Gama PLASMA

PLASMA 40 COM GE
PLASMA 100 TGE
PLASMA MULTI 40

ES Manual de instrucciones

IT Istruzioni d' uso

GB Operating instructions

P Manual de instruções

STAYER

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FIG.1

PLASMA 100 T GE

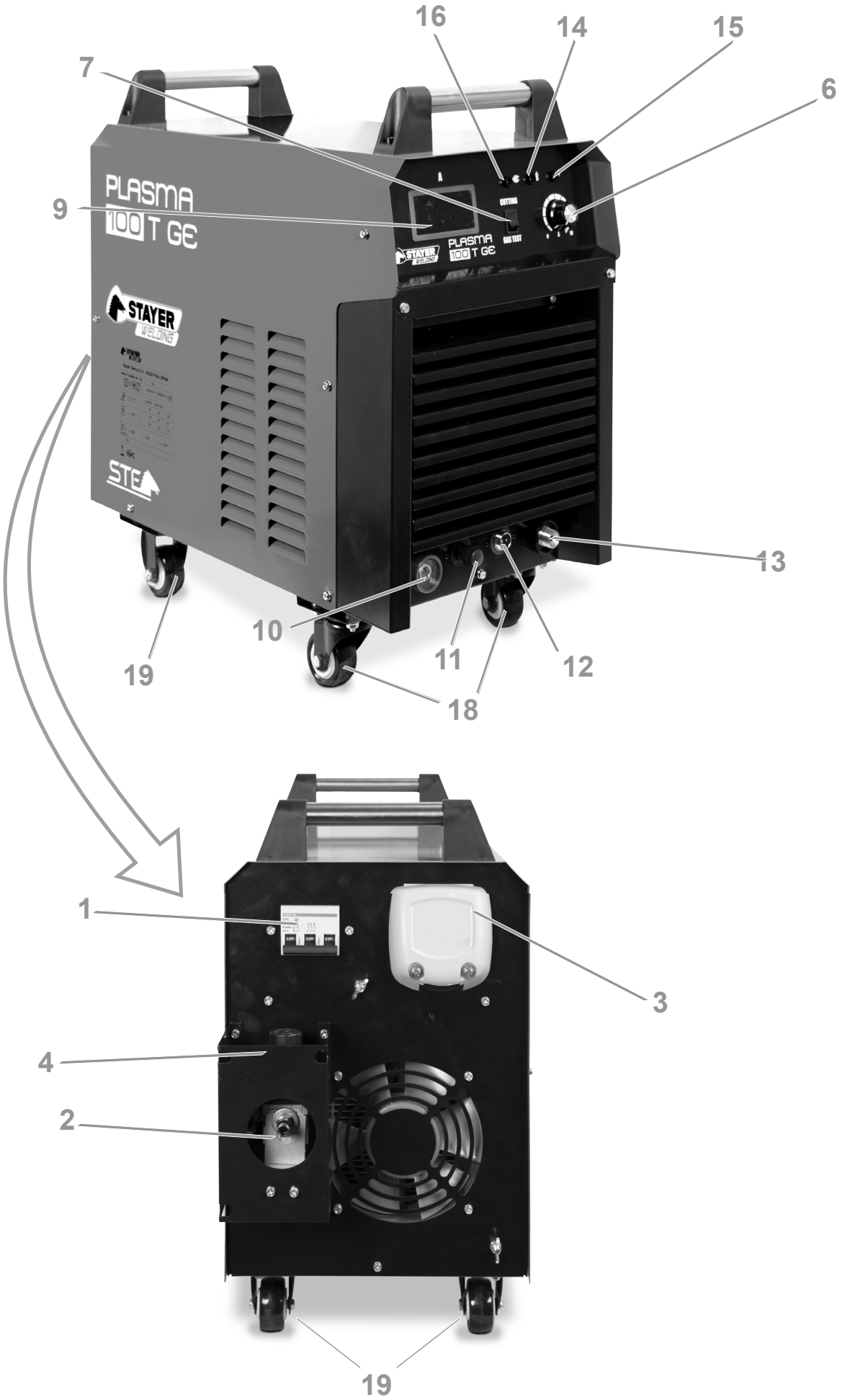


FIG.2

PLASMA 40 COM GE

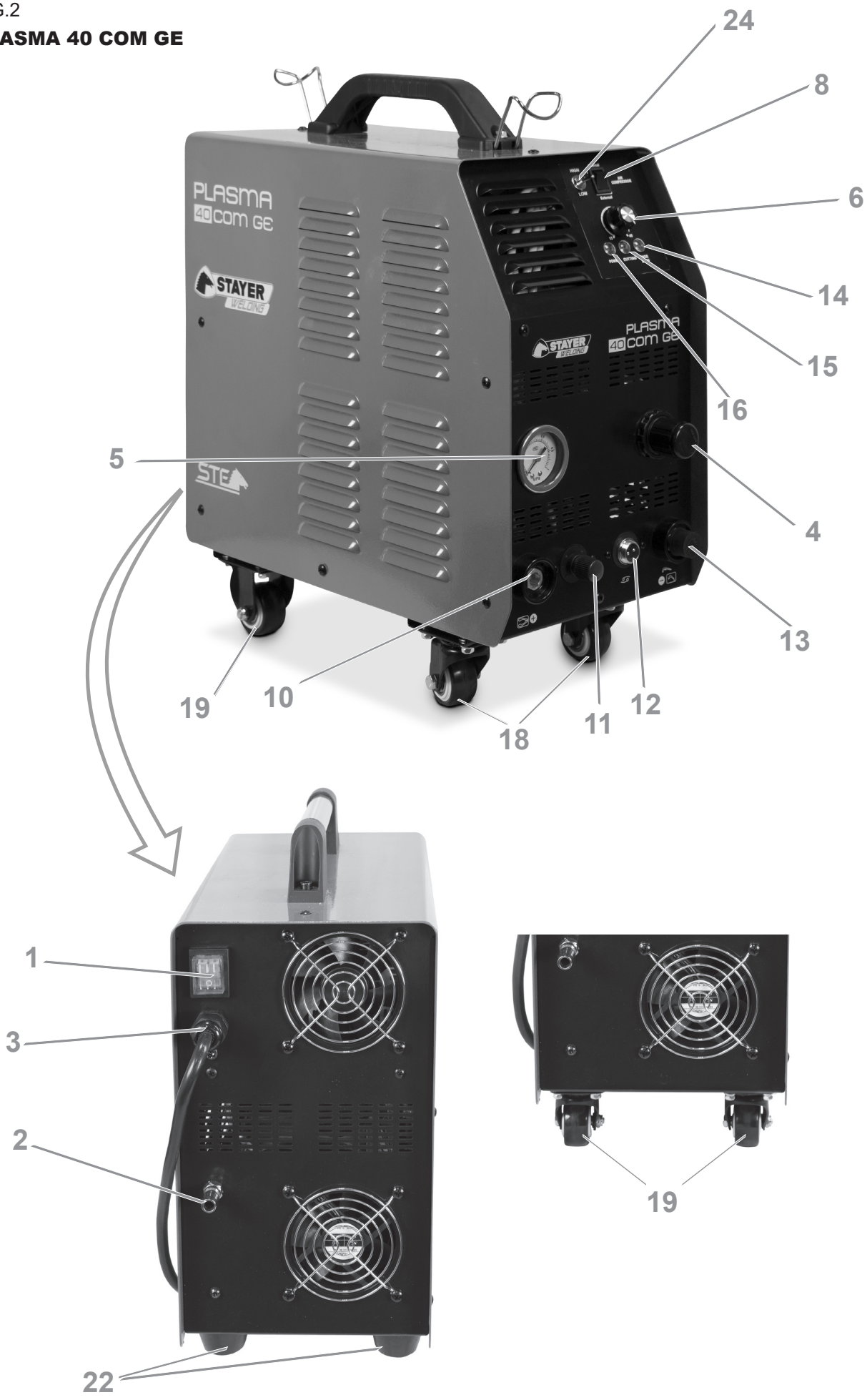
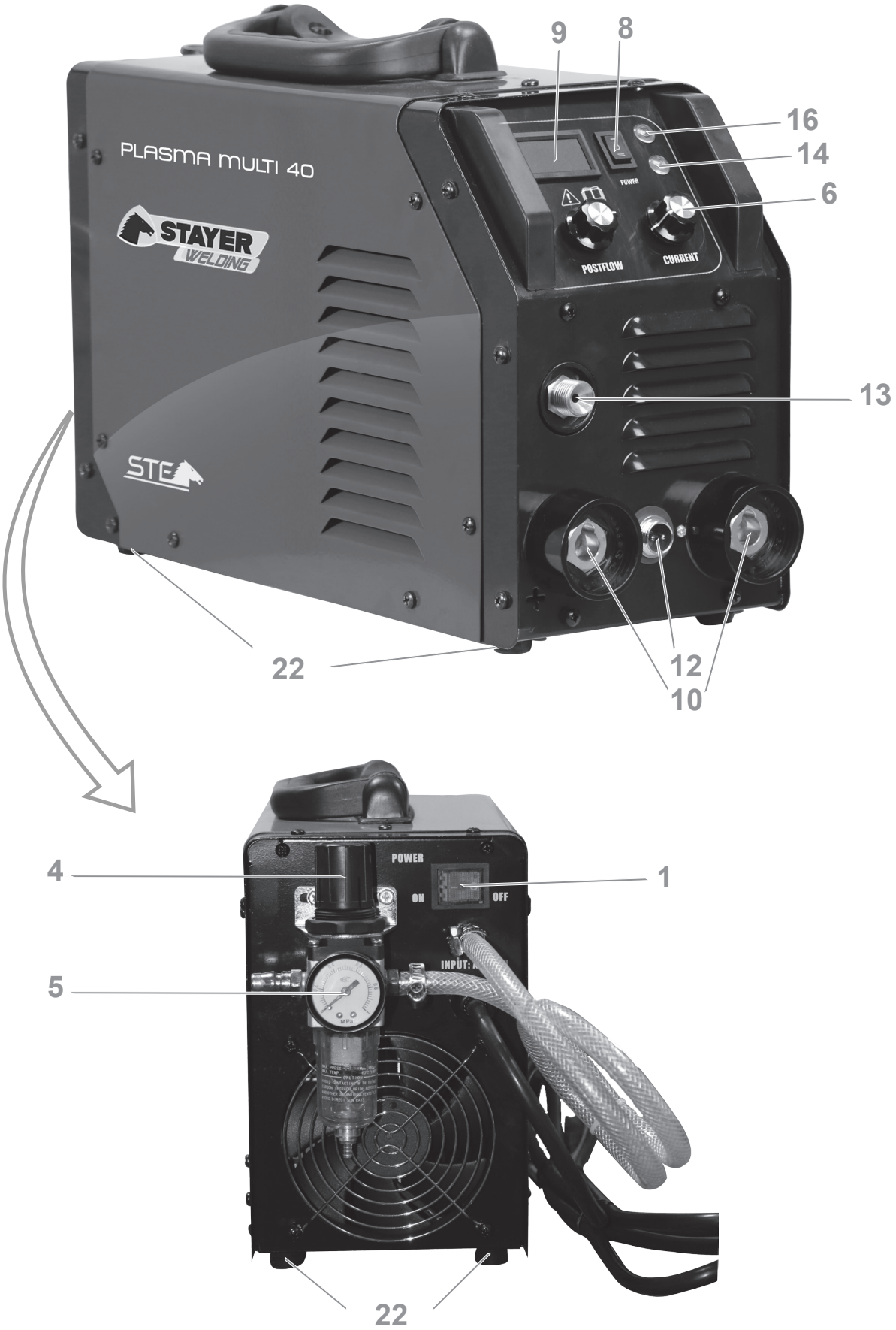


