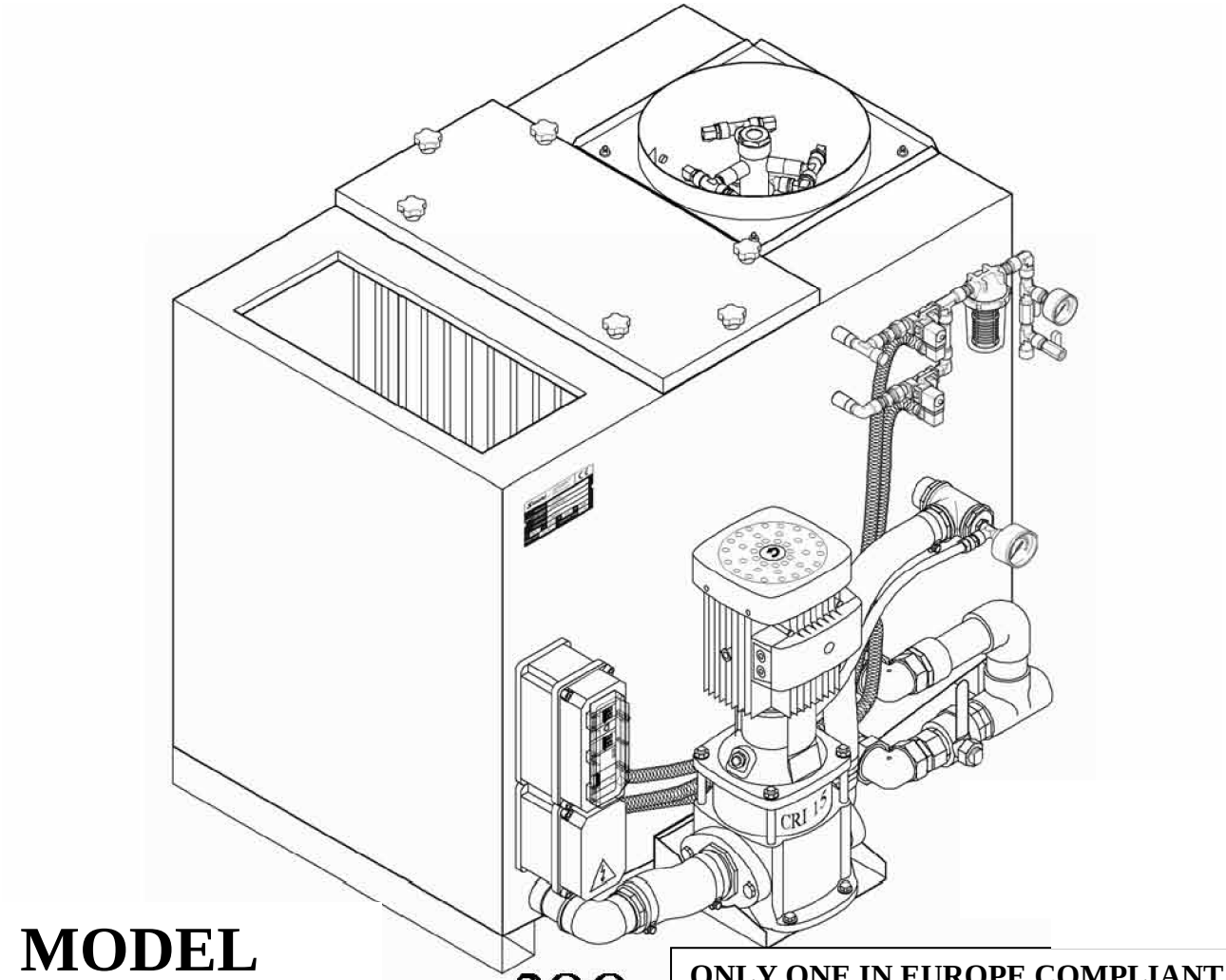
SMOKI

s.r.l.

Use and Maintenance Manual

SMOKE SCRUBBER



MODEL

SMOKI MAXI 400
300
500

ONLY ONE IN EUROPE COMPLIANT WITH EEC STANDARDS
Patent 01273286

MAN. No. 1 - EDIT. No. 1 - DATE 08/09/2007

CONTENTS

	DESCRIPTION	PAGE
	DECLARATION OF CONFORMITY	
01	SYMBOLS USED IN THIS MANUAL	01
02	PACKING OF THE MACHINE	02
03	INTRODUCTION	03
03.1	INTRODUCTION	03
03.2	DESCRIPTION	03
03.3	GUARANTEE CONDITIONS	03
04	MACHINE IDENTIFICATION	04
04.1	IDENTIFICATION DATA	04
05	TECHNICAL CHARACTERISTICS	05
05.1	OVERALL DIMENSIONS, WEIGHT AND CHARACTERISTICS	05
06	MAIN TECHNICAL DATA	06
07	SAFETY PRECAUTIONS	07-08
08	MAIN EXTERNAL COMPONENTS	09
	MAIN INTERNAL COMPONENTS	10
09	GENERAL DESCRIPTION OF SYSTEM	11
10	SYSTEM OPERATION	12
10.1	INSTALLATION	12
10.2	ELECTRICAL CONNECTIONS	12
10.3	FLUE CONNECTION	12
10.4	WATER SUPPLY CONNECTION	12
10.5	CONNECTION TO DRAINS	12
10.6	STARTING THE SYSTEM	13
10.7	SWITCHING THE SYSTEM OFF	13
11	SYSTEM MAINTENANCE INTERVALS	14
11.1	WEEKLY MAINTENANCE OPERATIONS	14
11.2	REGULAR MAINTENANCE OPERATIONS	14
11.3	SPECIAL MAINTENANCE OPERATIONS	14
12	MAINTENANCE OPERATION PROCEDURES	15-21
12.1	TURN OFF THE AUTOMATIC SWITCH	15
12.2	TURN OFF THE POWER SWITCH	16
12.3	CLOSING THE WATER SUPPLY VALVE	16
12.4	CLEANING THE WATER SUPPLY FILTER	16
12.5	OPENING THE WATER DISCHARGE GATE VALVE	17
12.6	REMOVING THE COVER	17
12.7	REMOVING THE LABYRINTH FILTER	17
12.8	CLEANING THE LABYRINTH FILTER	18
12.9	REMOVING THE DROP SEPARATOR FILTER (*)	18

CONTENTS

	DESCRIPTION	PAGE
12.10	CLEANING THE DROP SEPARATOR FILTER (*)	18
12.11	CLEANING THE WATER TANK	19
12.12	CLEANING THE JET NOZZLE	19
12.13	REPLACING THE LABYRINTH FILTER	19
12.14	REPLACING THE DROP SEPARATOR FILTER (*)	20
12.15	REPLACING THE COVER	20
12.16	OPENING THE WATER SUPPLY VALVE	20
12.17	CLOSING THE WATER DISCHARGE GATE VALVE	21
12.18	TURN ON THE POWER SWITCH	21
12.19	TURN ON THE AUTOMATIC SWITCH	21
13	**POSSIBLE INSTALLATION POSITIONS**	**22-23**
13.1	SYSTEM INSIDE BUILDING (VARIANT "A")	22
13.2	SYSTEM INSIDE BUILDING (VARIANT "B")	22
13.3	SYSTEM INSIDE BUILDING (VARIANT "C")	23
13.4	SYSTEM OUTSIDE BUILDING	23
14	**TRACING FAULTS**	**24-26**
15	**ELECTRICAL DIAGRAM**	**27**
16	**OPTIONAL ACCESSORIES**	**28**
16.1	INSULATION FOR EXTERNAL INSTALLATION	28
16.2	OPENING THE INSPECTION PANEL OF INSULATION FOR OUTDOOR INSTALLATION	28
16.3	DROP SEPARATOR FILTER	28
16.4	AUTOMATED DISCHARGE VALVE	29
16.5	SUCTION FAN	29
17- DEMOLITION AND DISPOSAL OF THE DEVICE		
18 - GENERAL FIRST AID ADVICE IN CASE OF ELECTRIC SHOCK		**30-31**
18.1 - CALL FOR HELP		30
18.2 - ASSESS THE STATE OF CONSCIOUSNESS		30
18.3 - RECOVERY POSITION		30
18.4 - ASSESSMENT OF BREATHING WITH LLF		30
18.5 - ASSESSMENT OF CARDIAC ACTIVITY BY FEELING PULSE		31

ENGLISH LANGUAGE

DEAR CUSTOMER

Thank you for having chosen this product. We are fully at your disposal for all help or advice that you may require.

SMOKI s.r.l.

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e-mail: info@smoki.it

SMOKI srl, a leader in the leader of smoke scrubbing devices
(the only one in Europe compliant with EEC standards, Patent 01273286)
and supplier of major industrial, food processing and other companies in Italy and abroad.

2009-09-18ITC15:02RB

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01 - SYMBOLS USED IN THIS MANUAL

The following symbols are used in this Use and Maintenance Manual:

SYMBOL:	MEANING:
	This symbol indicates all operations in which particular attention should be taken to avoid environmental pollution.
	Lift only with a hand pallet truck. Caution: very heavy!
	To correctly switch the system on and off, scrupulously respect the instructions given, following the order indicated in this manual.
	Caution! Read the instructions before using the machine.
	Danger of electric shock. Machine with high voltage.
	Wear safety gloves.
	Wear safety glasses.
	Wear safety footwear.
	Pay attention to maximum and minimum operating temperatures.
	Lift packing only in the direction indicated by the arrows.
	Compulsory ground connection!

02 - PACKING OF THE MACHINE

SMOKI MAXI systems are delivered in a cardboard carton suitable for the packing and transport of systems of this type, on a non-stackable wooden pallet fixed to the packing with strapping.
In addition to the machine, the carton also contains the Use and Maintenance Manual.

CAUTION!

It is advisable to always keep the pack vertical in a level position (pallet beneath and carton above).





All packing materials must be disposed of in compliance with the legal requirements of the country of use of the device.
Packing materials should never be abandoned in the environment!

Remove packing by lifting in the direction shown by the arrows



Wear safety gloves while unpacking

Sticker with manufacturer/ model

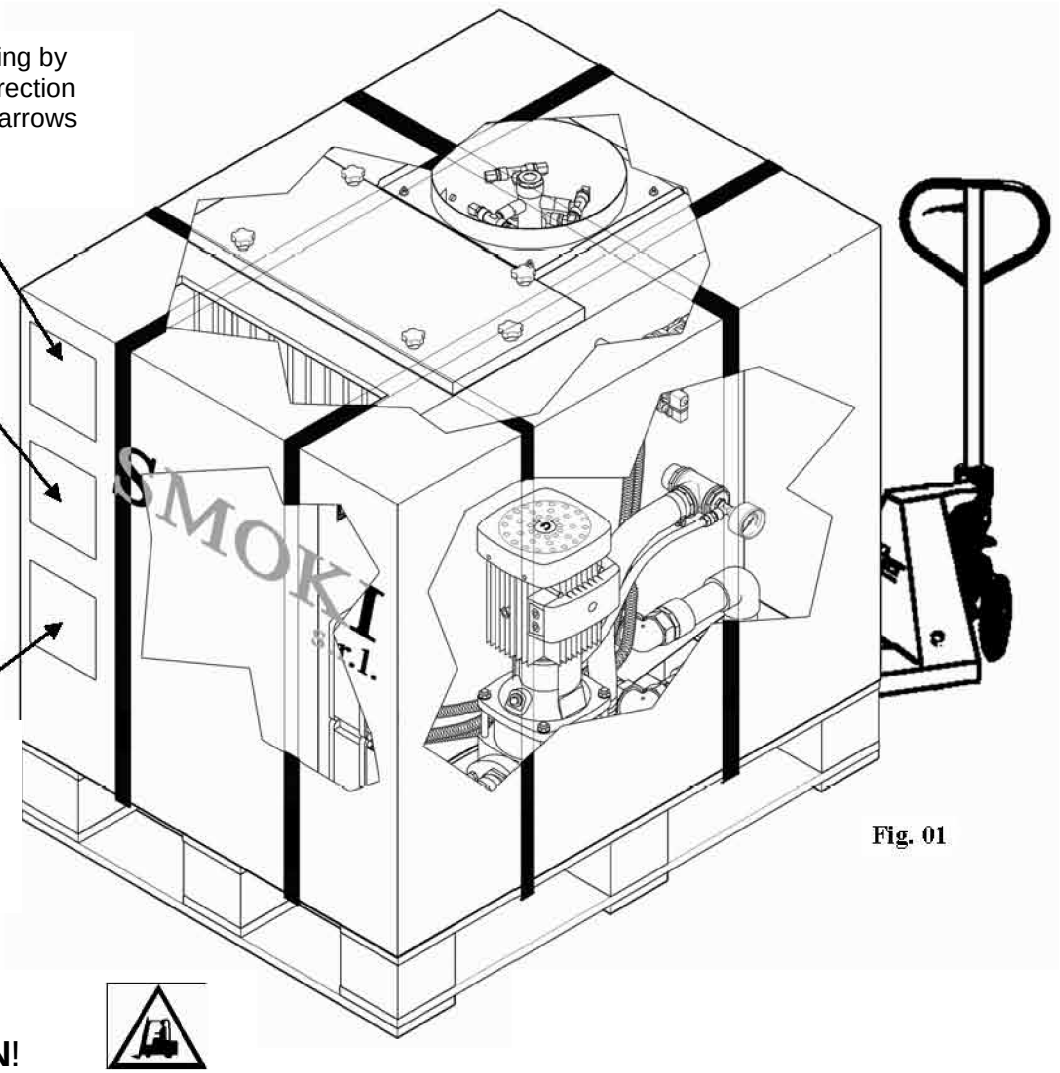


Fig. 01

CAUTION!

Lift and move only with a hand pallet truck or a hoist with a lifting capacity of at least 150 kg for the Smoki Maxi 300 model.

02 - PACKING OF THE MACHINE

SMOKI MAXI systems are delivered in a cardboard carton suitable for the packing and transport of systems of this type, on a non-stackable wooden pallet fixed to the packing with strapping.
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Packing materials should never be abandoned in the environment!

Remove packing by lifting in the direction shown by the arrows



Wear safety gloves while unpacking

Sticker with manufacturer/ model

Fig. 01

CAUTION!

Lift and move only with a hand pallet truck or a hoist with a lifting capacity of at least 220 kg for the Smoki Maxi 400 model.

02 - PACKING OF THE MACHINE

SMOKI MAXI systems are delivered in a cardboard carton suitable for the packing and transport of systems of this type, on a non-stackable wooden pallet fixed to the packing with strapping.
In addition to the machine, the carton also contains the Use and Maintenance Manual.

CAUTION!

