous oxyacetylene flame welding technique (hence numerous early partnership agreements with AIR LIQUIDE), SAF (La Soudure Autogène Française) and FRO (Fabbriche Riunite Ossigeno) became the most important companies on the French and Italian welding markets. Their main activity was focussed on ship repairs and this was soon joined by boiler-making.

As early as 1913, SAF recognised the advantages offered by the coated electrode welding process and in 1919 the first ship with an all-welded construction was launched: the SAF 4 which facilitated the carrying out of ship repair activities.

Since then, the evolution of the Submerged Arc, TIG, MIG/MAG, plasma, laser, electron beam processes have been progressively developed by SAF and FRO, and marketed to their customers.

Since 1993, SAF and FRO have been integrated into the **Air Liquide Welding** group (*Air Liquide's equipment and consumables activity*), which allows our customers to benefit from global solutions, processes, gases, equipment and consumables. Due to our experience in welding and cutting techniques, SAF and FRO can today propose innovative solutions aimed to improve the productivity of industrial companies involved in metal working. Since 2006 SAF and FRO have been united under the name of **SAF-FRO** to provide the best of welding and cutting as your partner in welding.

Permanently listening to our customers

What helps us to create and propose these specific developments is our capacity of listening to your needs and understanding your requirements via the permanent feed-back of our technical and commercial teams. They understand perfectly that your company is under constant competitive pressure on your specific markets and the need to adapt your organisation to a moving environment, the best answer being an improvement of productivity... Due to these developments we are sure and able to help you in succeeding in the challenge of optimising the productivity of your fabrication processes. In this catalogue, you will find the complete range of our equipment for manual welding and cutting applications *(MMA, MIG/MAG, TIG, Plasma...)*.

A recognised quality for our customer: ISO certification

To permanently provide the best with regards to quality consumables and equipment, all our production units are ISO certified. In this way SAF-FRO offers the best with regards to services, sales administration, logistics and customer service is also ISO certified.



Glossary



limitation of harmonic current in the public network Pulsed mode welding and

Power factor control and



synergic setting

Welding of cellulosic coated



ESP

ELECTRONIC SETTING PROGRAM

AVAILABLE IN EXPLORATOR

HF

Help to the power source

electrodes

setting

All in one on site packaging High frequency arc striking



Motor generator compatible



VRD

Multi voltage power source

Voltage Reduce Device = Reduction of the no-load voltage (better safety when welding in humid environment)



EARS

Warranty period for professional equipment

4 drive rollers wire feeding

4 rollers wire feeding

2 rollers wire feeding



8 Power source can be used with important LONG : 70 m length of primary cable SECTION 3 x 2.5 mm











3 nł

1

THREE-PHASE

Single phase primary current

> Three-phase primary current







TIG LIFT : arc striking when lifting the torch

Modular installation

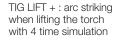
Low power

consumption



CENTRAL

CONNECTOR



Plasma cutting installation with central connector

Power source allowing arc gouging process



Tw-

FAN AS NEEDED

NEW

FLEX LINE : multivoltage power (single of three phase)

Controlled fan for power source cooling



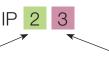
General information on arc welding

Protection index IP 23

Most of the SAF-FRO power sources have a protection index of type IP 23.

Signification:

2



An object with a diameter of more than 12.5 mm cannot penetrate and make contact with an internal element under dangerous voltage.



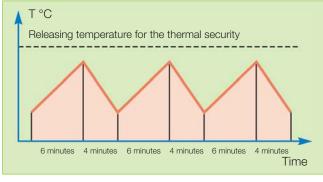


Duty cycle

(Defined by EN 60 974-1 standard)

Ambient temperature 40 °C.

Example: 250 A at 60% means that, with a stabilised cycle and temperature, the power source will be able to deliver 250 A with a working cycle of 6 minutes and 4 minutes of pause (at an ambient temperature of 40 °C).



At a duty cycle of 100%, the power source can permanently deliver the corresponding intensity with an ambient temperature of 40 °C.

VRD: the must for security

Voltage Reduce Device.

The VRD isolates the welding power supply and supplies low voltage (14 V) to the welding terminals in 0.01 seconds. This feature allows the equipment to be used in all conditions without risk of electric shock.

Maximum safety is ensured with the Voltage Reduction Device (VRD) making the equipment suitable for demanding site environements, such as mining, shipyards and petrochemical plants.

3 The power source is protected against any deterioration caused by water falling in raindrops with a maximum angle of 60° (IP 21: protection against vertical

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WTT2 TIG torches
Tungsten electrodes
TIG Accessories
Stainless steel treatment
■ MICROPLASMA and TIG process



PROMIG NG torches
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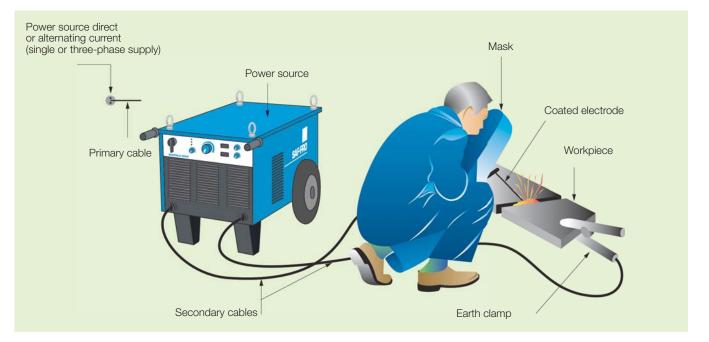
Consumables catalogue

Request your printed version of the SAF-FRO filler metal arc welding catalogue S15159811

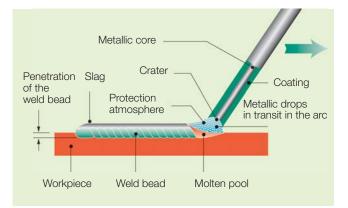
Section 1 - MMA welding General information and choice criteria



Scheme of a manual installation for welding with coated electrode



The transfer of metal coated electrode



Choice of the intensity of current

Thicknesses for flat welding, butt welding and fillet welding (mm)	Electrode diameter (mm)	Average intensity for rutile electrodes (A)
1.6	1.6	40
2.0	2.0	55
2.0-3.0	2.5	70
3.0-5.0	3.2	110
6.0-10	4.0	160
> 8.0	5.0	200
> 10.0	6.3	290

3 specific MMA power source features:

- Arc Force device gives a more stable arc in all welding conditions.
- Hot Start device allows an easy arc striking.
- Antistick device prevents from accidental electrode short circuiting.

Criteria choice for MMA power sources all DC welding current

Name	Main power supply	No load voltage	Technology	Setting **	VRD	PFC	Current range DC	Electrode diameter	Weight
SAXO 3.2	Single phase	69 V	Inverter	Р	No	No	10 - 150 A	1.6 - 3.2 mm	3.8 kg
PRESTO 160	Single phase	85 V	Inverter	Ρ	No	No	5 - 150 A	1.6 - 3.2 mm	7 kg
PRESTO 175	Single phase	85 V	Inverter	Р	No	No	5 - 160 A	1.6 - 4.0 mm	7 kg
PRESTO 145 FORCE	Single phase	48.4 V	Inverter	Р	No	Yes	5 - 140 A	1.6 - 3.2 mm	6.6 kg
PRESTO 165 FORCE	Single phase	48.4 V	Inverter	Р	No	Yes	5 - 160 A	1.6 - 4.0 mm	6.6 kg
PRESTO 185 FORCE	Single phase	48.4 V	Inverter	Р	No	Yes	5 - 180 A	1.6 - 4.0 mm	6.6 kg
PRESTO 190C FORCE	Single phase	67 V (14 V)*	Inverter	Р	Yes	Yes	5 - 160 A	1.6 - 4.0 mm	9 kg
PRESTO 220 VRD	Three phase	105 V (14 V)*	Inverter	Р	Yes	No	5 - 220 A	1.6 - 5.0 mm	19 kg
PRESTO 300 MV	Single phase / Three phase	105 V	Inverter	Р	Yes	Yes	5 - 270 A	1.6 - 6.3 mm	19 kg
RODARC 300 DC	Three phase	61 / 66 V	Rectifier	М	No	No	55 - 260 A	2.0 - 5.0 mm	83 kg
RODARC 400 DC	Three phase	63 / 70 V	Rectifier	М	No	No	50 - 325 A	2.5 - 6.3 mm	107 kg
RODARC 450 DC	Three phase	71 / 79 V	Rectifier	М	No	No	60 - 400 A	2.5 - 6.3 mm	123 kg
BUFFALO 350i CC /CV	Three phase	91.2 V	Inverter	Р	Yes	No	5 - 350 A	1.6 - 6.3 mm	29 kg
BUFFALO 400X (WOW***)	Three phase	68 / 75 V	Thyristor	Р	Yes (option)	No	10 - 400 A	1.6 - 6.3 mm	128 kg
BUFFALO 650X (WOW***)	Three phase	68 / 75 V	Thyristor	Р	Yes (option)	No	10 - 630 A	1.6 - 6.3 mm	176 kg

* with VRD ** P = Potentiometer - M = Mechanical

*** WOW = exists also as version without wheels and handles (On demand)

1 - MMA welding Portable Inverters for DC welding

VARBANT

VEA

1 pl

SINGLE-PHASE

The **SAXO** has been designed for light maintenance and repair applications. The weight and size has been reduced whilst maintaining a high quality welding performance.

TIG LIF

SAXO 3.2

2015-773

Ultra light inverters for fast and quality work. **Features:**

- Lightweight and compact.
- Hot start function & anti-sticking device.
- Supplied ready to use.
- Accommodates all electrode types
- (except Cellulosic).
- Generator compatible.

<image>



		SAXO 3.2	
Power supply single phase 50	/60 Hz	230 V (±15%)	
Primary effective consumption	า	11 A	
Primary consumption at I max		35 A	
No-load voltage		69 V	
Welding current		10 - 150 A	
	at 10%	150 A	
Duty cycle 10 min. cycle (at 40 °C)	at 60%	70 A	
	at 100%	55 A	
Electrode diameter		1.6 to 3.2 mm	
Connector diameter		9 mm	
Size (L x W x H)		220 x 120 x 320 mm	
Weight		3.8 kg	
Protection class		IP 23S	
Insulation class		Н	
Standards		EN 60974-1 / EN 60974-10	

To order	SAXO 3.2
Complete set	W000385239
Comprising:	
Power source	•
Primary cable with Schuko plug	•
Equipped welding cables	•
Mask	•
Hammer-brush	•
Tool case	•
Diameter 2.5 mm electrode smallpack	•
Options	
TIG torch with valve WTT2 9V 4 m	W000278876*
Wear parts box WTT2 9	W000371535

* TIG arc striking without HF

1 - MMA welding Portable Inverters for DC welding

Power sources for manual metal arc welding for industrial and professional use. 2015-753 Compact and reliable system. PRESTO 160 / 175 Features: • LIGHTWEIGHT: less than 7 kg • EASY TO USE: Hot Start function to improve SAFFR the arc striking and Arc Force function to avoid electrode sticking. Primary cable with 16 A 2016-091 Schuko plug (except 160 model) • VERSATILE: welding with all coated electrode (except cellulosic). • HIGH PERFORMANCE: High duty cycle at 40 °C. SAP • HANDY: thanks to the handy carrying strap 8 WARRANTY 1 ph 8 SINGLE-PHASE NEV 0 â -MOTOR GENERATOR COMPATIBLE TIG LIF

		PRESTO 160	PRESTO 175	
Power supply 230 V +/-20% - 50/60 Hz			% - 50/60 Hz	
Maximum power consumption	1	31 A	36 A	
Rms current		19 A	16 A	
Max. absorbed power		4.6 kW 5 kW		
No-load voltage		85	85 V	
Current control		5 - 150 A	5 - 160 A	
	at 35%	150 A	160 A (20%)	
Duty cycle at 40 °C	at 60%	12	A	
	at 100%	100 A		
Electrode diameter		1.6 to 3.2 mm	1.6 to 4.0 mm	
Connector dimensions		9 r	nm	
Protection index		IP 2	23S	
Size (L x W x H)		145 x 230 x 365 mm		
Weight		7 kg		
Standards		EN 60974-1 / EN 60974-10		

To order		PRESTO 160	PRESTO 175
Power source only		W000385244	W000385245
Add ons	· · · · · · · · · · · · · · · · · · ·		
MMA kit arc 25C25	W000011138	•	•
Options			
TIG torch with valve WTT2 17 V 4 m	W000278880*	•	•
Wear parts box WTT2 17 V	W000371536	•	•
Furious carrying case	W000371907	•	•
Universal trolley	W000375730	•	•

* TIG arc striking without HF

1 - MMA welding Portable DC Inverters

The **PRESTO FORCE** range is fitted with the new SAF-FRO inverter technology. The PFC controller is the technical solution to achieve conformance to the limitation of the harmonic current for equipment connected to public low voltage network which is now mandatory in Europe (EN 61000 - 3 -12 standard).

PFC results in lower effective current consumption at the same output welding power, also maximising electronic component lifetime.



		PRESTO 145 FORCE	PRESTO 165 FORCE	PRESTO 185 FORCE		
Power supply sing	le phase	230 V – 50/60 Hz (+/- 20%)				
Primary effective c	onsumption	12 A	15 A	15 A		
Primary consumpti	ion at I max.	18 A	21.5 A	25 A		
Max. absorbed pov	wer	4.1 kW	4.8 kW	5.8 kW		
No-load voltage		48.4 V	48.4 V	48.4 V		
Welding current		10 - 140 A	10 - 160 A	10 - 180 A		
Duty cycle	at 35%	140 A (40%)	160 A (30%)	180 A (20%)		
10 min. cycle	at 60%	120 A	140 A	140 A		
(at 40 °C)	at 100%	100 A	120 A	120 A		
Electrode diameter	•	1.6 to 3.2 mm	1.6 to 4.0 mm	1.6 to 4.0 mm		
Connector diameter	er	9 mm				
Size (L x W x H)		320 x 170 x 395 mm				
Weight		6.6 kg				
Protection class		IP 23				
Insulation class		Н				
Standards		EN 60974-1 / EN 60974-10 / EN 61000-3-12				

To order		PRESTO 145 FORCE	PRESTO 165 FORCE	PRESTO 185 FORCE		
Power source only		W000385254	W000385255	W000385256		
Add ons			·			
MMA kit arc 25C25+	W000260683	•	•	•		
Options						
TIG torch with valve WTT2 17V 4 m	W000278880*	•	•	•		
FURIOUS carrying case	W000371907	•	•	•		
Universal trolley	W000375730	•	•	•		
Wear parts box WTT2 17	W000371536	•	•	•		

* TIG arc striking without HF

1 - MMA welding Portable DC Inverters

PRESTO FORCE and VRD welding machines have been designed to meet the most demanding conditions for on-site welding applications, offering reliable operation and high duty cycle. Each machine features the special Voltage Reduction Device (VRD) for increased safety when used in mines, shipyards and petrochemical plant.



		PRESTO 190C FORCE	PRESTO 220 VRD	
Power supply 50/60 Hz		230 V (±20%) single phase	400 V (±20%) three phase	
Primary effective consumption	tion	16 A	9 A	
Primary consumption at I m	iax.	21 A	14 A	
Max. absorbed power		4.7 kW	-	
No-load voltage		67 V (14 V VRD)	105 V (14 V VRD)	
Welding current		5 – 160 A	5 – 220 A	
Duty cycle	at 35%	160 A (50%)	220 A (40%)	
10 min. cycle	at 60%	150 A	190 A	
(at 40 °C)	at 100%	130 A	150 A	
Electrode diameter		1.6 to 4.0 mm	1.6 to 5.0 mm	
Connector diameter		13	mm	
Size (L x W x H)		200 x 365 x 475 mm	250 x 470 x 450 mm	
Weight		9 kg	19 kg	
Protection class		IP 23		
Insulation class		Н		
Standards		EN 60974-1 / EN 60974-10 / EN 61000-3-12		

To order		PRESTO 190C FORCE	PRESTO 220 VRD
Power source only		W000385259	W000268693**
Add ons			
MMA kit arc 25C50	W000260684	•	-
Options			
Remote control 10 m long	W000242069	•	•
TIG torch with valve WTT2 26V - 4m	W000278885*	•	•
Universal Trolley	W000375730	•	-
FURIOUS carrying case	W000371907	•	-
Wear parts box WTT2 26	W000371536	•	•

* TIG arc striking without HF

**delivered with welding cable and electrode holder & welding cable with earth clamp

1 - MMA welding Portable DC Inverters

For demanding activities such as on site welding. Sturdy equipment with high liability and high duty cycle works.



PRESTO 300MV FLEX LINE

Power supply		1 ph / 20	8 - 240 V	3 ph / 220 - 240 V		3 ph / 380 - 440 V	
Welding process		TIG	MMA	TIG	MMA	TIG	MMA
Device complex etc.	ED 60%	3,3 kVA	4,5 kVA	5,5 kVA	6,2 kVA	5,8 kVA	8,3 kVA
Power supply at:	ED 100%	2,5 kVA	3,4 kVA	4,1 kVA	4,6 kVA	4,0 kVA	6,5 kVA
Primary consumptior	n at I2 max.	23,5 A	27,0 A	19,3 A	21 A	11,4 A	16,5 A
Effective consumption	on	16 A		13	A	10) A
Open circuit voltage		MMA: 81.5 V (14 V with VRD) - TIG: 14 V			١V		
Welding current		5 - 215 A	5 - 180 A	5 - 270 A	5 - 215 A	5 - 270 A	5 - 270 A
Duty cycle 10 min. cycle (40°C)		215 A (30%) 150 A 120 A	180 A 135 A 105 A	270 A (40%) 215 A 170 A	215 A (40%) 175 A 135 A	270 A 205 A 160 A	270 A 205 A 160 A
Electrode diameters	(MMA)	1,6 to 4,0 mm 1,6 to 5,0 mm 1,6 to 6,3 mm			6,3 mm		
Weldable electrodes		E6010 - E6011 - E6013 - E7018					
Protection / insulatio	n class			IP22S / H			
Electrode diameters (TIG) 1,0 to 2,4 mm			1,0 to 2,4 mm 1,0 to 3,2 mm			3,2 mm	
Size (W x H x L) / We	(W x H x L) / Weight 220 x 394 x 534			34 mm / 22 kg			

To order	PRESTO 300MV
Power source only	W000384359
Add ons	
Kit arc 35C50	W000011139
Options	
TIG torch with valve 26 V - 4 m	W000278885
Remote control	W000242069
Universal trolley	W000375730
Wear parts box WTT2 26 V	W000371536

(1) Electrode holder and earth clamp with welding cables

1 - MMA welding MECHANICAL MMA DC rectifiers

The **RODARC** power source range has been designed for the most demanding on-site and workshop applications.

Highly efficient welding using rutile and basic electrodes at a competitive value.



		RODARC 300 DC	RODARC 400 DC	RODARC 450 DC	
Power supply three	e phase	230 V / 400 V (±10%) - 50/60 Hz			
Primary effective c	onsumption	25 / 15.5 A	34 A / 19.5 A	53 A / 30 A	
Primary consumpti	ion at I max.	42.5 / 24.5 A	57 A / 33 A	78 A / 45 A	
No-load voltage		61 V / 66 V	63 V / 70 V	63 V / 70 V	
Welding current		55 to 260 A	50 to 325 A	60 to 400 A	
Duty cycle	at 35%	260 A	325 A	400 A (45%)	
10 min. cycle	at 60%	200 A	250 A	345 A	
(at 40 °C)	at 100%	155 A	190 A	265 A	
Electrode diameter	r	2.0 to 5.0 mm	2.5 to 6.3 mm	2.5 to 6.3 mm	
Connector diameter	er	13 mm			
Size (L x W x H)		560 x 730 x 1080 mm	560 x 730 x 1 080 mm	560 x 730 x 1 080 mm	
Weight		83 kg	107 kg	123 kg	
Protection class		IP 21			
Insulation class		Н			
Standards		EN 60974-1 / EN 60974-10			

To order			RODARC 300 DC	RODARC 400 DC	RODARC 450 DC
Power source only			W000381564	W000381565	W000381566
Add ons					
	35C50	W000011139	•	-	-
MMA kit arc	50C50	W000260681	-	•	-
	50C50+	W000260682	-	-	•
Options					
TIG torch with valve W	TT2 26V 4 m	W000278885*	•	•	•
Wire feeder DV YARD without flowmeter ** W000382134		•	•	•	
Wire feeder DV YARD with flowmeter ** W000382135		•	•	•	
Wear parts box WTT2 2	26 V	W000371536	•	•	•

* TIG arc striking without HF

** Using with flux cored wire rutile

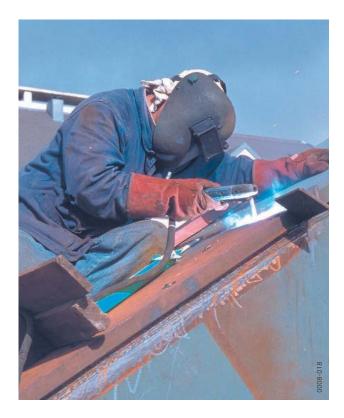
1 - MMA welding

DC Rectifier (thyristor technology) and inverter DC

BUFFALO - Reliable and of robust design, these machines provide excellent and consistent service in demanding on-site and workshop conditions.

BUFFALO provides both MMA and Gouging electrode capability and MIG and TIG process options using addition add-on equipment.







		BUFFALO 350i CC/CV	BUFFALO 400X	BUFFALO 650X	
Power supply three phase		400 V (±10%) - 50/60 Hz 230 V / 400 V (±15%) - 50/60 Hz			
Primary effective c	onsumption	-	40.6 A / 23.5 A	61.5 A / 35.4 A	
Primary consumpti	on at I max.	28.5 A	69 A / 39.9 A	102.2 A / 59.4 A	
No-load voltage		91.2 V	68 V / 75 V	68 V / 75 V	
Welding current		5 to 350 A	10 A (42 A*) - 400 A	10 A (52 A*) - 630 A	
Duty cycle	at 35%	350 A	400 A	630 A	
10 min. cycle	at 60%	300 A	300 A	470 A	
(at 40 °C)	at 100%	250 A	230 A	370 A	
Electrode diameter			1.6 to 6.3 mm		
Connector diamete	er		13 mm		
Size (L x W x H)		525 x 300 x 390 mm	525 x 300 x 390 mm 1000 x 600 x 600 mm		
Weight		29 kg	128 kg	176 kg	
Protection class		IP 23S IP 23			
Insulation class		Н			
Standards		EN 60974-1 / EN 60974-10			

* minimum current used in cellulosic electrode

To order		BUFFALO 350i CC/CV	BUFFALO 400X	BUFFALO 650X
Power source - with handle and wheels		W000263711	W000272663	W000272665
- WOW (without handles	& wheels) **	-	W000277996	W000277993
Add ons				
MMA kit arc 50C50+	W000260682	•	•	•
Options				
Remote control MMA 10 m long ⁽¹⁾	W000219557	-	•	•
Remote control MMA 10 m	W000305048	•	-	-
VRD board 400X	W000373273	-	•	-
VRD board 650X	W000275160	-	-	•
48V AC socket for auxiliary service	W000274337		•	•
TIG torch with valve WTT2 26V 4 m	W000278885*	•	•	•
Wear parts box WTT2 26 V	W000371536	•	•	•
Kit handles and wheels (for WOW version)	W000278006	-	•	•
K 4000 torch for gouging	W000010992	-	•	•
Panel plug to connect gouging torches	W000370297	-	•	•
MIG-MAG DV Yard without flowmeter	W000382134	•	•	•
MIG-MAG DV Yard with flowmeter	W000382135	۲	۲	•

* TIG arc striking without HF - $\,^{\scriptscriptstyle (1)}$ on demand up to 50 m long - $\,^{**}$ On demand

1 - MMA welding MIG/MAG wire feeder for CC/CV MMA power sources

The **DV YARD** wire feeder can be adapted to most direct current MMA power sources and can use standard 300 mm diameter wire spools. Its power supply is ensured directly by the arc voltage. It is therefore very simple to implement and does not require an auxiliary transformer. Using the DV YARD wire feeder you can transform your MMA power source into an authentic MIG/MAG welding source. Air Liquide Welding recommends to use it with CV power source for best welding performances. When properly installed, the DV YARD will enable you to obtain high-quality welds with a good visual appearance. The DV YARD wire feeder is robustly constructed in a reinforced moulded case to give a fully enclosed wire feed unit which is well sealed against the elements. Due to rugged construction they are ideal for all site welding in harsh environments and are also easily portable. The DV YARD wire feeder is fitted with an extra heavy duty contactor

with oversized contacts to allow welding up to 425 A.

DV YARD

Decisive advantages:

- Very portable rugged design with strong ergonomic carry handle which lays flat when not needed
- Connect to virtually any DC welding power source in seconds
 Excellent performance with flux cored (with or without gas)
- and solid welding wires with unbeatable arc stability
- 4 roll drive system to guarantee trouble free wire feeding.
- Heavy duty contactor fitted to start and stop and cope with current up to 425 A
- Torch trigger latching 2T/4T and burn back control standard
- Standard Euro torch connection
- Takes 15 kg spools

	DV YARD
Roller plate	4 rollers
Input voltage range	14-48 VDC 15-110 OCV
Welding current range	50 to 425 A
Duty cycle @ 60% (40 °C)	425 A
Wire speed range	1.2 to 20 m/min
Wire diameter	0.8 to 2.4 mm
Protection index	IP 23S
Insulation class	Н
Standards	EN 60974 - 1 / EN 60974 - 10
Size (L x W x H)	600 x 220 x 420 mm
Weight	13.9 kg

To order

DV YARD	W000382134		
DV YARD FM (with flowmeter)	W000382135		
Add ons (Connexion DV YARD / MMA machine)			
Cable connector Male 70-95 mm ²	W000010561		
Cable connector Female 70-95 mm ²	W000010564		
Secondary cable 70 mm ² (metre/lineaire)	W000260269		



1 - MMA welding Kits of accessories for MMA welding

MMA accessories kits

For MMA welding: electrode holder, clamp, rubber cable H01N2D and connectors. Already assembled and ready to use.

