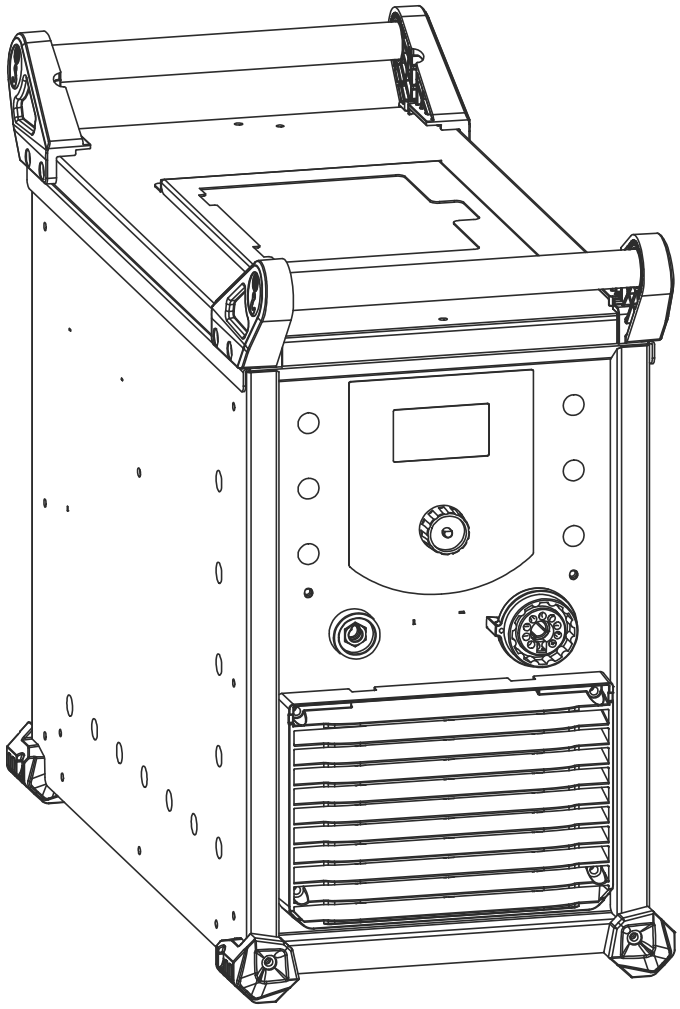

NEOCUT 105

Découpeur plasma triphasé
Three-phase plasma cutter
Dreiphasiges Plasmaschneidgerät
Cortador al plasma trifásico
Трехфазный аппарат плазменной резки
Driefasen Plasmasnijder
Macchine da taglio plasma trifase

73502_V1_09/07/2020

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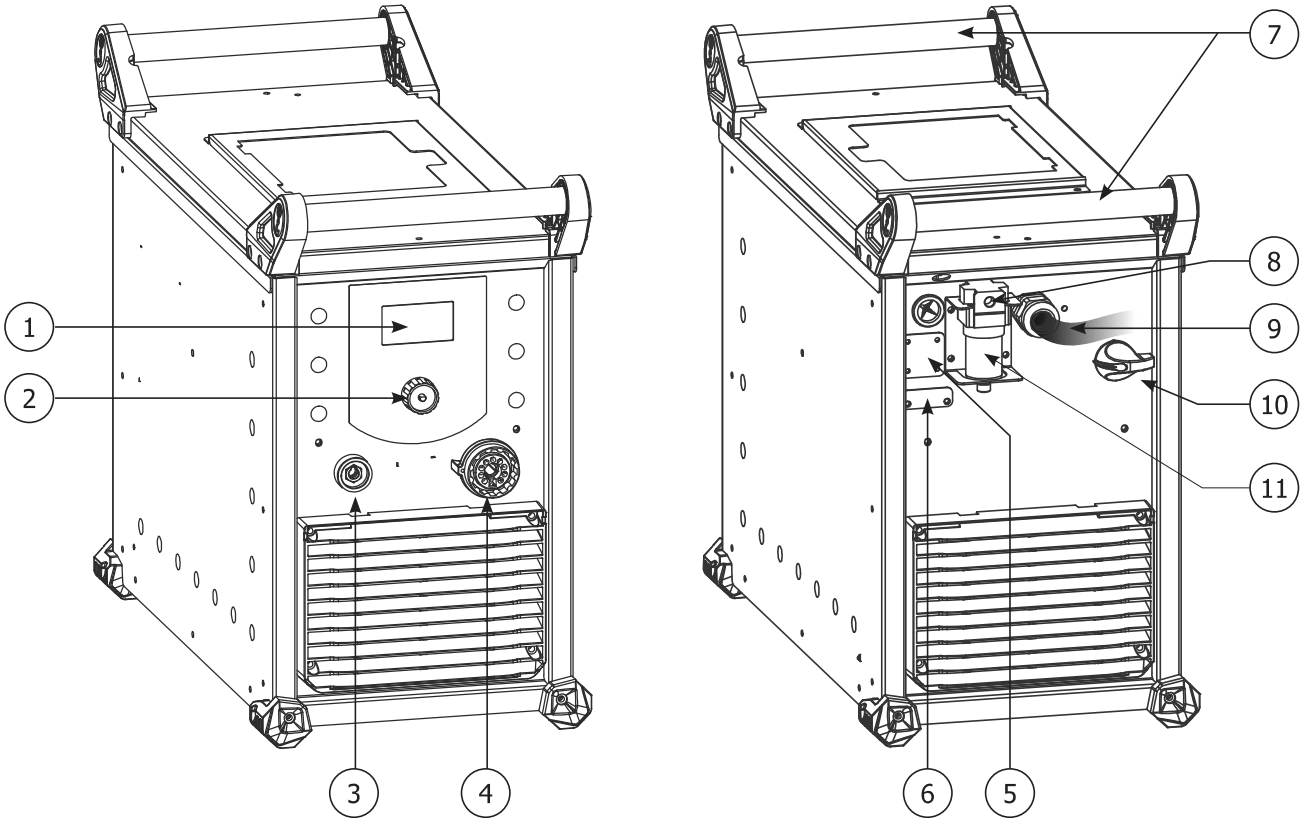
FIG-1



SAFETY INSTRUCTIONS

GENERAL INSTRUCTIONS

Read and understand the following safety instructions before use.
Any modification or updates that are not specified in the instruction's manual should not be undertaken.

The manufacturer is not liable for any injury or damage due to a non-compliance with the instructions featured in this manual.
In the event of problems or uncertainties, please consult a qualified person to handle the installation properly.

ENVIRONMENT

This equipment must be used for cutting operations in accordance with the limits indicated on the descriptive panel and/or in the user manual. Safety instructions must be followed. In case of improper or unsafe use, the manufacturer cannot be held liable.

This equipment must be used and stored in a room free from dust, acid, flammable gas or any other corrosive agent. Operate the machine in an open, or well-ventilated area.

Operating temperature:
Use between -10 and +40°C (+14 and +104°F).

Storage between -20 and +55°C (-4 and 131°F).
Air humidity:
Lower or equal to 50% at 40°C (104°F).

Lower or equal to 90% at 20°C (68°F).
Altitude:
Up to 1000 meters above sea level (3280 feet).

INDIVIDUAL PROTECTION & OTHERS

Cutting can be dangerous and cause severe injuries.
Cutting exposes individuals to a dangerous source of heat, arc rays, electromagnetic fields (special precautions need to be taken by people that have a pacemaker), risk of electrocution, noise and gas fumes.
To protect oneself as well as others, ensure the following safety precautions are taken:

In order to protect you from burns and radiations, wear clothing without turn-ups or cuffs. These clothes must be insulating, dry, fireproof, in good condition and cover the whole body.

Wear protective gloves whichprovide electrical and thermal insulation.

Use sufficient cutting protective gear for the whole body: hood, gloves, jacket, trousers...(varies depending on the application/ operation) Protect the eyes during cleaning operations. Contact lenses are prohibited during use.

It may be necessary to install fireproof welding curtains in order to protect against safety hazards such as arc rays, weld spatters and sparks.
Ensure that people around the cutting area do not look at the arc or the molten metal and wear protective clothes.

Ensure ear protection is worn by the operator if the work exceeds the authorised noise limit (the same applies to any person in the welding area).

Keep hands, hair and clothes away from moving parts such as fans, and motors.
Never remove the safety covers from the cooling unit when the machine is plugged in. The manufacturer is not liable for any injury or damage caused due to non-compliance with the safety precautions.

Parts that have previously been cut will be hot and may cause burns if touched. If maintenance of the torch is required, ensure that it is given sufficient time to cool down by waiting at least 10 minutes. When using a water-cooled torch, make sure that the cooling unit is switched on to avoid any burns that could potentially be caused by the liquid.
It is important to secure the working area before leaving it to ensure protection of the goods and the safety of people.

WELDING FUMES AND GAS

The fumes, gas and dust generated by cutting are a potential health hazard. It is mandatory to ensure adequate ventilation and/or extraction to keep fumes and gas away from the work area. Using an air fed welding helmet is recommended in case of insufficient ventilation in the workplace.
Check that the air supply is effective by referring to the recommended safety regulations.

When cutting in small areas, operators must be supervised from a safe distance. Cutting certain materials containing lead, cadmium, zinc, mercury or beryllium can be particularly hazardous. It is also recommended to degrease the parts before cutting them.
Gas cylinders must be stored in an open or ventilated area. They must be stored vertically and held by a support or trolley to limit the risk of fall. Do not cut in areas where grease or paint are stored.

FIRE AND EXPLOSION RISKS

Protect the entire working area and ensure that flammable items are stored at a distance of at least 11 meters.
Fire extinguishing equipment must be kept in close proximity when cutting materials.

Be careful of weld spatter and sparks, even through cracks. If not careful then this could potentially lead to a fire or an explosion.
Keep people, flammable materials/objects and containers that are under pressure at a safe distance.
Cutting in containers or pipes should be avoided and, if they are open, then flammable or explosive materials must be removed (oil, fuel, gas...).
Grinding operations should not be carried out close to the power supply or flammable materials.