FIG.3

PLASMA MULTI 40



PLASMA MULTI 40

Torch SG55
REF. 4120.170

Torch TIG
REF. 4120.172

PLASMA 40 COM GE

Torch IPT40
REF. 4120.171

PLASMA 100 TGE

Torch LT 100 /
REF. 4120.173

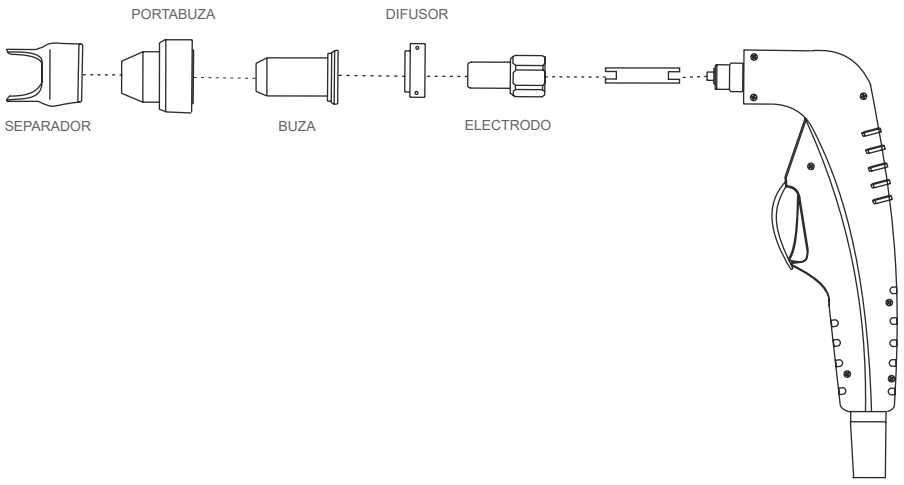


FIG.6
PLASMA 40 COM GE

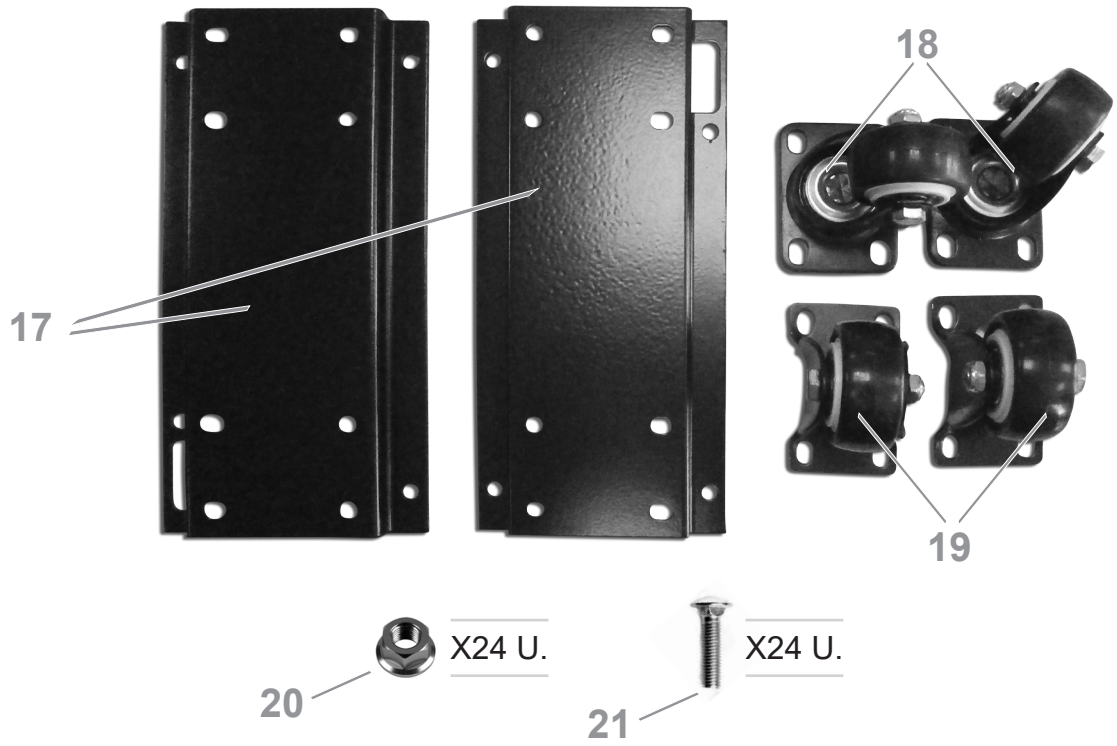
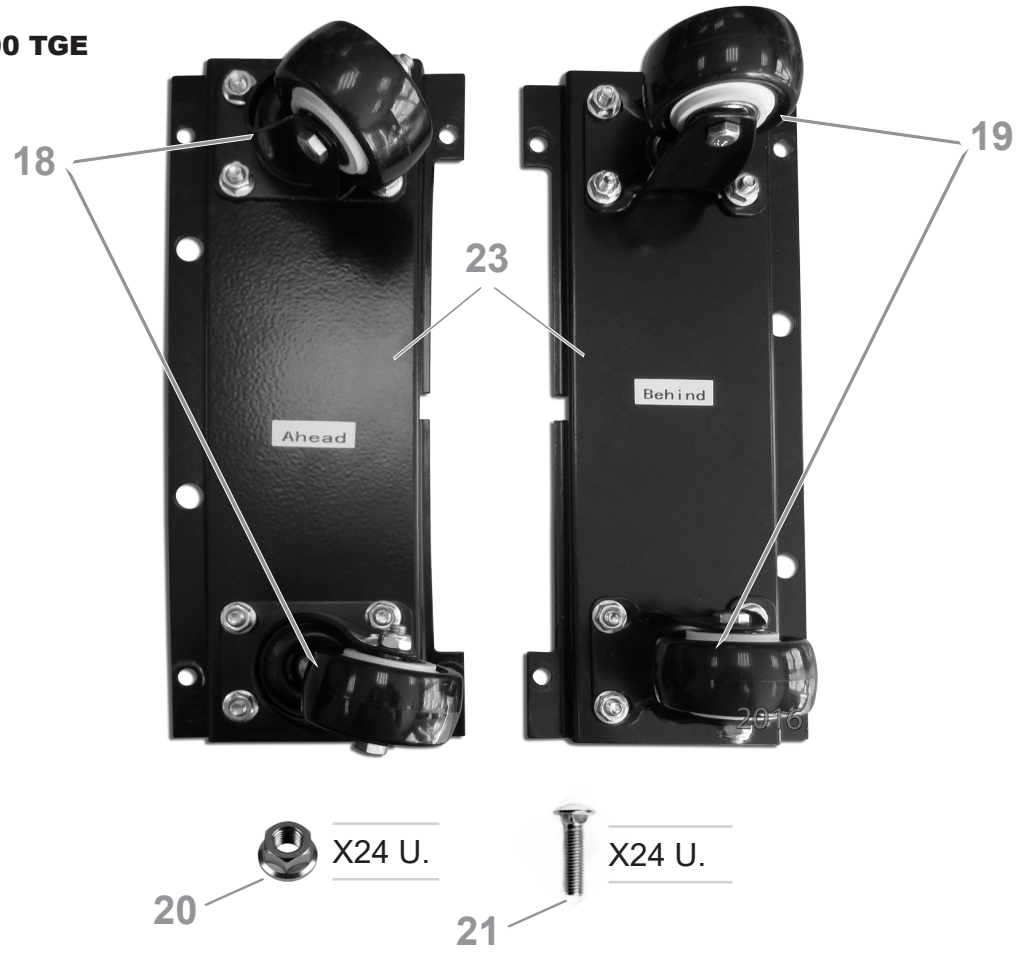
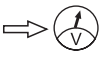