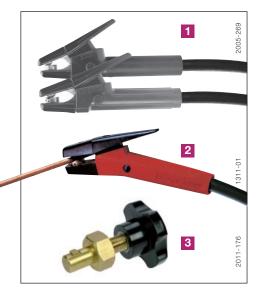


Kit Designation	l max at 35%	MMA power sources' types and applications	Power sources	Electrode holder	Cable length	Earth Clamp	Cable length	Connectors	To order
25C25	200 A	Small intensity power sources for semi professional welding	SAXO 3.2 PRESTO 160 PRESTO 175	CAIMAN 200	3 m	HIPPO 200	3 m	9 mm / 16-25 mm²	W000011138
25C25+	300 A	Small intensity power sources for working site up to Ø 4 mm	PRESTO 145 FORCE PRESTO 165 FORCE PRESTO 185 FORCE	SEGURA 300	3 m	HIPPO 400	2 m	9 mm / 16-25 mm²	W000260683
25C50	300 A	High intensity power sources for intensive use (up to Ø 4 mm) or work site	PRESTO 190C FORCE	SEGURA 300	3 m	HIPPO 400	3 m	13 mm / 35-50 mm²	W000260684
35C50	300 A	High intensity power sources for intensive use (up to Ø 4 mm) or work site	RODARC 300 DC PRESTO 220 VRD PRESTO 300 MV	SEGURA 300	4 m	HIPPO 400	4 m	13 mm / 35-50 mm²	W000011139
50C50	300 A	High intensity power sources for intensive use (up to Ø 5 mm) or work site	RODARC 400 DC	SEGURA 400	4 m	HIPPO 400	4 m	13 mm / 35-50 mm²	W000260681
50C50+	400 A	High intensity power sources for intensive use (up to Ø 6.3 mm) or work site	RODARC 450 DC SAFEX C2 BUFFALO 350i CC/CV BUFFALO 400 X BUFFALO 650 X	SEGURA 600	4 m	HIPPO 600	4 m	13 mm / 35-50 mm²	W000260682

Gouging - Torch and carbon electrodes

Gouging torch

Description	Intensity	Ø maxi electrodes	To order	
1 FLAIR 600	600 A	10 mm	W000010136	
1 FLAIR 1600	1 600 A	19 mm	W000010118	
2 ARCAIR K 4000	1 000 A	13 mm	W000010992	
3 PANEL PLUG	1/4 turn c	connection	W000370297	



Gouging carbon electrodes

Designation diameter x length (mm)	Quantity per carton - Thousand	Weight per carton kg	Intensity mini A	Intensity maxi A	Air pressure bars	Air flowrate m ³ /h	To order
CARBONAIR 4 x 305	0.100	0.78	150	250	4.0	15	W000010645
CARBONAIR 5 x 305	0.100	1.08	200	250	4.0	15	W000010443
CARBONAIR 6.4 x 305	0.050	0.98	320	370	4.0	15	W000010444
CARBONAIR 8 x 305	0.050	1.34	400	450	5.5	40	W000010445
CARBONAIR 10 x 305	0.050	2.15	500	550	5.5	40	W000010446
CARBONAIR 13 x 305	0.050	3.55	800	1 000	5.5	50	W000010447
CARBONAIR PLUS 8 x 355*	0.050	1.80	500	550	5.5	40	W000010448
CARBONAIR PLUS 10 x 430*	0.050	3.22	600	650	5.5	40	W000010449
CARBONAIR PLUS 13 x 430*	0.050	4.97	800	1 000	5.5	50	W000010450
CARBONAIR PLUS 16 x 430*	0.025	3.70	1 000	1 200	6.9	60	W000010451
CARBONAIR PLUS 19 x 430*	0.025	5.17	1 200	1 400	6.9	60	W000010452

*Jointed carbons (no stub loss)

1 - MMA welding Ovens and quivers



On request: other models - without thermostat - with thermometer - with different power supply - stainless steel or lacquered finishing

CE

MADE IN

FRANCE

WELDRY PW8 / PW15 / 372 N INOX Portable quivers

PW8 and PW15 portable quivers are necessary, for electrodes maintenance, near the welding working place.

They preserve the electrodes from moisture avoiding hydrogen inclusion in the welding joint. PW8 and PW15 portable quivers are provided with a handle, useful for moving.

They also contain an extractable basket that avoids waste of heat. PW8 and PW15 ovens are provided with built-in adjustable thermostat.

For the 372 N: preset temperature to 120°C, plated heater resistance against the reservoir electrodes which allows a good repartition of temperature.

		1		
Technical data	WELDRY PW8	WELDRY PW15	WELDRY 372 N - INOX	
Capacity (n. of electrodes)	100 electrodes Ø 3.25 mm	200 electrodes Ø 3.25 mm	100 electrodes Ø 3.25 mm	
Temperature regulation thermostat		up to 120 °C		
Power	0.130 kW	0.275 kW	0.230 kW	
Capacity	5 kg 10 kg 5 kg			
Power supply	Si	ngle-phase 24 V or 230 V - 50/60 I	Ηz	
Internal size	72 x 72 x 470 mm	100 x 100 x 470 mm	Ø 82.5 x 480 mm	
External size	140 x 180 x 630 mm	180 x 220 x 630 mm	225 x 535 mm	
Net weight	5 kg 8 kg		5.5 kg	
Cat N°	W000120427	W000120428	W000383150	
Cat N° All WELDRY Ovens are supplied with 2 m long cabl	e W000371464	-	-	

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WELDRY MW Holding ovens for MMA electrodes

MW ovens are used to keep the treatment of electrodes after the drying cycle and before the welding process.

They preserve the electrodes from moisture, avoiding hydrogen inclusion in the welding joint.

Equipped with a digital control panel and two adjustable thermoregulators for air and heating elements protection, positioned in front of the oven.



Technical data	WELDRY MW2	WELDRY MW4	WELDRY MW6
Shelves number	2	4	6
Capacity for each shelf	1500 electrodes	1500 electrodes	1500 electrodes
Temperature regulation thermostat		up to 200 °C	
Power	2.7 kW	2.7 kW	4.5 kW
Capacity (weight and number of electrodes)	135 kg - 3 000 el. Ø 3.25 mm	270 kg - 6 000 el. Ø 3.25 mm	405 kg - 9 000 el. Ø 3.25 mm
Power supply	Single phase 23	Three phase 380 V - 50/60 H	
Internal size	720 x 510 x 350 mm	720 x 510 x 620 mm	720 x 510 x 890 mm
External size	830 x 690 x 760 mm	830 x 690 x 1040 mm	820 x 690 x 1310 mm
Net weight	90 kg	123 kg	152 kg
Packaging dimension	850 x 710 x 780 mm	850 x 710 x 1420 mm	840 x 710 x 1330 mm
Gross weight	95 kg	135 kg	160 kg
Cat N° All WELDH ovens are supplied with 2 m long cable	W000120430	W000120431	W000120454
with 2 m long sa			



WELDRY CW Re-baking ovens for MMA electrodes

This oven is used for electrode re-baking treatment, heating the electrodes between 350 °C and 420 °C for a fixed time. In this way the moisture is removed and a good quality welding without hydrogen intrusion is guaranteed.

Equipped with a digital control panel and two adjustable thermoregulators for air and heating elements protection, positioned in front of the oven, allows to set both drying and keeping cycles.



Technical data	WELDRY CW3	WELDRY CW6	WELDRY CW9	
Shelves number	3	3 6		
Capacity (number of electrodes)	4 500 el. Ø 3.25 mm	9 000 el. Ø 3.25 mm	13 500 el. Ø 3.25 mm	
Capacity	203 kg	404 kg	608 kg	
Temperature regulation thermostat		up to 500 °C for heating element		
Number of resistance	3	6	9	
Power	4.6 kW	9.1 kW 13.6 kW		
Power supply	TI	nree-phase 220 V / 380 V - 50/60 H	Hz	
Internal size	560 x 740 x 560 mm	560 x 740 x 980 mm	560 x 740 x 1430 mm	
External size	800 x 880x 1030 mm	800 x 880x 1480 mm	800 x 880x 1880 mm	
Net weight	140 kg	200 kg	266 kg	
Packaging dimension	820 x 900 x 1050 mm	820 x 900 x 1500 mm	820 x 900 x 1900 mm	
Gross weight All WELDRY	150 kg	215 kg	280 kg	
Cat N° All WELDRY ovens are supplied with 2 m long cable	W000120466	W000120467	W000120468	
with 2 m long own				

WELDRY FW Hopper ovens for flux

This model of oven is used for re-baking submerged arc welding fluxes, heating the flux between 350 °C and 420 °C for a fixed time. The inside tank is stainless steel made to prevent from the risk of pollution.

The resistances are positioned inside the hopper for a direct contact to flux in order to obtain an optimal heating.

The built-in digital control equipment with double thermoregulator for air and resistances protection avoids the flux being damaged and allows to set both drying and keeping cycles.

On request: other models (with one or two hoppers - with single or double digital control equipment)

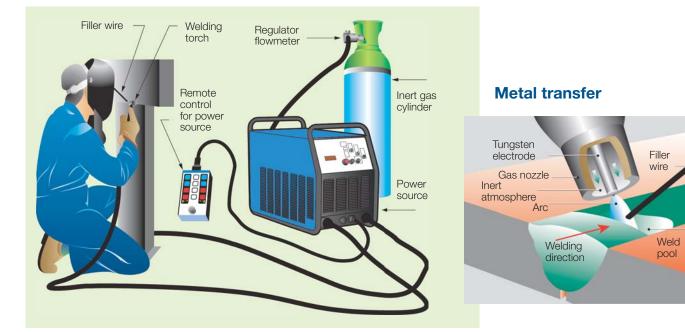


Technical data		WELDRY FW100	WELDRY FW200	WELDRY FW400	
Load Capacity		60 kg	160 kg	320 kg	
Temperature regulation	on thermostat		up to 500 °C for heating element		
Power		4 kW	4 kW	7.9 kW	
Power supply		Tł	nree-phase 220 V / 380 V - 50/60 I	Hz	
Internal size		530 x 390 x 640 mm	690 x 690 x 740 mm	690 x 690 x 740 mm (each tank)	
External size		670 x 709 x 1300 mm	825 x 819 x 1330 mm	1620 x 850 x 1340 mm	
Net weight		90 kg	116 kg	210 kg	
Height of the flap door f	for flux feeding	a = 500 mm	a = 450 mm		
Packaging dimension		690 x 750 x 1 320 mm	850 x 860 x 1 350 mm	1 640 x 870 x 1 360 mm	
Gross weight	WELDRY	100 kg	130 kg	225 kg	
Cat N°	All WELDRY ovens are supplied with 2 m long cable	W000120469	W000120470	W000120471	
	with 2 m long out				

Section 2 - TIG welding General information and choice criteria



Scheme of a manual installation for TIG welding



Criteria choice for TIG power sources

Nama	Currentia	W	elding cu	rrent	Arc striking		Quela	Pulse	Weight
Name	Supply	DC	AC	Amps	LIFT	HF	Cycle	Pulse	(kg)
PRESTOTIG 160 PFC	Single phase	v	-	10 to 160	v	~	Simple	No	9.5
PRESTOTIG 180 FORCE	Single phase	~	-	5 to 160	~	~	Semi-extended	Yes	9.5
PRESTOTIG 220 FORCE	Single phase	v	-	5 to 220	~	~	Semi-extended	Yes	9.5
PRESTOTIG II 210 DC	Single phase	~	-	5 to 200	~	~	Extended	Yes	20
PRESTOTIG II 310 DC (W)	Three phase	v	-	5 to 300	~	~	Extended	Yes	20 (29*)
PRESTOTIG II 310 DC EASY (W)	Three phase	~	-	5 to 300	~	V	Simple	No	20 (29*)
PRESTOTIG II 410 DC (W)	Three phase	v	-	5 to 400	~	~	Extended	Yes	31 (40*)
ADMIRAL 350 W DC	Three phase	~	-	4 to 350	~	~	Extended	Yes	99
SAXOTIG 160 AC/DC	Single phase	v	~	5 to 150	-	V	Simple	Yes	21
PRESTOTIG 240 AC/DC (W)	Single phase	~	~	3 to 230	~	~	Extended	Yes	17 (26*)
PRESTOTIG 240 AC/DC EASY (W)	Single phase	v	~	3 to 230	~	V	Simple	No	17 (26*)
PRESTOTIG 310 AC/DC (W)	Three phase	v	~	3 to 300	~	~	Extended	Yes	25 (33*)
PRESTOTIG 310 AC/DC EASY (W)	Three phase	v	~	3 to 300	v	~	Simple	No	25 (33*)
PRESTOTIG 350 W AC/DC	Three phase	~	~	3 to 350	~	~	Extended	Yes	74

* water cooled version

LIFT arc striking device





HF arc striking device



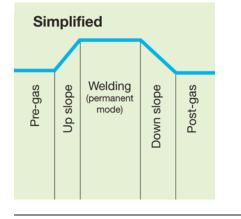




Extended

Up slope





TIG welding glossary

European CE standards

They guarantee a quality of construction, chemical and mechanical characteristics and a level of safety. All SAF-FRO power sources have CE certification. They impose construction according to European directives. • Directive 89/336 imposes limitation of

emissions of electromagnetic interferences.
The low voltage directives impose manufacturing, safety and performance rules.
EN 60974-1, device capacities are given according to a welding current delivered at a given duty cycle.

Duty cycle

Pre-gas

current setting

Initial

It is defined in the standard. The duty cycle is the duration of continuous use of a device, based on a time of 10 minutes at a temperature of 40 °C. A duty cycle of 100 A at 60% means that over a period of 10 minutes, it is possible to weld continuously for 6 minutes, followed by a stop of 4 minutes. A duty cycle of 100 A at 100% means that the source is designed to deliver 100 A continuously.

2nd welding

level

Welding

(permanent

mode)

Down slope current stage

Final

Post-gas

Pre-gas

Used to purge the torch pipes before welding in order to start welding in an atmosphere of protective gas.

Preheating stage

Allows positioning on the joint and preheating of the metal to be welded.

Up slope Makes it n

Slope

down

Slope

down and post-gas

st-gas

and

Makes it possible to reach the welding current level progressively.

Down slope

Avoids the crater (shrinkage cavity) at the end of the bead when welding stops.

End setting

Allows slower cooling of the weld pool and selection of a "lighted arc" welding cycle, which is very useful when welding in position.

Post-gas

Protects the weld pool and tungsten electrode during cooling.

Balance

Allows welding using alternating current (light alloys) to favour cleaning or penetration.

Pulsed system

Avoids collapse of the weld pool during welding of thin thicknesses by time phasing the welding current between a high value (hot time) and a low value (cold time).

Clamping

Saves time during spot welding operations by avoiding having to go through the whole welding cycle.

HF arc striking

System involving a distant striking of the electric arc without contact between the tungsten electrode and the part to be welded.

Arc striking on contact

System involving striking of the electric arc as soon as the torch is raised after contact has been made between the part and the tungsten electrode. This mode is particularly useful when operating in environments that are sensitive to high-frequency interference.

Square waves

In alternating current, the square form of current wave ensures excellent arc stability and avoids arc disruption when the current changes direction.

IP protection class

The first figure indicates the maximum diameter of an object able to penetrate the device and come in contact with a dangerous component. The second figure indicates the level of protection against falling rain. Example: IP 23 the "2" indicates that an object with a diameter greater than 12.5 mm may not be introduced into the device - the "3" indicates that it is not damaged by rainfall at an angle of 60°.

2 - TIG welding (Inverter technology) DC portable equipment - Maintenance and professional range

PRESTOTIG DC PFC and FORCE offers leading technology in TIG DC welding with a user friendly interface. Additional features include programme storage capability and improved reliability due to Power Factor Control technology. PRESTOTIG DC PFC and FORCE range delivers more power with reduced consumption: up to 220 A single phase 16 A connection. PRESTOTIG DC machines with a range of operating features ensure high quality welding of steel, stainless and nickel alloys.



		PRESTOTIG 160 PFC	PRESTOTIG 180 FORCE	PRESTOTIG 220 FORCE			
Single phase input voltage		230 V (+/- 20%) - 50/60 Hz					
Effective input curr	ent	11 A TIG – 15 A MMA	11 A TIG – 15 A MMA	12 A TIG – 16 A MMA			
Open circuit voltag	е	49.5 V	50 V	50 V			
Welding current rar	Adding current range $10 - 160 \text{ A}$		5 – 220 A TIG 5 – 180 A MMA				
	at 35%	160 A	160 A	220 A			
Duty cycle (at 40 °C)	at 60%	140 A	140 A	180 A			
(41 40 0)	at 100%	120 A	130 A	150 A			
O and a sting to make	TIG torch	S					
Connection type	MMA	13 mm					
Protection index		IP 23S					
Weight		9,5 kg					
Size 205 x 345 x 460 mm							
European standard	ls	EN 60974-1 / EN 60974-10 / EN 61000-3-2/12					

To order		PRESTOTIG 160 PFC	PRESTOTIG 180 FORCE	PRESTOTIG 220 FORCE	
Power source only			W000273518	W000382577	W000382578
Add ons					
PROTIG III 10	5 m	W000382715	•	•	-
C5B/S TIG torch	8 m	W000382716	•	•	-
PROTIG III 10 W RL	5 m	W000382723	•	•	
C5B/ S TIG torch *	8 m	W000382724	•	•	•
PROTIG III 20	5 m	W000382717	•		
C5B/S TIG torch	8 m	W000382718	•	•	•
PROTIG III 30 RL	5 m	W000382719	-	-	•
C5B/S TIG torch	8 m	W000382720	-	-	
MANOBLOC 4 - 15 I /min m	nanoflowmeter	W000371305	•	•	
MMA kit arc 25C50		W000260684	•	•	•
Options					
	PROTIG III 10 torches	W000306441	•		
Wear parts box	PROTIG III 20 torches	W000306442	•		
	PROTIG III 30 torches	W000306443	-	-	
Extension harnesses for air-c	ooled torches version - 15 m	W000306135	•		•
Remote control 10 m long		W000242069	-		
Foot pedal 10 m long		W000241602	-		
FURIOUS carrying		W000371907	•	•	
Extension harness for Wate	r torches version - 15m *	W000306136	•	•	
Universal trolley		W000375730	•	•	
Coolertig "FREEZTIG"		W000382728	•	•	
FREEZCOOL cooler liquid 9	9.6L	W000010167	•		
* If option "FREEZTIG" select	ted				



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2 - TIG welding (Inverter technology) DC equipment - Industrial range



The **PRESTOTIG DC II** has been designed to meet all requirements TIG welding.

It offers optimal performance and robustness for workshop activities or on site. The power sources have a very complete welding cycle for version ADVANCED (PRESTOTIG II 210 / 310 / 410 DC) and a simple cycle with a new interface for EASY Version (PRESTOTIG II 310 DC).

		1 PRESTOTIG II 210 DC	2 PRESTOTIG II 310 DC (W)	3 PRESTOTIG II 410 DC (W)	4 ADMIRAL 350W DC			
Power supply		230 V (+/-10%) single phase	400 V (+20%/-15%) T	hree phase - 50/60 Hz	400 V (+/- 10%) - 50-60 Hz			
Effective input	current (maxi)	6.5 KVA	8.4 kVA	13.8 kVA	15 kVA			
Open circuit v	oltage	80 V	80 V	80 V	98.8 V			
Welding curre	nt range	5 to 200 A	5 to 300 A	5 to 400 A	4 to 350 A			
D. I I.	at 35%	200 A (30%)	300 A (30%)	400 A (30%)	350 A			
Duty cycle (at 40°C)	at 60%	150 A	230 A	320 A	260 A			
(at 40 C)	at 100%	130 A	200 A	270 A	220 A			
Connection TI	G	C5B						
Connection M	MA	13 mm						
Protection Ind	ex	IP 23 C IP 23 S						
Protection Cla	ISS		Н					
Weight		20 kg	20 kg (29 kg) *	31 kg (40 kg) *	99 kg			
Size (L x W x I	H)	410 x 180 x 390 mm	500 x 180 x 390 mm (air) / {	500 x 180 x 650 mm (water)	1 090 x 610 x 970 mm			
European star	ndards	EN 60974-1 / EN 60974-10						
*	- 11							

* with water cooling unit

To order

Version EASY	Power source only	-	W000381665	-	-
Version ADVANCED	Power source only	W000279723	W000279724	W000279725	W000263715



4 ADMIRAL 350 W DC

Features:

- User friendly front panel,
- Multi-purpose installation: TIG DC,
- Pulsed TIG / coated electrodes,
 Complete TIG welding cycle,
- 100 programme memory,Built-in cooling unit,
- Numerical control of the process.

Standard package:

- 1 ADMIRAL 350 W DC power source
- with integrated cooling unit,

2006-753

- 1 trolley,5 m primary cable,
- 5 m earth cable and clamp with DINSE connector,
- 1.5 m fitted gas hose.

To order		C		PRESTOTIG II 210 DC	PRESTOTIG II 310 DC	PRESTOTIG II 310 W DC	PRESTOTIG II 310 DC EASY	PRESTOTIG II 310 W DC EASY
Power sour	rce only			W000279723	W0002	279724	W000	381665
Add ons				·	·			
COOLERTIC	G II DC unit		W000279722	-	-	•	-	•
FREEZCOO	L cooler liquid 9.6	5 I	W000010167	-	-	•	-	•
PROTIG III 4	40 RL	5 m	W000382721	•	•	-	•	-
C5B/S torch	ו	8 m	W000382722	•	•	-	•	-
PROTIG III 1	IOW RL	5 m	W000382723	-	-	•	-	•
C5B/S torch	ו	8 m	W000382724	-	-	•	-	•
PROTIG III 3	35W RL	5 m	W000382725	-	-	•	-	•
C5B/S torch	ו	8 m	W000382726	-	-	•	-	•
MANOBLOO	C 4 - 30 I /min ma	noflowmeter	W000371303	•	•	•	•	•
MMA kit arc		35C50	W000011139	•	•	•	•	•
Options								
Wear parts	PROTIG III 10)W torches	W000306441	-	-	•	-	•
box	PROTIG III 35W	/ 40 torches	W000306444	•	•	•	•	•
Extension	Air-cooled tore	ches -15 m	W000306135	•	•	-	•	-
harness	Water-cooled to	orches -15 m	W000306136	-	-	•	-	•
Domoto con	Remote control RC1 5 m long 10 m long		W000263311	•	•	•	•	•
Remote con			W000270324	•	•	•	•	•
Foot pedal of	Foot pedal control FP1 5 m long W000263313			•	•	•	•	•
Trolley T3			W000277087	•	•	•	•	•

To order				PRESTOTIG II 410 DC	PRESTOTIG II 410 W DC	ADMIRAL 350 W DC
Power sour	ce only			W000	0279725	W000263715
Add ons						
COOLERTIC	à II DC unit		W000279722	-	•	-
FREEZCOO	L cooler liquid 9.6	61	W000010167	-	•	•
PROTIG III 4	0 RL	5 m	W000382721		-	-
C5B/S torch	l	8 m	W000382722		-	-
PROTIG III 1	0W RL	5 m	W000382723	-		
C5B/S torch	l	8 m	W000382724	-		•
PROTIG III 3	35W RL	5 m	W000382725	-		
C5B/S torch	1	8 m	W000382726	-	•	•
MANOBLOO	C 4 - 30 I /min ma	noflowmeter	W000371303	•	•	•
MMA kit arc		50C50	W000260681	•	•	•
Options						
Wear parts	PROTIG III 10	W torches	W000306441	-		
box	PROTIG III 35W	/ 40 torches	W000306444	•	•	•
Extension	Air-cooled tor	ches -15 m	W000306135	•	-	-
harness	Water-cooled to	orches -15 m	W000306136	-	•	•
Demete ees	Remote control RC1 5 m long 10 m long		W000263311	•	•	-
Remote con			W000270324	•	•	-
Foot pedal of	control FP1 5 m lo	ong	W000263313	•	•	-
Trolley T3			W000277087	•	•	-

2 - TIG welding (Inverter technology) AC/DC equipment

SAXOTIG / PRESTOTIG AC/DC TIG machines are designed for the welding specialists. SAXOTIG is the ideal machine to meet the requirements of maintenance applications, PRESTOTIG machines fulfill the most demanding welders needs. The rugged design and optimum performance makes these machines the ideal partner for all workshop and on-site requirements.



PRESTOTIG 350W AC/DC

Features:

- Built-in cooling unit,
- User-friendly front panel, • Using AC: adjustment of the balance cleaning



• Complete welding cycle: pre/post.gas - up/down

- slope current with setting, • MMA or 2T-4T TIG modes and spot mode selection,
- Pulsed TIG current,
- HF, TIG LIFT arc striking,
- Supply voltage defect indicator,
- · Digital display of parameter, • 9 Programs memory.
- To order Cat. No.

