

# EN

**OPERATING MANUAL**  
OIL HEATING UNITS



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## 01. Safety

The applicable laws and regulations concerning the use of air heaters must be observed for the installation, regulation and use of this device.

Please observe the following instructions:

- Strictly adhere to the instructions contained in this operating manual.
- Avoid positioning air heaters in rooms with explosion hazard or where fire is prohibited.
- Do not store combustible materials near the device (minimum distance 3 m).
- Take the necessary fire protection measures.
- Provide for sufficient ventilation of the room where the air heater is positioned.
- Position the device near a chimney and an electrical supply control panel complying with the specified parameters.
- Check the device prior to start-up and regularly during operation. In particular, make sure that children or animals cannot approach the device unnoticeably.
- Always remove the plug from the socket after operation. Furthermore, pay attention to the operating conditions of the air heater, particularly:
- Do not exceed the maximum thermal output of the heater ("TECHNICAL DATA").
- Make sure that the air supply is not below the nominal air supply. Therefore check that there are no obstacles or obstructions in the inlet and/or outlet pipes, such as cloths or blankets placed on the device, or walls or large objects situated in the immediate vicinity of the device. If the air flow rate is insufficient, the combustion chamber will heat up and the overheating protection thermostat L1 will switch the device on and off continuously ("FAULTS AND TROUBLESHOOTING").

## 02. Description

The air heaters of the IDS series are designed for heating medium-sized and large rooms requiring a fixed or mobile heating source. They heat the air by emitting the thermal energy generated by combustion via the metal surfaces of the combustion chambers and via the heat exchanger. The air passage duct and the smoke passage duct are hermetically sealed from each other.

The combustion air, i.e. the air required for combustion, is directly sucked in by the integrated burner in the following way:

- from outdoors via the air inlet nozzle (available as accessory) to avoid reducing the oxygen content of the room to be heated or
- directly from the room to be heated. In the latter case the room must be adequately ventilated to guarantee a sufficient air exchange.

The hot air flow is moved by the motor-driven high-performance fan. The fresh air is heated by the combustion gases via the dense metal surface of the combustion chamber. The combustion gases are directed to an exhaust gas duct so that they can escape via a chimney or chimney pipe with sufficient dimensions to ensure the discharge of the flue gases.

The end piece of the hot air outlet duct can be replaced by the following ducts:

- with 2 or 4 outlet openings, all of which are kept open.

The air heater IDS 900 can be operated with burners running on diesel fuel, natural gas (G20) or liquid gas LPG (butane, G30, and propane, G31) with ON-OFF operating mode.

**⚠ Only the burners selected and supplied by the manufacturer may be used. The CE label on the device becomes obsolete if the burner is replaced with a non-original burner, even if the latter has similar characteristics.**

The IDS 900 is equipped with an electronic flame monitoring system and the following equipment:

- Safety equipment (safety thermostat with manual reset, flame monitoring, air pressure switch) responding in case of severe operational disruptions and triggering a safety shutdown: in this case the air heater switches off, the burner display (h) is permanently illuminated in red and operation can only be continued after the cause of the failure has been identified and eliminated.
- Control equipment (temperature controller for regulating the air outlet temperature, fan thermostat and burner thermostat, voltage monitoring) triggering in case of minor malfunctions or disruptions in the power supply and causing a temporary shutdown of the air heater. In this case the air heater resumes operation automatically once the normal operating conditions have been restored.

If one of these safety devices is triggered, always identify the cause and repair the damage before pressing the corresponding restart button to switch the air heater back on ("FAULTS AND TROUBLESHOOTING").

In the event of an overheating of the combustion chamber, the overheating thermostat responds. It switches the device off and switches it back on after the device has cooled down (light (h) turns on and off again).

