IMPORTANT: BEFORE STARTING THE EQUIPMENT, READ THE CONTENTS OF THIS MANUAL, WHICH MUST BE STORED IN A PLACE FAMILIAR TO ALL USERS FOR THE ENTIRE OPERATIVE LIFE-SPAN OF THE MACHINE.
THIS EQUIPMENT MUST BE USED SOLELY FOR WELDING OPERATIONS.

1 SAFETY PRECAUTIONS

WELDING AND ARC CUTTING CAN BE HARMFUL TO YOURSELF AND OTHERS. The user must therefore be educated against the hazards, summarized below, deriving from welding operations. For more detailed information, order the manual code 3.300.758

NOISE

This machine does not directly produce noise exceeding 80dB. The plasma cutting/welding procedure may produce noise levels beyond said limit; users must therefore implement all precautions required by law.

ELECTRIC AND MAGNETIC FIELDS - May be dangerous.

· Electric current following through any conductor causes localized Electric and Magnetic Fields (EMF). Welding/cutting current creates EMF fields around cables and power sources.
· The magnetic fields created by high currents may affect the operation of pacemakers. Wearers of vital electronic equipment (pacemakers) shall consult their physician before beginning any arc welding, cutting, gouging or spot welding operations.
· Exposure to EMF fields in welding/cutting may have other health effects which are now not known.
· All operators should use the followingprocedures in order to minimize exposure to EMF fields from the welding/cutting circuit:
- Route the electrode and work cables together - Secure them with tape when possible.
- Never coil the electrode/torch lead around your body.
- Do not place your body between the electrode/torch lead and work cables. If the electrode/torch lead cable is on your right side, the work cable should also be on your right side.
- Connect the work cable to the workpiece as close as possible to the area being welded/cut.
- Do not work next to welding/cutting power source.

EXPLOSIONS.

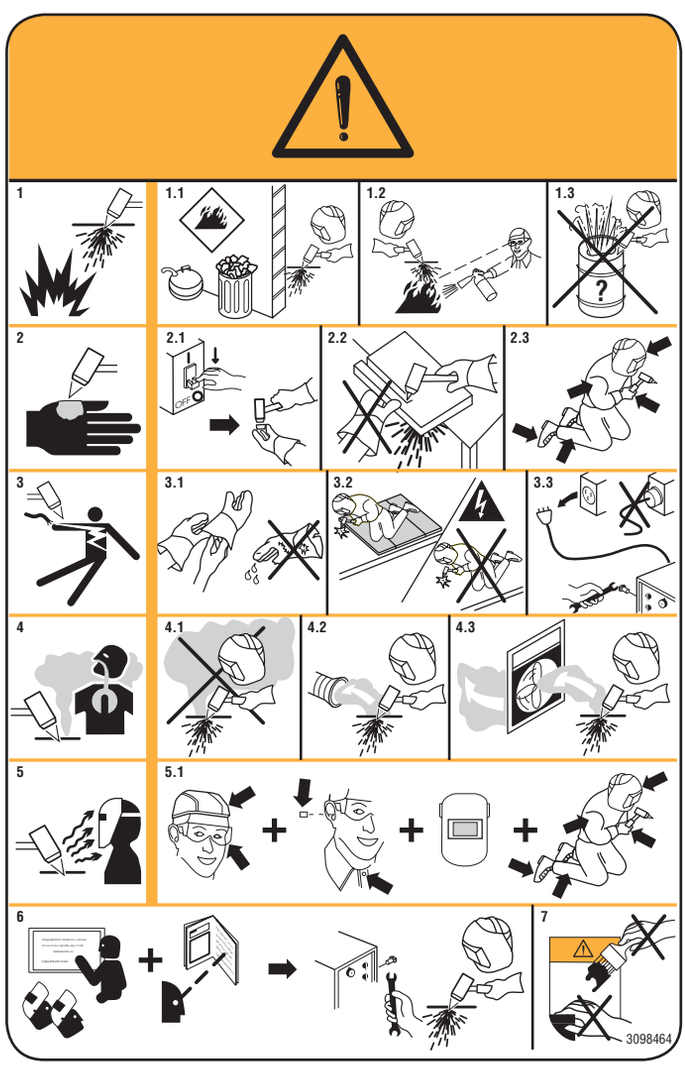
· Do not weld in the vicinity of containers under pressure, or in the presence of explosive dust, gases or fumes. · All cylinders and pressure regulators used in welding operations should be handled with care.

ELECTROMAGNETIC COMPATIBILITY
This machine is manufactured in compliance with the instructions contained in the standard IEC 60974-10 (CL. A)**, and must be used solely for professional purposes in an industrial environment. There may be potential difficulties in ensuring electromagnetic compatibility in non-industrial environments.**

DISPOSAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT
Do not dispose of electrical equipment together with normal waste!In observance of European Directive 2002/96/EC on Waste Electrical and Electronic Equipment and its implementation in accordance with national law, electrical equipment that has reached the end of its life must be collected separately and returned to an environmentally compatible recycling facility. As the owner of the equipment, you should get information on approved collection systems from our local representative. By applying this European Directive you will improve the environment and human health!

IN CASE OF MALFUNCTIONS, REQUEST ASSISTANCE FROM QUALIFIED PERSONNEL.

1.1 WARNING LABEL



The following numbered text corresponds to the label numbered boxes.

1. Cutting sparks can cause explosion or fire.
1.1 Keep flammable materials away from cutting.
1.2 Cutting sparks can cause fires. Have a fire extinguisher nearby, and have a watchperson ready to use it.
1.3 Do not cut on drums or any closed container.
2. The plasma arc can cause injury and burns.
2.1 Turn off power before disassembling torch.
2.2 Do not grip material near cutting path.
2.3 Wear complete body protection.
3. Electric shock from torch or wiring can kill.
3.1 Wear dry insulating gloves. Do not wear wet or damaged gloves.
3.2 Protect yourself from electric shock by insulating yourself from work and ground.
3.3 Disconnect input plug or power before working on machine.
4 Breathing cutting fumes can be hazardous to your health.
4.1 Keep your head out of fumes.
4.2 Use forced ventilation or local exhaust to remove fumes.
4.3 Use ventilating fan to remove fumes.
5 Arc rays may injure the eyes and burn the skin. Operators should therefore shield their eyes with lenses with a protection rating equal to or greater than DIN11 and adequately protect their face.
5.1 Wear hat and safety glasses. Use ear protection and button shirt collar. Use welding helmet with correct shade of filter. Wear complete body protection.
6 Become trained and read the instructions before working on the machine or cutting.
7 Do not remove or paint over (cover) the label.

2 GENERAL DESCRIPTION

This equipment is a direct current continuous power source designed for plasma arc cutting of electro-conducting materials (metals and alloys). The plasma gas can be air or nitrogen.

2.1 TORCH ASSEMBLY (Fig. 1)

Insert the torch fitting into the guard **R**, then onto the fitting **P**, firmly tightening the ring-nut to avoid air leaks that could damage or interfere with smooth operation of the torch.
Do not dent the current pin or bend the pegs of the torch fitting. A dented pin may not disconnect, while a bent peg does not allow proper insertion onto the fixed fitting **P**, thereby preventing the machine from working.
Use the screws provided to fasten the guard **R** on to the panel.
If torches for automatic cutting are used, connect the earth cable to the terminal **W**.

2.2 DESCRIPTION OF DEVICES ON THE MACHINE

A) Power cord
B) Compressed air fitting (1/4" female gas thread)
C) Mains power switch
E) Pressure regulator knob
F) Pressure gauge
G) Thermostat LED
H) Grounding clamp
I) Water trap
L) Low air pressure LED
M) Cutting current regulator knob
P) Torch fitting
R) Safety guard
S) Blocked LED; lights when hazardous conditions arise.
T) Push-button to activate and deactivate the "SELF-RESTART PILOT" function.
U) Plasma torch.
V) Mains power led.
W) Earth terminal for straight torches.

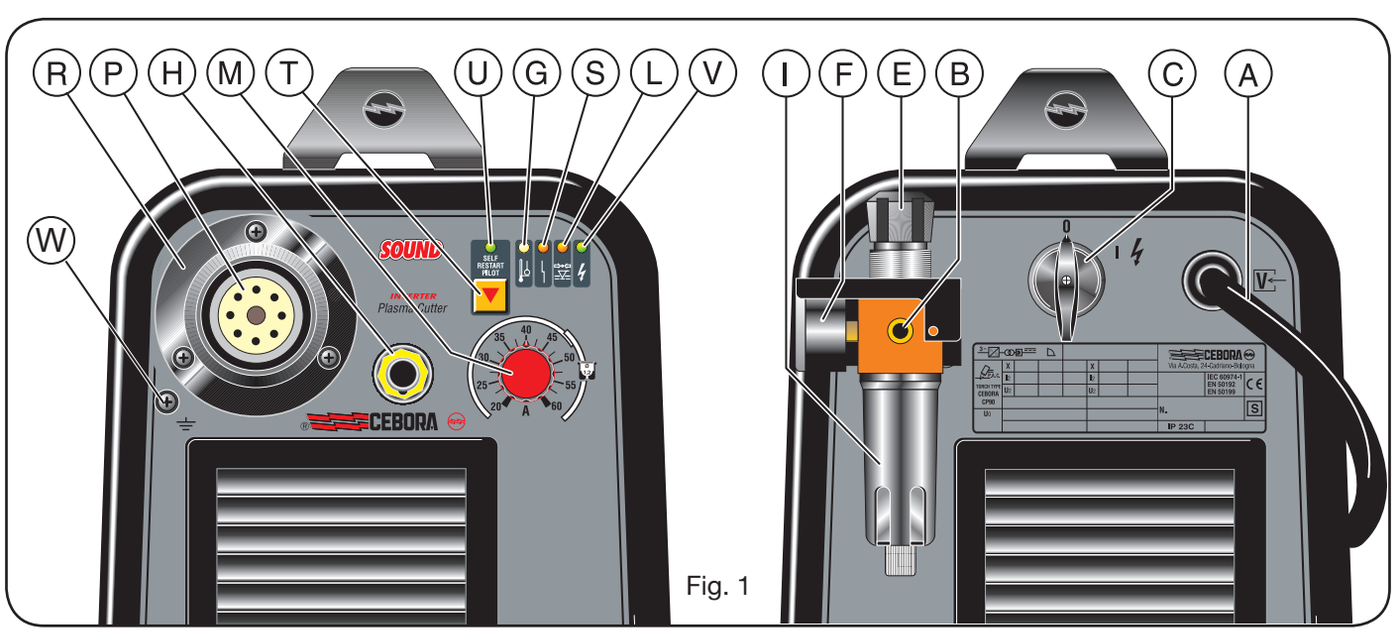


Fig. 1

2.3 SAFETY DEVICES

This system comes equipped with the following safety devices:

Overload cutout:

To avoid overloads. It is evidenced by the **G** led continuosly on (see fig.1).

Pneumatic:

Located on the torch inlet to prevent low air pressure. The LED **L** lights when tripped (see fig.1).

The blinking **L** led means that the pressure has temporarily gone below 3.2 ÷ 3.5 bar.

Electrical:

Located on the torch body, to prevent hazardous voltages from occurring on the torch when, swirl ring, electrode or nozzle holder are replaced;

- **Do not remove or short-circuit the safety devices.**
- **Use only original spare parts.**
- **Always replace any damaged parts of the machine with original materials.**
- **Do not run the machine without its housings. This would be dangerous to the operator and anyone else in the work area, and would prevent the machine from being cooled properly.**

2.4 EXPLANATION OF TECHNICAL SPECIFICATIONS

This machine is manufactured according to the following international standards: IEC 60974.1 - IEC 60974.3 - IEC 60974.7 - IEC 60974.10 CL. A - IEC 61000-3-11 - IEC 61000-3-12 (61000-3-12 (see note 2).