W000262991

- Standard package: • 1 PRESTOTIG 350 W AC/DC
- power source.
- 1 cooling unit included, • 5 m primary cable,
- 5 m earth cable & clamp and
- DINSE connector,

WARRANTY

1.5 m fitted gas hose.





indicators Welding cycle layout 3 TIG operation selection 4 MMA operation selection 5 Parameter value display 6 Torch cycle selection 7 Parameter selection 8 Striking selection HF/ Lift 9 Pulse / Spot selection (Advanced version)

1 Safety and operation

- 10 Program management (Advanced version)
- 11 Main regulation knob 12 Gas test
- 13 Remote control operations

		SAXOTIG 160 AC/DC	PRESTOTIG 240 (W) AC/DC ADVANCED - EASY	PRESTOTIG 310 (W) AC/DC ADVANCED - EASY	PRESTOTIG 350 W AC/DC
Main input vol	Itage	230 V (+/-10%) single phase 50/60 Hz	230 V (+/-15%) single phase 50/60 Hz	400 V (+/-10%) three phase 50/60 Hz	400 V (+/-10%) three phase 50/60 Hz
Maximum prin	nary consumption	6.2 kVA	6.0 kVA	7.9 kVA	11.7 kVA
Open circuit v	oltage	82 V	58 V	63 V	70 V
Welding curre	nt range	5 A - 150 A	3 A - 230 A	3 A - 300 A	3 to 350 A (DC) - 10 to 350 A (AC)
	35%	150 A (30%)	230 A (40%)	300 A	
Duty cycle at 40 °C	60%	100 A	200 A	230 A	350 A
at 40 0	100%	80 A	180 A	190 A	280 A
Connection	TIG	S	C5B	C5B	C5B
Connection	MMA	13 mm	13 mm	13 mm	13 mm
Protection Ind	lex / Class	IP 23 / H	IP 23 C	IP 23 C	IP 23 C / H
Weight (*with	water cooling unit)	21 kg	17 kg (26 kg*)	25 kg (33 kg*)	74 kg
Size (L x W x H)		410 x 220 x 430 mm	475 x 200 x 405 mm	505 x 195 x 440 mm	690 x 260 x 870 mm
_	EN 60974-1	•	•	•	•
European standards	EN 60974-10	•	•	•	•
Stanuarus	EN 61000-3-2/12	-	•	-	-

To order			SAXOTIG 160 AC/DC	PRESTOTIG 240 (W) AC/DC ADVANCED	PRESTOTIG 240 (W) AC/DC EASY	PRESTOTIG 310 (W) AC/DC ADVANCED	PRESTOTIG 310 (W) AC/DC EASY	PRESTOTIG 350 W AC/DC
Power source only			W000056009	W000275843	W000381666	W000278469	W000381668	W000262991
Add ons								
COOLERTIG II unit		W000275844	-	•	•	-	-	-
COOLERTIG III unit		W000278471	-	-	-	•	•	-
FREEZCOOL cooler	liquid 9.6 l	W000010167	-	•	•	•	•	•
PROTIG III 10 RL	5 m	W000382715	•	-	-	-	-	-
C5B/S torch	8 m	W000382716	•	-	-	-	-	-
PROTIG III 20 RL	5 m	W000382717	•	-	-	-	-	-
C5B/S torch	8 m	W000382718	•	-	-	-	-	-
PROTIG III 30 RL	5 m	W000382719	-	•		-	-	-
C5B/S torch	8 m	W000382720	-			-	-	-
PROTIG III 40 RL	5 m	W000382721	-	-	-	•	•	-
C5B/S torch	8 m	W000382722	-	-	-	•	•	-
PROTIG III 10W	5 m	W000382723	-	•	•	•	•	-
C5B/S torch	8 m	W000382724	-	•	•	•	•	-
PROTIG III 35W RL	5 m	W000382725	-	-	-	•	•	•
C5B/S torch	8 m	W000382726		-	-	•	•	
PROTIG NG	5 m	W000382727	-	-	-	-	-	•
40W RL C5B torch	8 m	On demand	-	-	-	-	-	
MANOBLOC 4 -	15 l/min	W000371305	•	•	•	-	-	-
manoflowmeter	30 l/min	W000371303	-	-	-	•	•	
	25C50	W000260684	•	-	-	-	-	-
	35C50	W000011139	-	•	•	-	-	-
MMA kit arc	50C50	W000260681	-	-	-	•	•	-
	50C50+	W000260682	-	-	-	-	-	
Options		1		1	1	1	1	1
	PROTIG III 10 torches	W000306441	•					-
	PROTIG III 20 torches	W000306442	•	-	-	-	-	-
Wear parts box	PROTIG III 30 torches	W000306443	-			-	-	-
	PROTIG III 35W / 40 torches	W000306444	-	-	-	•	•	•
	PROTIG III 40W torches	W000306445	-	-	-	_	-	•
Extension harness	Air-cooled - 15 m	W000306135	•	•	•	•	•	-
for torches	Water-cooled - 15 m	W000306136	-	•	•	•	•	
Remote control SAX		W000242069	•	_	_	_	_	_
	Foot pedal SAXOTIG 160 AC/DC		•	-	-	-	-	-
	RC1 – 5 m long	W000263311	_	•	•	•	•	-
	RC2 – 5 m long	W000263312	-	-	-	-	-	•
Remote control	RC1 – 10 m long	W000270324	-	•	•	•	•	-
	RC2 – 10 m long	W000270325	-	-	-	-	-	
	FP1 - 5 m long	W000263313	-		•	•	•	-
Foot pedal control	FP2 - 5 m long	W000263314	_	-	-	-	-	
	T3	W000277087	_	•	•	•	•	-
Trolley	T2A	W000263309	-	-	-	-	-	•
	127	1000200009			-	-		-

2 - TIG welding PROTIG III torches

The range of PROTIG III includes 4 air cooled, and 3 water cooled versions.

All torches are supplied ready to use, the standard fitting table gives more information.

Advantages:

- Wear parts and accessories are the same for the whole PROTIG range
- The blade trigger may be oriented around the handle
- Neoprene sleeve with good maneuverability
- 1 reference: the C5B connection of the torch is fitted as standard. It comes with banana plugs

• Robust metal trigger



PROTIG handles

The new PROTIG range comes in two handle models:

• The round handle with a blade trigger (RL)

These classic round handled TIG torches have been designed to meet all welding expectations in all positions. The trigger module is fully adjustable and can be moved to any position around the handle.

New design of the trigger module with metal blade.

The woven sheath and the handle sleeve ensure full flexibility of the harness.

2015-278



• The ergonomic handle with button (EB)

The best SAF-FRO TIG torches with an advanced ergo-design, using a colored soft grip for a maximum welder comfort. These torches will give you an optimum welding quality, and increase the communication between the welder and the machine.

The modular system brings a increased control over the power source. All torches are delivered with a single button module.

The ball joint gives excellent flexibility, and the first 1 m of the harness is leather which increases the service life of the welding hose.





	ate								2015-278		
				PROTIG	III 10W	PROTIG	III 35W	PROTIG	PROTIG III 40W		
Dut	у сус	le 10	0%	220	D A	350	AC	450	D A		
Fitte	əd	bac	k cap	loi	ng	loi	ng	long			
as		noz	zle	Ø 12	2 mm	Ø 15	i mm	Ø 14	mm		
stan	dard	elec	ctrode	Ø 2.4	1 mm	Ø 4.0	Ø 4.0 mm		3 mm		
Len	gth			5 m	8 m	5 m	8 m	5 m	8 m		
ခ္မ RL ဦ C5B/S			C5B/S	W000382723	W000382724	W000382725	W000382726	W000382727	On demand		
Handle	EB	Connector	C5B	W000278402	W000278403	W000278404	W000278405	W000278406	W000278407		

Connectors, adaptators

Connectors

The connectors to the machine are a new design, compact and fully protected delivering both strength and quality. All hoses are rubber with a woven sheath for heavy duty work.









Adaptators

For old torches with central gas to be connected to power sources with separate gas, use **W000306140**



For torches with separate gas to be connected to power sources with central gas, use **W000306141**.



2 - TIG welding PROTIG III torches



Wear parts

SAF-FRO sets the standard for wear parts, ensuring maximum quality for both welding and gas protection



Wear parts box

A complete kit for all applications. The kit includes electrode collets, nozzles, back caps and collet body. PROTIG III 10 / 10W PROTIG III 20 PROTIG III 30 PROTIG III 40 / 35W PROTIG III 40W W000306441 W000306442 W000306443 W000306444 W000306445



Modular system:

Standard delivery for EB all torches is a single button module. Other control module formats are available to order.



A Refer to the instruction manual to see the different connections for the modules.

For potmeter adapt the wiring to the welding machine.

Adjustable heads

As an option, adjustable torch bodies are available, designed to make welding in limited access locations easier with a choice of 2 heads, small and large which are mounted on air cooled or water cooled bodies.



Choose one body and one head to get a complete torch.

- Air cooled body (10/20)
- Water cooled body (10W)
- Head PROTIG NG 10/10W
- Head PROTIG NG 20
- W000279381 W000279382 W000279383 W000279384

Wear parts are common for both RL or EB handles.

		PROTIG III 10 / 10W	PROTIG III 20	PROTIG III 30	PROTIG III 35W / 40	PROTIG III 40W
	short	W000306220	W000306223	W000306223	W000306225	W000306227
1 - Back cap	medium	W000306221	-	-	-	-
	long	W000306222	W000306224	W000306224	W000306226	W000306228
2 - Back cap o-ring		W000306229	W000306230	W000306230	W000306231	W000306232
3 - Sealing ring		W000306210	W000306211	W000306211	W000306212	-
	Ø 1.0	W000306236	W000306241	W000306246	W000306252	-
	Ø 1.6	W000306237	W000306242	W000306247	W000306253	-
	Ø 2.0	W000306238	W000306243	W000306248	W000306254	-
	Ø 2.4	W000306239	W000306244	W000306249	W000306255	W000306262
4 - Electrode collet	Ø 2.5	W000306259	W000306260	W000306261	-	-
	Ø 3.2	W000306240	W000306245	W000306250	W000306256	W000306263
	Ø 4.0	-	-	W000306251	W000306257	W000306264
	Ø 4.8	-	-	-	W000306258	W000306265
5 - Collet body all diameters		W000306205	W000306206	W000306207	W000306208	W000306200
5* - Collet body heavy duty		-	-	-	* W000306201	-
	Ø 6.4	W000306269	W000306273	W000306277	W000306277	-
	Ø8	W000306270	W000306274	W000306278	W000306278	-
	Ø 9.6	W000306271	W000306275	W000306279	W000306279	-
6 - Nozzle	Ø 11	-	-	-	-	W000306282
	Ø 12.8	W000306272	W000306276	W000306280	W000306280	-
	Ø 14	-	-		-	W000306283
	Ø 15.7	-	-	W000306281	W000306281	-
	Ø 4.8	W000306456	-	-	-	-
	Ø 6.4	W000306457	-	W000306462	W000306462	-
	Ø 8	W000306458	-	W000306463	W000306463	-
	Ø 9.6	W000306459	-	W000306464	W000306464	-
6L - Long nozzle	Ø 11.2	-	-	W000306465	W000306465	-
	Ø 12.8	-	-	-	-	-
	Ø 14	-	-	-	-	-
	Ø 15.7	-	-	-	-	-
7 - Gas lens sealing ring		W000306210	W000306216	W000306216	W000306217	-
8 - Gas lens collet body		W000306213	W000306214	W000306214	W000306215	-
9 - Gas lens filter		W000306218	W000306219	W000306219	W000306219	-
	Ø8	W000306284	W000306287	W000306287	W000306287	-
	Ø 9.6	W000306285	W000306288	W000306288	W000306288	_
10 - Gas lens nozzle	Ø 11.2	W000306286	-	-	-	-
	Ø 12.8	-	W000306289	W000306289	W000306289	-
	Ø 15.7	-	W000306290	W000306290	W000306290	-
	Ø8	-	W000306467	W000306467	W000306467	-
	Ø 9.6	-	W000306468	W000306468	W000306468	-
10L - Long gas lens nozzle	Ø 11.2	-	W000306469	W000306469	W000306469	-
	Ø 12.8	-	W000306470	W000306470	W000306470	-
All PROTIG III wear parts					« heavy duty », use	the gas lens nozzles

All PROTIG III wear parts are compatible with the previous PROTIG NG range.

* For the collet body « heavy duty », use the gas lens nozzles

2 - TIG welding WTT2 TIG torches

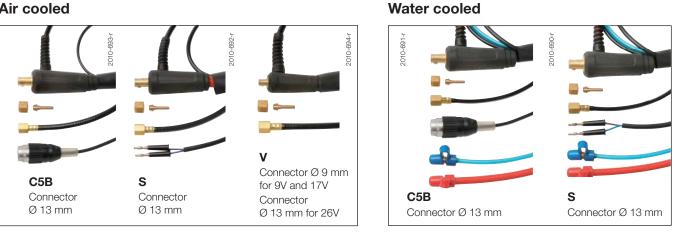
Simplicity and reliability

TIG torches which are reliable, flexible and use common wear parts. Connections and handles for all applications.



Connections

Air cooled



Air	cooling			WT1	F2 9	wтт	2 17	WTT2 26		
Dut	y cycle	60%	6	80	A	100 A 13		0 A		
at 4	O°C	35%	6	11(AC	13	5 A	18	0 A	
		Cap)	Mec	lium	Medium		Mec	dium	
Fitte		Noz	zle	Ø 10	mm	Ø 10) mm	Ø 12	Ø 12 mm	
vvitti	Electrode		ctrode	Ø 1.6	3 mm	Ø 2.0) mm	Ø 2.4	1 mm	
Len	gth			4 m	8 m	4 m	8 m	4 m	8 m	
	RL		S	W000278878	W000278923	W000278883	W000278918	W000278888	W000278914	
Ø	RL	ы	C5B	W000278879	W000278922	W000278884	W000278917	W000278890	W000278913	
Handle	EB	Connection	S	W000278877	W000278929	W000278881	W000278920	W000278886	W000278916	
Hai			C5B	W000278875	W000278926	W000278882	W000278919	W000278887	W000278915	
	V	ŏ	V	W000278876	-	W000278880	-	W000278885	-	
	EB-FLEX		S	W000382781	-	W000382782	W000382783	W000382784	W000382785	

Water cooling		WTT2	20W	WTT2 18W					
Duty cycle at 1		100%		200	D A	320 A			
40 °	°C	60%	6	250	D A	350	350 A		
		Cap	ט	Mec	lium	Mec	lium		
Fitte		Noz	zzle	Ø 12 mm Ø 12			2 mm		
	with		ctrode	Ø 2.4	1 mm	Ø 2.4 mm			
Len	gth			4 m	8 m	4 m	8 m		
	RL		S	W000278893	W000278906	W000278897	W000278900		
е		Connection	C5B	W000278894	W000278905	W000278898	W000278899		
Handle	EB EB		S	W000278891	W000278911	W000278895	W000278902		
Ï	ED	Con	C5B	W000278892	W000278909	W000278896	W000278901		
	EB-FLEX		S	W000382786	W000382787	W000382788	W000382789		

Adaptator

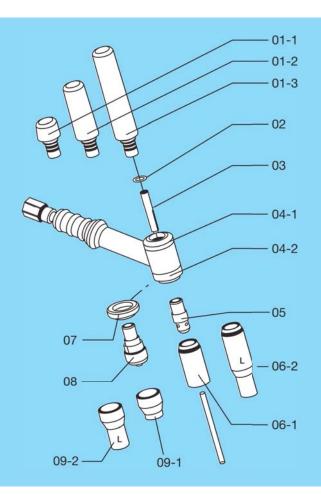
For connection of a 9 mm diameter torch to a 13 mm power source socket

W000306139



WTT2 TIG torches wear parts

		REP	WTT2 9 / 9V WTT2 20W	WTT2 17 / 17V WTT2 26 / 26V WTT2 18W
	short		W000306398	W000306399
Back cap	medium	01	W000306400	-
	long		W000306402	W000306403
Back cap O-	ring	02	W000306404	W000306405
Sealing ring		04-2	W000306396	W000306397
Insulating rin	g	04-1	W000270780	W000306395
	Ø 1.0		W000306406	W000306411
	Ø 1.6		W000306407	W000306412
Oplint	Ø 2.0	00	W000306408	W000306413
Collet	Ø 2.4	03	W000306409	W000306414
	Ø 3.2		W000306410	W000306415
	Ø 4.0		-	W000306416
	Ø 1.0		W000306376	W000306380
	Ø 1.6		W000306377	W000306381
	Ø 2.0		W000306378	W000270781
Collet body	Ø 2.4	05	W000306455	W000306382
	Ø 3.2		W000306379	W000306383
	Ø 4.0		-	W000306384
	Ø 6.4		W000306417	W000306423
	Ø 8.0		W000306418	W000306424
	Ø 9.6	06-1	W000306419	W000306425
Nozzle	Ø 11.2		W000306420	W000306426
	Ø 12.8		W000306421	W000306427
	Ø 16.0		W000306422	W000306428
	Ø 19.2		-	W000306461
	Ø 4.8		W000306456	-
	Ø 6.4		W000306457	W000306462
Long	Ø 8.0	06-2	W000306458	W000306463
nozzle	Ø 9.6	002	W000306459	W000306464
	Ø 11.2		-	W000306465
Gas L. sealin		07		W000306466
duo El oculin	Ø 1.0	01	W000306385	W000306389
	Ø 1.6		W000306386	W000306390
<u></u>	Ø 2.0		W000306460	-
G.L. collet body	Ø 2.4	08	W000306387	- W000306391
·····,	Ø 3.2		W000306387	W000306391
	Ø 4.0			W000306392
	Ø 6.4		- W000306429	W000306393
	Ø 8.0			W000306434
			- W000306431	
Gas L. nozzle	Ø 9.6	09-1		W000306436
	Ø 11.2 Ø 12.8		W000306432 W000306433	W000306437 W000306438
			1000300433	
	Ø 16.0		-	W000306439
Long	Ø 8.0		-	W000306467
G.L.	Ø 9.6	09-2	-	W000306468
nozzle	Ø 11.2		-	W000306469
	Ø 12.8		-	W000306470



Wear parts box

For an easier maintenance of the WTT2 torches, two boxes are available.

Box for WTT2 9 / 9V / 20W	W000371535
Box for WTT2 17 / 26 / 18W	W000371536



2 - TIG welding Tungsten electrodes



Choice criteria*

Туре	Metal	Arc stability	Striking	Lasting	Thermal resistance
Pure Tungsten	Light alloys	* *	*	*	*
Tungsten with Cerium	All	* *	*	* *	* *
Tungsten with Lanthanum	All	* *	* * *	* * *	* * *
Tungsten with rare Earths	All	* *	* * *	* * *	* * *

* * * Excellent * * Good * Average

* Color codification is following the DIN / EN26848 sandard. It can be seen on the electrode extremity.

Tungsten Electrodes NERTAL - 150 mm long.

Very high quality Tungsten electrodes (selected raw material and high-tech manufacturing process). Perfectly adapted to the most demanding applications.

Ø mm	NERTAL Pure Tungsten	NERTAL C Tungsten with Cerium	NERTAL L Tungsten with Lanthanum
1.0	S03710250	S03710530	-
1.6	S03710251	S03710531	S03710651
2.0	S03710252	S03710533	S03710652
2.4	S03710506	S03710534	S03710653
2.5	S03710268	-	-
3.2	S03710507	S03710537	S03710655
4.0	S03710254	S03710538	S03710656
4.8	S03710510	S03710539	-
5.0	S03710255	-	-
6.0	S03710256	-	-

See the batch number on the tungsten electrode packaging and consult conformity certificate on www.weldline-alw.com

minim minim

609-509

2006

Tungsten electrodes WELDLINE WP - WT 20 - WC 20 - WL 20 - WS 20

Ø mm	WP Pure Tungsten		WC20 Tungsten + 2% cerium		WL20 Tungsten + 2% lanthanum		WS 20 Tungsten + 2% rare earth
	150 mm	175 mm	150 mm	175 mm	150 mm	175 mm	175 mm
1.0	W000010009	-	W000010022	-	W000010373	-	W000335166
1.6	W000010010	W000010375	W000010023	W000335153	W000010016	W000010385	W000335167
2.0	W000010011	W000010376	W000010024	W000010381	W000010017	W000010386	W000335168
2.4	W000010012	W000010377	W000010025	W000335154	W000010018	W000010387	W000335169
3.0	W000010013	-	W000010026	-	W000010019	-	W000335170
3.2	W000010014	W000010378	W000335150	W000335157	W000010020	W000010388	W000335171
4.0	W000010015	W000335152	W000010028	W000335155	W000010021	W000010389	W000335172

Recommended welding intensities

	Direct	current	Alternating current		
Electrode	Electrode negative (-)	Electrode positive (+)		Tungsten with oxide addition	
diameter	Tungsten with oxide addition	Tungsten with oxide addition	Pure tungsten		
1.0 mm	10 A to 70 A	-	15 A to 55 A	15 A to 70 A	
1.6 mm	20 A to 100 A	10 A to 20 A	45 A to 90 A	60 A to 125 A	
2.0 mm	50 A to 140 A	15 A to 25 A	65 A to 125 A	85 A to 160 A	
2.4 mm	70 A to 170 A	15 A to 30 A	80 A to 140 A	120 A to 210 A	
3.0 mm	100 A to 210 A	20 A to 35 A	140 A to 180 A	140 A to 230 A	
3.2 mm	130 A to 250 A	20 A to 40 A	150 A to 190 A	150 A to 250 A	
4.0 mm	150 A to 350 A	35 A to 50 A	180 A to 260 A	240 A to 350 A	

2 - TIG welding Accessories

Magnetic stand for TIG torch

W000010803



TIG POINT

Chemical sharpening of tungsten electrodes.

W000011101



Extension

For PROTIG range and WTT2 torches, the extension harnesses are 15 m long and fitted with quick connectors and either S (banana) or 5 pins type trigger plugs.

The connectors are protected by a leather cover with velcro fasteners.

 Air cooled version

W000306135 • Water cooled version W000306136



NARRANTY

TIG-SHARP - Portable electric tool for tungsten electrode sharpening

Characteristics:

- All you need to sharpen your tungsten electrodes (all ranges) delivered in a practical metal case:
 - Sharpening machine
- Clamp to lock the stand to a bench
- Standard blue head for 1.6. 2.0, 2.4, 3.2 mm diameters
- Nozzle connectable on a vacuum cleaner for extraction
- of tungsten dusts
- Electrode holder to clamp TIG electrodes
- Tools to assemble and dismantle.
- For accurate sharpening:
- Choose the electrode diameter
- Select the grinding angle (10° to 70°)
- Start the machine
- Insert the electrode and turn it slowly.

An incredible result:

- The grind is perfect
- The grinding angle is very precise
- Longitudinal sharpening, precise and symmetric angle.
- Voltage: 220 V 50/60 Hz
- Power: 400 W
- Amperage: 1.8 A
- Disk speed: 30 000 tr/min
- Weight: 1.85 kg

Conform to CE standards. W000011035

Options:

- Red head (for electrodes Ø 1.0 / 4.0 / 4.8 / 6.0 mm) W000011037
- Blue head (for electrodes Ø 1.6 / 2.0 / 2.4 / 3.2 mm) W000011038
- Spare parts kit (disk holder and fixation) W000011124
- Spare diamond disk (double face). **W000011036**



2 - TIG welding Accessories

OPTICLEAN II

New inverter-technology installation for cleaning, polishing and marking of stainless steel. Use on TIG welds.

Your benefits:

- AESTHETIC: no stains on the steel after cleaning.
- ECOLOGICAL: no need to wear gloves or protective masks with the neutral solution. Large outdoor areas are not required: no toxic vapor emissions, no need for water treatment plant.
- ECONOMIC: no passivation after cleaning
- GAIN OF PRODUCTIVITY: no need to dip the pump into the liquid and to interrupt the operation several times.

Improvement of the quickness while increasing current. Efficiency increased with the carbon blush.

To order	OPTICLEAN II			
Machine OPTICLEAN II including :	W000382322			
Torch	W000275260			
Support torch	W000382323			
Supporte torch extension	W000382325			
Ground cable	W000375139			
Torch power cable	W000375141			
2,5 mm Allen key	W000382326			
Brush	W000382329			
Standard graphite insert 90°	W000382571			
Narrow graphite insert 90°	W000382572			
Tig Bond pad 90°	W000272348			
Narrow Tig Bond pad 90°	W000272351			
Brill Bomar solution	W000272347			
Neutral Bomar solution	W000272038			
Neutralizing solution Inox Fit 500 ml	W000274842			
Operating manual	-			
Options				
Marking Kit INCLUDING :	W000271936			
Black marking electrolyte 100 ml	W000272041			
Erosion white marking electrolyte 100 ml	W000382573			
Graphite marking insert 35 mm	W000272039			
Marking felts insert	W000272040			

Available sizes for the marking :

54 x 32 mm / 85 x 54 mm / 128 x 42,5 mm / 170 x 54 mm You just have to send your logo with the chosen dimensions.

You can simply order the marking kit and a cliché, providing us with your logo or any other writing: you can mark the product at least 500 times !

CAUTION: before use, carefully read and understand the safety datasheet available on www.weldline-alw.com



	OPTICLEAN II	
Supply Voltage	230 V / 1Ph	
Frequency	50/60 Hz	
Capacity	450 W	
Electrode Voltage	10/30 V AC/D	
Isolation Class	IP 23	
Noise level	< 10 dB (A)	
Machine weight (empty)	7 kg	
Machine dimensions	3 300 x 230 x 240 mm	

1 - Cleaning

Place the cleaning solution onto the torch and choose whether you want to use the pad or the brush, which gives better access to angles that are difficult to reach. Rub the weld till its colour becomes clean.

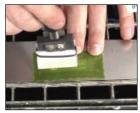
2 - Polishing

Place the polishing solution onto the torch and choose whether you want to use the pad or the brush. Rapidly, as you rub the weld, it will start to shine. Wipe your steel with a cloth rag in order to avoid stains.

3 - Marking

Take the appropriate suitcase containing both marking and eroding electrolytes. Rub the marking felt moistened with the electrolytic solution on the screen printing frame. Your logo is printed on the metal.





2 - TIG welding Stainless steel treatment



Weldline proposes a complete range of products for stainless steels treatment.

There are three essential phases for a good surface treatment:

1 Degreasing

- 2 Pickling
- **3** Passivation



PAINTBRUSH (Compatible with acid)
To order: W000267116

The first two are «intermediate phases», which means that they can be repeated in different working stages. The third, passivation, always represents the final treatment step.

1 CLEANOX (Degreasing- Liquid)

Degreasing is the essential process before any thermal treatment.

It avoids incidental remains of oil or dust which interact (contamination) with the metal during welding or thermal treatment of stainless steel.

It can be repeated in the following phases, in case further thermal processing is required, before the final passivation.



To order:

CLEANOX L (liquid) 6 kg W000266423 CLEANOX L (liquid) 30 kg W000266425

How to use CLEANOX DEGREASER

Dilute the degreaser with 30% to 50% water and allow it to vaporize on the surface to be treated. Leave for a few minutes to allow the product to act and then rinse with clean water. Do not expose the product or treated surface to sunlight or to any atmospheric agents.

2 PICKLINOX (Pickling - Product in gel, paste or liquid)

Pickling is the operation that permits, the remove of all oxides after welding, removing the surface layer following a thermal treatment.

It is the most important step in the treatment process.

A welding bead and generally a heated surface, lose their stainless property (Cr < 12%).

For this reason, a pickling operation does not mean only cleaning the welding bead but it restores the stainless steel characteristics.