### 03. Instructions for the installer

⚠ **All operations described in this chapter must be carried out by appropriately qualified personnel.**

#### 3.1 POWER CONNECTIONS AND SETTINGS

The standard version of the air heater contains all control and safety equipment required for operating the device. The electric switch panel, burner, fan thermostat, overheating thermostat and safety thermostat with manual restart are already connected.

Connect the power cable to a properly secured socket. On construction sites, there must be an RCD upstream of the socket according to VDE 0100/0105.

Before commissioning the air heater and thus before connecting the device to the electricity grid check that the values of the electricity grid correspond to the specifications on the identification plate.

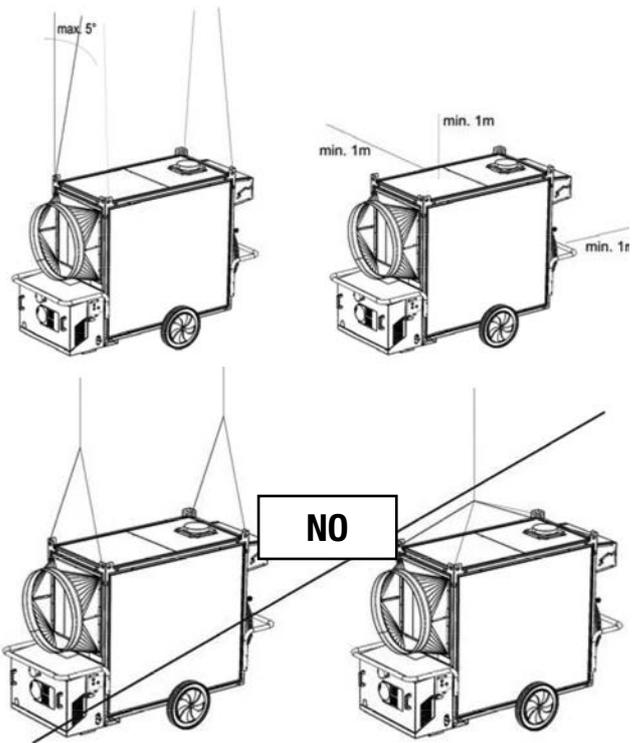
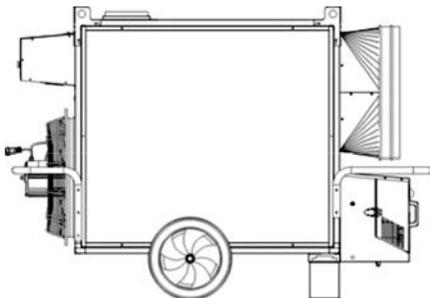
⚠ **All activities listed under this section may only be carried out by specialists.**

#### 3.2 FLOOR OR CEILING INSTALLATION

The air heater can be mounted as follows:

- on the floor in a stable position
- suspended from the ceiling using ropes and/or chains with a suitable size and length fastened to the four suspension points

⚠ **Make sure that the angle of the ropes and/or chains to the vertical axis does not exceed 5°, that the ropes do not cross each other and that a different rope is used for each hook.**



The minimum distance to walls, to the floor and / or to the ceiling should be at least 1 m.

#### 3.3 CONNECTION TO THE HOT AIR FEED DUCTS

The air heater is designed for direct air distribution. The hot air opening can be replaced with a 2-way or 4-way distributor head in order to divide the hot air flow by means of flexible channel modification. In such a case, you have to disassemble the original outlet nozzle and replace it with the 2-way or 4-way distributor head.

The equipment mentioned above can be connected to ducts with the corresponding diameter whenever this is required for special applications. In this case or if there are substantial changes in the hot air distribution circuit (change of the length or diameter of the pipe, number of curves etc.), checks and adjustments are required. In any case you have to:

- Check that the power consumption of the fan motor does not exceed the specified value.
- Check that the air flow rate corresponds to the nominal flow rate.

### 3.4 CONNECTION TO THE FUEL SUPPLY

Always observe the installation, adjustment and operating regulations stipulated by the local and/or national laws regarding the use of air heaters.