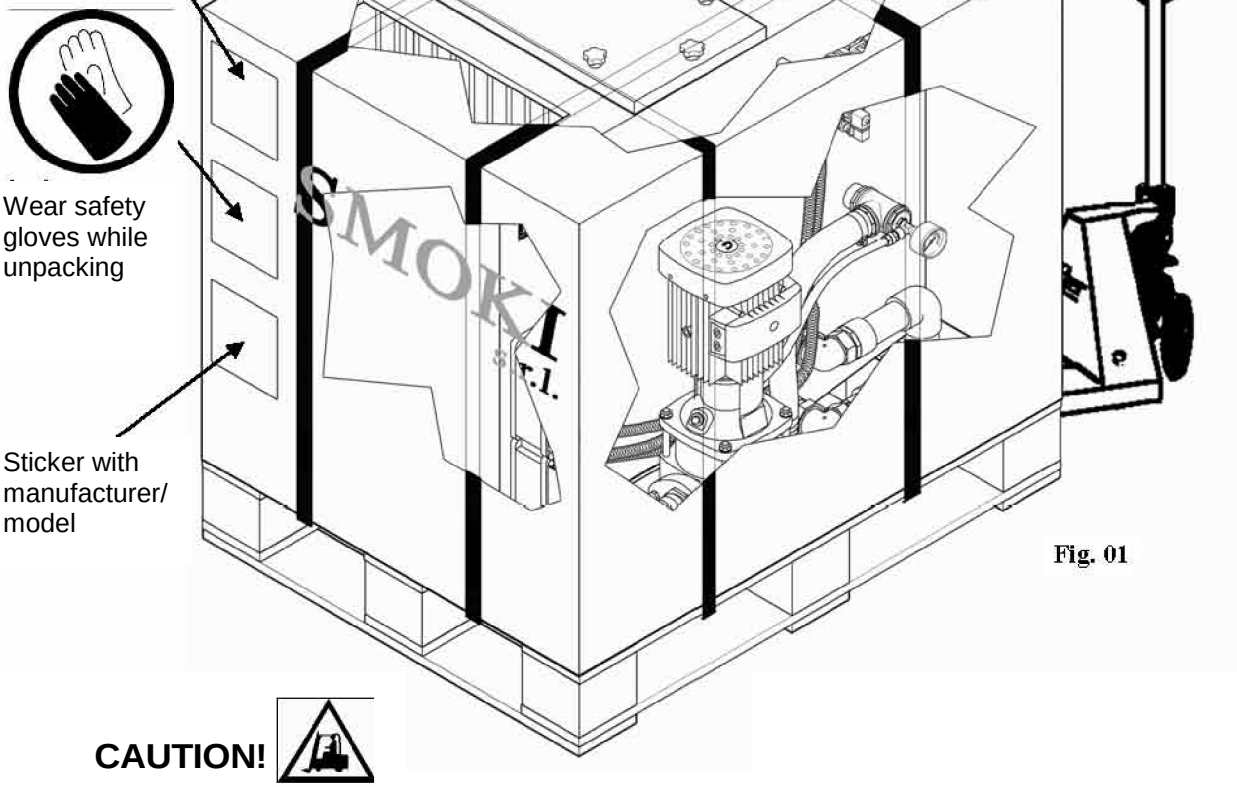
It is advisable to always keep the pack vertical in a level position (pallet beneath and carton above).





All packing materials must be disposed of in compliance with the legal requirements of the country of use of the device.
Packing materials should never be abandoned in the environment!

Remove packing by lifting in the direction shown by the arrows



Wear safety gloves while unpacking

Sticker with manufacturer/ model

Fig. 01

CAUTION!

Lift and move only with a hand pallet truck or a hoist with a lifting capacity of at least 275 kg for the Smoki Maxi 500 model.

0 3 - I N T R O D U C T I O N

03.1- INTRODUCTION

With this manual, the company **SMOKI s.r.l.** intends to provide the technical information necessary for correct operation of its products, warning of any hazards that may arise.

This manual describes general installation conditions. For detailed information and for better understanding of the directives to be described, it is advisable to contact our technicians.

The manual is completed with a description of controls, explanations with diagrams illustrating their use, and advice on maintenance.

Particular attention has been taken to highlight all aspects concerning safety, so as to allow the operator to work with as few risks as possible.

03.2 - DESCRIPTION

Together with every machine, our **COMPANY** provides the **CUSTOMER** with this **USE AND MAINTENANCE MANUAL**, as indicated in the delivery document, so as to give the operator the necessary and essential instructions on weekly, regular and special maintenance for the system, on checks, and on settings.

For perfect operation of the system and to ensure its maximum performance and complete efficiency, it is advisable to scrupulously follow our instructions. All systems are subjected to a series of rigorous factory checks, and are delivered to users with all adjustment devices suitably set. It is severely prohibited to tamper with these settings, on penalty of the automatic and immediate invalidation of the conditions of guarantee. Our company is always available to provide users with explanations and advice, so as to ensure the maximum efficiency of the system.

The use of only original spare parts is recommended to obtain the best results and to conserve the original technical and constructions characteristics of the machine. Failure to observe this recommendation will immediately invalidate the conditions of guarantee.

The illustrations and descriptions given in this manual are not binding. The manufacturer reserves the right, without altering the essential characteristics of the system described and illustrated here, to make any changes deemed necessary at any time whatsoever, without necessarily updating this manual.

03.3 - GUARANTEE CONDITIONS

1) - The manufacturer guarantees the systems it produces for the legally required period of 12 (twelve) months from the date of purchase indicated on the invoice issued by the dealer.

2) - This guarantee covers all parts of the system except for electrical components.

In addition, this guarantee does not cover damage caused by improper transport or movement of the product, neglect or incapacity in the use of the system, incorrect or inadequate installation and maintenance, inadequacy of the electrical system to which the product is connected, tampering by unauthorized persons or persons not able to perform their activities correctly, or any other cause not attributable to the manufacturer.

3) - During the guarantee period, the manufacturer undertakes, through the dealer making the sale and in compliance with the conditions of the previous paragraph, to replace or repair, free of charge, any components that may have malfunctions caused by original defects of materials or workmanship. For onsite replacement or repair operations, the user must pay a fixed callout charge according to currently applicable prices. If the system or any part of it is repaired in the factory, transport costs shall be borne by the user. No repair operations carried out during the guarantee period will give any entitlement for an extension of said period.

4) - To be entitled to operations covered by the guarantee, the user must exhibit the invoice demonstrating the purchase date of the product, at the request of the person appointed by us.

5) - The manufacturer will bear no other costs apart from those regarding the replacement of defective components, and therefore declines all and any claims for direct or indirect injury or damage caused to persons or things by malfunctions of the system or its components, or that arise after the expiry date of the guarantee.

6) - The manufacturer acknowledges solely the guarantee conditions indicated on this certificate. No-one is authorized to modify these conditions or to provide others, whether verbal or written.

MODEL	PUMP	SERIAL NUMBER	DATE OF MANUFACTURE
Smoki MAXI 300	380V+N 3.6A 1.5kW		
Smoki MAXI 400	380V+N 4.9A 2.2kW		
Smoki MAXI 500	380V+N 6.5A 3.0kW		

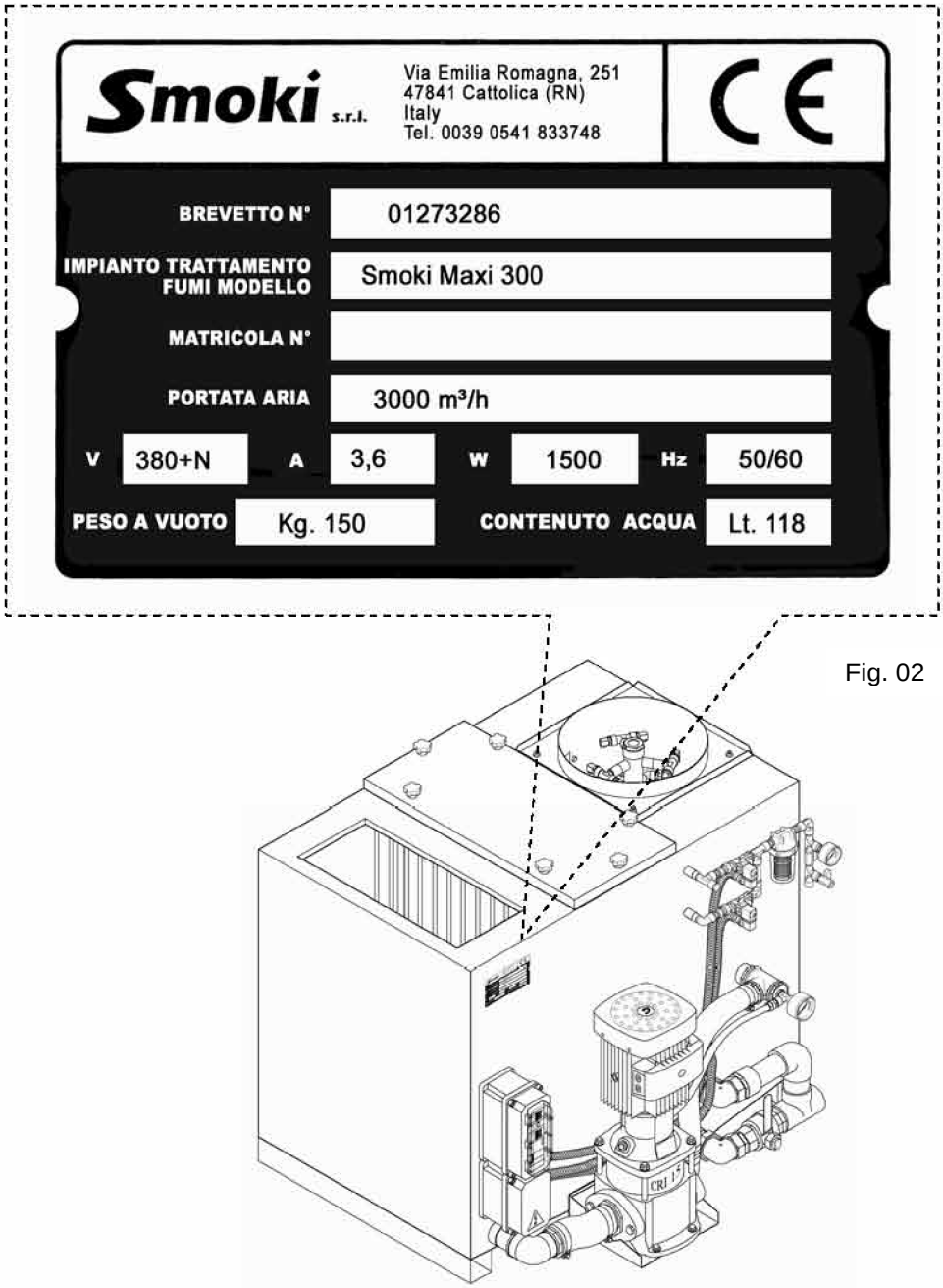
04 - MACHINE IDENTIFICATION

04.1 - IDENTIFICATION DATA

Figure 02 shows the identification plate located on the front of the machine.
NB: The model and serial indicated on the plate must be quoted in all communications with the manufacturer, whether for information or for spare parts orders.

SMOKE SCRUBBER

TYPE: SMOKI MAXI 300



MACHINE IDENTIFICATION PLATE LOCATED ON FRONT OF MACHINE.

Fig. 02

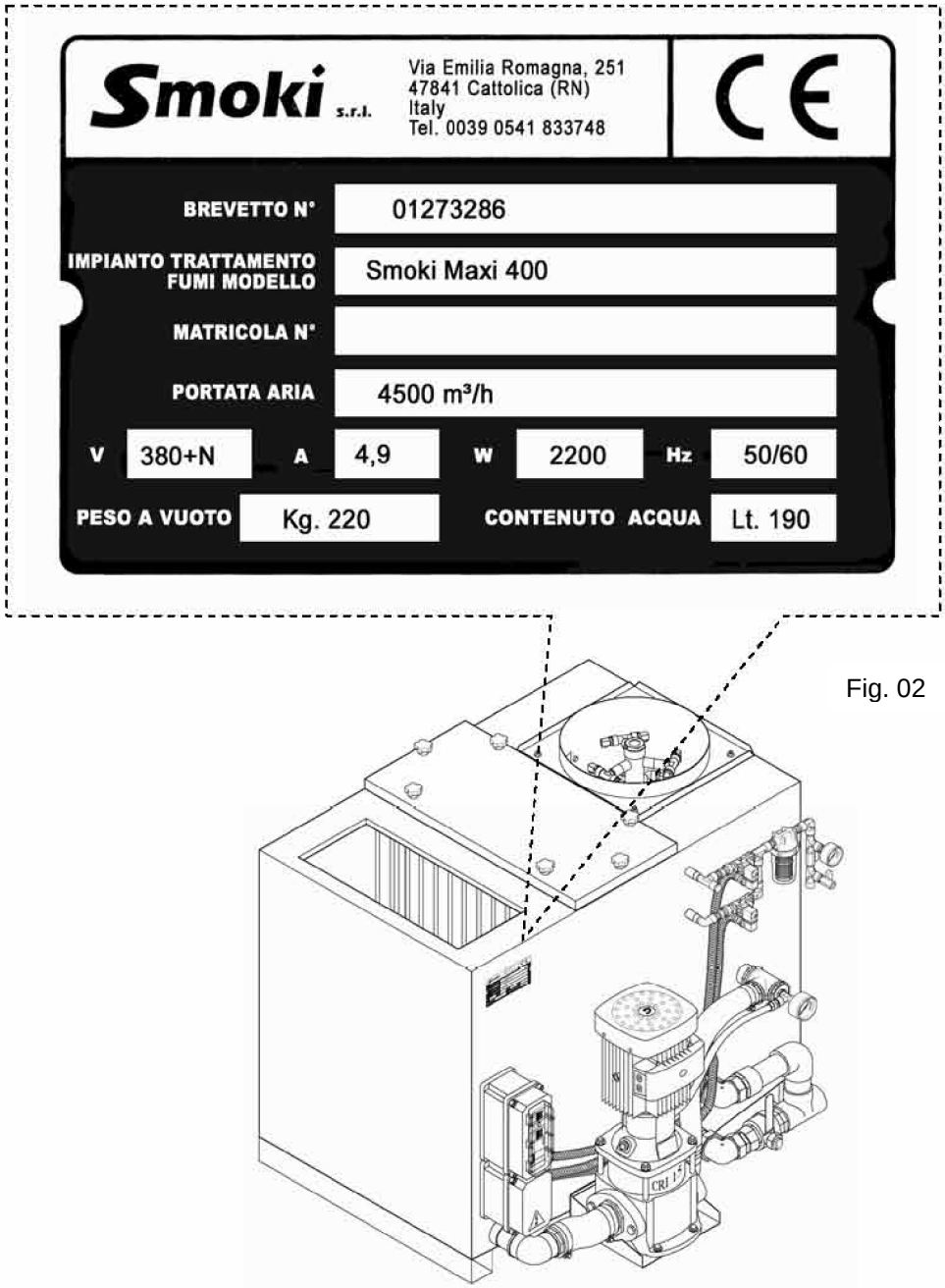
04 - MACHINE IDENTIFICATION

04.1 - IDENTIFICATION DATA

Figure 02 shows the identification plate located on the front of the machine.
NB: The model and serial indicated on the plate must be quoted in all communications with the manufacturer, whether for information or for spare parts orders.

SMOKE SCRUBBER

TYPE: SMOKI MAXI 400



MACHINE IDENTIFICATION PLATE LOCATED ON FRONT OF MACHINE.