To order: PICKLINOX G (gel) 2 kg

 PICKLINOX G (gel) 2 kg
 W000266426

 PICKLINOX G (gel) 10 kg
 W000266427

 PICKLINOX P (paste) 2 kg
 W000266428

 PICKLINOX P (paste) 10 kg
 W000266429

PICKLINOX L (liquid) 10 kg W000266422

How to use PICKLINOX GEL or PASTE

Degrease the surface to be treated with the

specific CLEANOX product. Then apply a coat of PICKLINOX paste or gel. The exposure time will vary from a few minutes up to 30 minutes depending on the type of steel being welded. At the end of treatment remove the gel or the paste with clean water.

Do not expose the product or treated surface to sunlight or to any atmospheric agents.

3 RESTORINOX (Passivation - Product in gel)

This is the final phase of the process, and is absolutely necessary for restoring the stainless property. With passivation is created a «desired oxidation».

In fact this working phase restores the chromium layer damaged by heat shortening the spontaneous oxidation time.

In this way, the oxide layer which protects the surface from external agents is restored.



To order:

RESTORINOX G (gel) 2 kg W000266430 RESTORINOX G (gel) 10 kg W000266431 RESTORINOX L (liquid) 30 kg W000266424

How to use RESTORINOX

First degrease and pickle the part to be treated with CLEANOX and PICKLINOX. Then apply the product. The times required for exposure will vary from 20 minutes up to 60 minutes. At the end of the treatment remove the product with clean water.

Do not expose the product or treated surface to sunlight or to any atmospheric agents.

2 - TIG welding **MICROPLASMA** and **TIG** process

Manual and automatic welding applications

For the manual or automatic assembly of thin precious metals in the thickness range : 0.05 - 1.0 mm (stainless steels, Inconel, titanium, silver and gold alloys).

Electric components industries, electronics, small containers, metallic filters and tool repair. Medical sector, watchmakers, goldsmiths.

PLASMAFIX 51

Characteristics:

- User friendly front panel. • Multilingual display.
- Totally programmable welding cycles.
- 100 programmes memory.
- Configuration which is
- adapted to the user's needs. • Programme print out.
- Also for TIG welding.
- Equipped of RS 232 for coupling a P.C.
- or printer • Cooling by a liquid
- Tungsten electrodes: Ø 1.0 or 1.6 mm, 75 or 150 mm long,



	N	
REFRIJET 51	hi	
Cooling unit		2011-433
		2011

To order

PLASMAFIX 51 (power source only)	W000315658
REFRIJET 51 (cooling unit)	W000315645
Double pressure regulator	W000315646
EUROSAF regulator GC	W000290234
Connection kit for regulators	W000352486
Microplasma earth cable	W000315644
TIG adaptor for SP45 torch	W000315813
FREEZCOOL cooling liquid 9.6 L	W000010167
Package (containing all the above equipment a	and a SP 45 torch)
Package manual (with SP 45 manual torch 4 m long)	W000274273
Package automatic (with SP 45 automatic torch 4 m long)	W000274274

	PLASMAFIX 51		
Primary power supply:	·		
Power supply (V)	230-400-440 V - 50/60 Hz Three-phase		
Cos φ	0.91		
Max. primary power (phased)	6 A (under 400 V)		
Secondary:			
PLASMA smooth and pulsed	mini 80 m A - maxi 50 A at 100%		
TIG smooth and pulsed	mini 0.8 A - maxi 50 A at 60%		
No load voltage	106 V		
Pulse frequency	1 Hz to 10 kHz		
Other characteristics:			
Front panel programmation	by keys and code		
Display	by LCD bill sticker		
Cooling	by cooling unit outside power source		
HF source	built-in		
Main and annular gas circuit	built-in		
Back shielding gas circuit	option (integrable)		
Protection class	IP 23		
Weight	95 kg		
Size (L x W x H)	650 x 360 x 750 mm		

REFRIJET 51 cooling unit _ . _ .

Cooling by liquid in a closed circuit of the SP 45 torch and the power source (power supply by PLASMAFIX 51 power source)					
Power supply 230 V - 50/60 Hz					
Capacity	61				
Power consumption 2 200 W at 20 °C					
Weight	36 kg				
Size (L x W x H)	720 x 360 x 340 mm				

To order

Torches		
SP45 manual torch	4 m long	W000273236
	8 m long	W000315652
SP45 automatic torch	4 m long	W000273237
SF45 automatic torch	8 m long	W000370619
Wear parts box for SP	45 torch	W000315651
	4 m long	W000315653
SP 20 manual torch	8 m long	W000370620
Wear parts box for SP	W000370622	
SP 20 automatic torch	W000315655	
SP 20 automatic torch	8 m long	W000370621
Wear parts box for SP	W000370777	
Options		
Trolley PX 51	W000315659	
Trigger - current Pedal	On demand	

2 - TIG welding MICROPLASMA and TIG process

Wear parts for SP torches

To order		SP 45	SP 20
Tungsten electrode	Ø 1.0 mm	W000010373	
+ 2 % lanthanum	Ø 1.6 mm	W000010016	-
	Ø 0.6 mm	W000315812	W000315814
	Ø 0.8 mm	W000315801	W000315815
Constricting	Ø 1.0 mm	W000315802	W000315820
nozzles	Ø 1.2 mm	W000315803	W000315816
	Ø 1.5 mm	W000315804	-
	Ø 1.8 mm	W000315805	-
	Ø 7.0 mm	W000315809	-
	Ø 8.0 mm	-	W000370774
Alumina nozzles	Ø 9.0 mm	W000315810	-
	Ø 10.0 mm	-	W000315826
	Ø 11.0 mm	W000315811	-
	Ø 0.6 mm	W000371896	-
	Ø 0.8 mm		W000372283
Constricting	Ø 1.0 mm	W000371898	W000372282
1022103 45	Ø 1.2 mm		W000372281
	Ø 1.5 / 1.8 mm	W000371901	-
	Ø 0.6 mm	W000371902	-
o	Ø 0.8 mm	W000371902	W000372280
Constricting nozzles 90°	Ø 1.0 mm	W000371903	W000315825
1022103 50	Ø 1.2 mm	W000371903	W000372279
	Ø 1.5 / 1.8 mm	W000371904	-
Alumina nozzle 45°	-	W000371895	W000372284
Alumina nozzle 90°	-	W000371894	W000372284

Welding lathes



Power supply	230 V - 50 Hz*		
Rotation speed	0.1 - 11 tr/min		
Concentricity of tail stock	± 0.02 mm		
Tail stock force	1 950 Ncm		
Central axis	166 mm		
Maximum distance between point	500 mm		
Maximum admissible diameter	320 mm		
Drilling of plug • with axis 3 bits • with fastening holders	Ø 48 mm Ø 20 / 32 / 42 mm Ø 16 mm		
Weight	150 kg		

* For version 60 Hz and for other dimensions consult us.

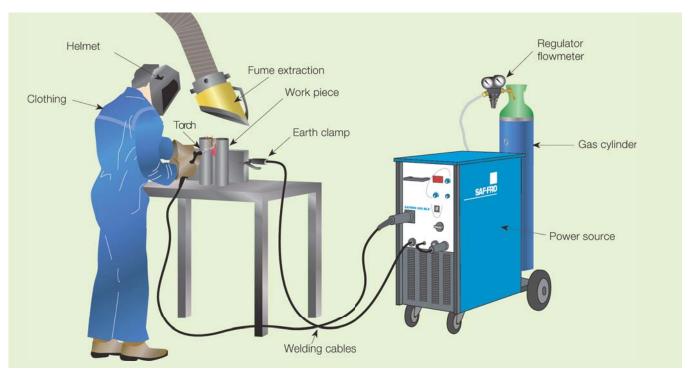


$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
 1 electrode positioning template, electrodes
x Ø 1.6 mm.

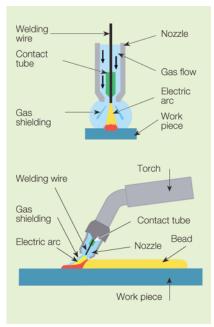
Section 3 - MIG/MAG welding General information and choice criteria



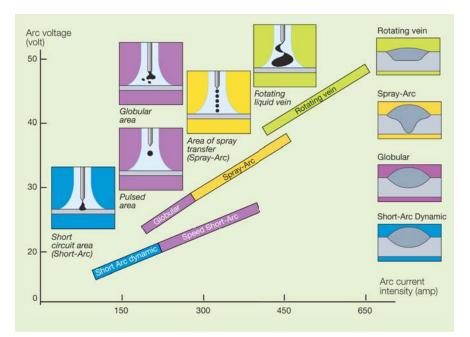
Scheme of a manual installation for MIG/MAG welding

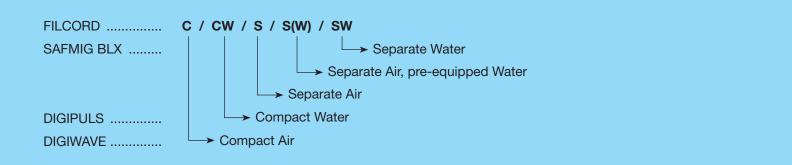


MIG/MAG welding



Transfer modes





Arc transfer modes

• Short-Arc transfer:

The Short Arc has a low spatter rate with good wetting and is suited to welding thin steel plate, working in position and penetration passes This mode is characterized by alternating short circuits and light arc.

• Speed Short-Arc[™] transfer:

(Air Liquide Welding exclusivity)

The Speed Short Arc allows a high travel speed due to a rigid arc and a cold regime. It is very effective for welding thin steel plates, working in position and in closed angle and filling bevels. The SSA[™] is used for short circuit welding though the normal globular regime travel speed domain.

SSA[™] advantages

- Increase in travel speed
- Reduced distortion (thin steel sheets)

Criteria choice for MIG/MAG equipment

- Suited to welding in position
- Tolerance and usability.

Globular transfer:

Metal is transferred in the arc as large drops with hardly masterred trajectories. It's a transfer mode giving low quality results.

• Spray-Arc transfer:

Metal is transferred in the arc as small droplets. The mode is very regular but requires high welding parameters and therefore is usable only for thickness above 5 mm.

• Pulsed transfer:

This pulsed current called "standard", is a very efficient arc regime; it enables welding of fine sheet metal from 1 mm thickness. It is used on all metals (steel, stainless steel, aluminum) with solid wires as with certain flux-cored wires. Almost total elimination of spatter, and thus of finishing.

Advantages:

- Excellent weld bead appearance
- Reduction of fume emissions
- All positional.

• Spray Modal[™] transfer (Air Liquide Welding exclusivity)

Spray-MODAL[™] is a process that greatly reduces micro porosity and increases penetration.

It can be used in all positions and is particularly effective on aluminium sheets greater than 3 mm. Spray-MODAL[™] uses a low-frequency modulated current which has the effect of removing most hydrogen bubbles from the weld pool before solidification.

igh

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Spray-MODAL[™] advantages

- Reduces porosity
- Increases penetration
- All-position welding
- Higher travel speed.

	Main power	Welding	Wire	Wire feeder			
Name	supply	Technology	current range	rent range diameter		Separate	Rollers
PRESTOMIG 180 MP PFC	Single phase	Inverter	30 - 180 A	0.6 - 1.0 mm	v	-	2
PRESTOMIG 200 MP	Single phase	Inverter	30 - 200 A	0.6 - 1.2 mm	v	-	2
FILCORD 171C	Single phase	Step control	30 - 170 A	0.6 - 1.0 mm	v	-	2
FILCORD 203C	Three phase	Step control	27 - 200 A	0.6 - 1.0 mm	~	-	4
FILCORD 253C	Three phase	Step control	35 - 250 A	0.6 - 1.0 mm	v	-	4
FILCORD 303C / S	Three phase	Step control	35 - 300 A	0.6 - 1.2 mm	~	v	4
FILCORD 353C / S	Three phase	Step control	35 - 350 A	0.6 - 1.2 mm	v	v	4
FILCORD 453S (W)	Three phase	Step control	50 - 450 A	0.6 - 1.6 mm	-	v	4
SAFMIG 400 BLX C / CW / S / SW	Three phase	Step control	30 - 380 A	0.8 - 1.6 mm	v	v	4
SAFMIG 500 BLX SW	Three phase	Step control	16 - 480 A	0.8 - 2.4 mm	-	v	4
DIGISTEEL III 320 C	Three phase	Inverter	15 - 320 A	0.6 - 1.2 mm	v	-	4
DIGIPULS III 320 C	Three phase	Inverter	15 - 320 A	0.6 - 1.2 mm	V	-	4
DIGISTEEL III 420 S / SW	Three phase	Inverter	15 - 420 A	0.6 - 1.6 mm	-	v	4
DIGISTEEL III 520 S / SW	Three phase	Inverter	15 - 500 A	0.6 - 1.6 mm	-	v	4
DIGIPULS III 420 S / SW	Three phase	Inverter	15 - 420 A	0.6 - 1.6 mm	-	v	4
DIGIPULS III 520 S / SW	Three phase	Inverter	15 - 500 A	0.6 - 1.6 mm	-	v	4
DIGIWAVE III 420 S / SW	Three phase	Inverter	15 - 420 A	0.6 - 1.6 mm	-	~	4
DIGIWAVE III 520 S / SW	Three phase	Inverter	15 - 500 A	0.6 - 1.6 mm	-	~	4

3 - MIG/MAG welding Professional compact machines (enclosed wire feeder)

Single phase inverter MIG/MAG welding

PRESTOMIG 180MP PFC, an essential single phase inverter, generator compatible, compact, easy to move, with precise weld quality and with very good arc ignition.

Its front panel is simplified to give direct access to the welding parameters in manual or synergic mode (MIG/MAG only) with simple criteria setting. With the Flex-Line function the unit provides state-of-the-art flexibility by automatically connecting to 115 or 230V single phase power (50/60Hz) without removing the cover to relink the power source.

The 2 large graphic display help the welder to select and control quickly all processes, MMA, TIG and MIG/MAG.



		PRESTOMIG 180MP PFC					
Input voltages		115V +/- 10% - 50/60Hz - Single phase			230V +/-10% - 50/60Hz - Single phase		
Welding processes		MMA	TIG	MIG/MAG	MMA	TIG	MIG/MAG
Max. primary consumpt	ion	26 A	17.2 A	27 A	23 A	14.5 A	22 A
Effective consumption		16.5 A	11 A	16 A	10.3 A	6.6 A	11 A
Effective power		1.9 KVA	1.26 KVA	1.84 KVA	2.37 KVA	1.52 KVA	2.53 KVA
Welding current		20 - 100 A	5 - 110 A	30 - 120 A	20 - 170 A	5 - 170 A	30 - 180 A
Duty cycle 10 min. / 40 °C	at Imax.	100 A / 40%	110 A / 40%	120 A /35%	170 A /20%	170 A /20%	180 A / 25%
	at 60%	85 A	90 A	90 A	100 A	100 A	100 A
	at 100%	65 A	70 A	75 A	85 A	85 A	85 A
Open circuit voltage		80 V	9.5 V	60 V	80 V	9.5 V	60 V
Consumables (Ø electro	des/wires)	1.6 - 2.0 mm	1.0 - 1.6 mm	0.8 mm	1.6 - 4.0 mm	1.0 - 2.4 mm	0.8 - 1.0 mm
Protection degree IP 22 S							
Isolation class		Н					
Standard		EN 60974-1 / EN 60974-5 / EN 60974-10					
Size (W x H x L)		215 x 390 x 550 mm					
Weight		16.0 Kg					

To order

Power source only	W000386226			
Add ons				
DDOMIO NO 1017 touch	3 m	W000275408		
PROMIG NG 181T torch	4 m	W000275419		
WELDLINE WMT2 15A torch	3 m	W000277445		
WELDLINE WWIZ 15A torch	4 m	W000277447		
MMA KIT arc 25C25+	W000260683			
TIG torch with valve WTT2 17V	W000278880			
MANOBLOC 4 - 15 I /min manoflowmeter	W000371305			
Options				
Wear parts box WTT2 17	W000371536			
Universal Trolley	W000375730			



3 - MIG/MAG welding Professional compact machines (enclosed wire feeder)

Single phase inverter MIG/MAG welding

PRESTOMIG 200MP, an essential single phase inverter, generator compatible, compact, easy to move, with precise weld quality and with very good arc ignition.

The large graphic display help the welder to select and control quickly all processes, MMA, TIG and MIG/MAG.



		PRESTOMIG 200MP						
PRIMARY								
Power supply		230 V +/-10 % - single phase - 50 / 60 Hz						
Frequency			50/60 Hz					
Power		8.6 kVA						
SECONDARY		MMA	MMA TIG MIG/MAG					
No-load voltage		65 V 65 V 35 V						
Current range		5 A - 200 A	5 A - 200 A	30 A - 200 A				
	100%	95 A	120 A	105 A				
Duty Cycle @ 40 °C	60%	120 A	130 A	130 A				
	20%	200 A	200 A (at 30%)	200 A				
Protection degree			IP 22S					
Isolation class		Н						
Standard		EN60974-1 / EN60974-5 / EN60974-10						
Size (L x W x H)		500 x 280 x 420 mm						
Net weight		15 kg						

To order

Power source only	W000377724	
Add ons		
PROMIG NG 181T torch	3 m	W000275408
PROMIGING 1811 LOPCH	4 m	W000275419
WELDLINE WMT2 25A torch	3 m	W000277473
WELDLINE WWITZ 25A LORCH	4 m	W000277474
MMA KIT arc 25C50	W000260684	
TIG torch with valve WTT2 26V	W000278885	
MANOBLOC 4 - 15 I /min mano	oflowmeter	W000371305
Options		
Wear parts box WTT2 26	W000371536	
Universal Trolley	W000375730	
Spool support diameter 300 m	W000378662	

MIG/MAG

Welding current from 30 to 200 A • Easy to use : select and weld:

- Synergy (12): material/gas/wire diameter.
- Mode 2T / 4T / Spot. - Thickness.
- · Reverse polarity to allow welding of "self shielded" welding wires (no-gas).
- 12 synergies, carbon steel, stainless steel, aluminium
- and MIG brazing. • 40 programs recordable.
- Use wire spools diameter
- 200 mm and 300 mm (option).

• European connector torch.

- Slope-up.
- Burn-back.
- Electronic inductance.
- · Post-gas.
- Hot-start (2T,4T) and crater filler (4T).



3 - MIG/MAG welding

MIG/MAG Step control range

Professional compact machines (enclosed wire feeder)

The **FILCORD** machine range is manufactured using quality electrical components to provide fast and positive wire feed response via a 4-roll drive (FILCORD 171C - 2 roll) system. Each machine offers smooth trouble free welding operation.



		FILCORD 171 C	FILCORD 203 C	FILCORD 253 C	FILCORD 303 C	FILCORD 353 C	
Power supply		230 V single phase 230 V / 400 V three phase (+/- 10%) - 50 Hz					
Primary effective cor	sumption	7.5 A	10.4 A / 6 A	14.8 A / 8.5 A	19.5 A / 11.3 A	25 A / 14.2 A	
Primary consumption	n at I max.	24 A	19 A / 11 A	27 A / 15.6 A	33 A / 19 A	41 A / 24 A	
No-load voltage		18 - 32 V	18 - 35 V	18 - 40 V	18 - 45 V	18 - 45 V	
Welding current		30 to 170 A	27 to 200 A	35 to 250 A	35 to 300 A	35 to 350 A	
Duty cycle	35%	140 A (at 18%)	200 A (at 30%)	250 A	300 A	350 A	
10 min. cycle	60%	-	140 A	170 A	230 A	270 A	
(at 40 °C)	100%	-	110 A	140 A	180 A	210 A	
Adjustment voltage s	steps	6	7	12	14	21	
Inductance settings		1	1	2	2	3	
Number of rollers		2	4	4	4	4	
Reverse polarity		Yes	Yes	Yes	Yes	Yes	
Digital display		No	Option	Option	Yes	Yes	
Size (L x W x H)		340 x 800 x 540	800 x 510 x 690	800 x 510 x 690	890 x 610 x 1 030	890 x 610 x 1 030	
Weight		38.5 kg	71 kg	77 kg	96 kg	100 kg	
Protection index		IP 21		IP	23		
Protection class	ass H						
Standard				EN 60974-1			

To order			FILCORD 171 C	FILCORD 203 C	FILCORD 253 C	FILCORD 303 C	FILCORD 353 C
Power source			W000263762	W000263765	W000263766	W000263767	W000263768
Add ons			-				
PROMIG NG 141T torch	3 m	W000275406	•	-	-	-	-
PROMIGING 1411 torch	4 m	W000275407	•	-	-	-	-
	3 m	W000277445	•	-	-	-	-
WELDLINE WMT2 15A torch	4 m	W000277447	•	-	-	-	-
	3 m	W000275408	-	•	-	-	-
PROMIG NG 181T torch	4 m	W000275419	-	•	-	-	-
	3 m	W000277473	-	•	•	-	-
WELDLINE WMT2 25A torch	4 m	W000277474	-	•	•	-	-
	3 m	W000345060	-	-	•	•	-
PROMIG NG 241 torch	4 m	W000345061	-	-	•	•	-
	3 m	W000277482	-	-	-	•	•
WELDLINE WMT2 36A torch	4 m	W000277483	-	-	-	•	•
	3 m	W000345066	-	-	-	-	•
PROMIG NG 341 torch	4 m	W000345067	-	-	-	-	•
MANOBLOC 4-manoflowmeter 30I /min W000371303		•	•	•	•	•	
Options							
Disital disalay bit *		W000050000					

Digital display kit *	W000352093	-	•	•	-	-
Torch arm rest for compact installation	W000261845	-	•	•	•	•

* Digital display included for FILCORD 303C & 353C

FILCORD 303 C

Features:

- User-friendly front panel,
- 2T/4T and spot modes,
- 4 roll wire feed,
- Reverse polarity (gasless),
- 2 x 7 voltage steps,
- 2 inductance positions,
- Digital display included.

To order - Cat. No. W000263767

Standard package:

- 1 power source with wheels,
- 1 ergonomic lower cylinder holder,
- 1 upper cylinder support with torch rest,
- 3 m primary cable,
- 5 m earth cable and clamp with DINSE connector,
- 2 m fitted gas hose,
- 1 accessories kit for solid wire 0.8-1.0 mm.



FILCORD 353 C

Features:

- User-friendly front panel,
- 2T/4T and spot modes,
- 4 roll wire feed,
- Reverse polarity (gasless),
- 3 x 7 voltage steps,
- 3 inductance positions,
- Digital display included.

To order - Cat. No. W000263768

Standard package:

- 1 power source with wheels,
- 1 ergonomic lower cylinder holder,
- 1 upper cylinder support with torch rest,
- 3 m primary cable,
- 5 m earth cable and clamp with DINSE connector,
- 2 m fitted gas hose,
- 1 accessories kit for solid wire 1.0 -1.2 mm.



3 - MIG/MAG welding

MIG/MAG Step control range

Professional separate machines (external wire feeder)



		FILCORD 303 S	FILCORD 353 S	FILCORD 453 S	FILCORD 453 SW		
Power supply		230 V / 400 V three phase (+/- 10%) 50 Hz					
Primary effective c	onsumption	19.5 A / 11.3 A	25 A / 14.2 A	35.5 A / 20.5 A			
Primary consumpti	on at I max.	33 A / 19 A	41 A / 24 A	60 A /	34.5 A		
No-load voltage		18 - 45 V	18 - 45 V	19 -	54 V		
Welding current		35 to 300 A	35 to 350 A	51 to	450 A		
Duty cycle	35%	300 A	350 A	450	A		
10 min. cycle	60%	230 A	270 A	34	5 A		
(at 40 °C)	100%	180 A	210 A	270 A			
Adjustment voltag	e steps	14	21	30			
Inductance setting	js	2	3	3			
Number of rollers		4	4	4			
Reverse polarity (g	gasless)	No	No	N	0		
Digital display		Yes	Yes	Yes			
Size (L x W x H)		890 x 610 x 1 030	890 x 610 x 1 030	890 x 61	0 x 1 030		
Weight		120 kg	125 kg	135	i kg		
Proctection index			IP 23				
Proctection class			Н				
Standard			EN 60974-1				

To order			FILCORD 303 S	FILCORD 353 S	FILCORD 453 S	FILCORD 453 SW
Power source			W000263769	W000263770	W000263771	W000263771
Add ons						·
Separate air	DV 405F harness - 5 m	W000263774	•	•	•	-
cooled wire feeder	DV 410F harness - 10 m	W000263775	•	٠	•	-
Separate water cooled wire feeder	DV 400FW	W000262181	-	-	-	•
Harness	5 m	W000262342	-	-	-	•
DV 400 FW water	10 m	W000262343	-	-	-	•
Cooling Unit FC		W000273686	-	-	-	•
Antifreeze cooling liqu	uid FREEZCOOL	W000010167	-	-	-	•
PROMIG	3 m	W000345060	•	-	-	-
NG 241 torch	4 m	W000345061	•	-	-	-
WELDLINE	3 m	W000277482	•	•	-	-
WMT2 36A torch	4 m	W000277483	•	•	-	-
PROMIG	3 m	W000345066	-	•	-	-
NG 341 torch	4 m	W000345067	-	•	-	-
PROMIG	3 m	W000345072	-	-		-
NG 441 torch	4 m	W000345073	-	-	•	-
PROMIG	3 m	W000345075	-	-	-	•
NG 441W torch	4 m	W000345076	-	-	-	•
WELDLINE	3 m	W000370826	-	-	-	•
WMT2 - 401W torch	4 m	W000370827	-	-	-	•
MANOBLOC 4-mano	flowmeter 30I /min	W000371303	•	•	•	•
Options						
Boom arm for separa	te installation	W000261846	•	۲	•	•

FILCORD 453 S / 453 SW

Features:

- Power source with self protected safety switchs,
- Separate wire feeder with digital display,
- 1 accessory kit for solid wires 1.0-1.2 mm,
- User-friendly front panel,
- 2T/4T and spot modes,
- 4 roll wire feed,
- 3 x 7 voltage steps, • 3 inductance settings.