FIG.7
PLASMA 100 TGE



		PLASMA MULTI 40	PLASMA 40 COM GE	PLASMA 100 T GE
	V	1 x 230V	1 x 230V	3 x 400V
	A	160-40	40	100
	%	60	60	60
	mm	12	12	32
	kg	7	21	30
	KVA	6	4,4	11
DOTACIÓN / DOTAZIONE / DOTATION / DOTAÇÃO				
Antorcha Plasma *Torcia Plasma* ***Plasma Torch*** Tocha Plasma		SG.55 4m	IPT 40	IPT 100 6m
Antorcha Tig *Torcia Tig* ***Tig Torch*** Tocha Tig		TIG 17 4m	-	-
Cable electrodo *Cavo elettodo* ***Cable electrode*** Cabo elétrodo		2m x 25mm^2	-	-
Cable masa *Cavo massa* ***Ground cable*** Cabo massa		2m x 25mm^2	2m x 10mm^2	2m x 10mm^2
Cable Alimentación *Cavo alimentazione* ***Power cable*** Cabo alimentação		2m x 2.5mm^2	2m x 2.5mm^2	3m x 2.5mm^2
Manguera Aire *Manicotto aria* ***Air hose*** Manguira ar		4m	6m	6m

Introduction

The present product is an equipment for cutting metal manually by plasma produced by an electric arc and pressurized air.
The equipment applies high-frequency energy transfer by advanced inverter technology for maximum operation quality and minimum weight. All equipments have components of industrial category, components sized with overvoltage and overcurrent resistance reserve and double-shielded EMI filters, and microprocessor smart controls. Solid construction under IEC/EN 60974-1 and the RoHS Directive. Maximum quality components, 600V switches, 450V/1400V capacitors and cutting edge HF ferrite transformers.
Compared to traditional technology based on transformers operating at 50/60Hz public mains frequency, the **WELDING** Inverter technology has a higher power density per weight unit, is more economical and has the possibility of accurate, instantaneous and automatic control of all welding parameters.
As a result, you will produce a better cut with greater facility with an equipment which is less consuming and lower weight compared to traditional equivalent equipments.
The whole product range is controlled by microprocessor for maximum safety, performance and easiness of use (smart equipments).
The whole product range is adapted for use with stabilized motor-generators.

1. Explanation of regulatory markings

<table>
<tr><td colspan="6">1</td></tr>
<tr><td colspan="3">23</td><td colspan="3"></td></tr>
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<tr><td>13</td><td>13a</td><td>13b</td><td>13c</td></tr>
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<tr><td>14</td><td>15</td><td>16</td><td>17</td></tr>
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Pos. 1 Name and address and brand of the manufacturer, distributor or importer.
Pos. 2 Identification of the model.
Pos. 3 Model traceability.
Pos. 4 Symbol of the welding power source.
Pos. 5 Reference to regulations complied with by the equipment.
Pos. 6 Symbol for the welding process.
Pos. 7 Symbol for use in environments with increased risk of electric shock.
Pos. 8 Symbol for the welding current.
Pos. 9 Nominal no-load output tension.
Pos. 10 Nominal output voltage and current range.
Pos. 11 Duty cycle of the power source.
Pos. 11a Duty cycle at 45%.
Pos. 11b Duty cycle at 60%.
Pos. 11b Duty cycle at 100%.
Pos. 12 Nominal cut-off current (I2).
Pos. 12a Current value for 45% duty cycle.
Pos. 12b Current value for 60% duty cycle.
Pos. 12c Current value for 100% duty cycle.
Pos. 13 Load tension (U2).
Pos. 13a Load tension for 45% duty cycle.
Pos. 13b Load tension for 60% duty cycle.
Pos. 13c Load tension for 100% duty cycle.
Pos. 14 Symbol for power supply.
Pos. 15 Nominal value of supply tension.
Pos. 16 Maximum nominal supply current.
Pos. 17 Maximum effective supply current.
Pos. 18 IP degree of protection.

2. Safety instructions

READ THE INSTRUCTIONS.
- Read the User Manual completely and understand it before using or giving service to the unit.
- Only use genuine manufacturer's parts.

2.1. Symbols used.

DANGER! - Indicates a dangerous situation which, when not avoided, will lead to death or serious injury. Possible hazards are shown in the attached symbols or explained in the text.

Indicates a dangerous situation which, when not avoided, will lead to death or serious injury. Possible hazards are explained in the text.

2.2. Arc-welding hazards.

Only qualified persons may install, operate, maintain and repair this machine.

During its operation, keep anyone away, especially children.

►ELECTRIC shock may kill you.