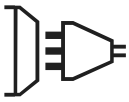
ELECTRICAL SAFETY

The electrical mains used must have an earth terminal. Use the recommended fuse size.
An electric shock could cause serious injuries or potentially even deadly accidents.

Do not touch any live part of the machine (inside or outside) when it is plugged in (Torches, cables, clamps) because they are connected to the cutting circuit.
Before opening the device, it is imperative to disconnect it from the mains and wait 2 minutes, so that all the capacitors are discharged.
Damaged cables and torches must be changed by a qualified technician. Make sure that the cable cross section is adequate with the usage (extensions and welding cables). Always wear clothing that is dry and in good condition in order to shield yourself from the cutting circuit. Wear insulating shoes, regardless of the workplace/environment in which you work in.

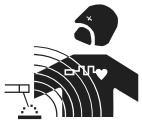
EMC MATERIAL CLASSIFICATION

This Class A machine is not intended to be used on a residential site where the electric current is supplied by the domestic low-voltage power grid. There may be potential difficulties in ensuring electromagnetic compatibility at these sites, due to conducted interferences as well as radiation.



This equipment complies with the IEC 61000-3-11 standard.
This equipment does not comply with IEC 61000-3-12 and is intended to be connected to private low-voltage systems interfacing with the public power grid only at the medium- or high-voltage level. If connected to a public low-voltage power grid, the installer or user of the machine has to ensure, by checking with the network operator, that the device can be connected.

ELECTROMAGNETIC INTERFERENCES



The electric current flowing through any conductor causes electrical and magnetic fields (EMF). The cutting current generates an EMF around the cutting circuit and the cutting equipment.

The EMF electromagnetic fields can interfere with certain medical implants, such as pacemakers. Protective measures must be taken for people having medical implants. For example, by restricting access to passers-by or conducting an individual risk evaluation for the users.

All users should take the following precautions in order to minimise exposure to the electromagnetic fields (EMF) generated by the cutting circuit:
- position the cutting cables together - if possible, attach them;
- keep your head and upper body as far as possible from the cutting circuit;
- never wrap the cable around your body;
- Never position your body between the cables. Hold both cutting cables on the same side of your body;
- Connect the earth clamp as close as possible to the area being cut;
- do not work too close to, do not lean and do not sit on the cutting machine ;
- do not cut when you're carrying the machine.

People wearing pacemakers are advised to consult their doctor before using this device.
Exposure to electromagnetic fields while welding may have other health effects which are not yet identified.

RECOMMENDATIONS FOR WELDING AREA ASSESSMENT AND CUTTING

General points
The user is responsible for the installation and use of the arc cutting equipment according to the manufacturer's instructions. If electromagnetic disturbances are detected, the user is responsible for resolving the situation with the manufacturer's technical support. In certain cases, this corrective action may be as simple as earthing the cutting circuit. In other cases, it may be necessary to construct an electromagnetic shield around the cutting power source and around the entire piece by fitting input filters. In all cases, electromagnetic interferences must be reduced until they are no longer an issue.

Cutting area assessment
Before installing the machine, the operator must evaluate the possible electromagnetic problems that may arise in the area where the installation is planned. The following elements should be considered:
a) the presence (above below and next to the arc cutting machine) of other power cables, remote cables and telephone cables;
b) television transmitters and receivers;
c) computers and other hardware
d) critical safety equipment such as industrial machine protection;
e) the health and safety of the people in the area such as people with pacemakers or hearing aids;
f) calibration and measuring equipment;
g) the isolation of other pieces of equipment which are in the same area.
The operator has to ensure that the devices and equipment used in the same area are compatible with each other. This may require extra precautions;
h) the time of day during the welding or other activities have to be performed.

The dimension of the cutting area that has to be considered depends on the size and shape of the building and the type of work undertaken. The area taken into consideration might go beyond the limits of the installation.

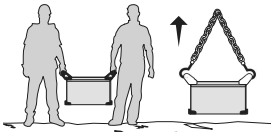
Cutting installation assessment
Besides the welding area, the assessment of the arc cutting system installation itself can be used to identify and resolve cases of distrubances The assessment of emissions must include in situ measurements as specified in Article 10 of CISPR 11: 2009. In situ measurements can also be used to confirm the effectiveness of mitigation measures.

RECOMMENDED METHODS TO REDUCE ELECTROMAGNETIC EMISSIONS

a. National power grid: the arc cutting machine must be connected to the national power grid in accordance with the manufacturer's recommendation. In case of interferenc, it may be necessary to take additional precautions such as the filtering of the power supply network. Consideration should be given to shield the power supply cable in a metal frame or equivalent from a permanent cutting installation. It is necessary to ensure the electrical continuity of the frame along its entire length. The frame should be connected to the cutting machine to ensure good electrical contact between the conduct and the casing of the cutting machine.
b. Maintenance of the arc cutting equipment: the arc cutting machine should be subject to a routine maintenance check according to the recommendations of the manufacturer. All accesses, service doors and covers should be closed and properly locked when the arc welding equipment is on. The arc cutting equipment must not be modified in any way, except for the changes and settings outlined in the manufacturer's instructions. The spark gap of the arc starts and arc stabilization devices must be adjusted and maintained according to manufacturer's recommendations.
c. Cutting cables: cables must be as short as possible, close to each other and close to the ground, if not on the ground.
d. Equipotential bonding: consideration should be given to bond all metal objects in the surrounding area. However, metal objects connected to the workpiece increase the risk of electric shock if the operator touches both the metal parts and the electrode. It is necessary to insulate the operator from such metal objects.
e. Earthing of the metal part to be cut : When the part is not earthed - due to electrical safety reasons or because of its size and its location (e.g. ship hulls or metallic building structures), the earthing of the part can, in some cases but systematically, reduce emissions. It is preferable to avoid the earthing of parts that could increase the risk of injury to the users or damage other electrical equipment. If necessary, it is appropriate that the earthing of the part is done directly, but in some countries that do not allow such direct connection, it is appropriate for the connection to be made with a capacitor selected according to national regulations.
f. Protection and shielding: The selective protection and shielding of other cables and devices in the area can reduce perturbation issues. The protection of the entire welding area can be considered for specific situations.

TRANSPORT AND TRANSIT OF THE CUTTING MACHINE

The machine is equipped with two handles to facilitate transport, which requires two people. Be careful not to underestimate the weight of the machine. The handle cannot be used to lift the product.



Do not use the cable or torch to move the machine. The cutting equipment must be moved in an upright position.
Do not place/carry the unit over people or objects.

EQUIPMENT INSTALLATION

• Put the machine on the floor (maximum incline of 10°)
• Provide an adequate area to ventilate the machine and access the controls.
• This equipment must be used and stored in a place protected from dust, acid, gas or any other corrosive substance.
The machine must be placed in a sheltered area away from rain or direct sunlight.
The equipment protection is rated IP23 meaning that:
- sensitive parts of the equipment are protected from objects with a diam >12.5 mm and,
- it is protected again rainfall with a 60° vertical incline.
The equipment can be used outside in accordance with the IP23 protection certification.
Power cables, extension leads and welding cables must be fully uncoiled to prevent overheating.

The manufacturer does not accept any liability in relation to damages caused to objects or harm caused to persons as the result of incorrect and/or dangerous use of the machine.

MAINTENANCE / RECOMMENDATIONS

• Maintenance should only be carried out by a qualified person. A yearly maintenance is recommended.
• Ensure the machine is unplugged from the mains, and then wait 2 minutes before carrying out maintenance work. Inside, voltages and currents are high and dangerous.

• Regularly check the condition of the power supply cable. If the power cable is damaged, it must be replaced by the manufacturer, its after sales service or an equally qualified person to prevent danger.
• Ensure the vents of the device are not blocked to allow adequate air circulation.
• Check that the torch does not have any cracks or exposed wires.
• Check that the consumables are installed properly and not worn.

Air filter maintenance :
Purge of the filter tank :
• Unplug the air supply.
• Loosen the valve in the lower part of the filter tank by turning it anticlockwise.
• Push the tap upwards to drain the water from the tank.
• Tighten the valve at the bottom of the filter tank by turning it clockwise.

Removing the filter element :
• Disconnect the air supply.
• Take hold of the tank and unscrew it from the body by turning it anticlockwise.
• The filter element (white) can be blown out or replaced depending on its condition.
Reassembling the filter element :
• Put the filter element back in the tank, check the presence of the O-ring in the upper part.
• Screw the tank back onto the body by turning it clockwise.

INSTALLATION – PRODUCT OPERATION

Only qualified personnel authorised by the manufacturer should perform the installation of the welding equipment. During the installation, the operator must ensure that the machine is disconnected from the mains.

MACHINE SUPPLIED WITH

	NEOCUT 105	
	Ref. 063044	Ref. 063112
4 m - 16 mm²	✓	✓
Pneumatic fittings	✓ 8 mm + 10 mm	✓ 8 mm + 10 mm
6 m	-	✓
Starting kit	-	✓

Accessories supplied with the generator are designed to be used on this machine only.

DESCRIPTION

NEOCUT 105 is a three-phase Plasma cutting & gouging machine, it will allow:
- Cutting on all metal types
- Gouging on all metal types
- Marking on all metal types
These 3 processes require the use of appropriate consumables as well as compressed air or nitrogen.

EQUIPMENT DESCRIPTION (FIG. 1 - PAGE 2)

1- Display screen
2- Adjustment knob
3- Earth clamp connection socket
4- Plasma torch connector
5- Installation door for analog CNC 1 connector (option, ref. 039988)
6- Installation door for digital CNC 2 connector (option, ref. 064737)
7- Transport handles.
8- Replacement for pneumatic connector
9- Power supply cable
10- On/off switch
11- Filter

POWER SUPPLY / POWER UP

• This machine is fitted with a 32 A socket type EN 60309-1 which must only be used on a three-phase 400 V (50 - 60 Hz) power supply fitted with four wires and one earthed neutral.
• This machine is fitted with a 32 A socket type EN 60309-1 which must only be used on a three-phase 400 V (50 - 60 Hz) power supply fitted with four wires and one earthed neutral.
• The machine is designed to work on a 400V +/- 15% power supply. If the input voltage is below 340Veff or above 460Veff, the machine goes into protection and the screen displays an error code.
• Power up the machine by setting the main on / off switch (FIG 1-10) to I position, and stop it by setting it on the 0 position.
Warning! Never disconnect the power supply while the machine is operating.