- Before planning the exhaust system, inform the responsible chimney sweep according to DIN 18160.
- Risk of injury due to poisoning!
- Improper installation of the exhaust system can cause health problems.
- Have the device installed by an expert technician!
- Have the exhaust emission of the burner checked at regular intervals.

In order to connect the device to the fuel oil pipe, the fuel oil tank can be connected to the burner pump:

- directly using the fuel oil pump of the burner while observing the dimensions and lengths specified in the burner's operating manual included in the annex of this operating manual;
- indirectly using an auxiliary pump for the fuel oil. In this case please contact the technical service for a proper dimensioning of the system.

### 3.5 CONNECTION OF THE BURNER'S AIR INLET

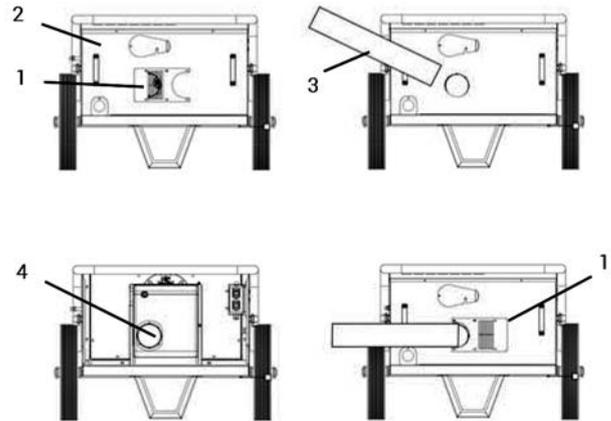
The combustion air inlet (3) can be connected to the outdoor area of the room to be heated so that fresh air can be sucked in without reducing the oxygen content of the room.

A pipe must be provided for this purpose to prevent narrowing due to the negative pressure of the intake air. The pipe should have a diameter of at least 100 mm and a length not exceeding 6 m.

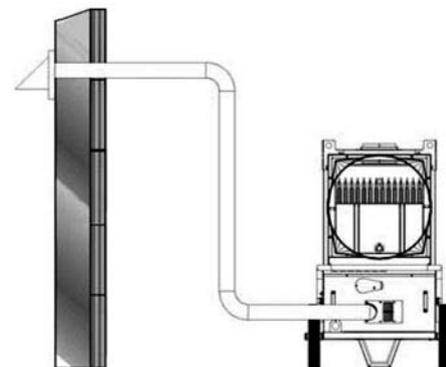
**⚠ Shorten pipes which are too long. There must be no kinks and/or curves which might obstruct the intake of air.**

Connecting the air inlet of the burner:

- Remove the cover (1) of the burner housing.
- Remove the end plate (2) of the burner housing.
- Guide the air hose (3) through the hole in the end plate (2) and fasten it to the air intake snorkel (4) of the burner.
- Slide the cover (1) of the burner housing along the air hose (3) and attach it to the burner housing. While doing so, make sure that the air hose (3) does not slip off the air intake snorkel (4).
- Fasten the plate (1) to the air inlet of the burner. It must be rotated so that the air hose (3) is blocked.



Connect the end of the air intake pipe with the wall duct. The pipe must be fitted with a protective grid so that small animals or rubble cannot enter it.