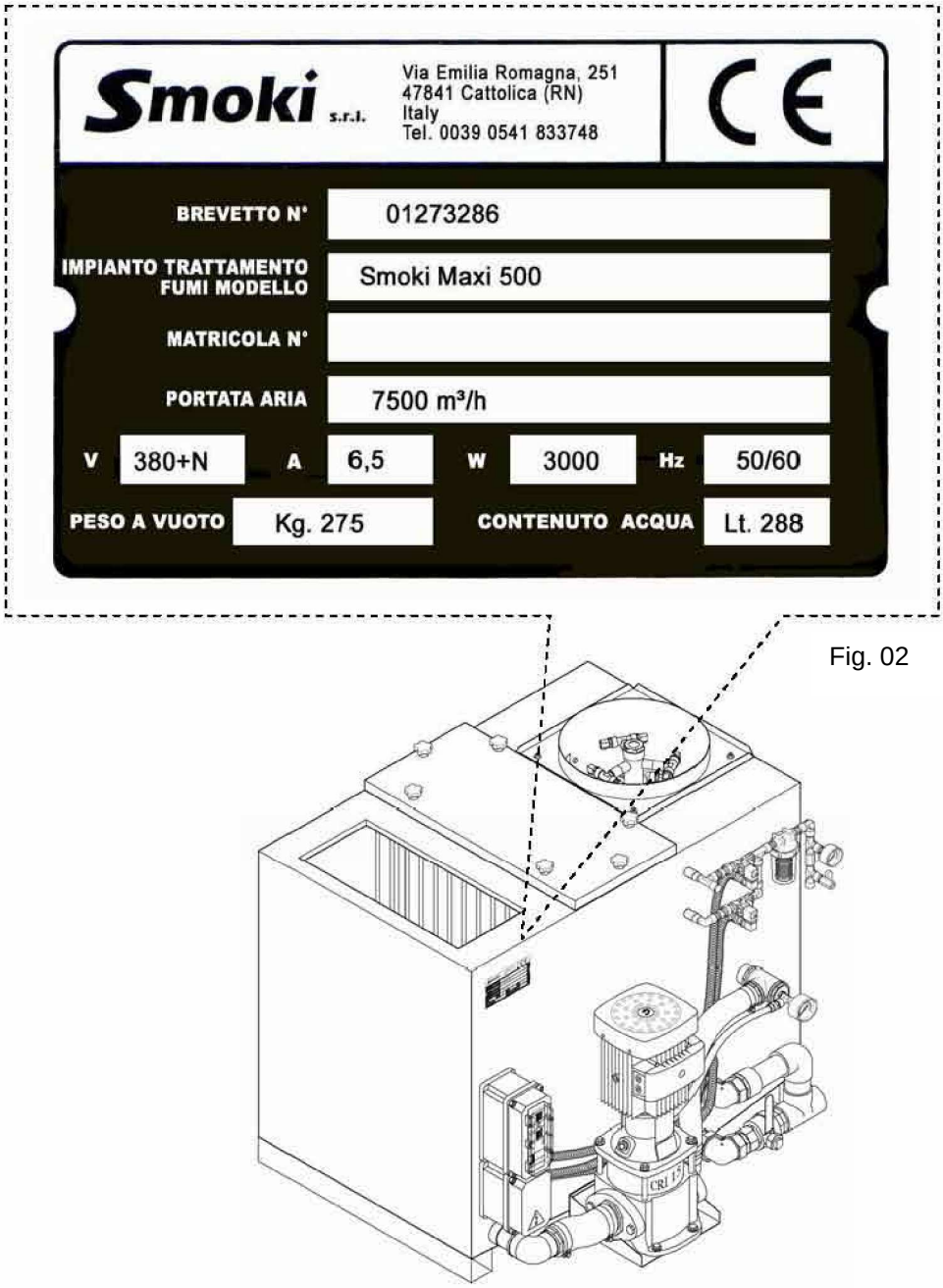
Fig. 02

04 - MACHINE IDENTIFICATION

04.1 - IDENTIFICATION DATA

Figure 02 shows the identification plate located on the front of the machine.
NB: The model and serial indicated on the plate must be quoted in all communications with the manufacturer, whether for information or for spare parts orders.

SMOKE SCRUBBER
TYPE: SMOKI MAXI 500



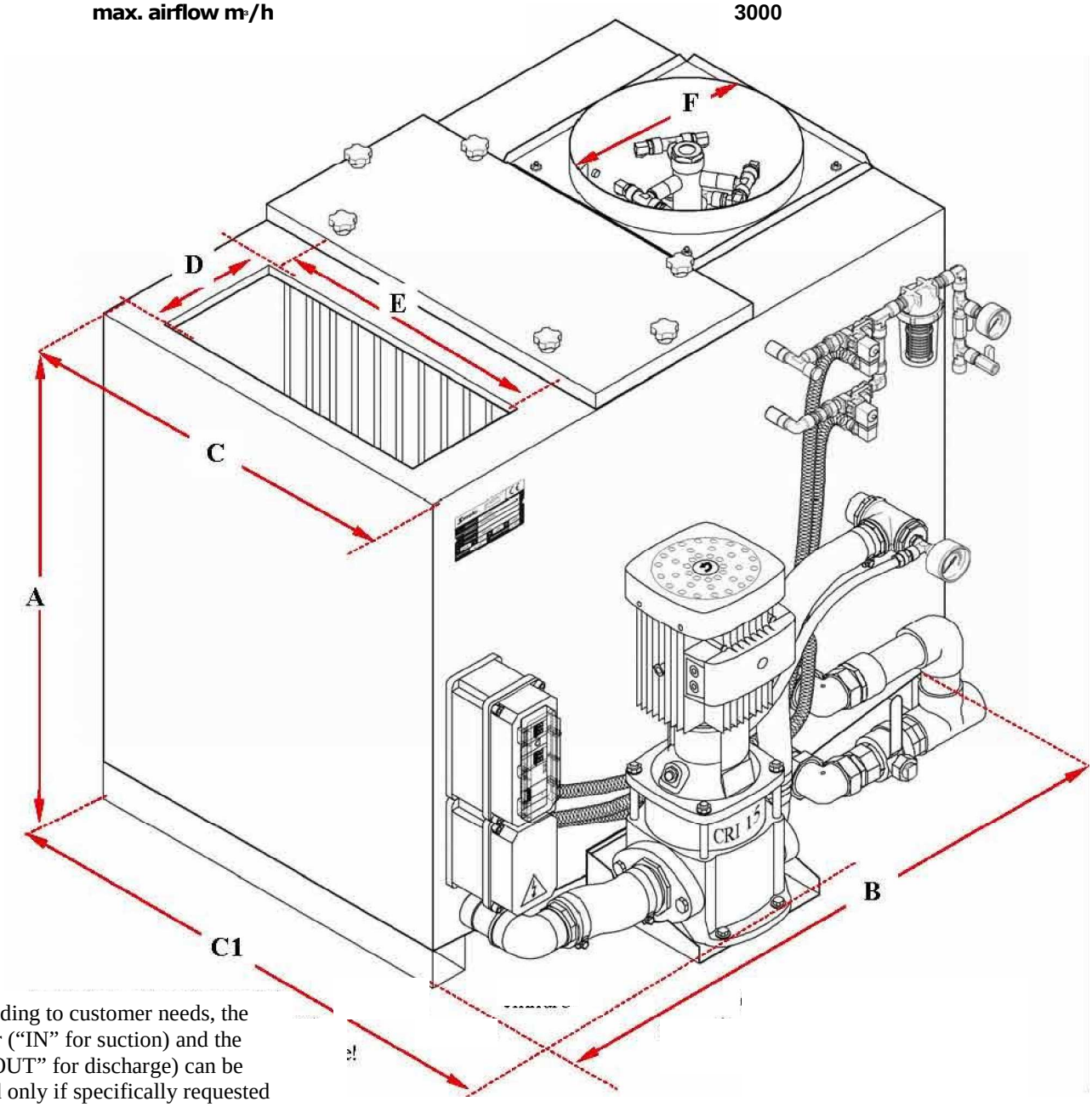
MACHINE IDENTIFICATION PLATE LOCATED ON FRONT OF MACHINE.

Fig. 02

05 - TECHNICAL CHARACTERISTICS

05.1- OVERALL DIMENSIONS, WEIGHT AND CHARACTERISTICS

A HEIGHT mm	**970**
B WIDTH mm	**1060**
C TANK DEPTH mm	**590**
C1 TOTAL DEPTH mm	**866**
D-E outlet sides mm	**230x350**
F intake diameter mm	**300**
power supply V+Hz	**380 V + N 50-60 Hz**
power W	**1500 W (3.6 A)**
water capacity litres	**118**
water consumption litres	**40 litres/hour (2 bar)**
dry weight kg	**150**
noise emission dB	**25-30**
max. airflow m³/h	**3000**

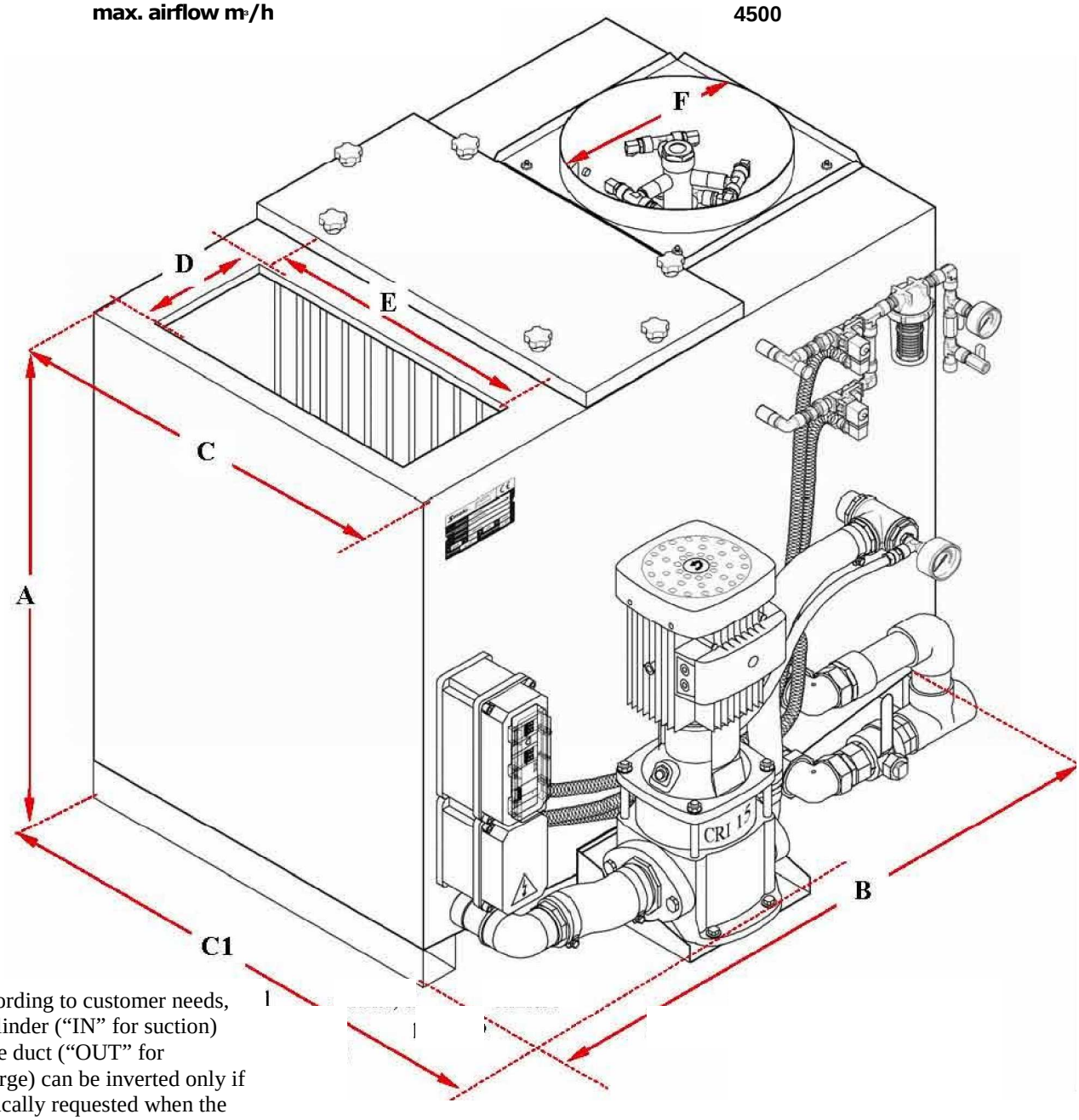


* According to customer needs, the cylinder (“IN” for suction) and the duct (“OUT” for discharge) can be inverted only if specifically requested when the order is placed!

05 - TECHNICAL CHARACTERISTICS

05.1- OVERALL DIMENSIONS, WEIGHT AND CHARACTERISTICS

A HEIGHT mm	**1070**
B WIDTH mm	**1240**
C DEPTH of tank mm	**800**
C1 TOTAL DEPTH mm	**1080**
D-E outlet sides mm	**300x600**
F intake diameter mm	**400**
power supply V+Hz	**380 v + N 50-60 Hz**
power W	**2200 W (4.9 A)**
water capacity litres	**190**
water consumption litres	**40 litres/hour (2 bar)**
dry weight kg	**220**
noise emission dB	**25-30**
max. airflow m^3/h	**4500**

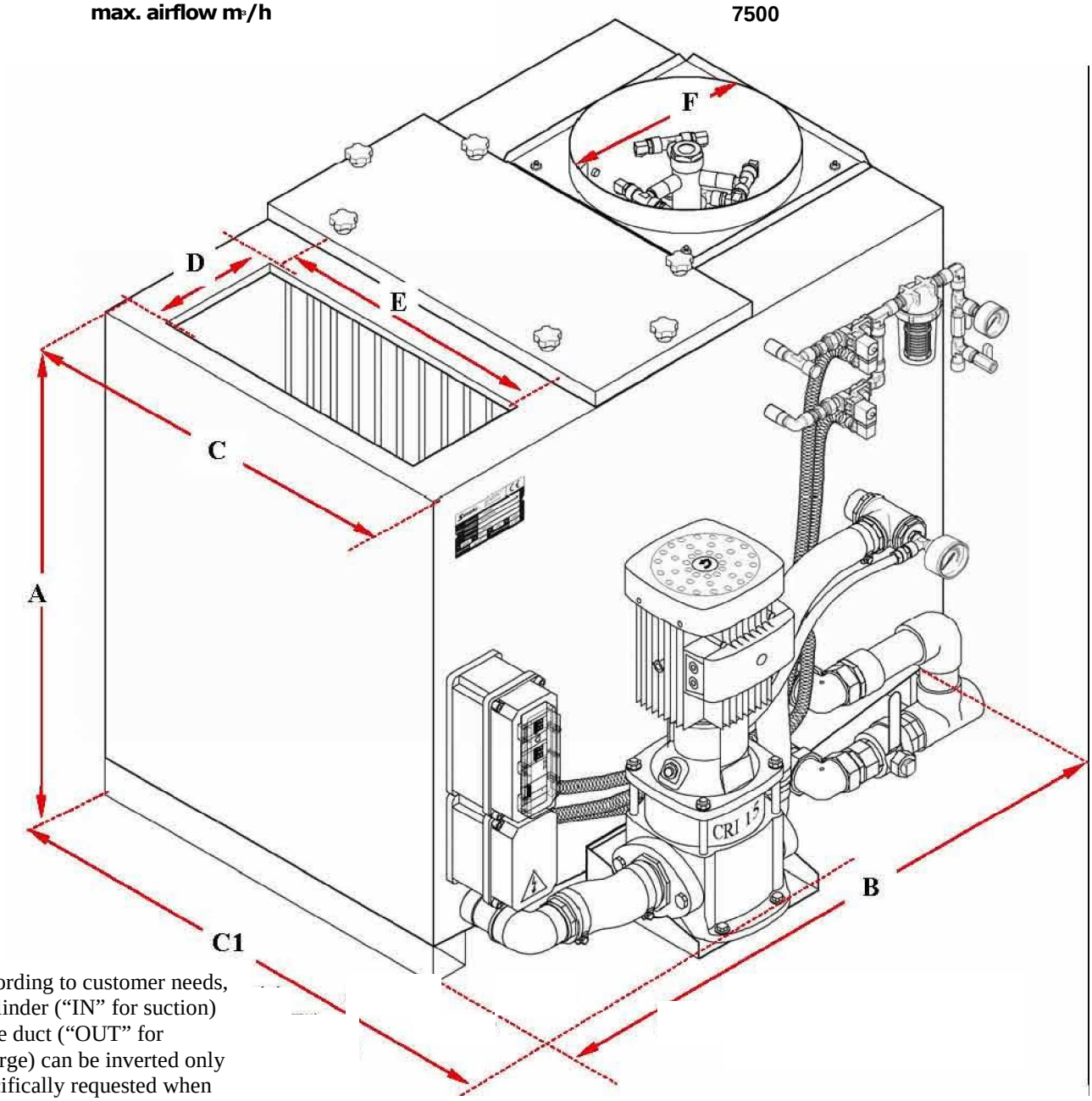


* According to customer needs, the cylinder ("IN" for suction) and the duct ("OUT" for discharge) can be inverted only if specifically requested when the order is placed!

05 - TECHNICAL CHARACTERISTICS

05.1- OVERALL DIMENSIONS, WEIGHT AND CHARACTERISTICS

A HEIGHT mm	**1180**
B WIDTH mm	**1600**
C TANK DEPTH mm	**900**
C1 TOTAL DEPTH mm	**1160**
D-E outlet sides mm	**400x800**
F intake diameter mm	**500**
power supply V+Hz	**380 v + N 50-60 Hz**
power W	**3000 W (6.5 A)**
water capacity litres	**288**
water consumption litres	**40 litres/hour (2 bar)**
dry weight kg	**275**
noise emission dB	**25-30**
max. airflow m^3/h	**7500**



* According to customer needs, the cylinder ("IN" for suction) and the duct ("OUT" for discharge) can be inverted only if specifically requested when the order is placed!