Touching live current carrying parts may cause fatal electric shock or serious burns. The working and electrode circuit is always electrically live when the machine output is on. The input circuit and the inner circuits of the machine are also electrically live when the machine is on. When welding with automatic or semiautomatic equipment, the wire, the reel, the frame containing the supply rolls and all metal parts touching the welding wire are electrically live. Incorrectly-installed or not-earthed equipment is a very serious danger.

- Do not touch electrically live parts.
- Use dry insulating gloves without openings, and protection on your body.
- Isolate yourself from the work and from the ground by using carpets or covers that are sufficiently large to prevent any physical contact with the work or ground.
- Do not use the AC output current in humid areas, when your movement is restricted or when in risk of falling down.
- Use an AC output ONLY when required by the welding process.
- When an AC output is required, use a remote control if there is one present in the unit.
- Additional safety precautions are required when any of the following dangerous electric conditions is present in humid rooms or while you are wearing humid clothing, on metal structures such as floors, grates or scaffolds; when you are in a tight position such as seated, kneeling, lying down or when there is a high risk of having unavoidable or accidental contact with the workpiece or ground.
- Disconnect power input or stop the motor before installing or servicing this equipment.
- Install equipment and connect it to ground in accordance with the operator's manual and national, state and local codes.
- Always check the supply to ground – check and make sure that the power input to the ground wire is appropriately connected to the grounding terminal at the disconnection box or that its plug is appropriately connected to the output receptacle that is connected to ground.

When making these input connections, first connect the ground conductor and double-check the connections thereof.
- Keep supply cords free of oil or grease, and protected from hot metal and sparks.
- Inspect power input cord frequently regarding damage or bare cable. Replace cord immediately if damaged – a bare cable may kill you.
- Switch off the whole equipment when you are not using it.
- Do not use cables which are worn-out, damaged, very small-sized or wrongly connected.
- Do not wrap cables around your body.
- When a grounding clamp is required for an operation, make ground connection by using a separate cable.
- Do not touch the electrode when you are in contact with the work or the grounding circuit or another electrode of a different machine.
- Do not put into contact two electrode carriers that are connected to two different machines at the same time, because in that case there will be an open-circuit double voltage.
- Use equipment in a well-maintained condition. Repair or replace damaged parts immediately. Maintain the unit in accordance with the manual.
- Use safety braces to prevent you from falling down when working above floor level.
- Keep all panels and covers in place.
- Put the clamp of the work cable in good metal-to-metal contact to the work or the work table as close as possible to the weld as it is practical.
- Keep or isolate the grounding clamp when it is not connected to the workpiece to avoid any contact with any metal or any grounded article.
- Isolate the grounding bracket when not connected to the workpiece to prevent it from contacting any metal article.

►HOT PARTS may cause serious burns.
- Do not touch hot parts with your hand without glove.
- Allow that there is a cooling period before working at the machine.
- To handle hot parts, use appropriate tools and/or put on heavy gloves, with insulation for welding and clothing to prevent burns.

►SMOKE and GASES may be dangerous.
Welding produces smoke and gases.
Breathing in these gases and smoke may be dangerous for your health.
- Keep your head out of the smoke. Do not breathe in smoke.
- When you are indoors, ventilate the area and/or use forced local ventilation in front of the arc to remove welding smoke and gases.
- When ventilation is bad, use an authorized respirator.
- Read and understand the Data Sheets on Material Safety (MSDSs) and the manufacturer's instructions regarding metals, consumables, coatings, cleansers, degreasing agents.
- Do work within a closed space only if it is well ventilated or while using an air respirator. Always have a trained person near. Welding smoke and gases may displace air and reduce oxygen level causing harm to health or death. Make sure that air for breathing is safe.
- Do not weld at locations near to operations involving grease, cleaning or spraying paint. Heat and bolts of the arc may react with vapors and form strongly irritating and toxic gases.
- Do not weld on coating materials such as galvanized steel, lead, or cadmium-coated steel, unless the coating has been removed from the welding area, the area is well ventilated and while using a respirator with a source of air.
  Coatings of any material containing these elements may cause smoke being emitted when welding.

►BOLTS EMITTED BY THE ARC may burn your eyes and skin.
Bolts emitted by the arc of a welding process produce intense heat and strong ultraviolet rays that may burn eyes and skin.

- Use an authorized welding mask having a lens-filter shade to protect your face and eyes while welding or looking, cf. safety standards ANSI Z249.1, Z175, EN379.
- Use authorized safety goggles having lateral protection.
- Use protective screens or barriers to protect others from flashes, reflections and sparks; alert others not to look at the arc.
- Use protective clothing made of durable, flame-resistant material (leather, thick cotton or wool) and protection for your feet.

►WELDING may cause fire or explosion.
Welding on a closed container such as tanks, drums or tubes may cause explosion. Sparks may fly from a welding arc. Flying sparks, the hot workpiece and the hot equipment may cause fire and burns. Accidental contact of the electrode with metal articles may cause speaks, explosion, overheating, or fire. Check and make sure that the area is safe before starting any welding.

- Remove any inflammable material from within a distance of 11 m from the welding arc. When this is not possible, cover it tightly with authorized covers.
- Do not weld where sparks may impact on inflammable material. Protect yourself and others from flying sparks and hot metal.
- Be alert to that weld sparks and hot materials from the welding operation may pass through small cracks or openings in adjacent areas.
- Always watch that there is no fire and keep an extinguisher near
- Be alert to that, when welding a ceiling, floor, wall or any kind of separation, heat may cause fire at the hidden part which cannot be seen.
- Do not weld within closed receptacles such as tanks or drums or piping unless they have been prepared appropriately in accordance with AWS F4.1.
- Do not weld where the atmosphere might contain inflammable dust, gas or vapors from liquids (such as gasoline).
- Connect the work cable to the work area as near as possible to the place where you will be welding, in order to prevent welding current from long possibly traveling through unknown parts causing electrical shock, sparks and fire hazard.
- Do not use welding to deice frozen pipes.
- Remove the electrode from the electrode carrier or cut the welding wire close to the contact pipe when you are not using it.
- Use protective clothing without oil, such as leather gloves, heavy shirt, closed trousers without patches, high shoes or boots and a cap.
- Keep any fuel as butane lighters or matches away from you, before starting to weld.
- After completing work, inspect area to make sure that it is free of sparks, embers and flames.
- Only use correct fuses or circuit breakers. Do not put ones of larger size or pass them by one side.
- Follow the regulations in OSHA 1910.252(a) (2) (iv) and NFPA 51B for hot work and have a person near to take care of fire and an extinguisher.