CONNECTION TO A GENERATOR

The machine can work with generators as long as the auxiliary power matches these requirements:
- The voltage must be AC, always be greater than 400Vac ±15%, and the peak voltage below 700V,
- The frequency must be between 50 and 60 Hz.
It is imperative to check these requirements, as many generators generate high voltage peaks that can damage these machines.

USE OF EXTENSION LEADS

All extension leads must have an adequate size and section, relative to the voltage of the machine.
Use an extension lead that complies with national safety regulations.

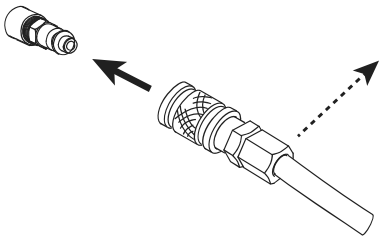
Voltage input	Extension lead section (<45m)
400 V	4 mm²

AIR SUPPLY

The air supply can come from a compressor or high-pressure bottles. A high-pressure manometer must be used on any type of air supply and must be able to transport the gas to the plasma cutter. These machines come with an integrated air filter (5µm), but an extra filtering system can be necessary depending on the quality of the air supply (optional impurities filter, ref. 039728).

If the supplied air is of low quality, the cutting speed is reduced, the cutting quality deteriorates, the maximum cutting capacity decreases and the life cycle of the consumables is reduced.

For best performance, the compressed air must comply with the standard ISO8573-1, class 1.2.2. The maximum steam point must be - 40 °C.
The maximum quantity of oil (aerosol, liquid and steam) must be 0.1 mg/m3.



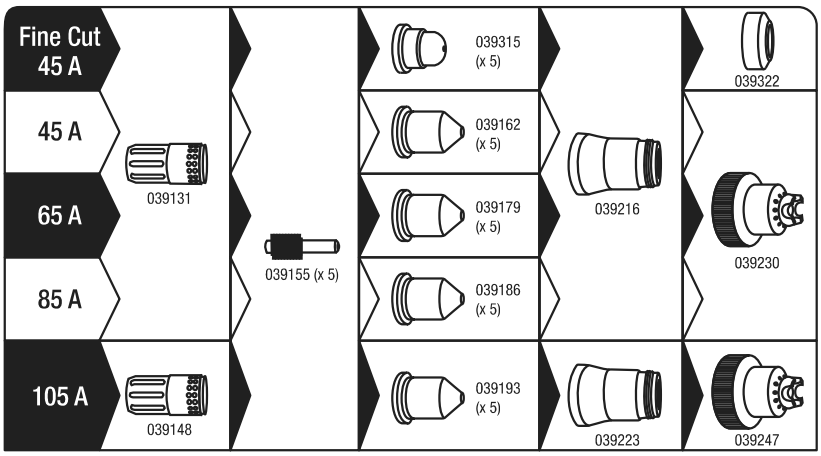
Connect the gas supply to the power source using an inert gas pipe with an internal diameter of 9.5 mm and a quick release connector.

The pressure must not exceed 9 bars, or the filter tank could explode.

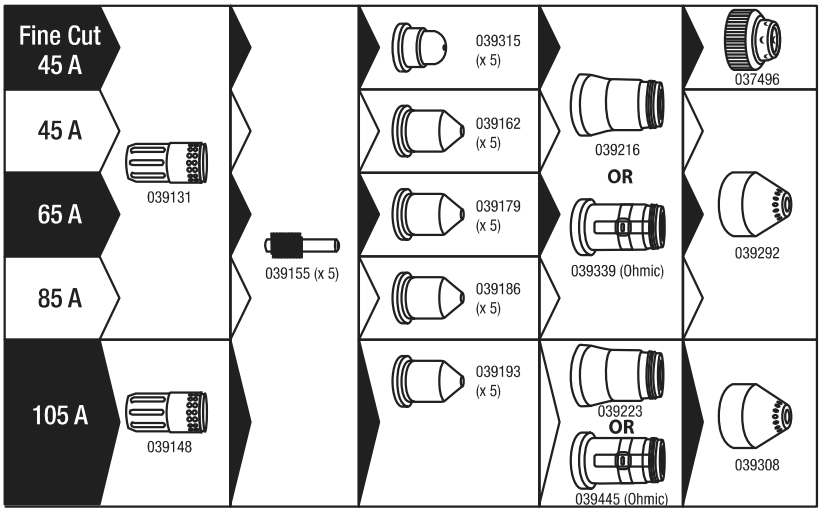
The recommended input pressure during air circulation is 5 to 9 bars with a minimum debit of 305 L/min.

CHOICE OF CONSUMABLES

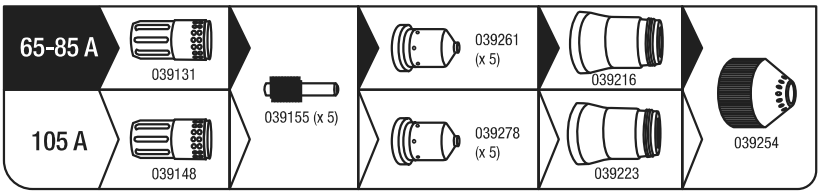
• **Manual cutting with torch MT 125** (6 m: ref. 039506, 12m: ref. 039513):



- **Automatic cutting with torch AT 125** (6 m: ref. 038479, 12 m: ref. 039520):



- **Gouging with torch MT 125** (6 m: ref. 039506, 12m: ref. 039513):



CUTTING CURRENT SETTINGS

In order to obtain the expected performance and to guarantee a long lifetime for the consumables, make sure the current is set in accordance with the value indicated on the consumable (e.g. 45 A = 45 amps).

Adjustment is simply done using the dial on the main screen.

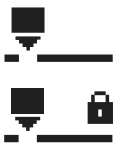
AIR PRESSURE ADJUSTMENT

The NEOCUT 105 is equipped with an electronicallycontrolled pressure regulator, the pressure is adjusted via the HMI (see following pages).
In order to obtain optimal performance and service life of the consumables, it is very important :
- To define the right torch length
- To use the adapted mode for the chosen consumables
- To use the appropriate current for the chosen consumables
- Leave the pressure setting on «auto».

It is recommended to check that the parameters entered on the HMI are in line with the actual configuration, especially in the case of:
- Connection point or pneumatic installation changes
- Torch length change
- Consumable type change
- Doubt.

It is possible to check the pneumatic circuit using the «air test» function, this allows, among other things, to check whether the pressure supplied by the compressor is sufficient (see following pages).

CUTTING MODE CHOICE



Cutting / cutting with locked trigger
Use one of these two modes to perform your cutting work on solid sheet metal.

Pull the trigger to create the arc, and release it to stop or «unlock» (the arc stops by itself).

For long cuts it is possible to use the locked trigger mode, in which case the trigger can be released during cutting. This mode prevents fatigue and keeps your hand a little further away from the cutting area.

Gouging / gouging with locked trigger
Use one of these two modes to perform your gouging work.
Pull the trigger to create the arc, and release it to stop or «unlock» (the arc stops by itself).

For long cuts it is possible to use the locked trigger mode, in which case the trigger can be released during cutting. This mode prevents fatigue and keeps your hand a little further away from the cutting area.

	Cutting of perforated metal sheets Use this mode to perform cutting work on perforated metal sheets that require repetitive cutting stops / restarts. This is a cutting mode where the arc recharges itself as long as the trigger is held down. This mode is more comfortable to use, as it avoids constant pull and release of the trigger.
M	**Marking out** This mode, compatible with all cutting consumables, operates at low current and allows surface marking of sheet metal. Particularly useful for automated cutting to record for example references, bundle numbers... this mode is also accessible with a manual torch.

FIRST START UP

At first startup, the machine will ask you to configure the following parameters:

1

Language

2

Units (m./bar or ft./psi)

3

Torch length assembled on the product

(!) Important setting for the correct operation of the product. This data is used by the power source to calculate and apply the optimum operating pressure.

Rotating the scroll wheel moves the cursor in front of the desired selection, pressing the scroll wheel validates the selection.
Note: In the event of an input error, these parameters can be changed (see Setup menu).

HMI NAVIGATION

SCROLL WHEEL USE

Turning the scroll wheel allows
- an adjustment of a digital parameter (current, pressure)
- moving the cursor to make a selection

Pressing the scroll wheel
- allows to confirm a selection (pointed by the cursor)
- access the toolbar from the main screen or from the pressure setting screen

MAIN SCREEN (CURRENT SETTING):

This screen is displayed as soon as the machine is started:
1- Operating mode
2- Current pressure*
3- Selected torch length
4- Current

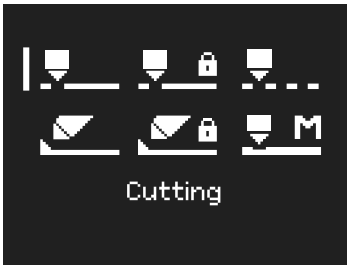
The current setting is made directly from this screen.

**An arrow pointing up or down may appear to the right of the pressure when the pressure has been incorrectly altered by the user, the arrow disappears when the set pressure is optimal or the pressure setting is set in «auto» mode.*

TOOLBAR (ACCESS VIA SCROLL WHEEL)

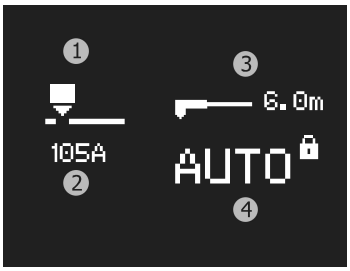
1- Access to the mode selection screen
2- Access to the main screen (current setting)
3- Accessing the pressure adjustment screen
4- Access to the Setup menu

MODE SELECTION



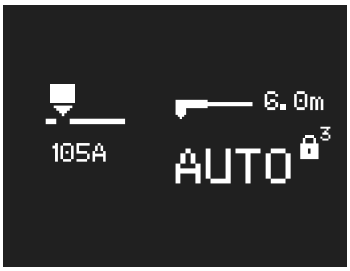
6 modes are available. To make the right choice, please refer to the chapter «mode selection».

