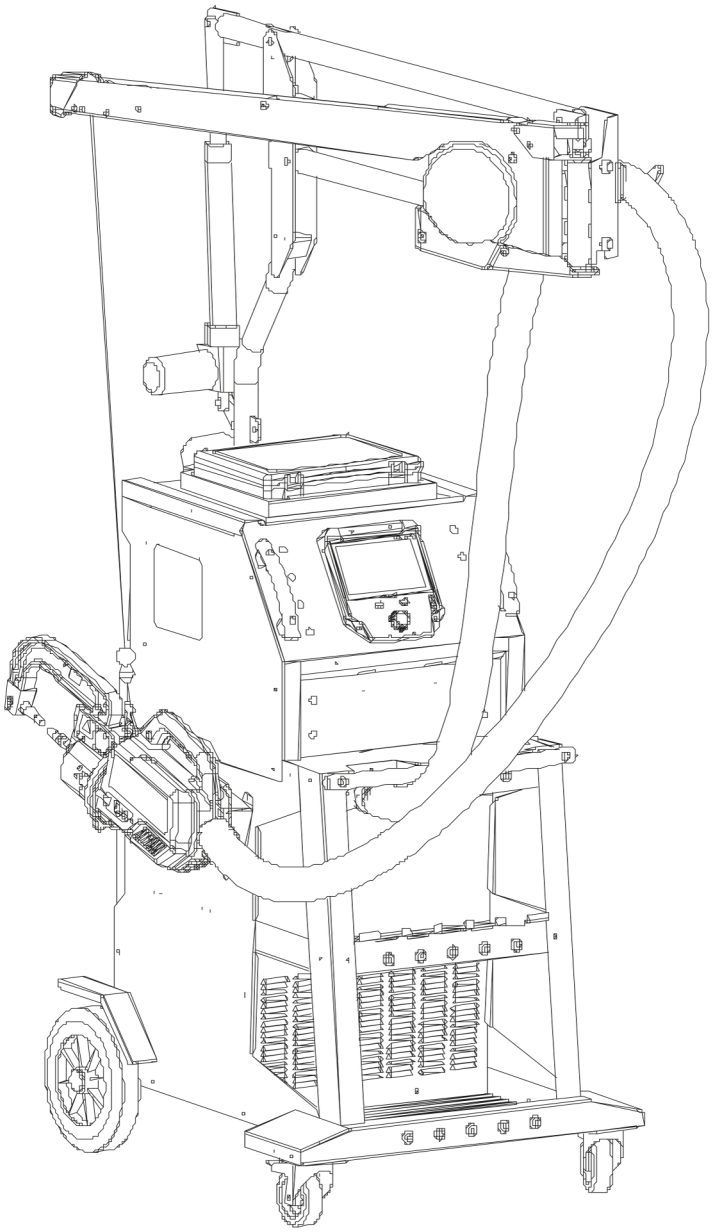
INNOVATIVE CRTE

GYS



GYSPOT PTI GENIUS PLUS

220V

English

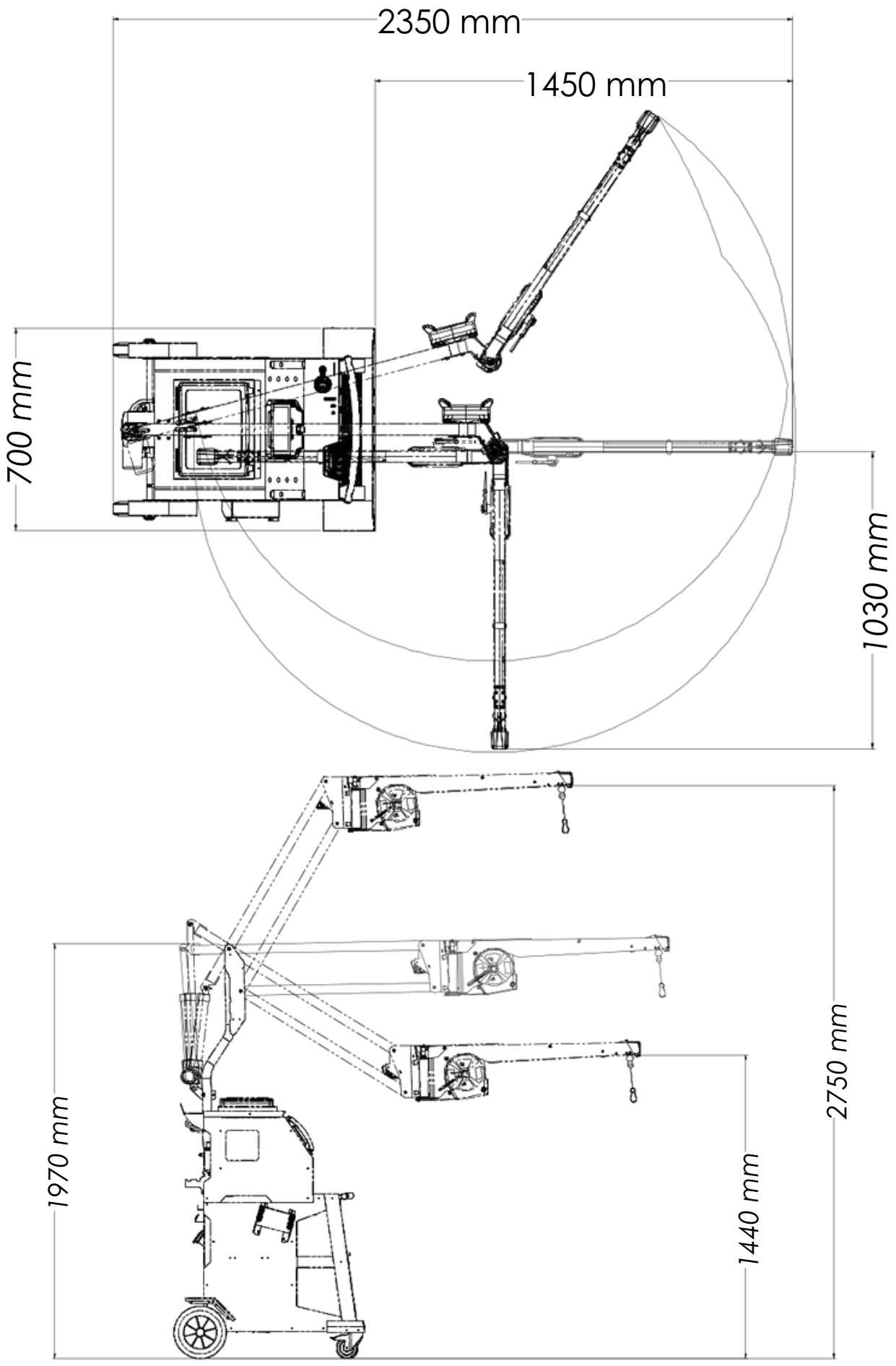
SALES
SERVICE
SUPPORT

(973) 768-9812

101 Alexander Ave, Suite 2
Pompton Plains, NJ 07444

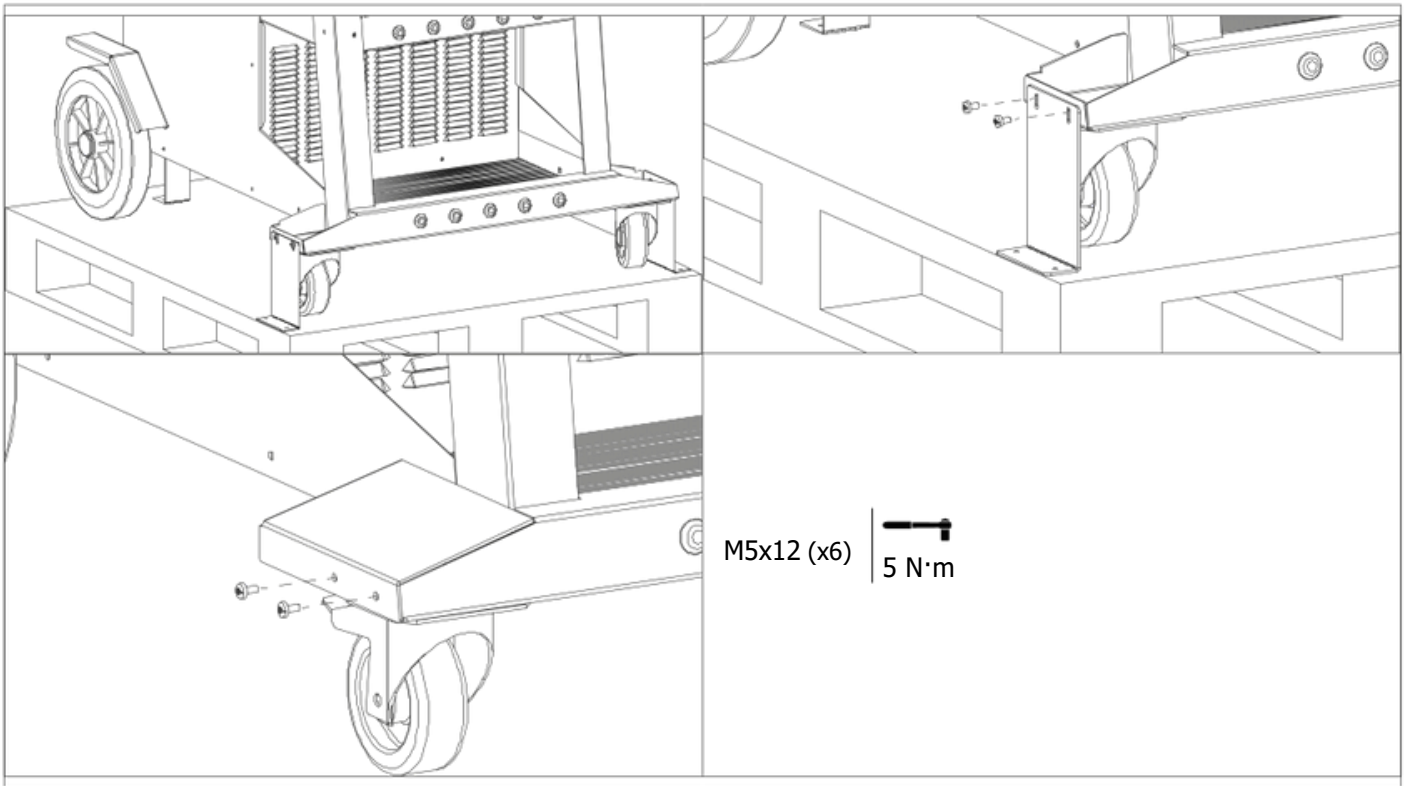
SUMMARY

DIMENSIONS

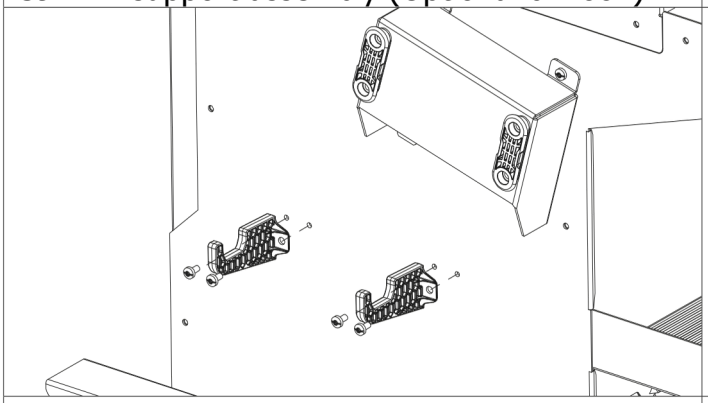
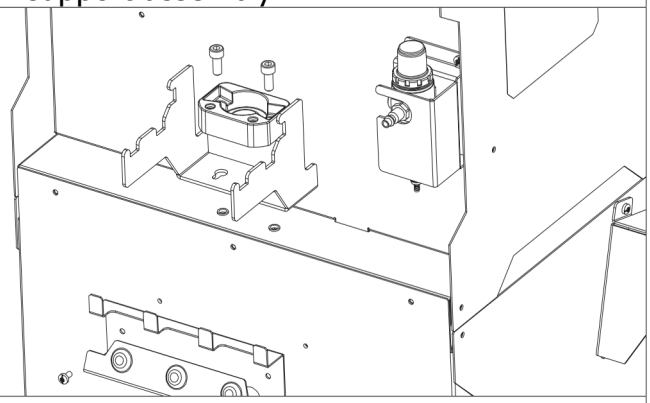


1. ASSEMBLY

1.1 PREPARING THE GENERATOR

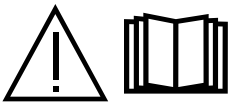


G-clamp mounting

G9 Arm support assembly (Optional 022881)	Arm support assembly
	
4xM5x12 (x4) | 4 N·m	M5x12 (x2) | 4 N·m

2. WARNINGS - SAFETY INSTRUCTIONS

GENERAL INSTRUCTIONS



These instructions must be read and fully understood before use. Do not carry out any alterations or maintenance work that is not directly specified in this manual. Please store this manual safely.

The manufacturer shall not be liable for any damage to persons or property resulting from use not in accordance with the instructions in this manual.
In the event of any problems or uncertainty, please consult a person qualified to deal with the unit correctly. These instructions cover the equipment
in the condition in which it was delivered. It is the responsibility of the user to determine any risks arising from non-compliance with these instructions.

ENVIRONMENT

This equipment should only be used for welding operations performed within the limits indicated on the information panel and/or in this manual. These safety guidelines must be observed. In the event of improper or dangerous use, the manufacturer cannot be held responsible.
The equipment must be operated and stored in a location that is free of dust, acid, flammable gases or any other corrosive substances. Operate the machine in an open, or well-ventilated area.

Temperature range:

Use between +5°C and +40°C (+41°F and +104°F).
Store between -25°C and +55°C (-13°F and 131°F).

Air humidity:

Lower than or equal to 50% at 40°C (104°F).
Lower than or equal to 90% at 20°C (68°F).
Altitude: Up to 1,000 m above sea level (3280 feet).

WASTE DISPOSAL

If the machine is to be disposed of, it must not be left in the open but must be taken to an approved recycling centre.

PROTECTING YOURSELF AND OTHERS

Resistance welding can be dangerous and cause serious injuries or even death. The machine is intended to be operated by qualified personnel who have received appropriate training in the use of the machine (eg: panel beater training). Welding exposes people to a dangerous source of heat, sparks, electromagnetic fields (caution for those fitted with pacemakers), the risk of electrocution, as well as noise and gaseous fumes. To protect yourself and others, please observe the following safety instructions:

To protect yourself from burns and radiation, wear clothing that does not have turn-ups, that is insulating, dry, flame-retardant and in good condition, and that covers the whole body.

Wear protective gloves which provide electrical and thermal insulation.

Use welding protection and/or a welding helmet with a sufficient level of protection (depending on the specific use). Protect you eyes during cleaning procedures. Contact lenses are strictly prohibited.
It may sometimes be necessary to mark off areas with fireproof curtains in order to protect others from spatter, sparks, and arc-eye.
Instruct all personnel in the welding area to wear suitable protective clothing.

Electromagnetic fields (EMF) can interfere with certain medical implants. Therefore, people with pacemakers should consult a doctor before using this equipment. Exposure to electromagnetic fields during welding may have other health effects that are not yet known.

The weighted sound power level of the machine is LWA = 73dB. Use noise-cancelling headphones for greater comfort.

Keep hands, hair and clothing away from moving parts (fan, electrodes, etc.).

Never remove the protective covers from the cooling unit while the welding power source is switched on, the manufacturer cannot be held responsible in the event of an incident. Newly welded parts are hot and can cause burns when handled. During maintenance

work on the torch or the electrode holder, you
should make sure it's cold enough and wait at least 10 minutes before any intervention. The cooling unit must be switched on when using a water-cooled gun to prevent the liquid from causing burns.
It is important to ensure that the work area is safe before leaving it, to help protect both people and property.

Avoid direct contact with the tool during and after use, as it may become hot.

POSTURE

- Maintain a stable posture and secure footing when using the tool. It is advisable for the operator to change posture during a long task, which can help to avoid discomfort and fatigue.
- When using the machine, the operator should adopt a comfortable posture, maintain good footing and avoid unusual or unstable postures. It is advisable for the operator to change posture during a long task, which can help to avoid discomfort and fatigue. If the operator experiences symptoms such as recurrent or persistent discomfort, pain, throbbing, soreness, burning or numbness, these warning signs should not be ignored. The operator should promptly inform the employer and consult a qualified occupational physician.
- The tool must not be operated in the direction of the operator or any other person. Keep your hands away from the compression mechanism; it
- is recommended that you hold the pliers with both hands. Vibration emissions are below the imposed threshold of 2.5 m/s2.
-

WELDING FUMES AND GAS

The fumes, gases and dusts emitted by welding are harmful to health. Sufficient ventilation must be provided and an additional air supply may be required. An air-fed mask could be a solution in situations where there is inadequate ventilation.
Check the extraction system performance against the relevant safety standards.

Care should be taken when welding in confined spaces, and supervision from a safe distance is essential. In addition, the welding of certain materials containing lead, cadmium, zinc, mercury or beryllium may be particularly harmful.
Remove any grease from workpieces before welding. Welding should not be carried out near grease or paint.

Caution: Welding in confined spaces requires safety monitoring from a safe distance. In addition, the welding of certain materials containing lead, cadmium, zinc, mercury or even beryllium can be particularly harmful. Remove any grease from workpieces before welding.

Cylinders should be stored in open or well-ventilated areas. They should be stored in an upright position and kept on a stand or trolley. Welding should not be carried out near grease or paint.

RISK OF FIRES AND EXPLOSIONS

Fully shield the welding area, flammable materials should be kept at least 11 metres away.
Fire-fighting equipment should be kept close to wherever the welding activities are being undertaken.

Be careful of spatter and spark projections, even through cracks. It can be the source of fire or explosion.
Keep people, flammable objects and pressurised containers at a safe distance.
Welding in closed containers or tubes is to be avoided. If the containers or tubes are open, they must be emptied of all flammable or explosiv materials (oil, fuel, gas residues, etc.).
Grinding work must not be directed towards the source of the welding current or towards any flammable materials.

ELECTRICAL SAFETY

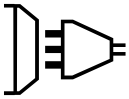
The electrical network used must be earthed. An electric shock, whether direct or indirect, can cause serious injury or death.

Never touch live parts either inside or outside of the power source (cables, electrodes, arms, gun, etc.) as these are connected to the welding circuit. Before opening the welding machine power source, disconnect it from the mains and wait two minutes to ensure that all the capacitors have fully discharged. If the cables, electrodes or arms are damaged, they should be replaced by qualified and authorised personnel. Measure the cable cross-section according to the intended application. Always use dry and in-tact clothing to insulate yourself from the welding circuit. Always wear insulated footwear, in all working environments.

Warning! Very hot surface. Risk of burns.
- Hot workpieces and equipment can cause severe burns.
- Do not touch hot parts with bare hands.
- Wait for all parts and equipment to cool before handling them.
- In the event of burns, rinse with plenty of water and seek medical attention immediately.

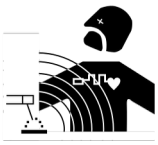
EMC MATERIAL CLASSIFICATION

This Class A device is not intended for use in a residential location where electrical power is supplied by the public low-voltage power supply network. Ensuring electromagnetic compatibilty may be difficult at these sites due to conducted, as well as radiated, radio frequency interference.



This equipment does not comply with IEC 61000-3-12 and is designed to be plugged into private, low voltage power supply networks connected to the public mains supply only at medium or high voltage level. If it is connected to a public low-voltage supply network, it is the responsibility of the installer or user of the equipment to ensure, by consulting the distribution network operator, that the equipment may be connected.