N°.	Serial number. Must be indicated on any type of request regarding the device.
	Three-phase static transformer-rectifier frequency converter.
	Downslope.
	Suitable for plasma cutting.
torch type	Type of torch that may be used with this machine to form a safe system.
U0.	Secondary open-circuit voltage.
X.	Duty cycle percentage. The duty cycle expresses the percentage of 10 minutes during which the welding machine may run at a certain current I2 and voltage U2 without overheating.
I2.	Cutting current. Art. 359: 60A @ 208/220/230/400/440V Art. 361: a) 100A @ 400/440V b) 80A @ 208/220/230V
U2	Secondary conventional voltage with welding current I2 This voltage depends on the distance between the contact tip and the workpiece. **If this distance increases, the cutting voltage also increases and the duty cycle X% may decrease.**
U1.	Rated supply voltage for 208/220/230V - 400/440V with automatic voltage change.
3~ 50/60Hz	50- or 60-Hz three-phase power supply
I1 Max	Max. absorbed current at the corresponding current I2 and voltage U2.
I1 eff	This is the maximum value of the actual current absorbed, considering the duty cycle. This value usually corresponds to the capacity of the fuse (delayed type) to be used as a protection for the equipment.
IP23 S.	Protection rating for the housing. Grade **3** as the second digit means that this equipment may be stored, but it is not suitable for use outdoors in the rain, unless it is protected.
S	Suitable for use in high-risk environments.

NOTE:

1- The machine has also been designed for use in environments with a pollution rating of 1. (See IEC 60664).

2- This equipment complies with IEC 61000-3-12 provided that the maximum permissible system impedance Zmax is less than or equal to 0,146 (Art. 359)-0,088 (Art. 361) at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with maximum permissible system impedance Zmax less than or equal to 0,146 (Art. 359)-0,088 (Art. 361).

2.5 START-UP

The machine must be installed by qualified personnel. All connections must be made in compliance with current safety standards and full observance of safety regulations (see CEI 26-23 - IEC TS 62081).

Connect the air supply to the fitting **B**.

If the air supply comes from a pressure regulator of a compressor or centralized system, the regulator must be set to an output pressure of no more than 8 bar (0.8 Mpa).

If the air supply comes from a compressed air cylinder, the cylinder must be equipped with a pressure regulator. **Never connect a compressed air cylinder directly to the regulator on the machine! The pressure could exceed the capacity of the regulator, which might explode!**

Connect the power cord **A**: the yellow-green cable wire must be connected to an efficient grounding socket on the system. The remaining wires must be connected to the power supply line by means of a switch placed as close as possible to the cutting area, to allow it to be shut off quickly in case of emergency.

The capacity of the cut-out switch or fuses installed in series with the switch must be equal to the current I1eff. absorbed by the machine.

The absorbed current I1eff. may be determined by reading the technical specifications shown on the machine under the available supply voltage U1.

Any extension cords must be sized appropriately for the absorbed current I1max.

3 USE

Make sure the trigger has not been pressed.
Turn the machine on using the switch **C**. The warning lamp **V** will light to indicate that the machine is on.
By pressing for an instant the welding torch button compressed air flow is opened. Under this condition set the pressure shown by the pressure gauge **F**, at 5 bar (0.5 MPa) for 6 m long torches and 0.55 bar (0.55 MPa) for 12 m long torches by means of the reducer knob **E**, and then lock the knob by pushing it down.
Connect the grounding clamp to the workpiece.
The cutting circuit must not be deliberately placed in direct or indirect contact with the protective wire except in the workpiece.
If the workpiece is deliberately grounded using the protective conductor, the connection must be as direct as possible and use a wire of at least the same size as the cutting current return wire, and connected to the workpiece at the same point as the return wire using the return wire clamp or a second grounding clamp placed in the immediate vicinity. Every precaution must be taken to avoid stray currents.

3.1 CUTTING ("CUT" OPERATING MODE)

Use the knob **M** to select the cutting current.
Cebora CP101 welding torch:
with nozzle ø 1.2 and 45 to 60 A currents use the two faces spacer Art. 1404.
Cebora CP161 welding torch:
With a 20 to 40A cutting current and a 0.8 mm diameter nozzle a cut can be made by placing the nozzle directly on the workpiece (drag cut).
For currents higher than 40A a spring spacer or a 2-end spacer must be used to avoid to put into direct contact the nozzle or the nozzle protection with the workpiece to be cut.
With the welding torch in automatic mode, keep a distance of approximately 4mm between the nozzle protection and the workpiece, as indicated in the cutting tables.

Make sure that the grounding clamp and workpiece have a good electrical contact, especially with painted, oxidized or insulated sheet metal.
Do not connect the grounding clamp to the part of the material that is to be removed.
Press the torch trigger to strike the pilot arc.
If cutting does not begin within 2 seconds, the pilot arc goes out; press the trigger again to re-strike it.
Hold the torch upright while cutting.
When you have finished cutting and released the trigger, air will continue to leave the torch for approximately 100 seconds to allow the torch to cool down.
It is best not to turn the machine off until this cool-down period is complete.
Should you need to make holes or begin cutting from the center of the workpiece, you must hold the torch at an angle and slowly straighten it so that the nozzle does not spray molten metal (see fig. 2). This must be done when making holes in pieces more than 3 mm thick.

In the automatic mode strictly follow the cutting tables.
When making circular cuts, we recommend using the special compass available upon request. It is important to remember that use of the compass may make it necessary to use the starting technique described above (fig.2).

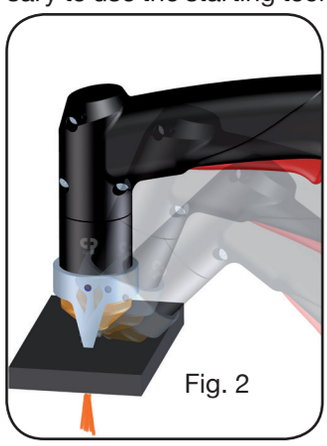


Fig. 2

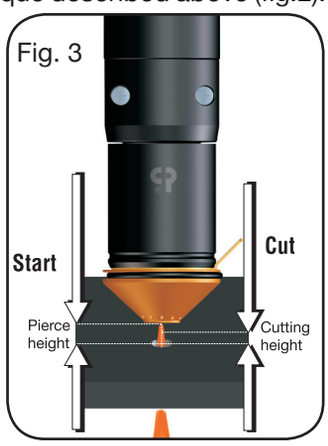


Fig. 3

Do not keep the pilot arc lit in the air when not needed, to avoid unnecessary consumption of the electrode, swirl ring or nozzle.
Turn the machine off when the task is completed.

3.2 GRID CUTTING (SELF-RESTART OPERATING MODE)

Use this function to cut drilled plates or grids.
When cutting is completed, keep the knob pressed and the pilot arc will restart automatically. **Use this function only if required, to avoid excessive wearing of the electrode and the nozzle**.

3.3 GOUGING ("GOUGE" OPERATING MODE). only for CP161 torches.

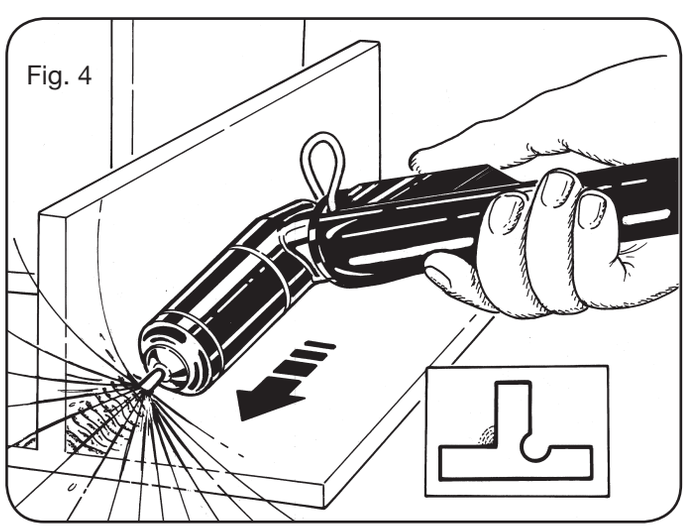


Fig. 4

This operation makes it possible to remove defective welds, to separate welded pieces, to prepare edges, etc.
For this operation use a 3 mm ø nozzle.
The value of the current to be used varies from 60 to 100A depending on the thickness and quantity of material to be removed. With the welding torch in slanted position

(fig.4) proceed towards the melted metal so that the gas coming out of the welding torch keeps it away. The welding torch slanted position versus the workpiece depends on the penetration you want to obtain. As melted dross tends to stick to the nozzle holder and nozzle protection during this procedure, it is recommended to frequently clean them so as to avoid problems (double arc) which may destroy the nozzle in few seconds. Given the strong (infrared and ultraviolet) radiation emission during this operation, it is recommended that the operator and people nearby wear an adequate protection.
Once the operation is completed, turn the machine off.

4 CUTTING ERRORS

4.1 INSUFFICIENT PENETRATION

This error may be caused by the following:
• high speed. Always make sure that the arc fully penetrates the workpiece and is never held at a forward angle of more than 10 -15°. This will avoid incorrect consumption of the nozzle and burns to the nozzle holder.
• Excessively thick workpiece.
• Grounding clamp not in good electrical contact with the workpiece.
• Worn nozzle and electrode.
• Cutting current too low.
NOTE: When the arc does not penetrate, the molten metal scraps obstruct the nozzle.

4.2 THE CUTTING ARC GOES OFF

This error may be caused by:
• worn nozzle, electrode or swirl ring
• air pressure too high
• supply voltage too low

4.3 SLANTED CUT

If the cut appears slanted, turn the machine off and replace the nozzle.
When the cutting current is above 45 A, prevent the nozz le from coming into electrical contact with the workpiece (even through scraps of molten metal), this condition causes rapid and at times instantaneous destruction of the nozzle hole, leading to poor quality cutting.

4.4 EXCESSIVE WEAR ON CONSUMablee PARTS

This problem may be caused by:
a) air pressure too low compared to the recommended level.
b) excessive burns on the end of the nozzle holder.

5 HELPFUL HINTS

• If the system air contains considerable amounts of moisture and oil, it is best to use a drying filter to avoid excessive oxidation and wear on consumer parts, damage to the torch and a reduction in the speed and quality of the cutting.
• The impurities in the air encourage oxidation of the electrode and nozzle, and may make it difficult to strike the pilot arc. If this occurs, use fine sandpaper to clean the end of the electrode and the interior of the nozzle.
• Make sure that the new electrode and nozzle to be mounted are thoroughly clean and degreased.
• Always use original spare parts to avoid damaging the torch.

6 MAINTENANCE

Always cut off the power supply to the machine before any operation, which must always be carried out by qualified personnel.

6.1 GENERATOR MAINTENANCE

In the case of maintenance inside the machine, make sure that the switch **C** is in position "O" and **that the power cord is disconnected from the mains**.
Also make sure that there is no voltage at the ends of the IGBT group capacitors.
Even though the machine is equipped with an automatic condensation drainage device that is tripped each time the air supply is closed, it is good practice to periodically make sure that there is no condensation accumulated in the water trap **I** (fig.1). It is also necessary to periodically clean the interior of the machine from the accumulated metal dust, using compressed air.