PRESSURE ADJUSTMENT



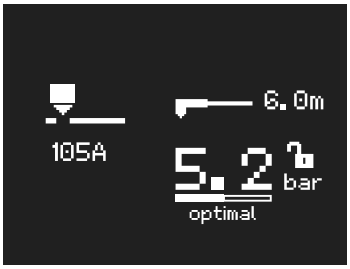
By default, the screen looks like this:
1- Operating mode
2- Current
3- Torch length
4- Pressure*

**Pressure is automatically locked as default (indicated by the inscription AUTO and the closed padlock): the machine takes care of setting the right pressure value according to various parameters (such as current, mode, torch length).*

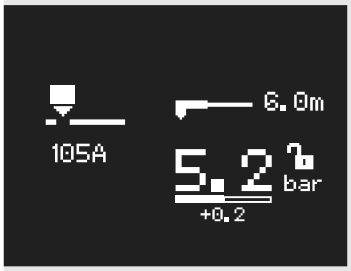


To switch the pressure setting to manual mode, a long press on the scroll wheel is required: a countdown will start next to the padlock.

Releasing the scroll wheel during the countdown cancels the pressure unlocking action.



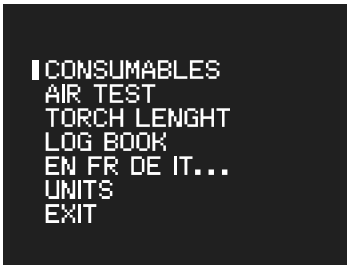
At the end of the countdown, the following screen will appear:
- the padlock is open (symbolizing that the adjustment is possible)
- the current pressure is displayed (the value corresponds to the value used in automatic mode)
- A bar-graph with a value gives the trend (the text «optimal» is displayed when the chosen value corresponds perfectly to the value that would be used in automatic mode).



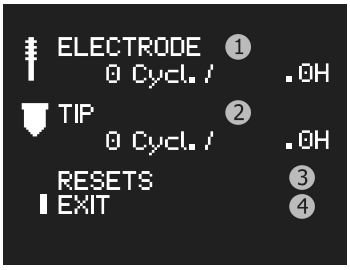
Example of a pressure setting higher than the optimum value of +0.2bar
To return to automatic setting, press and hold down the scroll wheel: a countdown will start next to the padlock.

At the end of the countdown, the setting will be in «AUTO» with the padlock locked.

« SETUP » MENU (access via scroll wheel)

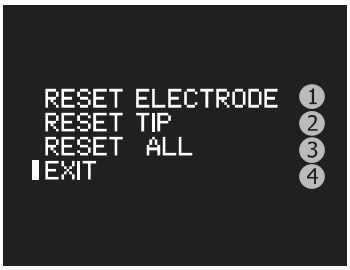


COUNTERS



This tool counts the number of cycles and the nozzle and electrode cutting time:
1- Number of cycles and cumulative use time of the electrode
2- Number of cycles and cumulative use time of the nozzle
3- Meter reset menu
4- Go back to the Setup menu

RESETTING THE COUNTERS



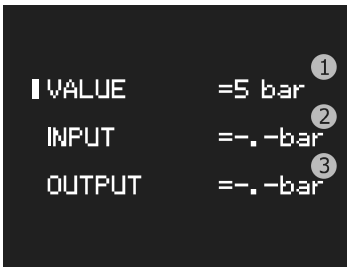
In order to have a representative count, it is necessary to reset the counter(s) of the consumable(s) being replaced.
The counter reset menu offers :

1- Zeroing of the electrode counters
2- Zeroing of the nozzle counters
3- Zeroing of all counters
4- Go back to the previous screen

To carry out a reset, select the desired line by turning the scroll wheel and press and hold down (a countdown is displayed to the right of the selected line), at the end of the countdown the selected line is reset to zero.
Releasing the scroll wheel during the countdown cancels the action.

Note: this function is to assist with monitoring the consumables for wear and tear. The user is not obliged to use this function and even less to reset the counters each time the consumable is changed (the machine does not lock up if the number of cycles or operating times is too high).

AIR TEST



This tool allows to force the air out of the power source to :
- purge the circuit in case of presence of moisture in the circuit.
- check whether the compressor performance is sufficient

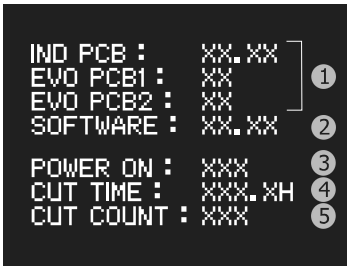
1- Test pressure adjustment
2- Display of the pressure at the product inlet
3- Product outlet pressure display

Pressing the scroll wheel turns off the air and returns to the Setup menu.

TORCH LENGTH

Allows to change the length of the torch
(!) Important setting for the correct product operation. This data is used by the power source to calculate and apply the optimum operating pressure.

LOG



Displayed in the logbook :
1- Version of the electronic boards
2- Version of the software
3- Number of times the machine was switched on
4- Total cutting time
5- Number of cutting cyclese

LANGUAGE

Allows you to change the current language

UNITS

Allows you to change the current units:
- SI units: torch length expressed in meters and pressure in bar
- Imperial units: torch length in feet and pressure in PSI

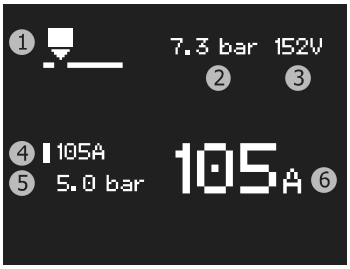
CUTTING SEQUENCE

1- When the trigger is pressed, the pilot-arc starts. It is a low power arc generated between the electrode and the nozzle and it allows the arc to start on the piece of metal to be cut.

2- When the pilot-arc touches the plate, the plasma cutter detects the start. The arc then flows between the electrode and the plate, and the machine increases the current up to the value set by the operator.

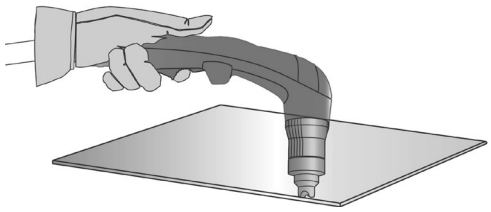
3- At the end of cutting (trigger release or unblocking), the arc stops, the air continues to come out for several dozens of seconds to cool the torch and consumables down.

DISPLAYED WHILE CUTTING

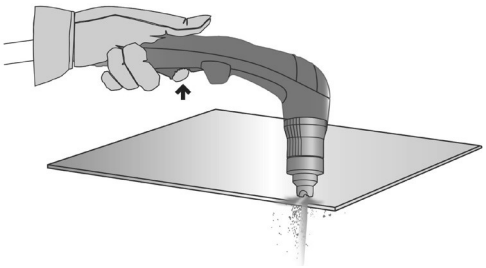


1- Current mode
2- Pressure coming in
3- Arc voltage
4- Current set
5- Pressure going out
6- Current measured

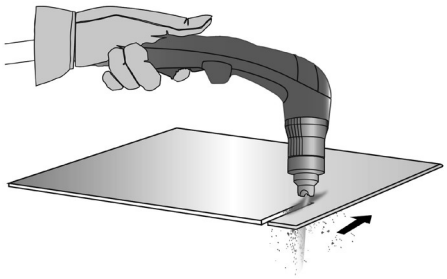
MANUAL CUT FROM THE EDGE OF THE WORKPIECE:



1 The earth clamp attached to the metal piece, hold the torch pad in perpendicular position (90°) to the end of the workpiece.

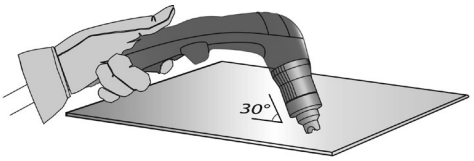


2 Pull the trigger of the torch to prime the arc until the torch has completely pass through the part.

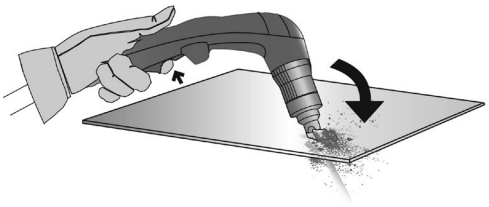


③ Once the cutting has started, drag the pad slightly on the metal sheet to continue cutting. Try to maintain a regular rhythm.

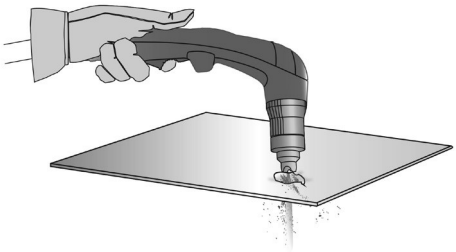
START CUTTING INSIDE THE METAL SHEET:



① With the earth clamp attached to the metal piece, maintain the torch at an angle of roughly 30° to the piece.



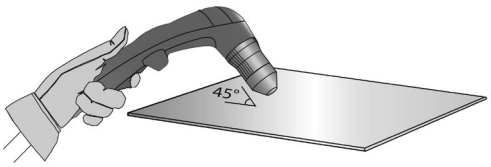
② Press the torch trigger to start the arc while maintaining an angle of 30° to the part. Slowly rotate the torch towards a perpendicular position (90°).



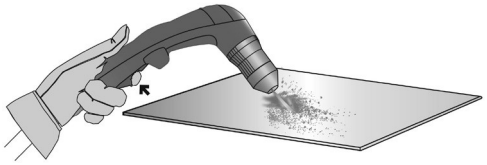
③ Immobilise the torch while keeping the trigger pressed. If the sparks come from below the metal piece, the arc has cut the material.

④ Once the cutting has started, drag the pad slightly on the metal sheet to continue cutting. Try to maintain a regular rhythm.