ELECTROMAGNETIC INTERFERENCES



An electric current passing through any conductor produces localised electric and magnetic fields (EMF). The welding current produces an electromagnetic field around the welding circuit and the welding equipment.

All users must follow the following procedures to avoid exposure to electromagnetic fields from the welding circuit:

- Never wrap the welding cable around your body (gun and/or clamp).
- Never place any part of your body in the arm of the clamp when probing.
- Hold both welding cables on the same side of your body when using the gun.

RECOMMENDATIONS FOR ASSESSING THE WELDING AREA AND INSTALLATION

General Information The user is responsible for the proper installation and usage of the resistance welding equipment as per the manufacturer's instructions. If electromagnetic disturbances are detected, it is the user's responsibility to resolve the situation with the manufacturer's technical assistance. In some cases, this corrective action may be as simple as earthing the welding circuit. In other cases, it may be necessary to construct an electromagnetic shield around the welding current source, and around the entire workpiece, by setting up input filters. In any case, electromagnetic interference should be reduced until it is no longer a cause for concern.

Assessing the welding area

Before installing resistance welding equipment, the user must assess any potential electromagnetic problems in the surrounding area. The following should be taken into account:

a) the presence of other power, control, signal and telephone cables above, below and adjacent to the resistance welding equipment;
b) radio and television receivers and transmitters;
c) computers and other control equipment;
d) safety-critical equipment, e.g. industrial machinery protection;
e) the health of nearby persons, e.g. those using pacemakers or hearing aids;
f) equipment used for calibrating or measurement;
g) the sensitivity of other equipment in the surrounding area.
The user must ensure that other equipment installed in the vicinity is compatible. This may require further protective measures;
h) the time of day when welding or other operations are to be carried out.

The size of the surrounding area to be taken into account depends on the structure of the building and other activities taking place there. The surrounding area may extend beyond the boundaries of the facility.

Assessment of the welding equipment

In addition to assessing the surrounding area, the evaluation of resistance welding installations can be used to identify and resolve cases of interference. It is appropriate that the assessment of any emissions should include in situ procedures as specified in Article 10 of CISPR 11. In-situ
measurements can also be used to verify the effectiveness of any mitigation measures.

RECOMMENDATIONS ON METHODS FOR REDUCING ELECTROMAGNETIC EMISSIONS

a. The mains supply network: Resistance welding equipment should be connected to the public mains power supply in accordance with the manufacturer's recommendations. If any interference occurs, it may be necessary to take additional precautionary measures such as filtering the mains power supply. Consideration should be given to shielding the power cable in a metal sleeve or equivalent for permanently installed resistance welding equipment. The power cable should be protected along its entire length. The shield should be connected to the welding power source to ensure that there is good electrical contact between the conduit and the welding power source enclosure.

b. Maintaining resistance welding equipment : Resistance welding equipment should undergo routine maintenance in accordance with the manufacturer's recommendations. All accesses, service doors and covers must be closed and properly locked when resistance welding equipment is in use. Resistance welding equipment must not be modified in any way, apart from the changes and adjustments specified in the manufacturer's instructions.

c. Welding cables: Cables should be as short as possible, placed close together, either near or on the ground.

d. Equipotential bonding: Consideration should be given to linking all metal objects in the surrounding area. However, metal objects connected to the workpiece increase the risk of electric shocks to the user should they touch both these metal parts and the electrode. It is necessary to insulate the operator from such metal objects.

e. Earthing the workpiece: In cases where the workpiece is unearthed for electrical safety reasons or due to its size and location, such as ship hulls or structural steel buildings, an earthed connection can reduce emissions in some cases, although not always. Care must be taken to avoid earthing parts that could increase the risk of injury to the user or cause damage to other electrical equipment. If necessary, the connection from the workpiece to earth should be made directly, but in some countries where this direct connection is not permitted, the connection should be made with a suitable capacitor chosen in accordance with national regulations.

f. Protection and shielding: Selective protection and shielding of other cables and equipment in the surrounding area can help minimise interference problems. Protection and sheilding of the entire welding area may be required for certain specialist applications.

TRANSPORT AND TRANSIT OF THE WELDING POWER SOURCE

The welding power source is fitted with handles on the top so that it can be moved by hand. Be careful not to underestimate the weight of the unit. The handle cannot be used to lift the product.

Do not use the cables or torch to move the machine. Do not carry the power source over the heads of people or objects.

SETTING UP THE EQUIPMENT

• Place the welding power source on a floor with a maximum incline of 10°.
• The welding power source should be protected from heavy rain and not exposed to direct sunlight.
• The unit has an IP20 protection rating, which means:
- the dangerous parts of the machine are protected against entry by objects greater than 12.5 mm and,
- there is no protection against splashing water.

Power, extension and welding cables must be completely uncoiled in order to avoid overheating.

The manufacturer assumes no responsibility for damage to persons or objects caused by improper and dangerous use of this equipment.

MAINTENANCE / RECOMMENDATIONS

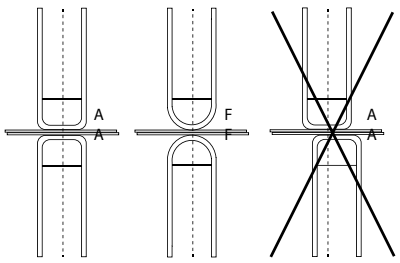
• Anyone using this machine needs to have received appropriate training in the use of the device, in order to get the most out of its performance, and to carry out the work in accordance with the instructions (e.g: panel beater training).
• Check which welding processes are authorised by the manufacturer before attempting any vehicle repair.

The maintenance and repair of the machine can only be undertaken by the manufacturer. Any work undertaken by a third party on the machine will invalidate the warranty. The manufacturer will not be held responsible for any incident or accident occurring after this work is carried out.

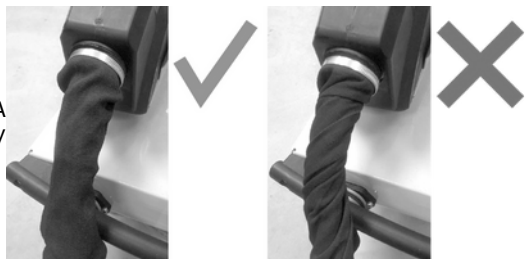
Ensure the machine is unplugged from the mains, and then wait 2 minutes before carrying out maintenance work. Inside the machine, the voltages and currents are high and dangerous.

• Before carrying out any work on the machine, turn off the compressed air supply and relieve the pressure from the compressed air circuit in the machine.
• Make sure you regularly drain the air filter at the back of the unit.
• The unit is fitted with a balancing system for easier handling of the gun. However, do not allow the clamp to hang from the end of the ba cable for extended periods, as this may cause premature wear on the balancing system. Do not drop the clamp repeatedly without supporting it, as this may damage the balancing system.
• It is possible to adjust the tension of the balancing system spring using the allen key provided.
• The level of coolant is important to ensure that the machine runs smoothly. It must always be between the «minimum» and «maximum» marks on the machine. Regularly check the level and top-up when needed.
• It is recommended to renew the cooling liquid every 2 years.
• Inspect machine parts regularly for cracks; injuries can occur if a cracked arm is dropped during use.
• All welding equipment is subject to deterioration over time. Make sure that you keep your equipment clean in order to ensure that it is working at maximum efficiency.

• Before using the pneumatic clamp, ensure that the electrodes/caps are in good condition (whether flat, domed or angled). If they are not, clean them with fine-grain sandpaper or replace them (see part number(s) on the machine).
• To ensure an effective weld, it is essential to replace the caps at approximately every 200 spots. To do this:
- Remove the caps using a cap spanner (ref. 050846)
- Fit the caps using contact grease (ref. 050440)
• Type A caps (ref. 049987)
• Type F caps (ref. 049970)
• Bevelled caps (ref. 049994)



Warning: the caps must be perfectly aligned. If this is not the case, contact the after-sales service, except in the case of the G9 arm where the electrodes can be oriented.
• Prior to using the gun, check the condition of the different attachments (star, single-sided electrode, carbon electrode, etc.) and clean or repl them if required.
• Regularly remove the cover and blow out any dust. Take this opportunity to have all electrical connections checked with an insulated tool by qualified personnel.
• Regularly review the condition of the power cable and welding connection cables. In case of visible signs of damage, organise for them to be replaced by the manufacturer or a qualified technician.



After each use, take care not to leave the cabling bundle twisted. A persistently twisted cable will lead to premature degradation, and may present an electrical hazard for the operator.

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• Leave the air inlet and outlet vents of the welding power source clear and unobstructed.

3. INSTALLATION - USING THE PRODUCT

Only experienced personnel, authorised by the manufacturer, may carry out the set-up of the machine. During set-up, ensure that the power source is unplugged from the mains. Connecting power sources in series or in parallel is prohibited.

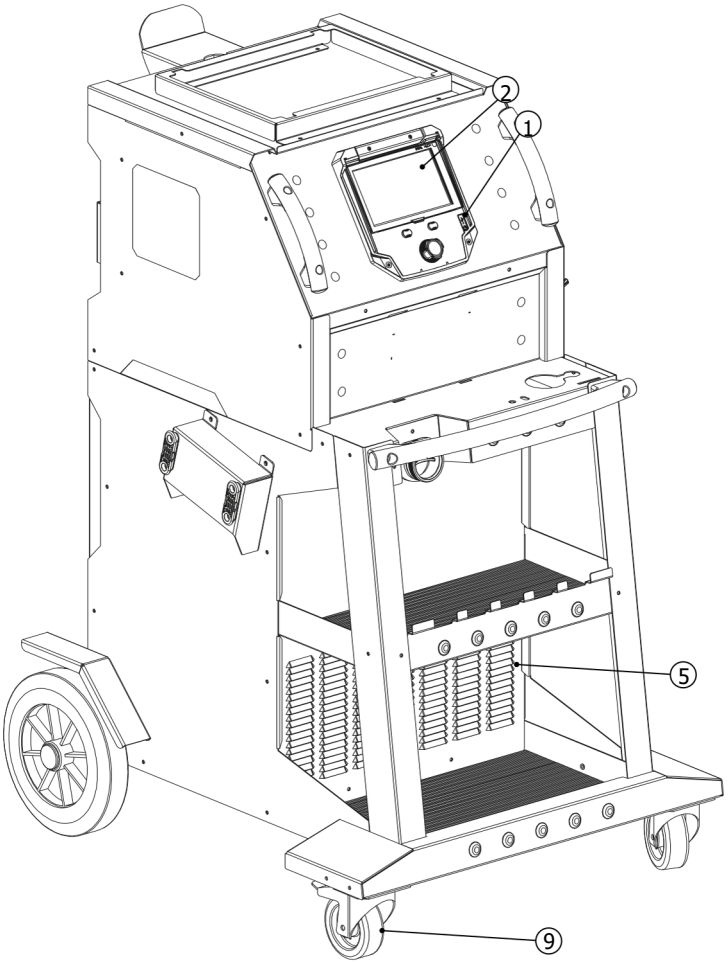
3.1 PRODUCT DESCRIPTION

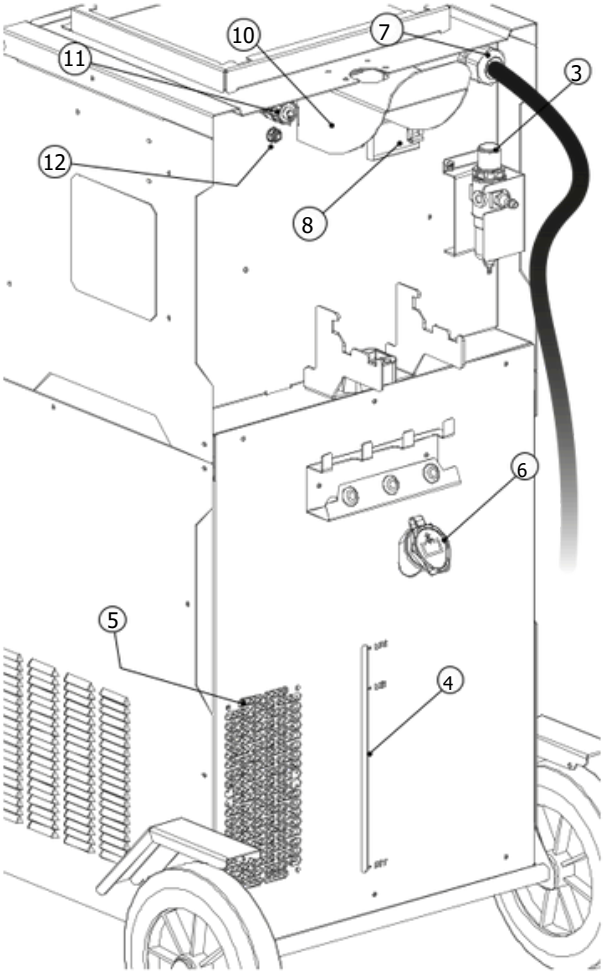
Fig.1

This machine is designed to carry out the car body repair operations described below:

- spot welding sheet metal with a pneumatic clamp,
- welding sheet metal using a gun,
- welding of nails, rivets, washers, studs, mouldings,
- repair of bumps and impacts (hail impacts with optional pulling clamp).

1- USB port
2- Human Machine Interface (HMI)
3- Compressed air filter-regulator
4- Coolant gauge
5- Cooling unit ventilation vents
6- Filler cap
7- Mains cable
8- Circuit breaker
9- Castor brakes
10- Stem locking bracket
11- Stem cylinder connector
12- Cable lock bulkhead feedthrough

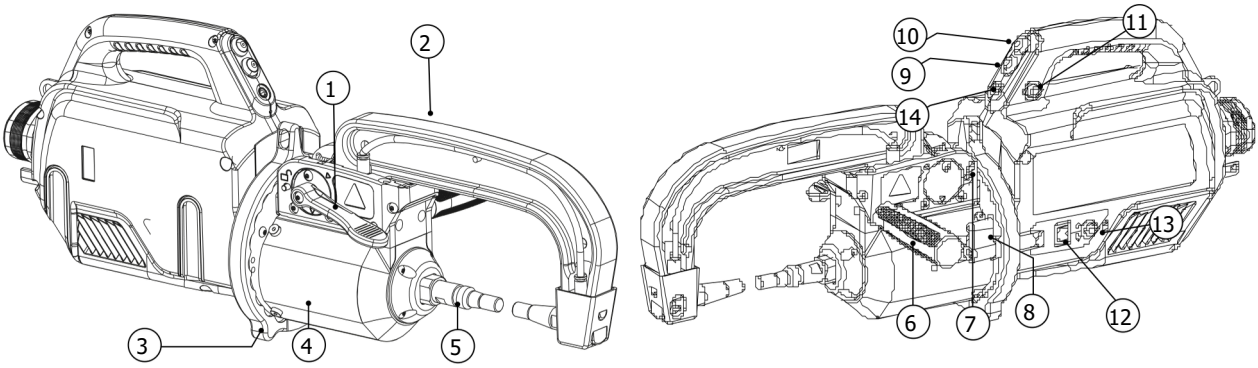




3.2 DESCRIPTION OF THE CLAMP

Fig.2

1- Arm locking/unlocking lever
2- Movable arm
3- Gyroscope
4- Pneumatic body
5- Electrode
6- Side handle
7- Arm locking catch
8- Gyroscope lock/unlock lever
9- Over-open button
10- Spot welding button
11- Jack single point gun
12- Stem height control lever
13- Cable lock button
14- Spot welder status indicator



3.3 ACCESSORIES AND OPTIONS

Liquid cooling
5 l : 062511

40 caps
048935

x 10	x 18	x 18	x 6

050068

USB stick
062344

Cap sharpener
048966

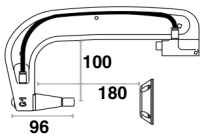
Pressure / force sensor
052314

Welding test case
050433

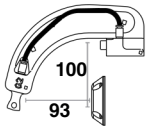
Anti-corrosion welding primer - 500 ml
076822

Single-point QUICK FIX gun kit
082823

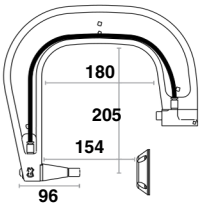
GYSPOT PTI GENIUS protective cover
077126



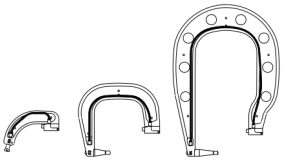
G1 (600 daN) - ref. 022768 **INCLUDED**



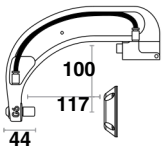
G2 (300 daN) - ref. 022775



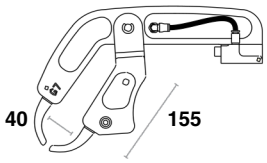
G3 (600 daN) - ref. 022782



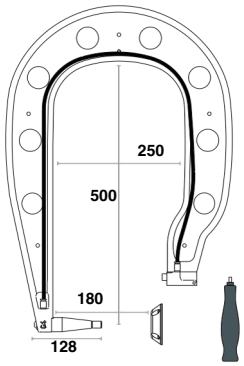
G2 + G3 + G4 - ref. 022898



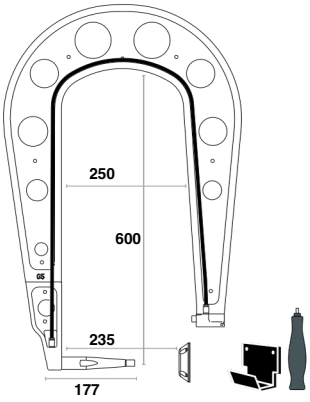
G6 (600 daN) - ref. 022812



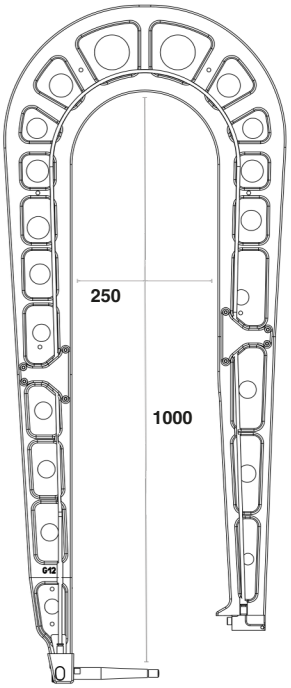
G7 (150 daN) - ref. 022829



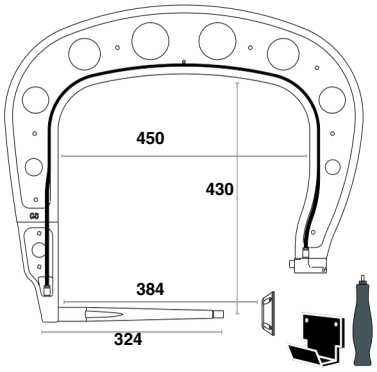
G4 (330 daN) - ref. 022799



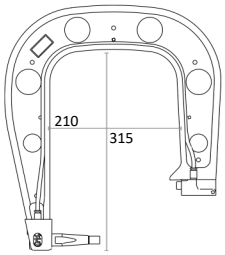
G5 (600 daN) (6.25 kg) - ref. 022805
G10 (400 daN) (5 kg) - ref. 067165



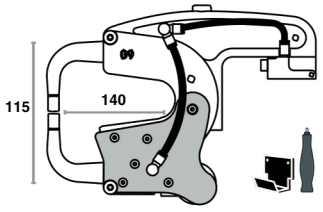
G12 (300 daN) - ref. 075238



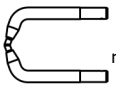
G8 (600 daN) - ref. 022836



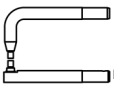
G14 (600 daN) - ref. 080942



G9 + X1 (550 daN) - ref. 022881
X1 (550 daN) - ref. 050501



X2 (370 daN)
ref. 050518

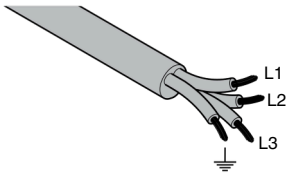


X6 (260 daN)
ref. 050587

3.4 POWER SUPPLY

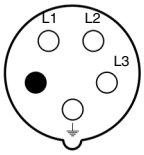
- This equipment is designed for use only in a three-phase 220V (50-60 Hz) four-wire electrical installation with earthed neutral and a 20A de- layed-current circuit breaker, curve D (or type aM fuse). The continuous absorbed current (I1p or ILp) is indicated in the electrical characteristics' section of this manual and corresponds to maximum operating conditions. Check that the power supply and its protection (fuse and/or circuit breaker) are compatible with the current required during use. In some countries, it may be necessary to change the plug to enable use under maximum conditions. Check that the installation and its protection (cable section, fuse and/or circuit breaker) are compatible with the current required for use.