06 - MAIN TECHNICAL DATA

MAIN TECHNICAL DATA

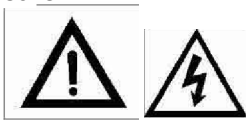
AMBIENT TEMPERATURE FOR USE	**from -10°C to +50°C**
APPLICATION	The machine is designed for installation both indoors (in restaurants, pizzerias, etc) and outdoors, always however connecting the system to the normal smoke discharge outlet (flue). It can also be installed in cold and damp locations.
WEATHER CONDITIONS	The machine is protected against adverse weather conditions (rain, snow, hail) by means of insulation for external installation. Nevertheless, significant drops in ambient temperatures (below -10°C) or the formation of ice can cause damage to the machine and prevent it from operating correctly.
DURATION OF OPERATION	Continuous cycle.
ACCIDENT PROTECTION	Electrical and mechanical components are compliant with applicable safety standards.

07 - SAFETY PRECAUTIONS

It is advisable to carefully read the instructions given in this manual before carrying out any operation whatsoever on the system.

CAUTION! 

The following recommendations must receive the undivided attention of both yourself and your collaborators.
Warnings alone do not prevent hazards!
The instructions and warnings are not intended to replace safety standards for accident protection, but instead to complement these and encourage their respect.
Failure to respect safety recommendations or improper use of the machine may create safety risks for yourself and for other persons.

CAUTION! 

To prevent electric shock and injuries to fingers or hands, when using this system the following safety instructions must always be followed.

WARNING! 

Before carrying out any operations whatsoever on the system, also put on suitable protective safety gloves, glasses and footwear.

Read and follow these instructions before using the system, and keep them for future reference!
Ensure that unauthorized or untrained persons, and in particular children, do not touch or start the system. There is an accident hazard for persons assigned to use of the system if safety devices are removed, modified or bypassed.
The system must be connected and started only by a specialized and expert installer, who must first use suitable instruments to check the efficiency of the ground connection system to which the machine must be **compulsorily** connected.
The installer must also check the efficiency of the ground connection of the machine and then connect the machine to the power supply in compliance with applicable technical standards, conforming with the EN-60204-1 standard.
NB: QUALIFIED PERSONNEL: This definition is applied to persons who have followed specialization, training and other course and have experience in the installation, start-up and maintenance of systems. Qualified personnel must possess basic notions of first aid procedures in case of accidents.
Keep the workplace clean and tidy.
An untidy workplace can increase the risk of accidents.
While the system is operating, use suitable personal protection devices as required by safety agencies and the management of the company where the system is operating.
Dress suitably before starting work:
– Do not wear loose clothing, scarves, ties or jewellery; tie hair back with suitable accessories. All these items could become caught up in moving parts of the machine.
– Fully tighten sleeves around wrist, buttoning or otherwise them securing them in a safe manner.
– Use suitable footwear for the working area, as required and recommended by safety regulations throughout the world.
Avoid unsafe positions:
– Take care to assume only safe positions in which balance can always maintained.
– Always be careful and attentive.
– Observe the workplace. Be reasonable. Do not use the system if your attention is not fully focussed on the job in hand, or under the influence of alcohol, pharmaceuticals or drugs.

07 - SAFETY PRECAUTIONS

CAUTION! 

To ensure your safety, use only the tools and accessories indicated in the instructions for use or offered in specific catalogues, The use of other accessories or tools that are not recommended in the instructions for use or in catalogues may create an injury hazard for you.

Check that the system is undamaged:

– Before using the system, carefully check its efficiency and the perfect operation of safety devices, and check that no components are damaged. Check the operation of moving parts, ensuring that they move freely and that there are no breakages. Also ensure that all other parts are correctly fitted and check for the possible presence of any conditions that could prevent the system from operating correctly – such as water supply and discharge – and that smoke suction and discharge flows are in excellent conditions of efficiency.

Safety devices and damaged components must be correctly replaced or repaired by an Assistance Centre, unless otherwise indicated by the instructions for use.

In case of damage to switches, solenoid valves, pump, suction motor, level switch or power supply cable, these must be replaced by an Assistance Centre.

– Do not use the system with a switch that cannot be turned on (“ON” position) or off (“OFF” position).

– Before proceeding with cleaning or maintenance operations on the system, always move the switch to the “OFF” position to disconnect the power supply.

– Periodically check that the protection sheath of the power supply cable is in perfect condition, without wear, cracks or swellings, and that it is not twisted. If any damage is noted, check the power cable and if necessary replace it at once.

– Do not use the system if it does not have a correct ground  connection!

Carry out weekly, regular and special maintenance operations at the recommended intervals, following the instructions given in this manual.

Over time, failure to respect these instructions can cause system malfunctions, resulting in damage to the various parts of the system.



IMPORTANT!

Failure to respect the intervals indicated for weekly, regular and special maintenance operations impairs the efficiency of the system in reducing environmental pollution.

08 - MAIN EXTERNAL COMPONENTS

COMPONENT NAMES:

1) - MACHINE BODY
2) **- FLUE CONNECTION (INTAKE and OUTPUT** * see arrows on machine)
3) - not available
4) - not available
5) - JET NOZZLE
6) - MACHINE COVER
7) - COVER FIXING KNOBS
8) - VALVE "A" FOR PERMANENT WATER SUPPLY CONNECTION
9) - AUXILIARY VALVE "B"
10)- WATER PRESSURE GAUGE
11)- WATER SUPPLY FILTER
12)- SOLENOID VALVE FOR WATER LEVEL MAINTENANCE
13)- SOLENOID VALVE FOR FAST FILLING
14)- PUMP
15)- PUMP PRESSURE GAUGE
16)- DRAINAGE DISCHARGE
17)- CONTROL LEVER FOR WATER DISCHARGE GATE VALVE
18)- ELECTRICAL PANEL WITH POWER SWITCHES AND MAXIMUM LEVEL INDICATOR LIGHT
19) - WATERTIGHT BOX FOR LEVEL SWITCH

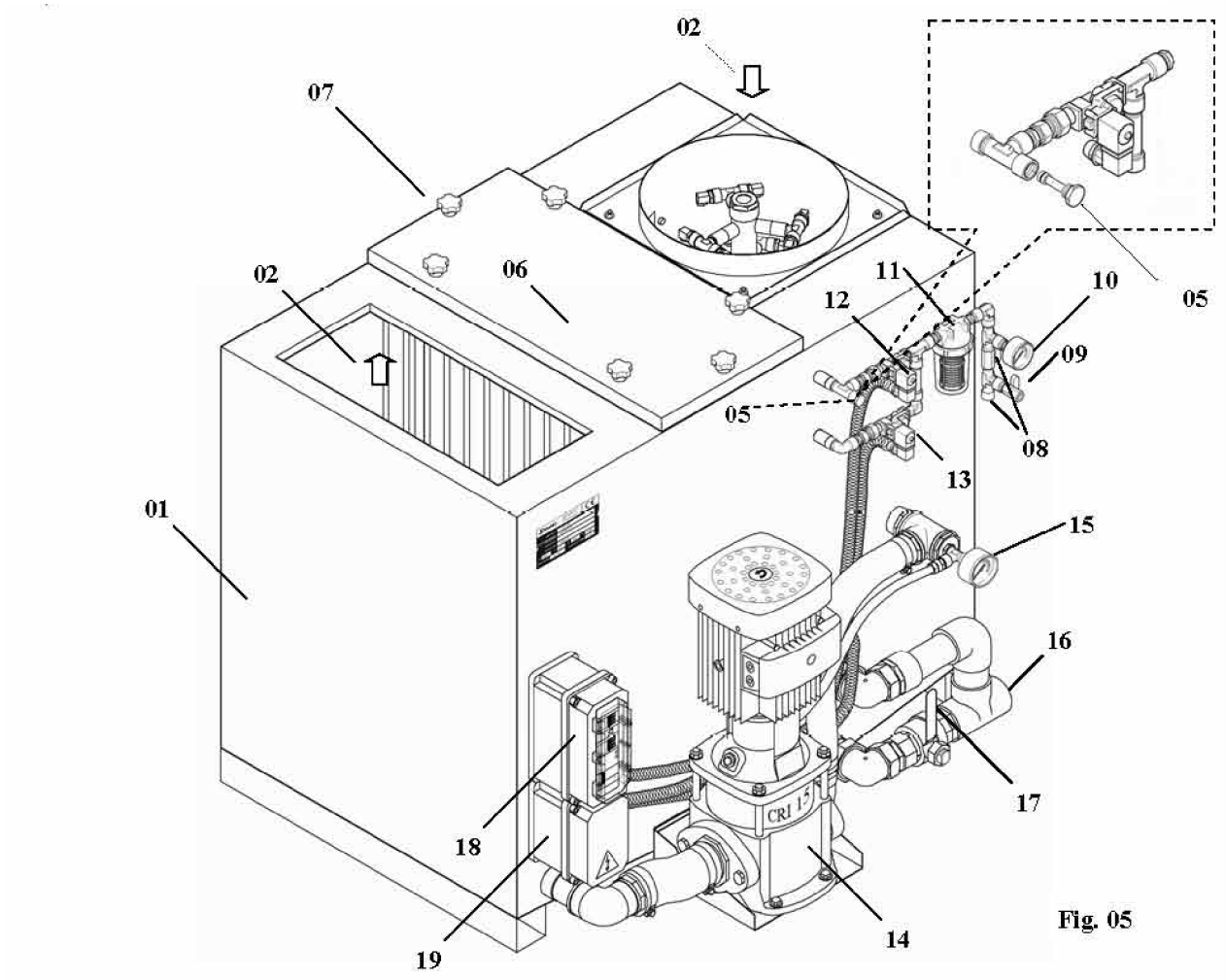


Fig. 05

* = According to customer needs, the cylinder ("IN" for suction) and the duct ("OUT" for discharge) can be inverted only if specifically requested when the order is placed!

08 - MAIN INTERNAL COMPONENTS

COMPONENT NAMES:

4) -SLANTED BASE
5) - SMOKE DISCHARGE DUCT "OUT"
3) - SMOKE SUCTION CYLINDER "IN"
7) - CONICAL SPRAY NOZZLES
8) - CONNECTOR FROM PUMP TO SPRAY NOZZLES
9) - CONNECTOR FOR WATER LEVEL MAINTENANCE
10) - SOLENOID VALVE CONNECTOR (FOR FAST FILLING)
8) - FLOAT
1) - OVERFLOW DISCHARGE TO DRAINS
2) -WATER DISCHARGE WITH GATE VALVE
11) -PUMP SUCTION
12) - LEVEL SWITCH

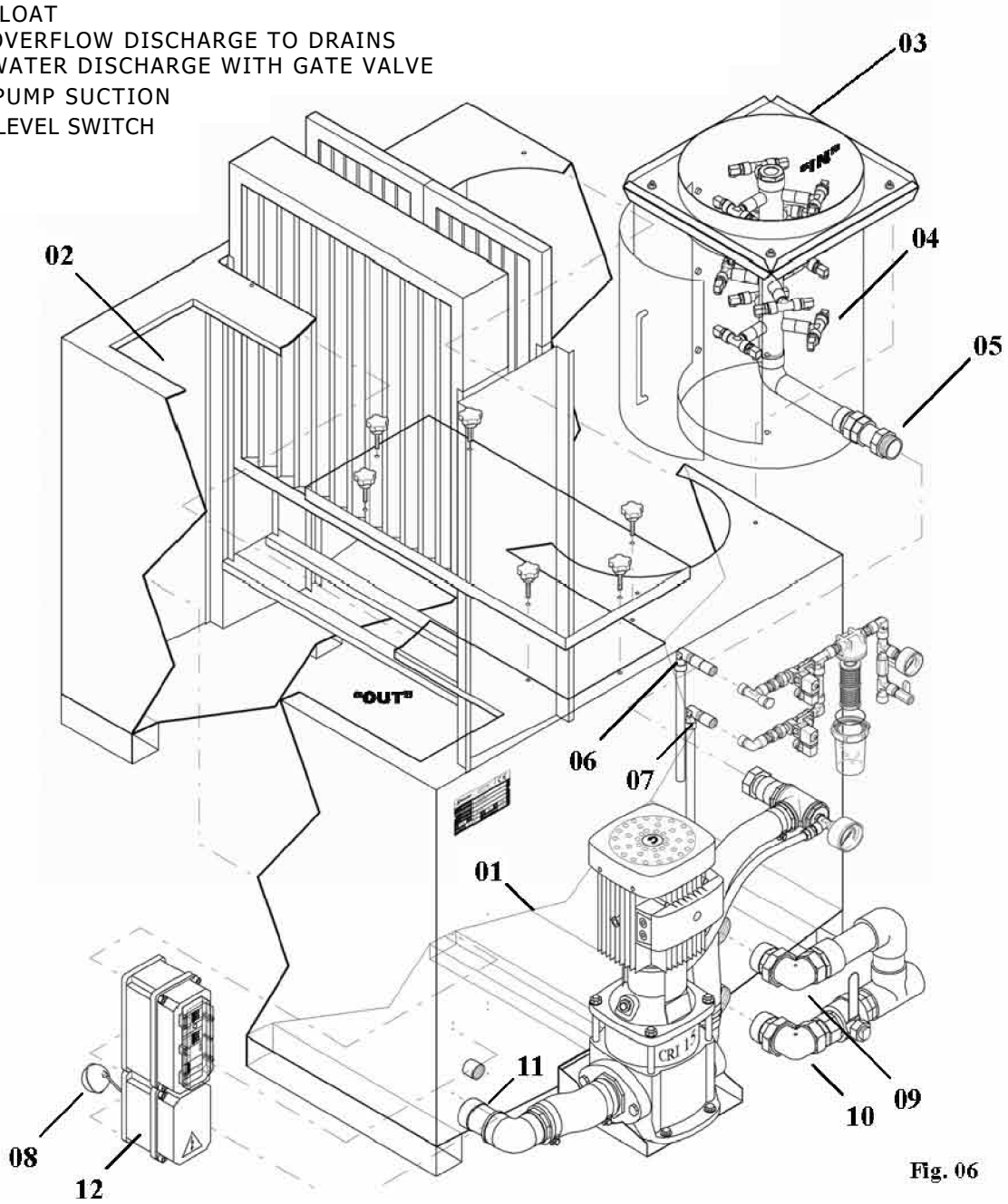


Fig. 06

= According to customer needs, the cylinder ("IN" for suction) and the duct ("OUT" for discharge) can be inverted only if specifically requested when the order is placed!

