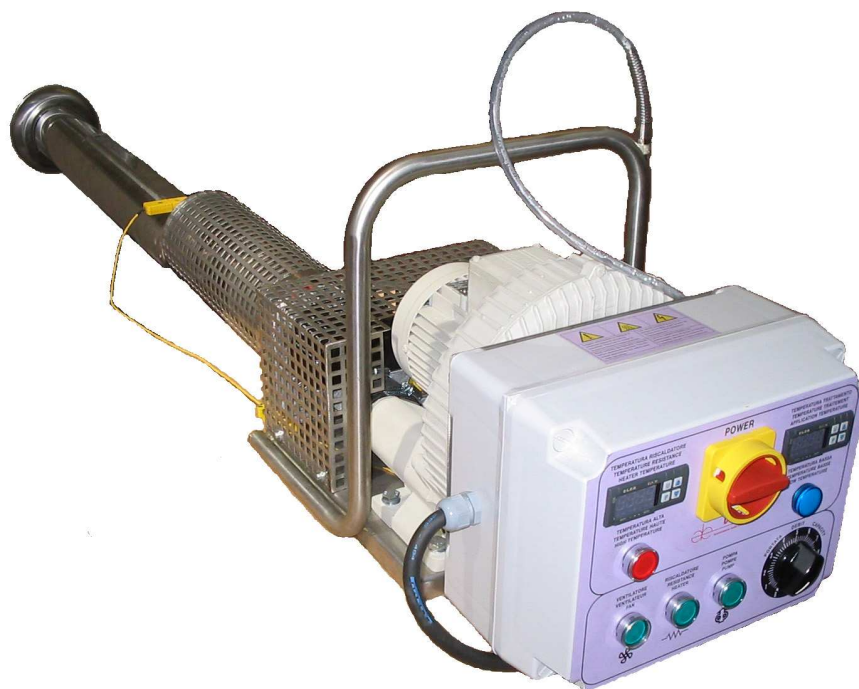


USER MANUAL

ELECTROFOG EWH10000



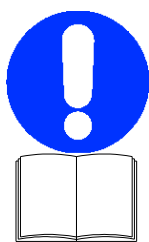
xeda international

FRANCE

Il Zone artisanale n°2 13670
Saint-Andiol Tel. 0490902323

This user and maintenance manual is an integral part of the machine.
Read the manual before operating the machine.
Consulting the manual means working safely.

FOREWORD



This user and maintenance manual is a guide for the user aimed at ensuring a safe and correct usage of the equipment. Our equipment is designed and manufactured to ensure the best possible performances, the utmost cost-effective operation, and excellent user-friendliness associated with total safety. It is accurately verified and inspected before delivery to guarantee users a safe and reliable product. To maintain the machine in ideal conditions and to ensure safe operation at all times, it is crucial to carry out the scheduled maintenance operations described below in this manual on a regular basis.

Manual retention

Carefully preserve this manual and keep it in an easily and rapidly accessible place.

Until the equipment is dismantled this manual must be kept together with it. Therefore, please hand over the manual to any new machine owners.

Additional documentation

Any additional documentation regarding details or groups manufactured by third parties, whenever available, shall be attached to this manual in order to ensure that the information available to operators and maintenance operators is as thorough as possible.

Liability

The manufacturer shall be liable for the correct operation and the safety of the equipment in the event of damage to people or property only if a defect in the original equipment has been ascertained by the installer. The manufacturer disclaims any liability in the event of maintenance operations, component replacements, non-authorised modifications or modifications contrasting with the manufacturer's instructions. The manufacturer disclaims any liability in relation to hidden flaws which may cause hurt or cause damage to people, animals or property.

Reserved rights

The technical information contained in this manual is the property of the manufacturer and shall be considered as proprietary information. Its full or partial dissemination and reproduction without prior authorisation is strictly forbidden. Moreover, this manual shall not be used for purposes different from the ones related to the installation, operation, and maintenance of the machine.

The figures, descriptions, references, and technical data included in this manual are provided as a reference only and are not binding.

Standards

The equipment has been designed and manufactured in compliance with EEC directives pertaining to safety as part of the harmonisation process with member states legislations, specifically:

- EEC 89/392 Directives, as supplemented
- 89/336/EEC, as supplemented
- 92/31/EEC, as supplemented
- EN60204-1 Electrical equipment of machines
- EN60529 – Degrees of protection provided by enclosures
- EN292.1 Safety of machinery
- EN292.2 Safety of machinery
- EN294 Safety of machines
- EN457 Safety of machines
- ISO/CD6405-1 Symbols

INTRODUCTION



WARNING: the instructions provided in this manual refer to machines meant to operate in industrial areas (machines/installations). Therefore, all information provided is targeted at qualified personnel only. Machines for special operations or having construction modifications may differ to some extent from the ones herein described.



DANGER



During operation, all moving parts of the machine are energised and can be dangerous.

Therefore:

- Improper use
 - The removal of guards and the disconnection of safety devices
 - Insufficient inspections and maintenance
- may result in serious damage to things and/or people.



Any operation on the machine shall be carried out when the machine is not operating, and is disconnected from the supply system (including control circuits).



Pay attention to heating components:

the equipment shall never be left unattended during operation. Make sure that the equipment does not operate beyond the temperature recommended for each treatment product, approximately 200°. In any case, stop the machine whenever the alarm goes off, except in the event of product drum replacement. If the product is missing, maximum temperature in the equipment discharge area may reach 650° and cause damage in nearby areas.

WARNING

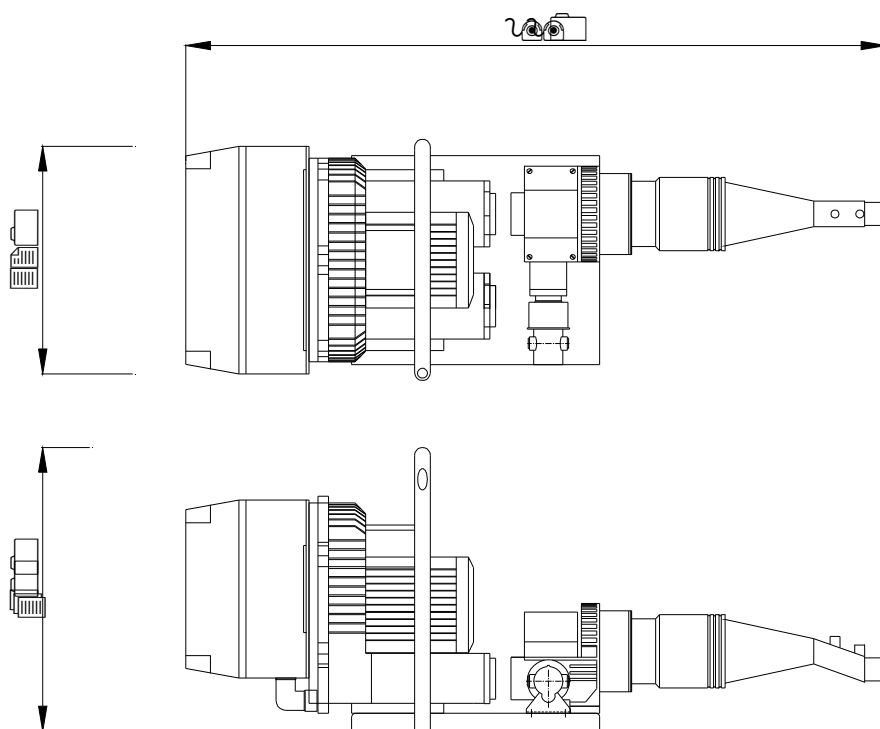
- The manufacturer reserves the right to implement, at any time and without any notice, any change deemed appropriate for quality and safety improvement, with no obligation to update this manual from time to time.
- Each machine can be identified by means of a label, which shall always include the following data:

- **Date of manufacture**
- **Registration number**
- **Machine model**

 CEDAX srl 	
Via F. Guarini 15 47100 Forlì Tel. 0543/780600 Fax 0543/780069	
Data	Comm
Descrizione	

TECHNICAL FEATURES

- High pressure fan
- Heating resistance
- Adjustable flow-rate volumetric pump (from 3 to 25 l/h).
- Vaporisation pipe with aerosol product injector.
- Electrical panel including:
 - ◇ controls for fan, resistance, and pump start.
 - ◇ indicator lights for alarms, fan operation, pump operation, and resistance operation.
 - ◇ digital thermostats showing the fog temperature at the vaporisation pipe outlet and the temperature at the resistance output.
 - ◇ rheostat for pump flow rate adjustment and, consequently, for the adjustment of the fog temperature at the vaporisation pipe outlet. This is the only adjustable parameter, considering that the air flow and the temperature do not change.
 - ◇ safety system is composed of:
 - * illuminated alarms, when the temperature limits are exceeded.
A blue warning light indicates that the product or resistance temperature is too low; a red warning light indicates that the product or resistance temperature is too high.
 - * heating resistance stop (when the temperature is too high or due to a blower failure).
 - * complete stop, in the event of a power supply failure