Power supply cable



L1 : Phase 1
L2 : Phase 2
L3 : Phase 3
⏚ : Earth (Green/Yellow or green)

230 V plug / 3 phases + earth



● Neutral (not used)

• The welding power source enters a protection mode if the supply voltage is less than or greater than 15% of the specified voltage(s) (a fault will appear on the screen).
• This unit is not protected against surges regularly produced by generators and is therefore not suitable for connection to this type of power supply.

3.5 COMPRESSED AIR SUPPLY

Never exceed the maximum air pressure stated on the back of the machine and in this manual.

Compressed air supply:
Use a ¼» gas fitting to connect the compressed air to the filter regulator on the machine.

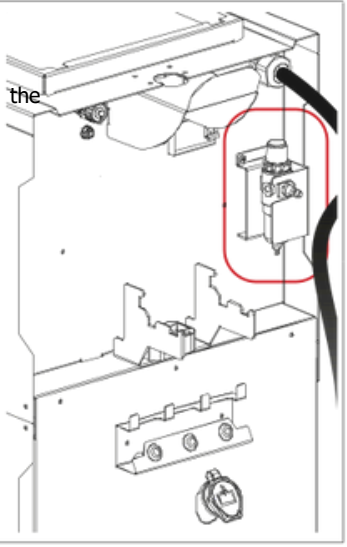
Max. compressed air pressure:
Do not exceed the maximum operating air pressure of 10 bar (150psi).

Pressure adjustment:

If necessary, adjust the air pressure so that a pressure of 8 bar is displayed on the screen.

Clean compressed air:
Ensure that only clean, dry compressed air is used to supply the spot welder. Moisture and impurities can cause performance issues and/or damage the unit.

Air consumption :
Air consumption during cylinder closing and opening operations is 70 litres/min. No air is consumed during welding.



3.6 COOLANT LIQUID

The coolant recommended by GYS must be used: 10 l : Ref. 052246

- The use of other coolants, particularly standard automotive coolant, can lead to the accumulation of solid deposits in the cooling circuit through electrolysis, resulting in poor cooling performance and potentially a complete blockage of the cooling system. Any damage to the machine caused by the use of another coolant is excluded from the warranty. When using the recommended coolant liquid undiluted, it provides anti-freezing protection down to -20°C. It can be diluted, but only with demineralised water; do not use tap water to dilute the coolant!
- To get the best performance from your machine, fill the tank to the MAX mark.
- In all situations, the tank must be filled to at least the MIN level. The machine will go into protection mode if there is a problem priming the cooling circuit (a fault will appear on the screen).

30 litres (8 US Gal) of liquid	Frost protection at -20°C (-4 F°)
20 litres (5 US Gal) of liquid + 10 litres (3 US Gal) of demineralised water	Frost protection at -13°C (-9 F°)
10 litres (3 US Gal) of liquid + 20 litres (5 US Gal) of demineralised water	Frost protection at -5°C (-23 F°)

Any frost damage to the machine will not be covered by the warranty.

To fill the coolant tank, proceed as follows:
- Place the pneumatic clamp on its support.
- Pour 30 litres of fluid (1.32 US Gal) into the tank. If necessary, top up to the MAX level.

Note: the INIT level is only used to prime the pump; for safety reasons, the MIN level must be reached.

Coolant safety data:

- in the event of contact with eyes, remove contact lenses if worn and rinse eyes thoroughly with clean water for several minutes. Seek medical advice if complications occur. - in case of contact with the skin, clean thoroughly using soap and remove any contaminated clothing immediately.

4. COMMISSIONING THE MACHINE

- It is switched on by turning the switch to the ON position (Fig 1 - n° 8). The machine will start a testing and initialisation cycle lasting approximately 10 seconds (hourglass display on screen).

At the end of that cycle, the machine is ready to be used.

- It is turned off by switching to the OFF position. **Warning! Never interrupt the power supply to the machine while it is performing a spot weld.**
- As soon as the machine is switched on, liquid can circulate around the system. Check for any leaks.

4.1 1st TIME OPERATING AND UPDATING YOUR PRODUCT

Download the latest firmware :	
To download the latest software version, enter the serial number of your spot welding power source here: https://update.jbdc.pro/getlastupdate	

Then copy the '.egf ' file to the USB stick (USB stick not supplied). This file must not be located in a folder or sub-folder on the USB stick.
The USB stick must contain only one '.egf ' file, and must be formatted in FAT32.

Updating your product :

1. Switch off your unit using the On/Off button.
2. Plug the USB stick into the USB port.
3. Press and hold the HMI thumbwheel.
4. Switch on your unit using the On/Off button while holding down the HMI thumbwheel. When the screen displays one of these messages, you can release the thumbwheel.

System Update V__.__ Please Wait…	Versions are up-to-date	USB Key Detection
Update in progress. When the update is complete, the product indicates 'Update completed' and restarts automatically after 3 seconds.	The product is already up to date, and will restart automatically after 3 seconds.	The USB stick is not recognised. Format your USB key in FAT32, and copy the '.egf' file to the USB stick.

We recommend that you check annually to see if a new software version is available, so that you can benefit from the latest developments to your machine.

4.2 MACHINE CONTROLS

4.2.1 Clamp indicator light

The status light on the clamp handle (no. 14 Fig 2) indicates the current status of the machine.
During the self-test phase of the machine, the LED flashes red and green.

Flashing green light:

- Unit in the process of welding
- Unit being calibrated

Fixed green light:

- Unit is ready to weld - «on standby»
- The welding parameters have been reached (if the kA/daN control option is activated: see § 4.2.3.4)

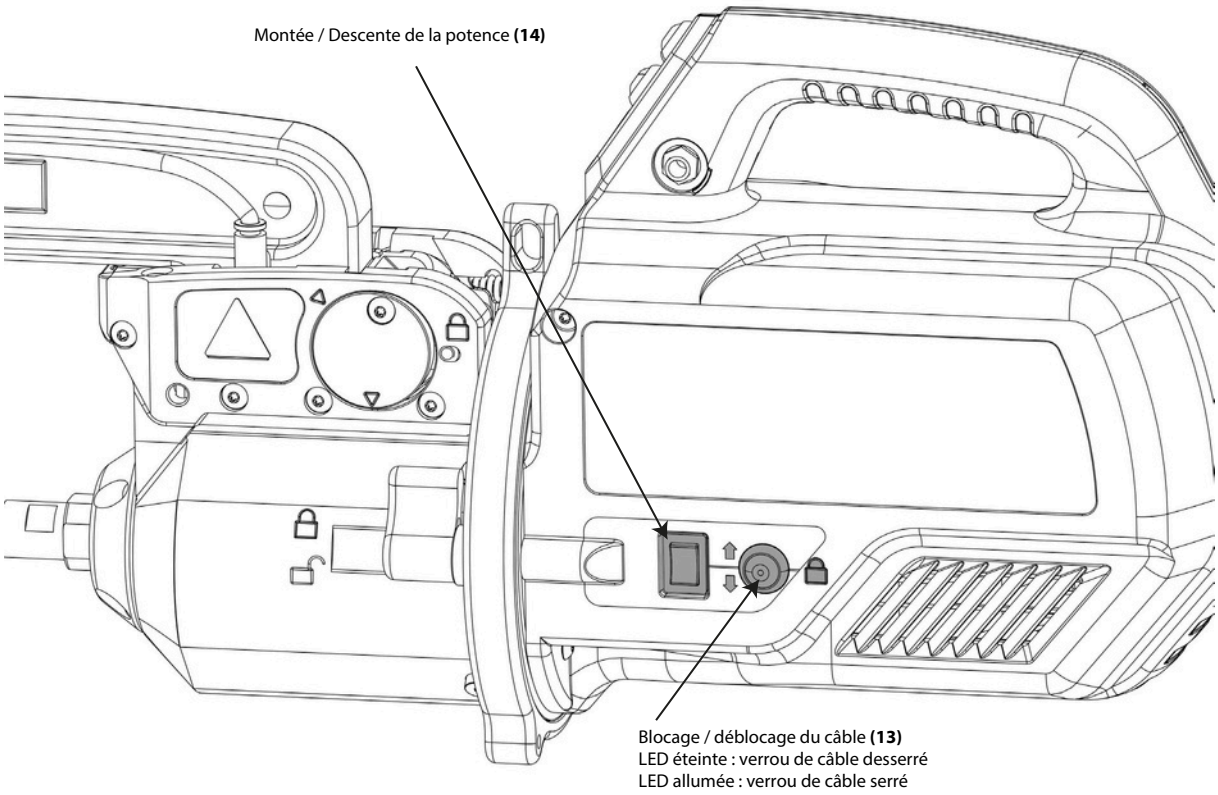
Fixed red light:

- The welding parameters have not been reached (if the kA/daN control option is activated: see § 4.2.3.4)
- Hardware fault detected
- Machine overheating
- No compressed air input

Flashing red light:

- New calibration in Automatic mode requested
- Cap change procedure in progress
- Clamping force unattainable
- Air pressure too low or too high, mains supply problem (LED returns to green as soon as the fault is cleared)

4.2.2 Stem control management

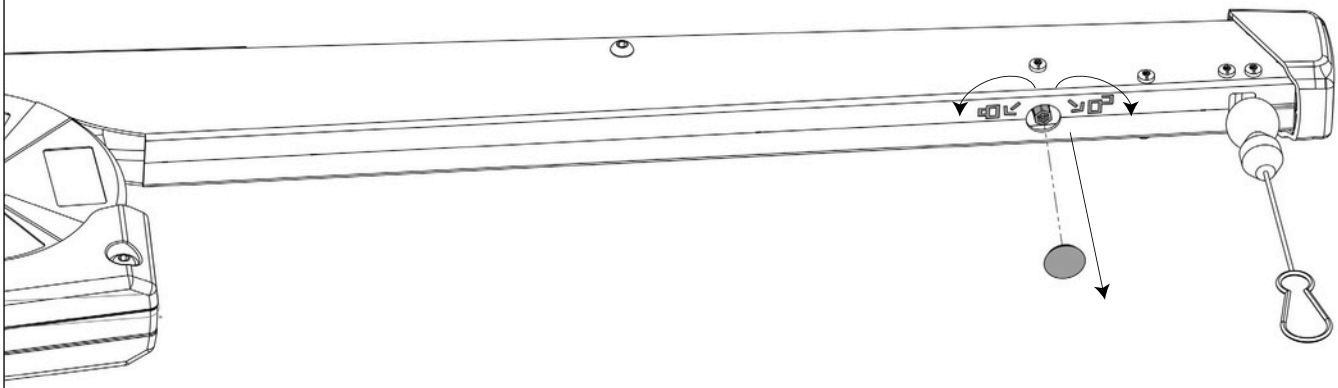


To tighten the cable when it is loose:

Press and hold the BP (13). The machine will beep when the lock is tightened. The button indicator light will turn red.

To loosen the cable when it is tightened:

Press and hold the BP (13). Confirm loosening by pressing the BP a second time. The machine will beep when the lock is loosened. The button indicator light will turn off.



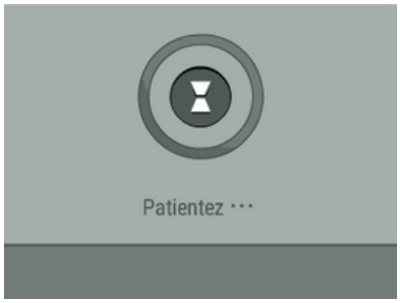
Pour se passer de la fonction blocage du câble, retirer le capuchon et tourner la pièce dans le sens des aiguilles d'une montre à l'aide d'une clé de 10 ou clé BTR de 6. Tourner dans l'autre sens pour la remettre.

To dispense with the cable lock function, remove the cap and turn the part clockwise using a 10 mm or 6 mm Allen key. Turn in the other direction to replace it.

Um die Funktion der Kabelsperre zu umgehen, entfernen Sie die Kappe und drehen Sie das Teil mit einem 10er-Schlüssel oder einem 6er-BTR-Schlüssel im Uhrzeigersinn. Drehen Sie es in die andere Richtung, um es wieder einzusetzen.

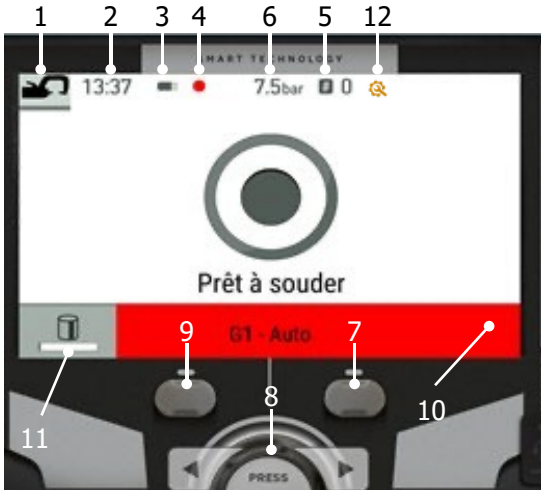
EN

4.2.3 Human Machine Interface of the machine



On start-up, the unit automatically initialises and performs a self-check of its various systems (supply voltage, sensors, IGBTs, diodes, solenoid valves, pumps, etc.).

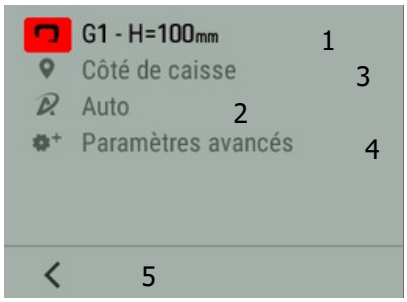
4.2.3.1 Main display



1 : Operates with clamp or single-point gun.
2 : Current time.
3 : USB stick connected to the machine.
4 : Traceability enabled.
5 : Spot counter.
6 : Compressed air system pressure.
7 : Right hand push button: Accesses the General menu, or confirm.
8 : Navigation and selection thumbwheel. Press and hold to access the Advanced menu.
9 : Left hand push button: Accesses the General menu, or cancel. Press and hold to access the cap change function.
10 : Arms and caps selected, as well as machine operating mode.
11 : Progress bar for access to the cap change function.
12: Notification pictogram (see list of notifications §4.2.3.3)

4.2.3.2 General menu

The General Menu is accessed by pressing briefly on the right or left push-buttons.

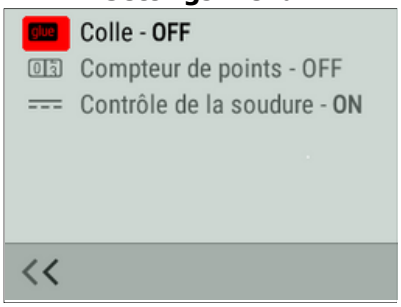


1 : Access to the arm change or accessory selection menu on the gun.
2 : Access to operating mode (Automatic, Manual or Synergic).
3 : Repair area: visible only when Traceability is activated (see § 4.6.4 Traceability). Allows you to specify the area being repaired so that it appears in the repair report generated by the GYSPOT software.
4 : Access to the parameters menu (Glue mode, weld parameter controls).
5 : Back to the Main Display.

Arm change menu

Operating mode

Settings menu

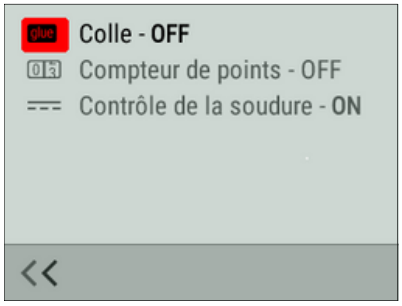


4.2.3.3 List of notifications

Notifications are displayed at the top right of the screen (12), indicating an action to be taken.

Pictogram	Description of notification	Action to be taken
	Mains pressure level outside operating range. (insufficient or too high)	Adjust the air pressure correctly using the regulator filter. (fig.1.3)
	Thermal protection due to overheating	Wait for the machine to cool down
	A maintenance operation needs to be carried out	Go to the maintenance menu to see which operation needs to be carried out (draining etc…).
	Stem disconnected	Connect stem actuator connector (Fig 1.11)
	Display battery level low	Change battery (see relevant section 13. BUTTON CELL REPLACEMENT)
ERROR	Large error, welding not possible	See chapter 10

4.2.3.4 Settings menu



Glue Mode

The user can specify the presence of glue between the sheets. If the glue mode is activated, a pre-point is made before the welding point. The duration of this pre-spot is set in milliseconds, from 0 (OFF) to 400 ms, in 50 ms steps. When glue mode is selected, 'Glue' appears at the bottom of the main screen.

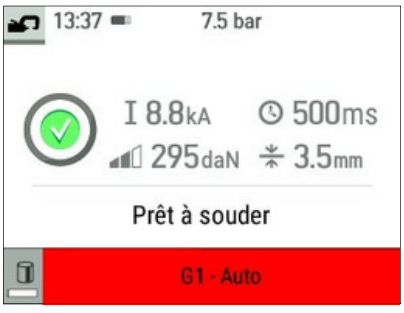
Spot counter

The user can enable or disable the spot counter. To reset the counter, press the push-button on the right of the display.

Test kA/daN

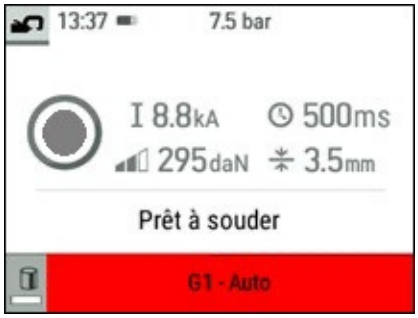
This setting is used to activate or deactivate the clamping force and current settings of the clamp during welding.

The kA/daN control option is activated and the welding parameters have been reached.



The kA/daN control option is activated and the welding force has not been reached.

Welding without kA/daN Control

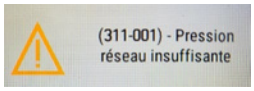


4.3 OPERATING MODES

Whichever operating mode is selected (Automatic, Synergic, Manual or Manufacturer), welding conditions must be checked at the start of each job.

«Test» spot welds should be carried out on pieces of sheet metal that are representative of the work being undertaken. Carry out 2 spot welds spaced at the same distance as those required on the job itself. Test the pulling strength of the second spot weld. The spot is good when the pulling action causes the core to be torn out of the sheet metal, with a minimum core diameter in accordance with the vehicle manufacturer's specifications.

Insufficient air pressure



If the input air pressure is insufficient to deliver the required clamping force, the machine will indicate this prior to the spot with the following error message: «Insufficient air pressure». Pressing the trigger a second time will «force» the spot, but there is a risk that the required force will not be delivered.