6.1.1 Troubleshooting.

The LED **S** lights when the following conditions occur:

LEDS	CONDITION	SOLUTION
Steadily lit	Upon equipment start-up	Wait 5 sec
Steadily lit	Button pressed during equipment start-up	Release the button
Steadily lit	Missing safety protection R	Mount the protection
Steadily lit	Incorrect IGBT drive voltage	Contact technical service
Steadily lit	Reed contact closed during equipment start-up	Contact technical service
Steadily lit	Supply voltage too low	Check the supply voltage
Steadily lit	Phase missing in the power supply line	Check the power supply line. Note: in some situations a missing phase does not cause the LED S to light, therefore you should always check the power supply line in the case of malfunction
Flashing lit	Short-circuit between electrode and nozzle during equipment start-up or during cutting	Replace the electrode and gas nozzle, and diffuser if necessary

6.2 TORCH MAINTENANCE

Making reference to Fig. 5 and Fig 6, parts subject to wear are electrode **A**, swirl ring **B**, nozzle **C** and nozzle protection **E**. These should be replaced after unscrewing the nozzle holder **D**.
Electrode **A** must be replaced when it shows an approx 1.2 mm deep crater at the center.
CAUTION: do not use sudden force to unscrew the electrode; work gradually to release the thread. The new electrode must be screwed into the seat and fastened in place without tightening fully.
The nozzle **C** must be replaced when the central hole is damaged or wider than that of a new part. Delays in replacing the electrode or nozzle will cause the parts to overheat, and jeopardize the life-span of the swirl ring **B**.
Make sure that the gas nozzle holder **D** is firmly tightened after replacement.

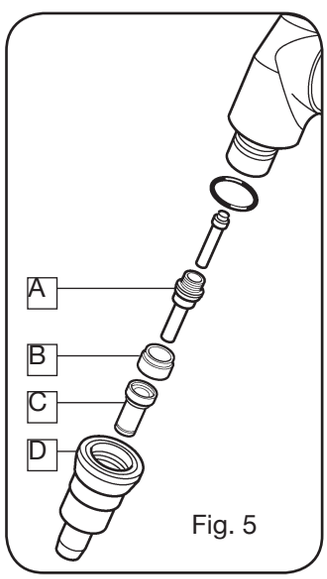


Fig. 5

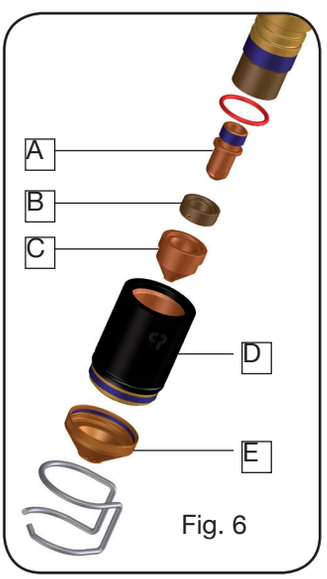


Fig. 6

WARNING: screw the nozzle holder **D** onto the welding torch body only when electrode **A**, swirl ring **B**, nozzle **C** and nozzle protection **E** (only for CP 161) are assembled. **If any of these parts are missing, this will interfere with smooth operation of the machine and, especially, jeopardize operator safety**.

6.3 PRECAUTIONS AFTER REPAIRS.

After making repairs, take care to organize the wiring so that there is secure insulation between the primary and secondary sides of the machine. Do not allow the wires to come into contact with moving parts or those that heat up during operation. Reassemble all clamps as they were on the original machine, to prevent a connection from occurring between the primary and secondary circuits should a wire accidentally break or be disconnected.
Also mount the screws with geared washers as on the original machine.

QUESTA PARTE È DESTINATA ESCLUSIVAMENTE AL PERSONALE QUALIFICATO.

THIS PART IS INTENDED SOLELY FOR QUALIFIED PERSONNEL.

DIESER TEIL IST AUSSCHLIESSLICH FÜR DAS FACHPERSONAL BESTIMMT.

CETTE PARTIE EST DESTINEE EXCLUSIVEMENT AU PERSONNEL QUALIFIE.

ESTA PARTE ESTÁ DESTINADA EXCLUSIVAMENTE AL PERSONAL CUALIFICADO.

ESTA PARTE È DEDICADA EXCLUSIVAMENTE AO PESSOAL QUALIFICADO.

TÄMÄ OSA ON TARKOITETTU AINOASTAAN AMMATTITAITOISELLE HENKILÖKUNNALLE.

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DIT DEEL IS UITSLUITEND BESTEMD VOOR BEVOEGD PERSONEEL.

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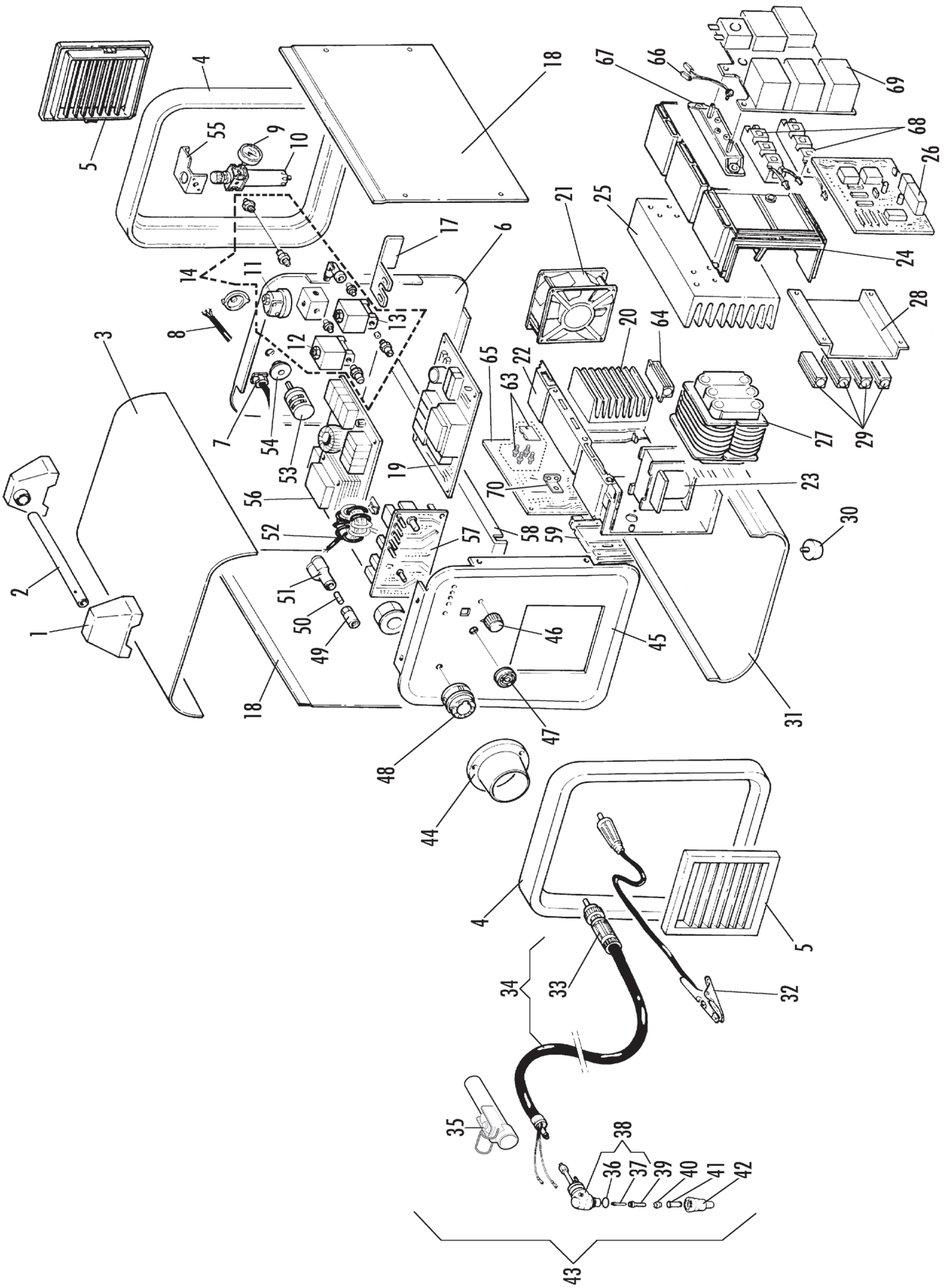
ΑΥΤΌ ΤΟ ΤΜΉΜΑ ΠΡΟΟΡΊΖΕΤΑΙ ΑΠΟΚΛΕΙΣΤΙΚΆ ΓΙΑ ΤΟ ΕΙΔΙΚΕΥΜΈΝΟ ΠΡΟΣΩΠΙΚΌ.