Power supply	3x400V 50Hz (standard)
Consumption	12Kw – 17A
Weight	34Kg
Noise	Below 80 dB

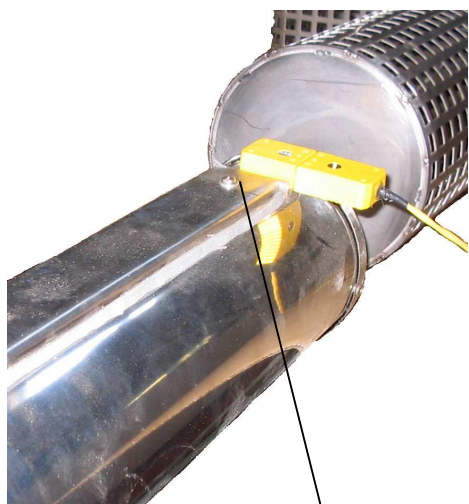
INTENDED USE

The machine has been conceived to be used together with Xeda products for the treatment of fruit and vegetables in a cold-storage room, silos or for premises disinfection. Any use other than the one mentioned above shall invalidate the guarantee and relieve us from any liability in the event of accidents to people and/or property. Carefully follow the instructions provided in this manual.

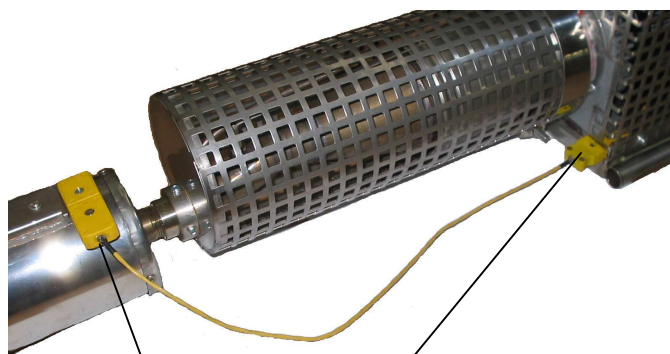
USE

BEFORE STARTING

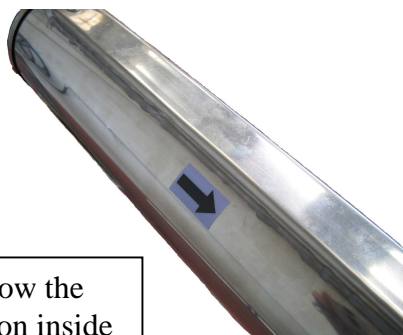
Check for machine cleanliness, particularly inside the pipe. If necessary, clean it using the cleaning brush. After preparing the cold-storage room (please refer to the technical details related to the product being used), tighten the pipe on the equipment and connect the thermometric probe extension.



Always install the probe at the top



Thermometric probe connector



The arrows on the pipe show the maximum insertion position inside the storage room

MACHINE POSITION

The machine shall be placed outside the cold-storage room to be treated. Only the pipe shall be inserted, by approximately 40 cm.

Place the machine approximately 80 cm above the ground.

The pipe must be slightly tilted forward.

Place a recovery container under the pipe outlet.

FIREFIGHTING SAFETY

Move and/or protect all flammable materials located near the machine.

Seal the gap between the pipe and the cold-storage room with non-flammable material (fibreglass)

PAY ATTENTION TO EXTENSIONS

Considering the very high electricity consumption, extensions having a section of at least 2.5mm² shall be used. The use of inappropriate extensions may cause overheating in cables and sockets.

MACHINE POSITION



Gap sealed with
fibreglass



The pipe only shall be
inserted into the storage
room by approximately 40



Recovery container
under the pipe

START

- 1) Move the general switch to the “ON” position
- 2) Press the reset red pushbutton
- 3) Enable the pump
- 4) Stop the pump when the product reaches the pump body
- 5) Start the fan
- 6) Switch on the resistance
- 7) When approximately 100° are reached, start the pump and adjust the flow rate by means of the rheostat, so as to achieve the operating temperature, which shall be the one specified on the product technical sheet



« WARNING – DANGER »



NEVER LEAVE THE MACHINE UNATTENDED DURING OPERATION. WHEN THE PRODUCT IS MISSING, THE TEMPERATURE AT THE PIPE OUTLET MAY REACH 650° AND CAUSE DAMAGE.

UPON EQUIPMENT START

Check that the temperature increases up to safety function enabling (250°), as required.

UPON PUMP START

Check for appropriate product suction. If required, tighten the collars to eliminate any air inlets.

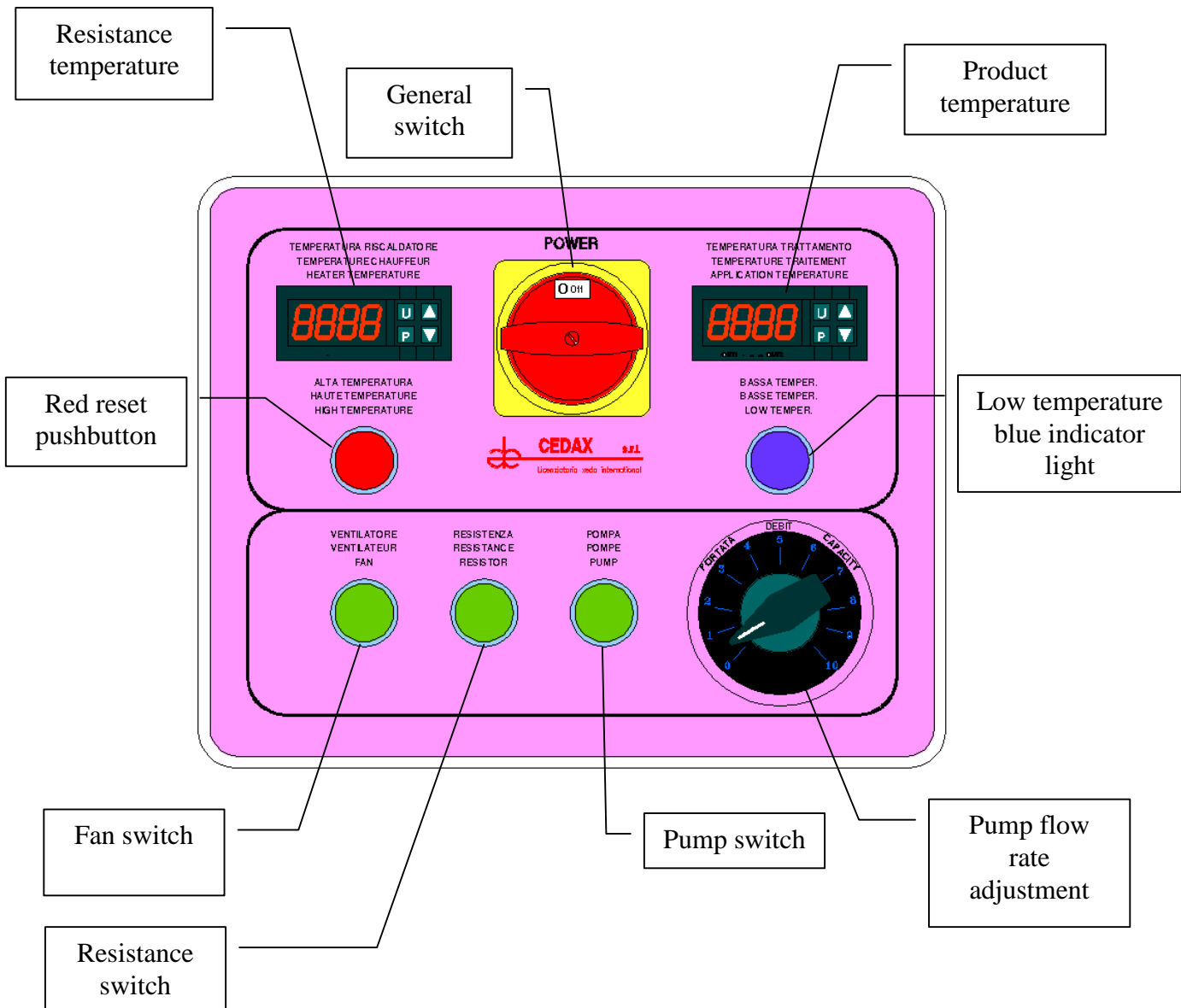
Thermostats threshold setting

Thermostats have been pre-set at the Manufacturer's premises but related parameters may need to be modified.