**⚠ Adjust the burner air according to the "TECHNICAL DATA" table.**

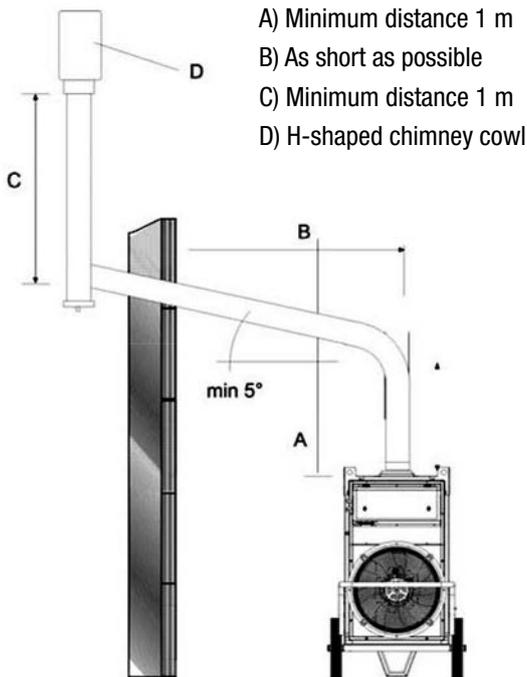
### 3.6 CONNECTION TO THE SMOKE OUTLET DUCT

The smoke outlet ducts must be made of steel and in accordance with EN 1443.

The combustion efficiency and the proper burner operation depend on the chimney draught. For connection to the chimney pipe, the applicable legal regulations and the following provisions must be observed:

- The chimney connection must be as short as possible and ascending (minimum height 1 m);
- There must be no sharp curves or reductions in cross-section;
- Always provide a wind shield to prevent the penetration of rain water or clogging of the smoke outlet due to wind;
- The draught of the chimney pipe must not be lower than the nominal value;
- Every air heater must have its own chimney;

The following image shows how to position the chimney:



- A) Minimum distance 1 m
- B) As short as possible
- C) Minimum distance 1 m
- D) H-shaped chimney cowl

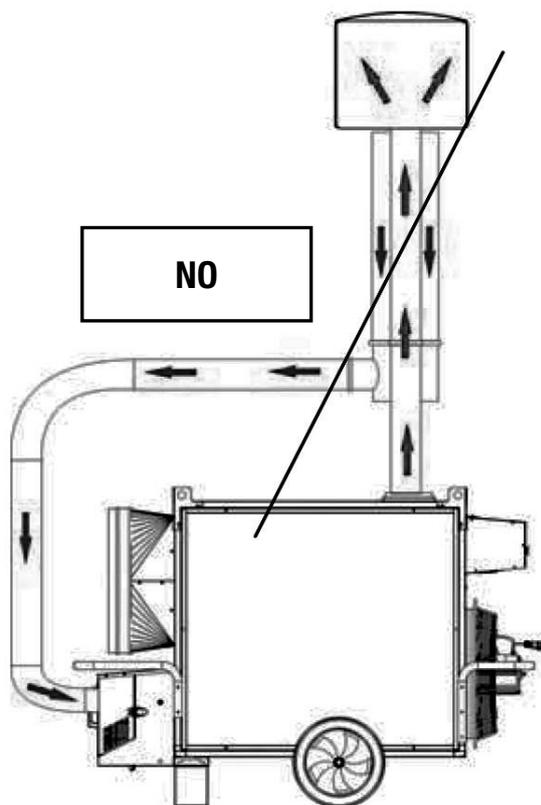
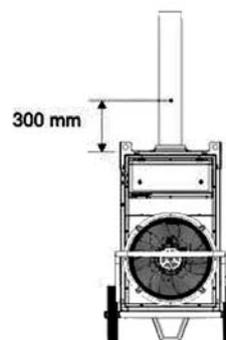
of  
 combustion air is expressly prohibited for these devices.  
 It can severely and permanently affect their functioning.

#### 04. Start-up

⚠ **The initial start-up must always be carried out by a specialist who verifies whether the combustion parameters are correct.**

⚠ **The burners are preset at the factory. This setting may deviate from the required setting. It must therefore be checked and, if necessary, corrected during start-up.**

The settings (fuel oil pressure of the burner, combustion head position, air regulation) can be found in the "TECHNICAL DATA" table. The probe used for regular checks of the combustion and exhaust gas temperature must be inserted as follows:



The combustion is stable and clean if the combustion parameters have the following values:

Bacharach index: 0 (white)

CO<sub>2</sub>: 11 ÷ 12.5 %

Oxygen (O<sub>2</sub>): 4.5 ÷ 6 %

CO<sub>max</sub>: 500 ppm

Depending on the fuel used and on the installation conditions (height level, combustion air intake with or without air inlet etc.), readjustment of the burner may be required if the combustion parameters are incorrect.