ART. 359

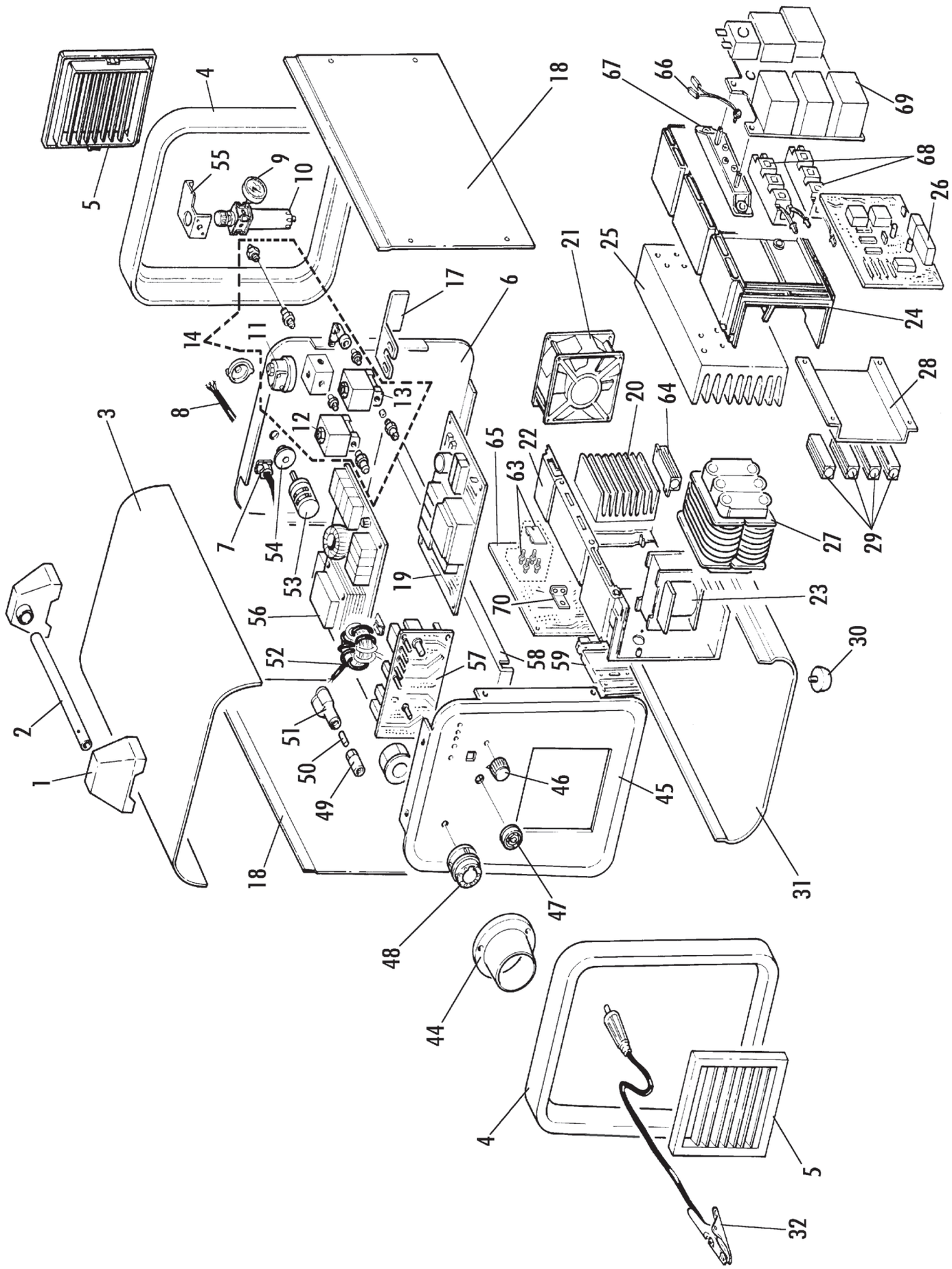


POS	DESCRIZIONE	DESCRIPTION
01	SUPPORTO MANICO	HANDLE SUPPORT
02	MANICO	HANDLE
03	COPERCHIO	COVER
04	CORNICE	FRAME
05	PANNELLO	PANEL
06	PANNELLO POSTERIORE	BACK PANEL
07	PRESSACAVO	STRAIN RELIEF
08	CAVO RETE	POWER CORD
09	MANOMETRO	GAUGE
10	RIDUTTORE	REGULATOR
11	PRESSOSTATO	PRESSURE SWITCH
12	ELETTROVALVOLA	SOLENOID VALVE
13	ELETTROVALVOLA	SOLENOID VALVE
14	GRUPPO ARIA	AIR UNIT
17	SUPPORTO	SUPPORT
18	LATERALE	SIDE PANEL
19	CIRCUITO ALTA FREQUENZA	HIGH-FREQ. CIRCUIT
20	DISSIPATORE	RADIATOR
21	MOTORE CON VENTOLA	MOTOR WITH FAN
22	SUPPORTO SECONDARIO	SECONDARY SUPPORT
23	IMPEDENZA	CHOKE
24	SUPPORTO PRIMARIO	PRIMARY SUPPORT
25	DISSIPATORE	RADIATOR
26	CIRCUITO DI CONTROLLO	CONTROL CIRCUIT
27	TRASFORMAT. DI POTENZA	POWER TRANSFORMER
28	SUPPORTO	SUPPORT
29	RESISTENZA	RESISTANCE
30	PIEDE	FOOT
31	FONDO	BOTTOM
32	CAVO MASSA	EARTH CABLE
33	ADATTATORE MOBILE	MOVABLE ADAPTOR
34	CAVO TORCIA	TORCH CABLE
35	IMPUGNATURA CON PULSANTE	HANDGRIP WITH PUSH BUTTON

POS	DESCRIZIONE	DESCRIPTION
36	ANELLO O.R.	O.RING
37	DIFFUSORE	DIFFUSER
38	CORPO TORCIA (TESTINA)	TORCH BODY (HEAD)
39	ELETTRODO (CONF. DA 5 PZ.)	ELECTRODE (PACK. 5 PCS.)
40	DIFFUSORE ISOLANTE (CONF. DA 2 PZ.)	SWIRL RING (PACK 2 PCS.)
41	UGELLO (CONF. DA 5PZ.)	NOZZLE (PACK. 5 PCS.)
42	PORTAUGELLO	NOZZLE HOLDER
43	TORCIA COMPLETA	COMPLETE TORCHE
44	PROTEZIONE	PROTECTION
45	PANNELLO ANTERIORE	FRONT PANEL
46	MANOPOLA	KNOB
47	PRESA	SOCKET
48	ADATTATORE FISSO	FIXED ADAPTOR
49	RACCORDO	FITTING
50	RACCORDO	FITTING
51	RACCORDO A 3 VIE	T-FITTING
52	TRAS. ALTA TENSIONE	HIGH-VOLTAGE TRANS
53	INTERRUTTORE	SWITCH
54	PROTEZIONE	PROTECTION
55	SUPPORTO RIDUTTORE	REGULATOR SUPPORT
56	CIRCUITO FILTRO	FILTER CIRCUIT
57	CIRCUITO PANNELLO	PANEL CIRCUIT
58	PIANO INTERMEDIO	INSIDE BAFFLE
59	SUPPORTO IMPEDENZA	IMPEDANCE SUPPORT
63	KIT DIODO	DIODE KIT
64	RESISTENZA	RESISTANCE
65	CIRCUITO SECONDARIO	SECONDARY CIRCUIT
66	TERMOSTATO	THERMOSTAT
67	RADDRIZZATORE	RECTIFIER
68	I.G.B.T	I.G.B.T
69	CIRCUITO I.G.B.T.	I.G.B.T. CIRCUIT
70	CAVALLOTTO	JUMPER

La richiesta di pezzi di ricambio deve indicare sempre: numero di articolo, matricola e data di acquisto della macchina, posizione e quantità del ricambio.

When ordering spare parts please always state the machine item and serial number and its purchase data, the spare part position and the quantity.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POS	DESCRIZIONE	DESCRIPTION
01	SUPPORTO MANICO	HANDLE SUPPORT
02	MANICO	HANDLE
03	COPERCHIO	COVER
04	CORNICE	FRAME
05	PANNELLO	PANEL
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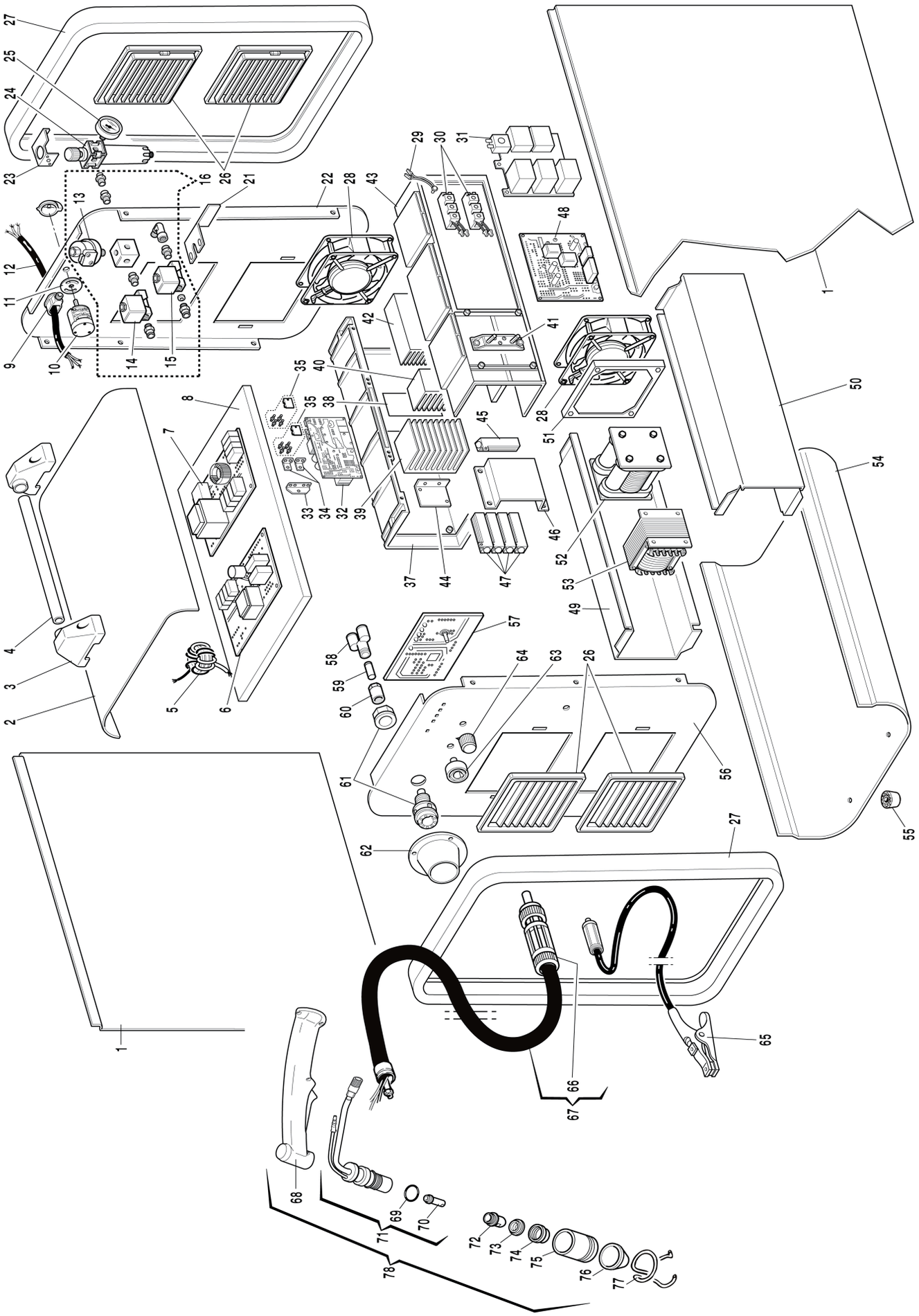
25	DISSIPATORE	RADIATOR
26	CIRCUITO DI CONTROLLO	CONTROL CIRCUIT
27	TRASFORMAT. DI POTENZA	POWER TRANSFORMER
28	SUPPORTO	SUPPORT
29	RESISTENZA	RESISTANCE

POS	DESCRIZIONE	DESCRIPTION
30	PIEDE	FOOT
31	FONDO	BOTTOM
32	CAVO MASSA	EARTH CABLE
44	PROTEZIONE	PROTECTION
45	PANNELLO ANTERIORE	FRONT PANEL
46	MANOPOLA	KNOB
47	PRESA	SOCKET
48	ADATTATORE FISSO	FIXED ADAPTOR
49	RACCORDO	FITTING
50	RACCORDO	FITTING
51	RACCORDO A 3 VIE	T-FITTING
52	TRAS. ALTA TENSIONE	HIGH-VOLTAGE TRANS
53	INTERRUTTORE	SWITCH
54	PROTEZIONE	PROTECTION
55	SUPPORTO RIDUTTORE	REGULATOR SUPPORT
56	CIRCUITO FILTRO	FILTER CIRCUIT
57	CIRCUITO PANNELLO	PANEL CIRCUIT
58	PIANO INTERMEDIO	INSIDE BAFFLE
59	SUPPORTO IMPEDENZA	IMPEDANCE SUPPORT
63	KIT DIODO	DIODE KIT
64	RESISTENZA	RESISTANCE
65	CIRCUITO SECONDARIO	SECONDARY CIRCUIT
66	TERMOSTATO	THERMOSTAT
67	RADDRIZZATORE	RECTIFIER
68	I.G.B.T	I.G.B.T
69	CIRCUITO I.G.B.T.	I.G.B.T. CIRCUIT
70	CAVALLOTTO	JUMPER

La richiesta di pezzi di ricambio deve indicare sempre: numero di articolo, matricola e data di acquisto della macchina, posizione e quantità del ricambio.

When ordering spare parts please always state the machine item and serial number and its purchase data, the spare part position and the quantity.