Press pushbutton P, the thermostat will display SP 1. This value is the maximum temperature threshold. To modify this value, use the pushbuttons with the arrows. When the required value is reached, press P to confirm.

The device will now display SP1. This value indicates the minimum threshold. Set the threshold using the arrows and press P to confirm. The thermostat will go back to displaying the temperature. Fabrication parameters:

- Resistance thermostat: SP1=650 AL1=450
- Product thermostat: SP1=250 AL1=160



MACHINE STOP

- 1) Switch off the resistance
- 2) Empty the vacuum pipe and stop the pump.
- 3) Let the machine cool down to 70-80°
- 4) Stop the fan
- 5) Move the general switch to the "OFF" position
- 6) Remove the equipment and dry the vacuum pipe.

THE PRODUCT CANNOT BE REUSED

NOTES:

Only XEDA aerosol products ARE SUITABLE to be used with XEDA ELECTROFOG EW. We disclaim any liability deriving from usage of products not supplied by us or from usage of the machine not compliant with the directions provided above.

ORDINARY MAINTENANCE

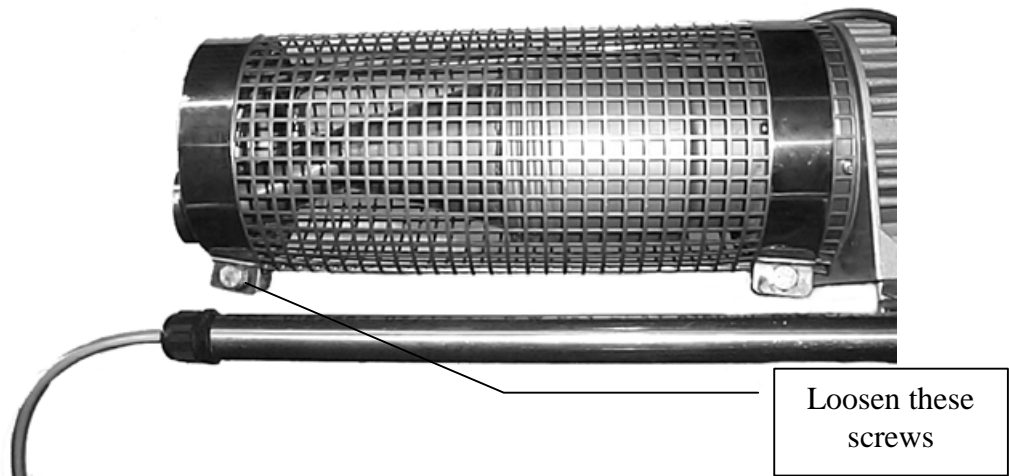
All maintenance operations shall be carried out when the machine is off and disconnected from the power supply. Do not allow unauthorised personnel to carry out maintenance operations on the machine. Checks should be carried out at least once every week of operation, to prevent problems and failures during standard operation.



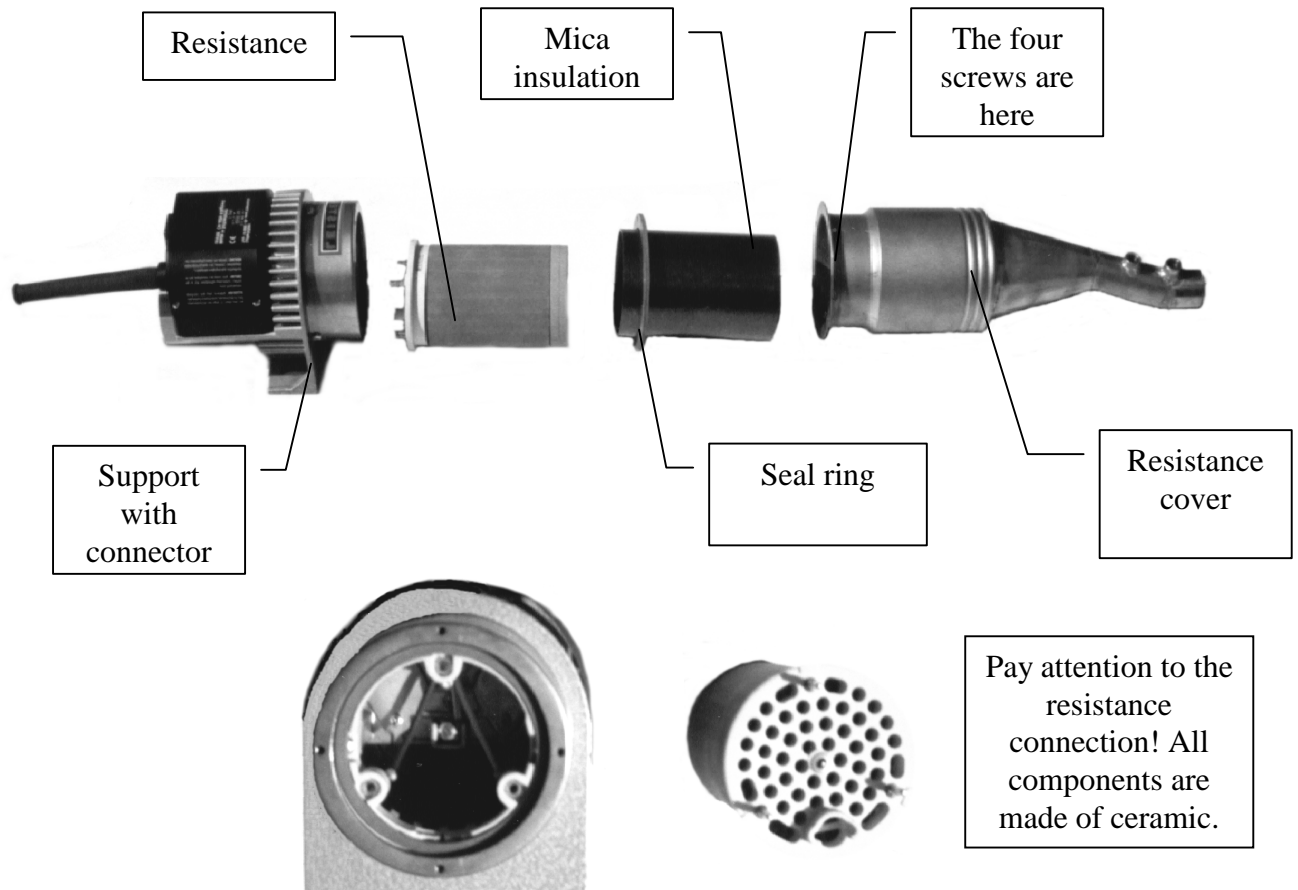
It is forbidden to remove safety devices and guards when the machine is operating.

Resistance replacement

Before replacing the resistance, make sure it is actually burnt. To do so, use a tester to check for continuity. Open the electrical panel and check that there are three identical readings on the contactor output (for the '10,000' one, the measured resistance must be approx. 29 Ω). To access the heating unit, remove the protection grid by loosening the two metal clamps.



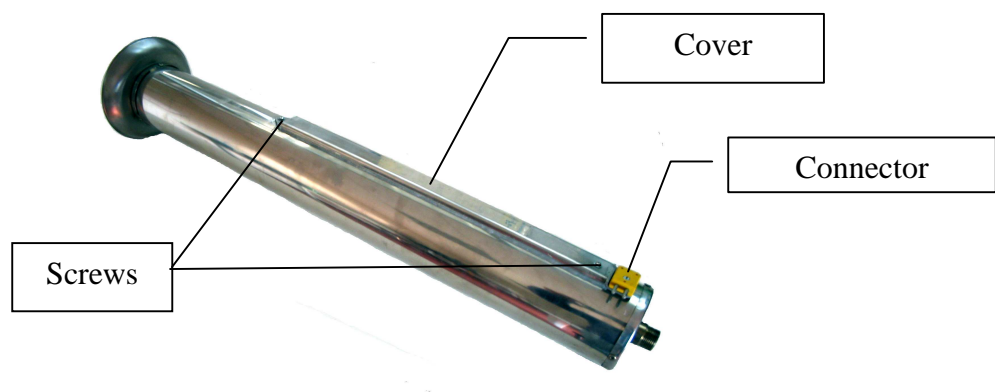
Loosen and remove the four resistance-cover screws.



Slightly remove the cover. Remove the resistance from the support. Slightly bend the cover to remove the resistance, paying attention to the vaporisation pipe and to the probe, which are still connected to the cover.