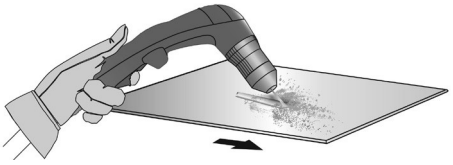
GOUGING:



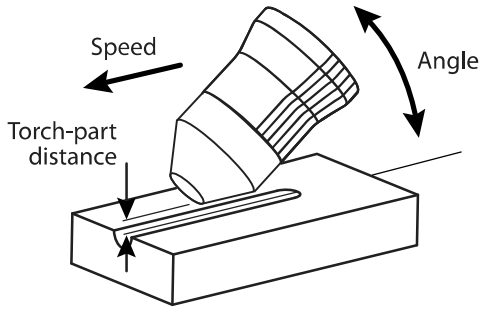
① With the earth clamp fastened to the part, keep for torch at a 45° angle to the piece, while maintaining the special gouging shield roughly 2mm away from the part before starting the torch.



② Press the torch trigger before starting the arc while maintaining it at an angle of 45° to the piece while cutting through the groove



③ Push the plasma arc in the direction you wish to cut. The distance between the torch shield and the melted metal should be as little as possible in order to avoid premature wear of the consumables or damage to the torch.



GROOVE SHAPE

You may modify the profile of the groove by adjusting the speed, the angle or the distance of the torch on the metal piece, or the power output on the machine.

CHANGING THE SHAPE OF THE GROOVE

DESIRED								
Width	−	+	+	−	−	+	+	−
Depth	−	+	−	+	−	−	+	−
Solutions	Increase the speed	Reduce the speed	Increase the torch-piece distance	Decrease the torch-piece distance	Increase the angle	Reduce the angle	Increase the current	Decrease the current

PROTECTION

Safety features prevent the product from working, but are usually due to an operating error, an oversight on the part of the user or an environmental problem. The following table guides the user to solve the problem himself.

Icon at the onset of safety	Reminder icon	Meaning	Solutions
Torch missing		Torch disconnected	Connect a torch. If the problem persists when a torch is connected, check the cables or replace the torch.
Unknown torch		Torch unrecognized	Connect a torch compatible with the product. If the problem persists when a torch is connected, check the cables or replace the torch.
Nozzle missing		Dismantled nozzle	Check that all consumables are present and screw the nozzle back on.
No air	AIR	No air	Connect air and check compressor pressure.
Pressure too low	AIR	Inlet pressure insufficient	Connect the compressed air, check the air connection used compatibility, check that the compressor is electrically powered.
Input overpressure	AIR	Inlet pressure too high	The inlet pressure is higher than 9 bar. Disconnect the air source, check the compressor pressure, lower the compressor pressure. If necessary, add a pressure regulator between the compressor outlet and the air inlet of the plasma cutter.
If the above icons are displayed, cutting is forbidden but navigation in the HMI is still possible.			
		Thermal protection	Le poste est utilisé au-delà de son facteur de marche ou à une température trop élevée ou dans un espace confiné. Laisser-le poste se refroidir, améliorer son aération.

Overvoltage	Overvoltage	If the overvoltage or undervoltage is temporary, the plasma cutter will restart by itself after 15 seconds of non-fault. If this is not the case or if there is no phase, have the electrical installation checked by an electrician.
Undervoltage	Under voltage	
Missing phase	Phase missing	
Retry	The arcpilot has not established itself	This is probably due to the consumables, check their condition, replace them if necessary. Try again
		After 3 unsuccessful attempts, an error code will appear (E05 or E06).
Trigger pressed	Trigger pressed at start up.	Release the torch trigger to continue. If the trigger is not physically depressed, check the torch cables.

ANOMALIES, REASONS, SOLUTIONS

Anomalies result in an immediate shutdown of the plasma cutter, navigation in the HMI is not allowed.

Logo	Code	Messages	Possible causes	Solutions
STOP	E00	NTC	The temperature sensor is damaged or disconnected.	Check sensors connections, replace them if necessary
	E01	Relay	The power relay does not closed.	Return the product for repair
	E02	Fan speed	The fan does not function	Check for foreign objects that prevent normal rotation of the fan
			The fan is not running at the right speed.	Check the connectors, replace the fan if necessary
	E03	Faulty air regulator	The pressure regulator fails to regulate the pressure despite an adequate air supply.	Replace pressure regulator. Return the product for repair
	E04			
	E05	Electrode stuck open	No contact between the electrode and the nozzle.	Check the presence of consumables and their condition. Change them if necessary. Restart the machine and try again.
	E06	Electr. stuck closed	The electrode can not retract	Check that the electrode is not stuck to the nozzle, check that the electrode is free, change the consumables if necessary
	E24	EEPROM/12C	Defect related to the internal memory.	Return the product for repair
-	-	Arc stops after 3 seconds of cutting	No current detection in the earth clamp	Check that the earth clamp is connected to the cutting part on a clean area (no rust, paint or grease).
-	-	The machine does not switch on.	No power supply	Check that the power cord of the product is plugged into the outlet and that the power switch is in the on position.
-	-			Check that the circuit-breaker has not tripped.
-	-	The pilot-arc cuts out too quickly	Used consumables	Check the condition of the consumables and replace if necessary.
-	-	The arc stops mid-way through cutting	Cutting speed too low on thin sheets	Reduce the current / increase the movement speed.
-	-		Contact on the low-quality earth clamp	Check that the earth clamp is connected to the cutting part on a clean area (no rust, paint or grease).
-	-		Cutting height too high	Use a cutting pad and keep it in contact with the part to be cut.

-	-	Premature wear of consumables	Cutting current inappropriate for consumables used	Refer to the chapter "Setting the cutting current".
-	-		Inappropriate air pressure	Refer to the chapter "Adjusting the air pressure".
-	-		Humid air	Purge the air filters from the station and the compressed air network. Add the additionnal Air filter ref. 039728.

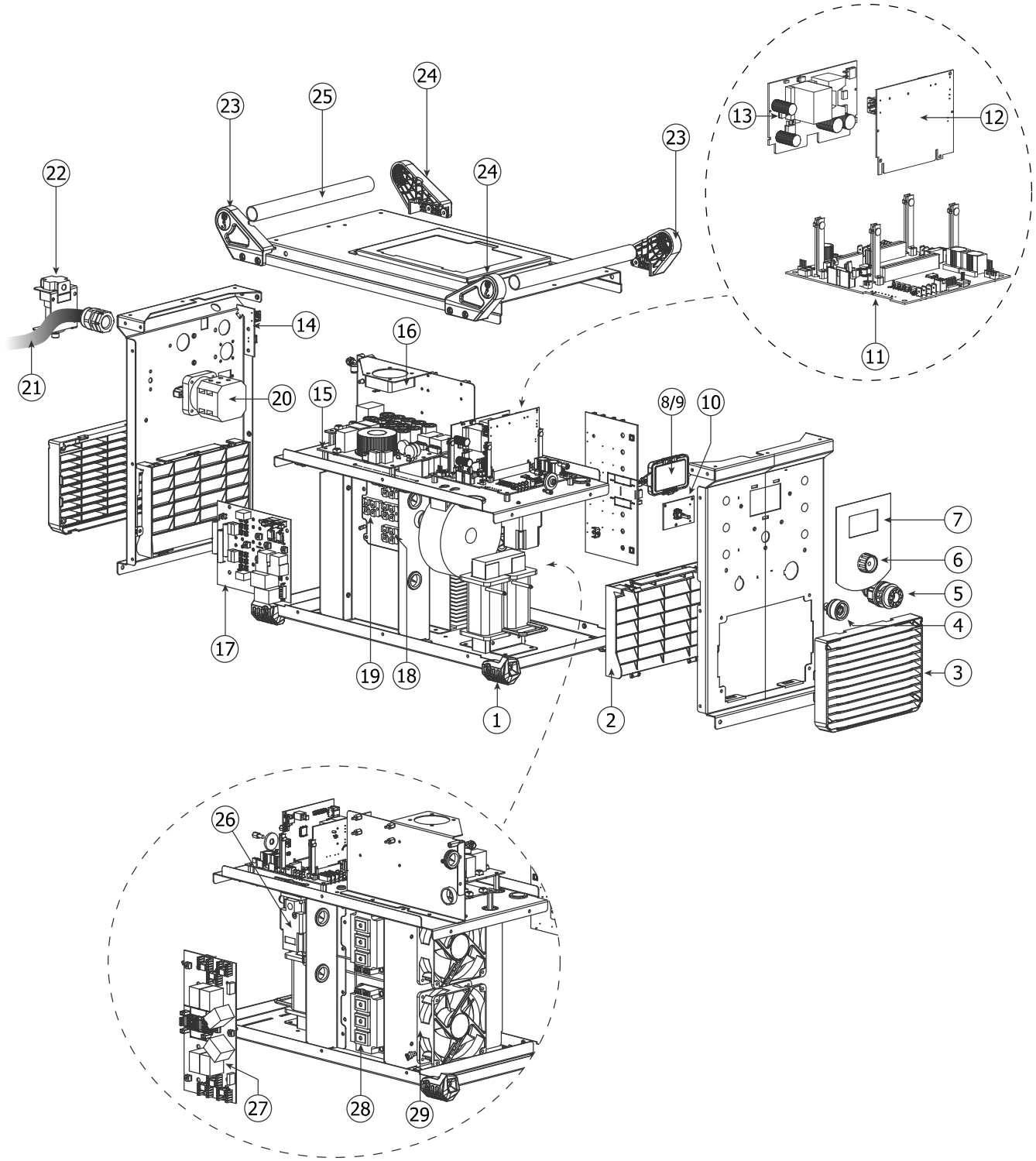
WARRANTY

The warranty covers faulty workmanship for 2 years from the date of purchase (parts and labour).

The warranty does not cover:
• Transit damage.
• Normal wear of parts (eg. : cables, clamps, etc..).
• Damages due to misuse (power supply error, dropping of equipment, disassembling).
• Environment related failures (pollution, rust, dust).

In case of failure, return the unit to your distributor together with:
- The proof of purchase (receipt etc ...)
- A description of the fault reported.