After completion of the acceptance inspections, the hole for inserting the probe must be sealed with a material that is heat-resistant and guarantees tightness of the duct.

#### 4.1 SWITCH-ON

- Lift the panel (n) of the control box.
- Make sure that the switch (a) is set to "0".
- Switch on the air heater using the circuit breaker at the control box. The green power indicator light (b) lights up.
- Turn the switch (a) to "H" or "V+H": the burner starts the starting or pre-purging cycle. Then the flame is ignited. After the combustion chamber has been preheated for several minutes, the main fan switches on.

⚠ **In V+H operating mode, the fan runs continuously. This also applies when the burner switches off after reaching the predefined room temperature.**

⚠ **In H operating mode, the fan only operates when the combustion chamber is sufficiently heated. When the predefined room temperature is reached, the burner switches off and the fan keeps running until the combustion chamber has cooled down completely.**

In case of a failure of the air heater during start-up or operation, please refer to the "FAULTS AND TROUBLESHOOTING" chapter to find the cause for the malfunction.

⚠ **After a safety shutdown of the burner, the lamp/button (m) lights up and the burner reset button (m) must be pressed and held for three seconds to be able to restart the air heater.**

⚠ **After a safety shutdown caused by the safety thermostat (indicator light h), you have to press the reset button (i) to be able to restart the air heater.**

⚠ **Never carry out more than two consecutive restarts. Unburned fuel oil can accumulate in the combustion chamber and might suddenly ignite during the subsequent restart.**

#### 4.2 SWITCH-OFF

To switch the device off in case of manual operation, set the main switch (a) to "0". For automatically operated devices, the room thermostat must be used.

The burner stops (indicator light h goes out) while the fan keeps running. The fan switches on and off several times until the combustion chamber has cooled down completely.

⚠ **The air heater's operation must not be stopped by simply removing the plug from the supply control panel. The electrical supply may only be interrupted after the fan has come to a standstill.**

#### 4.3 VENTILATION

If you want to use the air heater for continuous ventilation only, set the switch (a) to "V".

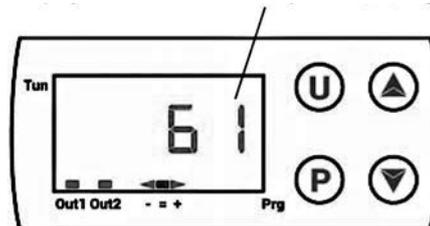
#### 4.4 TEMPERATURE CONTROLLER

The air heater is equipped with a temperature controller (g) with LCD display that can be used to display and control the following parameters:

- Detection of the air outlet temperature
- Recording of the operating hours
- Control of the trigger temperature of the fan thermostat
- Control of the trigger temperature of the burner thermostat

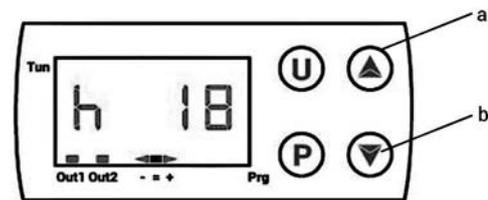
#### Detection of the air outlet temperature

The detected temperature [°C] is shown on the display:



#### Recording of the operating hours

If you press the button (a) twice, the operating time in hours [h] will be displayed:



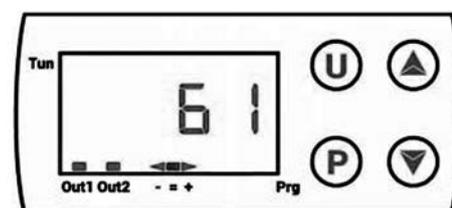
⚠ **The indicated time is not the effective heating time but the time during which the device has been supplied with current and switched on.**

Proceed as follows to reset the counter:

- Turn the device's main switch to "0" (OFF).
- Press and hold the P button of the temperature controller for at least three seconds. The word "PASS" flashes for five seconds.
- Enter the code "-481". To do so, repeatedly press the button (b) until the desired character appears. Then press the P button to confirm and move to the next character.
- Finally, press the U button: The air outlet temperature is displayed again.