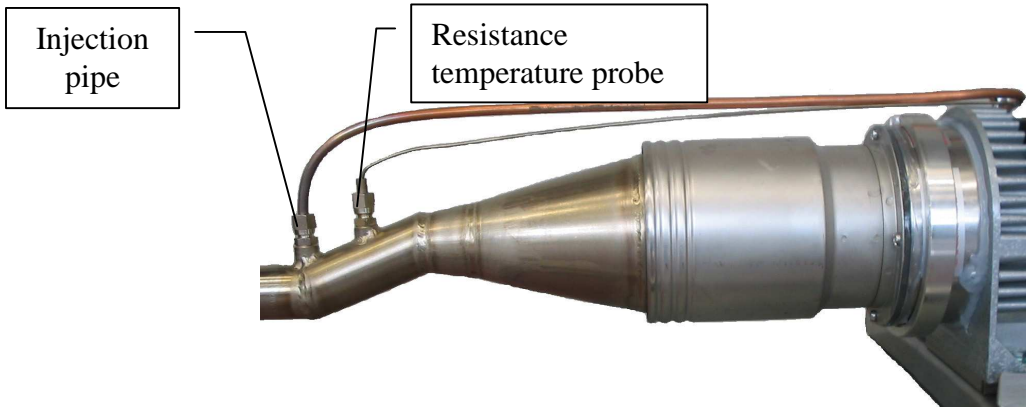
Probe replacement

Remove the probe cover with its screws and remove the sealant using a cutter. Using an Allen wrench, loosen the probe from its seat. Remove the connector. Install the new probe; do not bend the cable too much. Make sure that the probe is in the vaporisation pipe centre before tightening it. Re-install the cover and re-apply the seal using some silicone.



Injection pipe cleaning

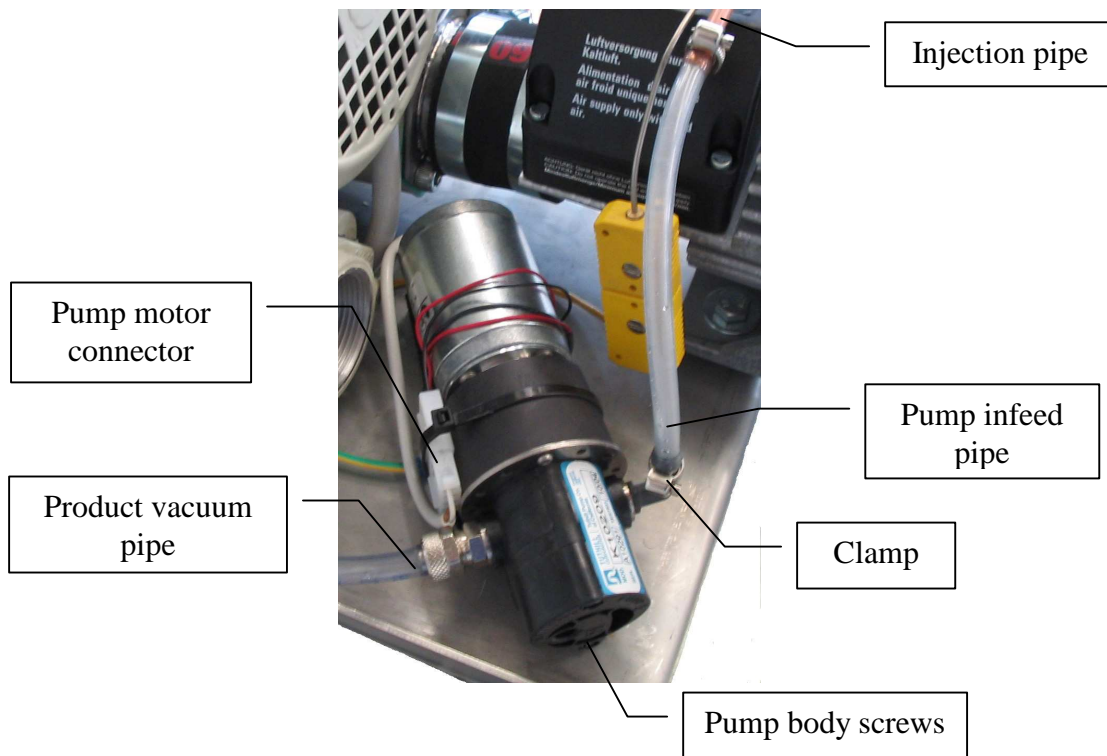
In case of products with many lumps or because of foreign bodies, the injection pipe may clog. In this case, remove the clamp and the pipe coming from the pump. Take an approximately 500mm-long piece of wire, insert it into the copper pipe and move it forward and backwards until it protrudes at the other end of the pipe. Should this operation be unsuccessful, the injector pipe will need to be entirely replaced.



Pump

The pump normally does not require any maintenance. In normal conditions, having it run with water at the end of the treatment leaves it always clean. However, solid bodies may be sucked in and block the gears. In this case, remove the pump body by loosening the relevant screws (the adhesive needs to be removed from the pump body), clean it, and reinstall it. The screws will be trapped inside the body.

Always check that the various clamps or fittings are accurately tightened and that there are no air losses and/or air suction (bubbles in the infeed pipe). The fittings installed on the pump cannot be removed.



EXTRAORDINARY MAINTENANCE

Extraordinary maintenance operations include all those operations not included in this manual.

Note: extraordinary maintenance operations shall be carried out by the manufacturer only or by a person appointed by the manufacturer.

PROBLEMS AND CAUSES

Here below are listed the most common problems which may arise on the machine. In any case, the person carrying out the operations should be properly qualified, as there may be hazards for people and/or things.

Problem	Cause	Solution
The machine does not start	Power is not supplied	Check that the general switch on the panel is on the “ON” position
		Check power on input terminals
	Burnt-out fuse	Check for fuses correct operation
The thermostats switch on but the fan does not start	Burnt-out fuse	Check for fuse efficiency
	Faulty fan	Replace fan
	Phase missing in the feeding system	Check for the presence of the 3 phases. Check the socket and the extensions
The thermostat shows ----	Faulty probe	Replace probe
	Interrupted probe extension	Replace probe extension
	Faulty probe fitting	Check probe plug - socket
The temperature is unstable during treatment	Lumps in the aerosol product	Shake drum well
	Faulty pump vacuum	Check pump and vacuum pipe
	Air inlet in the vacuum system	Use water to check for correct operation

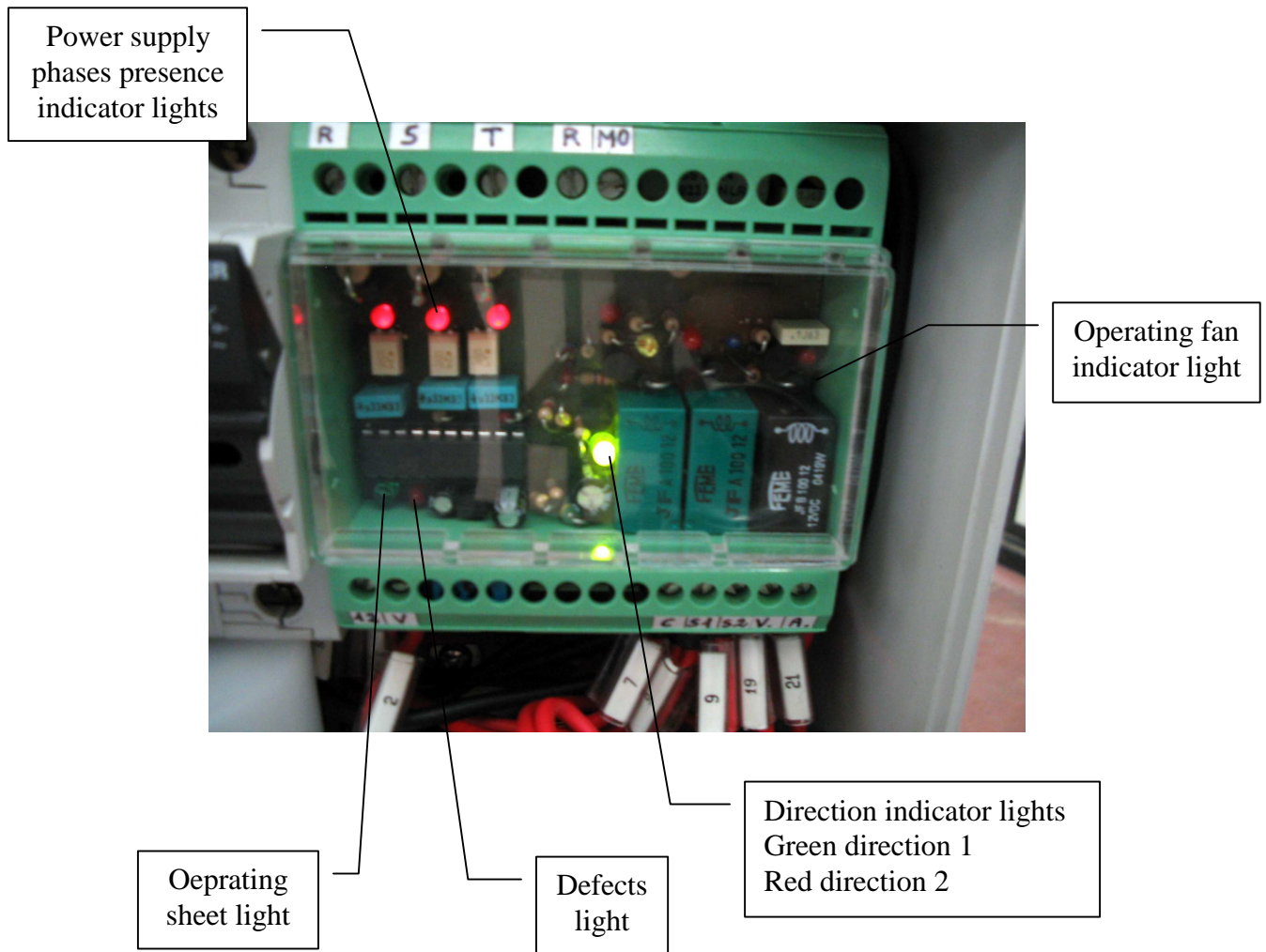
Not heating (the blue warning light is on)	Burnt fuse	Check for fuse efficiency
	Faulty resistance	Replace resistance after verification with an ohmmeter
During the treatment the pump knob is not on the centre of its range, but almost at the max	Faulty pump vacuum	Check pump and vacuum pipe
	Air inlet in the vacuum system	Use water to check for correct operation
During the treatment the pump knob is not on the centre of its range, but almost at the minimum	Burnt fuse	Check for fuse efficiency
	Faulty resistance	Replace resistance after verification with an ohmmeter
The resistance temperature is too high (the left-hand side thermometer is above 650°C)	Clogged pipe	Check that the pipe is not partly clogged
	Faulty fan	Replace fan
The resistance switches on and off	Too-low voltage	Major voltage drop. Check extensions