PIÈCES DE RECHANGE / SPARE PARTS / ERSATZTEILE / PIEZAS DE RECAMBIO / ЗАПЧАСТИ / PEZZI DI RICAMBIO / RESERVE ONDERDELEN



NEOCUT 105

1	Pied / Feet / Kantenschutz / Ножка / Pié / Voetje / Piedino	56120
2	Grille intérieure / Internal grill / Inneres Lüftungsgitter / Внутренняя решетка / Rejilla interior / Interne rooster / Griglia interna	56095
3	Grille extérieure / External grill / Äusseres Lüftungsgitter / Внешняя решетка / Rejilla exterior / Externe rooster / Griglia esterna	56094
4	Connecteur de pince de masse / Earth clamp connector / Anschluss für das Massekabel / Коннектор для зажима массы / Conector de pinza de masa / Aansluiting massaklem / Connettore del morsetto di massa	51469
5	Connecteur de torche / Torch connector / Anschluss für den Brenner / Коннектор горелки / Conector de antorcha / Aansluiting toorts / Connettore torcia	F0017
6	Bouton de molette / Knob button / Drehregler / Поворотная кнопка / Botón de ruedecilla / Draaiknop / Tasto della rotella	73020
7	Décor adhésif / Adhesive decoration / Klebefolie / Адгезивный декор / Elemento adhesivo / Zelfklevend decor / Decorazione adesiva	75117
8	Protection d'écran + support plastique / Screen protection + plastic support / Bildschirm-Schutz + Kunststoffträger / Protector de pantalla + soporte de plástico / Protezione dello schermo + supporto in plastica	56175 56172
9	Afficheur / Display / Display / Индикатор / Indicador / Display / Schermo	51992
10	Carte IHM / HMI board / Karte für das Bedienfeld / Плата интерфейса / Tarjeta IHM / IHM kaart / Scheda IHM	97789 C
11	Carte principale / Mainboard / Hauptplatine / Основная плата / Tarjeta principal / Hoofdkaart / Carta principale	97792 C
12	Carte de contrôle / Control circuit board / Steuerkarte / Контрольная плата / Tarjeta de control / Controle kaart / Scheda di controllo	E0050 C
13	Carte d'alimentation / Power supply circuit board / Versorgungskarte / Плата питания 24/48В / Tarjeta de alimentación / Voedingskaart / Scheda d'alimentazione	97075 C
14	Carte USB / USB card / USB-Karte / USB-карта / Tarjeta USB / USB kaart / Scheda USB	97794 C
15	Carte CEM et condensateurs / EMC card and capacitors / Karte für EMV und Kondensatoren / ЭМС-карта и конденсаторы / Tarjeta CEM y condensadores / CEM kaart en condensatoren / Scheda CEM e condensatore	97444 C
16	Ventilateur 60x60 / Fan 60x60 / Lüfter 60x60 / Вентилятор 60x60 / Ventilador 60x60 / Ventilator 60x60 / Ventilatore 60x60	51018
17	Carte secondaire / Secondary board / Sekundärkarte / Вторичная плата / Tarjeta secundaria / Secondaire kaart / Scheda secondaria	97793 B
18	Diode secondaire / Secondary diode / Sekundärdiode / Вторичный диод / Diodo secundario / Secondaire diode / Diodo secondario	52206
19	Résistance snubber / Snubber resistance / Snubber-Widerstand / Снуббер сопротивление / Resistencia snubber / Snubber weerstand / Resistenza snubber	52270
20	Interrupteur / Switch / Netzschalter / Выключатель / Interruptor / Schakelaar / Interruttore	51061
21	Cordon secteur / Power supply cable / Netzleitung / Сетевой шнур / Cable de conexión eléctrica / Netsnoer / Cavo corrente	21470
22	Filtre / Filter / Filter / Фильтр / Filtro / Filter / Filtro	71462
23	Flasque poignée A / Plate handle A / Flansch A des Griffs / Ручка фланцевая A / Mango A / Flens handvat A / Impugnatura A	56190
24	Flasque poignée B / Plate handle B / Flansch B des Griffs / Ручка фланцевая B / Mango B / Flens handvat B / Impugnatura B	56191
25	Poignée / Handle / Handgriff / Ручка / Mango / Handvat / Impugnatura	90951GF
26	Régulateur de pression / Pressure regulatore / Druckregler / Регулятор давления / Regulador de presión / Drukregulator / Regolatore di pressione	71548
27	Carte pilotage IGBT / IGBT control board / Karte zur Steuerung des Bipolartransistors mit isolierter Gate-Elektrode (IGBT) / Плата управления IGBT/ Controlekaart IGBT / Tarjeta de control IGBT / Scheda pilotaggio IGBT	97791 B
28	Module IGBT / IGBT module / IGBT-Modul / Модуль IGBT / Módulo IGBT / Module IGBT / Modulo IGBT	52210
29	Ventilateur 120x120 / Fan 120x120 / Lüfter 120x120 / Вентилятор 120x120 / Ventilador 120x120 / Ventilator 120x120 / Ventilatore 120x120	51290

SCHÉMA ÉLECTRIQUE / ELECTRICAL DIAGRAM / SCHALTPLAN / ESQUEMA ELÉCTRICO / ELEKTRISCH SCHEMA / ЭЛЕКТРИЧЕСКАЯ СХЕМА / SCHEMA ELETTRICO

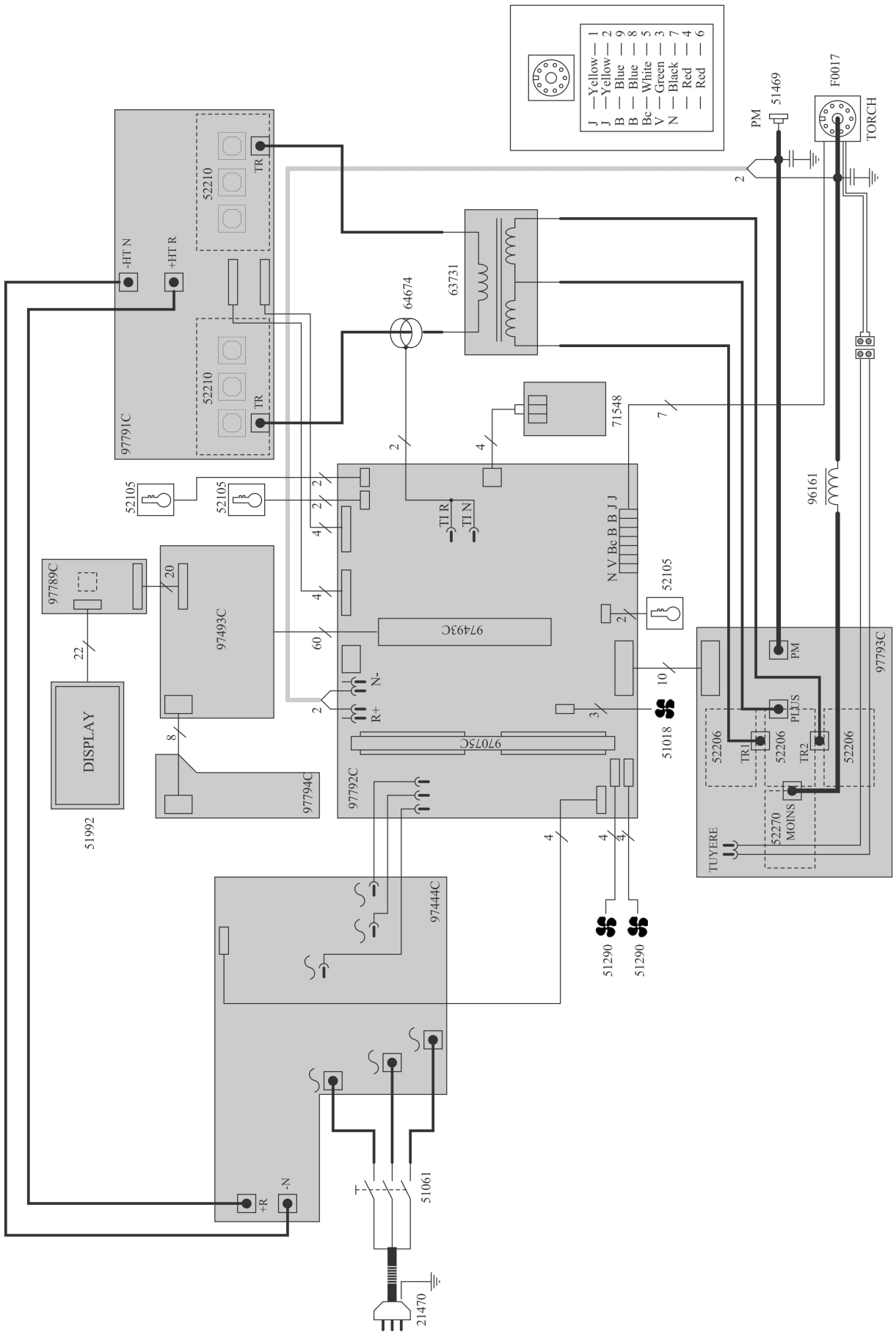
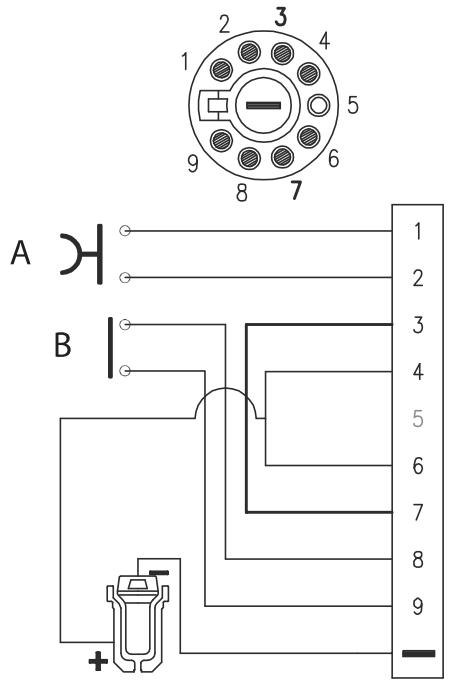


SCHÉMA DE CABLAGE TORCHE MANUELLE / MANUAL TORCH CABLING DIAGRAM / VERKABELUNG MIT MANUELLEM BRENNER / СХЕМА ПРОВОДКИ РУЧНОЙ ГОРЕЛКИ / ESQUEMA DE CABLEADO ANTORCHA MANUAL / BEDRADINGSSCHEMA HANDMATIGE TOORTS / SCHEMA DI CABLAGGIO TORCIA MANUALE