►FLYING METAL OR SLAG may injure eyes.
- Welding, grinding, wire brushing or polishing may produce sparks or flying metal. When welds are cooling down they may release slag.
- Use authorized safety goggles with lateral guards down to underneath your mask.

►GAS ACCUMULATION may make you sick OR KILL YOU.
- Close shielding gas when not using it.
- Always give ventilation to closed spaces, or use an authorized respirator that replaces air.

►MAGNETIC FIELDS may affect implanted medical devices.
- Persons using pace makers or other implanted medical devices must stay away.
- Persons using implanted medical devices must consult their doctor and the manufacturer of the apparatus before approaching arc welding, point welding, slotting, plasma cutting, or induction heating operations.

►NOISE may injure your ear.
- The noise of some processes or equipment may harm your ear. Use authorized ear protection when the level of noise is very high or above 75 dBa.

►THE CYLINDERS may burst when they have failures.
Cylinders containing shielding gas contain that gas under high pressure. The cylinders may burst when they have failures. As the cylinders are usually part of the welding process, always treat them with care.
- Protect pressurized gas-containing cylinders from excessive heat, mechanical impacts, physical damage, slag, flames, sparks and arcs.
- Install and secure the cylinders in a vertical position securing them to a stationary support or a cylinder holder to prevent them from falling down or falling over.
- Keep cylinders far away from electric or welding circuits.
- Never wrap the welding torch about a gas cylinder.
- Never allow an electrode to contact any cylinder.
- Never weld on a pressurized cylinder; there will be an explosion.
- Use correct shielding gas only, as well as regulators, hoses and connections designed for the specific application; maintain them, the same as the parts, in a good condition.
- Always keep your face away from a valve outlet except when operating the cylinder valve.
- Keep the protective cover in place over the valve except when the cylinder is in use or connected for being used.
- Use the correct equipment, correct procedures and a sufficient number of persons to lift and move the cylinders.
- Read and follow the instructions regarding compressed gas cylinders, associated equipment and the publication of the Compressed Gas Association (CGP) P-1 as well as local regulations.

►FIRE OR EXPLOSION hazard.
- Do not place the unit on, over or close to combustible surfaces.
- Do not install the unit close to inflammable articles.
- Do not overcharge your building's wiring – make sure that your power supply system is suitable in size, capacity and protected to comply with the requirements of this unit.

►A DOWN-FALLING UNIT may cause injuries.
- With heavy equipment, do use the lifting eye only for lifting the unit, NOT the wheel train, gas cylinders or other accessories.
- Use equipment having a suitable capacity to lift the unit.
- When using a fork lift, make sure that the tines of the fork lift are sufficiently long to extend beyond the opposite side of the unit.

►OVERUSE may cause OVERHEATING OF THE EQUIPMENT.
- Allow for a cooling period, follow the nominal working cycle.
- Reduce the working cycle or current before welding again.
- Do not block or filter the airflow to the unit.

►FLYING SPARKS may cause injuries.
- Use a face guard to protect your eyes and face.
- Shape the tungsten electrode only in a grinder with appropriate guards at a safe location using necessary protection for your face, hands and body.
- Sparks may cause fire – keep inflammables far away.

►THE WELDING WIRE may cause you injuries.
- Do not press the trigger of the torch until receiving these instructions.
- Do not point the tip of the torch towards any point of your body, any other persons or any metal object when passing the wire.

►MOVING PARTS may injure.
- Keep away from any moving parts such as fans.
- Keep any doors, panels, lids and guards closed and in place.
- Achieve that only qualified persons remove doors, panels, lids and guards to provide maintenance as necessary.
- Reinstall doors, panels, lids and guards after having completed maintenance and before reconnecting input power.

► HIGH FREQUENCY RADIATION may cause interference.
- High frequency radiation (H.F.) may interfere with radio navigation, safety services, computers and communication equipment.
- Make sure that only qualified persons familiarized with electronic equipment install the equipment.
- The user takes responsibility for having a trained electrician who will soon correct any problem caused by the installation.
- Make sure that the installation receives regular checking and maintenance.
- Keep doors and panels of a high frequency source completely shut, keep the distance of the spark at the contact points in its correct fixation and make sure that it is grounded and protects countercurrent to minimize the possibility of interference.

►ARC WELDING may cause interference.
- Electromagnetic energy may interfere with sensitive electronic equipment such as computers or computer-driven equipment such as industrial robots.
- Make sure that any equipment within the welding area is electromagnetically compatible.
- To reduce possible interference, keep welding cables as short as possible, as close together as possible or, on the floor, if possible.
- Place your welding operation at a distance of at least 100 meters away from any electronically sensitive equipment.
- Make sure that the welding machine is installed and grounded in accordance with this manual.
- If there still is interference, the operator has to take extraordinary measures, such as move the welding machine, use shielded cables, use line filters, or shield the work area in one way or another.

2.3. Reducing electromagnetic fields.

To reduce magnetic fields (EMF) in the work area, the following proceedings should be used:
1. Keep cables as close together as possible, by braiding them, or joining them with sticky adhesive tape, or using a cable cover.
2. Place cables at one side and away from the operator.
3. Do not wrap or hang cables about your body.
4. Keep welding power sources and cables as far away as practical.
5. Connect grounding clamp to the piece you are working on, as near as possible to the weld.

Warning: In environments with increased risk of electric shock and fire, such as in the proximity of inflammable products, explosives, height, restricted free moving space, physical contact with conductive parts, warm and humid environments that reduce the electrical resistance of human skin and apparatus, observe the risk prevention in the workplace and the national and international provisions as pertinent.