09 - GENERAL DESCRIPTION OF SYSTEM

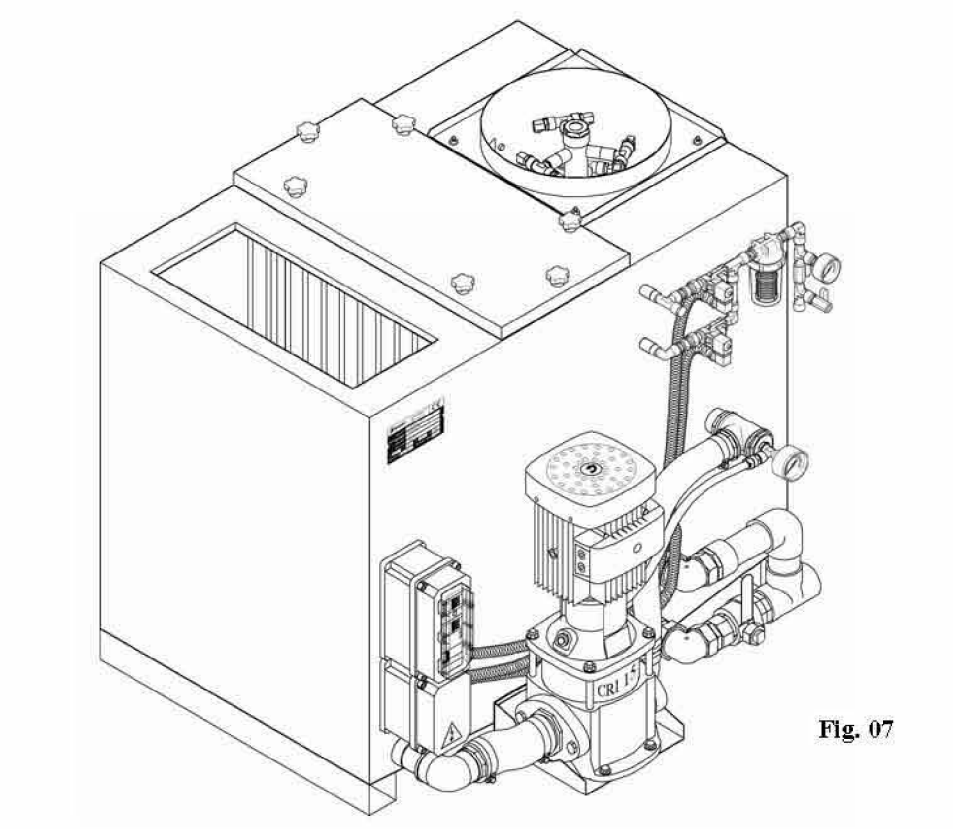


Fig. 07

Our **"SMOKI MAXI"** system is intended solely for the elimination of soot particles from smoke discharges.
It is used to filter discharge air (smoke) from ovens and grills fuelled with wood, charcoals or biomasses, for example in pizzerias, bakeries, takeaways, restaurants, etc.
The "SMOKI MAXI" system, connected at any point of the flue of an oven fuelled with wood, charcoal or biomasses, constitutes an *efficacious* natural filter against atmospheric pollution.
The **"SMOKI MAXI"** system has been designed and constructed with **materials selected carefully to ensure a long operational life.**

The **"SMOKI MAXI"** system uses water as a natural filter. **Any other use** other than that indicated in this manual is **severely prohibited.**
Soot particles are removed by passing smoke through a veil of water produced by a group of spray nozzles located inside the **"SMOKI MAXI",** reducing the number of particles contained in discharge smoke, removing pollutants from it and cooling it.

Smoke sucked in is sent to a cylinder in the machine body that has 24 conical nozzles. These nebulize water to filter the passing smoke, removing the filtered particles into the recycling tank, from where they are then discharged into the drains. The discharge smoke, purified and cooled, is then released into the atmosphere.

The filtering process gives an approximate reduction of the following values: 60-70% in smoke colour and 40-50% of smells.
The electrical starting system comprises an automatic switch (max. 10 A) located immediately near the oven or on the electrical panel. The machine also has a power switch (ON/OFF switch) and a maximum level indicator light, inside an electrical box with a transparent door.
All protection and safety systems and electrical mechanisms comply with applicable standards.

10 - SYSTEM OPERATION

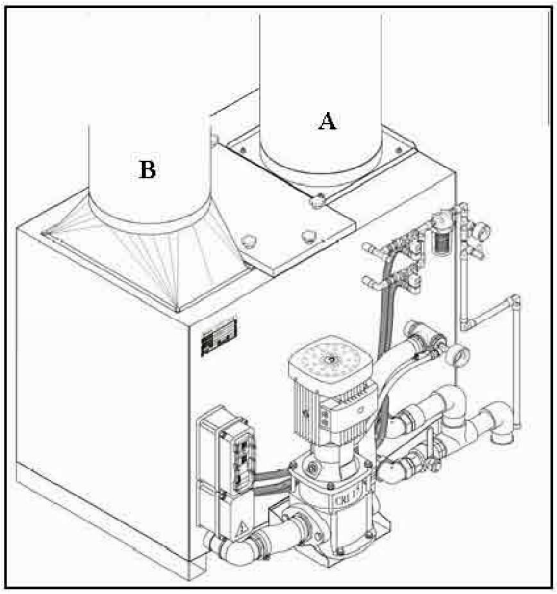


FIG. 08

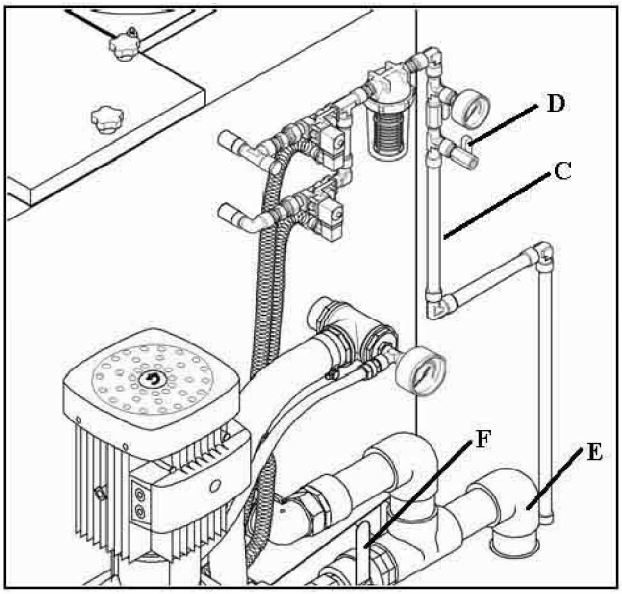


FIG. 09

10.1 - INSTALLATION

The machine must be installed on a level, non-slippery and even surface, sufficiently distant from all obstacles. Installation must be carried out by qualified personnel.

10.2 - ELECTRICAL CONNECTIONS

Check that the data indicated on the information plate correspond to those for the mains power supply.
Do not start the machine if the data do not correspond, but contact the assistance service.
Connection of the electrical system (to EEC standards), which also includes the compulsory ground connection, must be carried out only by specialized personnel. The mains electrical supply to which SMOKI MAXI is connected must be fitted with a safety breaker (cut-out).

10.3 - FLUE CONNECTION

Check that the system is correctly connected to the flue, from the smoke suction inlet “A” (see also page 09 point 02) to the smoke discharge outlet “B” (see page 09 point 02), using specific pipes (straight and curved sections) made in smooth AISI 316 stainless steel, not corrugated and **watertight** (against condensation) (see fig. 08).

10.4 - WATER SUPPLY CONNECTION

Permanently connect the system to the mains water supply with water supply valve C” shown in fig. 09 (see also page 09 point 08). Check that this connection has been correctly made by reading the water pressure (ideal operating value 1-5 -3 bar) on the pressure gauge (see page 09 point 10). If the pressure is higher, fit a pressure reducer to further limit water consumption. Check that auxiliary valve “D” shown in fig. 09 (see also page 09 point 09) is closed (“OFF” position indicated by arrow on lever).

10.5 - CONNECTION TO DRAINS

Permanently connect the system to the existing drains with discharge “E” shown in fig. 09 (see also page 09 point 16), taking particular care to ensure that water drainage gate valve “F” (see also page 09 point 17) is in the closed position (vertical position).
It is essential to install a drain trap in the immediate vicinity of the system!

-10 - SYSTEM OPERATION

10.6 - STARTING THE SYSTEM

To start the system, check that the power switch on the electrical panel (see page 09 point 18) is set to the “ON” position, and then use the following automatic switch on the electrical power line:

- ON switch ("ON" position), normally located on the electrical panel or in the immediate vicinity of the oven, as shown in fig. 10.

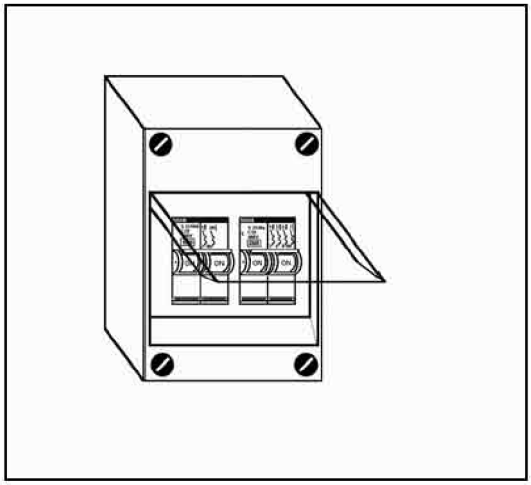


Fig. 10

CAUTION!

For additional operator safety, SMOKI s.r.l. considers that it is fundamental for the electrical system to which the "SMOKI MAXI" system is connected to be compliant with applicable standards, as required by Italian legislation, and that is therefore fitted with a safety cut-out breaker.

10.7 - SWITCHING THE SYSTEM OFF

To switch the system off, use the following switch on the electrical power line:

- ON switch ("OFF" position), normally located on the electrical panel or in the immediate vicinity of the oven, as shown in fig. 11.

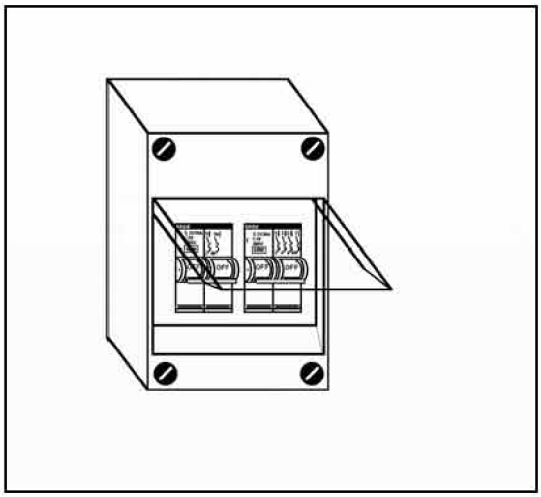


Fig. 11

IMPORTANT!

The power switch located on the machine electrical panel (see page 09 point 18) must always be set to the “OFF” position when carrying out operations directly on the machine.

CAUTION!

Before starting any kind of repair or maintenance operations on the machine, disconnect the automatic switch on the electrical power line and the power switch on the electrical panel of the machine (see page 09 point 18), and put on suitable personal safety accessories such as safety gloves, glasses and footwear.

11 - SYSTEM MAINTENANCE INTERVALS

The maintenance operations to be described here cover the entire maintenance cycle (weekly, regular and special maintenance). The operator must scrupulously respect their chronological order.

Maintenance operations are divided into **"weekly"** at intervals of 7 days (diagram marked with symbol "A"), **"regular"** at intervals of 15-30 days (diagram marked with symbol "B") and "**special**" at intervals of 6 months (diagram marked with symbol "C").

11.1 - Weekly maintenance operations

WEEKLY* maintenance operations** must be carried out at constant intervals of **7 (seven) days.** All diagrams marked with the letter ***"A" refer to weekly maintenance operations.
These operations consist essentially in **cleaning of the water filter** if necessary and **changing of the recycling water**, thereby improving the efficiency of the system in scrubbing smoke and significantly reducing atmospheric pollution.



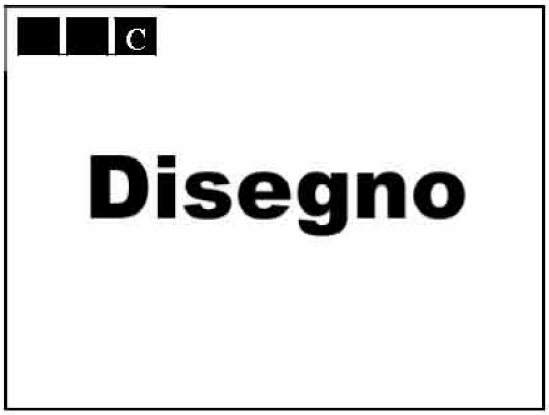
11.2 - Regular maintenance operations

REGULAR* maintenance operations** must be carried out at constant intervals of **15-30 (fifteen-thirty) days.** All diagrams marked with the letter ***"B" refer to regular maintenance operations.
These operations consist essentially in **weekly maintenance operations**, cleaning of the **internal labyrinth filter**, the **drip separator** (* if fitted) and the **recycling tank,** dedicating particular attention to **discharges** and the **float arm**.



11.3 - Special maintenance operations

SPECIAL* maintenance operations** must be carried out at constant intervals of **6 (six) months**. All diagrams marked with the letter ***"C" refer to special maintenance operations.
These operations consist essentially in **weekly and regular maintenance operations**, and cleaning of the **jet nozzle**. The maintenance operations indicated as follows describe all necessary special maintenance operations.



12 - MAINTENANCE OPERATION PROCEDURES

Before proceeding with maintenance operations, the following warnings must be respected:

CAUTION! 

Do not touch electrical components with wet hands. DANGER OF ELECTRIC SHOCK!

CAUTION! 

Do not perform outdoor maintenance operations in case of rain. DANGER OF SHORT CIRCUITS AND ELECTRIC SHOCK!

CAUTION! 

Before starting any kind of repair or maintenance operations, disconnect the automatic switch on the electrical power line and the power switch on the electrical panel of the machine (see page 09 point 18), and put on suitable personal safety accessories such as safety gloves, glasses and footwear.

IMPORTANT! 

Maintenance operations for SMOKI MAXI must be entrusted only to qualified personnel (persons with suitable technical experience in this field). Failure to respect the maintenance intervals indicated by the manufacturer will immediately invalidate the guarantee conditions!

Proceed as follows for maintenance operations, scrupulously respecting the chronological order:

12.1 - Turn off the automatic switch

Switch the system off by disconnecting the automatic power switch on the electrical power line ("OFF" position), as shown in fig. 12 (see also point 10.7 on page 13, fig. 11).

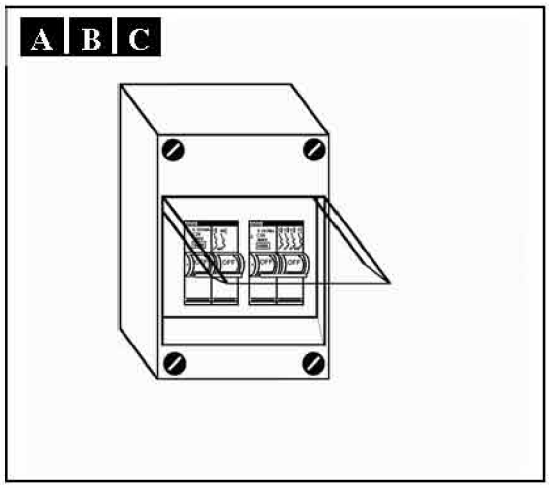


Fig. 12

12 - MAINTENANCE OPERATION PROCEDURES

12.2 - Turn off the power switch

Disconnect the power switch on the electrical panel, moving it to the “OFF” position, as shown in fig. 13 (see also page 09 point 18).

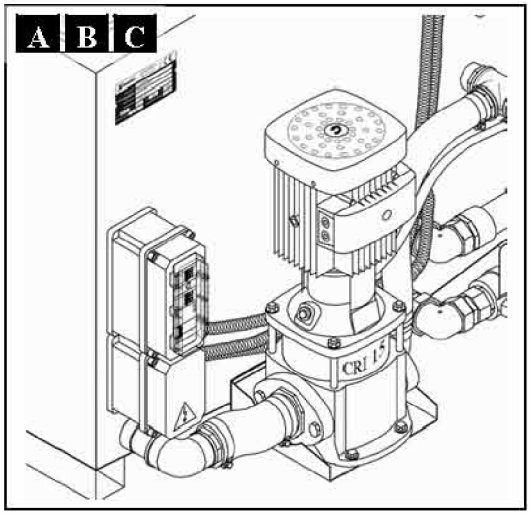


Fig. 13

12.3 - Closing the water supply valve

Turn the valve lever upwards into the horizontal “OFF” position, as shown in fig. 14 (see also page 09 fig. 05 point 08).

The water pressure gauge (see page 09 fig. 05 point 10) must fall gradually, until it reaches the value of 0 bar with the valve closed.