To order -

453 S(W): Cat. No. W000263771

Standard package:

- 1 power source with handle and wheels,
- 1 ergonomic lower cylinder holder,
- 1 upper cylinder support with torch rest,
- 3 m primary cable,
- 5 m earth cable and clamp with DINSE connector,
- 2 m fitted gas hose.



WARRANTY









2012-402

3 - MIG/MAG welding MIG/MAG Step control range with ESP Industrial installations

The **SAFMIG BLX** range are conventional switched MIG-MAG welding installations with ESP help system setting. These units are equipped with digital wire speed regulation, maintaining a constant value in wire feed supply regardless of variations in resistance. This characteristic produces a perfectly stable arc for high quality defect free welds and excellent surface appearance.



		SAFMIG 400 BLX	SAFMIG 500 BLX		
Power supply		230 V / 400 V three phase (+/- 10%) 50/60 Hz			
Primary effective consump	otion	30.4 A / 17.6 A	44.9 A / 25.9 A		
Primary consumption at I r	nax.	47 A / 27 A	63 A / 36 A		
No-load voltage		16.6 - 45.8 V	15.8 - 50.4 V		
Welding current		28 to 380 A	16 to 480 A		
Duty cycle	45%	380 A (at 40%)	480 A (at 50%)		
10 min. cycle	60%	320 A	410 A		
(at 40 °C)	100%	280 A	350 A		
Adjustment voltage steps		30	30		
Inductance settings		2	2		
Number of rollers		4	4		
Reverse polarity (gasless)		Yes	Yes		
Digital display		Yes	Yes		
Size (L x W x H)		925 x 580 x 1 060 mm	925 x 580 x 1 060 mm		
Weight		161 kg	201 kg		
Proctection index		IP	23		
Proctection class		Н			
Standard		EN 60	974-1		

To order			SAFMIG 400 BLX	SAFMIG 400 BLX W	SAFMIG 400 BLX S	SAFMIG 400 BLX SW	SAFMIG 500 BLX SW
Power source			W000260979	W000260980	W000260981	W000260982	W000260984
Add ons							
Air cooled wire feeder	Harness 5 m	W000260986	-	-	•	-	-
DV 44X mobile on trolley	Harness 10 m	W000260987	-	-	•	-	-
Water cooled	Harness 5 m	W000260988	-	-	-	•	•
wire feeder	Harness 10 m	W000260989	-	-	-	•	•
DV 44X mobile	Harness 15 m	W000268547	-	-	-	•	•
on trolley	Harness 20 m	W000268546	-	-	-	•	•
Antifreeze coolir liquid FREEZCC		W000010167	-	•	-	•	•
PROMIG	Torch 3 m	W000345060	-	-	-	-	-
NG 241	Torch 4 m	W000345061	-	-	-	-	-
WELDLINE	Torch 3 m	W000277482	•	-	•	-	-
WMT2 36A	Torch 4 m	W000277483	•	-	•	-	-
PROMIG	Torch 3 m	W000345066	•	-	•	-	-
NG 341	Torch 4 m	W000345067	•	-	•	-	-
PROMIG	Torch 3 m	W000345069	-	•	-	•	-
NG 341W	Torch 4 m	W000345070	-	•	-	•	-
PROMIG	Torch 3 m	W000345072	•	-	•	-	-
NG 441	Torch 4 m	W000345073		-	•	-	-
PROMIG	Torch 3 m	W000345075	-	•	-	•	•
NG 441W	Torch 4 m	W000345076	-	•	-	•	•
WELDLINE	Torch 3 m	W000277492	-	•	-	•	•
WMT2 500W	Torch 4 m	W000277493	-	•	-	•	•
MANOBLOC 4 - 30I /min	manoflowmeter	W000371303	•	•	•	•	•
Options							
Boom arm for compact installa	ation	W000261845	•	•	-	-	-
Boom arm for separate installa	ition	W000261846	-	-	•	•	•
Wire feeder swiv	vel mount	W000055048	-	-	•	•	•
Suspension su	ipport	W000305061	-	-	•	•	•

3 - MIG/MAG welding Industrial High Tech equipment (Inverter technology) FLAT CURRENT

DIGISTEEL III 320 C is the new product on the MIG/MAG welding market offering superior quality welding and advanced welding processes with a simple interface at a competitive price. About 30% of saving on the annual electrical invoice, compared to the use of a classical MIG/MAG machine.

DIGISTEEL III 320 C Features:	To order -		
 More than 80 synergies are available in flat current, Front panels are easy to undersand and use, Small machine for easier access. 	Cat. No. W000385049 Standard package: • 1 power source with handle, • 1 connected primary cable		2015-725
 Sinal machine for easier access, Light installation, Compatible with motor generator, Full range of processes: Standard MIG/MAG Speed Short Arc Mig brazing MMA coated electrode, Powerfull installation up to 320 A at 409 Storage of 99 welding programs, Parameters locking with a digit code, 	5 m long, • 1 ground cable L = 5 m with clamp and DINSE connector.		
 The parameters will be limited from 0 to +/- 20% range, Program call with trigger. 	3ph E-PHASE SAVE ENERGY MMA	MOTOR GENERATOR COMPATIBLE	4 DRIVE ROLLERS

Power source		DIGISTEEL III 320 C		
PRIMARY				
Power supply - 3 p	hases - 50/60 Hz	400 V (+/- 20%) - 50 / 60 Hz		
Maximum primary	consumption (100%)	18,7 A		
Temporised fuses		20 A		
SECONDARY				
Open circuit voltag	e	74 V		
Welding range		15 A - 320 A		
Duty avala	40%	320 A		
Duty cycle	60%	280 A		
APPLICATION				
Processes		MIG-MAG / Speed Short Arc™ / MIG Brazing / Sequencer mode / MMA		
Additional feature		Synergic machine		
Programs		99 programs		
GENERAL				
Standard		EN 60974-1 - 60974-5 - EN 60974-10		
Protection index		IP 23H		
Size (L x W x H) - W	Veight	755 x 300 x 523 mm - 28 kg		

Wire feeder

Rollers	4 drive rollers
Wire speed	0,5 to 25 m/min
Wire Ø - Steel & Stainless steel	0.6 - 1.2 mm
Wire Ø - FCW & Aluminium	1.0 - 1.2 mm
Regulation	2 potentiometers
Additional feature	Program management
Display	2 LCD displays
Cooling unit	COOLER III (On demand)

To order

Power source	DIGISTEEL III 320 C	W000385049
COOLER III cooling unit	On demand	
Antifreeze cooling liquid FREEZCOOL 9,6 I	_	W000010167
	3 m	W000345066
Air cooled torch PROMIG NG 341	4 m	W000345067
	5 m	W000345068
DIGITORCH P 341 with potentiometer	4 m	W000345014
	3 m	W000345069
Water cooling torch PROMIG NG 341W if optional Cooler III	4 m	W000345070
	5 m	W000345071
DIGITORCH P 341 W with potentiometer if optional COOLER III	4 m	W000345016
MANOBLOC 4-manoflowmeter 30I /min		W000371303
Options		
Trolley II		W000383000
Universal trolley	W000375730	
Remote control	RC Simple	W000275904
Alukit BOX DVU	Wire 1.0 / 1.2	W000277622
Anti dust filter		W000373703

DIGISTEEL III 320 C : Add ons and options

Trolley

- 1 UNIVERSAL TROLLEY W000375730
- 2 Trolley II W000383000

Remote control

- 3 Simple remote control 10 m long W000275904
- 4 Anti dust filter. For power source protection W000373703
- 5 COOLER III On demand



3 - MIG/MAG welding Industrial High Tech equipment (Inverter technology) FLAT CURRENT

DIGISTEEL III 420 & 520 are the new product on the MIG/MAG welding market offering superior quality welding and advanced welding processes with a simple interface

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at a competitive price. Moreover DIGISTEEL III 420 & 520 are designed in a modular system to fit with all user's requirements.

New inverter generation offering 30% less primary consumption regarding conventionnal equipment. Due to its performant efficiency you are saving significant amount on your energy cost.

you are saving significant amour	nt on your energy cost.				
DIGISTEEL III 420 & 520 Features: • Fully digital controlled inverter, • More than 80 synergies are available in flat of • Front panels are easy to understand and use • Small machine for easier access, • Light installation, • Compatible with motor generator, • Full range of processes: • Standard MIG/MAG • Speed Short Arc • Mig brazing • Gouging (up to 6.3 mm diameter electrode) • MMA coated electrode, • Storage of 99 welding programs, • Parameters locking with a digit code, • The parameters will be limited from 0 to +/- 5 • Harnesses (up to 50 m), • Program call with trigger.	To order DIGISTEEL III 420 - Cat. No. W000383615 To order DIGISTEEL III 520 - Cat. No. W000383617 Standard package: • 1 power source with handle, • 1 connected primary cable 5 m long • 1 ground cable L = 5 m with clamp and DINSE connector.				
Power source	DIGISTEEL III 420	DIGISTEEL III 520			
PRIMARY					
Power supply - 3 phases - 50/60 Hz	400 V (+/- 204	%) - 50 / 60 Hz			
Maximum primary consumption (100%)	26 A	33.9 A			
Temporised fuses	25 A	32 A			
SECONDARY					
Open circuit voltage	73	3 V			
Welding range	15 A - 420 A	15 A - 500 A			
Duty cycle 60%	420 A	500 A			
(10 min cycle at 40°C) 100%	350 A	450 A			
APPLICATION					
Processes	MIG-MAG / Speed Short ArcTM High Penetration Speed (HPS) / Sequencer / MIG Brazing / MMA / Gouging				
Additional feature	Synergic	machine			
Programs	99 (with expert wire	e feeder or RC JOB)			
GENERAL					
Standard	EN 60974-1 -	EN 60974-10			
Protection index		23H			
Size (L x W x H) - Weight	720 x 295 x 525 - 34 kg	720 x 295 x 525 - 40 kg			
Wire feeder	DVU P400	DVU P500 expert			
Rollers		e rollers			
Wire speed		5 m/min			
Wire Ø - Stainless steel		.6 mm			
Wire Ø - Cored wires		.6 mm			
Wire Ø - Aluminium		.6 mm			
Regulation	2 potentiometers	2 encoders			
Additional feature	-	Program management			
Display	-	3 LCD displays			
GENERAL Protection (Insulation		224			
Protection / Insulation Standards		23H EN 60974-10			
Standards Size (L x W x H) - Weight	EN 60974-5 - 265 x 590 x 383 mm - 17.5 kg	265 x 590 x 383 mm - 17.5 kg			
	ŬŬ				
Cooling unit		ER III			
Cooling power		kW			
Maximum pressure		bar			
Size (L x W x H) - Weight	720 x 280 x 2	720 x 280 x 270 mm - 16 kg			

To order		
Wire feeder	Simple DVU P 400	W000275266
	Expert DVU P 500	W000275267
	2 m	W000275894
	5 m	W000275895
	10 m	W000275896
DIGISTEEL Harnesses Air version	15 m	W000275897
DIGISTELE Hamesses Air Version	25 m	W000276901
	30 m	W000371246
	40 m	W000371245
	50 m	W000371244
	2 m	W000275898
	5 m	W000275899
DIGISTEEL Harnesses Water version	10 m	W000275900
	15 m	W000275901
	25 m	W000276902
COOLER III cooling unit		W000273516
Antifreeze cooling liquid FREEZCOOL 9,6 L		W000010167
	3 m	W000345072
Air cooled torch PROMIG NG 441	4 m	W000345073
	5 m	W000345074
DIGITORCH P 341 with potentiometer	4 m	W000345014
·	3 m	W000345075
Water cooling torch PROMIG NG 441W	4 m	W000345076
-	5 m	W000345077
	3 m	W000274865
Water cooling torch PROMIG NG 450W	4 m	W000274866
-	5 m	W000274867
DIGITORCH P 341 W with potentiometer	4 m	W000345016
DIGITORCH P 441 W with potentiometer	4 m	W000345018
MANOBLOC 4 m - manoflowmeter 30l / mir	1	W000371303
Options		
Trolley II		W000383000
Support (for wire feeder in vertical suspensi	on)	W000377985
Boom arm support		W000371976
Trolley On site for power source		W000372274
Safety device (for cooler)		W000376539
Trolley Wire Feeder DVU P400 - P500		W000275908
	RC Simple	W000275904
Remote control	RC JOB	W000273134
Additional flowmeter	DVU P400 & P500	W000275905
Alukit BOX DVU P400 & P500	Wire 1.0 / 1.2 Wire 1.2 / 1.6	W000277622 W000277623
Anti dust filter		W000277023
POWER BOX Auto-transformer 230V - 400	V	W000375705
	v	1000303100



DIGISTEEL III 420 & 520 - DIGIPULS III 420 & 520 : Add ons and options

Wire feeders

1 Standard DVU P400 W000275266

 Expert DVU P500

 99 programs
 possibility to lock welding parameters
 LCD display

W000275267

Trolley

- On site trolley for power source
 W000372274
- 4 Trolley for wire feeder DVU W000275908

5 Trolley II W000383000

Trolley for complete equipment (power source + Cooling unit + Wire feeder)

6 Support W000377985

7 Flowmeter W000275905

Remote control

- 8 Simple remote control 10 m long W000275904
- 9 Expert remote control 10 m long RC JOB W000273134
- 10 COOLER III W000273516
- 11 Anti Dust Filter W000373703
- 12 Aluminium welding kit
 - ALUKIT DVU 1.0 1.2 W000277622
 - ALUKIT DVU 1.2 1.6 W000277623
- II
 PUSH PULS III electronic circuit.

 Allowing to connect a push-pull torch
 W000386223
- 14 Boom arm support W000371976

3 - MIG/MAG welding Industrial High Tech equipment (Inverter technology) PULSED CURRENT

DIGIPULS III 320 C is the new product on the MIG/MAG welding market offering superior quality welding and advanced welding processes with a simple interface at a competitive price. About 30% of saving on the annual electrical invoice, compared to the use of a classical MIG/MAG machine.



		DIGIPULS III 320 C
Power supply - Three phase - 50/60 Hz		400 V (+/- 20%) - 50 / 60 Hz
Primary consumption at I max.		18.7 A
Fuse rating		20 A
No-load voltage		74 V
Welding current		15 A - 320 A
Duty cycle 10 min. cycle (at 40 °C)	60%	320 A (at 40%)
Duty cycle to min. cycle (at 40°C)	100%	220 A
Number of rollers		4 drive rollers
Size (L x W x H)	Power source	755 x 300 x 523 mm
Weight Power source		29 kg
Proctection index		IP 23H
Standard		EN 60974-1 - EN 60974-10

To order

Power source	DIGIPULS III 320 C	W000385050
Add ons		
COOLER II cooling unit		On demand
Antifreeze cooling liquid FREEZ	ZCOOL	W000010167
PROMIG NG 341 torch	3 m	W000345066
FROMINING 341 LOICH	4 m	W000345067
PROMIG NG 341W torch	3 m	W000345066
(If optional COOLER III)	4 m	W000345070
DIGITORCH P 341	4 m	W000345014
DIGITORCH P 341W (If optional COOLER III)	4 m	W000345016
MANOBLOC 4-manoflowmeter	r 30I /min	W000371303
Options		
Trolley II		W000383000
Remote control	RC SIMPLE 10 m	W000275904
Anti dust filter		W000373703
ALUKIT box DIGIPULS III	Wire 1.0 / 1.2 mm	W000277622
	Wire 1.2 / 1.6 mm	W000277623
Universal trolley	W000375730	
Power box auto-transformer 23	30 V - 400 V	W000305106

DIGIPULS III 320 C : Add ons and options

Trolley

- 1 UNIVERSAL TROLLEY W000375730
- 2 Trolley II W000383000

Remote control

- 3 Simple remote control 10 m long W000275904
- 4 Anti dust filter. For power source protection W000373703
- 5 COOLER III On demand



3 - MIG/MAG welding Industrial High Tech equipment (Inverter technology) PULSED CURRENT

The **DIGIPULS III** high tech MIG/MAG equipment fits perfectly with the needs of the most demanding welding applications in various segments. Whatever your requirements, you will find with the DIGIPULS III a superior welding quality with advanced processes with simple settings through an easy to use interface. DIGIPULS III have been designed in a modular form for easy workshop mobility to suit all welding applications (manual or automatic).



		DIGIPULS III 420	DIGIPULS III 520		
Power supply - Three phase - 50/60 Hz		400 V (+/- 20%) - 50 / 60 Hz			
Primary consumption at I max.		27.1 A	33.9 A		
Fuse rating		25 A	32 A		
No-load voltage		73 V	73 V		
Welding current		15 A - 420 A	15 A - 500 A		
Duty cycle 10 min. cycle (at 40 °C)	60%	420 A	500 A		
Duty cycle to min. cycle (at 40°C)	100%	350 A	450 A		
Number of rollers		4 drive rollers			
	Power source	720 x 295 x 525 mm			
Size (L x W x H)	Wire feeder	265 x 590	x 383 mm		
	Cooling unit	720 x 280	x 270 mm		
	Power source	34 kg	40 kg		
Weight	Wire feeder	17.5	5 kg		
Cooling unit		16 kg			
Proctection index		IP 23H			
Standard		EN 60974-1 - EN 60974-10			

To order			DIGIPULS III 420 S	DIGIPULS III 420 SW	DIGIPULS III 520 S	DIGIPULS III 520 SW	
Power source			W0003	383661	W000383662		
Add ons							
Wine feeder	W000275266	•	•	•	•		
Wire feeder	Expert - DVU P 500	W000275267	•	•	•	•	
	2 m	W000275894	•	-	•	-	
	5 m	W000275895	•	-	•	-	
	10 m	W000275896	•	-	•	-	
DIGIPULS III	15 m	W000275897		-		-	
Standard harnesses	25 m	W000276901		-		-	
air version	30 m	W000371246	•	-	•	-	
	40 m	W000371245	•	-	•	-	
	50 m	W000371244	•	-	•	-	
	2 m	W000275898	-		-		
	5 m	W000275899	_	•	-	•	
DIGIPULS III Standard harnesses	10 m	W000275900	_		_		
water version	15 m	W000275901	_		-		
	25 m	W000276902	_	•	_	•	
	23 m	W000270902 W000371044	-		-		
				•		•	
DIGIPULS III	5 m	W000371045	-		-		
Aluminium harnesses water version	10 m	W000371175	-	•	-	•	
water version	15 m	W000371174	-	•	-	•	
	25 m	W000371239	-	•	-	•	
COOLER II cooling unit		W000273516	-		-		
Antifreeze cooling liquid F	REEZCOOL	W000010167	-	•	-	•	
PROMIG NG 341 torch	3 m	W000345066	•	-	-	-	
	4 m	W000345067	•	-	-	-	
PROMIG NG 341W torch	3 m	W000345066	-	•	-	-	
	4 m	W000345070	-	•	-	-	
PROMIG NG 441 torch	3 m	W000345066	•	-	•	-	
	4 m	W000345073	•	-	•	-	
	3 m	W000345066	-		-		
PROMIG NG 441W torch	4 m	W000345076	-	•	-	•	
DIGITORCH P 341	4 m	W000345014	•	-	•	-	
DIGITORCH P 341W	4 m	W000345016	-	•	-	-	
DIGITORCH P 441W	4 m	W000345018	-	•	-	•	
MANOBLOC 4 - manoflow	vmeter 30I /min	W000371303		•	•	•	
Options						1	
Trolley II		W000383000					
Trolley on site		W000372274	•	-	•	-	
Boom arm support		W000371976	•				
Trolley wire feeder	DVU P400 & P500	W000275908	•	•	•	•	
Support (for wire feeder in		W000377985	•			•	
	RC SIMPLE (10 m)	W000275904	•	•	•	•	
Remote control	RC JOB	W000273134	•	•	•	•	
Push -pull board	NO JOB	W000273134	•	•	•		
•			•	•	•		
Anti dust filter		W000373703		•	•		
	PROMIG PP 441W	W000385862	-	•	-	•	
Push-Pull PROMIG PP	PROMIG PP 441W	W000385863	-	•	-	•	
(Neck 45°- 8 m)	with potentiometer						
water version	PROMIG PP 441W with remote control	W000385864	_		_		
	& digital display					-	
Push-Pull PROMIG PP	PROMIG PP 341	W000385860	•	-	•	-	
(Neck 45°- 8 m)	PROMIG PP 341						
air version	with potentiometer	W000385861	•	-	•	-	
Additional flowmeter	DVU P 400 & P 500	W000275905	•	•	•	•	
	Wire 1.0 / 1.2 mm	W000277622	•	•	•		
ALUKIT box	Wire 1.2 / 1.6 mm	W000277623	•	•	•	•	

3 - MIG/MAG welding Industrial High Tech equipment (Inverter technology) PULSED CURRENT

The **DIGIWAVE III** embodies a new generation of welding machines more and more modern, entirely adaptable to your needs. With its smart design, its color screen and its innovative communication interfaces, it concretizes the most recent technologic breakthroughs and positions itself at the cutting edge of the welding techniques. Integrating sophisticated functionalities of tuning and control, the DIGIWAVE III is much more than a simple machine, it is the welding solution.

GOUGING

TIG LIFT

DIGIWAVE III range, the decisive advantages in comparison with the DIGIPULS III range :

- New inverter generation offering 30% less primary consumption regarding conventionnal equipment. Due to its performant efficiency you are saving significant amount on your energy cost.
- the DIGIWAVE III provides more than 200 synergic curves
- The DIGIWAVE III offers the possibility to realize yourselves up to 50 customizable synergic curves.

WARBANTY

SAVE ENERGY

MODIII AR

- Outstanding welding performances
- Large colour screen for easy and precise setting
- Traceability of the welding parameters
- · Customization of the synergic curves

DIGIWAVE III 420 S / SW & 520 S / SW

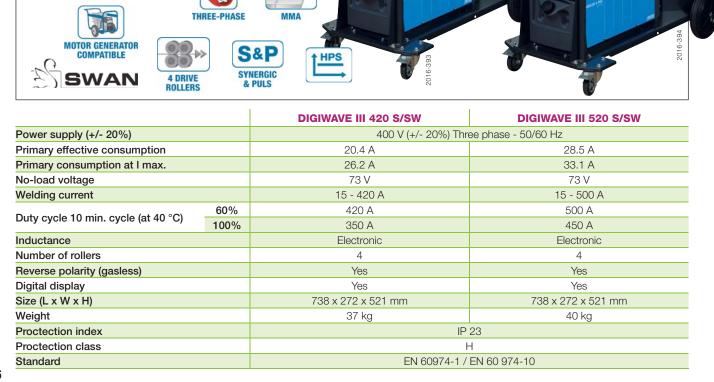
- DIGIWAVE III 420 S / SW Cat. No. W000384989
- is delivered with:1 power source with handle
- 5 m primary cable,
- 5 m primary cable,
 5 m earth cable and clamp
- with DINSE connector,
- 2 m fitted gas hose,
- Usb key including user manual.

DIGIWAVE III 520 S / SW Cat. No. W000384990 is delivered with:

- 1 power source with handle
- 5 m primary cable,
- 5 m earth cable and clamp with DINSE connector,
- Usb key including user manual.



- Monitoring with USB, Ethernet
- High tech automation & robotique application
- More processes : Soft current, Pulsed, SSA, SSP, **Spray Modal**, Cold double pulse, HPS, **Advanced Sequencer** ...
- Welding processes : MIG-MAG / MMA / TIG Lift / Gouging
- the necessary programs can be grouped into a list and be chained with the trigger during welding
- Advanced torch "DIGITAL"



To order			DIGIWAVE III 420 S	DIGIWAVE III 420 SW	DIGIWAVE III 520 S	DIGIWAVE III 520 SW	
Power source			W0003	384989	W000384990		
Add ons							
Wire feeder	DVU W500	W000372327					
	2 m	W000275894	•	-	•	-	
	5 m	W000275895	•	-	•	-	
	10 m	W000275896	•	-	•	-	
DIGIWAVE III	15 m	W000275897	•	-	•	-	
Standard harness air version	25 m	W000276901	•	-	•	-	
	30 m	W000371246	•	-	•	-	
	40 m	W000371245	•	-	•	-	
	50 m	W000371244	•	-	•	-	
	2 m	W000275898	-	•	-	•	
DIGIWAVE III	5 m	W000275899	-	•	-	•	
Standard harness	10 m	W000275900	-	•	-	•	
water version	15 m	W000275901	-	•	-	•	
	25 m	W000276902	-		-		
	2 m	W000371044	-	•	-	•	
DIGIWAVE III	5 m	W000371045	_	•	_		
Aluminium harness	10 m	W000371175	_	•	-		
water version	15 m	W000371174	_	•	_		
	25 m	W000371239	_	•	-		
	23 111	W0000371239	-	•	-		
COOLER II cooling unit				-	-		
Antifreeze cooling liquid F		W000010167	-	•	-	•	
PROMIG NG 341 torch	3 m	W000345066	•	-	-	-	
	4 m	W000345067	•	-	-	-	
PROMIG NG 341W torch	3 m	W000345066	-	•	-	-	
	4 m	W000345070	-	•	-	-	
PROMIG NG 441 torch	3 m	W000345066		-		-	
	4 m	W000345073	•	-	•	-	
PROMIG NG 441W torch	3 m	W000345066	-	•	-	•	
	4 m	W000345076	-	•	-	•	
DIGITORCH II E 341	4 m	W000373831	•	-		-	
DIGITORCH II E 341W	4 m	W000373832	-	•	-	-	
DIGITORCH II E 441W	4 m	W000373833	-	•	-	•	
DIGITORCH II E 450W	4 m	W000379190	-	•	-	•	
MANOBLOC 4 - manoflow	vmeter 30I /min	W000371303		•		•	
Options							
Trolley II		W000383000	•	•	•	•	
Trolley on site		W000372274	•		•		
Boom arm support		W000371976		•			
Trolley WF II		W000275908	•	•	•	•	
Support (for wire feeder in	vertical suspension)	W000377985	•	•	•	•	
_	RC SIMPLE (10 m)	W000275904	•	•	•	•	
Remote control	RC JOB II (10 m)	W000371925	•	•	•	•	
Push -pull board		W000386223	•	•	•	•	
Anti dust filter		W000373703				•	
	PROMIG PP 441W	W000385862	-	•	-	•	
	PROMIG PP 441W			-		-	
Push-Pull PROMIG PP	with potentiometer	W000385863	-	•	-	•	
(Neck 45°- 8 m)	•						
water version	PROMIG PP 441W with remote control	W000385864	-	•	-	•	
	& digital display						
Push-Pull PROMIG PP	PROMIG PP 341	W000385860	•	-		-	
(Neck 45°- 8 m) air version	PROMIG PP 341 with potentiometer	W000385861	•	-	•	-	
Additional flowmeter For DVU W500		W000275905	•	•	•	•	
· · · · · · · · · · · · · · · · · · ·	Wire 1.0 / 1.2 mm	W000277622	•	•	•	•	
ALUKIT box	Wire 1.2 / 1.6 mm	W000277623	•		•	•	
TIG torch adaptor	-	W000379466	•	•	•	•	
	age welding parameters	On demand	•	•	•		

3 - MIG/MAG welding

Supervising Welding Administrator Network Monitoring & traceability (Softwave SWAN)



>Per period

>Per duration



FUNCTIONS

Easy setting

Display of welding data Welding curves display Job viewer & Comparison mode Statistics mode Storage of welding activities Control your entire welding activities

Detect any issue thanks to process control

Manage service interval for each machine

Build your welding database

Report & Ensure your expertise to customer

New machines automatically added



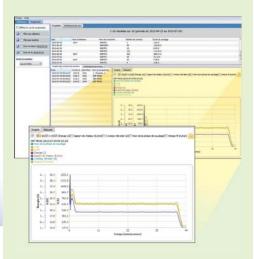
You can have an acces of your database through the SWAN viewer

Searching

Per welder >Per machine >Per date

Data & Curves

- Current Voltage Wire Speed >Heat input
- >Welding phase Motor consumption >Job parameters



Each weld bead are identified with an unique number.