ART. 361



POS	DESCRIZIONE	DESCRIPTION
01	LATERALE	SIDE PANEL
02	COPERCHIO	COVER
03	SUPPORTO MANICO	HANDLE SUPPORT
04	MANICO	HANDLE
05	TRAS. ALTA TENSIONE	HIGH-VOLTAGE TRANS.
06	CORCUITO ALTA FREQUENZA	HIGH-FREQ. CIRCUIT
07	CIRCUITO FILTRO	FILTER CIRCUIT
08	PIANO INTERMEDIO	INSIDE BAFFLE
09	PRESSACAVO	STRAIN RELIEF
10	INTERRUTTORE	REGULATOR
11	PROTEZIONE	PROTECTION
12	CAVO RETE	POWER CORD
13	PRESSOSTATO	PRESSURE SWITCH
14	ELETTROVALVOLA	SOLENOID VALVE
15	ELETTROVALVOLA	SOLENOID VALVE
16	GRUPPO ARIA	AIR UNIT
21	SUPPORTO	SUPPORT
22	PANNELLO POSTERIORE	BACK PANEL
23	SUPPORTO RIDUTTORE	REGULATOR SUPPORT
24	RIDUTTORE	REGULATOR
25	MANOMETRO	GAUGE
26	PANNELLO	PANEL
27	CORNICE	FRAME
28	MOTORE CON VENTOLA	MOTOR WITH FAN
29	TERMOSTATO	THERMOSTAT
30	I.G.B.T.	I.G.B.T.
31	CIRCUITO I.G.B.T.	I.G.B.T. CIRCUIT
32	CIRCUITO SECONDARIO	SECONDARY CIRCUIT
33	CAVALLOTTO POSITIVO	POSITIVE JUMPER
34	CAVALLOTTO NEGATIVO	NEGATIVE JUMPER
35	KIT DIODI	DIODE KIT
37	SUPPORTO SECONDARIO	SECONDARY SUPPORT
38	ISOLAMENTO	INSULATION
39	DISSIPATORE	RADIATOR
40	DISSIPATORE	RADIATOR
41	RADDRIZZATORE	RECTIFIER
42	DISSIPATORE	RADIATOR
43	SUPPORTO PRIMARIO	PRIMARY SUPPORT

POS	DESCRIZIONE	DESCRIPTION
44	SUPPORTO RESISTENZA	RESISTANCE SUPPORT
45	RESISTENZA	RESISTANCE
46	SUPPORTO RESISTENZA	RESISTANCE SUPPORT
47	RESISTENZA	RESISTANCE
48	CIRCUITO DI CONTROLLO	CONTROL CIRCUIT
49	SUPPORTO CENTRALE SX.	LEFT CENTRAL SUPPORT
50	SUPPORTO CENTRALE DX.	RIGHT CENTRAL SUPPORT
51	SUPPORTO MOTORE	MOTOR SUPPORT
52	TRASFORMAT. DI POTENZA	POWER TRANSFORMER
53	IMPEDENZA	CHOKE
54	FONDO	BOTTOM
55	PIEDE	FOOT
56	PANNELLO ANTERIORE	FRONT PANEL
57	CIRCUITO PANNELLO	PANEL CIRCUIT
58	RACCORDO	FITTING
59	RACCORDO	FITTING
60	RACCORDO	FITTING
61	ADATTATORE FISSO	FIXED ADAPTOR
62	PROTEZIONE	PROTECTION
63	PRESA	SOCKET
64	MANOPOLA	KNOB
65	CAVO MASSA	EARTH CABLE
66	ADATTATORE MOBILE	MOVABLE ADAPTOR
67	CAVO TORCIA	TORCH CABLE
68	IMPUGNATURA CON PULSANTE	HANDGRIP WITH PUSHBUTTON
69	ANELLO O.R	O.RING
70	DIFFUSORE	DIFFUSER
71	CORPO TORCIA (TESTINA)	TORCH BODY (HEAD)
72	ELETTRODO (CONF. DA 5 PZ.)	ELECTRODE (PACK. 5 PCS.)
73	DIFFUSORE ISOLANTE (CONF. DA 1 PZ.)	SWIRL RING (PACK 1 PCS.)
74	UGELLO (CONF. DA 5 PZ.)	NOZZLE (PACK. 5 PCS.)
75	PORTAUGELLO	NOZZLE HOLDER
76	PROTEZIONE UGELLO	NOZZLE PROTECTION
77	MOLLA DISTANZIALE	SPACING SPRING
78	TORCIA COMPLETA	COMPLETE TORCHE

La richiesta di pezzi di ricambio deve indicare sempre: numero di articolo, matricola e data di acquisto della macchina, posizione e quantità del ricambio.

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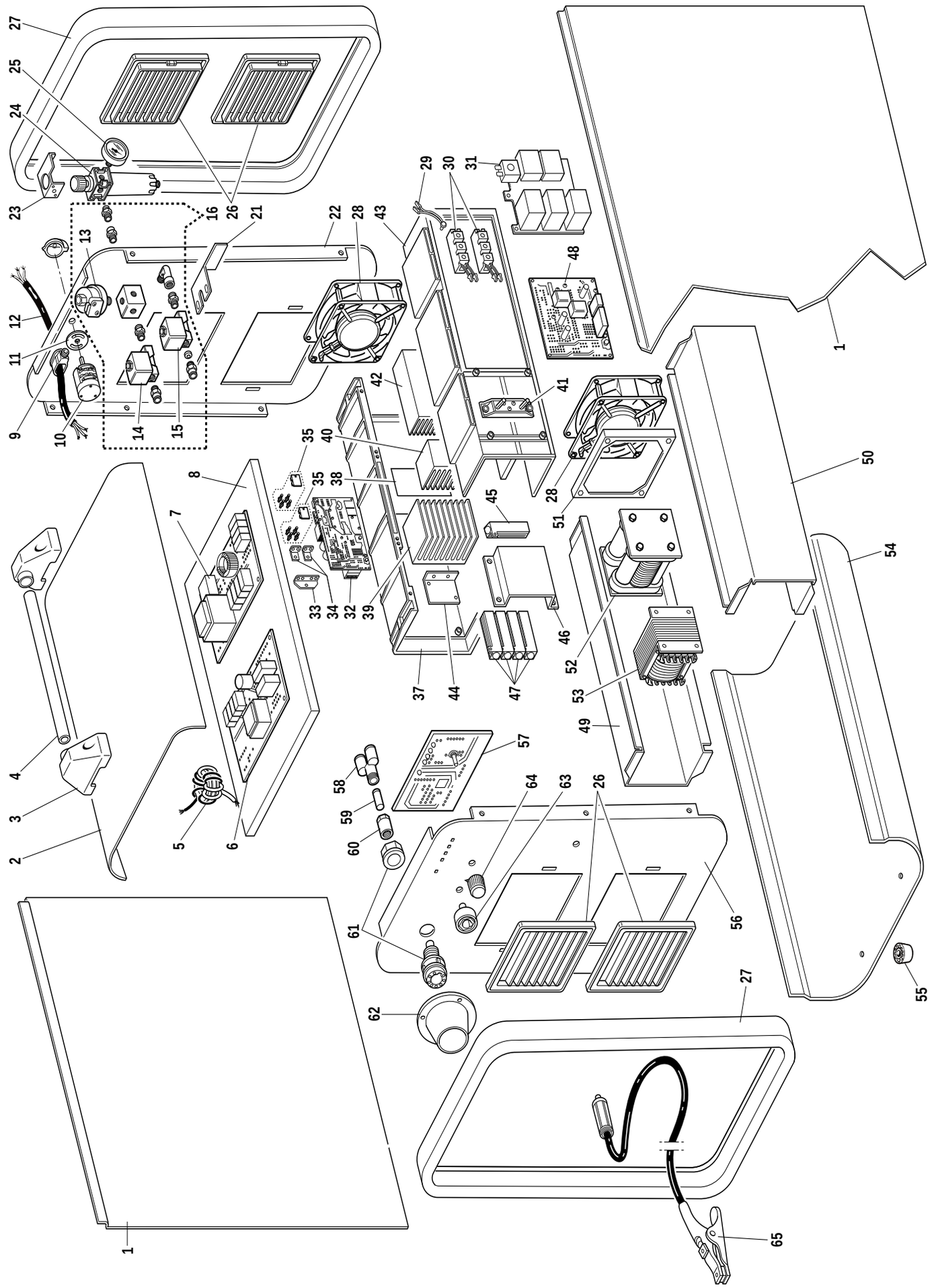
ART. 361.95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POS	DESCRIZIONE	DESCRIPTION
01	LATERALE	SIDE PANEL
02	COPERCHIO	COVER
03	SUPPORTO MANICO	HANDLE SUPPORT
04	MANICO	HANDLE
05	TRAS. ALTA TENSIONE	HIGH-VOLTAGE TRANS.
06	CIRCUITO ALTA FREQUENZA	HIGH-FREQ. CIRCUIT
07	CIRCUITO FILTRO	FILTER CIRCUIT
08	PIANO INTERMEDIO	INSIDE BAFFLE
09	PRESSACAVO	STRAIN RELIEF
10	INTERRUTTORE	SWITCH
11	PROTEZIONE	PROTECTION
12	CAVO RETE	POWER CORD
13	PRESSOSTATO	PRESSURE SWITCH
14	ELETTROVALVOLA	SOLENOID VALVE
15	ELETTROVALVOLA	SOLENOID VALVE
16	GRUPPO ARIA	AIR UNIT
21	SUPPORTO	SUPPORT
22	PANNELLO POSTERIORE	BACK PANEL
23	SUPPORTO RIDUTTORE	REGULATOR SUPPORT
24	RIDUTTORE	REGULATOR
25	MANOMETRO	GAUGE
26	PANNELLO	PANEL
27	CORNICE	FRAME
28	MOTORE CON VENTOLA	MOTOR WITH FAN
29	TERMOSTATO	THERMOSTAT
30	I.G.B.T.	I.G.B.T.
31	CIRCUITO I.G.B.T.	I.G.B.T. CIRCUIT
32	CIRCUITO SECONDARIO	SECONDARY CIRCUIT
33	CAVALLOTTO POSITIVO	POSITIVE JUMPER
34	CAVALLOTTO NEGATIVO	NEGATIVE JUMPER

POS	DESCRIZIONE	DESCRIPTION
35	KIT DIODI	DIODE KIT
37	SUPPORTO SECONDARIO	SECONDARY SUPPORT
38	ISOLAMENTO	INSULATION
39	DISSIPATORE	RADIATOR
40	DISSIPATORE	RADIATOR
41	RADDRIZZATORE	RECTIFIER
42	DISSIPATORE	RADIATOR
43	SUPPORTO PRIMARIO	PRIMARY SUPPORT
44	SUPPORTO RESISTENZA	RESISTANCE SUPPORT
45	RESISTENZA	RESISTANCE
46	SUPPORTO RESISTENZA	RESISTANCE SUPPORT
47	RESISTENZA	RESISTANCE
48	CIRCUITO DI CONTROLLO	CONTROL CIRCUIT
49	SUPPORTO CENTRALE SX.	LEFT CENTRAL SUPPORT
50	SUPPORTO CENTRALE DX.	RIGHT CENTRAL SUPPORT
51	SUPPORTO MOTORE	MOTOR SUPPORT
52	TRASFORMAT. DI POTENZA	POWER TRANSFORMER
53	IMPEDENZA	CHOKE
54	FONDO	BOTTOM
55	PIEDE	FOOT
56	PANNELLO ANTERIORE	FRONT PANEL
57	CIRCUITO PANNELLO	PANEL CIRCUIT
58	RACCORDO	FITTING
59	RACCORDO	FITTING
60	RACCORDO	FITTING
61	ADATTATORE FISSO	FIXED ADAPTOR
62	PROTEZIONE	PROTECTION
63	PRESA	SOCKET
64	MANOPOLA	KNOB
65	CAVO MASSA	EARTH CABLE

La richiesta di pezzi di ricambio deve indicare sempre: numero di articolo, matricola e data di acquisto della macchina, posizione e quantità del ricambio.