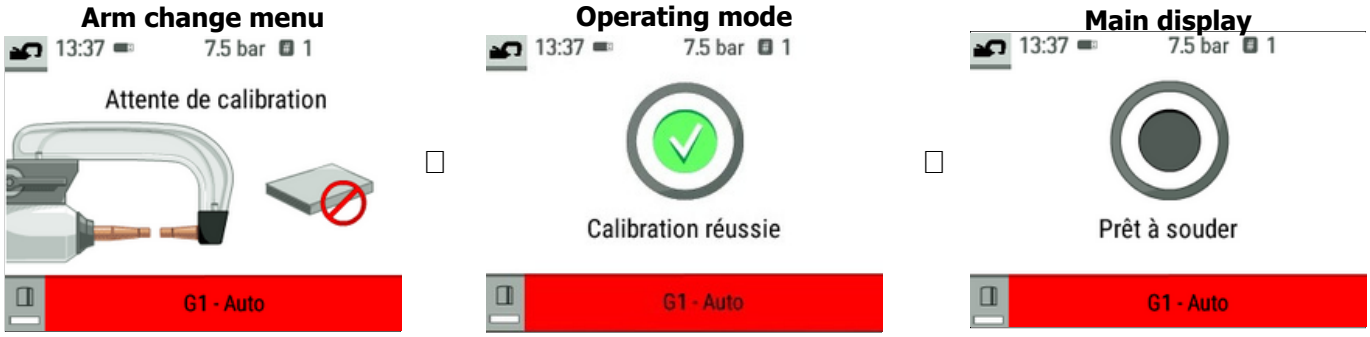
Adaptive Welding function

When the machine is operating in Automatic or Synergic mode, the 'Adaptive Welding' algorithm will adjust the welding parameters in real time according to the pressure of the compressed air network and the supply voltage.
This function does not work in Manual and Manufacturer mode. We therefore recommend using Automatic or Synergy mode.

EN

4.3.1 Automatic Mode

This function only works in clamp mode. It is displayed by default when the machine is switched on if there is no gun connected. It allows you to weld sheet metal without specifying any parameters on the screen. The machine determines the appropriate welding parameters automatically.



To use this mode, calibration is required at the start, each time the arms or caps are changed, and after every 25 spots.

To do this, perform a no-load test (with no sheet metal between the electrodes). Once calibration has been successfully completed, the machine displays «ready to weld». If the calibration fails, check that the caps are in good condition and that the arm is securely locked, and repeat the calibration procedure.

When the machine is ready, close the clamp onto the area you want to weld, and the weld will start.
The machine will display a fault if it measures a sheet assembly of greater than 7.5mm, or if it measures no material at all.

4.3.2 Synergic Mode

This mode determines the welding parameters based on the thickness of the sheets and the type of steel.

The thickness of each sheet can be set between 0.5mm and 3mm. The types of steel are: steel and coated steel, HLE/THLE steel, UHLE steel, and boron steel (BORON).

It is possible to insert an assembly consisting of up to 3 sheets, with a maximum assembly thickness of 7.5mm.

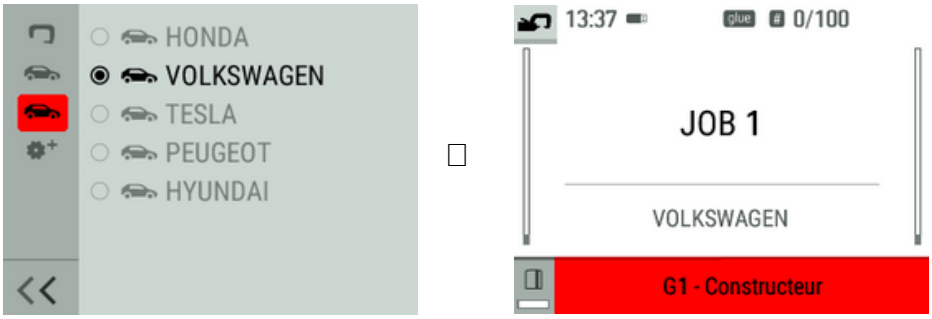
Use the thumbwheel to select the thickness and type of steel for each sheet. To activate the third sheet, select it and enter the thickness. To deactivate it, enter a thickness of zero «---».

To help make the display easier to interpret, the type of material is colour-coded.

- Blue: STEEL
- Yellow: HLE (and THLE)
- Orange: UHLE
- Purple: BORON

4.3.3 Manufacturer mode

This mode only works in clamp mode. It allows a pre-registered point to be called up by name according to the manufacturer's repair specifications. Once this mode has been selected from the general menu, select the manufacturer and the point defined in the repair specification.



4.3.4 Manual Mode

This mode allows you to set the parameters of the weld spot manually, following the instructions in a repair manual. The parameters that can be set in this mode are:

- Current
- Time
- Clamping force

Limitation of force and current parameters according to the type of arm

To prevent damage to the arm, the machine automatically limits the maximum force and current that can be selected by the user in relation to each arm.

Example: G1 arm Max current = 14.5kA Max force = 600daN
G7 arm Max current = 5.5kA Max force = 150daN

Impact of the power supply network on the welding current

The maximum welding current (I2cc) also depends on the mains voltage.
The lower the voltage, the lower the current.

The machine analyses the mains voltage and adjusts the maximum welding current that can be selected by the user.
For example, if the voltage is 240V or 230V, then I2cc is 14.5kA. If this voltage drops to 208V, then I2cc decreases to 13kA.

4.4 CHANGING ARMS

The warranty does not cover faults or damage caused by incorrect installation of the G-clamp arms.

Important:

- Do not use copper grease on the arms.
- Keep the arm base and the arm support on the clamp clean to ensure that the current flows smoothly between the parts in contact.
- If the machine is not to be used for a long time, always store it with the arm mounted on the clamp to avoid dust on the arm support.

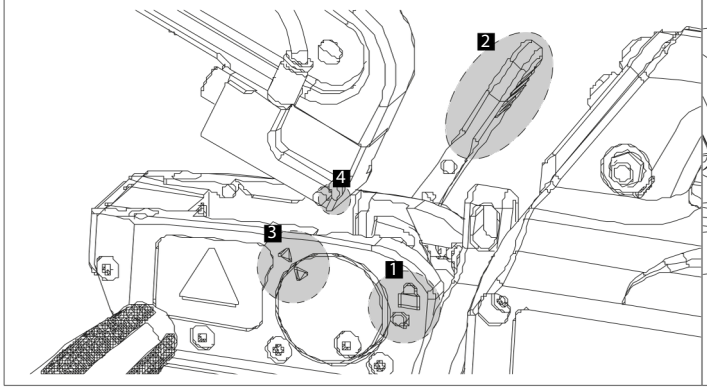
How to change the arms:

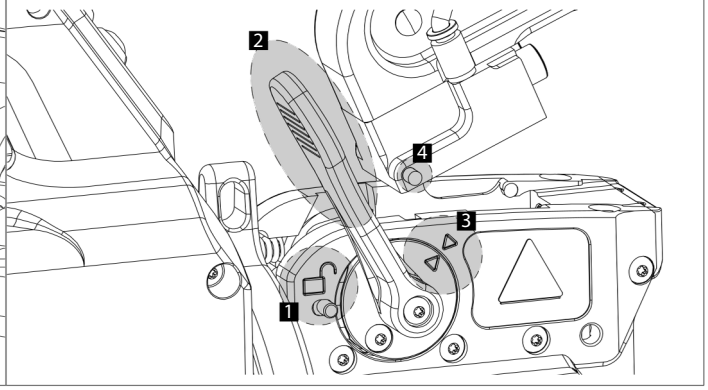
When changing the arms, the cooling circuit pump must be switched off. Welding parameters depend on the type of arm fitted. There are two possibilities:

Option 1: Access the Arm change menu from the General menu, and specify the arm fitted to the machine.

Option 2: Switch off the machine's power supply, change the arm and fit the new arm.

1) The latch protrudes from the closed padlock side
2) The lever must be in the back position (~120°)
3) The arrows must be aligned
4) Tilt the arm by about 15° and remove it from its housing (the pins should slide into the groove) Go to the General menu and select the arm

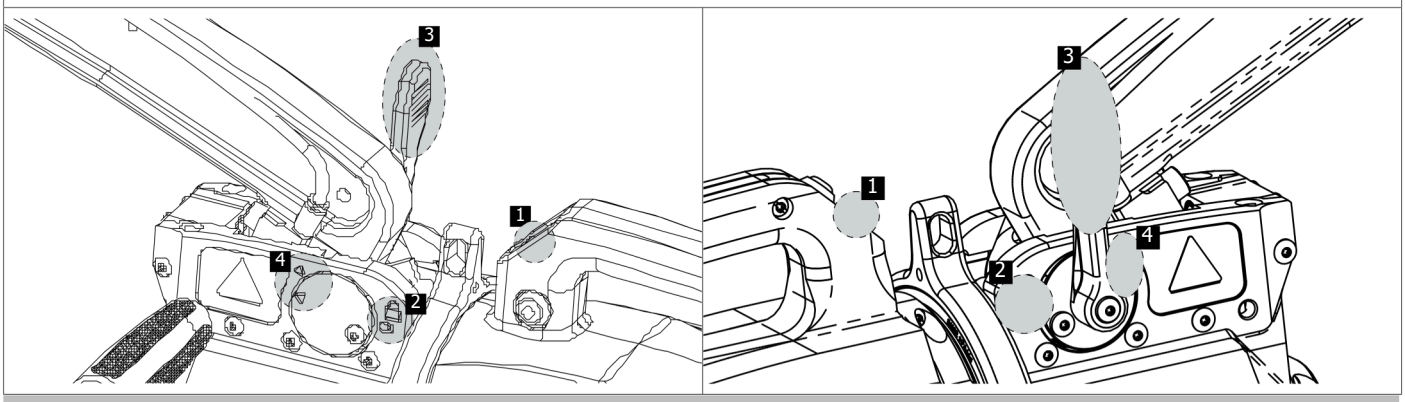




EN

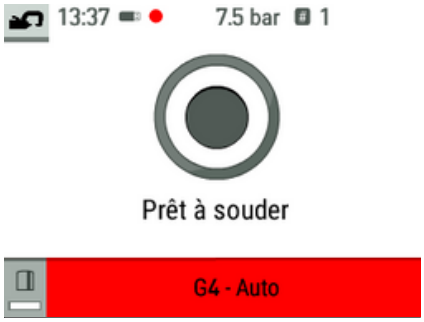
4.5 MECHANICAL OVER-OPENING OF THE ARM

To open the arm and gain easier access to the bodywork, activate the over-opening by pressing the button on the clamp (FIG 2 -10).
1) Press the button (FIG 2 -9)
2) The latch protrudes from the open padlock side
3) The lever must be open (~90°) as far as the latch.
4) The arrows must not be aligned.

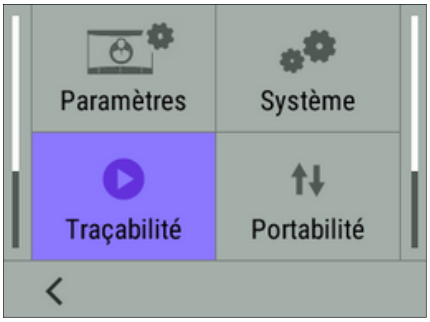


4.6 ADVANCED MENU

The Advanced Menu is accessed from the Main Display by pressing and holding the HMI thumbwheel.

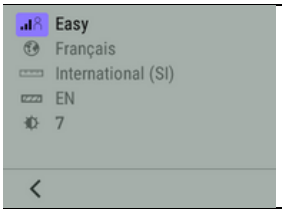


Press and hold the thumb wheel



This menu allows access to the Traceability function, and also to the system information for the machine (time, languages, etc).

PARAMETERS

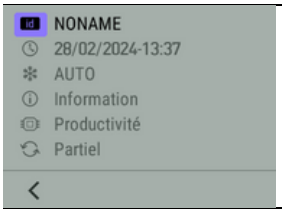


This tab is used to select the Easy or Expert mode of the machine. Select the language (EN, FR, etc.), unit system (bar, PSI) and screen brightness.
The machine is in Easy mode by default.

Expert mode lets you set additional parameters (number of spots before changing caps, number of spots between two Automatic calibrations, activation of current slopes).

You will need to contact your distributor/retailer to obtain expert mode.

4.6.1 SYSTEM



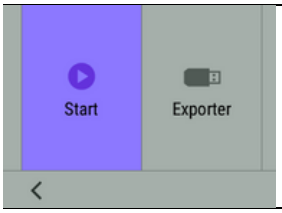
Contains date and time settings, the ability to reset the machine to factory settings, and all hardware and software version information (required in the event of a Aftersales problem).

4.6.2 PORTABILITY

ThistabisusedforTechnicalSupport and After-Sales Service purposes.

4.6.3 TRACEABILITY

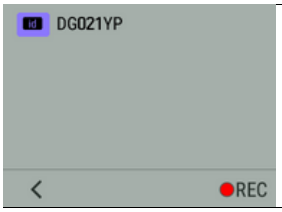
Thisfunctionallows youtorecord your operations in the form of job reports, and export them to a USB stick so that they can be retrieved and processed using a PC running the GYSPOT software (see «GYSPOT software» section).



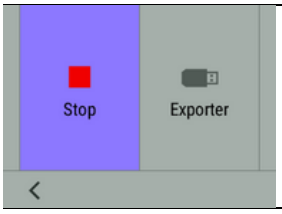
Tasks carried out with the single-point gun accessory are not recorded.
To start recording, select Start .

The list of previously created jobs is displayed on the screen.

To create a new job: press and hold the button on the right .
Press the thumbwheel once to continue an existing job.



Press the REC button on the right to start recording.
The symbol ● at the top of the screen indicates that the weld spots are being recorded.



To stop traceability, return to the Traceability menu and select Stop.

To export the current job report, you need to stop recording.

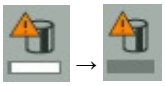
Connect the USB stick supplied with the product to the USB port on the machine, then select Export Exporter

EN

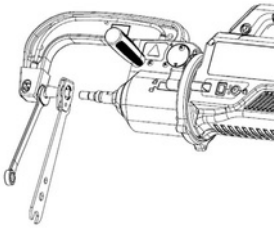
4.7 CHANGING THE CAPS

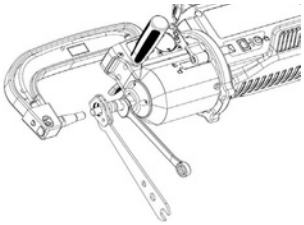
The machine counts the spots performed with each arm separately.

The warning icon and a message appear on the screen when the spot limit has been reached.
The message remains displayed after each spot until the cap change procedure has been completed.
By default, caps should be changed every 50 spots.

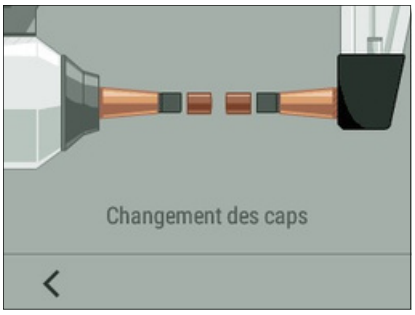


To start the cap change procedure, press the left-hand HMI push button until the progress bar is complete.



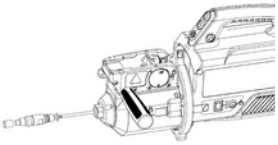


Use a cap remover and a 17 mm spanner to lock the electrode in place to remove the worn caps and fit a new pair of caps.



Press the push button on the clamp until the caps make contact. The machine will automatically continue to tighten the caps.

4.8 TIGHTENING THE ELECTRODES



To avoid overtightening and damaging the key, we recommend a maximum torque of 20N.m.

5. GYSPOT SOFTWARE

The purpose of this software is to generate and save job reports produced using a GYSPOT spot welding machine (or a GYSPRESS 10T PP CONTROL riveting machine). The GYSPOT software can be installed from files located on the USB stick that comes supplied with the product. In the GYSPOT V X. XX directory, double-click on the INSTALL.EXE file, and follow the instructions to install the software on your PC. A GYSPOT icon will be automatically installed on your PC desktop.

The GYSPOT software only works on PCs.

5.1 LANGUAGE SELECTION

The software supports several languages. The current available languages are: French, English, German, Spanish, Dutch, Danish, Finnish, Italian, Swedish, Russian and Turkish.

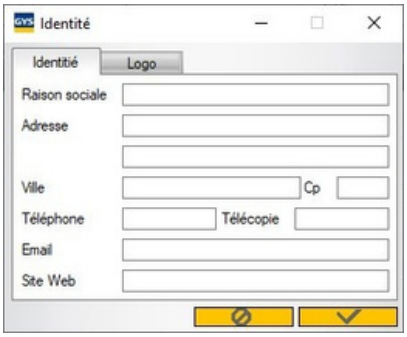
To select a language, click on «Options» in the menu bar, then on «Languages». Please note that once a language has been selected, GYSPOT will automatically restart using the new language.

5.2 MACHINE SELECTION

The functionality of the GYSPOT software depends on the type of machine you're using (spot welder or Connected riveting machine). To select a spot welder, in the menu, click Modes, then GYSPOT, then Traceability. The next time you start the GYSPOT software, it will automatically be in GYSPOT mode (spot welder).

By default, the GYSPOT software opens in «Traceability» mode. User spot settings are not available on this machine.

5.3 USER IDENTIFICATION



In order to personalise the reports with your personal information, certain information is required.

To fill them in, in the menu, click on Options then on Identity. A new window appears with the following information: Company name Address / Postcode / Town Telephone / Fax / Email / Website Logo This information will then be displayed on the reports.

5.4 IMPORT REPORTS STORED ON YOUR USB STICK

To import the job reports produced using a GYSPOT (previously saved on your USB stick from the machine, see «Traceability» section) into your PC, insert the USB stick into your PC's USB port. Then select the drive in which your USB stick is connected, and click on the button.

When the import takes place, the work that has been carried out is grouped together using the repair order identifier. These identifiers correspond to the names of the reports specified in the GYSPOT (see Traceability).
This identifier is displayed in the «In progress» tab. Once the reports have been imported, it is possible to search, edit or archive each report. To view the actions undertaken on a report, select a report. The operations carried out are displayed in the table.

To carry out a search, fill in the search field and click on the button.

To edit a report, select a report and click on the button.

To archive a report, select a report and click on the button. Please note that imported reports cannot be deleted until they have been archived.

5.5 INFORMATION CONTAINED IN A SERVICE REPORT

For each spot weld, the operating mode (Automatic, Manual, etc.), the arm, the parameters set, and the values actually measured are entered. The thickness measured when applying a spot in Automatic mode, and the status of the spot if the Weld Control option is activated.

N° de série	N° du point	Mode	Outil	Consigne Temps (ms)	Consigne Intensité (kA)	Consigne Effort (daN)	Mesure Intensité (kA)	Mesure Effort (daN)	Mesure épaisseur (mm)	Etat	Date de création
0000000000000000	1	Normal	Pince en G n°1	620	9,9	375	9,8	300		Point Ok	31/12/2099 00:00:00
0000000000000000	2	Normal	Pince en G n°1	620	9,9	375	9,8	275		Point Ok	31/12/2099 00:00:00
0000000000000000	3	Multi-tôles	Pince en G n°1	710	10,7	425	10,7	275		Point Ok	31/12/2099 00:00:00
0000000000000000	4	Normal	Pince en G n°1	620	9,9	375	9,9	275		Point Ok	31/12/2099 00:00:00
0000000000000000	5	Auto	Pince en G n°1	1 160	11,5	540	10,1	300	8,0	Point Ok	31/12/2099 00:00:00

5.6 CONSULT ARCHIVED SPOT REPORTS

To view archived reports, click on the «Archives» tab. Reports are grouped together by year and month.
To view the actions completed, select a report. The operations carried out are displayed in the table.
For archived reports, it is possible to search, edit or delete a report. Please note that an archived report that has been deleted will be re-imported if the traceability directory on the USB stick has not been cleared. To carry out a search, fill in the search field and click on the button.