WARNING: before opening the panel disconnect the power supply!


Electronic check sheet

This sheet provides a rapid diagnosis of any machine failure. To access it, open the electrical panel.



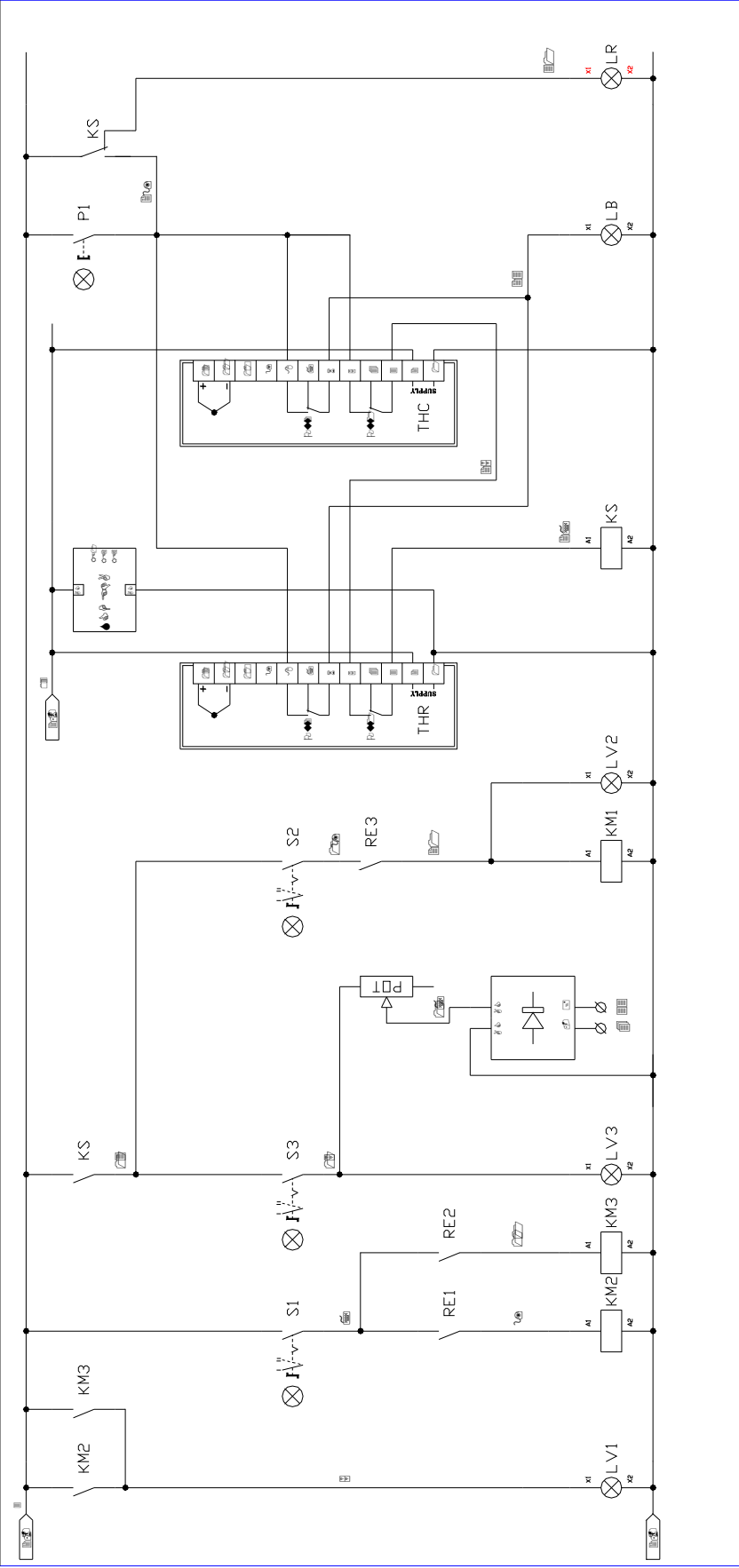
Phase presence indicator lights	These three indicator lights show the presence of the three power supply phases. If one is off, it means that one of the phases is missing. In this case, check the fan fuses and the power supply
Operating fan indicator light	The sheet indicates that the fan is operating. This function is used for resistance stop in the event of a fan failure
Operating sheet indicator light	This indicator light must be flashing. This means that the sheet is operating correctly
Direction indicator lights	Depending on the phase connection the rotation direction is determined, to ensure that the fan operates always in the same direction
Failures indicator light	If no failures are present, this light must be off. If it flashes, this means that the input voltage is too low. If the light is constantly on, this indicates a missing phase on the power supply

ELECTRICAL DRAWING

SCHEMA ELETTRICO			SCHEMA ELECTRIQUE		ELECTRIC DRAWING		
DESCRIZIONE QUADRO		ELETTROFOG EWH					
FOLLIO					FOLLIO		
01	INDICE	SOMMAIRE	INDEX		29	-	
02	INTRODUZIONE 1	INTRODUCTION 1	INTRODUCTION 1		30	-	
03	INTRODUZIONE 2	INTRODUCTION 2	INTRODUCTION 2		31	-	
04	POTENZA	PUISSANCE	POWER		32	-	
05	FUNZIONALE	COMMANDE	AUXILIARY		33	-	
06	QUADRO ELETTRICO	TABLEAU ELECTR.	ELECTRIC PANEL		34	-	
07	-	-	-		35	-	
08	-	-	-		36	-	
09	-	-	-		37	-	
10	-	-	-		38	-	
11	-	-	-		39	-	
12	-	-	-		40	-	
13	-	-	-		41	-	
14	-	-	-		42	-	
15	-	-	-		43	-	
16	-	-	-		44	-	
17	-	-	-		45	-	
18	-	-	-		46	-	
19	-	-	-		47	-	
20	-	-	-		48	-	
21	-	-	-		49	-	
22	-	-	-		50	-	
23	-	-	-		51	-	
24	-	-	-		52	-	
25	-	-	-		53	-	
26	-	-	-		54	-	
27	-	-	-		55	-	
28	-	-	-		56	-	
DISEGNO PROPRIETA' DELLA CEDAX S.R.L. - RIPRODUZIONE VIETATA AI SENSI DELL'ART. 2578 C.C.							
Data	28/02/2005		 CEDAX s.r.l. <small>Licenziataria reda international Via F. Garibaldi 16 FORLÌ Tel. 0543/780500</small>		Riferimento	CEP - ELCO - TUTHILL	Pagina 1
N. disegno	INDICE				Tipo macchina	ELETTROFOG EWH	
Nome	Stefano				Descrizione foglio	INDICE	
Matricola	Y-009-H4				Riferimento		Totale 6