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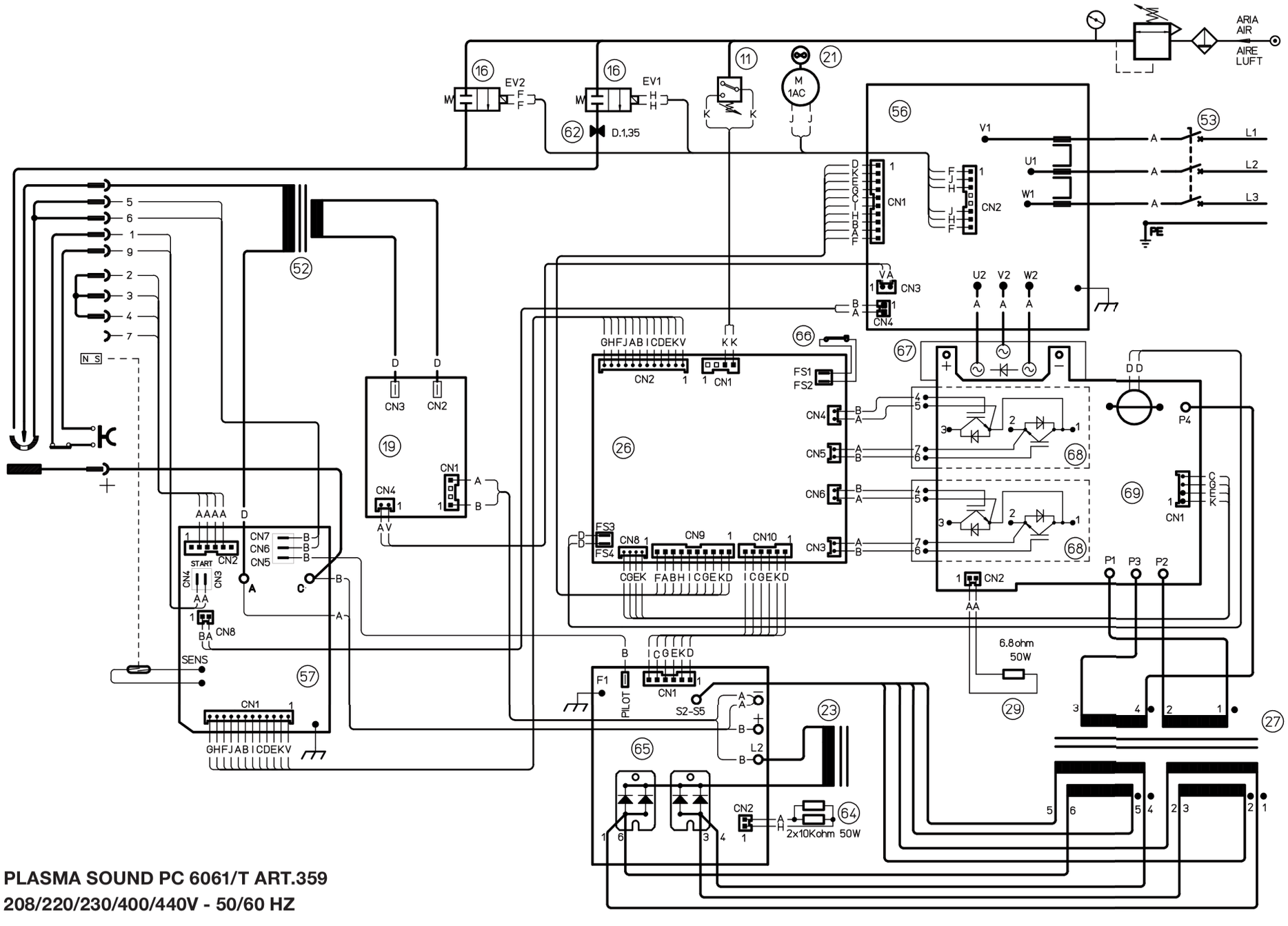
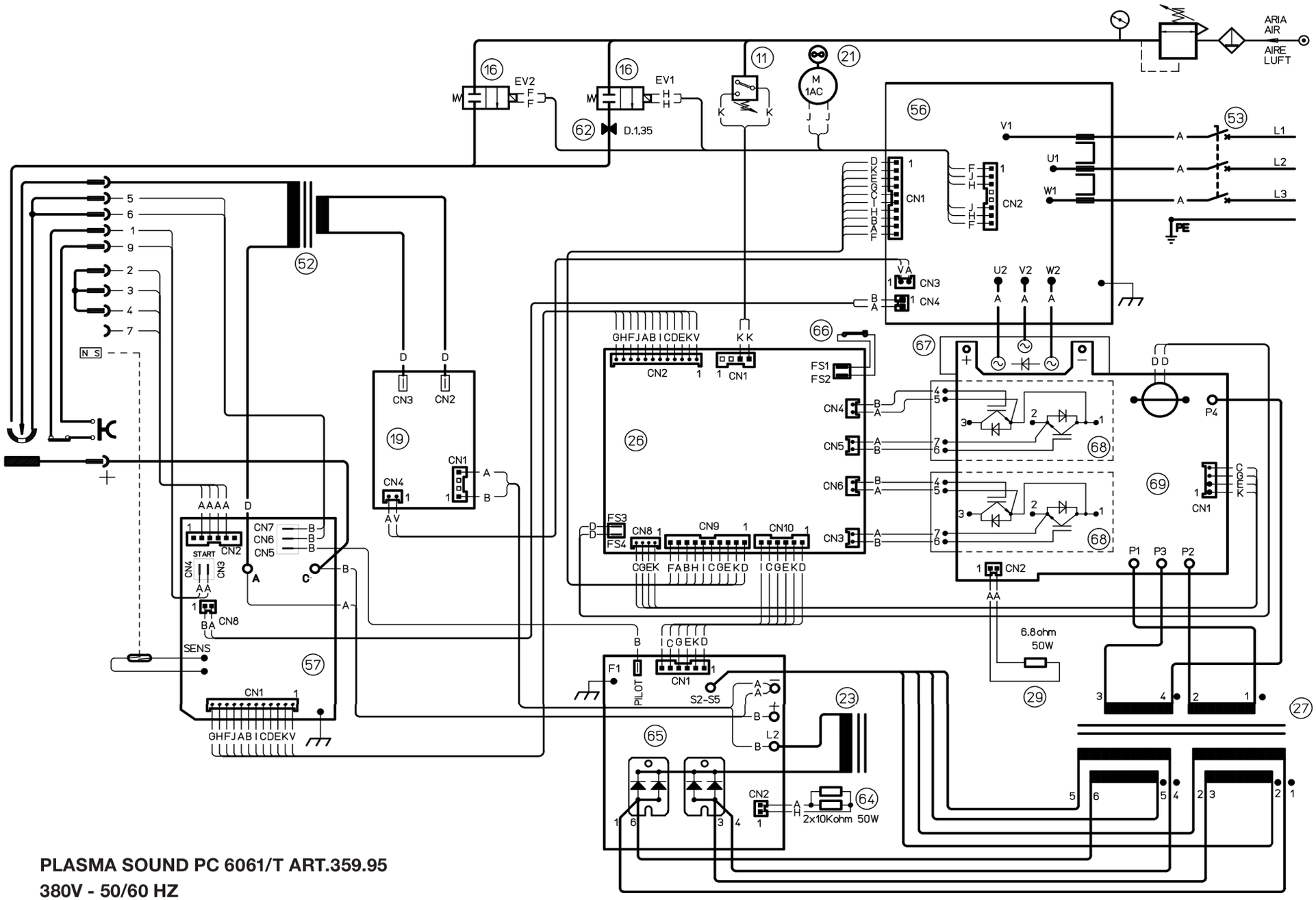
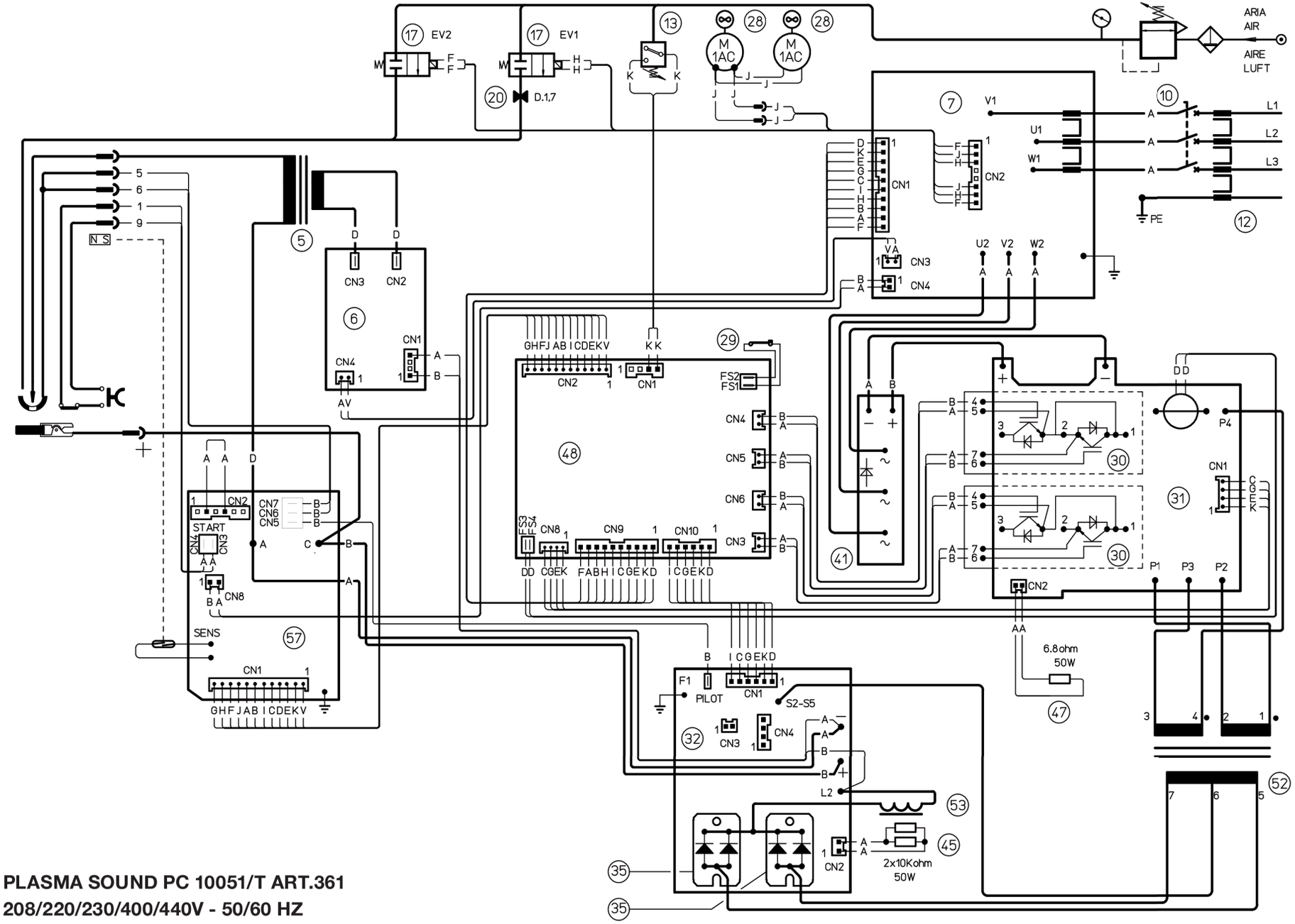