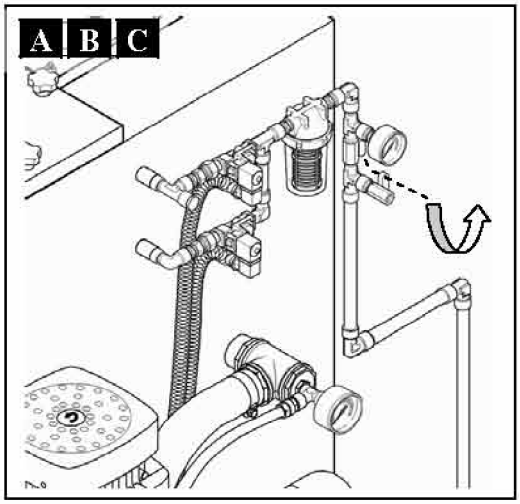


Fig. 14

12.4 - Cleaning the water supply filter

Unscrew the locking ring of the water filter cup in an anticlockwise direction and empty contents into a bucket. Remove the filter cartridge and clean it by immersing it in clean water (see fig. 15).

For reassembly proceed as follows:
– position the filter cartridge in its recess;
– position the gasket on the edge of the cup;
– tighten the cup locking ring cup in a clockwise direction.

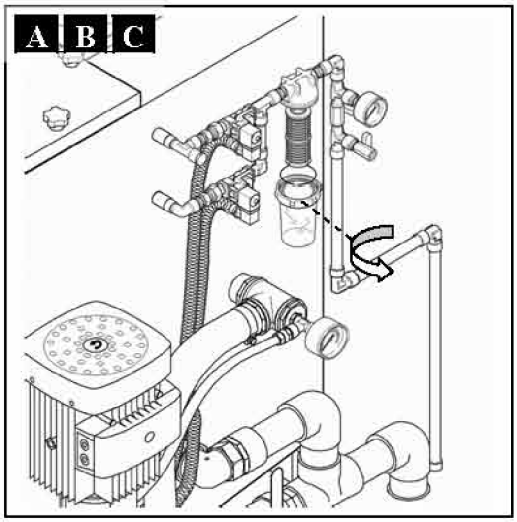


Fig. 15

12 - MAINTENANCE OPERATION PROCEDURES

12.5 - Opening the water discharge gate valve

Turn the control lever of the gate valve (see page 09 fig. 05 point 17) to the horizontal position as shown in fig. 16.
The water level inside the machine will start to fall.

If the system is fitted with an automated discharge valve (optional), use the remote electrical switch or the switch located directly on the machine (see page 29 fig. 39 point 16.4).

NB: In this case, the main switch for the system must be turned on.

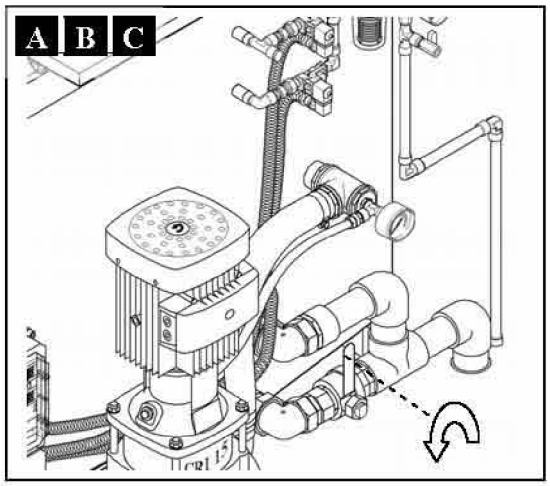


Fig. 16

12.6 - Removing the cover

Unscrew the 6 (six) cover fixing knobs in an anticlockwise direction and remove them.
Keep all the knobs together near the machine, to avoid losing them. Now carefully remove the cover from the machine body (see fig. 17).

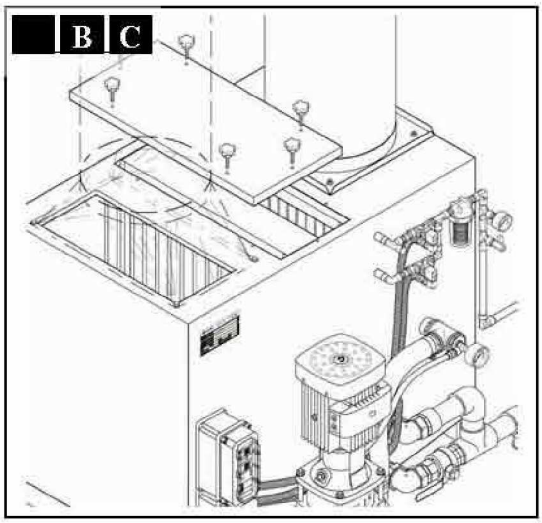


Fig. 17

12.7 — Removing the labyrinth filter

Lift the filter element, sliding it along the support guides, until it can be completely removed (see fig. 18).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

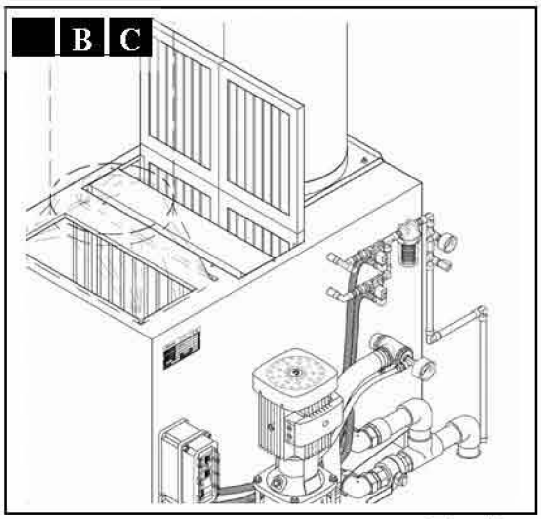


Fig. 18

12 - MAINTENANCE OPERATION PROCEDURES

12.8 - Cleaning the labyrinth filter

Proceed with cleaning of the filter element. Open auxiliary valve “B” (see also page 09 fig. 05 point 09), connected to a hose, and remove dirt with a jet of water (see fig. 19).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

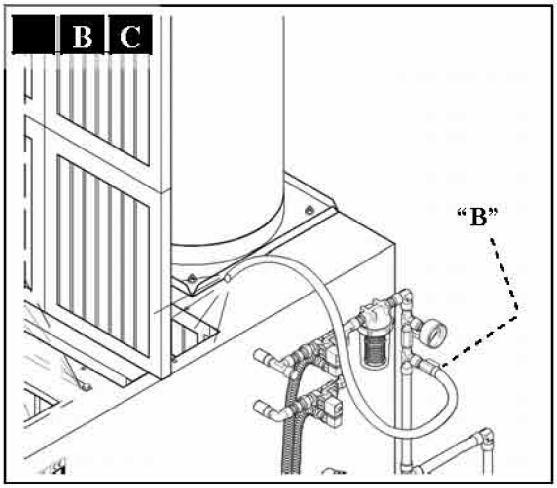


Fig. 19

12.09 - Removing the drop separator filter (*optional)

Lift the filter element, sliding it along the support guides, until it can be completely removed (see fig. 20).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

(*) The following element is supplied only if specifically requested when the order is placed.

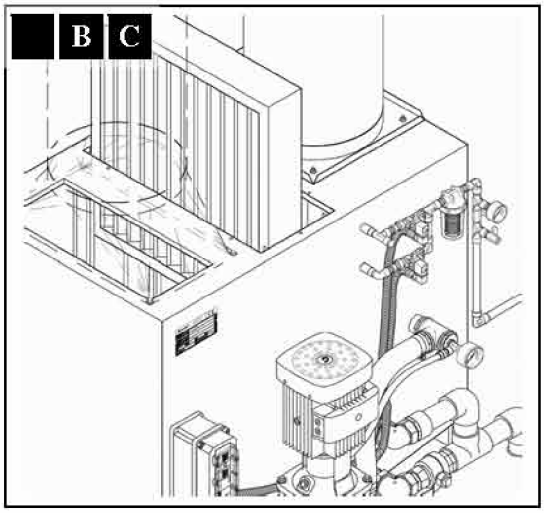


Fig. 20

12.10 - Cleaning the drop separator filter (*optional)

Proceed with cleaning of the filter element. Open auxiliary valve “B” (see also page 09 fig. 05 point 09), connected to a hose, and remove dirt with a jet of water (see fig. 21).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

(*) The following element is supplied only if specifically requested when the order is placed.

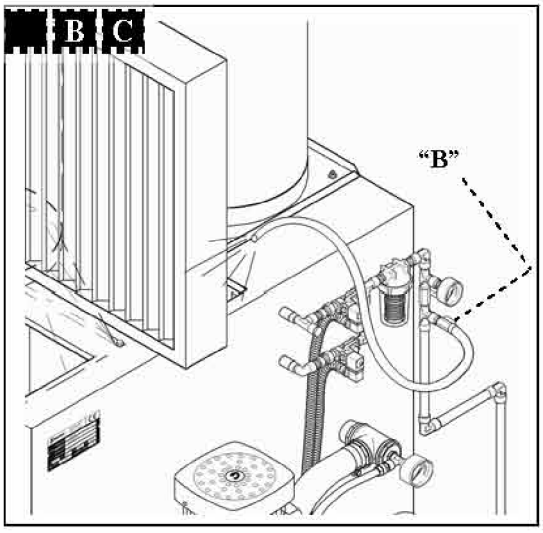


Fig. 21

12 - MAINTENANCE OPERATION PROCEDURES

12.11 - Cleaning the water filter

Proceed with cleaning of the tank. Open auxiliary valve “B” (see also page 09 fig. 05 point 09), connected to a hose, and remove dirt inside the tank with a jet of water (see fig. 22).

In the unlikely event that the water level does not fall, check the following:

1) that the discharge lever is open (horizontal position);
2) that the water discharge outlet (see page 10 fig. 06 point 10) inside the tank is not obstructed by sludge; if so, remove sludge manually;
3) thoroughly clean the float arm inside the tank (see page 10 fig. 06 point 08).

During water tank cleaning operations close auxiliary valve **"B".**

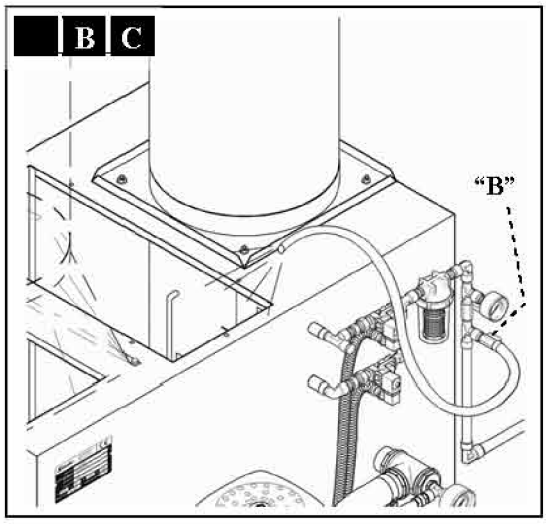


Fig. 22

12.12 - Cleaning the jet nozzle

To clean the jet nozzle, use a 26 mm wrench to slacken nut “A” shown in fig. 23 (see also page 09 fig. 05 point 05).

Remove nut "A" (as shown in fig. 23) and clean the jet nozzle from any residues with water or compressed air.

To reassemble proceed as follows:

- position the jet nozzle in its recess;
- tighten nut “A” with a 26 mm wrench.

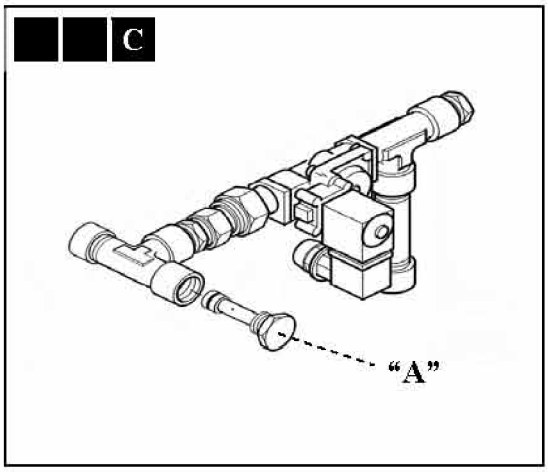


Fig. 23

12.13 - Replacing the labyrinth filter

Carefully insert the filter element into its guides and push it fully down (see fig. 24).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

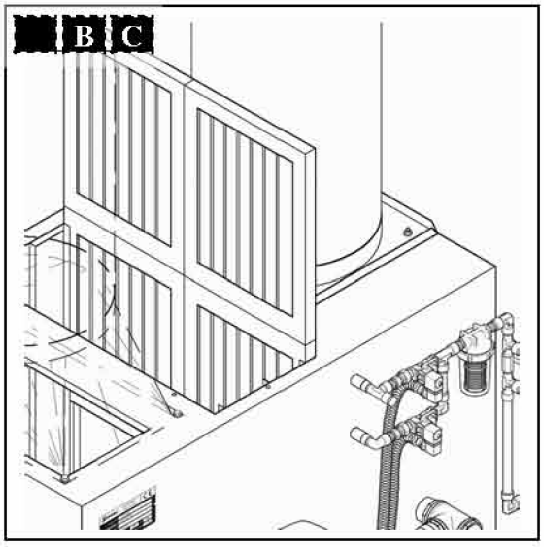


Fig. 24

12 - MAINTENANCE OPERATION PROCEDURES

12.14 - Replacing the drop separator filter (*optional)

Carefully insert the filter element into its guides and push it fully down (see fig. 25).

CAUTION!

The filter elements are very heavy, and can cause injuries if they fall onto the operator!

(*)The following element is supplied only if specifically requested when the order is placed.

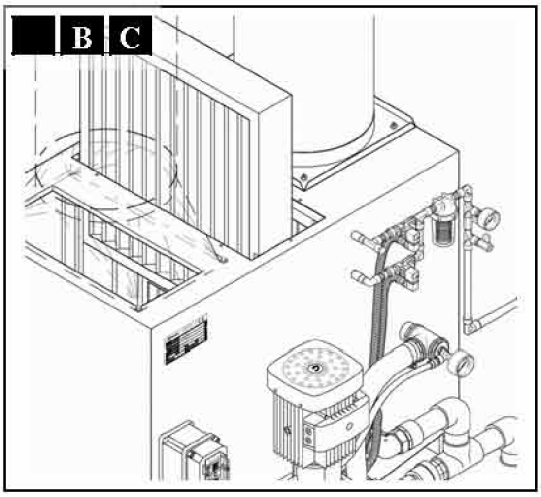


Fig. 25

12.15 - Replacing the cover

Fit the machine cover onto the inspection hatch, taking particular care to position the gasket correctly.

Position the 4 (four) fixing knobs in their respective holes in the cover and machine body, and tighten in a clockwise direction (see fig. 26).

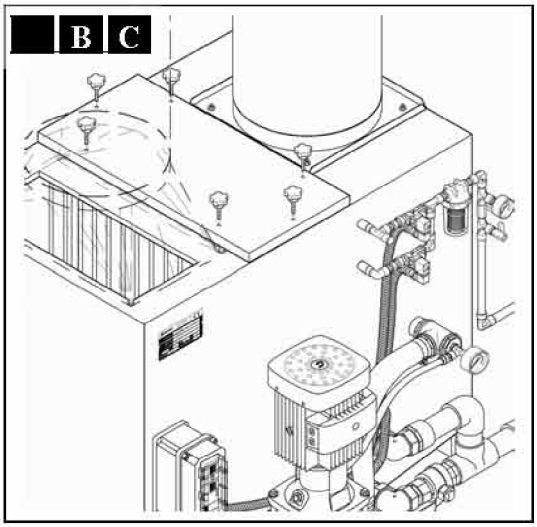


Fig. 26

12.16 - Opening the water supply valve

Turn the valve handle (see page 09 fig. 05 point 08) until it reaches the vertical position shown in fig. 27.

The water pressure gauge (see page 09 fig. 05 point 10) should rise gradually, until it reaches the value of 1.5 - 3 bar with the valve open.

The water supply valve must be left open!