Statistics

- Machine usage >Welder activities >Fault detection
- Link welder/ machine
- >Welding board



3 - MIG/MAG welding Wear parts for 4 roll wire feeders

Wire feeder : DVU P400 - DVU P500 - DV YARD PC D200 - DVU W500

DIGISTEEL - DIGISTEEL III - DIGIPULS II - DIGIPULS III - DIGIWAVE II - DIGIWAVE III

Ø	ð m	nm	Entry wire guide	e Roll diam. 37		Middle wire guide	Exit wir	e guide	ALUKIT			
	<u>e</u>	0.6		W000305125								
	steel	0.8		W000000120	W000267598		W000277335					
Steel /	Stainless	1.0	W000277333	W000267599		W000277334	W000277333					
<i>o</i> .	tain	1.2			W000305126			W000277336				
		1.6			W000000120			1000211000				
Aluminium		1.0							W000277622			
ui Li		1.2	Included in ALUKIT	Included in ALUKIT		Included in ALUKIT		Included in ALUKIT	Included i	in ALUKIT	W000211022	W000277623
Alu		1.6								W000211023		
	e	1.0		W000277010			W000277335					
Flux	Ň.	1.2	W000277333	*******	W000266330	W000277334	W000211333	W000277336				
Ē	cored wire	1.6	1000211000	W000277011	11000200000	11000211004		11000211000				
	0	2.4										

Wire feeder: DV 400 CDR - DV 400 WKS - DV 500 CDR - DV 500

DIGIPULS: DV 400 CDR - DV 400 WKS DIGIWAVE: DV 500 CDR DIGIMAG: DV 500

Øn	nm	Entry wi	re guide	Roll di	am. 37	Middle w	vire guide	Exit wir	e guide	ALU	IKIT
/ steel	0.6			W000305125			W000162834				
	0.8	W0003	205150		W000267598	W0001			W000241685		
Steel Steel	1.2	w0003	505150	W000267599			02034	W000255655			
С.	1.6				W000305126				W000241682		
E	1.0			W000260185		186 W000305135				W000255648	
Aluminium	1.2	Included i		1000200100	W000260186			Included		11000200040	W000255649
Jum	1.6	monuacu		W000260187	11000200100		00100	moladea		W000255650	11000200040
_ <	2.4			1000200107						11000200000	
	1.0							W000255655			
>	1.2	W000305150		W000266330		W000162834		VV000200000	W000241682		
FCW	1.6			1000200330					WUUU241002		
<u>.</u>	2.0		W000257395		W000266331		W000257397	W000257396			
	2.4										

Wire feeders: DV 44X - DV 44i D37

SAFMIG BLX: DV 44X OPTIMAG: DV 44i D37

Øn	nm	n Entry wire guide Roll diam. 37		Middle w	vire guide	Exit wi	e guide	ALU	IKIT				
ē	0.6			W000305125									
l / s steel	0.8			1000000120	W000267598				W000271819				
Steel	1.0	W0003	805150	W000267599		W0001	62834	W000271820					
Steel Stainless	1.2				W000305126				W000271821				
0,	1.6												
Ę	1.0			W000260185		W000260185						W000255648	
Aluminium	1.2	Included i	in ALUKIT		W000260186	W0003	305135	Included	in ALUKIT		W000255649		
lum	1.6			W000260187									
<	2.4			11000200107									
	1.0							W000271820					
>	1.2	W000305150		W000266330		W000162834		W000271020	W000271821				
FCW	1.6			**000200330					10002/1021				
	2.0		W000257395		W000266331		W000257397						
	2.4												

3 - MIG/MAG welding Wear parts for wire feeders

Wear parts for wire feeder - PRESTOMIG - FILCORD

			PRESTOMIG 180 MP	PRESTOMIG 200 MP	FILCORD 171 C	FILCORD 203C - 253C - 303C/S - 353S - 453S
Wire	Entry		W0003	378664	W000231810	W000352069
guide	Exit		WOOO	378663	W0002	269661
guide	Middle		W0003	570003	W0002	252183
		0.6 mm	WOOO	378667	W000232110	W000050096
	Steel /	0.8 mm	W0003	0/000/	W000232110	W000050097
	Stainless	1.0 mm	WOOO	378666	W000352055	W000050098
	steel	1.2 mm	WUUUS	0000	W000352055	W000050099
Roller		1.6 mm		-	-	W000218767
Roller		0.8 mm	WOOO	378668	-	W000050100
	Aluminium	1.0 mm	W0003	0000	-	W000050101
		1.2 mm	W0003	378669	-	W000050102
	Flux cored	1.0 - 1.2 mm	W0003	378666	-	W000229621
	wore wire	1.4 - 1.6 mm		-	-	W000233882

Add ons for MIG/MAG power sources

Power box

Autotransfomer 230-400 V three phase.

Allows electric feeding of inverter technology power sources with duty cycle up to 350 A @ 60%. Can be used with

PRESTO 220 VRD BUFFALO 350i CC/CV PRESTOTIG II 310, 410 DC ADMIRAL 350 DC

- PRESTOJET 2C DIGISTEEL III 320 C DIGIPULS III 320 C DIGISTEEL III 420
- DIGIPULS III 420 DIGIWAVE III 420.

Input voltage	230 V
Output voltage	400 V
Maximal output intensity	28 A
Power	20 kVa
Protection index	IP 21
Weight	44 kg
Size (L x W x H)	550 x 255 x 255 mm
Cat. n°	W000305106

Ergonomic boom arm



 Must be fixed on the top of the power source or on swivel (when available).



Autonomous cooling unit

For every MIG/MAG or TIG power source with water cooled torch.

On demand

 FREEZCOOL

 Red (9.6 litres)
 W000010167



• Gas Inlet Connections:

Fitting. NFA - type C

G 1/4 EN 560

and ISO 14001

• Gas Outlet Connections:

• Weight: Approx. 3.5 Kg

 Certification: Manufacturer certified according to ISO 9001

GAS MIXER - Argon / CO₂

The benefit :

306-054

Obtaining a homogeneous "active mixture" and Great constancy over time. Allows access to all arc transfer modes which Air Liquide Welding MIG / MAG power sources can offer when mix gases are not available locally.

Technical data:

- Modèle: 0 CO2 25%
- Gas: Argon-CO₂
- Mixer range: 0 to 25%Input Pressure:
- Mput Pressure.
 min. 3 bar, max. 300 bar
 Accuracy of setting:
- \pm 1% abs. (0-25% scale)
- Accuracy of mixture: ±1%

To order:

-7003

GAS MIXER 0 – 25 % - 25L/min W000382961 GAS MIXER INLETS SET NF Cn W000382962 GAS MIXER RUSSIAN INLETS SET W000382963



3 - MIG/MAG welding PROMIG NG torches

A complete range of MIG/MAG torches

- Extra flexible coaxial cable with ultra-resistant elastomer outer,
- Ergonomic handle with ball joint for perfect handling,
- Long lasting active part with few parts (monobloc nozzle).

Air cooled



3 - MIG/MAG welding PROMIG NG torches

Water cooled



2006-955

- Duty cycle at 100% 420 A (CO₂) - 380 A (Ar+CO₂)
- Original equipment:
 steel 1.2 mm
 nozzle Ø 16 mm
 Wire diameters:
 1.0 to 1.6 mm.
- To order:
- 3 m W000345075
- 4 m W000345076
- 5 m W000345077

3 - MIG/MAG welding DIGITORCH range

With DIGITORCH the operator can set the parameters from the handle.

DIGITORCH II E for DIGIWAVE II & III power sources

- A Digital display of parameters
- **B** +/- setting buttons
- C Mode selection button (programme, current, arc length).



Air cooled

DIGITORCH P for DIGISTEEL, DIGISTEEL III , DIGIPULS, DIGIPULS II & DIGIPULS III power sources

Double potmeter for setting:

- Energy and arc length in synergic mode
- Welding current and voltage in manual mode.





Water coled

DIGITORCH II E 341W DIGITORCH P 341 W To order: -3 m W000385932 • Duty cycle at 100% To order: W000373832 • Duty cycle at 100% 4 m W000345016 350 A (CO2) - 320 A (Ar+CO2) 350 A (CO2) - 320 A (Ar+CO2) • Wire diameters: • Wire diameters: 1.0 to 1.2 mm** 1.0 to 1.2 mm** · Original equipment wire · Original equipment wire Steel 1.2 mm Steel 1.2 mm 383 382 nozzle Ø 16 nozzle Ø 16. 2007-2007. • Length 4 m. **DIGITORCH E 441W DIGITORCH P 441 W** • Duty cycle at 100% To order: W000373833 • Duty cycle at 100% To order: W000345018 420 A (CO2) - 380 A (Ar+CO2) 420 A (CO2) - 380 A (Ar+CO2) • Wire diameters: • Wire diameters: 1.0 to 1.6 mm 1.0 to 1.6 mm • Original equipment wire • Original equipment wire Steel 1.2 mm Steel 1.2 mm nozzle Ø 16 385 nozzle Ø 16 384 2007-2007-• Length 4 m. Length 4 m **DIGITORCH II E 450 W** Duty cycle at 100% To order: W000379190 500A (CO₂) - 450A (Ar CO₂) • Wire diameters : 1.0 to 2.4 mm • Original equipment wire Steel 1.2 mm nozzle Ø 16 2015-386 • Length 4 m.

3 - MIG/MAG welding

Push-Pull torches and guns for DIGIPULS and DIGIWAVE

Welding of light alloys with a diameter from 1.0 mm to 1.6 mm.

		PROMIG PP 341	PROMIG PP 441W	
Cooling		Air water		
Welding	Under CO ₂	350 A @ 60%	420 A @ 100%	
current	Under mixed gas	320 A @ 60%	380 A @ 100%	
Voltage clas	S	L-113V		
Gas flow	Mini	10 l/min		
rate	Maxi	18 l/min		
Max water i	nlet temperature	N/A	45 °C	
Min power	of the cooling system	N/A	800 W	

Equipment supplied and other versions

	PROMIG PP 341	PROMIG PP 441W
	Length 8 m -	Swan neck 45°
Standard	W000385860	W000385862
With potentiometer	W000385861	W000385863
With remote control and display	-	W000385864
 A Standard version B Version with potentiometer C Version with remote control and display 	B	2016-126



To obtain a gun with a straight nozzle D disassembly the curved swan neck and the liner of your model and replace it with a straight nozzle and a liner for straight nozzles, as shown here below:

	Sofeood	
	PROMIG PP 341	PROMIG PP 441W
Straight nozzle	W000385867	W000385868
Liner for straight nozzle	W000385869	W000385871

Electronic board of the PROMIG PP gun with a connection To order: W000386223



Adjusting the motor torque

This adjustment is carried out on the electronic control board of the motor located in the reel by moving the connection **1** to one of the 3 possible settings.

Wear parts

Specific PROMIG PP parts

	PROMIG PP 341	PROMIG PP 441W	
Straight nozzle	W000385867	W000385868	
Liner for straight nozzle	W000385869	W000385871	
45° curved nozzle	W000385865	W000385866	
Liner for 45° curved nozzle	W000385870	W000385872	
Rollers for wires, diameter 1.0	W0003	385956	
Rollers for wires, diameter 1.2	W000385957		
Rollers for wires, diameter 1.6	W000385958		

CE

Wear parts PROMIG PP



		PROMIG PP 341	PROMIG PP 441W
	For wire	Contact tip M8x32	Contact tip M8x43.5
1	Aluminium Ø 1,0 mm	W000345581	W000345688
	Aluminium Ø 1,2 mm	W000345583	W000345690
	Aluminium Ø 1,6 mm	-	W000345693
2		Support diffusor for the M8x32 contact tip	Support diffusor for the M8x43.5 contact tip
		W000345341	W000345347
	Nozzle diameter	Noz	zle
3	Ø 14 mm	W000345421	-
3	Ø 16 mm	W000345422	W000345427
	Ø 19 mm	-	W000345428

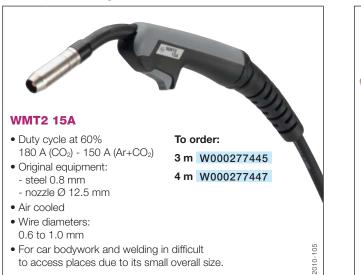


3 - MIG/MAG welding MIG-MAG WMT2 torches

A complete range of MIG-MAG torches.

Product advantages:

- wear parts compatible with the most common standard in Europe,
- easy pivoting handle,
- complete range.









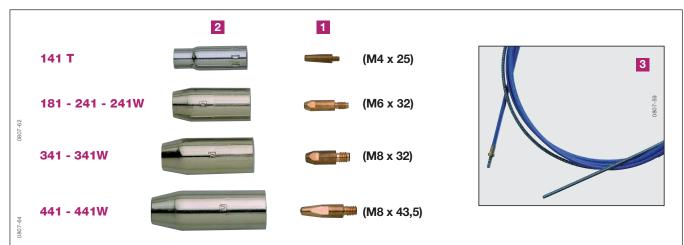


Wear parts boxes for :

- WMT2 15A: W000387234
- WMT2 25A: W000387235
- WMT2 36A: W000387236
- WMT2 401W WMT2 500 W: W000387237



3 - MIG/MAG welding Wear parts for PROMIG NG and DIGITORCH



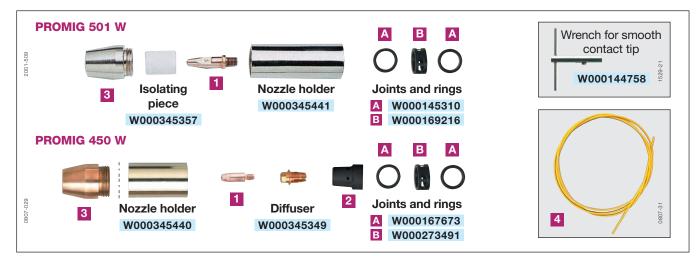
PROMIG Ø 1 NG mm Contact		Diffuser	2	3 Internal liner							
N	а		Contact tip		Nozzle	3 m	3 m Graphite brass	4 m	4 m Graphite brass	5 m	
		0.6	W000345571		W000345405 (D14PT*)	W000010700		W000010701			
141 T	Steel	0.8	W000345572		or W000345403 (D11)	W000010730		W000010731			
		1.0	W000345573		or W000345404 (D14)	W000010733		W000010734			
		0.8	W000345574		W000245409 (D10)	W000010730		W000010731		W000010732	
181 T	Steel	1.0	W000345575	W000345335	W000345408 (D12) or	W000010733		W000010734		W000010735	
		1.2	W000345577		W000345409 (D14)	W000010733		W000010734		W000010735	
		0.8	W000345574			W000010730		W000010731		W000010732	
1W	Steel	1.0	W000345575		W000345410 (D12)	W000010733		W000010734		W000010735	
- 241W		1.2	W000345577	W000345335	or W000345411 (D14)	W000010733		W000010734		W000010735	
241	Aluminium	1.0	W000345576		W00034	W000345411 (D14)	W000010736	W000271824	W000010737	W000271825	W000010738
	Alum	1.2	W000345578					W000010736	WUUU271024	W000010737	W000271825
		1.0	W000345580		W000345420 (D12) or 000345341 W000345421 (D14) or	W000010733		W000010734		W000010735	
≥	Steel	1.2	W000345582			W000010733		W000010734		W000010735	
- 341 W	ŝ	1.4	W000345584	W000245241		W000010867		W000010868		W000010869	
341 -		1.6	W000345585	1000040041		W000010867		W000010868		W000010869	
n	Aluminium	1.0	W000345581		W000345422 (D16)	W000010736	W000271824	W000010737	W000271825	W000010738	
	Alum	1.2	W000345583			W000010736	W000271024	W000010737	W000271025	W000010738	
		1.0	W000345587			W000010733		W000010734		W000010735	
	Steel	1.2	W000345589			W000010733		W000010734		W000010735	
NH	ç	1.4	W000345591	W000345347	W000345427 (D16)	W000010867		W000010868		W000010869	
- 441W		1.6	W000345592		or	W000010867		W000010868		W000010869	
441	Ę	1.0	W000345588		W000345428 (D19)	W000010736	W000271824	W000010737	W000271825	W000010738	
	Aluminium	1.2	W000345590			W000010736	11000271024	W000010737	11000271020	W000010738	
	Ali	1.6	W000345593			W000010745		W000010746		W000010747	

*for point welding

Original equipment parts

3 - MIG/MAG welding PROMIG NG torches wear parts

÷.



	Ø Contact		Contact tip	2	2 3		4 Internal liner			
		mm		tip	support	Diffuser	Diffuser Nozzle		4 m	5 m
		1.0		W000345587				W000010733	W000010734	W000010725
(5		1.2		W000345589				W000010733	W000010734	W000010735
PROMIG 501 W NG	Steel	1.4	43.5	W000345591				W000010867	W000010868	W000010860
G 501		1.6	8 8	W000345592			W000345429 (D16) or W000345436 (D18)	W000010867	W000010868	W000010869
ROMI		2.4	Σ	W000345595			W000040400 (D10) -	W000010742	W000010743	W000010744
	Aluminium	1.2		W000345590				W000010736	W000010737	W000010738
	Alum	1.6		W000345593				W000010745	W000010746	W000010747
		1.0		W000345587				W000010733	W000010734	W000010735
6	Steel	1.2		W000345589				W000010733	W000010734	w000010735
N NO	Ste	1.4	.5	W000345591				W000010867	W000010868	W000010869
G 450		1.6	8 x 43.	W000345592	W000345347	W000345354	W000345434 (D16) or W000345435 (D19)	W000010867	W000010868	W000010869
PROMIG 450 W NG	E	1.0	Σ	W000345688				W000010736	W000010737	W000010738
•	Aluminium	1.2		W000345590				000010736	w000010737	WUUUUTU738
	A	1.6		W000345593				W000010745	W000010746	W000010747

3 - MIG/MAG welding Wear parts for WMT2 torches



		Ø mm		1	2	3	Nozzle spring		Internal liner			4 Isolator						
			C	Contact tip	Contact tip support	Nozzle	spring	3 m	4 m	5 m	Standard	High temperature	Ceramic					
5A		0.6	10	W000010820		W000010787 (D10)												
WMT2 15A	Steel	0.8	6 x 25	W000010821	W000277903	W000010786	W000010786	W000010786	W000010786		W000010786	W000277448	W000010730	W000010731	W000010732			
MM	0,	1.0	Σ	W000010822		W000010788 (D16)		W000010733	W000010734	W000010735								
		0.8		W000010826				W000010730	W000010731	W000010732								
25A	Steel	1.0	28	W000010827		W000010791 (D12)												
T2 2	0	1.2	6 x 2	W000010828	W000010720	W000010790 (D14)	W000277477	W000010733	W000010734	W000010735								
WMT2	nium	1.0	Σ	W000010850		W000010792		W000010700	W000010707	W000010700								
	Aluminium	1.2		W000010851		(D17)		W000010736	W000010737	W000010738								
		0.8	M6 x 28	W000010826				W000010730	W000010731	W000010732								
		0.0	M8 x 30	W000010834				w000010700	w000010701	W000010702								
		1.0	M6 x 28	W000010827				W000010733	W000010734	W000010735								
	Steel	1.0	M8 x 30	W000010835		W000010795 W000010721 (D14)					_							
	ß	1.2	M6 x 28	W000010828														
Ą		1.2	M8 x 30	W000010836	W000010721			W000010867	10867 W000010868 W000010869	W000010869			W000010782					
WMT2 36A		1.6	M6 x 28	W000010829	(M6)	W000010794					W000010780	W000010781						
VMT			M8 x 30	W000010837	W000010722 (M8)		(D16) N000010796 (D20)											
>		1.0	M6 x 28	W000010850	(1110)				W000010737 W000010738									
	E		M8 x 30	W000010853				W000010736										
	Aluminium	1.2	M6 x 28	W000010851														
	Alun		M8 x 30	W000010854														
		1.6	M6 x 28	W000010852				W000010745 W000010746 W000	W000010747									
			M8 x 30	W000010855														
Ĵ		0.8		W000010834				W000010730	W000010731	W000010732								
500W (L)	Steel	1.0		W000010835				W000010733	W000010734	W000010735								
N	ß	1.2		W000010836		W000010798 (D14.5) W000010797 (D16) W000010799 (D20)		W000010867	W000010868	W000010869								
- WMT		1.6	x 30	W000010837	W000010724					1000010000	W000010783	W000010784	W000010785					
		1.0	~ ~ l	W000010853	(M8)		(M8) (D16) W000010799		W000040700	W000010737	W000010738	W000010705	W000010704	w000010703				
401W	Aluminium	1.2		W000010854							W000010736	1000010737	1000010730					
WMT2	Alum	1.6		W000010855					W000010745	W000010746	W000010747							
M		2.4		W000010857				W000010747	W000010818	W000010819								

3 - MIG/MAG welding Fume extraction torches

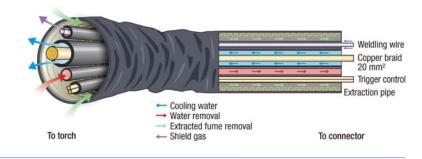




Multiple-strand torches with extra flexible power cable. Lightness - Flexibility - Efficiency.

Benefits of multiple-strand water/electricity cable:

The copper braid that conducts the electrical power is continuously cooled by the water in the torch cooling circuit, making it possible to reduce the cable section for any given power requirement. That reduces the weight and makes the torch harness much more flexible, making the torch easier to handle.



Trigger short or long by addition of an extension blade.

Copper nozzle (screwed).



Water cooled torches:

3W & 4W models have cooled swan neck, 5W have in addition a cooled fume collector nozzle support.

Insulated gas diffuser with ceramic screwed part.

Polyurethane extraction pipe

- For the air versions: diameter of single section extraction pipe: 40 mm.
- For the water cooled versions: diameter of dual section extraction pipe: 40/50 mm.

Over sheath in leather on 1.5 meter.

Connecting piece for 50 mm diameter hose.

Wear parts change is easy (without fume collector disassembling).

New INRS recommendations:

Starting 1st july 2015, INRS (the French Association for Security at Works) make mandatory that the captation speed of the welding fumes is 0.25 m/s minimum (at a referential point located at 20 mm from torch contact tip), strongest requirements in Europe.

In the above table the data for the WST2 torches are shown.





DUALFLOW is a device allowing the modulation of the fumes extraction flowrate by the welder.

By a simple pulse on a microswitch on the handle of the torch, and during welding the welder can decide to change the suction power.

This reduced flowrate will apply for welding

zone in confined area providing in all situations high quality welds and preserving the welder from the fumes.

DUALFLOW is patented by Air Liquide Welding.

3 - MIG/MAG welding Fume extraction torches



WST2 TECHNICAL CHARACTERISTICS

			\bigcirc					
			AIR			WATER		
		WST2 - 2R	WST2 - 3R	WST2 - 4R	WST2 - 3W	WST2 - 4W	WST2 - 5W	
Contact tube	Contact tube		M8 x 30	M8 x 30	M8 x 30	M8 x 30	M8 x 30	
Ø nozzle	Ø nozzle		15 mm	15 mm	15 mm	15 mm	19 mm	
Welding intensity @ 100%	CO2	250 A	300 A	400 A	300 A	360 A	450 A	
duty cycle	Ar / CO ₂	225 A	270 A	320 A	260 A	320 A	410 A	
Weight (g) according	standard	1180	1365	1465	1570	1565	1565	
Captation minimal performanc	es							
For anoad 0.05 m/a	Flowrate m ³ /h	73	94	94	94	90	94	
For speed 0.25 m/s	Suction Pa	8 400	10 600	10 600	12 500	11 000	12 500	
Ear aroad 0.2 m/a	Flowrate m ³ /h	87	113	113	113	108	113	
For speed 0.3 m/s	Suction Pa	13 100	16 300	16 300	16 500	16 300	16 500	

TO ORDER WST2



AIR							
Description		Reference					
	3M	W000381887					
WST2 - 2R 250 A @ 100%	4M	W000381888					
230 A @ 100 //	5M	W000381889					
	3M	W000381890					
WST2 - 3R 300 A @ 100%	4M	W000381891					
300 A @ 100 /i	5M	W000381897					
	3M	W000381898					
WST2 - 4R 400 A @ 100%	4M	W000381899					
400 A @ 100%	5M	W000381900					

LN : Long Nozzle - Torch with extended nozzle : +5 cm at the horizontal part of the torch. Ideal for easier access to difficult joints and for very high duty cycle welding (the welder's hand is not close of the welding bead)

OPTION

Transformation kit of a standard torch to a DUALFLOW version: W000385157

WATER								
Description		Reference						
	3M	W000381901						
WST2 - 3W 300 A @ 100%	4M	W000381902						
500 A @ 100 /i	5M	W000381903						
	3M	W000381904						
WST2 - 4W 360 A @ 100%	4M	W000381905						
500 A @ 100 /0	5M	W000381906						
	3M	W000381907						
WST2 5W * 450 A @ 100%	4M	W000381908						
450 A @ 100%	5M	W000381909						
WST2 5W LN *	3M	Consult us						
450 A @ 100%	4M	Consult us						
(Extended nozzle)	5M	Consult us						

* Double cooling circuit: Air Liquide Welding patent.