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1	2	3	4	5	6	7	8	9	10

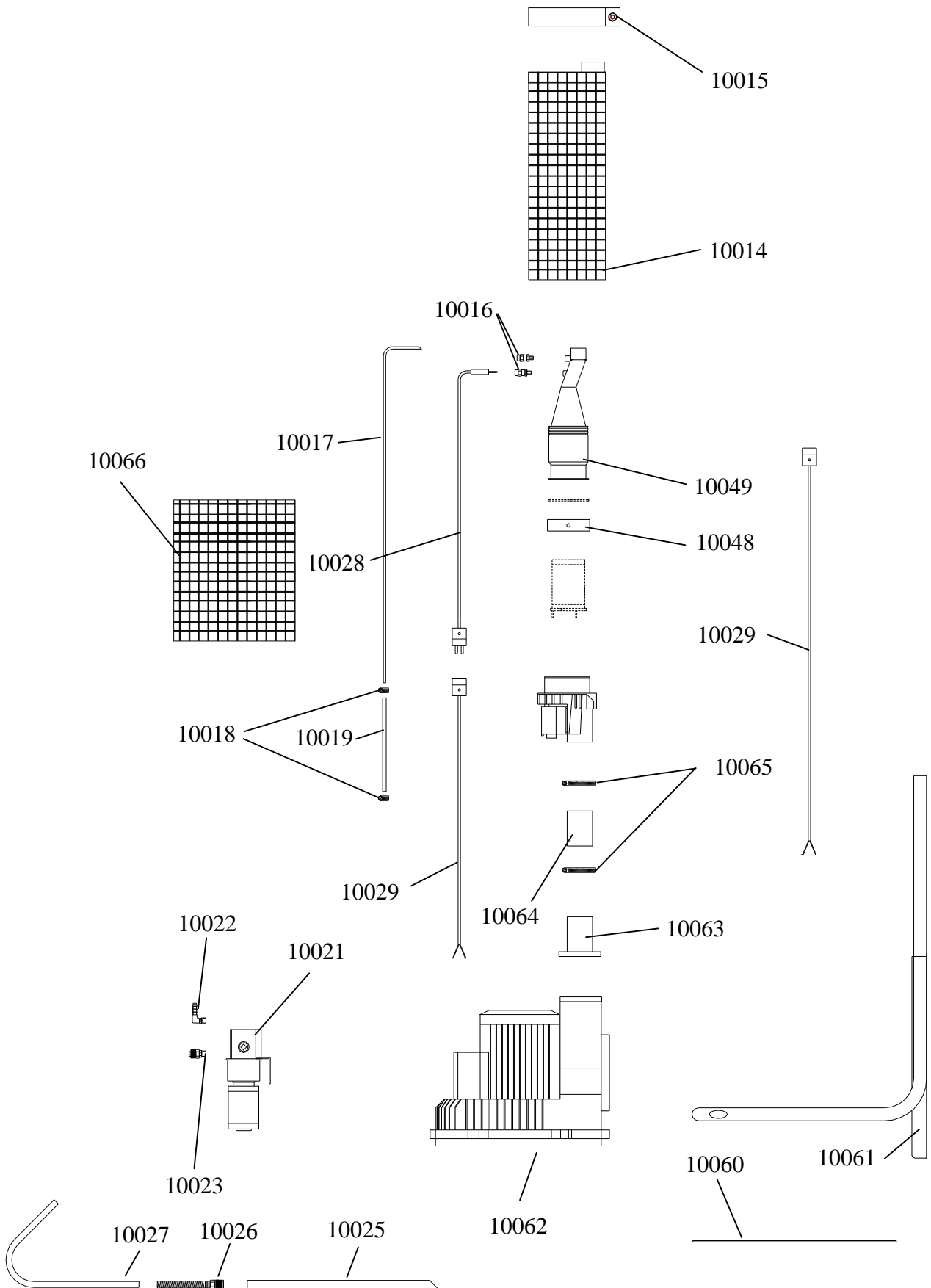


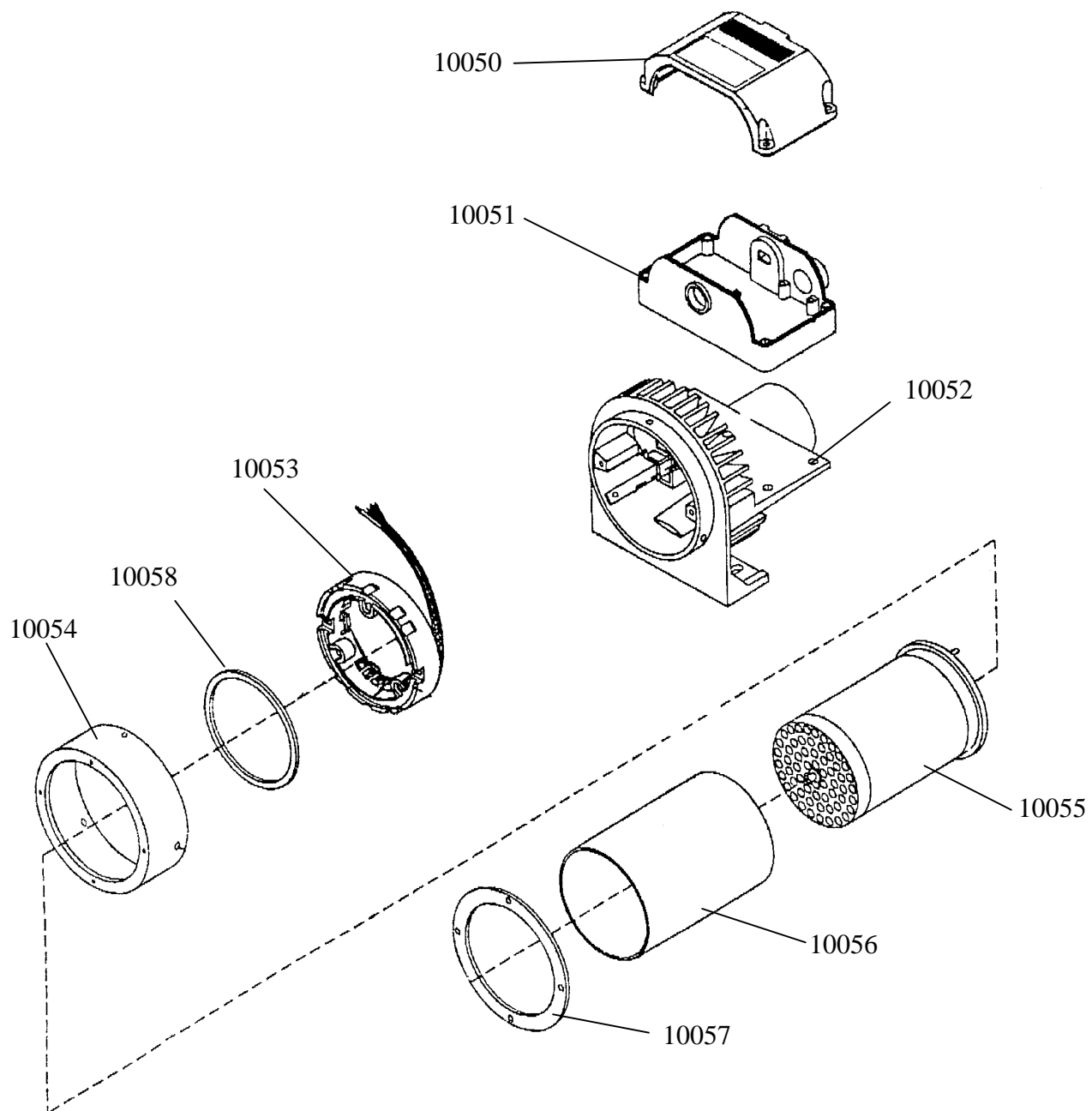
Data	28/02/2005	Commitente	CEP - ELCO - TUTHILL	Pagina	5
N. disegno	FUN	Tipo macchina	ELETTROFOG EWH	Totale	6
Nome	Stefano	Descrizione foglio	FUNZIONALE		
Matricola	Y-009-H4	Scala			