To edit a report, select a report and click on the button.

To delete a report, select the report you'd like to delete and click on the button.

5.7 DELETE THE TRACEABILITY FILES ON THE USB STICK

Deleting will remove all the operation reports that have been saved on the USB stick. To delete these traceability files, insert the USB stick into the PC, then in the menu, click on «Options», then «GYSPOT», then «Delete USB traceability». Please note that when you delete a report, any completed reports that have not yet been imported will be imported automatically. It is also possible to delete traceability files by directly deleting the files contained in the directory: Removable disc\TRACABILITY

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5.8 COMPLETE THE INFORMATION IN A REPORT

Intervenant	Valentin DUBATEAU	Marque	Tesla
Ordre de réparation	AAA	Modèle	Model 3
Date du journal	19/09/2023	Numéro de châssis	
Intervention		Immatriculation	PR-011-GV
Commentaires	Réparation aile AVG	Mise en circulation	02/03/2024

Each report can contain the following information:
- Operator;
- Vehicle type;
- Repair order;
- Vehicle registration number;
- Date of first registration;
- Action;
- Comments.

To enter this data, select a report and type the information in the report header.

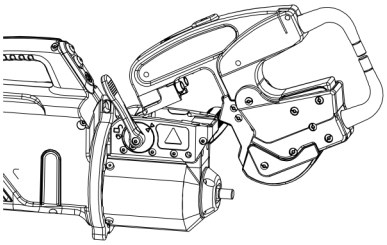
5.9 PRINT A REPORT

To print a report, select a report and click on the button . A preview of the report will be displayed.
Click on the button to start printing .

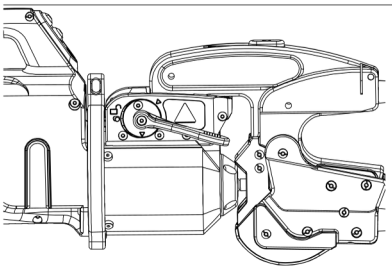
6. USE OF THE G9 ARM (OPTIONAL)

Setting up :

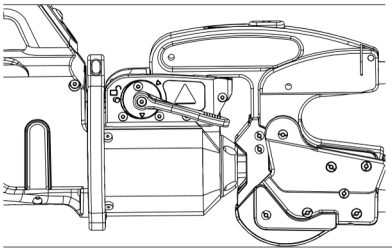
Switch off the machine or follow the procedure for changing the writing arm in § 4.4 Fitting and changing arms.
Remove the arm from the clamp and operate the over-opening so that the electrode is fully retracted into the cylinder.



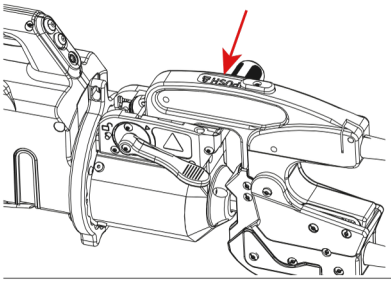
Position the G9 arm on the clamp base.



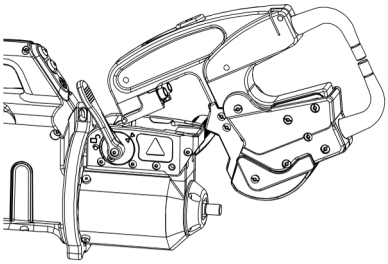
With the G9 arm in place and the locking lever closed, press the clamp closing button to drive the arm.



Arm removal



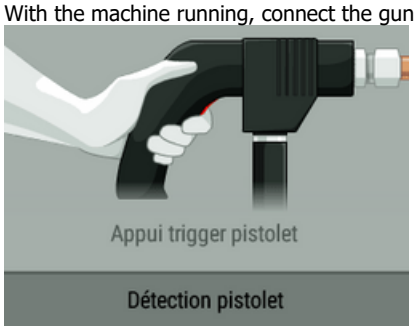
Switch off the machine or follow the procedure for changing the writing arm in section 4.4 Fitting and changing the arm. Simultaneously press the PUSH button on the arm and the over-open button on the clamp (Fig 2.9).



Unlock the clamping lever and release the arm.

7. USING THE SINGLE-POINT GUN (OPTIONAL)

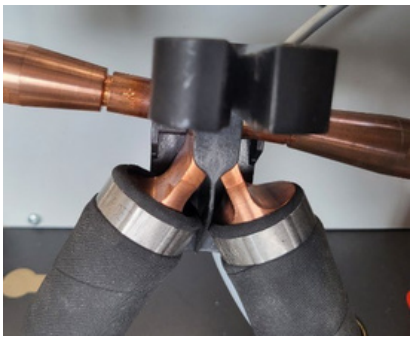
With the machine running, connect the gun control cable to the jack on the gun handle.



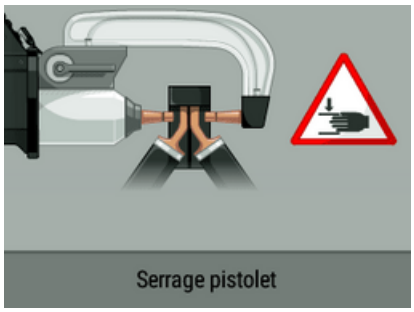
A message appears on the screen asking you to press the gun trigger.

Once the gun has been fitted to the clamp (see paragraphs below), select the tool (star, ring, corrugated wire, etc.) and confirm.
The single-point gun can be used in Manual and Synergic mode.
The kA/daN control option (see section 4.2.3.4) is not available with the single-point gun.

7.1 QUICK-FIX GUN



Fit the gun manifold while pressing the trigger until the gun locks.



We recommend using a G1 or G6 arm to get the best performance from the Quick Fix single-point gun.

7.2 OLDER GENERATION GUNS

Attach the earth cable to the mobile electrode. Slide and tighten the knob.

Remove the clamp arm and fit the gun cable in its place.

Check that the screw connecting the shoe to the cable lug is tight.

8. PRECAUTIONS FOR USE AND MAINTENANCE

Operator training

Peopleoperatingthis machine must be given suitable training in order to get the most out of the machine's capabilities, and to carry out their work in accordance with the manufacturer's instructions (for example: panel beater training).

Preparing workpieces for assembly

Itisessentialtostripandpreparetheareathatisto be welded. In the case of a protective application, make sure that it is conductive by testing a sample beforehand.

Welding with a single-point gun

Whenrepairingavehicle,checkthatthemanufacturer authorises this type of welding process.

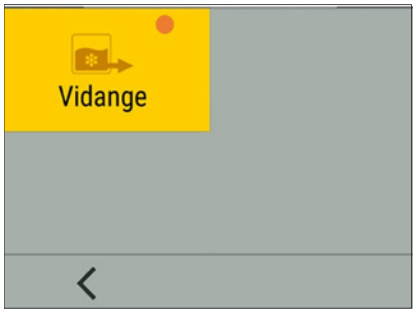
Coolant level and efficiency

Thecoolant levelis importantfor thecorrectoperation of the machine. It must always be between the minimum and maximum indicated on the trolley. Top up with demineralised water if necessary. Replace the coolant every 2 years.

G9 arm clamping nut O-rings.

Inside the 2 arm clampingnuts, there are2 O-rings that must be replaced in the event of leaks or every 6 months. These 2 seals are necessary to avoid any risk of liquid leakage. These seals are O-rings d=25, set of 4. When replacing these seals, they must be greased.
(ref. 050440: contact grease).

9. MAINTENANCE



The machine is equipped with a maintenance function: draining.
When the pictogram appears on the main screen, the machine needs to be emptied (reminder every 2 years from the 1st point):

☐ Go to the maintenance menu.
☐ The picto● indicates the recommended operation.

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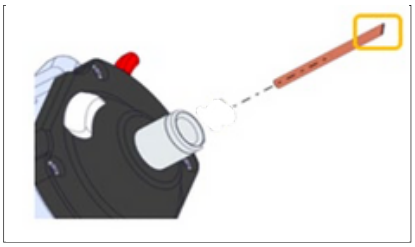
9.1. DRAINING

Niveau et efficacité du liquide de refroidissement :

☐ Le niveau de liquide de refroidissement est important pour le bon fonctionnement de la machine.
☐ Il doit toujours être compris entre le minimum et le maximum indiqué sur le chariot.
☐ Faire l'appoint avec du liquide adéquate (voir 3.6)

 Use a 17 spanner to loosen the electrode.	☐	 When the tank is empty the procedure will automatically go to the next step.
		☐
 If you validate before the tank is empty.	☐	 Recommended coolant: 5l: 062511 / 10l: 052246
 Before refitting the electrode, pay attention to the direction of the injector bevel.	☐	 Tighten the electrode to a maximum of 20N.m.
		☐
 Displays this message if the tank is not full.		 End of procedure.

10. FAULTS, CAUSES, REMEDIES

	FAULTS	CAUSES	SOLUTIONS
Clamp welding	The spot doesn't hold / holds poorly	The caps are worn out.	Change the caps.
		The sheets are not clean enough.	Check surface preparation.
		The arm selected does not match the one mounted.	Check the arm selected in the software.
	The machine makes a hole in the sheet.	The caps are worn out.	Change the caps.
		Insufficient air pressure.	Check the air pressure (min. 8 bar).
		The surface is not properly prepared.	Prepare the surface you are working on.
	Lack of power	Power supply problem.	Check that the mains voltage is stable.
		Caps blackened or damaged.	Change the caps.
		Poor arm lock.	Refer to the section on «Fitting and replacing arms».
	- The machine overheats rapidly. - Fan may be damaged	Fan obstruction.	Check that air is flowing through the fan.
	- Pump stopped - Contaminated coolant - Clogged circuit	Obstruction in the cooling circuit (pinched hose).	Check the wiring harness sheath between the trolley. Check that the pump is working properly. Check the condition of the coolant.

Gun	Abnormal heating of the gun	Incorrect tightening of the chuck.	Check that the chuck and star chuck are tight, and that the sheath is in good condition.
		Gun sheath loose.	Replace the sheath so that the air is cooled inside of the gun
		Incorrect positioning of the earth plate.	Check that the earth plate is in contact with the correct metal sheet.
	Lack of power in the gun	Poor contact of the earth plate.	Check the earth contact.
		Improperly tightened chuck or accessories.	Check that the chuck and accessories are tight and that the sheath is in good condition.
		Damaged consumables.	Replace the consumables.

11. FRANCE WARRANTY CONDITIONS

The warranty covers any defects or manufacturing faults for two years from the date of purchase (parts and labour).

The warranty does not cover:

- Any other damage caused during transport.
- The general wear and tear of parts (i.e. : cables, clamps, etc.).
- Incidents caused by misuse (incorrect power supply, dropping or dismantling).
- Environment-related faults (such as pollution, rust and dust).

In the event of a breakdown, please return the item to your distributor, along with: - A dated proof of purchase (receipt, invoice, etc.) - a note explaining the fault.

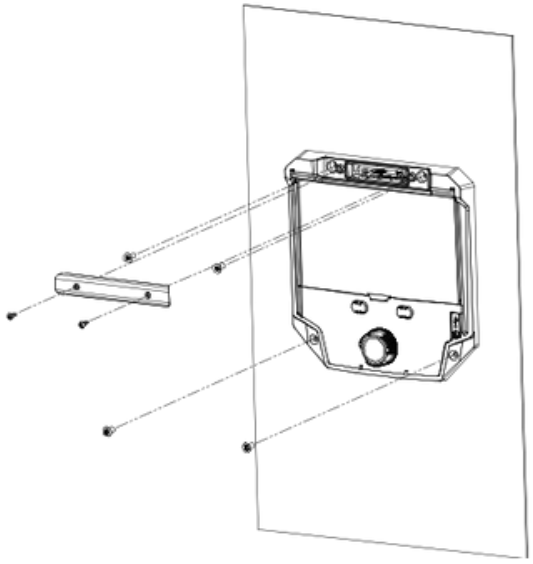
12. SPÉCIFICATIONS TECHNIQUES / TECHNICAL SPECIFICATIONS / TECHNISCHE DATEN / ESPECIFICACIONES TÉCNICAS

		220 V			
Caractéristiques électriques / Electrical specifications / Elektrische Daten / Caracteristicas electricas					
Tension nominal d'alimentation / Nominal supply voltage / Eingangsspannung / Tensión nominal de alimentación	U1n	3~200 V	3~208 V	3~230 V	3~240 V
Fréquence secteur / Mains frequency / Netzfrequenz / Frecuencia	F	50 / 60 Hz			
Courant d'alimentation permanent / Permanent power supply / Dauerhafter Versorgungsstrom / Corriente de alimentación continua	Ilp	33 A			
Puissance à 50 % de facteur de marche / Power at 50% duty cycle / Nennleistung bei 50% ED / Potencia al 50% del ciclo de trabajo	S50	16.2kVA	16.9kVA	18.6kVA	19.3kVA
Puissance permanente / Permanent stable power / Max. Dauerleistung / Energía permanente	Sp	11.4 kVA	12 kVA	13 kVA	13.7 kVA
Puissance maximale instantanée / Instant peakl power / Max. Schweißleistung / Potencia máxima instantánea	Smax	100 kVA			
Tension secondaire / Secondary voltage / Sekundärspannung / Tensión secundaria	U2d	6.7 V	6.9 V	7.7 V	8 V
Courant maximal de court-circuit primaire permanent / Maximum current permanent primary short-circuit / Maximaler permanenter Primärkurzschlussstrom / Corriente máxima de cortocircuito primario permanente	I1cc	215 A			
Courant secondaire en court-circuit / Secondary current in short-circuit / Max. Kurzschlussstrom / Corriente secundaria en cortocircuito	I2cc	12.2 kA	12.7 kA	14kA	14.5 kA
Courant secondaire permanent / Continuous secondary current / Max. Permanentstrom / Corriente secundaria permanente	I2p	1.9kA	2kA	2.2kA	2.3kA
Courant maximal de soudage régulé / Maximum current regulated welding / Max. geregelter Schweißstrom / Corriente de soldadura máxima regulada		14 500 A			
Interrupteur (courbe D) / Switch (D curve) / Netzabsicherung (Kurve D) / Interruptor (curva D)		≥ 32 A			
Facteur de marche / Duty cycle / Einschaltdauer / Ciclo de trabajo		2.4 %			
Caractéristiques thermiques / Thermal specifications / Thermische bedingungen / Caracteristicas termicas					
Température de fonctionnement / Operating temperature / Betriebstemperatur / Temperatura de funcionamiento		+5°C □ +40°C +41°F □ +104°F			
Température de stockage / Storage temperature / Lagerungstemperatur / Temperatura de almacenaje		-25°C □ +55°C -14°F □ +131°F			
Température de stockage liquide de refroidissement / Storage temperature coolant / Lagertemperatur Kühlmittel / Temperatura de almacenamiento del refrigerante		-20°C □ +55°C -4°F □ +131°F			
Hygrométrie / Hygrometry / Max. Luftfeuchtigkeit / Higrometría @ 40°C (104°F)		< 50 %			
Hygrométrie / Hygrometry / Max. Luftfeuchtigkeit / Higrometría @ 20°C (68°F)		< 90 %			
Altitude / Altitude / Max. Höhenlage / Altitud		1 000 m 3800 ft			
Protection thermique par thermistance sur le pont de diodes / Thermal protection by thermistor on the diodes bridge / Überhitzungsschutz durch Thermoastat am Gleichrichter / Protección térmica mediante termistor en el puente de diodos		70°C 158°F			
Caractéristiques mécaniques / Mechanical specifications / Mechanische daten / Caracteristicas mecanicas					
Degré de protection / Protection level / Schutzgrad / Grado de protección		IP20			
Dimensions (Lxlxh) / Dimensions (Lxlxh) / Abmessung (LxBxH) / Dimensiones (Lxlxh)		71 x 90 x 200 cm			
Poids / Weight / Gewicht / Peso		100 kg 220 lbs			
Longueur du cordon secteur / Network cable length / Länge Netzkabel / Longitud del cable de alimentación		8 m 26 ft			
Longueur du câble de la pince G / G clamp cable length / Kabellänge der Zange G / Longitud del cable de la pinza G		95 > 450 mm 3.74 to 17.7 inch			
Plage d'écartement des bras / Arm aperture dimension / Abstandsbereich der Arme / Rango de separación de los brazos	e	100 > 1000 mm 4 to 40 inch			
Plage de longueur des bras / Arm length dimension / Längebereich der Arme / Rango de longitud de los brazos	l	600 daN 1236 Lbf			
Force maximale de soudage / Maximum welding force / Maximale Schweißkraft / Fuerza máxima de soldadura	Fmax	100 daN 225 Lbf			
Force minimale de soudage / Minimum welding force / Minimale Schweißkraft / Fuerza mínima de soldadura	F1min				
Caractéristiques pneumatiques / Pneumatic specifications / Pneumatische merkmale / Caracteristicas pneumaticas					
Pression d'alimentation maximale / Maximum pression d'alimentation / Maximaler Speisedruck / Presión máxima de alimentación	P1 max	10 bar 145 Psi			
Pression d'alimentation minimale / Minimum supply pressure / Minimaler Speisedruck / Presión mínima de alimentación	P1 min	8 bar 116 Psi			
Débit du liquide de refroidissement / Cooling liquid debit / Kühlflüssigkeitsdurchfluss / Débit du liquide de refroidissement	Q	2.1 l/min 0.55 US gpm			
Perte de charge du fluide de refroidissement / Loss of cooling liquid / Druckverlust der Kühlflüssigkeit / Perte de charge du fluide de refroidissement	Δp	1.6 bar 23.2 Psi			

13. BUTTON CELL REPLACEMENT / KNOPFZELLE AUSTAUSCHEN / SUSTITUCIÓN DE LA PILA DE BOTÓN / ЗАМЕНА БАТАРЕИ / KNOOPCEL VERVANGEN / SOSTITUZIONE DELLA CELLA A BOTTONE

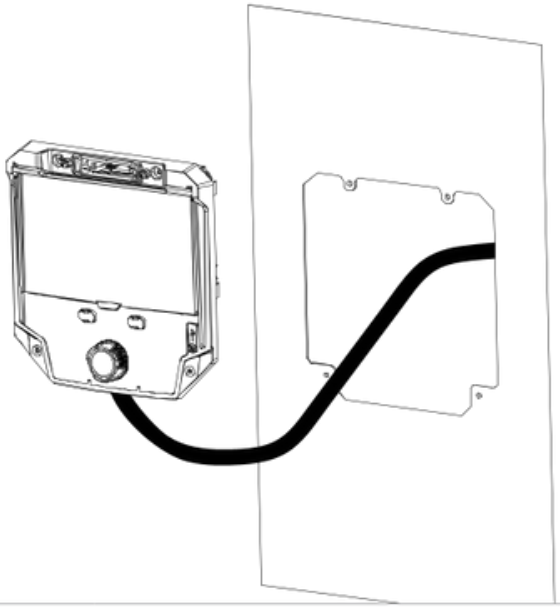
Pendant l'installation de la pile, s'assurer que le produit est déconnecté du réseau.
During battery installation, ensure that the product is disconnected from the network.