TO ORDER WST2 DUALFLOW



AIR							
Description		Reference					
	3M	W000384970					
WST2 - 2R 250 A @ 100%	4M	W000384971					
200 A @ 100 //	5M	W000384972					
	3M	W000384973					
WST2 - 3R 300 A @ 100%	4M	W000384974					
300 A @ 100 //	5M	W000384975					
	ЗM	W000384976					
WST2 - 4R 400 A @ 100%	4M	W000384986					
400 A @ 100 /8	5M	W000384987					

* Double cooling circuit: Air Liquide Welding patent.

WATER		
Description		Reference
WST2 - 3W 300 A @ 100%	3M	W000384977
	4M	W000384978
	5M	W000384979
WST2 - 4W 360 A @ 100%	3M	W000384980
	4M	W000384981
	5M	W000384982
WST2 - 5W * 450 A @ 100%	3M	W000384983
	4M	W000384984
	5M	W000384985

3 - MIG/MAG welding





ADDITIONAL REMOTE CONTROL FOR WST2 TORCHES





Remote control	
 4 push buttons in cross 	5 Up/Down vertical or DUALFLOW
2 Push button with potmeter 10 k Ω	6 Single push button high
3 4 push buttons in T	Single push button centered
4 Up/Down horizontal and push button	

HOSE ADAPTER FOR WST2 TORCHES



Description	Reference
Hose adapter D45 for WST2 torch	W000385619
2 Hose adapter D50 for ESSENTIAL turbine	W000385618
3 Hose adapter D50 for MODULO turbine	W000385620

TORCH PROTECTIVE TUBE FOR WST2 TORCHES

Torch protective tubes PACN: Torch protective tubes in Para-Aramide/Cotton fibre with NITRILE coating.

These pipes offer a great resistance to fine projections, to fretting wear, cutting, tearing and temperature, They are sheath type, with total linear seam, without fixing points on the parts or on the tools.





Description	Reference			
For mono-section torches				
Diameter 47mm length 3 m	W000380132			
Diameter 47 mm length 4 m	W000380133			
Diameter 47 mm length 5 m	W000380135			
For bisection torches				
Diameter 62 mm length 3 m	W000380018			
Diameter 62 mm length 4 m	W000380019			
Diameter 62 mm length 5 m	W000380020			

CONTACT TORCH - REST

Thanks to the contact torch rest, the commissioning of a suction turbine MODULO/ESSENTIAL, or the opening of the HD register in centralised network is executed at the moment the welder takes the torch in his hand.



Description	Reference
Contact torch -rest	W000279767

The torch nozzle is inserted into a sheath with an internal diameter of 35 mm and under his weight, the sheath rotates and cuts the automation contact. Once the welder takes the torch, the sheath toggles back by its own weight and the contact is activated, suction is operating.

3 - MIG/MAG welding Fume extraction Collection units for use with the suction torches



PORTABLE FILTRATION UNIT 0.23PA

High vacuum downdraft filtration unit for fumes collection in maintenance operations or in non industsrial production. The 0.23 PA unit will be associated to a proximity collection nozzle or to a suction torch of 250 A maximum.

The unit is equipped with a metal pre-filter and a fine filter with a wide $12m^2$ surface.

The unit is also equipped with 2 downdraft separate stream turbines with a unitary power of 1000 W $\,$

1 or 2 motors can be controlled and the operation can be either manual or automatic by detection of the welding current. Supply voltage: 230 V-50 Hz-1 Ph.

Maximum suction flow: 160 m³/h with 1 motor ou 230 m³/h with 2 motors.

Unit 0.23PA is mobile on wheels and is provided with a Ø 45 mm hose length 2.5 m. Weight 15 kg





Description	Reference			
Unit 0.23PA	W000340023			
Complements				
Magnetic base round nozzle	W000380755			
Magnetic base nozzle 300 mm long	W000380754			
Flexible Ø 45 mm L = 2.5 m with nozzles	W000340025			
Flexible Ø 45 mm L = 5 m with nozzles	W000340002			
Flexible Ø 45 mm L = 10 m with nozzles	W000340010			
Tubes connection hose F/F	W000340022			
Optional items				
Activated carbon filter (odours)	W000379690			
Wall support for 0.23PA unit	W000340003			
Connection for external release	W000340006			
Spare				
Filtration cartridge	W000379691			
HEPA Filter	W000379692			
Metal pre-filter	W000237249			

ESSENTIAL TURBINES TE35

The **ESSENTIAL TE35** turbine ensures, for one or two welding torches an efficient suction of a flow from 80 to 135 m³/h depending on the torch.

The turbine has a 3 Ph 3 kW motor for industsrial use. A metal pre-filter is integrated into the ESSENTIAL TE35 turbine.

This unit should be connected outside the room or to a centralised network through the \emptyset 80 mm outlet. This unit is provided with an arc detection sensor for

an automatic commissioning and a 5 m supply cable. Mounting of this unit is done vertically, placed on the ground, horizontally or fixed on the wall through the rear plate of the turbine.

ESSENTIAL TE35 turbine:

Maximum flow 310 m³/h, maximum vacuum 30 000 Pa, motor 3 kW, weight 51 kg.





Description	Reference
Turbine ESSENTIAL TE35, 400 V-3 Ph	W000278334
Complements	
Support for contact torch	W000279767
Hose Ø 45 mm L = 2.5 m with nozzles	W000340025
Hose Ø 45 mm L = 5 m with nozzles	W000340002
Hose Ø 45 mm L = 10 m with nozzles	W000340010
Hoses sleeve F/F	W000340022
Release hose Ø 80 mm L = 5 m	W000342678
Release hose Ø 80 mm L = 10 m	W000342688
Release hose Ø 80 mm L = 15 m	W000342697
Spare	
Metal pre-filter 200 x 300	W000278617

TURBINES MODULO 35

The **MODULO 35** turbine ensures, for one or two welding torches, an efficient suction of a flow from 80 to 135 m³/h depending on the model.

The turbine has a 3 Ph motor for industsrial use. A metal pre-filter is integrated into the turbine as a standard.

This unit should be connected outside

the room or to a centralised network through the Ø 80 mm outlet.

This unit will be supplied, as complement option with an arc detection sensor for an automatic commissioning and/or a highly efficient filtration cartridge with 5 m² filtration surface.

This unit is equipped with 4 wheels.

MODULO 35 turbine:

Maximum flow 310 m 3 /h, maximum vacuum 30 000 Pa, motor 3 kW, weight 65 kg.





Description	Reference
Turbine MODULO 35, 230/400 V-3 Ph	W000340019
Complements	
Welding current control	W000379696
Filtration cartridge POLYESTER 5 m ² (M)	W000340608
Support for contact torch	W000279767
Activated carbon (odour)	W000379661
Hose Ø 45 mm L = 5 m with nozzles	W000340002
Hpse Ø 45 mm L = 10 m with nozzles	W000340010
Release hose Ø 80 mm L = 5 m	W000342678
Release hose Ø 80 mm L = 10 m	W000342688
Release hose Ø 80 mm L = 15 m	W000342697
Spare	
Metal pre-filter	W000340600

3 - MIG/MAG welding

Fume extraction Collection units for use with the suction torches

DUALFLOW TURBINES

Along with the microswitch suction torches WST, DUALFLOW suction turbines or the DUALFLOW register, will allow a suction flow capacity for the entire duration of the welding and, through the information given by the torch microswitch, provide a reduced suction flow for welding in confined area.

The commissioning of the turbine is done manually or automatically in coupling with the welding arc through the current sensor provided with turbines.

The flow is maximum at the moment of commissioning of the turbine and each time it is restarted.

Through the microswitch of the torch the flow is reduced, in welding, according to the 2 operation modes:

- 2 steps mode: the suction flow is reduced if microswitch is activated
- 4 steps mode: the suction flow is reduced by pressing on the microswitch, the maximum flow is provided by pressing again

Suction flow reduction is controlled by frequency converter provided with the turbine or by the DUALFLOW register. The low suction level is adjustable on the converter or through the opening angle of the DUALFLOW register.

In case of an arc repriming, after stop of the turbine, suction is automatically at its maximum level.

ESSENIIAL	IOKRINE2	1E35	DUALFL	UW
The ESSENTIAL TE ?	35 DUAL FLOW tu	Irhine ens	sures	-

for one welding torch an efficient suction of a flow of more than 100 m3/h.

The turbine has a 3 Ph motor for industsrial use. A metal pre-filter is embedded into the

ESSENTIAL TE35 DUALFLOW turbine.

This unit is provided with an arc detection sensor for an automatic commissioning and a 5 m supply cable. This unit is mounted vertically on the ground, horizontally or fixed to the wall through the rear plate of the turbine.

ESSENTIAL TE35 DUALFLOW turbine:

Maximum flow 310 m3/h. maximum vacuum 30 000 Pa. motor 3 kW, weight 55 kg.

The 10 m extension Jacks allows the connection of the DUALFLOW welding torch if the turbine is more than 1m long of the torch connection.

This unit should be connected outside the room or to a centralised network through the Ø 80 mm outlet.

TURBINE MODULO 35 DUALFLOW

The MODULO 35 DUALFLOW turbine +B1259 ensures, for one welding torch an efficient suction of a flow of more than 100 m³/h. The turbine has a 3 Ph motor for industsrial use.

A metal pre-filter is integrated into the turbine as a standard. This unit may be connected outside the room or to a centralised network through the Ø 80 mm outlet.

This unit will be supplied, as complement option a highly efficient filtration cartridge with 5 m² filtration surface.

This unit is equipped with 4 swivelling wheels, two of which lockable.

Turbine MODULO 35 DUALFLOW:

Maximum flow 310 m3/h, maximum vacuum

30 000 Pa, motor 3 kW, weight 65 kg. The 10 m extension Jacks allows the connection of the

DUALFLOW welding torch if the turbine is more than 1m long of the torch connection.

Note: This kind of device filters solid not explosive particles exclusively. It must not be used in confined atmosphere.

DUALFLOW TURBINE REGISTER

This register is fixed on the sheet of an existing turbine and is controlled by the DAMPER BOX DUALFLOW. A 60 mm diameter hole has to be designed on the sheet in order the normal suction of the outdoor torch. The DAMPER BOX DUALFLOW will control the turbine selected on its automatic function.

The 10 m extension Jacks allows the connection of the **DUALFLOW** welding torch if the turbine is more than 1m long of the torch connection.





Description	Reference			
Turbine with pre-filter but without filtration				
Turbine ESSENTIAL TE35 DUALFLOW, motor 400 V-3 Ph	W000379431			
Compléments				
10 m extension with jack socket	W000381156			
Hose Ø 45 mm L = 2.5 m with nozzles	W000340025			
Hose Ø 45 mm L = 5 m with nozzles	W000340002			
Hose Ø 45 mm L = 10 m with nozzles	W000340010			
Hoses connection sleeve F/F	W000340022			
Release hose Ø 80 mm L = 5 m	W000342678			
Release hose Ø 80 mm L = 10 m	W000342688			
Release hose Ø 80 mm L = 15 m	W000342697			
Spare				
Metal pre-filter 200 x 300 + D2132	W000278617			

Description	Reference				
Unit receiving a filtration and a complement option					
MODULO 35 DUALFLOW turbine, Motor 400 V-3 Ph	W000380757				
Complements					
Filtration cartridge POLYESTER 5 m ² (M)	W000340608				
10 m extension with jack socket	W000381156				
Activated carbon (odour)	W000379661				
Hose Ø 45 mm L = 5 m with nozzles	W000340002				
Hose Ø 45 mm L = 10 m with nozzles	W000340010				
Release hose Ø 80 mm L = 5 m	W000342678				
Release hose Ø 80 mm L = 10 m	W000342688				
Release hose Ø 80 mm L = 15 m	W000342697				
Spare					
Metal pre-filter	W000340600				

Description	Reference
DUALFLOW turbine register	W000381159
DAMPER BOX DUALFLOW	W000375442
Complements	
10 m extension with jack socket	W000381156
AC/DC current sensor	W000379696
Support for contact torch	W000279767







Section 4 - Plasma cutting General information and choice criteria



The new range of plasma cutting equipment developed by SAF-FRO heralds a technological revolution in the field of compressed air plasma cutting for manual applications. Thanks to its user-comfort, speed and easy of use, these machines provide outstanding levels of industrial performance.

SAF-FRO and plasma cutting: tradition and passion

This range of portable, single and three phase plasma cutters have been designed to meet the needs of all industrial user applications. They are capable of high-quality cutting on all conductive metals in thicknesses of up to 50 mm. Every installation consists of a power source and a patented cutting torch, designed to offer excellent user comfort and optimum outputs.

Drag cutting

The direct contact between the cutting nozzle and the workpiece provides several benefits in comparison with the "distance cutting" method. This particular position allows most of the fume, spatter and arc radiation to be kept under the metal sheet thus protecting the operator. The result of a drag cut is very clean and the resulting kerf is a much narrower, superior precision quality cut. The drag cutting process is ideal up to 8 mm thickness in all applications where accuracy is important.

Plasma gouging

The plasma gouging process is performed with a standard plasma cutting torch changing only the nozzle, skirt and skate. Using the same principle of plasma cutting it allows metal to be removed in an efficient, precise and clean way.

The benefits of the SAF-FRO gouging process are:

- reduced noise and fume compared with other thermal gouging methods,
- high metal removal rate (up to 12 kg / hour) with superior precision,
- reduced risk of carbon contamination compared with the arc gouging process,
- possibility to gouge ferrous and non-ferrous metals.



Distance cutting

1-457

Distance cutting makes full use of the generator power, thus increasing the depth of cut.It is also suitable for precision work due to the excellent view of the cutting arc.



Arc Plasma advantages

- Cutting of all metallic material conducting electricity
- Easy to use, it gives professionnal results from the first cut
- Faster than others cutting processes
- More accurate results.



Comparison ta	ble	Built-in compressor	Numerical display	Plasma gouging	Automatic option	Quality cut	Duty cycle at 40 °C	Weight
PRESTOJET 1K		~	~	_	_	8 mm	30 A at 25%	16 kg
PRESTOJET 1		_	~	_	_	8 mm	30 A at 35%	8 kg
PRESTOJET 2C		_	~	~	_	20 mm	65 A at 50%	25 kg
PRESTOJET 4C		_	~	V	~	40 mm	120 A at 60%	35 kg
PLASMAJET 2C		_	_	_	_	25 mm	80 A at 40%	80 kg
PLASMAJET 4C		_	_	-	_	35 mm	120 A at 50%	125 kg
NERTAJET 50		_	_	V	r	50 mm	150 A at 100%	260 kg

PRESTOJET 1K - Torch CPT 800

The portable solution with built-in compressor for manual plasma cutting.

Built-in

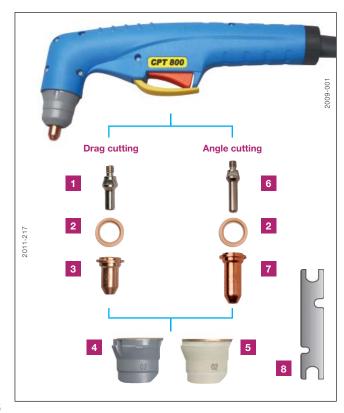
compressor

PRESTOJET 1K - Torch CPT 800

Features:

- 8 mm quality cut, 10 mm severance cut.
- Light and portable (16 kg).
- Input current < 12 A, can be used with a domestic plug.
- Digital display of parameters, friendly and easy interface.
- Built-in compressor: just plug and cut.
- Delivered ready to use.
- Cuts without earth clamp up to 1 mm.
- Can be used up to 15 m with 3 x 2.5mm² & up to 30 m with 3 x 4 mm² on primary cable.





Cutting capacity on carbon steel: Severance cut: 10 mm

- Quality cut: 8 mm

	PRESTOJET 1K
Power supply	230 V 50-60 Hz - single phase
Primary consumption (I max)	14 A
Air pressure and flowrate	Built-in compressor
Duty cycle 10 min. cycle (at 40 °C)	30 A at 25% 20 A at 60%
Size (L x W x H)	380 x 150 x 310 mm
Net weight	16 kg
Protection class	IP 23

To order	PRESTOJET 1K
Installation ready to use including: • 1 PRESTOJET 1K, • Primary cable 3 m with Schuko plug, • 1 torch CPT 800 4 m long, • 1 earth cable with a clamp, • 1 set of wear parts	W000271550
Add-ons:	
1 cutting compass	W000302512
UNIVERSEL T10 gloves	W000380518
Pilot flip up (Shade 5)	W000011046
LCD Mask "GOLDENARK"	W000386519
Wear parts box CPT 800	W000277610
Furious carrrying	W000371907
Universal trolley	W000375730

To order	TORCH
Air-cooled 4 m torch CPT 800	W000275097
Torch body	W000274860
Wear parts for drag cutting:	
1 Electrode FL	W000274224
2 Diffuser	W000274266
3 Nozzle FL 0.65 (1 to 3 mm - 20 A)	W000274969
3 Nozzle FL 0.8 (1 to 10 mm - 30 A)	W000274265
4 Skirt TN	W000274226
5 Skirt TI	W000274225
Wear parts for angle cutting:	·
6 Electrode long	W000278629
7 Nozzle long Ø 0.8 (1 to 8 mm - 30 A)	W000278628
8 Wrench	W000274862

PRESTOJET 1 - Torch CPT 800

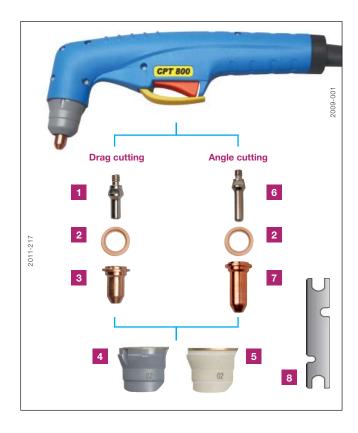
The high-tech portable solution for manual plasma cutting.

PRESTOJET 1 - Torch CPT 800

Features:

- Minimum weight, 8 kg, for a high performance, 8 mm quality cut, 10 mm severance cut.
- Great savings due to low current and air consumption. Reduction of operating cost.
- Reliable and strong: PRESTO "heavy industrial" design.
- Microprocessor control technology to improve the cutting quality.
- Digital display for easy, precise and repeatable regulation.
- Input current < 12 A, can be used with a domestic plug.
- Cuts without earth clamp up to 1 mm.
- Can be used up to 15 m with 3 x 2.5 mm² & up to 30 m with $3 \times 4 \text{ mm}^2$ on primary cable.





Cutting capacity on carbon steel:

- Severance cut: 10 mm Quality cut: 8 mm

	PRESTOJET 1
Power supply	230 V 50-60 Hz - single phase
Primary consumption (I max)	14 A
Air pressure and flowrate	-
Duty cycle 10 min. cycle (at 40 °C)	30 A at 35% 25 A at 60% 20 A at 100%
Size (L x W x H)	380 x 150 x 310 mm
Net weight	8 kg
Protection class	IP 23

To order	PRESTOJET 1
Installation ready to use including: • 1 PRESTOJET 1, • Primary cable 3 m with Schuko plug, • 1 torch CPT 800 4 m long, • 1 earth cable with a clamp, • 1 set of wear parts	W000277620
Add-ons:	
1 cutting compass	W000302512
UNIVERSEL T10 gloves	W000380518
Pilot flip up (Shade 5)	W000011046
LCD Mask "GOLDENARK"	W000386519
Wear parts box CPT 800	W000277610
Furious carrrying	W000371907
Universal trolley	W000375730

To order	TORCH
Air-cooled 4 m torch CPT 800	W000275097
Torch body	W000274860
Wear parts for drag cutting:	
1 Electrode FL	W000274224
2 Diffuser	W000274266
3 Nozzle FL 0.65 (1 to 3 mm - 20 A)	W000274969
3 Nozzle FL 0.8 (1 to 10 mm - 30 A)	W000274265
4 Skirt TN	W000274226
5 Skirt TI	W000274225
Wear parts for angle cutting:	
6 Electrode long	W000278629
7 Nozzle long Ø 0.8 (1 to 8 mm - 30 A)	W000278628
8 Wrench	W000274862
Riference Starting	

PRESTOJET 2C - PT 100C Torch

Quality and reliabilty.

PRESTOJET 2C - PT 100C Torch

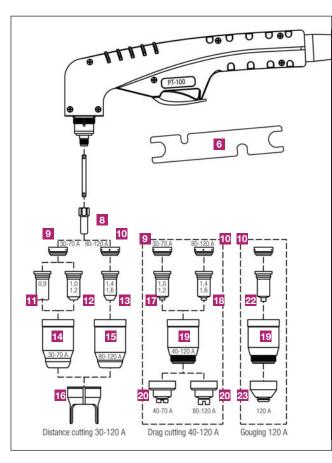
Features:

- Unequalled quality cut on 20 mm thickness.
- Easy to use and powerful.
- Digital parameter display.
- 3 cutting modes: cutting grid gouging.
- Generator compatible.
- Automatic restart.
- Arc striking without HF.
- Autolink system (207-440 V three-phase). Automatic setting of power supply.



WARRANTY





Cutting capacity on carbon steel:

- Severance cut: 25 mm
- Quality cut: 20 mm

Universal trolley

	PR	RESTOJET 2C
Power supply		/ 400 V Autolink z - ±10% three phase
Primary consumption (I max)	2	1.2 A - 23.3 A
Air pressure and flowrate	5.5 bars - 180 l/min.	
Duty cycle 10 min. cycle (at 40 °C)	65 A at 50% 50 A at 100%	
Size (L x W x H)	435	x 235 x 380 mm
Net weight	25 kg	
Protection class	IP 23S	
To order		PRESTOJET 2C
Installation including: • PRESTOJET 2C • 6 m long 4 x 2.5 mm ² prima: • 3 m long 16 mm ² secondary fitted with a ground connect • 5 m long compressed air ho • 1 set of wear parts	cable	W000372416
Add-ons:		
PT 100C Torch - 6m		W000278170
COMPASS FOR PT 100C		W000372708
COMPASS FOR PT 100C UNIVERSEL T10 gloves		W000372708 W000380518

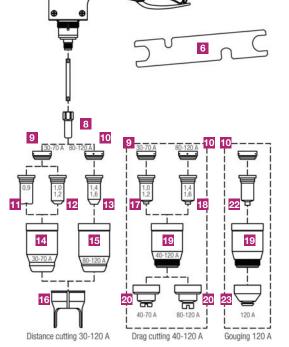
W000375730

To order	TORCH
Air cooled torch PT 100C - 6 m	W000278170
Air cooled torch PT 100C - 15 m	W000371687
Torch body PT 100C	W000278466
Wear parts for drag cutting	
8 Electrode PT 100C	W000278409
9 Diffusor 30-70 A	W000278446
17 Nozzle 1.0 C (50 A maxi) Nozzle 1.2 C (65 A maxi)	W000278453 W000278454
19 Skirt holder for C	W000278461
20 Skirt 40 - 70 A drag cutting	W000278462
Wear parts for distance cutting	
8 Electrode PT 100C	W000278409
9 Diffusor 30-70 A	W000278446
11 Nozzle 0.9 D (40 A maxi)	W000278448
17 Nozzle 1.0 D (50 A maxi) Nozzle 1.2 D (65 A maxi)	W000278449 W000278450
14 Skirt 30-70 A D	W000278458
16 Protection Skirt Distance cutting	W000278464
Wear parts for gouging	
8 Electrode PT 100C	W000278409
10 Diffusor 80 - 120 A	W000278447
22 Nozzle 120 A for gouging	W000372420
19 Skirt holder for C	W000278461
23 Skirt for gouging 120 A	W000372421

PRESTOJET 4C - PT 100C Torch

Quality and reliabilty.

PRESTOJET 4C - PT 100C Torch Features: • Superior quality cut up to 40 mm. • Compact design. • Gouging position. • Automatic re-start. • Digital display and control of the parameters. • 3 cutting modes: cutting - grid - gouging. CENTRAL GOUGING THREE-PHASE CONNECTOR 2011-439 UeU U TT 0.0



Cutting capacity on carbon steel: Severance cut: 45 mm

Quality cut: 40 mm

	F	PRESTOJET 4C
Power supply	+/	400 V 50/60 Hz - 10% three phase
Primary consumption (I max)		30.2 A
Air pressure and flowrate	5	.5 bars - 200 I/min
Duty cycle 10 min. cycle		120 A at 60%
(at 40 °C)		100 A at 100%
Size (L x W x H)	83	30 x 270 x 505 mm
Net weight	35 kg	
Protection class	IP 23S	
To order		PRESTOJET 4C
Installation including: • PRESTOJET 4C • 5 metres long 4 x 6mm ² primary cable • 3 metres long 16 mm ² secondary cable fitted with a ground connection. • 5 metres long compressed air pipe • 1 set of wear parts		W000273830
Add-ons:		
Air cooled torch PT 100C - 6 m		W000278170
COMPASS FOR PT 100C		W000372708
Trolley on site		W000372274
UNIVERSEL T10 gloves		W000380518
LCD Mask "GOLDENARK"		W000386519
To order		TORCH
Air cooled torch PT 100C - 6 m		W000278170
Air cooled torch PT 100C - 15 m		W000371687
Torch body PT 100C		W000278466
Wear parts for drag cutting 8 Electrode PT 100C		W000278409
9 Diffusor 30-70 A		W000278446
10 Diffusor 80 - 120 A		W000278447
17 Nozzle 1.0 C (50 A maxi)		W000278453
Nozzle 1.2 C (65 A maxi)		W000278454
18 Nozzle 1.4 C (90 A maxi)		W000278455
Nozzle 1.6 C (120 A maxi)		W000278457
19 Skirt holder for C		W000278461
20 Skirt 40 - 70 A drag cutting		W000278462
21 Skirt 80 - 120 A drag cutting		W000278463
Wear parts for distance cutting		
8 Electrode PT 100C		W000278409
9 Diffusor 30-70 A10 Diffusor 80 - 120 A		W000278446
11 Nozzle 0.9 D (40 A maxi)		W000278447
12 Nozzle 1.0 D (50 A maxi)		W000278448
Nozzle 1.2 D (30 A maxi)		W000278449 W000278450
13 Nozzle 1.4 D (90 A maxi)		W000278451
Nozzle 1.6 D (120 A maxi)		W000278452
14 Skirt 30-70 A D		W000278458
15 Skirt 80-120 A D		W000278460
16 Protection Skirt Distance cutting		W000278464
Wear parts for gouging		
8 Electrode PT 100C		W000278409
10 Diffusor 80 - 120 A		W000278447
22 Nozzle 120 A for gouging		W000372420
19 Skirt holder for C		W000278461
23 Skirt for gouging 120 A		W000372421

4 - Plasma cutting Equipment for workshop applications

VARRANTY

PLASMAJET 2C - PT 100C Torch

(Step controlled adjustment)

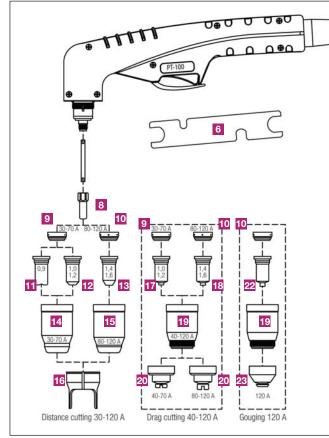
Quality work with high accuracy.