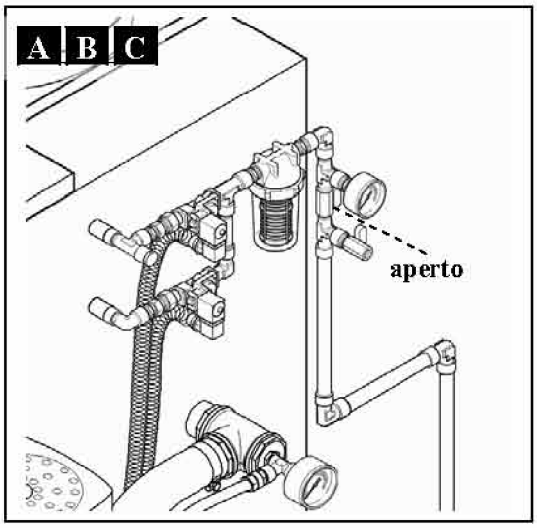


Fig. 27

12 - MAINTENANCE OPERATION PROCEDURES

12.17 — Closing the water discharge gate valve

Turn the control lever of the gate valve in a clockwise direction (see page 09 fig. 05 point 17) until it reaches the vertical position, as shown in fig. 28.
The water level inside the machine will start to rise.

If the system is fitted with an automated discharge valve (optional), use the remote electrical switch or the switch located directly on the machine (see page 29 fig. 39 point 16.4).

NB: In this case, the main switch for the system must be turned on.

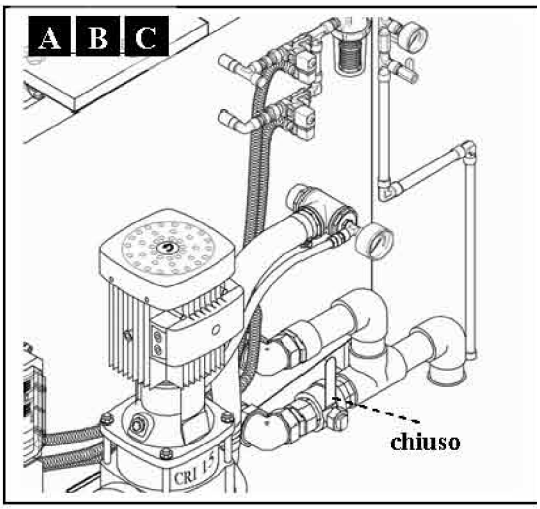


Fig. 28

12.18 - Turn on the power switch

Turn on the power switch on the electrical panel of the machine ("ON" position) (see also page 09 fig. 05 point 18).

The system can now be operated with the automatic switches on the electrical power line at any moment!

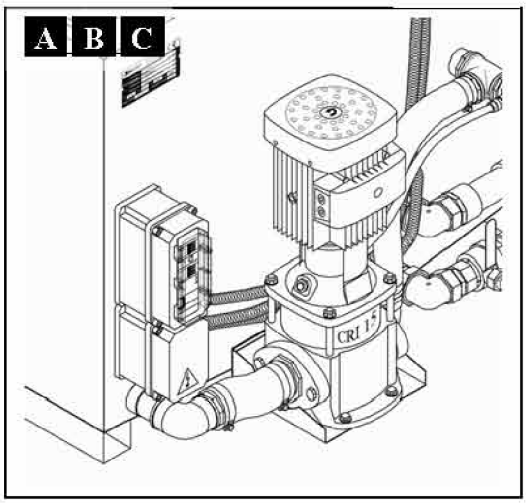


Fig. 29

12.19 - Turn on the automatic switch

Turn the system on with the automatic switch on the electrical power line ("ON" position) as shown in fig. 30 (see also point 10.6 a page 13 fig. 10).

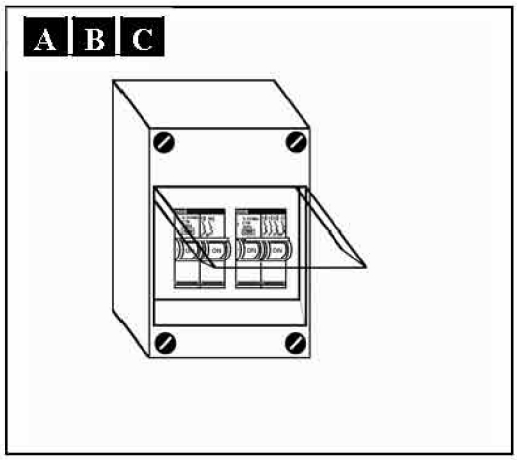


Fig. 30

IMPORTANT!

The pump will not restart until the internal water level has been restored. It is therefore advisable to wait about 10 minutes. Check that the water supply valve is always kept open and that the respective pressure gauge shows a value of about 1.5 - 3 bar!

13 - POSSIBLE INSTALLATION POSITIONS

The customer can choose one of the following methods for installation of the Smoki Maxi system, according to specific needs:

13.1 - System inside building (Variant A)

As shown in fig. 31, the SMOKI MAXI system is installed inside the building.
The chimney from the fireplace is directly connected to the inlet marked “IN” of the machine.
The outlet marked “OUT” of SMOKI MAXI is directly connected to the flue that passes through the roof. The pipe through which smoke is drawn from the oven towards SMOKI MAXI must have a minimum angle of 5° upwards, to avoid pressure losses and air pockets, with the oven at the lowest point and the inlet marked “IN” of SMOKI MAXI at the highest point.

The outlet flue must also have the same angle.
As can be seen in fig. 31, the support base for SMOKI MAXI (depth 1080 x width 1240) must be made in brickwork or a ledge with sufficient load-bearing capacity.

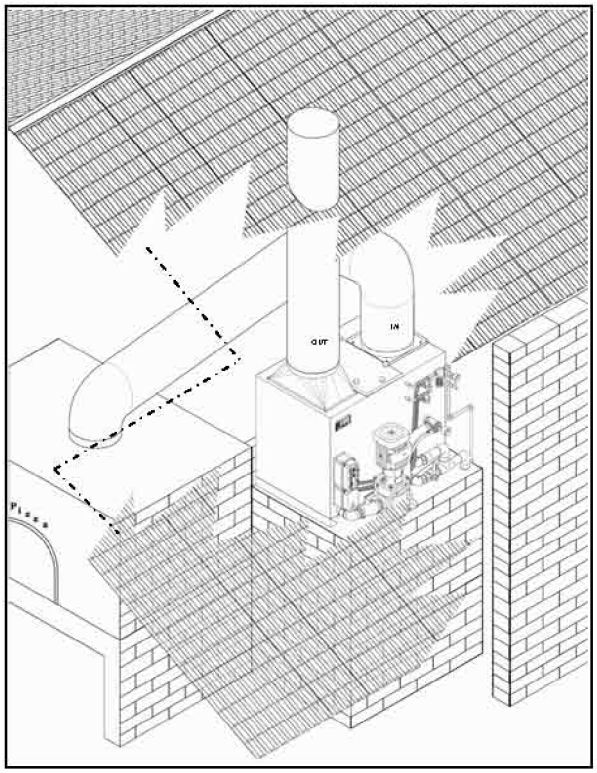


Fig. 31

13.2 - System inside building (Variant B)

As shown in fig. 32, the SMOKI MAXI system is installed directly above the oven, inside the building.
The chimney from the fireplace is directly connected to the inlet marked “IN” of SMOKI MAXI.
The outlet marked “OUT” of SMOKI MAXI is directly connected to the flue that passes through the roof. The pipe through which smoke is drawn from the oven towards SMOKI MAXI must have a minimum angle of 5° upwards, to avoid pressure losses and air pockets, with the oven at the lowest point and the inlet marked “IN” of SMOKI MAXI at the highest point.

As can be seen in fig. 32, the support base for SMOKI MAXI (depth 1080 x width 1240) is constituted by the brickwork top of the oven, which has a sufficient load-bearing capacity.

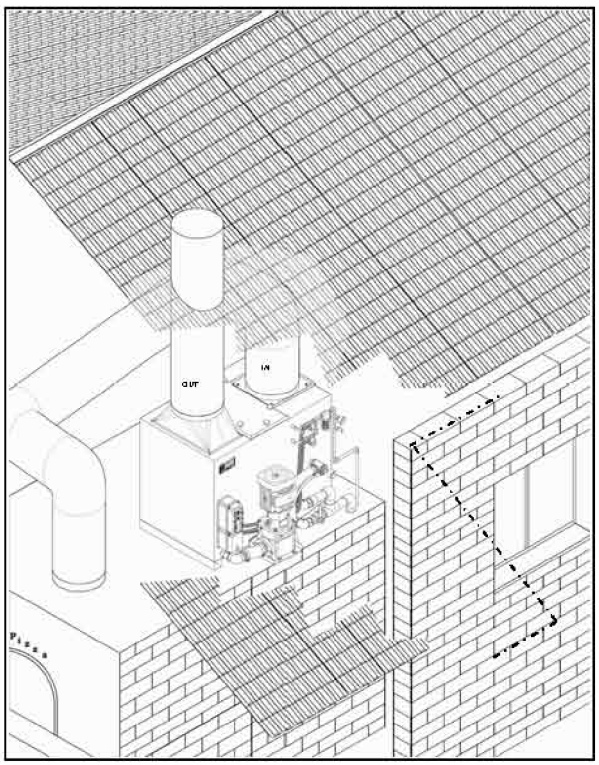


Fig. 32

13 - POSSIBLE INSTALLATION POSITIONS

13.3 - System inside building (Variant C)

As shown in fig. 33, the SMOKI MAXI system is installed directly above the oven, inside the building.

The existing flue, shown in fig. 33 with dotted lines, is interrupted and diverted directly to the inlet marked “IN” of SMOKI MAXI. The return connection leads from SMOKI MAXI to the part of the original flue, now interrupted, that passes through the roof.

The pipe through which smoke is drawn from the flue towards SMOKI MAXI must have a minimum angle of 5° upwards, to avoid pressure losses and air pockets.

The outlet flue must also have the same angle.

As can be seen in fig. 33, the support base for SMOKI MAXI (depth 1080 x width 1240) is constituted by the brickwork top of the oven, which has a sufficient load-bearing capacity.

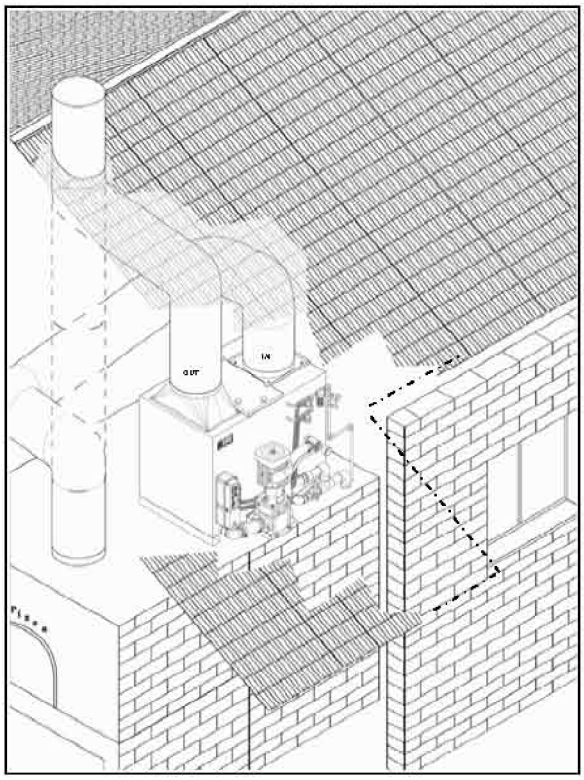


Fig. 33

13.4 - System outside building

As shown in fig. 34, the SMOKI MAXI system is installed directly above the roof of the building.

The existing flue (and in particular, the section passing through the roof) is connected directly to the inlet marked “IN” of SMOKI MAXI.

The discharge flue leaves SMOKI MAXI directly. The pipe through which smoke is drawn from the flue towards SMOKI MAXI must have a minimum angle of 5° upwards, to avoid pressure losses and air pockets.

As can be seen in fig. 34, the support base for SMOKI MAXI (depth 1080 x width 1240) is constituted by a support base on the roof, with a sufficient load-bearing capacity.

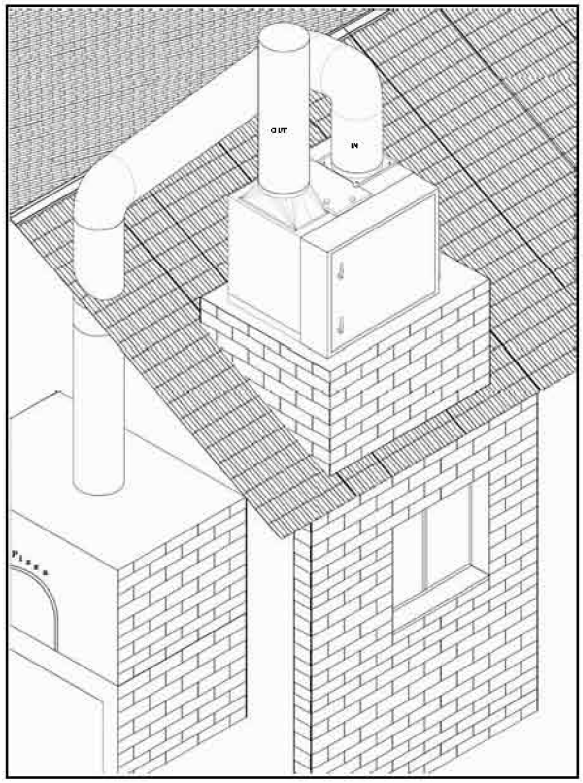


Fig. 34

CAUTION!

Outdoor installation of the SMOKI MAXI system requires the use of the specific insulated covering for external use (optional), to protect the system against adverse weather conditions. Significant temperature drops below -10°C) could impair the safety of the system.

14 - TRACING FAULTS

PROBLEM	CAUSE	SOLUTION
The SMOKI system does not start	• No electrical power supply connection • Main automatic switch in "OFF" position • Power switch in "OFF" position • No water inside tank	- Have the system connected as indicated in the Use and Maintenance Manual by qualified personnel. - Set the main automatic switch to the “ON” position (see page 13 point 10.6 fig. 10). - Set the power switch to the “ON” position (see page 09 point 18 and page 21 point 12.18). - Check that the water supply valve is open (see page 09 point 08 and page 12 point 10.4). - Check the permanent water pressure on the pressure gauge (see page 09 point 10). - Wait about 10 minutes until the desired water level is restored.
The permanent WATER PRESSURE GAUGE remains on 0 bar	• No water supply connection • Permanent water supply valve closed • Pressure gauge defect	- Permanently connect the water supply valve (see page 09 point 08 and page 12 point 10.4). - Open the permanent water supply valve by setting it to the “ON” position (see page 09 point 08). - Replace the pressure gauge.
PUMP does not start	• No electrical power supply connection • Automatic power switch in “OFF” position • Machine power switch in “OFF” position • Insufficient water level	- Have the system connected as indicated in the Use and Maintenance Manual by qualified personnel. - Set the automatic power switch to the “ON” position (see page 13 point 10.6 fig. 10). - Set machine power switch to the “ON” position (see page 09 point 18). - Check the permanent water pressure on the pressure gauge (see page 09 point 10). - Wait about 10 minutes until the desired water level is restored. - During these 10 minutes, the solenoid valve for fast filling (see page 09 point 13) must be triggered to supply water through the joint (see page 10 point 07).

cont’d/.