MT-125

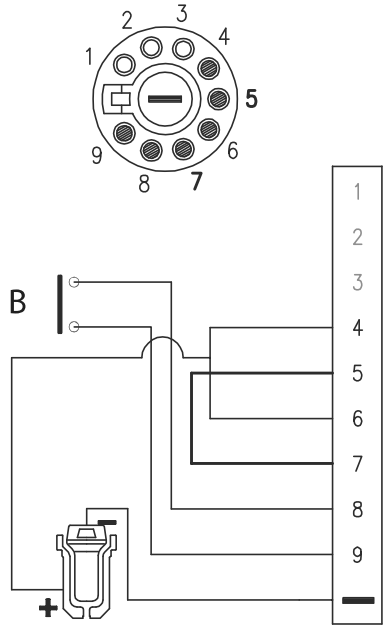


A Gâchette / Trigger / Brennertaster / Триггер / Gatillo / Trekker / Pulsante di avanzamento

B Sécurité / Safety / Sicherheit / Безопасность / Seguridad / Veiligheid / Sicurezza

SCHÉMA DE CABLAGE TORCHE AUTOMATIQUE / AUTOMATIC TORCH CABLING DIAGRAM / VERKABELUNG MIT AUTOMATISCHEM BRENNER / ESQUEMA DE CABLEADO ANTORCHA AUTOMÁTICA / СХЕМА ПРОВОДКИ АВТОМАТИЧЕСКОЙ ГОРЕЛКИ / BEDRADINGSSCHEMA AUTOMATIESCHE TOORTS / SCHEMA DI CABLAGGIO TORCIA AUTOMATICA

AT-125



B Sécurité / Safety / Sicherheit / Безопасность / Seguridad / Veiligheid / Sicurezza

SPÉCIFICATIONS TECHNIQUES / TECHNICAL SPECIFICATIONS / TECHNISCHE DATEN / TECHNISCHE GEGEVENS / ТЕХНИЧЕСКИЕ СПЕЦИФИКАЦИИ / SPECIFICHE TECNICHE

PLASMA CUTTER			NEOCUT 105	
Primaire / Primary / Primär / Primario / Первичка / Primario / Primaire				
Tension d'alimentation / Power supply voltage / Stromversorgung / Tensione di alimentazione / Напряжение питания / Tensión de red eléctrica / Voedingsspanning			400 V +/- 15%	
Fréquence secteur / Mains frequency / Netzfrequenz / Frequenza settore / Частота сети / Frecuencia / Frequentie sector			50 / 60 Hz	
Fusible disjoncteur / Fuse / Sicherung / Fusibile / Плавкий предохранитель / Fusible / Zekering			32 A	
Secondaire / Secondary / Sekundär / Secondario / Вторичка / Secundario / Secondair			Découpe / Cut / Schneiden / Taglio / Резка / Corte / Snijden	Gougeage / De-gouging / Fugenhobel / Bacchiatura / Строжка / Ranurado / Gutsen
Tension à vide / No load voltage / Leerlaufspannung / Tensione a vuoto / Напряжение холостого хода / Tensión al vacío / Nullastspanning			356 V	356 V
Courant de sortie nominal (I_2) / Normal current output (I_2) / nominaler Ausgangsstrom (I_2) / Corrente di uscita nominale (I_2) / Номинальный выходной ток (I_2) / Corriente de salida nominal (I_2) / Nominale uitgangsstroom (I2)			20 → 105 A	20 → 105 A
Tension de sortie conventionnelle (U_2) / Conventional voltage output (U_2) / entsprechende Arbeitsspannung (U_2) / Tensione di uscita convenzionale (U_2) / Условное выходные напряжения (U_2) / Tensión de salida convencional (U_2) / Conventionele uitgangsspanning (U2)			88 → 122 V	108 → 142 V
Facteur de marche à 40°C (10 min)* Norme EN60974-1. Duty cycle at 40°C (10 min)* Standard EN60974-1. Einschaltdauer @ 40°C (10 min)* EN60974-1 -Norm.	Ciclo de trabajo a 40°C (10 min)* Norma EN60974-1 ПВ% при 40°C (10 мин)* Норма EN60974-1 Ciclo di lavoro a 40°C (10 min)* Norma EN60974-1	105 A	100 %	80 %
		100%	105 A	90 A
Pression de service / Service pressure / Schweißdruck / Pressione di servizio / Рабочее давление / Presión de trabajo / Werkdruk			5 > 9 bar (72 > 130 Psi)	
Débit d'air / Air debit / Luftdurchfluss / Flusso d'aria / Расход воздуха / Caudal de aire / Luchtstroom			305 l/min (80 US gpm)	
Température de fonctionnement / Functionning temperature / Betriebstemperatur / Temperatura di funzionamento / Рабочая температура / Temperatura de funcionamiento / Gebruikstemperatuur			-10° → +40°C	
Température de stockage / Storage temperature / Lagerungstemperatur / Temperatura di stoccaggio / Температура хранения / Temperatura de almacenaje / Bewaartemperatuur			-25° → +55°C	
Degré de protection / Protection level / Schutzgrad / Grado di protezione / Степень защиты / Grado de protección / Beschermingsklasse			IP23	
Dimensions (LxlxH) / Dimensions (LxlxH) / Abmessung (LxBxH) / Dimensioni (LxlxH) / Размеры (ДхШхВ) / Dimensiones (LxlxH) / Dimensies (LxlxH)			69 x 40 x 61 cm	
Poids / Weight / Gewicht / Peso / Bec / Peso / Gewicht			33 kg	

*Les facteurs de marche sont réalisés selon la norme EN60974-1 à 40°C et sur un cycle de 10 min.

Lors d'utilisation intensive (> au facteur de marche) la protection thermique peut s'enclencher, dans ce cas, l'arc s'éteint et l'icône apparaît sur l'écran.
Laissez l'appareil alimenté pour permettre son refroidissement jusqu'à annulation de la protection.
La source de courant décrit une caractéristique de sortie de type tombante.

*The duty cycles are measured according to standard EN60974-1 à 40°C and on a 10 min cycle.

While under intense use (> to duty cycle) the thermal protection can turn on, which switches the arc off and the icon appears on the screen.
Keep the machine's supply on, to enable cooling until protection cancellation.
The machine has a specification with a "dropping current output"

* Die Einschaltdauern sind bestimmt gemäss der Norm EN60974-1 bei 40°C und für einen Betrieb über 10 min.

Bei sehr intensivem Gebrauch (> Einschaltdauer) kann der Thermoschutz ausgelöst werden. In diesem Fall wird der Lichtbogen abgeschaltet und das Symbol erscheint auf der Anzeige.
Das Gerät zum Abkühlen nicht ausschalten und laufen lassen, bis das Gerät wieder bereit ist.
Die Stromquelle hat eine fallende Ausgangscharakteristik.

*Los ciclos de trabajo están realizados en acuerdo con la norma EN60974-1 a 40ºC y sobre un ciclo de diez minutos.

Durante un uso intensivo (> que el ciclo de trabajo), se puede activar la protección térmica. En este caso, el arco se apaga y el icono aparece sobre la pantalla.
Deje el aparato conectado para permitir que se enfríe hasta que se anule la protección.
La fuente de energía posee una salida de característica descendente.

*ПВ% указаны по норме EN60974-1 при 40°C и для 10-минутного цикла.

При интенсивном использовании (> ПВ%) может включиться тепловая защита. В этом случае дуга погаснет и на экране появится иконка
Оставьте аппарат подключенным к питанию, чтобы он остыл до полной отмены защиты.
Источник сварочного тока имеет выходную характеристику «падающего типа».

*I cicli di lavoro sono realizzati secondo la norma EN60974-1 a 40°C e su un ciclo di 10 min.

Durante l'uso intensivo (> al ciclo di lavoro) la protezione termica può avviarsi; in tale caso, l'arco si spegne e l'icona appare sullo schermo.
Lasciare il dispositivo collegato alla presa per permettere il suo raffreddamento fino all'annullamento della protezione.
La fonte di corrente descrive una caratteristica di uscita di tipo discendente.

* De inschakelduur is gemeten volgens de norm EN60974-1 bij een temperatuur van 40°C en bij een cyclus van 10 minuten.

Tijdens intensief gebruik (> inschakelduur) kan de thermische beveiliging zich in werking stellen. In dat geval gaat de boog uit en verschijnt het beveiligingsicoon op het scherm.
Laat het apparaat aan de netspanning staan om het te laten afkoelen, totdat de beveiliging afslaat.
De stroombron beschrijft een dalende uitgangskarakteristiek