3. Instruction for putting into operation

3.1. Positioning

The machine must be positioned in a dry, ventilated area and with a separation of at least 15cm from any wall.
The equipment may slip when supported on surfaces having an inclination of more than 3o, so that it shall mandatorily always be placed on a flat and dry surface. When placing it on surfaces with a greater slope, secure the machine with chains or belts.

3.2. Assembling

The equipment shall be assembled respecting its environmental limits and positioning it correctly.

Mounting wheels.
PLASMA 100 TGE (fig. 6):
- Set the base 17 a the machine screws 21 and nuts 20.
- Make sure that wheels 18 (Ahead) should place them in the front of the machine. Perform the same procedure with the wheels rear 19 (Behind).

PLASMA 40 COM GE (fig. 7):
- Remove the rubber 22 feet
- Place front wheels 18, 17 base, position and tighten the screws nuts 20
- And 21 perform the same procedure with the rear wheels 19.

For both models:
- Fix the base of the wheels team weld screws 21 remaining-note ranging the spinning wheels in the front part of the machine and fixed on the back.

3.3. Mains connection

The equipment is powered by the cable and connector provided as standard, through a differential circuit breaker and a slow-feature electromagnetic circuit breaker having an intensity in accordance with the table of technical features. Any connection must have a regulatory ground connection and comply with any national electricity regulations.

Use without regulatory ground connection is prohibited.

In the case of a connection to a power generator, the power requirements stated in the technical specification are to be observed. It shall be taken into account that an equipment will be able to operate with a generator providing less power than the stated one, with the limitation that it is used with a lower maximum intensity than the nominal one.

3.4. Illustrated description.

PLASMA 40 COM GE - PLASMA 100 T GE
1. Interruptor ON/ OFF.
2. Compressed air connection.
3. Power supply connection.
4. Air pressure limiter.
5. Air pressure gauge.
6. Output amp setting.
7. Continuous air output switch.
8. Switch air: internal / external.
9. Ampere output indicator.
10. Ground connection.
11. Prime arch signal connection.
12. Connection of the torch trigger.
13. Torch connection.
14. Thermal pause indicator.
15. Machine working.
16. Machine on display.
17. Limiting consumption (optional).
18. Front wheels (Ahead).
19. Rear wheels (Behind).
20. Nuts (PLASMA 40 Com GE).
21. Screws.
22. Rubber legs (optional).
23. Support machine.
24. Limiting consumption (optional).

3.5 Limitations to environmental conditions.

The equipment shall be installed respecting its IP21 class, which means that the equipment is protected at the most against vertical impact of water drops and access to dangerous parts with one finger against solid 12.5 mm ø or larger foreign bodies. The equipment is prepared for working within a temperature range from -15ºC to 70ºC, taking into account the limitation of a decrease in performance (duty cycle) as of ambient temperatures above 40ºC.

► PUTTING INTO OPERATION
1. Position the air inlet coming 2 from the machine's compressor (4 to 6 bar). Rear portion.
2. Fasten grounding clamp 10 to the material you want to cut.
3. Connect current supply cable 3.
4. Connect red cable conection 11.
5. Connect thin black cable of the torch trigger a12.
6. Connect torch a13
7. Press ON/OFF button to proceed to start the machine.
8. The digital panel will light up a 9.
9. Check status of air by pushing the torch switch. If there is no air, the indicator will turn on and the digital panel will display code 806- Please revise the air supply and confirm its good condition.
10. Grip the torch and press the yellow safety pushbutton downwards and immediately press the switch on the torch to proceed to cutting.
11. Buttons 8-9 (+ -) are for increasing or reducing the power of the torch. You must press to activate.

4. Operating instructions.

4.1. Positioning and testing.

All **WELDING** machines of the series must be handled using the handle which is arranged for transport. A free space of at least 15cm must be arranged around the equipment, and free circulation of air must be ensured for correct heat dissipation. Before each work, good operation and correct tightening of all external elements of the equipment shall be verified: power supply plug, cable, housing structure and connection terminals and switches.

►First step: INSTALLING THE COMPRESSED AIR.
The Plasma cutting equipments need air supply for working.
The Plasma shall be connected to a compressor capable of providing about 5 bar constant pressure to the equipment. Depending on the regularity of use, Plasma needs a larger or smaller pressure vessels.

Compressor of at least 2 horse powers and 50 liters are recommended.
Install the regulator and additional filter in equipments which carry them externally. Regulate air input pressure by turning the upper control. To unlock the control, pull upwards gently. Check the integrated flow meter if there is sufficient pressure (60 to 80 OSI, equivalent to 4-6 bar). The regulator has an internal safety valve for cases of overpressure.
For regulating the air pressure, you must rotate regulator 20 (Plasma 40 COM GE) bearing in mind a maximum of 4 bar; you may increase or reduce the pressure by rotating it sideward; after having finished, press inwards to secure.

EQUIPEMENT INCLUDED		AIR REQUIREMENTS		COMPRESSOR
MODEL	TORCH	FLOW (l/min)	PRESSURE (bar)	HP
PLASMA MULTI 40	SG55	115	5	1/2
PLASMA 40 COM GE	IPT 40	115	5	1/2
PLASMA 100 T GE	IPT 100	180	5	2 / 3

► Second step: INSTALL ELECTRICITIY.

Plasma cutting equipments need sufficient electric supply to operate. The whole range is prepared to work with correctly operating generators. Minimum power to be supplied to Plasma is:

MODEL	VOLTAGE	MAXIMUM POWER KVA	RECOM-MENDED POWER KVA	Amperage and voltage for magnetothermal and differential circuit breakers.
PLASMA MULTI 40	230, monofásico	6	8	2 polos, 230V, 40A
PLASMA 40 COM GE	230, monofásico	6	8	2 polos, 230V, 40A
PLASMA 100 T GE	3 x 400, trifásico	12	15	3 polos, 400V, 60A

Installing shall be carried out respecting the low voltage regulation and applicable regulations. The installation must include a dedicated circuit including 30mA magnetothermal circuit breaker and differential circuit breaker. The installation shall provide correct ground connection to the Plasma. The equipment must be mandatorily connected to a duly approved ground connection.