1

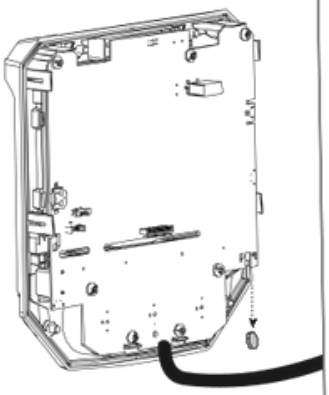


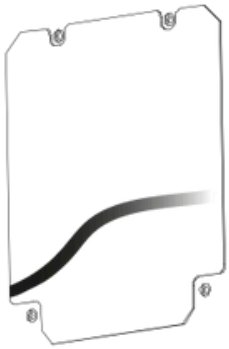
Vis Trappe : D3x10 Torx (x2) - Vis IHM : M5x12 Torx (x4)

2



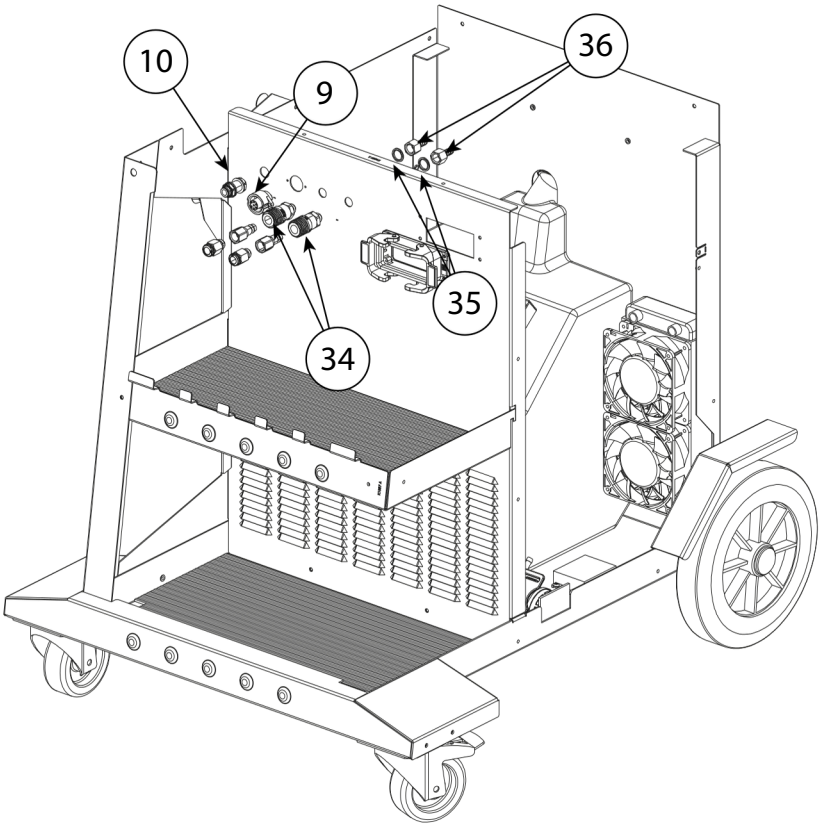
3

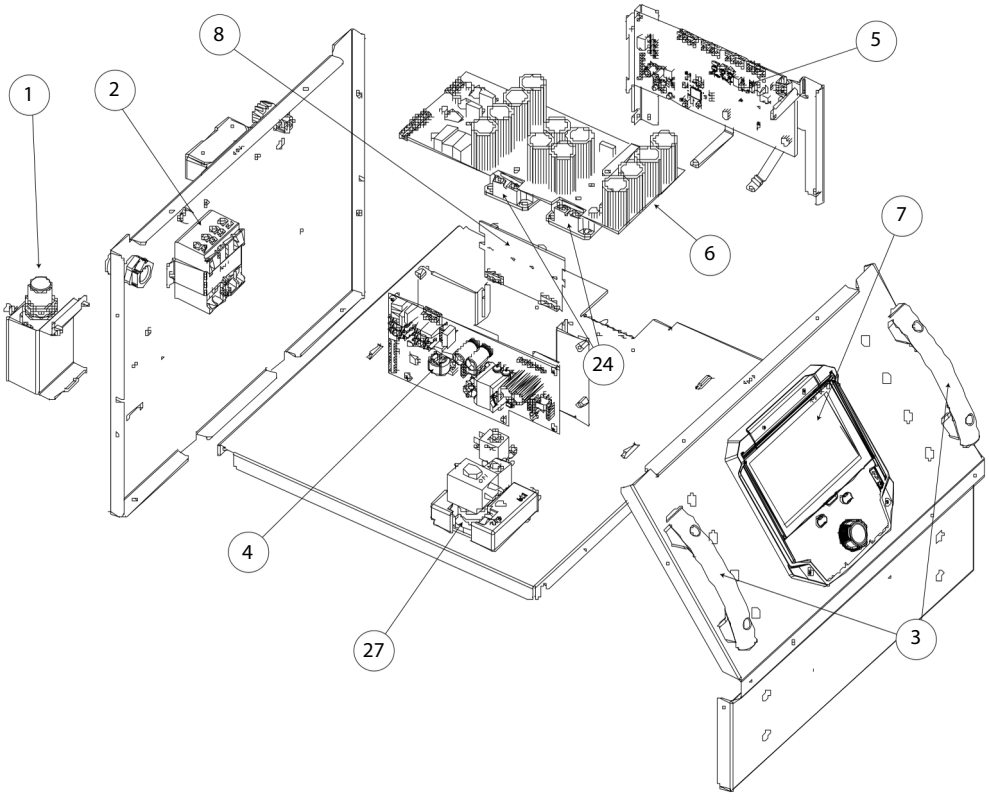


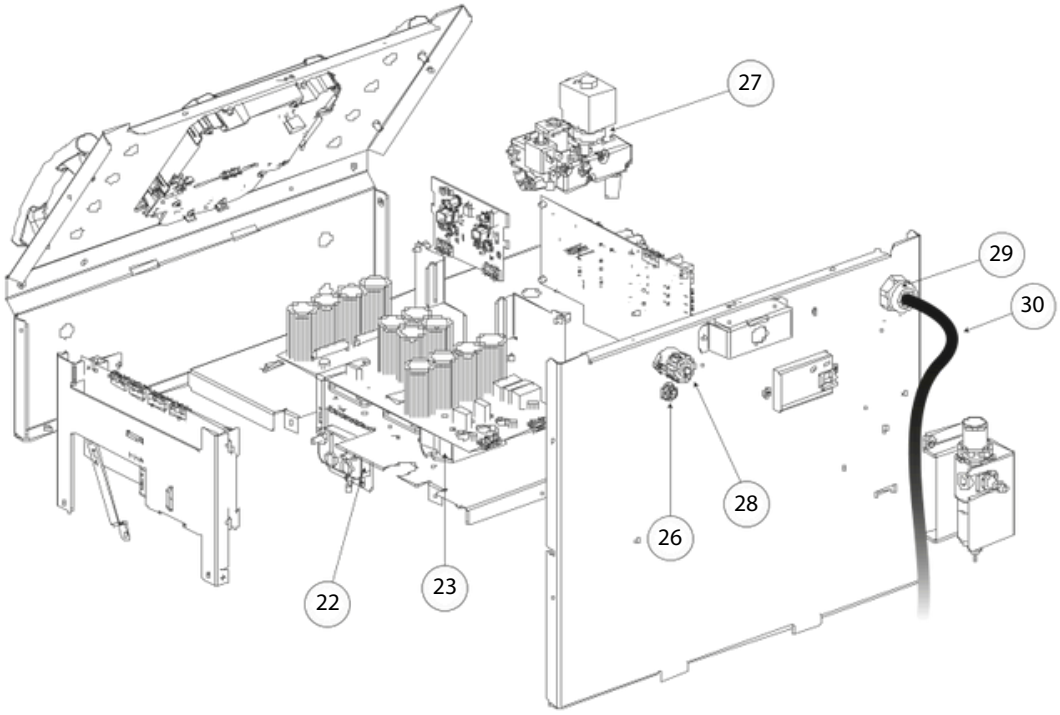


Lithium
CR1220

14. PIÈCES DE RECHANGE DU GÉNÉRATEUR / GENERATOR SPARE PARTS / ERSATZTEILE DES GENERATORS / RECAMBIOS PARA GENERADORES / ЗАПАСНЫЕ ЧАСТИ ГЕНЕРАТОРА / RESERVE ONDERDELEN / PEZZI DI RICAMBIO



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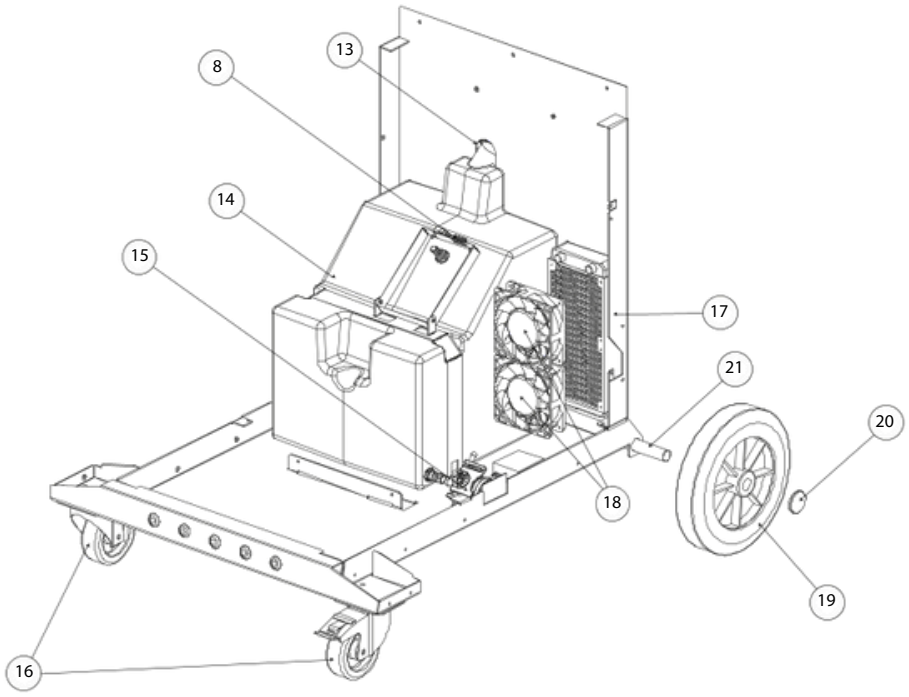
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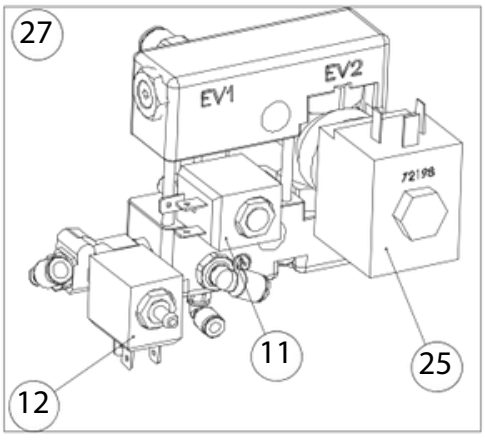
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EV1
EV2
72198
11
25
12

		RÉF	QTY
1	Filtre régulateur / Filter regulator / Filter regulierbarer Druckluftanschluss / Filtro regulador / Regulerend filter / Filtro regolatore	53582	1
2	Interrupteur différentiel / Differential switch / Differenzialschalter / Interruptor diferencial / Differentieel schakelaar /Interruttore differenziale	52351	1
3	Poignée cintré / Curved handle / Gebogener Griff / Asa / Handgreep / Manici centrati	56047	2
4	Carte alimentation 220V / 220V power supply card / 220V-Netzteilkarte / Placa de alimentación 220V / Voedingskaart 220V / Scheda di alimentazione da 220 V	E0186C	1
5	Carte commande machine 220V / 220V machine control board / Maschinensteuerungsplatine 220V / Tarjeta de control de la máquina 220 V / Besturingskaart apparaat 220V / Scheda di controllo macchina 220V	E0243C	1
6	Carte condensateurs machine 220V / 220V machine capacitor board / Kondensatorkarte Maschine 220V / Tarjeta de condensadores de la máquina 220 V / Condensatorprintplaat 220V / Scheda condensatore macchina 220V	E0190C	1
7	Circuit IHM / HMI circuit / Displayplatine / Tarjeta IHM / HMI circuit / Circuito IHM(interfaccia)	E0246C	1
8	Carte driver / Driver card / Treiberplatine / Tarjeta conductora / Kaart driver / Scheda driver	E0249C	1
9	Embase Femelle (6 pôles + PE) 7 points Amphenol	51120	1
10	Raccord lisse Passe-cloison droit D8 plastique	71355	1
11	Electrovanne 2 voies DN 2 / 2-way solenoid valve DN 2 / 2-Wege-Magnetventil DN 2 / Electroválvula 2 vías DN 2 / 2-weg magneetventiel DN 2 / Elettrovalvola a 2 vie DN 2	71538	1
12	Electrovanne 3 voies / 3-way solenoid valve / 3-Wege-Magnetventil / Electroválvula 3 vías / 3-weg magneetventiel / Elettrovalvola 3 vie	71537	1
13	Bouchon de remplissage Ø40 / Filling plug Ø40 / Einfüllstopfen Ø40 / Tapón de llenado Ø40	71299	1
14	Réservoir / Tank / Behälter / Depósito / Tank / Serbatoio	70993	1
15	Pompe / Pump / Pumpe / Bomba / Pomp / Pompa	71876	1
16	Roue pivotante Bleu avec frein D=100mm H=125mm larg=36 mm	71362	2
17	Radiateur / Radiator / Kühler / Radiador / Radiator / Radiatore	72165	1
18	Ventilateur / Fan / Lüfter / Ventilador /Ventilator / Ventilatore	51238	2
19	Roue arrière / Rear wheel / Hinterrad / Rueda tras	71376	2
20	Embout axe de roue / Wheel axle end cap / Endkappe der Radachse / Tapa del eje de la rueda	71382	2
21	Axe de roue	98128ST	1
22	Plaque à borne / Terminal plate / Klemmenplatte / Placa de bornes / Aansluitplaatje / Piastra terminale	51563	1
23	Pont de diode tri / Three-phase diode bridge / Dreifach-Diodenbrücke / Puente rectificador / Diodebrug tri / Ponte di diodi trifase	52195	1
		52200	2
24	Module IGBT / IGBT module / Modul IGBT / Módulo IGBT / IGBT Module / Modulo IGBT	72198	1
25	Electrovanne 2 voies DN 12 / 2-way solenoid valve DN 12 / 2-Wege-Magnetventil DN 12 / Electroválvula 2 vías DN 12 / 2-weg magneetventiel DN 12 / Elettrovalvola a 2 vie DN 12	71446	1
26	Raccord lisse Passe-cloison droit D6 plastique	A0435	1
27	Bloc électrovanne / Solenoid valve assembly / Magnetventil-Block / Bloque electroválvula	51138	1
28	Connecteur potence	42158 + 42159	1
29	Presse étoupe M32x1.5 + écrou		1
30	Cordon secteur	94349	1
31	Nappe picoflex 26pts 35cm	64732	1
32	Nappe picoflex 10pts 25cm	53100	1
33	Fusible 160A 280V UL	51334	2
34	Coupleur mâle	55384	2
35	Joint bi-matière	55390	2
36	Raccord G1/4 D9	56361	

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CIRCUIT DIAGRAM / SCHALTPLAN / DIAGRAMA ELECTRICO / ЭЛЕКТРИЧЕСКАЯ СХЕМА / ELEKTRISCHE SCHEMA / SCEMA ELETTRICO