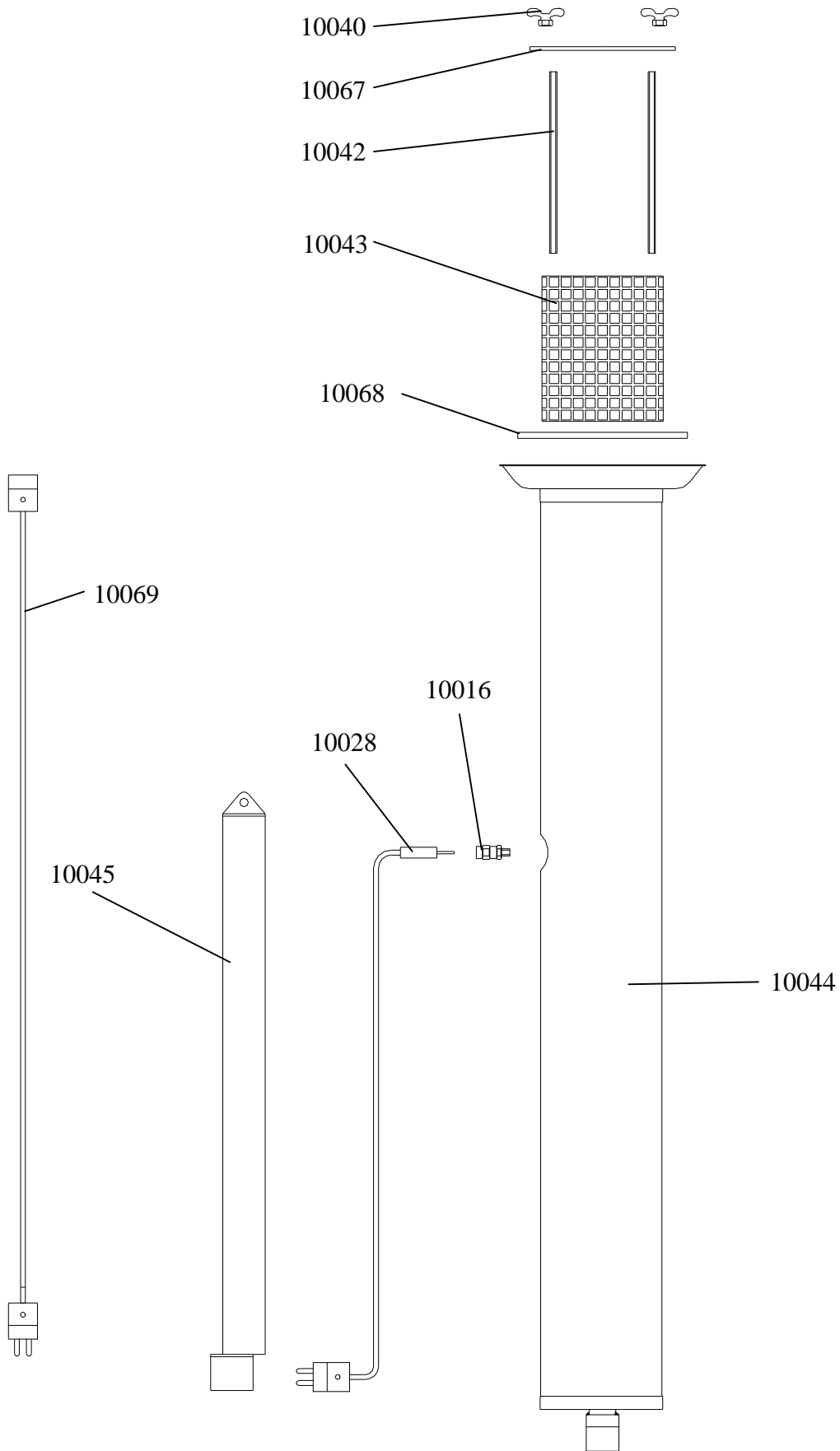

CEDAX s.r.l.
 Licenziataria veda International
 Via F. Guerin 15 FORUL' Tel. 0543/780500

COMPONENTS DETAILS

Part No.	Description	
10014	Protection grid	
10015	Protection grid clamp	
10016	Nose-shaped fitting	
10017	Copper pipe	
10018	Product pipe clamp	
10019	Pump outlet product pipe	
10021	Pump	
10022	Pump outlet 90° fitting	
10023	Pump inlet fitting	
10025	Vacuum pipe	
10026	Spring fitting	
10027	Product vacuum pipe	
10028	Rigid probe	
10029	Temperature probe extension	
10040	Wing nut	
10042	Impactor supporting threaded bar	
10043	Anti-spark grid	
10044	Pipe with insulator - 22x2	
10045	Probe cover	
10048	Protection rest ring	
10049	Resistance sheath	
10050	Heater cable protection cover	
10051	Heater connection box	
10052	Heater body	
10053	Resistance connector	
10054	Seal ring	
10055	400V three-phase 10,000 resistance	
10056	Mica protection	
10057	Gasket	
10058	Gasket	
10060	Electrical panel support	
10061	Frame	
10062	Fan	
10063	Fan output adaptor	
10064	Connection pipe	
10065	Collar	
10066	Guard	
10067	Teflon impactor	
10068	Teflon washer	
10069	Probe extension	