It must be borne in mind that three-phase equipments do not use a neutral. It must be borne in mind that, when sufficient power is not supplied, the Plasma will work correctly but with the limitation that it will not be able to cut the whole thickness it could cut. When the power supplied is small or faulty, the thickness that may be cut will see itself diminished. In case of doubt, refer to us or to a professional electrician.

Limiting consumption (optional).

PLASMA 40 COM has limit of maximum consumption of RMS 14A to 230V input when it switches to “LOW”.
This is done to protect the installations of low power (16A magneto) of unforeseen cuts (schools, hospitals, housing) supply.
“Hi” there are no limitations.

USING THE PLASMA

►Third step: Cutting.

CONNECTION OF THE TORCH AND GROUNDING CLAMP

Connection models PLASMA 40 COM GE and PLASMA 100 T GE: Connect grounding cable to its DINSE ground connection 12. Erroneous connection is impossible because the connectors are different. Connect the torch and tighten the cover nut that seals the compressed air outlet at outlet 11. Connect the red arc priming cable to connector 13. Connect the connection of switch of the trigger to the torch at outlet 14.

CUTTING OPERATION

Hold the piece to be cut properly. Connect the grounding clamp to the piece to be cut. Turn equipment ON by lifting switch 1. Adjust power with buttons 8 and 9. Indication is shown on display 4. Set if you wish to pull the trigger in continuous (2 touches) or discontinuous mode (4 touches) by means of (front digital) button 10 or (front analogue) button 2. You may check air discharge by pushing purge button 7.

For cutting, pull trigger 17 (when necessary, unlock it with pin 16) and point the torch 15 towards the workpiece. Depending on the model, support the torch by means of a separator sliding spring or support the plasma outlet nozzle (also called lip) must have some inclination with respect to the piece in order to facilitate the discharge of plasma and molten metal. To achieve a higher speed or to cut a greater thickness, increase amperage and increase air pressure. The greater the thickness the slower you must move the torch.

Should you have worked at high power in a continuous manner, the thermal protection indicator will light up after a certain time and the equipment will stop cutting; it will only leave the fans in operating until you will be able to start working again. This is not a failure but protection.

Welding operation
The model Plasma Multi 40 GE welds with coated electrode and TIG welding with high frequency priming. To do this, use the triple selector # 8 to select the desired function and connect the appropriate accessories (supplied).

4.2. Tool changing.

WARNING: Always connect the DINSE connector as far as it will go and make sure that the splice with the cable is in a good condition and that the contact surface is clean. A bad splice or a dirty connection will result in a bad performance and make the front panel to become overheated, fused or burnt.

CONSUMABLES

All models have TRAFIMET torches with consumables (electrodes, nozzles, diffusers, etc.) that are easy to find at WELDING or any industrial supply of the sector.

- CONSUMABLE plasma :

COD.	MODEL	ELECTRODE	DIFFUSE	DIPS	PORTABUZA	DIFFUSER SUPPORT	SEPARATOR	NOZZLE
4120.170	SG55	4120.180	NO	NO	4120.178	NO	NO	4120.179
4120.171	IPT40	4120.174	4120.175	4120.176	4120.176	NO	NO	NO
4120.172	LT100	4120.148	4120.145	4120.146	4120.147	4120.144	38.21	NO

4.3 Setting operations.

All **WELDING** machines contain a complex electronic system and come completely calibrated ex works, so that, for the sake of efficiency and safety, it is not authorized to be manipulated by the user. In case of any doubt regarding a malfunction, contact your distributor or our helpdesk system.

4.4. Limits regarding the size of the workpiece.

This machine is for metal cutting only; when turning it ON you will be able to proceed to cut the material you want.

Before starting, make sure to read, understand and apply the safety instructions and other instructions contained in the present material.

Below you will find a series of general indications that will allow you initiating yourself in the world of welding and working efficiently.

5. SERVICING AND MAINTENANCE INSTRUCTIONS

5.1. Cleaning, maintenance, lubrication, sharpening.

For cleaning, always disconnect the equipment and wait at least 10 minutes for the sake of safety regarding the discharge of the power capacitors. Clean the housing using a slightly wet cloth. Depending on the pollution of the work environment or at least each 1000 hours, clean the inside with dry pressurized air, removing the upper housing and removing dust, metal pollutants and fluff, paying special attention to the dissipators and the fan.

The equipment does not need any special maintenance by the user, whereby careful use within the environmental limits is the best guarantee for long years of safe service.

It is recommended to send the equipment to the technical services after each 3000 work hours or every 3 years for verification and recalibration.

5.2 Repair service
The technical service will advise you on questions you might have regarding the repair and maintenance of your product, as well as on spare parts.

You may obtain exploded drawings and information on spare parts on the internet.

Our team of technical advisors will be happy to guide you regarding the acquisition, application and setting of products and accessories.

5.3 Guarantee

Guarantee card
Among the documents that are part of the electric tool, you will find the guarantee card. You will have to fill in the guarantee card completely, apply a copy of the sales slip or invoice thereto, and give it to your retailer in exchange for the corresponding acknowledgement of receipt.

REMARK: If this card were missing, immediately ask you retailer for it.
The guarantee is limited to manufacturing or machining failures only, and ceases when the parts have been disassembled, manipulated or repaired out of works.

5.4 Disposal
We recommend subjecting all electric tools, accessories and packaging to recycling respecting the environment.

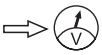
For EU countries only:

Do not throw electric tools to the garbage! According to European Directive 2002/96/EC on electric and electronic devices, after transposition thereof into national law, electric tools must be collected separately so as to be subjected to ecologic recycling.

Right to changes reserved.

6. Regulations

6.1 Technical features

 = tension input.

 = current input.

 = work cycle.

 = cutting capacity.

 = weight.

 = generator power.

6.2 Declaration of conformity.

We declare under our exclusive responsibility, that the machines: POWER SOURCES FOR WELDING, models: satisfy all essential safety and health requirements in conformity with regulations EN 60974-1, EN 60974-10, 2014/35/EU, 2014/30/EU in conformity with WEEE / RoHS.

Ramiro de la Fuente
Director Manager

June, 2017

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