14 - TRACING FAULTS

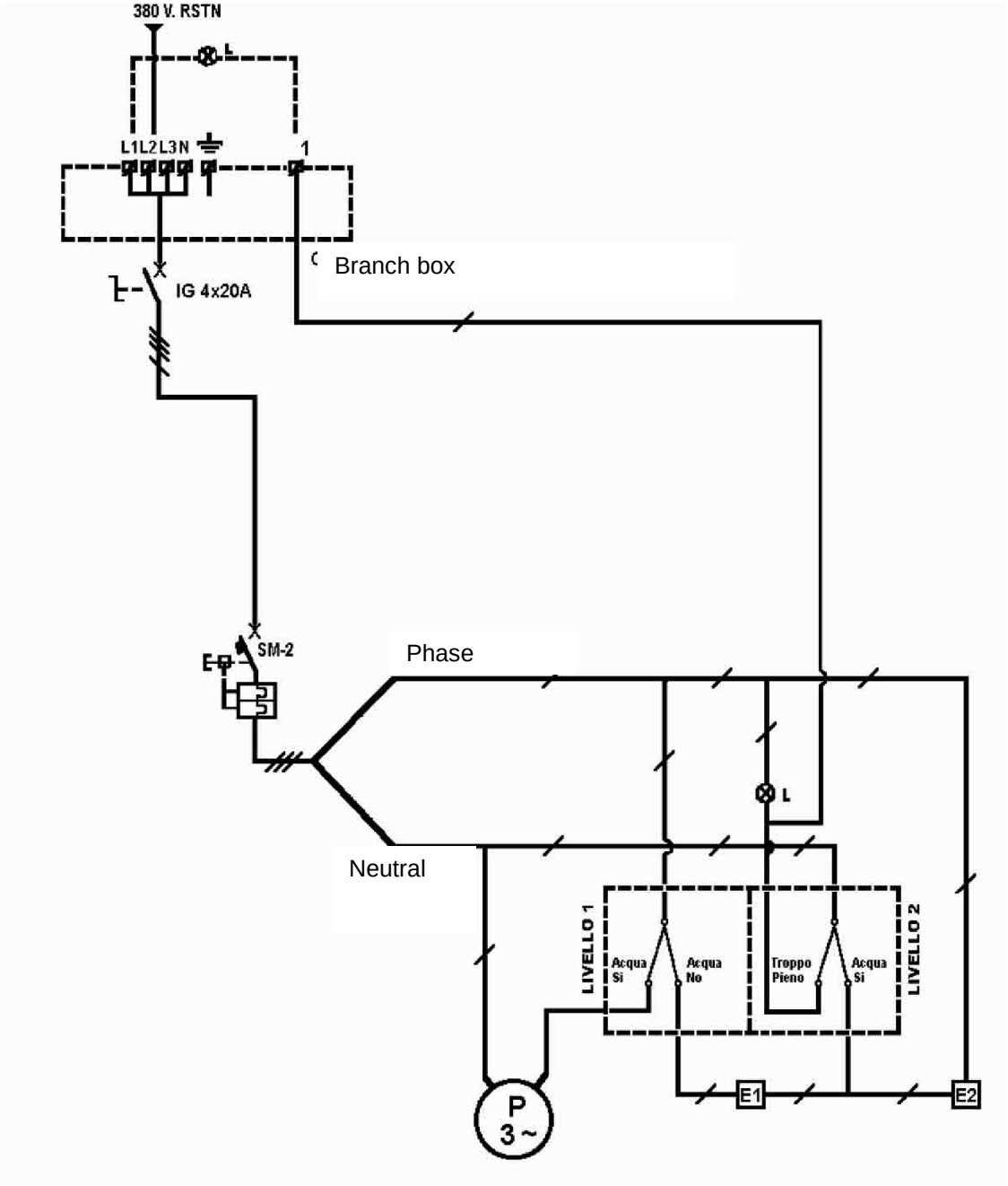
PROBLEM	CAUSE	SOLUTION
cont'd/.. PUMP does not start	• Blocked or defective level switch	- Thoroughly clean the float arm inside the tank (see page 10 point 08). - Replace the defective level switch (see page 10 point 12).
The pump PRESSURE GAUGE remains on 0 bar	• Pump doest not turn or is dirty/blocked • Insufficient water level (tank partially empty) • Defective pressure gauge • Blocked or defective level switch	- Replace pump or clean pump rotors. - Check permanent water pressure on pressure gauge (see page 09 point 10). - Wait about 10 minutes until the desired water level is restored. - During these 10 minutes, the solenoid valve for fast filling (see page 09 point 13) must be triggered to supply water through the joint (see page 10 point 07). - Replace the pressure gauge. - Thoroughly clean the float arm inside the tank (see page 10 point 08). - Replace the defective level switch (see page 10 point 12).
MAXIMUM LEVEL INDICATOR goes on	• Water level above the permitted maximum • Defective solenoid valve for fast filling • Overflow discharge opening (see page 10 point 09) blocked by sludge • Blocked or defective level switch	- Check correct operation of permanent connection to drains (see page 12 point 10.5). - Open the water discharge gate valve (see page 09 point 17), or use the remote-control switch to open the automated discharge valve (* optional). - Replace or clean the solenoid valve. - Remove detritus manually (see page 19 point 12.11) - Thoroughly clean the float arm inside the tank (see page 10 point 08). - Replace the defective level switch (see page 10 point 12).
The POWER SWITCH does not switch on or off	• Defective power switch	- Replace the power switch (see page 09 point 18).
The AUTOMATIC SWITCH does not switch on or off	• Defective automatic switch	- Replace the automatic switch (see page 13 figs. 10 and 11).

14 - TRACING FAULTS

PROBLEM	CAUSE	SOLUTION
cont'd .1.. Blocked LEVEL SWITCH	• Insufficient cleaning during maintenance	- Scrupulously follow the weekly, regular and special maintenance intervals indicated in the Use and Maintenance Manual. (see page 14 chap. 11 and page 15 chap. 12). - Thoroughly clean the float arm inside the tank (see page 10 point 08).
PUMP starts and stops at long intervals	• Blocked jet nozzle • Defective solenoid valve for level maintenance	- Clean jet nozzle as indicated in special maintenance operations (see page 19 point 12.12 fig. 23.) - Replace or clean solenoid valve
Pump pressure gauge shows pressure less than 2.0 bar	• Nozzle wear • Pump wear	- Replace worn nozzles. - Service pump and replace if necessary.

15 - ELECTRICAL DIAGRAM

IG	**- Main rotary power switch**
SM-2	**- Pump overload cut-out**
P	**- Pump with incorporated cut-out**
El	**- Solenoid valve for fast filling**
E2	**- Solenoid valve for slow filling**
L	**- Indicator light for maximum level**
RSTN	**- Power supply line**
1	**- Remote feedback line for maximum level near remote-control**



16 - OPTIONAL ACCESSORIES

16.1 - Insulation for external insulation

The purpose of insulation is to provide additional protection for the devices fitted on the front of the machine against adverse weather conditions in winter (snow, frost, etc) (see fig. 36).

This insulation ensures particular protection in case of outdoor maintenance operations, which in conditions of snow and ice can become extremely difficult.

Above all in countries and locations where winter temperatures are particularly harsh (less than 0°C), insulation for external installation provides a very effective means of limiting any damage that might be caused.

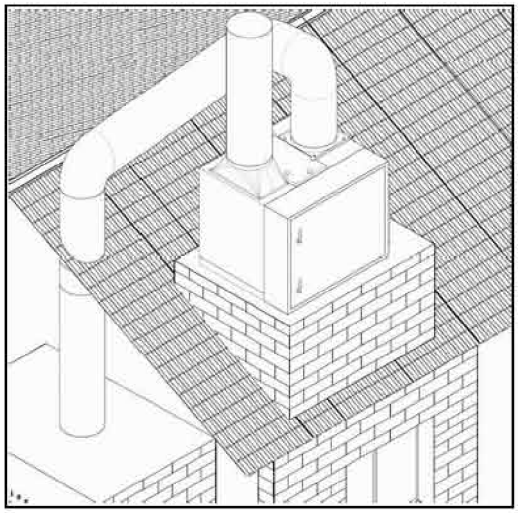


Fig. 36

16.2 - Opening the inspection panel of insulation for external insulation

The insulation for external installation has an inspection panel that can be removed by turning the fixing levers (see fig. 37).

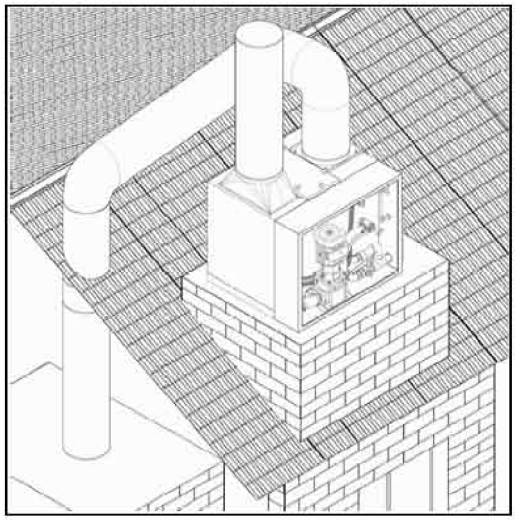


Fig. 37

16.3 - Drop separator filter

Installation of the drop separator filter is particularly recommended, to prevent the troublesome loss of nebulized water droplets in short stretches of the flue (see fig. 38).

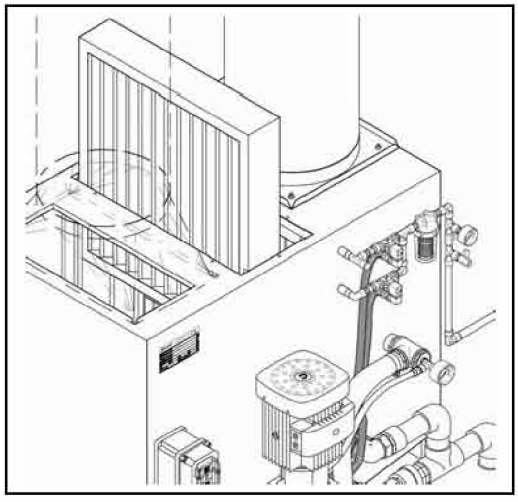


Fig. 38

16 - OPTIONAL ACCESSORIES

16.4 — Automated discharge valve

The automated discharge valve, marked “G” in fig. 39, allows recycling water changes to be remote-controlled. Recycling water changes are part of weekly maintenance operations.

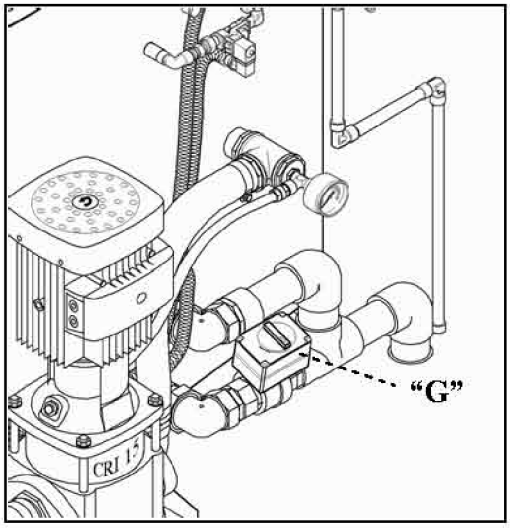


Fig. 39

16.5 — Suction fan

A suction fan is normally fitted on the Smoki Maxi system to ensure that the maximum airflow capacity indicated on page 05 in the technical characteristics of the system is (see fig. 40).

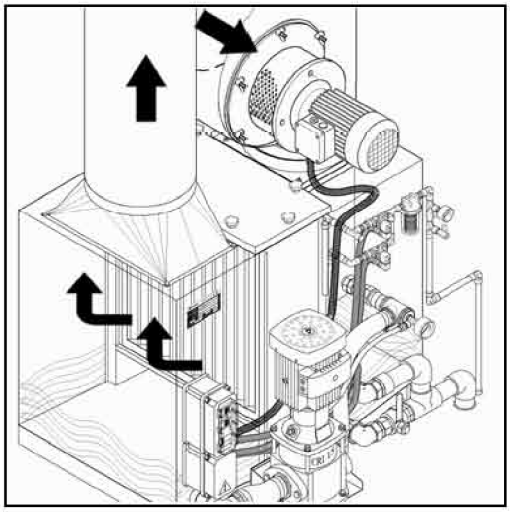


Fig. 40

17 - DEMOLITION AND DISPOSAL OF THE DEVICE

For the demolition and disposal of the device, contact a company specifically authorized for these operations.
In conformity with applicable laws, materials from the dismantled device must be separated into different types and sent for recycling or disposal at an authorized site.

18 — General first aid advice in case of electric shock

Contact with electrical current and its passage through the human body causes paralysis. It is therefore necessary to act rapidly with the person affected, so as to assess the possible presence of cardiac arrest, and after totally eliminating contact of the person with electrical power.

First the electrical power supply must be disconnected by turning off the main power switch see fig. 41. If this is not possible, drag the person away from contact with the power supply, isolating yourself from the ground or floor using an insulating material (wood, newspaper, cardboard), and avoiding the use of metals and damp or wet materials when touching the affected person.

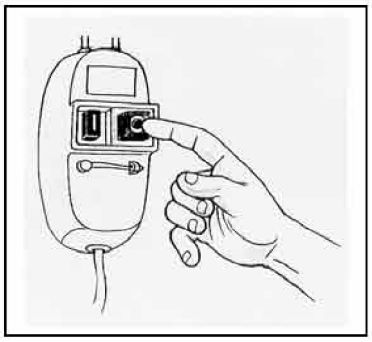


Fig. 41

18.1 — Call for help

Immediately contact emergency services by calling the emergency number!

18.2 - Assess the state of consciousness:

– the person is conscious if he/she replies to you either correctly or in a confused manner;
– the person is unconscious if he/she does not reply to you or does not react to loud noises.

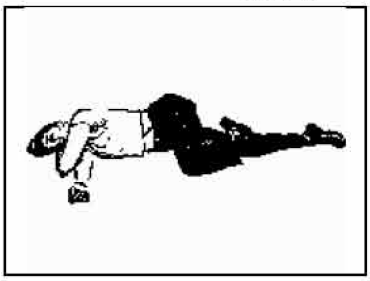


Fig. 42

If the person is conscious:
No further action apart from keeping the person comfortable until emergency medical services arrive.

If the person is unconscious:
Check for the presence of pulse and breathing.

18.3 — Recovery position

If pulse and breathing are present, position the person on his/her right-hand side in the **"recovery position"** see fig. 42.



Fig. 43

If pulse is present but breathing is absent, **(RESPIRATORY ARREST):** immediately start **artificial respiration** see fig. 40 (for experts or medical personnel only).

If both pulse and breathing are absent **(CARDIAC AND RESPIRATORY ARREST):**
immediately start **cardiopulmonary resuscitation** see figs. 43 and 44 (for experts or medical personnel only).

18.4 - Assessment of breathing with "LLF"

- **Look:** rising and lowering of the chest.
- **Listen:** placing the cheek near the face of the affected person, listen for the sound made by air entering and leaving the person's nose.
- **Feel:** if there is a flow of air (if the person is breathing), this can be felt against your cheek.

If the person is not breathing, start artificial respiration with the mouth-to-mouth method (for experts or medical personnel only).

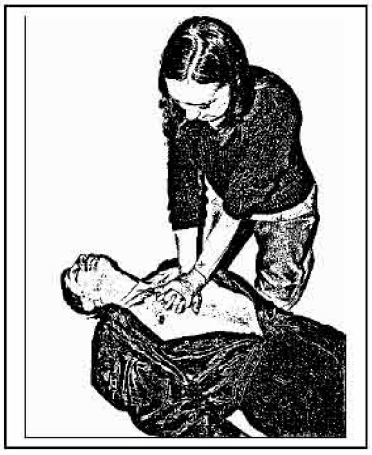


Fig. 44

18 - General first aid advice in case of electric shock

18.5 – Assessment of cardiac activity by feeling pulse:

The carotid pulse can be felt by positioning the first and second fingers of one hand on the edge of the jawbone and then moving down the neck a few centimetres. If the pulse is present, a slight

rhythmic pulsation should be felt beneath the fingers, see fig. 42.

The pulse can be felt at the wrist by positioning the first and second fingers of one hand on the wrist of the affected person, on the outer side of the hand following the line of the thumb.

If no pulse can be felt, the person must be considered to be suffering from cardiac arrest, and cardiopulmonary resuscitation procedures should be started, see figs. 40 and 41.

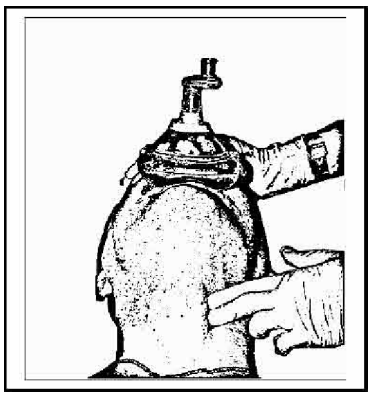


Fig. 42

SMOKI

s. r. l.



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