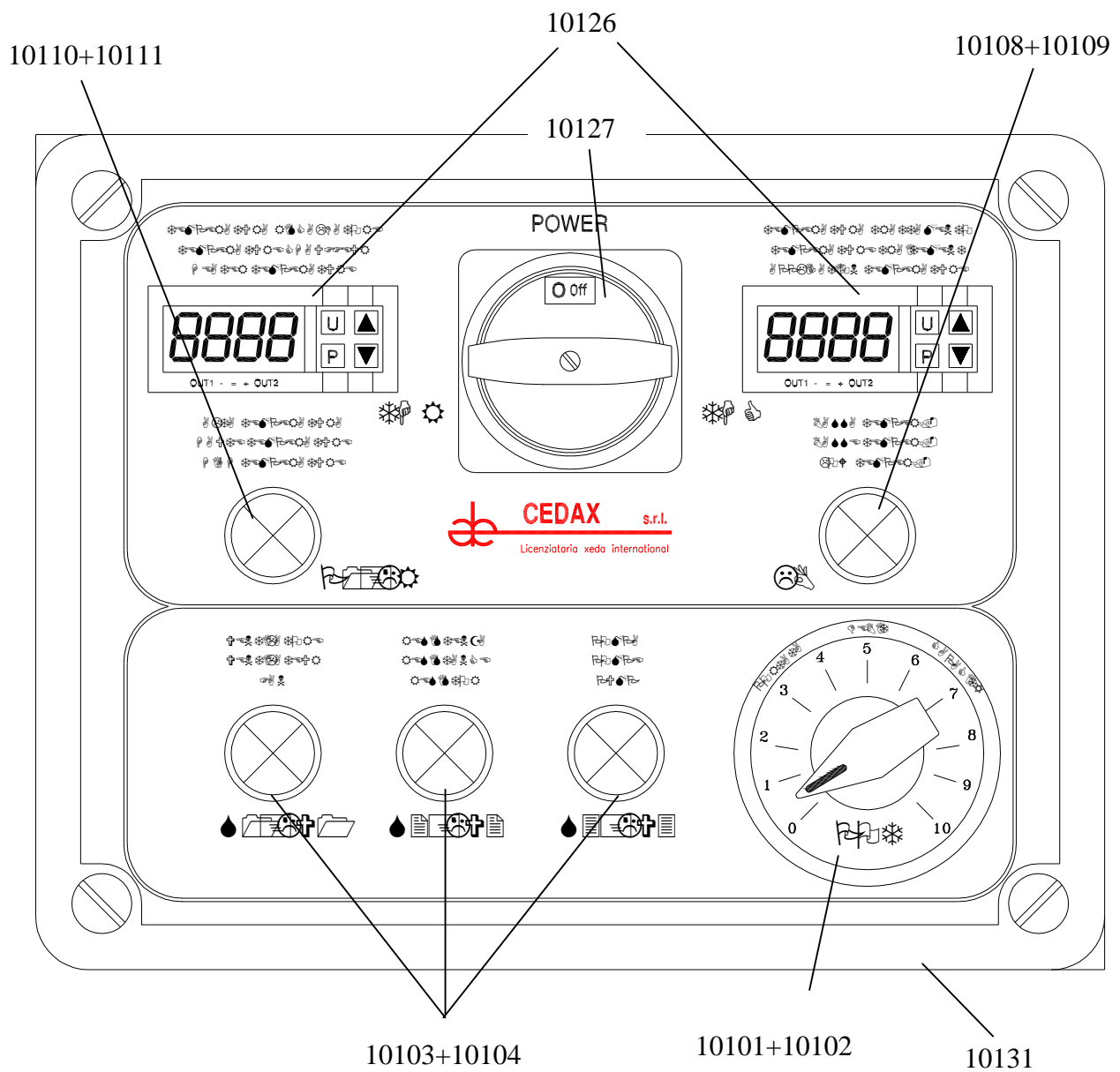


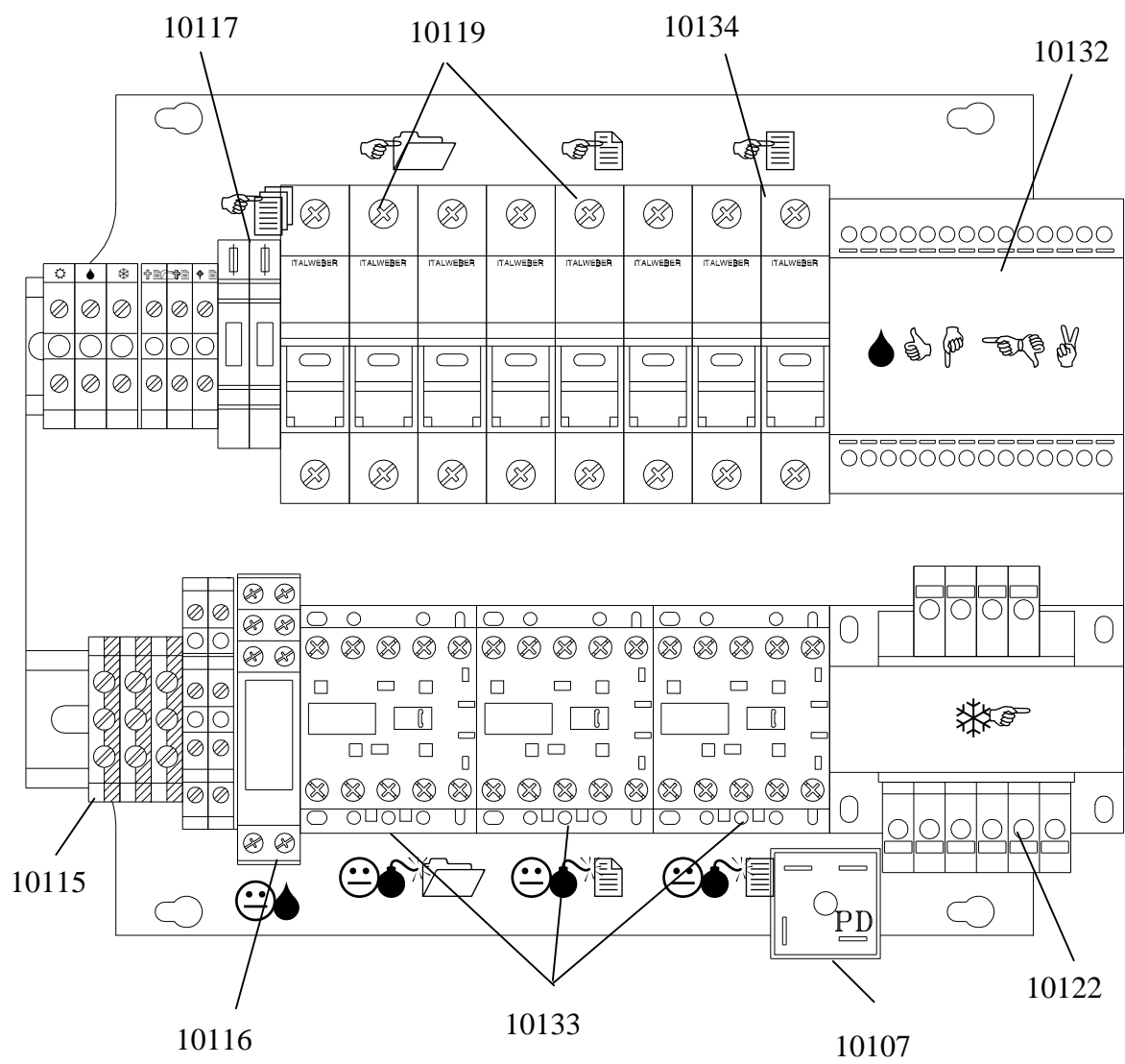




ELECTRICAL PANEL COMPONENTS DETAILS

Part No.	Description	
10101	Rheostat knob	
10102	Rheostat	
10103	Green pushbutton	
10104	Green pushbutton body	
10107	Bridge diode	
10108	Blue indicator light	
10109	Blue indicator light body	
10110	Red pushbutton	
10111	Red pushbutton body	
10115	Earth terminal	
10116	Relay	
10117	5x20 fuse holder	
10119	3-pole fuse holder	
10122	Transformer	
10123	Capacity 25uF	
10126	Thermostat	
10127	Switch	
10131	Box	
10132	Electronic sheet	
10133	Contactor	
10134	2-pole fuse holder	





DISMANTLING AND DISPOSAL



Always stock and dispose of polluting materials and substances in compliance with the applicable law. Should the applicable law not regulate their treatment, storage, and disposal, hazardous or polluting products shall be treated applying common sense.

Some general guidelines are provided below.

- Do not release into the environment (rivers, soil, sewage system, etc.) lubricants, coolants, fuels, acids, hydraulic oil or any other pollutant.
- These substances are dangerous and usually hazardous for health. Prevent their contact with the skin and the eyes. When you handle polluting or hazardous substances, protect your eyes and hands and wear appropriate clothes.
- Do not burn hydraulic and lubricating oils in heating systems or outdoor. Ensure they are always stored and disposed of in compliance with the applicable law.
- Never mix different fluids. Ensure they are stored and disposed of separately, in compliance with the applicable law.
- Immediately repair any failure or leak in the motor or the hydraulic system. A faulty system may become dangerous both for people and for the environment.
- Do not increase the pressure in hydraulic systems, as this may cause the explosion of components or pipes and result in the release of substances which are hazardous for the environment.
- Any waste resulting from maintenance operations shall be disposed of in compliance with the applicable law.

Decommissioning and scrapping

To ensure correct equipment decommissioning and scrapping, the following materials need to be separated:

- Hydraulic and lubricating oils
- Rubber and plastic components
- Steel, aluminium, and cast iron components
- Electronic components

Dispose of each of them in compliance with the applicable law

To dispose of, treat, and recycle the various fluids and materials resulting from equipment scrapping, use companies specialising in waste disposal.

GUARANTEE

1. The machine is guaranteed for 12 months, labour and transport expenses not included.
2. 'Guarantee' means the free repairing or replacement of the machine components recognised as faulty in terms of material or manufacturing.
3. This guarantee does not apply to damage caused by negligence, wrong installation or use and installation which do not comply with the instructions specified in the manual, improper use, misuse, wear, accidents, damage occurring during transport from or to the Customer's premises, damage caused by the installation, adjustment or modification of the machine, or damage caused by the failure to comply with all required technical and/or safety measures.
4. Our decisions regarding the management of claims and defects shall not be challenged. Any faulty part replaced shall become our property.
5. The machine replacement and the extension of this guarantee following any failure are excluded from this guarantee.
6. This guarantee does not cover all wear and tear parts.
7. Any compensation for direct or indirect damage caused to people or things, following use or suspension of the machine is excluded.

DECLARATION OF CONFORMITY

Dichiarazione di conformità - Declaration de conformité Declaration of conformity – Konformitätserklärung Declaración de conformidad

Il firmatario della presente dichiara sotto la propria esclusiva responsabilità che le apparecchiature sotto descritte sono conformi a quanto prescritto alle direttive EEC e delle seguenti modifiche:

Le soussigné declare sous sa responsabilité exclusive que les machines ci dessous mentionnees repondent aux exigences des directives EEC et des suivantes modifications:

The undersigned declare under his own responsibility that the machines above related conform to the ECC directives and following modifications:

Der Unterzeichner erklärt unter der eigenen Verantwortung, dass die unten verzeichneten Geräte den Vorschriften der EG-Richtlinien mit nachfolgenden Änderungen entsprechen:

El abajo firmante declara, bajo su exclusiva responsabilidad, que los equipos que se enumeran a continuación cumplen las directivas CE y sus sucesivas modificaciones:

89/392/EEC

73/23/EEC

89/336/EEC

Riferimento:
Référence:
Reference:
Bezug:
Referencia:

ELECTROFOG EWH10000

Il costruttore:
Le constructeur:
Manufacturer:
Der Hersteller:
El fabricante:

**Cedax S.r.l.
Via F. Guarini 15
47100 Forlì Italy**

**Tel. (+39) 0543780600
Fax. (+39) 0543780069**

Fatto a Forlì il:
Fait a Forlì le:

Firma del legale rappresentante
Signature du représentant legal

Done in Forlì on:
Bearbeitet in Forlì am:
Forlì, ... de ... de

Duly authorised officer
Unterschrift des Rechtsvertreters
Firma del representante legal

24/09/2003

Alberto Sardo



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