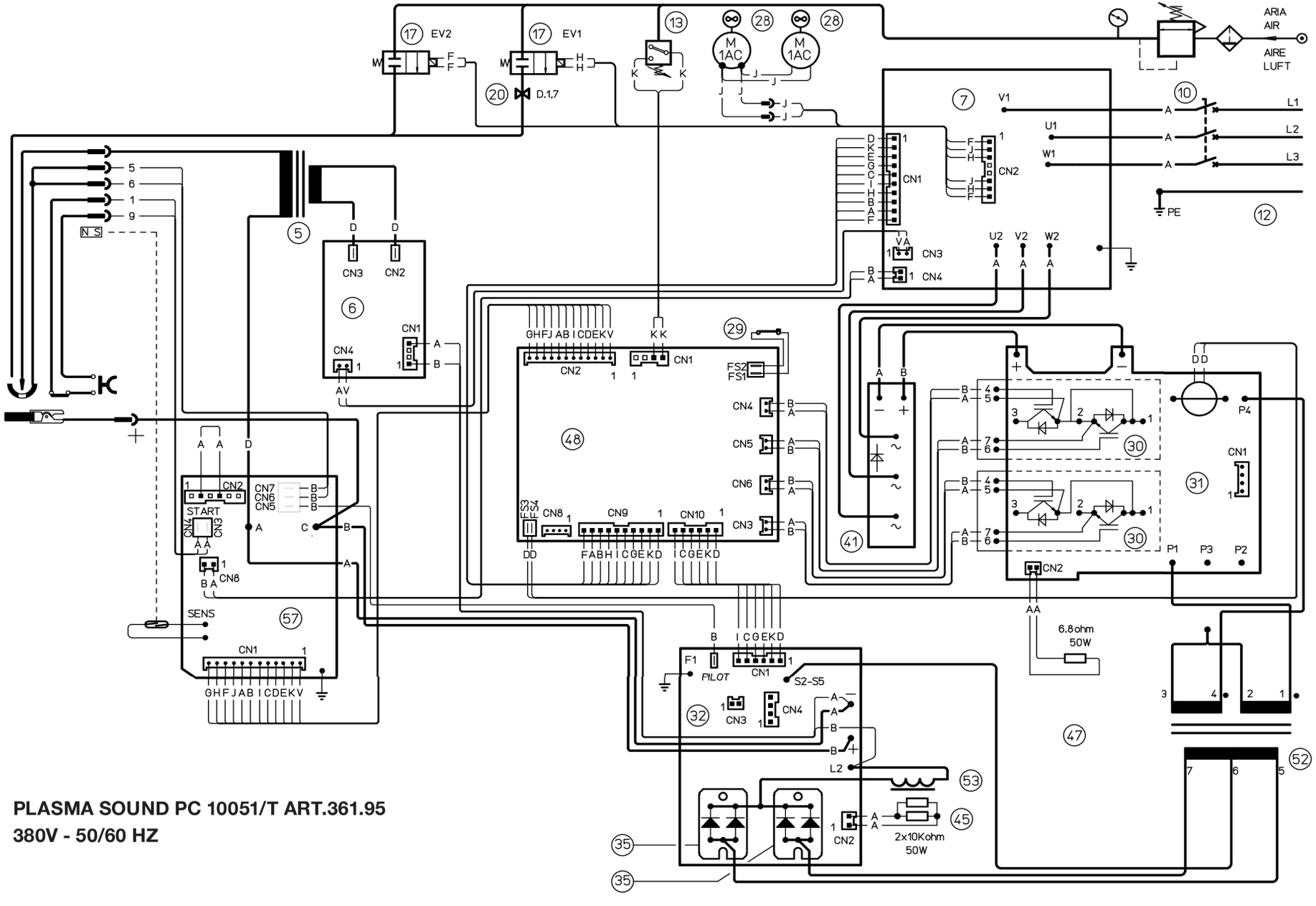
PLASMA SOUND PC 6061/T ART.359
208/220/230/400/440V - 50/60 HZ



PLASMA SOUND PC 6061/T ART.359.95
380V - 50/60 HZ



PLASMA SOUND PC 10051/T ART.361
208/220/230/400/440V - 50/60 HZ



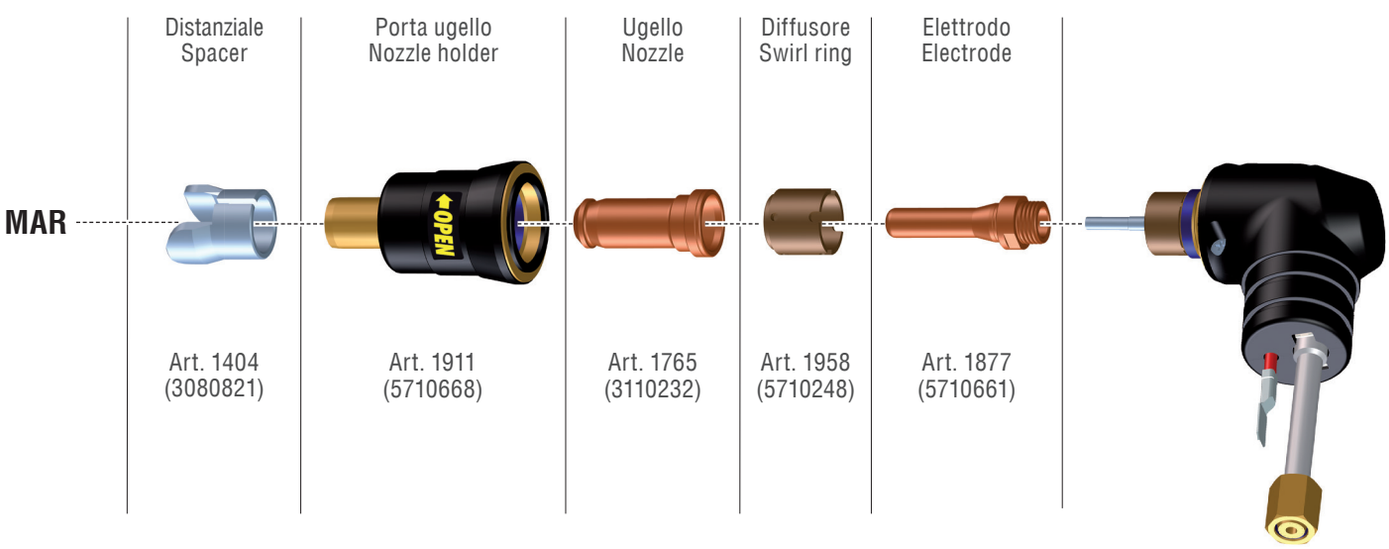
PLASMA SOUND PC 10051/T ART.361.95
380V - 50/60 HZ

CODIFICA COLORI CABLAGGIO ELETTRICO		WIRING DIAGRAM COLOUR CODE
A	NERO	BLACK
B	ROSSO	RED
C	GRIGIO	GREY
D	BIANCO	WHITE
E	VERDE	GREEN
F	VIOLA	PURPLE
G	GIALLO	YELLOW
H	BLU	BLUE
K	MARRONE	BROWN
J	ARANCIO	ORANGE
I	ROSA	PINK

CODIFICA COLORI CABLAGGIO ELETTRICO		WIRING DIAGRAM COLOUR CODE
L	ROSA-NERO	PINK-BLACK
M	GRIGIO-VIOLA	GREY-PURPLE
N	BIANCO-VIOLA	WHITE-PURPLE
O	BIANCO-NERO	WHITE-BLACK
P	GRIGIO-BLU	GREY-BLUE
Q	BIANCO-ROSSO	WHITE-RED
R	GRIGIO-ROSSO	GREY-RED
S	BIANCO-BLU	WHITE-BLUE
T	NERO-BLU	BLACK-BLUE
U	GIALLO-VERDE	YELLOW-GREEN
V	AZZURRO	BLUE

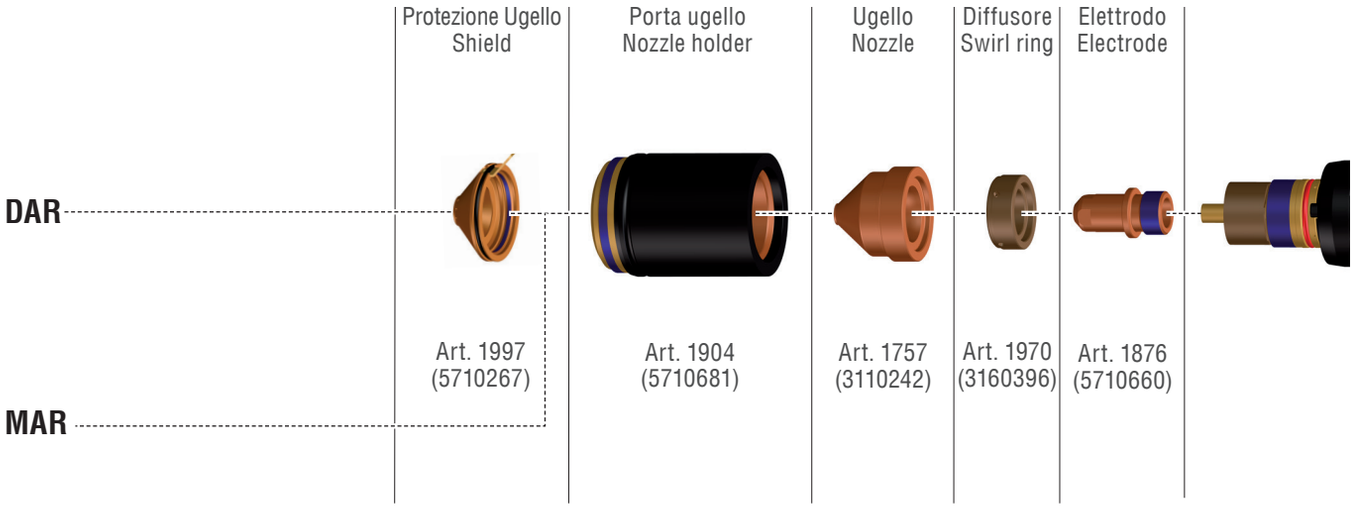
TABELLE DI TAGLIO
CUTTING CHARTS

Art. 359-361 - CP101 - 60 A



	Acciaio dolce *Mild steel*		Acciaio inossidabile *Stainless steel*		Alluminio *Aluminium*	
Corrente di taglio *Cutting current*	Spessore *Thickness*	Velocità di taglio *Cutting speed*	Spessore *Thickness*	Velocità di taglio *Cutting speed*	Spessore *Thickness*	Velocità di taglio *Cutting speed*
(A)	(mm)	(m/min)	(mm)	(m/min)	(mm)	(m/min)
60	3	5,20	4	3,20	4	4,00
60	6	2,20	5	2,30	6	2,30
60	8	1,60	6	1,80	8	1,60
60	10	1,10	8	0,90	12	0,90
60	12	0,85	12	0,40	15	0,70
60	15	0,50	15	0,25	20	0,50
60	20	0,26	20	0,15	25	0,40
60	25	0,17				
60	30	0,07				