Schéma électrique du générateur

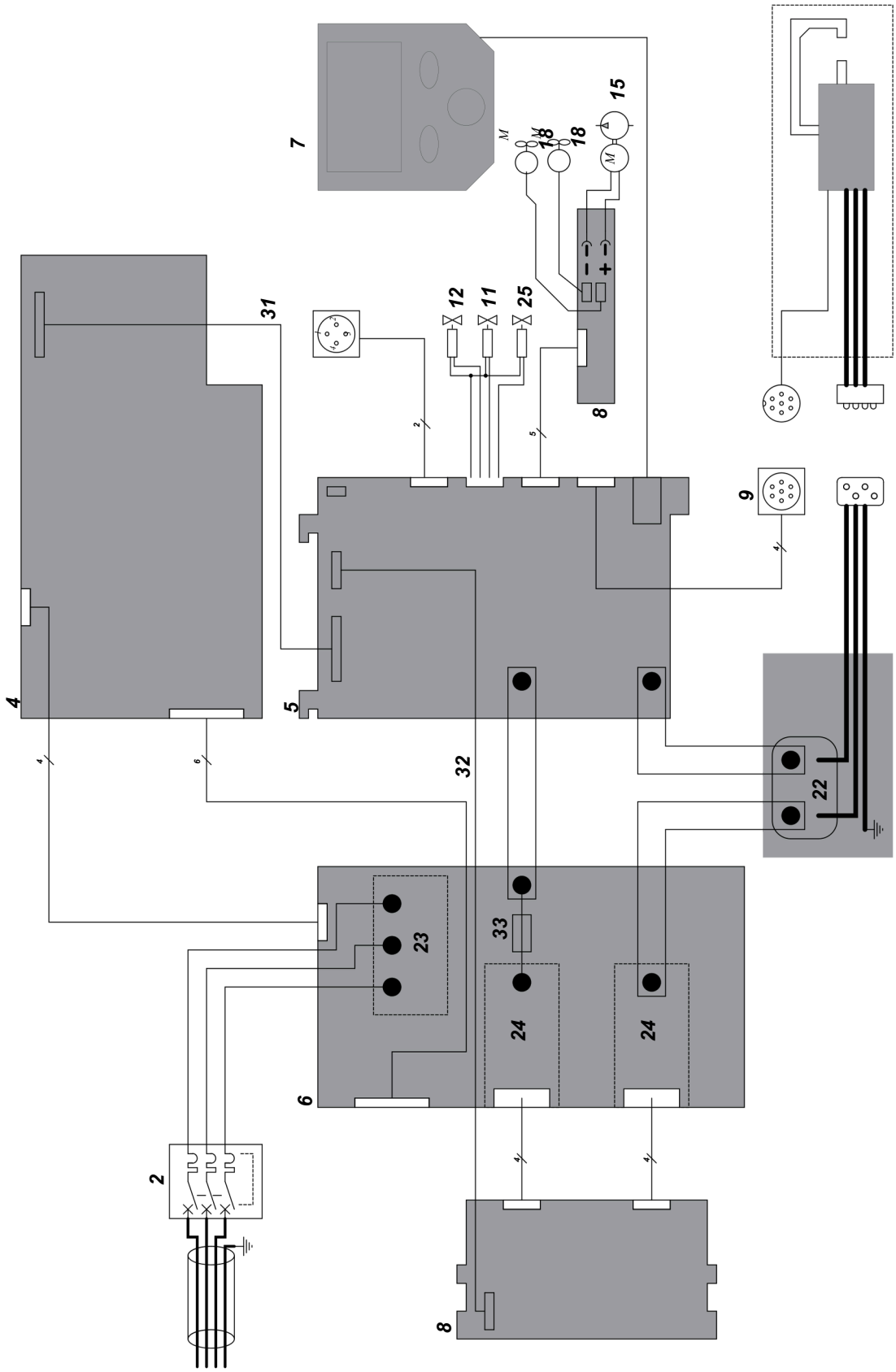


Schéma circuit de refroidissement

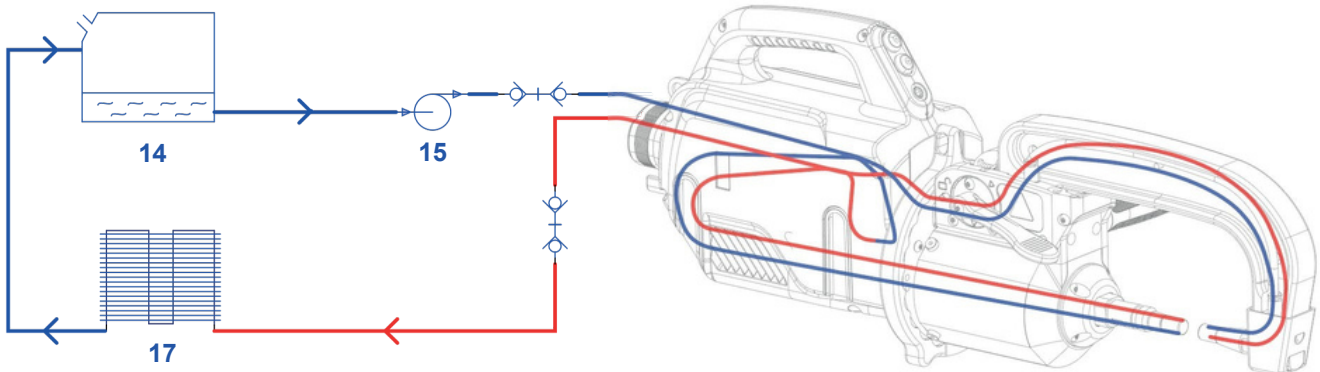
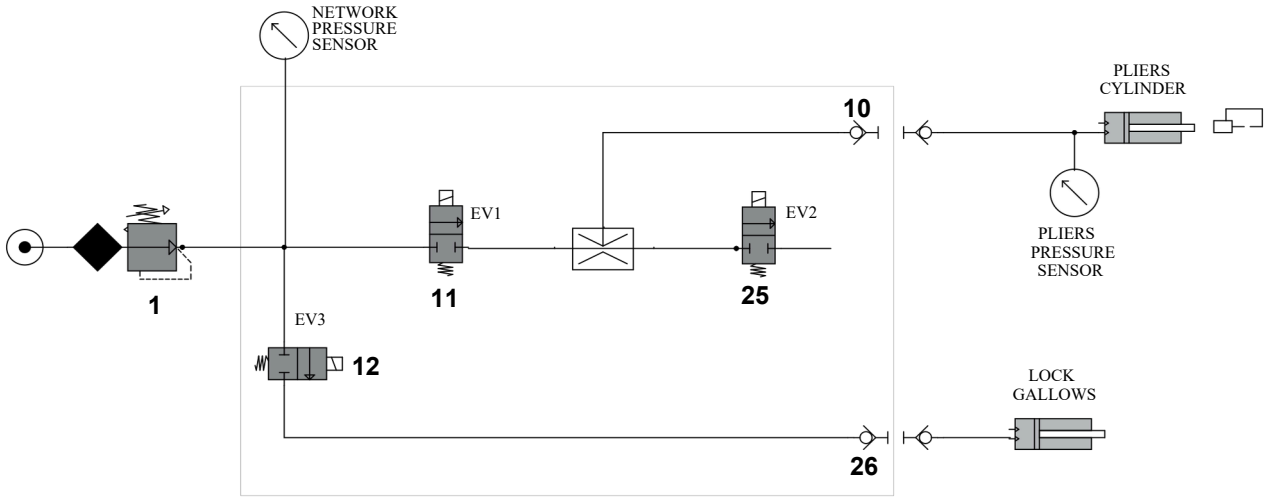
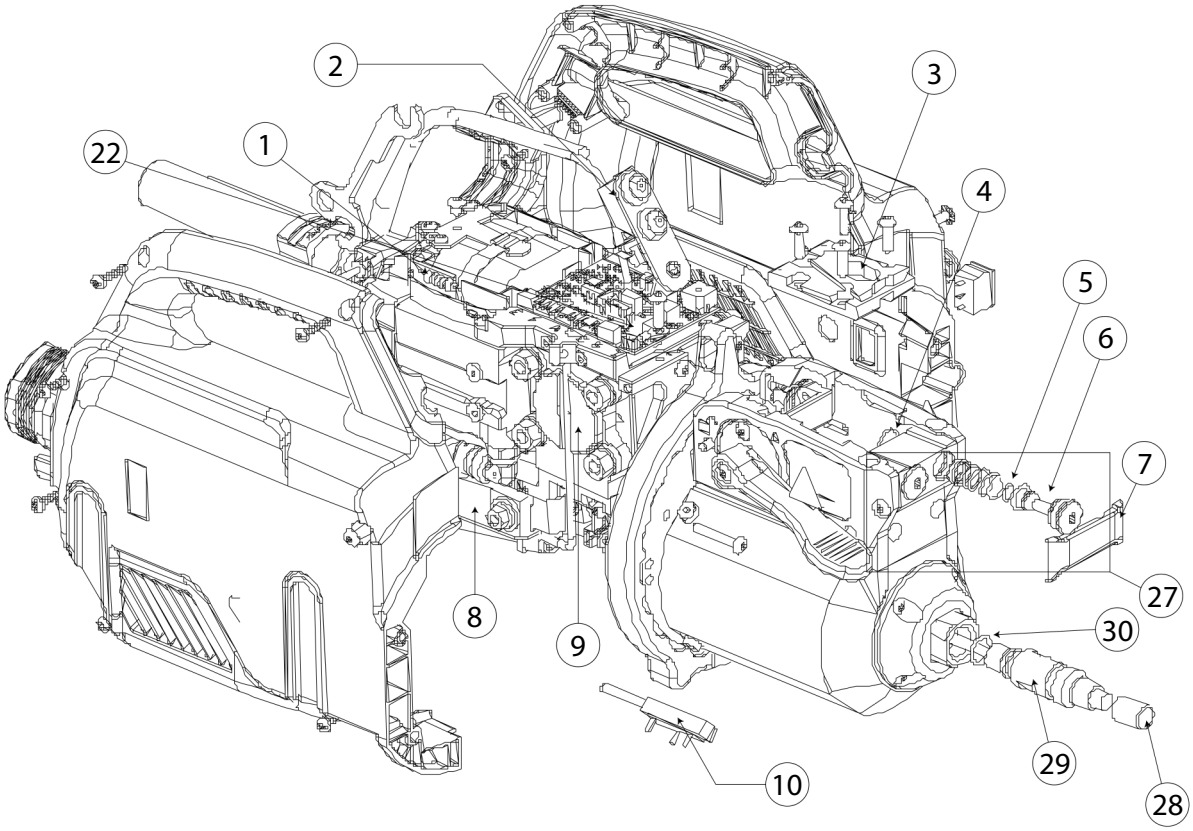
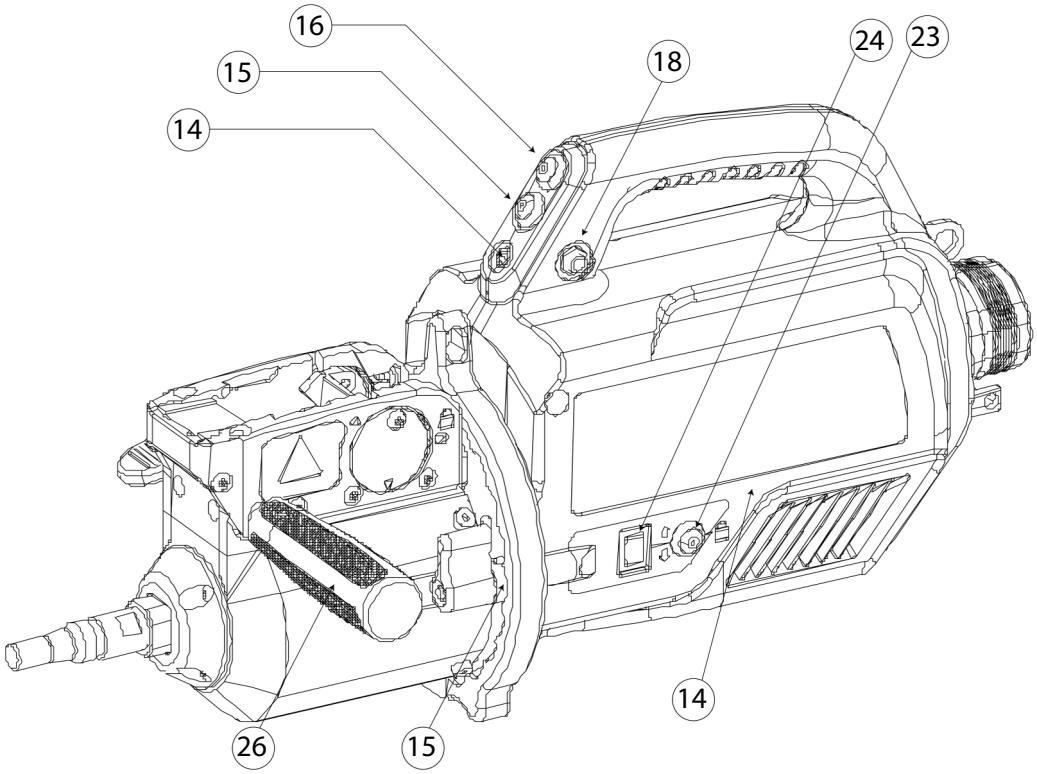


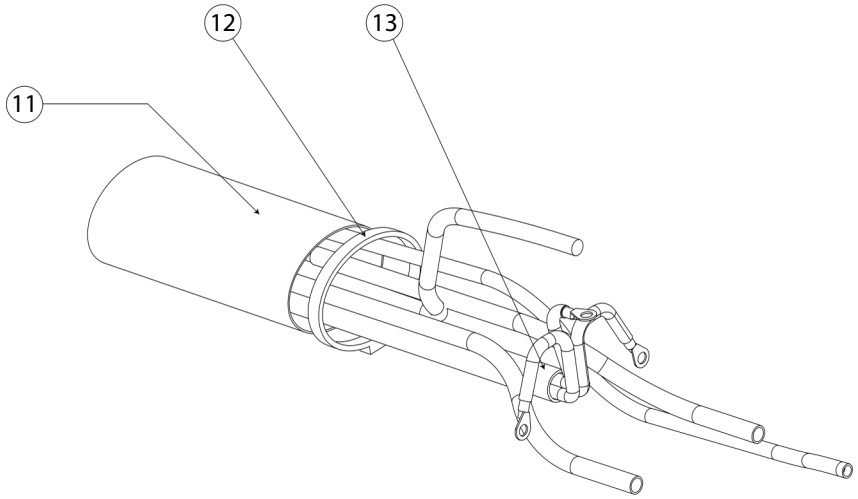
Schéma pneumatique



15. PIECES DE RECHANGE DE LA PINCE / SPARE PARTS FOR THE CLAMP / ERSATZTEILE DER ZANGE / PIEZAS DE REPUESTO PARA LA PINZA / ЗАПАСНЫЕ ЧАСТИ ДЛЯ ЗАЖИМА / RESERVEONDERDELEN VOOR DE KLEM / RICAMBI PER LA PINZA



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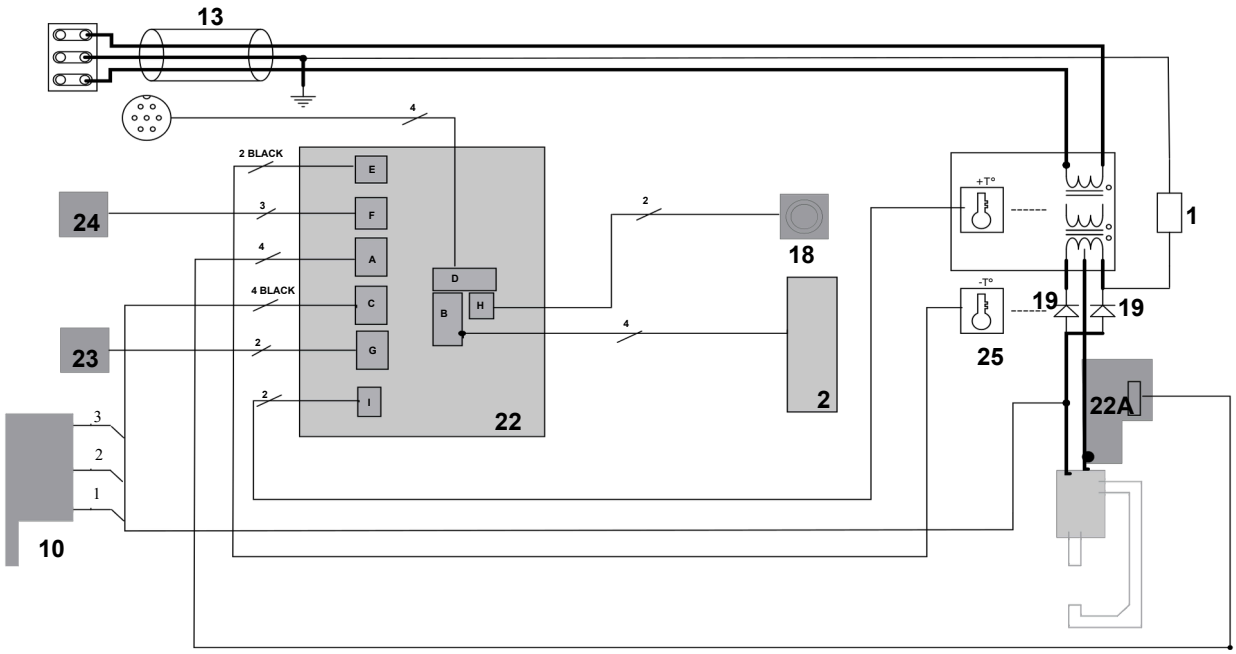
		RÉF	QTY
1	Resistance surélevée bobinée 47 ohms 5W / Raised coil resistance 47 ohms 5W / Erhöhter Spulenwiderstand 47 Ohm 5W / Resistencia de la bobina elevada 47 ohmios 5W	63137 55050 55057	1
2	Circuit voyant + BP pince PTI / LED circuit + PTI clamp / Schalter + BP PTI-Zange / Circuito indicador + Pinza PTI BP / Circuit lampje + BP klem PTI / Circuito indicatore + morsetto PTI PB	E0239C	1
3	Socle interchangeable connexion bras pince G / Interchangeable base with clamp arm connection G / Austauschbare Basis für G-Klemmarmanschluss / Base intercambiable para la conexión del brazo de la pinza G	90976	1
4	Joint torique 13x1 FKM VERT- 70SHORE / O-ring seal 13x1 FKM GREEN- 70SHORE / O-Ring 13x1 FKM GRÜN70SHORE / Junta tórica 13x1 FKM VERDE- 70SHO	55227	1
5	Joint torique 7x1 NBR 70SH / O-ring 7x1 NBR 70SH / O-Ring 7x1 NBR 70SH / Junta tórica 7x1 NBR 70SH	71125	1
6	Joint torique 10x2 NBR 70SH / O-ring 10x2 NBR 70SH / O-Ring 10x2 NBR 70SH / Junta tórica 10x2 NBR 70SH	55179	1
7	Protection raccord connecteur pince G / Protection for connector-clamp connection G / Schutz für G-Clamp-Verbindungsstück / Protección para el racor de la abrazadera G	56278	1
8	Shunt pince PTI GENIUS IND B / Shunt clamp PTI GENIUS IND B / Nebenschlussklemme PTI GENIUS IND B / Pinza de derivación PTI GENIUS IND B	77096	2
9	Tuyau coupé 71859 / 220mm / Cut pipe 71859 / 220mm / Rohr schneiden 71859 / 220mm / Tubo cortado 71859 / 220mm	F0116	1
10	Potentiomètre linéaire 3.4Kohm / Linear potentiometer 3.4Kohm / Lineares Potentiometer 3,4Kohm / Potenciómetro lineal 3,4Kohm	63090	1
11	Gaine tissée de Protection - Diam=57mm qté en mètre / Protective woven sheath - Diam=57mm / Gewebter Schutzmantel - Durchm=57mm / Funda protectora tejida - Diam=57mm	11251	6
12	Collier de serrage à vis 40-60 / Screw clamp 40-60 / Schraubzwinge 40-60 / Abrazadera de tornillo 40-60 /	71195	1
13	Cable de puissance / Power cable / Netzkabel / Cable de alimentación	94349	1
14	Coque B - PTI-G / Hull B - PTI-G / Rumpf B - PTI-G / Casco B - PTI-G	56248	1
15	Verrou Gyro Pince G / Bolt Gyro Pliers G / Schraube Gyro-Klemme G / Perno Abrazadera giroscópica G	93841	1
16	Coque A - PTI-G / Hull A - PTI-G / Rumpf A - PTI-G / Casco A - PTI-G	M0719	1
18	Prise jack mono femelle 6.35mm & Bouchon anti-poussière pour connecteur jack 6.35 / 6.35mm mono female jack plug & Dust cap for 6.35mm jack connector / 6,35-mm-Mono-Klinkenbuchse & Staubkappe für 6,35-Klinkenstecker / Clavija hembra mono de 6,35 mm y tapa antipolvo para conector jack de 6,35 Diode de puissance / Power diode / Leistungsdiode / Diodo de potencia	71251	1
19	Pince PTI-G 220V / PTI-G 220V clamp / Zange PTI-G 220V / Pinza PTI-G 220V	52148	2
20	Faisceau + Pince PTI-G 220V / Bundle + Clamp PTI-G 220V / Kabelbaum + Zange PTI-G 220V / Viga + Pinza PTI-G 220V	S81189	1
21	Circuit pince + mesure de courant PTI GENIUS PLUS / PTI GENIUS PLUS clamp circuit / Klemmenschaltung PTI GENIUS PLUS / Circuito de la pinza PTI GENIUS PLUS / Circuit klem PTI GENIUS PLUS / PTI Circuito a pinza GENIUS PLUS	S81186	1
22	Bouton poussoir rond noir + voyant	E0240	1
23	Interrupteur à bascule	51310	1
24	Thermistance CTN 10K	63170	1
25	Poignée amovible	52105	1
26	Corps avant complet	72069	1
27	Boite de 6 Caps bombés Type A	078765	1
28	Allonge	77027	1
29	Joint	90284	1
30	Tuyau jaune D=4mm 600mm	55121	1
31	Tuyau Bleu D=8mm 5950mm	F1323	1
32	Tuyau Bleu D=10mm 6200mm	F1317	1
33	Tuyau Rouge D=10mm 6200mm	F1305	1
34	Câble de commande 6250mm	F1306	1
35		F1303	1