ICÔNES / SYMBOLS / SYMBOLE / ICONOS / ZEICHENERKLÄRUNG / PICTOGRAMMEN / ИКОНКИ / ICONE

	- Attention ! Lire le manuel d'instruction avant utilisation. - Caution ! Read the user manual. - Achtung! Betriebsanleitung vor Gebrauch lesen - ¡Cuidado! Lea el manual de instrucciones antes de su uso.	- Внимание! Прочтите инструкцию перед использованием. - Let op! Lees voor gebruik aandachtig de gebruiksaanwijzing door. - Attenzione! Leggere il manuale d'istruzioni prima dell'uso.
3~ f_1 f_2	- Source de courant de technologie onduleur délivrant un courant continu. - Undulating current technology based source delivering direct curent. - Invertergleichstromquelle. - Fuente de corriente de tecnología ondulador que libera corriente continua.	- Источник тока с технологией преобразователя, выдающий постоянный ток. - Stroombron met UPS technologie, levert gelijkstroom. - Fonte di corrente con tecnologia inverter che rilascia una corrente continua.
EN60974-1 EN60974-10 Class A	- L'appareil respecte la norme EN60974-1 et EN60971-10 appareil de classe A. - The device is compliant with standard EN60974-1 and EN60971-10 class A device. - Das Gerät erfüllt die Norm EN 60974-1 und EN 60971-10 der Geräteklasse A - El aparato se ajusta a la norma EN60974-1 y EN 60971-10, aparato de clase A.	- Аппарат соответствует нормам EN60974-1 и EN60971-10 аппарат класса A. - Dit klasse A apparaat voldoet aan de EN60974-1 en EN60971-10 normen. - Il dispositivo rispetta la norma EN60974-1 e EN 60971-10 dispositivo classe A.
	- Coupage plasma - Plasma cutting - Corte plasma - Plasmaschneiden	- Плазменная резка - Plasma snijden - Taglio plasma
	- Gougeage plasma - Plasma gouging - Ranurado plasma - Плазменная строжка / Scriccatura plasma- Plasma-Fugenhobeln - Plasma gutsen	
S	- Convient au découpage dans un environnement avec risque accru de choc électrique. La source de courant elle-même ne doit toutefois pas être placée dans de tels locaux. - Suitable for welding in environment with an increased risk of electric shock. Such a current source must not however be placed in the welding room or in the surroundings. - Adaptado al corte en lugar con riesgo de choque eléctrico. Sin embargo, la fuente eléctrica no debe estar presente en dichos lugares. - Geeignet zum Schneiden in Umgebungen mit erhöhtem Stromschlagrisiko. Die Stromquelle darf auf keinen Fall in solchen Räumlichkeiten aufgestellt werden. - Подходит для резки в среде с повышенным риском удара электрическим током. В этом случае сам источник тока не должен находиться в таком помещении. - Geschikt voor snijwerkzaamheden in een ruimte met een verhoogd risico op elektrische schokken. De voedingsbron zelf moet echter niet in een dergelijke ruimte worden geplaatst. - Adatto al taglio in un ambiente a grande rischio di scosse elettriche. La fonte di corrente non deve essere localizzata in tale posto.	
IP23	- Une protection contre l'accès aux parties dangereuses des corps solides de diam >12.5 mm et, une protection contre la pluie dirigée à 60° par rapport à la verticale. - Protection against access to dangerous parts of solids with a diameter >12.5 mm and protection against rain directed at 60° from the vertical. - Schutz gegen den Zugang zu gefährlichen Teilen von Feststoffen mit einem Durchmesser >12,5 mm und Schutz gegen Regen, der auf 60° aus der Vertikalen gerichtet ist. - Protección contra el acceso a partes peligrosas de sólidos con un diámetro >12,5 mm y protección contra la lluvia dirigida a 60° de la vertical. - Защита от доступа к опасным частям твердых частиц диаметром >12,5 мм и защита от дождя, направленного на 60° от вертикали. - Bescherming tegen toegang tot gevaarlijke delen van vaste stoffen met een diameter >12,5 mm en bescherming tegen regen op 60° van de verticaal. - Protezione contro l'accesso a parti pericolose di solidi con diametro >12,5 mm e protezione contro la pioggia diretta a 60° dalla verticale.	
	- Courant de découpage continu. - Direct welding current. - Corriente de corte continuo. - Gleichstrom für das Schneiden	- Постоянный ток резки. - Continue snijstroom. - Corrente di taglio continua.
U_0	- Tension assignée à vide - Off load voltage - Tensión asignada en vacío - Leerlauf-Bemessungsspannung - Номинальное напряжение холостого хода - Nul-lastspanning - Tensione assegnata a vuoto	
X(40°C)	- Facteur de marche selon la norme EN60974-1 (10 minutes – 40°C). - Duty cycle according to standard EN 0974-1 (10 minutes – 40°C). - Ciclo de trabajo según la norma EN60974-1 (10 minutos – 40°C). - Einschaltdauer gemäß der Norm EN 60974-1 (10 Minuten -40 °C).	- ПВ% согласно норме EN 60974-1 (10 минут – 40°C). - Inschakelduur volgens de norm EN60974-1 (10 minuten – 40°C). - Ciclo di lavoro conforme alla norma EN60974-1 (10 minuti – 40°C).
I_2	I2: courant de découpage conventionnnel correspondant / I2: corresponding conventional welding current / I2: Entsprechender konventioneller Schneidstrom / I2: corriente de corte convencional correspondiente. / I2: соответствующий номинальный ток резки / I2: overeenkomstige conventionele stroom / I2: corrente di taglio convenzionale corrispondente	
A	Ampères - Amperes - Ampere - Amperios - Амперы - Ampère	
U_2	- U2: Tensions conventionnelles en charges correspondantes / U2: Conventional voltage in corresponding loads / U2: konventionelle Spannungen bei entsprechender Belastung / - U2: Tensiones convencionales en cargas correspondientes. / - U2: Номинальные напряжения при соответствующих нагрузках / U2: Conventionele spanning bij overeenkomstige belasting / U2: Tensioni convenzionali in cariche corrispondenti	
V	Volt - Volt - Volt - Voltio - Вольт	
Hz	Hertz - Hertz - Hertz - Hercios - Герц	
3~50/60 Hz	- Alimentation électrique triphasée 50 ou 60Hz - Three-phase power supply 50 or 60Hz - Dreiphasige Netzversorgung mit 50 oder 60Hz - Alimentación eléctrica trifásica 50 o 60Hz	- Трехфазное электропитание 50 или 60Гц - Driefasen elektrische voeding 50Hz of 60Hz. - Alimentazione elettrica trifase 50 o 60Hz
U_1	- Tension assignée d'alimentation. - Rated power supply voltage. - Bemessungsspannung - Tensión asignada de alimentación eléctrica.	- Номинальное напряжение питания. - Nominale voedingsspanning. - Tensione nominale di alimentazione.
I_1max	- Courant d'alimentation assigné maximal (valeur efficace). - Maximum rated power supply current (effective value). - Maximaler Bemessungsstrom (Effektivwert) - Corriente de alimentación eléctrica asignada máxima (valor eficaz).	- Максимальный сетевой ток (эффективное значение). - Nominale maximale voedingsstroom (effectieve waarde). - Corrente di alimentazione nominale massima (valore efficace).
I_1eff	- Courant d'alimentation effectif maximal. - Maximum effective rated power supply current. - Maximaler, effektiver Versorgungsstrom - Corriente de alimentación eléctrica máxima.	- Максимальная эффективная подача тока. - Maximale effectieve voedingsstroom - Corrente di alimentazione effettiva massima.

CE	- Matériel conforme aux directives européennes. La déclaration UE de conformité est disponible sur notre site (voir à la page de couverture). - Device(s) compliant with European directives. The certificate of compliance is available on our website. - Das Gerät erfüllt die europäischen Richtlinien. Die EU-Konformitätserklärung ist vorhanden auf unserer Webseite (siehe Titelseite) - 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 is te 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).
EAC	- Marque de conformité EAC (Communauté économique Eurasienne). - EAC Conformity marking (Eurasian Economic Community). - Eurasisches Konformitätskennzeichen EAC (Eurasische Wirtschaftsunion) - 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).
	- 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 out in a domestic bin ! - Das Gerät ist geeignet für die Mülltrennung gemäß den europäischen Richtlinien 2012/19/EU. Nicht in den Haushaltsmüll werfen! - 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 dont le fabricant participe à la valorisation des emballages en cotisant à un système global de tri, collecte sélective et recyclage des déchets d'emballages ménagers. - Producto sobre el cual el fabricante participa mediante una valorización de los embalajes cotizando a un sistema global de separación, recogida selectiva y reciclado de los deshechos de embalajes domésticos. - Produkt, dessen Hersteller sich an der Verwertung von Verpackungen beteiligt, indem er seinen Beitrag leistet zu einem globalen Müllsortierungssystems und Wiederverwertung von Haushaltsverpackungen. - Producto sobre el cual el fabricante participa mediante una valorización de los embalajes cotizando a un sistema global de separación, recogida selectiva y reciclado de los deshechos de embalajes domésticos. - Продукт, производитель которого участвует в глобальной программе переработки упаковки, выборочной утилизации и переработке бытовых отходов. - De fabrikant van dit product neemt deel aan het hergebruik en recycleren van de verpakking, door middel van een contributie aan een globaal sorteer en recycle-systeem van huishoudelijk verpakkingsafval. - Prodotto con cui il fabbricante partecipa alla valorizzazione degli imballaggi in collaborazione con un sistema globale di smistamento, raccolta differenziata e riciclaggio degli scarti d'imballaggio.
	- Matériel conforme aux normes Marocaines. La déclaration Cم (CMIM) de conformité est disponible sur notre site (voir à la page de couverture). - Equipment in conformity with Moroccan standards. The declaration Cم (CMIM) of conformity is available on our website (see cover page). - Das Gerät entspricht die marokkanischen Standards. Die Konformitätserklärung Cم (CMIM) ist auf unserer Webseite verfügbar (siehe Titelseite). - Equipamiento conforme a las normas marroquíes. La declaración de conformidad Cم (CMIM) está disponible en nuestra página web (ver página de portada). - Товар соответствует нормам Марокко. Декларация Cم (CMIM) доступна для скачивания на нашем сайте (см на титульной странице). - Dit materiaal voldoet aan de Marokkaanse normen. De verklaring Cم (CMIM) van overeenstemming is beschikbaar op onze internet site (vermeld op de omslag). - Materiale conforme alle normative marocchine. La dichiarazione Cم (CMIM) di conformità è disponibile sul nostro sito (vedi scheda del prodotto)
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)
	- Produit recyclable qui relève d'une consigne de tri. - This product should be recycled appropriately - Recycelbares Produkt, das sich zur Müllsortierung eignet - Producto reciclable que requiere una separación determinada - Этот продукт подлежит утилизации. - Dit product is recyclebaar, niet met het huishoudelijk afval weggooien maar deponeren in het daarvoor bestemde gescheiden afval-circuit. - Prodotto riciclabile soggetto a raccolta differenziata.
	- 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).
	Entrée gaz / Gas inlet / Gaseintritt / Entrada de gas / Разъем подачи газа / Ingang gas / Entrata del gas / Gaszufuhr
	- Compatible groupe électrogène. - Compatible with generators. - Kompatibel mit Stromaggregaten. - Может работать от электрогенератора. - Compatible con grupo electrógeno. - Compatibile gruppo elettrogeno. - Geschikt voor gebruik met een stroomgenerator

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