Art. 359-361 - CP161 - 40 A



ACCIAIO DOLCE - MILD STEEL

Corrente di taglio *Cutting current*	Spessore *Thickness*	Tensione d'arco (qualità) *Arc voltage (quality)*	Velocità di taglio *Cutting speed*		Altezza di lavoro *Cutting height*	Altezza di sfondamento *Pierce height*	Ritardo di sfondamento *Pierce delay*	Solco di taglio (qualità) *Kerf width (quality)*
			Qualità *Quality*	Produzione *Production*				
(A)	(mm)	(V)	(m/min)		(mm)	(mm)	(s)	(mm)
40	1	87	8,00	10,00	1,5	3,0	0,1	0,6
40	2	92	6,00	6,60	1,5	3,0	0,1	0,9
40	3	98	3,30	4,00	1,5	3,0	0,2	1,2
40	5	101	1,50	2,00	1,5	5,0	0,4	1,5
40	6	106	1,00	1,50	1,5	5,0	0,5	1,7

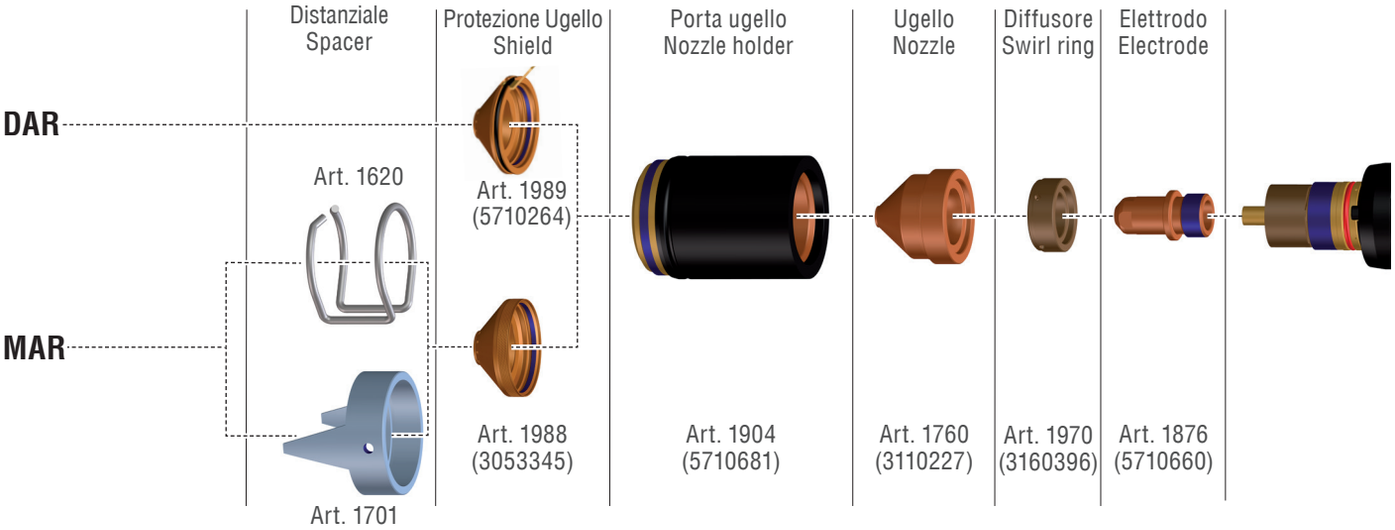
ACCIAIO INOSSIDABILE - STAINLESS STEEL

40	1	92	8,00	10,00	1,5	3,0	0,1	1,4
40	2	96	4,80	5,50	1,5	4,0	0,4	1,6
40	3	98	2,80	3,40	1,5	4,0	0,4	1,9
40	5	101	1,30	1,80	1,5	5,0	0,4	2,0
40	6	105	0,70	0,90	1,5	5,0	0,5	2,1

ALLUMINIO - ALUMINIUM

40	1	100	8,10	10,00	1,5	3,0	0,2	1,4
40	2	105	6,00	7,00	1,5	4,0	0,3	1,5
40	3	106	2,70	3,70	1,5	4,0	0,4	1,7
40	5	110	1,60	2,20	1,5	4,0	0,5	1,9
40	6	112	1,10	1,70	1,5	5,0	0,5	2,0

Art. 359-361 - CP161 - 60 A



ACCIAIO DOLCE - MILD STEEL

Corrente di taglio *Cutting current*	Spessore *Thickness*	Tensione d'arco (qualità) *Arc voltage (quality)*	Velocità di taglio *Cutting speed*		Altezza di lavoro *Cutting height*	Altezza di sfondamento *Pierce height*	Ritardo di sfondamento *Pierce delay*	Solco di taglio (qualità) *Kerf width (quality)*
			Qualità *Quality*	Produzione *Production*				
(A)	(mm)	(V)	(m/min)		(mm)	(mm)	(s)	(mm)
60	3	136	5,50	6,25	4,0	5,0	0,3	1,7
60	6	139	2,30	2,70	4,0	7,0	0,5	1,8
60	8	140	1,70	1,90	4,0	7,0	0,5	1,8
60	10	141	1,30	1,51	4,0	7,0	0,6	1,9
60	12	146	0,90	1,02	4,0	7,0	0,7	2,1
60	15	155	0,45	0,51	4,0	8,0	1,0	2,3
60	20	158	0,30	0,42	4,0	Partenza dal bordo *(Edge start)*		2,6
60	25	169	0,15	0,19	4,0			3,2
60	30	183	0,07	0,08	4,0			4,0

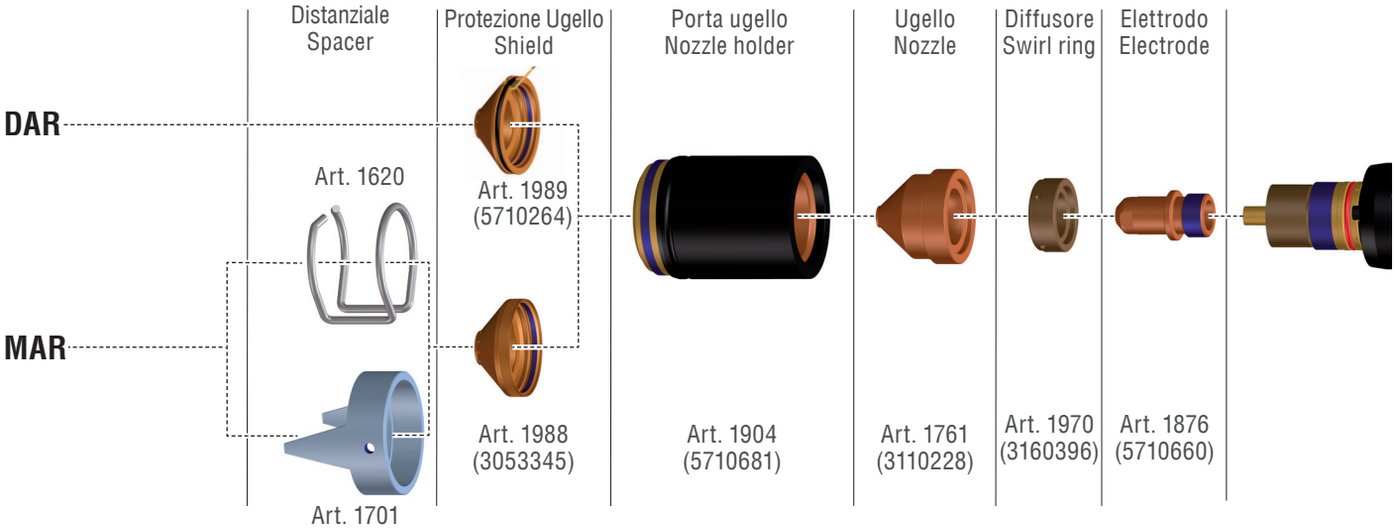
ACCIAIO INOSSIDABILE - STAINLESS STEEL

60	3	141	5,50	6,10	4,0	5,0	0,2	1,7
60	4	145	4,20	5,40	4,0	5,0	0,3	1,8
60	5	134	2,50	3,10	4,0	6,0	0,4	1,9
60	6	136	1,70	2,05	4,0	6,0	0,4	1,9
60	8	144	1,00	1,45	4,0	6,0	0,4	2,0
60	12	146	0,59	0,74	4,0	7,0	0,5	2,2
60	15	157	0,32	0,40	4,0	Partenza dal bordo *(Edge start)*		2,4
60	20	158	0,21	0,27	4,0			2,7
60	25	160	0,15	0,17	4,0			3,2

ALLUMINIO - ALUMINIUM

60	3	129	6,50	7,10	4,0	4,0	0,2	1,7
60	4	134	5,40	6,50	4,0	4,0	0,3	1,8
60	6	142	2,80	4,00	4,0	4,0	0,4	1,9
60	8	150	2,00	2,45	4,0	5,0	0,7	1,9
60	12	157	1,10	1,35	4,0	7,0	1,1	2,1
60	15	162	0,70	0,80	4,0	Partenza dal bordo *(Edge start)*		2,2
60	20	170	0,35	0,42	4,0			2,5
60	25	178	0,15	0,18	4,0			3,1

Art. 361 - CP161 - 100 A



ACCIAIO DOLCE - MILD STEEL

Corrente di taglio *Cutting current*	Spessore *Thickness*	Tensione d'arco (qualità) *Arc voltage (quality)*	Velocità di taglio *Cutting speed*		Altezza di lavoro *Cutting height*	Altezza di sfondamento *Pierce height*	Ritardo di sfondamento *Pierce delay*	Solco di taglio (qualità) *Kerf width (quality)*
			Qualità *Quality*	Produzione *Production*				
(A)	(mm)	(V)	(m/min)		(mm)	(mm)	(s)	(mm)
100	3	131	6,50	9,00	4,0	4,0	0,2	1,7
100	6	132	4,20	5,80	4,0	7,0	0,5	1,7
100	8	132	3,00	3,80	4,0	7,0	0,6	2,0
100	10	134	2,20	2,70	4,0	7,0	0,7	2,1
100	12	136	1,80	2,10	4,0	7,0	0,8	2,3
100	15	138	1,00	1,40	4,0	7,0	0,9	2,2
100	20	143	0,80	0,91	4,0	7,0	1,2	2,8
100	25	149	0,50	0,60	4,0	Partenza dal bordo *(Edge start)*		2,9
100	30	155	0,30	0,40	4,0			3,2
100	35	160	0,25	0,30	4,0			3,3
100	40	166	0,15	0,19	4,0			3,4

ACCIAIO INOSSIDABILE - STAINLESS STEEL

100	4	124	6,50	8,50	4,0	4,0	0,3	1,7
100	5	124	4,80	6,20	4,0	4,0	0,4	1,7
100	6	133	3,40	5,10	4,0	5,0	0,5	1,8
100	8	134	2,20	3,30	4,0	5,0	0,5	2,1
100	12	140	1,10	1,60	4,0	6,0	0,7	2,2
100	15	144	0,80	1,10	4,0	7,0	0,7	2,3
100	20	148	0,55	0,78	4,0	7,0	1,2	3,0
100	25	149	0,41	0,50	4,0	Partenza dal bordo *(Edge start)*		3,1
100	30	153	0,28	0,34	4,0			3,3

ALLUMINIO - ALUMINIUM

100	4	125	7,80	9,50	4,0	3,0	0,3	1,6
100	6	133	5,00	7,00	4,0	4,0	0,3	1,7
100	8	137	3,60	5,20	4,0	5,0	0,3	1,9
100	12	143	1,70	2,30	4,0	6,0	0,4	2,3
100	15	148	1,30	1,59	4,0	7,0	0,4	2,4
100	20	156	0,86	1,12	4,0	7,0	0,8	2,8
100	25	158	0,60	0,67	4,0	Partenza dal bordo *(Edge start)*		2,9
100	30	165	0,50	0,58	4,0			3,1
100	35	167	0,32	0,36	4,0			3,2
100	40	168	0,21	0,23	4,0			3,4

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