PLASMAJET 2C - PT 100C Torch

Features:

- Powerfull: 80 A with 40% at 40 °C duty cycle. • 3 steps to simplify the selection of the desired
- current according to the thickness to be cut.
- Maximum quality and safety with the patented torch.
- Drag cutting up to 8 mm for maximum quality.
- Delivered ready to use.
- IP 23 for use on open sites.
- 4 wheels and a strong design for intensive industrial use.





spacity	on	carbon	steel:
-macitV	011	U.L.	

- **Cutting capac** Severance cut: 30 mm
- Quality cut: 25 mm

	PLASMAJET 2C
Power supply	220 V / 230 V / 380 V / 400 V (+/- 10%) 50/60 Hz three phase
Primary consumption (I max)	49 / 47 A 28.5 / 27 A
Air pressure and flowrate	5 bars - 180 l/min.
Duty cycle 10 min. cycle (at 40 °C)	80 A at 40% 50 A at 80% 30 A at 100%
Size (L x W x H)	500 x 855 x 755 mm
Net weight	80 kg
Protection class	IP 23

To order	PLASMAJET 2C
 Installation including: PLASMAJET 2C 5 metres long 4 x 6mm² primary cable 3 metre long 16 mm² secondary cable fitted with a ground connection. 5 metres long compressed air pipe 	W000384255
1 set of wear parts	
• 1 set of wear parts Add-ons:	
•	W000278170
Add-ons:	W000278170 W000372708
Add-ons: Air cooled torch PT 100C - 6 m	

	I.
To order	TORCH
Air cooled torch PT 100C - 6 m	W000278170
Air cooled torch PT 100C - 15 m	W000371687
Torch body PT 100C	W000278466
Wear parts for drag cutting	
8 Electrode PT 100C	W000278409
9 Diffusor 30-70 A	W000278446
10 Diffusor 80 - 120 A	W000278447
17 Nozzle 1.0 C (50 A maxi)	W000278453
Nozzle 1.2 C (65 A maxi)	W000278454
18 Nozzle 1.4 C (90 A maxi)	W000278455
19 Skirt holder for C	W000278461
20 Skirt 40 - 70 A drag cutting	W000278462
21 Skirt 80 - 120 A drag cutting	W000278463
Wear parts for distance cutting	
8 Electrode PT 100C	W000278409
9 Diffusor 30-70 A	W000278446
10 Diffusor 80 - 120 A	W000278447
11 Nozzle 0.9 D (40 A maxi)	W000278448
12 Nozzle 1.0 D (50 A maxi)	W000278449
Nozzle 1.2 D (70 A maxi)	W000278450
13 Nozzle 1.4 D (90 A maxi)	W000278451
14 Skirt 30-70 A D	W000278458
15 Skirt 80-120 A D	W000278460
16 Protection Skirt Distance cutting	W000278464

4 - Plasma cutting Equipment for workshop applications

WARRANTY

PLASMAJET 4C - PT 100C Torch

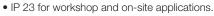
(Step controlled adjustment)

Quality work with high accuracy.

PLASMAJET 4C - PT 100C Torch

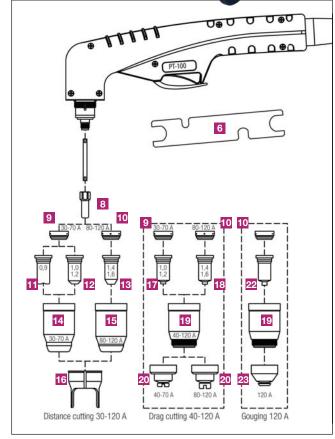
Features:

- High cutting capacity: 35 mm with 120 A.
- High duty cycle: 50% at 40 °C.
- 4 steps for current setting according to the thickness to be cut.



- High quality cut with drag cutting nozzles.
- Delivered ready to use with 6 m torch, air hose, primary cable, earth cable, starting set of wear parts.
- Central connector for easy connection.





Cutting capacity on carbon steel: Severance cut: 40 mm

Quality cut: 35 mm

	PLASMAJET 4C
Power supply	220 V / 230 V / 380 V / 400 V (+/- 10%) 50/60 Hz three phase
Primary consumption (I max)	74 / 71 A 42 / 40 A
Air pressure and flowrate	5.5 bars - 220 l/min.
Duty cycle 10 min. cycle (at 40 °C)	120 A at 50% 85 A at 75% 50 A at 100%
Size (L x W x H)	500 x 855 x 755 mm
Net weight	125 kg
Protection class	IP 23

To order	PLASMAJET 4C
 Installation including : PLASMAJET 4C 5 metres long 4 x 6mm² primary cable 3 metre long 16 mm² secondary cable fitted with a ground connection. 5 metres long compressed air pipe 1 set of wear parts 	W000384256
Add-ons:	
Air cooled torch PT 100C - 6 m	W000278170
COMPASS FOR PT 100C	W000372708
UNIVERSEL T10 gloves	W000380518
LCD Mask "GOLDENARK"	W000386519

To order	TORCH		
Air cooled torch PT 100C - 6 m	W000278170		
Air cooled torch PT 100C - 15 m	W000371687		
Torch body PT 100C	W000278466		
Wear parts for drag cutting			
8 Electrode PT 100C	W000278409		
9 Diffusor 30-70 A	W000278446		
10 Diffusor 80 - 120 A	W000278447		
17 Nozzle 1.0 C (50 A maxi) Nozzle 1.2 C (65 A maxi)	W000278453 W000278454		
18 Nozzle 1.4 C (90 A maxi) Nozzle 1.6 C (120 A maxi)	W000278455 W000278457		
19 Skirt holder for C	W000278461		
20 Skirt 40 - 70 A drag cutting	W000278462		
21 Skirt 80 - 120 A drag cutting	W000278463		
Wear parts for distance cutting			
8 Electrode PT 100C	W000278409		
9 Diffusor 30-70 A	W000278446		
10 Diffusor 80 - 120 A	W000278447		
11 Nozzle 0.9 D (40 A maxi)	W000278448		
12 Nozzle 1.0 D (50 A maxi) Nozzle 1.2 D (70 A maxi)	W000278449 W000278450		
13 Nozzle 1.4 D (90 A maxi) Nozzle 1.6 D (120 A maxi)	W000278451 W000278452		
14 Skirt 30-70 A D	W000278458		
15 Skirt 80-120 A D	W000278460		
16 Protection Skirt Distance cutting	W000278464		



4 - Plasma cutting Equipment for workshop applications

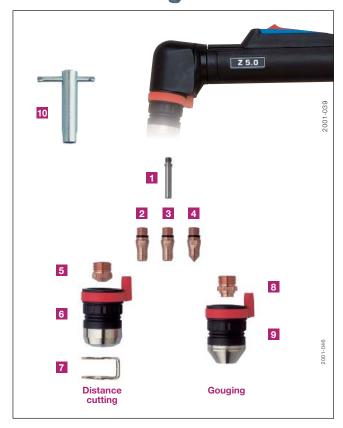
NERTAJET 50 - Torch Z 5.0

Quality work with high accuracy.

NERTAJET 50 - Torch Z 5.0 Features:

- Three-phase multivoltage.
- Heavy duty applications.
- 100% duty cycle.
- Cuts stainless steels and aluminium alloys with Ar/H2 up to 50 mm thick.
- Plasma gouging.
- Can also be used with assistance gas for improved quality cutting of large thicknesses.
- Manual and automatic applications.





Cutting capacity on carbon steel:

Quality cut: 50 mm

	NERTAJET 50
Power supply	220 V / 400 V / 415 V / 440 V (+/- 10%) 50/60 Hz three phase
Primary consumption (I max)	109 A (230 V) 60 A (415 V)
Air pressure and flowrate	6 bars - 170 l/min.
Duty cycle 10 min. cycle (at 40 °C)	150 A at 100%
Size (L x W x H)	1 170 x 710 x 1 200 mm
Net weight	260 kg
Protection class	IP 23

To order	NERTAJET 50			
1 NERTAJET 50	W000305077			
Installation ready to use:				
Installation pack air: NERTAJET 50 with 6 m long torch Z 5.0 W00030507				
Installation pack Ar/H ₂ - N ₂ : NERTAJET 50 with 6 m long torch Z 5.0 W00030507				
Add-ons:				
1 cutting compass	W000302512			
UNIVERSEL T10 gloves	W000380518			
LCD Mask "GOLDENARK"	W000386519			
Wear parts box Air	W000302564			
Wear parts box Ar/H ₂ - N ₂	W000302565			

To order	TORCH			
Water cooled torch Z 5.	W000302580			
Water cooled torch Z 5.	0 - 15 m	W000302581		
Torch body		W000302513		
Wear parts for distance				
1 Immersion tube		W000138241		
2 Electrode Air		W000325063		
3 Electrode N ₂		W000325064		
4 Electrode Ar / H ₂		W000325065		
	40 A - 1.0	W000325067		
	60 A - 1.2	W000325069		
5 Nozzle Air, N ₂ , AR/H ₂	100 A - 1.6	W000325072		
	150 A - 1.8	W000325073		
6 Skirt P flat		W000302516		
7 Skate		W000302577		
Wear parts for gouging				
1 Immersion tube		W000138241		
2 Electrode Air		W000325063		
3 Electrode N ₂		W000325064		
4 Electrode Ar / H ₂		W000325065		
8 Nozzle for gouging	W000302515			
9 Skirt C conical	W000302517			
10 Wrench for electrode		W000138242		

4 - Plasma cutting Accessories



Adaptor kit for central connection torch

PLASMAJET 2

W000276639

PLASMAJET 4

W000276640

To adapt central connection torch on the old PLASMAJET 2 & 4.



2011-482



2011-455

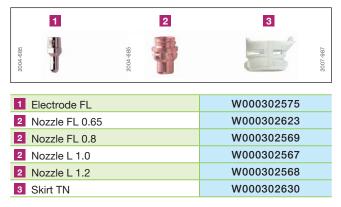
4 - Plasma cutting Wear parts

			SAXOJET + Jet CP 0.5	SAXOJET CPT 800	PRESTOJET 1 Jet CP 1.0	PRESTOJET 1K + CPT 800	PRESTOJET 1 CPT 800	PRESTOJET 2 Jet cp 2.5	PRESTOJET 4 Jet CP 4.5	PLASMAJET 2 Jet cp 3.0	PLASMAJET 2C	т. Т	PLASMAJET 4C Jet cp 4.0 c
						-							
	Cat. nr	Designation	Ì		J		Q.	Ì		J			
ĥ	W000274224	Electrode FL - CPT 800		V		~	~						
0	W000274266	Diffuser - CPT 800		~		~	V						
1	W000302575	Electrode FL	V		V			~	V	V	~	V	~
	W000302576	Electrode C						~	V	V	V	V	~
Ģ	W000302574	Electrode L						~	~				
	W000274969	Nozzle FL 0.65 - CPT 800		~		V	V						
U	W000274265	Nozzle FL 0.8 - CPT 800				~	V						
	W000302623	Nozzle FL 0.65	V		~			~	~	~	~	~	~
	W000302569	Nozzle FL 0.8			~			~	~	~	~	~	~
1	W000362567	Nozzle L 1.0						~	~	~	~	~	~
	W000362568	Nozzle L 1.2						~	~	~	~	~	~
	W000302571	Nozzle C 1.0						~	V	~	~	~	~
	W000302572	Nozzle C 1.2						~	V	V	~	V	~
8	W000302524	Nozzle C 1.4							V	~	~	~	~
	W000302573	Nozzle C 1.6							~				
	W000302669	Nozzle C 1.8							~			~	~
-	W000302670	Nozzle G 2.0 - JET CP 2.5 - 4.5						~	~				
T	W000302671	Nozzle G 2.2 - JET CP 4.5							~				
8	W000274226	Skirt TN CPT 800		~		~	~						
-	W000274225	Skirt Ti CPT 800		~		~	~						
23	W000302630	Skirt TN			~			~					
-	W000270053	Skirt TI						~					
	W000302668	Skirt drag cutting - JET CP 4.0 - 4.5							~	~	~	~	v
8	W000302667	Skirt distance cutting - JET CP 4.0 - 4.5							v	~	~	~	~
	W000271310	Skirt with crenels - JET CP 4.0 - 4.5							~	~	~	~	~
	W000274878	Skirt conical for bevelling - JET CP 4.0 - 4.5							~	~	~	~	~
	W000302535	Skirt for gouging - JET CP 4.5							~	~	~	~	~
	W000302609	Skate for distance cutting JUPE TN						~					
	W000302666	Skate for distance cutting - JET CP 4.0 - 4.5							~	~	~	~	<i>v</i>
0.0	W000302672	Skate for gouging - JET CP 2.5						~					
p	W000302673	Skate for gouging - JET CP 4.5							~				
2 ' . 6	W000274862	Wrench CPT 800		~		~	V						
-	W000302578	Wrench	~		~			~	~	~	~	~	~

4 - Plasma cutting Torch JET CP

Torch JET CP 0.5 - 1.0 - 2.5 - 3.0

Wear parts for drag cutting



Wear parts for distance cutting



W000302576
W000302571
W000302572
W000302524
W000302630
W000302609

Wear parts Torch JET CP4.0 C - 4.0 - 4.5

Wear parts for drag cutting



1 Electrode FL	W000302575
2 Nozzle FL 0.65	W000302623
2 Nozzle FL 0.8	W000302569
2 Nozzle L 1.0	W000302567
2 Nozzle L 1.2	W000302568
11 Skirt for drag cutting	W000302668

Wear parts for gouging



14 Electrode L	W000302574
15 Nozzle G 2.2	W000302671
16 Skirt for gouging	W000302535
17 Skate for gouging	W000302673

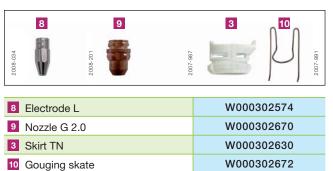


Wear parts for distance cutting

1	2	4
2004-885	2004-685	2004-220

1 Electrode FL	W000302575
2 Nozzle FL 0.65	W000302623
2 Nozzle FL 0.8	W000302569
2 Nozzle L 1.0	W000302567
2 Nozzle L 1.2	W000302568
4 Skirt TI	W000270053

Wear parts for gouging (only CP 2.5)





Wear parts for distance cutting



5 Electrode C	W000302576
6 Nozzle C 1.0	W000302571
6 Nozzle C 1.2	W000302572
6 Nozzle C 1.4	W000302524
6 Nozzle C 1.6	W000302573
6 Nozzle C 1.8	W000302669
12 Skirt for distance cutting	W000302667
13 Skate for distance cutting	W000302666
14 Skirt with crenels	W000271310
15 Beveling skirt	W000274878

Additional wear parts

O'ring for nozzle	W000269523
Wrench	W000302578

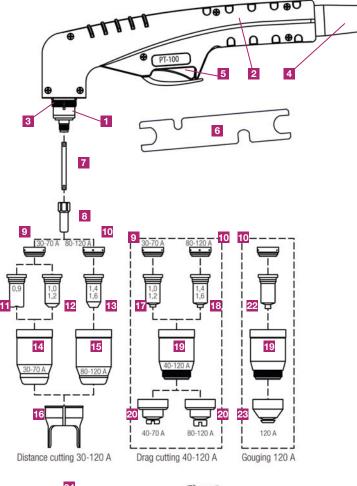
4 - Plasma cutting Torch PT 100 C



	Torch PT 100 C
Cutting current	30 - 120 A
Duty cycle @ 60%	120 A
Gas	Air
Pressure	4.5 - 5.0 bar for 6 m long torch 7.0 bar for 15 m long torch
Air flowrate	200 l/min
Arc striking	Without HF

To order

PT 100 6 m long	W000278170
PT 100 15 m long	W000371687
Compass for PT 100	W000372708





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Wear parts for plasma cutting torch PT 100

1 Torch body	W000278466
2 Handle	W000278631
3 O ring PT 100	W000278465
4 Torch harness with central connector	W000278467
5 Trigger	W000278630
6 Mounting key PT	W000274862
7 Cooling tube	W000278408
8 Electrode PT 100 *	W000278409
9 Diffuser 30-70A *	W000278446
10 Diffuser 80-120A	W000278447
11 Nozzle 0,9 distance cutting	W000278448
12 Nozzle 1,0 distance cutting	W000278449
12 Nozzle 1,2 distance cutting	W000278450
13 Nozzle 1,4 distance cutting	W000278451

13 Nozzle 1,6 distance cutting *	W000278452
14 Skirt 30-70A distance	W000278458
15 Skirt 80-120A distance	W000278460
16 Protection skirt for distance cutting	W000278464
17 Nozzle 1,0 drag cutting	W000278453
17 Nozzle 1,2 drag cutting *	W000278454
18 Nozzle 1,4 drag cutting	W000278455
18 Nozzle 1,6 drag cutting	W000278457
19 Skirt holder for drag cutting *	W000278461
20 Skirt 40-70A drag *	W000278462
21 Skirt 80-120A drag	W000278463
22 Nozzle 120A for gouging	W000372420
23 Skirt for gouging	W000372421
24 Central connector	W000276319

* Wear parts delivered as standard with the torch.

4 - Plasma cutting Wear parts for previous range SAF-FRO torches

Wear parts for Z 2.0 torch

W000302616
W000302574
W000302575
W000302576
W000302567
W000302568
W000302618
W000302570
W000302569
W000302571
W000302572
W000302630
W000270053
W000302609
W000302578



Wear parts for torches CP 40 R or CP 100 R

1 Torch body	W000142824
2 Immersion tube	W000302554
3 Electrode Zr.	W000302545
3 Electrode Hf.	W000302576
4 Electrode long	W000302574
5 Nozzle Ø 1.0	W000302571
5 Nozzle Ø 1.2	W000302572
5 Nozzle Ø 1.6	W000302573
6 Nozzle long. Ø 0.8	W000302613
6 Nozzle long. Ø 1.2	W000302614
7 Wrench	W000302578
8 Guide skate	W000302609
9 Skirt TN (to better see the arc)	W000302606
10 Skirt TI 40 (air cushion)	W000302552
11 Skirt TI 100 (heavy duty works)	W000302557
12 Gouging kit	W000302546
Torch CP 40 R 6 m long	W000302544
Torch CP 40 R 15 m long	W000302549
Torch CP 100 R 6 m long	W000302553
Torch CP 100 R 15 m long	W000302558



Air Liquide Welding France Warranty Charter

Within the limit of the provisions detailed below, Air Liquide Welding France (ALWF) warranty applies to products recognised as defective subsequent to a manufacturing, assembly or material defect attributable to ALWF.

PROVISIONS APPLICABLE TO PROFESSIONAL END USER

The ALWF warranty periods are as follows:

Power sources:

- 2 years for all welding/cutting manual power sources belonging to the "Industrial Range" (list available on request).
- + 1 additional year if the product is registered on the internet website of the brand (see hereunder) or by post within 3 months after purchase.
- 1 year for all welding/cutting manual power sources belonging to the "Professional & Craftsmen range" (*list available on request*).
- + 1 additional year if the product is registered on the internet website of the brand (see hereunder) or by post within 3 months after purchase.
- Equipment and accessories:
 - 2 years for LCD welding helmet cells.
 - 1 year for all components of welding/cutting automatic and robotic installations.
 - 6 months for welding blowpipes and pressure regulators.
 - 3 months for guns, torches, harnesses, welding helmets and spare parts.
- Welding consumables:

1 year for the welding consumables supplied under the OERLIKON and SAF-FRO brands (coated electrodes, solid wires, flux cored wires, rods for TIG welding and for oxyflame processes, fluxes for the submerged arc welding...), subject to strict compliance with the recommendations of ALWF for the storage and handling of these products available on the site : http://www.airliquidewelding.com/en/our-products/consumables.html.

Wear parts:

For wear parts (as bulbs, fuses, contact tubes, nozzles, hoses' sheathes, electric and flexible cables, etc...) only the legal warranty applies.

The warranty periods for products in the power sources and equipment/accessories ranges apply for use in an 8 hour shift per day.

All warranty periods begin from the date of invoice to the first end user customer as written in the invoice and/or registration. If the invoice cannot be presented, the warranty begin from the date of delivery from our warehouse.

How to register power source:

The power source registration is made on line on the website of each Air Liquide Welding brand. For a SAF-FRO product: www.product-registration.saf-fro.com

- For an Oerlikon product: www.product-registration.oerlikon-welding.com
- ► For a Cemont product: www.product-registration.cemont.com

Registration of the power source must be done within 3 months following the product purchase and give an additional one year warranty.

If you are not able to register on line, you have to send a letter requiring the additional one year warranty (*Air Liquide Welding France Service Garantie - Place le Chatelier F 60700 Pont Sainte Maxence).* In this case you must add to this letter a copy of the invoice.

General conditions:

To benefit from the ALWF warranty, the purchaser, during the contract, must inform ALWF of defects he attributes to the product. He must provide all documentary proof as well as assistance to enable ALWF to locate these defects and correct them.

Once ALWF has received this notification, it will instruct the purchaser of the procedure to follow for the warranty claim. In particular, the warranty clause shall be applied only in so far as the serial number or the batch number, as well as a photocopy of the invoice for the equipment in question, are enclosed with the request.

When a request is made by the purchaser and accepted by ALWF in the framework of the warranty, Air Liquide Welding France reserves the right to select one of the following solutions as it deems appropriate:

- repair either in its plants, or at the distributor's premises, or at the premises of the customer, or at the premises of a third party selected by ALWF,
- replacement: ALWF does not grant credit notes in the framework of its warranty. The replacement of an item by a new one is allowed only under the following conditions,

- the item is defective at the time of delivery and is sent back in its original packaging or in the packaging of the exchanged equipment,
- in all cases in which ALWF feels that repair is not appropriate. ALWF reserves the right to request that the item(s) be returned for expert appraisal.

The ALWF warranty does not apply to:

- replacements or repairs resulting from normal wear of the product, from its misuse (particularly in an environment for which the product was not intended), from noncompliance with operating or maintenance instructions, from maintenance, monitoring, or storage or handling defects or from negligence or malice.
- anomalies resulting from the use of non- Air Liquide Welding France original parts or equipment.
- ► damages associated with transport.

Additionally, this warranty shall be terminated if the customer or a third party carry out repairs or modifications on the product, without written approval from ALWF.

Finally, servicing operations or replacements carried out under the warranty do not result in an extension of said warranty.

No warranty other than the one defined by this document, particularly relating to loss of potential earnings, operating losses, production losses or third party claims, shall be binding on ALWF. Except in the case of express agreement to the contrary between the parties, ALWF does not warrant industrial or economic consequences. ALWF remains liable for the legal warranty as regards latent defects.

PROVISIONS APPLICABLE TO DISTRIBUTORS AND ALW SUBSIDIARIES

All warranty periods take effect from the date of invoice to the **first end user customer or 12 months after the delivery date to the distributor or ALW subsidiary.**

The distributors and ALW subsidiaries warrant their customers for at least the minimum periods stipulated in the framework of the ALWF warranty, as of the date of their own bill of sale. If the final customer has not registered his power source, the distributor has to present the invoice made to the final customer with indication of the serial number of the power source.

As the warranty covers parts and labour for the end-user customer, servicing costs and labour are assumed by the distributor or subsidiary with respect to end-user customers *(except in France).*

Any warranty extension which they grant their customers is done solely at their expense and under their responsibility.

Any defective item replaced under the warranty must be systematically kept by the distributor or subsidiary for a period of 3 months, as of the date of the claim. During this period, ALWF may request that the item in question, which has been held at its disposal, be returned for expert appraisal.

ALWF reserves the right to invoice items supplied as replacements in the following cases: the original defective item is not returned, in spite of ALWF request,

refusal of warranty is pronounced after the analysis of the damage and /or the defective products.

When ALWF has selected this solution, it undertakes to repair any product within a period of 15 working days following receipt in its workshops (an acknowledgement of receipt is sufficient proof), failing which ALWF will supply an identical new or reconditioned part or piece of equipment.

Return transportation expenses are assumed by ALWF in the framework of the warranty granted in the following conditions:

- in France: sending transportation expenses assumed by the distributor to go and transportation expenses assumed by Air Liquide Welding France to send back (repair at ALWF workshop),
- in the European Union: return transportation expenses assumed by subsidiaries,
 in the rest of the world: return transportation expenses assumed by ALWF.

This charter replaces all previous conditions relating to the same subject, for product invoiced after the 1st of January 2016. For all other contractual conditions, ALWF general terms and conditions of sale apply.





Contacts

ALW Export Department Italy

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