CIRCUIT DIAGRAM / SCHALTPLAN / DIAGRAMA ELECTRICO / ЭЛЕКТРИЧЕСКАЯ СХЕМА / ELEKTRISCHE SCHEMA / SCEMA ELETTRICO

Schéma électrique de la pince



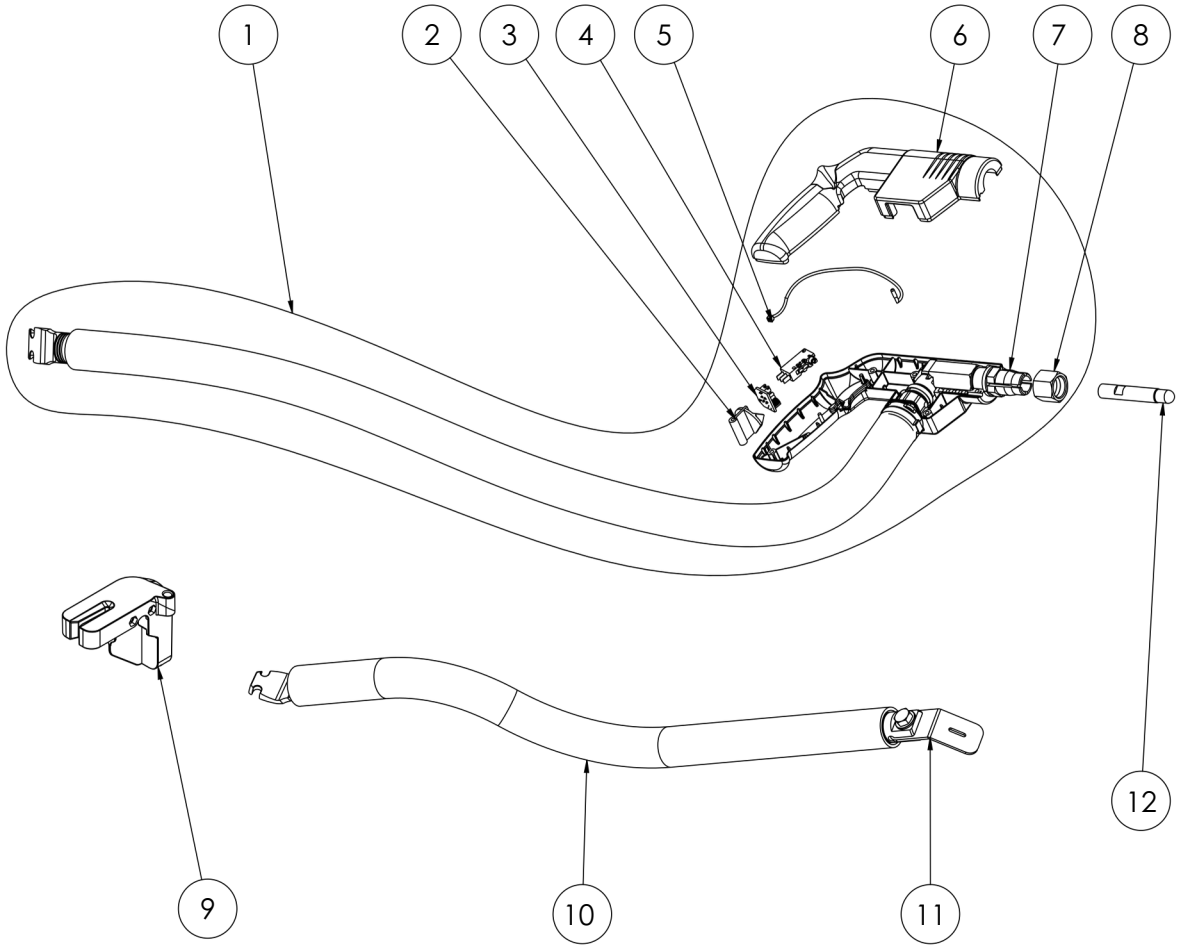
16. PIÈCES DE RECHANGE ET ACCESSOIRES PISTOLET / SPARE PARTS AND ACCESSORIES GUN / ERSATZTEILE UND ZUBEHÖR PISTOLE / REPUESTOS Y ACCESORIOS PISTOLA / RESERVEONDERDELEN EN ACCESSOIRES VOOR PISTOLEN / RICAMBI E ACCESSORI PER PISTOLE

Accéder à la liste des pièces détachées des bras :

Depuis la page produit SAV : 063419 - Bras G
En cliquant sur le lien : ~~Nomenclature Bras G~~
En scannant le QR-Code :

Access the arms spare parts list :

From the After-Sales Service product page : 063419 - G Arm
By clicking on the link : ~~G arms spare parts~~
By scanning the QR-Code :



N°	Désignation	Réf.
1	Câble pistolet Quick fix complet / Quick fix gun cable complete / Pistolenkabel Quick fix komplett / Cable completo de la pistola Quick Fix / Kabel pistool Quick fix compleet / Cavo per pistola a fissaggio rapido completo	A0334
2	Cale plastique pour carte électronique / Plastic wedge for electronic board / Plastikkeil für die Platine / Bloque de plástico para tarjeta electrónica / Kunststoffen wig voor elektronische kaart / Cuneo in plastica per scheda elettronica	J0177
3	Carte électronique / Electronic board / Elektronikplatine / Tarjeta electrónica / Print plaat / Scheda elettrica	E0237C
4	Switch pistolet 0.1A 125V AC / Gun switch 0.1A 125V AC / Schalter Pistole 0,1 A 125 V AC / Interruptor de la pistola 0.1A 125V AC / Switch pistool 0.1A 125V AC / Switch pistola 0,1A 125V CA	77053 ou 053267
5	Sonde thermique + connecteur / Thermal probe + connector / Temperaturfühler + Anschluss / Sonda térmica + conector / Temperatuursensor + aansluiting / Sonda termica + connettore	21775
6	Coques pistolet monopoint / Single point pistol hulls / Stoßpunkter-Pistolenschalen / Carcasas de la pistola monopunto / Behuizing enkelpunts pistool / Gusci pistola a punta singola	S81050
7	Mandrin (avec ecrou) / Chuck (with nut) / Werkzeugaufnahme(mit Mutter) / Portaelectrodos (con tuerca) / Boorhouder (met moer) / Mandrino (con dado)	90370 (048188)
8	Ecrou pour mandrin Gyspot / Nut for Gyspot / chuck / Mutter für Gyspot-Futter / Tuerca aseguradora para Gyspot / Moer voor boorkop Gyspot / Dado per mandrino Gyspot	90140
9	Support faisceau / Beam support / Kabelbaumhalter / Soporte / Kabel-houder / Supporto cablaggio	56340
10	Câble masse Quick fix / Ground cable Quick fix / Massekabel Quick fix / Cable de masa Quick Fix / Massa-kabel Quick fix / Cavo di terra Quick fix	A0333
11	Plaque cuivre masse / Ground copper plate / Kupferplatte Masse / Placa de masa / Koperen massa-plaatje / Placca di massa in rame	91997
12	Caps type F / Caps type F / Kappen Typ F / Caps de tipo F / Caps type F / Cap tipo F	77028

ICONOS / SYMBOLS / ZEICHENERKLÄRUNG / ICONOS

	- Attention ! Lire le manuel d'instruction avant utilisation. - Warning ! Read the instructions manual before use. - Внимание! Прочтите инструкцию перед использованием - ¡Cuidado! Lea el manual de instrucciones antes de su uso. - Let op! Lees voor gebruik aandachtig de gebruiksaanwijzing door. - Attenzione! Leggere il manuale d'istruzioni prima dell'uso.
	Courant de soudage continu - Direct welding current - Gleichschweißstrom - Corriente de soldadura continua. - Постоянный сварочный ток - Gelijkstroom
A	Ampères - Amperes - Ampere - Amperios - Амперы - Ampère - Amper - Ampère
V	Volt - Volt - Volt - Voltio - Вольт - Volt
Hz	Hertz
3 ~	- Alimentation électrique triphasée 50 ou 60Hz. - Three-phase power supply 50 or 60Hz - Dreiphasige Netzversorgung mit 50 oder 60 Hz - Alimentación eléctrica trifásica 50 o 60Hz - Трехфазное электропитание 50 или 60Гц - Driefasen elektrische voeding 50 of 60Hz - Alimentazione elettrica trifase 50 o 60Hz.
U 1N	- Tension d'alimentation assignée - Instructed supply voltage - Versorgungsspannung - Tensión de alimentación asignada - Номинальное напряжение питания - Nominale voedingsspanning
S P	- Puissance permanente (au facteur de marche de 100%) - Permanent power (at a 100% duty cycle) - Dauerleistung (Einschaltdauer @100%) - Potencia permanente (al ciclo de trabajo de 100%) - Постоянная мощность (при ПВ 100%) - Permanent vermogen (bij een inschakelduur van 100%)
S 50	- Puissance à 50% de facteur de marche - Power at 50% duty cycle - Leistung bei Einschaltdauer @ 50% - Potencia al 50 % del ciclo de trabajo - Мощность при ПВ 50 % - Vermogen bij 50% van de inschakelduur.
U 2d	- Tension continue à vide - Continued no load voltage - Leerlaufspannung - Tensión continua en vacío - Постоянное напряжение холостого хода - DC nullastspanning
I 2CC	- Courant maximal de court-circuit secondaire - Maximal current of a secondary short circuit - Maximaler, sekundärseitiger Kurzschlussstrom - Corriente máxima de cortocircuito secundario - Максимальный ток короткого замыкания на вторичке - Secondaire maximale kortsluitingsstroomsterkte
I 2 P	- Courant permanent au secondaire - Permanent current to secondary - Sekundärseitiger Dauerstrom - Corriente permanente en el secundario - Постоянный ток на вторичке - Permanente secondaire stroom
e	- Plage d'écartement des bras - Arm aperture dimension - Abstandsbereich der Arme - Rango de separación de los brazos - Расстояние разжимания между электродами плеча - Spreidingsbereik armen
l	- Plage de longueur des bras - Arm length dimension - Längenbereich der Arme - Zona de longitud de brazos - Пределы длины плеч - Lengtebereik armen
F max	- Force maximale de soudage - Maximum welding force - Maximale Schweißkraft - Fuerza máxima de soldadura - Максимальная сила сварки - Maximale laskracht
P1 min	- Pression d'alimentation minimale - Minimum input pressure - Minimaler Versorgungsdruck - Presión mínima de alimentación - Минимальное давление подачи - Minimale voedingsdruk
P1 max	- Pression d'alimentation maximale - Maximum input pressure - Maximaler Versorgungsdruck - Presión máxima de alimentación - Максимальное давление подачи - Maximale voedingsdruk
Q	- Débit assigné du fluide de refroidissement - Cooling liquid debit instructed - Nominaler Kühlflüssigkeitsdurchfluss - Caudal asignado del fluido de refrigeración - Номинальный расход охлаждающей жидкости - Nominale toevoer koelvloeistof
Δp	- Perte de charge assignée du fluide de refroidissement - Loss of charge of the cooling liquid instructed - Nominaler Druckverlust der Kühlflüssigkeit<s - Pérdida de carga asignada del fluido de refrigeración - Номинальная потеря зарядки охлаждающей жидкости - Nominaal verlies koelvloeistof
m	- Masse de la machine - Mass of the machine - Gewicht des Geräts - Masa de la máquina - Масса аппарата - Gewicht van het apparaat
	- Groupe froid - Cooling unit - Kühleinheit - Grupo de refrigeración - Система охлаждения - Koelgroep
	Sortie d'eau - Water outlet - Kühlmittelausgang - Salida de agua - Выход жидкости - Uitgang water
	Entrée d'eau - Water inlet - Kühlmitteleingang - Entrada de agua - Вход жидкости - Ingang water
MAXI	Niveau maximum d'eau - Maximum water level - Maximaler Kühlmittelstand - Nivel máximo de agua - Максимальный уровень жидкости - Maximale waterniveau
MINI	Niveau minimum d'eau - Minimum water level - Minimaler Kühlmittelstand - Nivel mínimo de agua - Минимальный уровень жидкости - Minimale waterniveau
	Les porteurs de pacemaker ne doivent pas rester à proximité de cet appareil. / People wearing pacemakers are advised to not come close to the machine. / Personen mit Herzschrittmacher müssen nicht in der Nähe dieser Produket bleiben. / Personas utilizando estimuladores cardiacos no deben dejar cerca de este aparato. / Dragers van een pacemaker mogen niet in de buurt van het apparaat verblijven. / Os pcesos de pacemaker naõ podem ficar em proximidade do appareillo. / Лица, использующие электрокардиостимуляторы, не должны находиться вблизи данного аппарата.
	Attention ! Champ magnétique important. Les personnes porteuses d' implants actifs ou passifs doivent êtres informées. - Warning! Major magnetic field. Persons with active or passive implants must be informed.- - Achtung! Starkes Magnetfeld. Personen, die aktive oder passive Implantate tragen, müssen informiert werden. - ¡Atención! Campo magnético importante. Las personas que lleven implantes pasivos o activos deben informarse. - Let op! Sterk magnetisch veld. Dragers van actieve of passieve implantaten moeten worden geïnformeerd.- Внимание! Сильное магнитное поле. Лица, имеющие активные или пассивные имплантаты должны быть информированы.
	Ne pas utiliser l'appareil en plein air. Ne pas utiliser l'appareil sous des projections d'eau. - Do not use the machine in the open air. Do not project water onto the machine. - Gerät nicht in Außenbereichen verwenden. Gerät nicht ohne Schutz gegen Nässe verwenden. - No utilice la herramienta al aire libre. No utilice el aparato bajo proyecciones de agua. - Gebruik het apparaat niet in de open lucht. Het apparaat niet gebruiken onder spattend water. - Не используйте аппарат на улице. Не используйте аппарат под брызгами воды.

CE	- Matériel conforme aux directives européennes. La déclaration UE de conformité est disponible sur notre site (voir à la page de couverture). - Device complies with Europeans directives. The EU Declaration of Conformity is available on our website (see cover page). - Die Geräte entsprechen die europäischen Richtlinien. Die Konformitätserklärung finden Sie auf unsere Webseite. - Aparato conforme a las directivas europeas. La declaración de conformidad UE está disponible en nuestra página web (dirección en la portada). - Устройство соответствует директивам Евросоюза. Декларация UE о соответствии доступна для просмотра на нашем сайте (ссылка на обложке). - Apparaat in overeenstemming met de Europese richtlijnen. De E.U. verklaring van overeenstemming kunt u downloaden op onze website (adres vermeld op de omslag). - Dispositivo conforme alle direttive europee La dichiarazione UE di conformità è disponibile sul nostro sito internet (vedere alla pagina di copertina). - Matériel conforme aux normes Marocaines. La déclaration C$_{م}$) CMIM) de conformité est disponible sur notre site (voir à la page de couverture).
	- Equipment in conformity with Moroccan standards. The declaration C$_{م}$) CMIM) of conformity is available on our website (see cover page). - Das Gerät entspricht die marokkanischen Standards. Die Konformitätserklärung C$_{م}$) CMIM) ist auf unserer Webseite verfügbar (siehe Titelseite). - Equipamiento conforme a las normas marroquíes. La declaración de conformidad C$_{م}$) CMIM) está disponible en nuestra página web (ver página de portada). - Товар соответствует нормам Марокко. Декларация C$_{م}$) CMIM) доступна для скачивания на нашем сайте (см на титульной странице). - Dit materiaal voldoet aan de Marokkaanse normen. De verklaring C$_{م}$) CMIM) van overeenstemming is beschikbaar op onze internet site (vermeld op de omslag). - Materiale conforme alle normative marocchine. La dichiarazione C$_{م}$) CMIM) di conformità è disponibile sul nostro sito (vedi scheda del prodotto)
IEC 62135-1 ISO 669:2016	La source de courant de soudage est conforme aux normes IEC62135-1 et EN ISO 669. - This welding machine is compliant with standard IEC62135-1 et EN ISO 669. - Das Gerät entspricht der Norm IEC62135-1 und EN ISO 669 für Schweißgeräte. - La fuente de corriente de soldadura es conforme a las normas IEC62135-1 y EN ISO 669. - Источник сварочного тока отвечает нормам IEC62135-1 и EN ISO 669. - De lasstroombron is in overeenstemming met de normen IEC62135-1 en EN ISO 669.
	L'appareil respecte la directive 2013/35/UE. - The machine is compliant with standard 2013/35/EU. - Das Gerät entspricht der Richtlinie 2013/35/UE. - El aparato se ajusta a la Directiva 2013/35/UE. - Аппарат отвечает директиве 2013/35/UE. - Het apparaat voldoet aan de richtlijn 2013/35/UE.
	- Ce matériel fait l'objet d'une collecte sélective selon la directive européenne 2012/19/UE. Ne pas jeter dans une poubelle domestique ! - This hardware is subject to waste collection according to the European directives 2002/96/UE. Do not throw away in a household bin! - Für die Entsorgung Ihres Gerätes gelten besondere Bestimmungen (sondermüll) gemäß europäische Bestimmung 2012/19/EU. Es darf nicht mit dem Hausmüll entsorgt werden. - Este material requiere una recogida de basuras selectiva según la directiva europea 2012/19/UE. ¡No tirar este producto a la basura doméstica! - Это оборудование подлежит переработке согласно директиве Евросоюза 2012/19/UE. Не выбрасывать в общий мусоросборник! - Afzonderlijke inzameling vereist volgens de Europese richtlijn 2012/19/UE. Gooi het apparaat niet bij het huishoudelijk afval ! - Questo dispositivo è oggetto di raccolta differenziata secondo la direttiva europea 2012/19/UE. Non smaltire con i rifiuti domestici.
	- Produit recyclable qui relève d'une consigne de tri. - This product should be recycled appropriately - Recyclingprodukt, das gesondert entsorgt werden muss. - Producto reciclable que requiere una separación determinada. - Этот аппарат подлежит утилизации. - Product recyclebaar, niet bij het huishoudelijk afval gooien. - Prodotto riciclabile soggetto a raccolta differenziata.
EAC	- Marque de conformité EAC (Communauté économique Eurasienne). - EAEC Conformity marking (Eurasian Economic Community). - EAC-Konformitätszeichen (Eurasische Wirtschaftsgemeinschaft) - Marca de conformidad EAC (Comunidad económica euroasiática). - Знак соответствия EAC (Евразийское экономическое сообщество). - EAC (Euraziatische Economische Gemeenschap) merkteken van overeenstemming - Marchio di conformità EAC (Comunità economica Eurasiatica).
UK CA	- Matériel conforme aux exigences britanniques. La déclaration de conformité britannique est disponible sur notre site (voir à la page de couverture). - Equipment in compliance with British requirements. The British Declaration of Conformity is available on our website (see home page). - Das Gerät entspricht den britischen Richtlinien und Normen. Die Konformitätserklärung für Grossbritannien ist auf unserer Internetseite verfügbar (siehe Titelseite). - Equipo conforme a los requisitos británicos. La Declaración de Conformidad Británica está disponible en nuestra página web (véase la portada). - Материал соответствует требованиям Великобритании. Заявление о соответствии для Великобритании доступно на нашем веб-сайте (см. главную страницу). - Materiaal conform aan de Britse eisen. De Britse verklaring van overeenkomt is beschikbaar op onze website (zie omslagpagina). - Materiale conforme alla esigenze britanniche. La dichiarazione di conformità britannica è disponibile sul nostro sito (vedere pagina di copertina).
	- Information sur la température (protection thermique). - Temperature information (thermal protection) - Information zur Temperatur (Thermoschutz) - Información sobre la temperatura (protección térmica) - Информация по температуре (термозащита). - Informatie over de temperatuur (thermische beveiliging). - Informazioni sulla temperatura (protezione termica).
	FR Matériel conforme aux exigences chinoises sur l'utilisation restreinte de substances dangereuses dans les produits électriques et électroniques. EN Equipment complying with Chinese requirements on the restricted use of hazardous substances in electrical and electronic products. DE Material, das den chinesischen Anforderungen zur eingeschränkte Verwendung gefährlicher Substanzen in elektrischen und elektronischen Produkten entspricht. ES Equipos que cumplen los requisitos chinos sobre el uso restringido de sustancias peligrosas en productos eléctricos y electrónicos. RU Оборудование, соответствующее китайским требованиям по ограниченному использованию опасных веществ в электрических и электронных изделиях. NL Apparatuur die voldoet aan de Chinese vereisten voor het beperkte gebruik van gevaarlijke stoffen in elektrische en elektronische producten. IT Apparecchiature conformi ai requisiti cinesi sull'uso limitato di sostanze pericolose nei prodotti elettrici ed elettronici. PL Sprzęt zgodny z wymogami dotyczącymi ograniczonego stosowania niebezpiecznych substancji w produktach elektrycznych i elektronicznych.

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