#### 4.5 CONTROL OF THE TRIGGER TEMPERATURE OF THE FAN THERMOSTAT

##### Control of the trigger temperature of the fan thermostat



The temperature controller is programmed in a way that it automatically switches the main fan on or off depending on the temperature set for the combustion chamber. This prevents cold air from being blown out when the burner starts and the combustion chamber is not yet sufficiently heated.

It also guarantees a discharge of the internal residual heat upon switch-off.

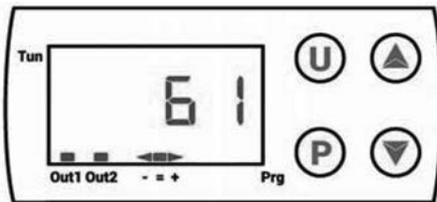
The default temperature setting is 35 °C with a hysteresis of 5 °C.

The red "OUT 1" LED indicates the operating condition of the fan thermostat:

- When it is illuminated, the fan is running (ON);
- When it is not illuminated, the fan is switched off (OFF).

#### 4.6 CONTROL OF THE TRIGGER TEMPERATURE OF THE BURNER THERMOSTAT

##### Control of the trigger temperature of the burner thermostat



The temperature controller is programmed in a way that it automatically switches the burner on or off depending on the maximum temperature set for the combustion chamber. This prevents overheating of the combustion chamber and thus triggering of safety thermostat L2, which would switch off the air heater (see also "Faults and troubleshooting" chapter).

The default thermostat setting for the maximum temperature of the combustion chamber is 95 °C with a hysteresis of 5 °C.

The red "OUT 2" LED indicates the operating condition of the burner thermostat: The LED sequence "- = +" indicates the current temperature compared to the set temperature:

- If the red arrow above the "-" symbol lights up, the temperature is below the set value and thus the thermostat enables operation of the burner.
- If the green LED above the "=" symbol lights up, the temperature equals the set value.
- If the red arrow above the "+" symbol lights up, the temperature is above the set value and thus the thermostat disables operation of the burner.

**⚠ The trigger temperatures of the fan thermostat and burner thermostat can be modified. However, this should only be done if it is absolutely necessary. For this purpose, please contact the Trotec service to obtain the information required for reprogramming the temperature controller.**

### 05. Care and maintenance

For a smooth operation of the device, the following tasks must be performed regularly. Please note that the power supply of the air heater must be interrupted beforehand.

**⚠ All operations described in this chapter must be carried out by appropriately qualified personnel. Before starting work, make the following preparations:**

- **Switch off the device as described above in the "SWITCH-OFF" section.**
- **Cut off the power supply using the circuit breaker.**
- **Wait until the device has cooled down.**

**• Proper operation of the device requires regular maintenance activities. Make sure that you disconnect the air heater from the electrical power supply before starting these activities.**

Measure	Maintenance			
	Daily	Weekly	Semi-annually	Annually
Check the air heater	X			
Check the fuel oil supply line	X			
Clean the outside of the device	X			
Clean the motor and fan		X		
Check the electrical connections			X	
Check and test the burner			X	
Check the thermostats			X	
Clean the inside of the device			X	
Inspect and clean the combustion chamber				X

#### 5.1 CHECKING THE AIR HEATER AND THE FUEL OIL SUPPLY LINE

Please check the following:

- Make sure that the device is not positioned in areas with a high risk of fires or in potentially explosive atmospheres
- Make sure to maintain a safety distance from flammable substances

In case of fuel oil leaks:

- Close the fuel oil shut-off valve
- Locate and repair the fuel oil leak
- Do not use the machine until the removed panels have been reattached
- Make sure that the room to be heated is sufficiently ventilated
- Make sure that the air intake and outlet pipes are not blocked in any way
- Make sure that there are no sheets or blankets placed on the device
- Make sure that the device is in a firm and stable position
- Make sure that the air heater is regularly monitored during operation and checked prior to start-up

#### 5.2 CLEANING THE OUTSIDE OF THE DEVICE

For a failure-free operation, we recommend that you clean the following parts:

- Burner:
  - Thoroughly remove dirt and residues
  - Make sure that the air inlet is not clogged
- Clean the housing, lines, pipes, connectors and joints with a cloth
- Air inlet/outlet:
  - Thoroughly remove dirt and residues
  - Make sure that the air inlet is not clogged

### 5.3 CLEANING THE MOTOR AND THE FAN

To clean the fan wheel and the motor, please proceed as follows:

- Loosen the fastening screws of the fan and remove the fan.
- Clean the motor with compressed air.
- Clean the fan wheel with a hard brush.
- Reinstall the fan.

### 5.4 CHECKING THE ELECTRICAL CONNECTIONS

After unplugging the power supply cable, check all electrical connections as follows:

- Make sure that the connections are intact and properly seated.
- Remove any dirt and corrosion or replace the connections if necessary
- Replace damaged wires or connectors if necessary

### 5.5 CHECKING AND TESTING THE BURNER

To access the burner:

- Unscrew the fastening screw of the burner
- Pull out the burner and perform the inspection and cleaning work according to the instructions in the burner's operating manual
- Reattach the burner unit
- Perform the work steps required to measure the combustion parameters and ensure a stable and clean combustion, which are described in chapter 4

### 5.6 CHECKING THE THERMOSTATS

Proceed as follows to check the thermostats:

- Remove any connection ducts from the air outlet
- Locate the thermostats mounted on the inner wall of the air heater
- Clean the thermostats with a dry cloth and pay attention not to kink or damage the capillary tube

### 5.7 CLEANING THE INSIDE OF THE DEVICE

For thorough cleaning the air heater can be washed with water both on the inside and on the outside.

However, you have to observe the following:

- The power cable must be removed from the socket
- All inspection panels must be completely closed
- When cleaning with a water jet, the maximum permissible pressure is 70 bar with a distance below 30 cm
- All parts must have dried completely before the power cable is reconnected

### 5.8 CLEANING THE HEAT EXCHANGER AND THE COMBUSTION CHAMBER

To maintain the device's high efficiency, the cleaning work described here must be performed at least once at the end of each operating season, or several times in case of excessive soot formation. The latter can occur, for instance, if the chimney draught is not ideal, if low quality fuel is used, if the burner is improperly adjusted, or if the device is switched on and off frequently.

## 06. Transport and repositioning

Hold the front handles when repositioning or transporting the device. The heater will move on its rear wheels.

**⚠ Before repositioning the device, make the following preparations:**

- **Switch off the device.**
- **Interrupt the power supply by removing the plug from the socket.**
- **Wait until the heater has cooled down.**

Only use the provided lifting gear for lifting the device. Attach ropes or chains to the four lifting points. Before lifting the device make sure that the lifting gear used is actually suited to lift the device. You will find the weight of the device in the technical data table.

**⚠ Do not try to lift the device with pure muscle power: The heavy weight can cause serious physical damage.**

## 07. Fault and troubleshooting

In case of a severe operational disruption, various safety devices can cause a safety shutdown of the device. This is signalled as follows:

- at the control box



This is the block signal indicating that safety thermostat L2 has triggered. The reset button is located inside the burner housing.

- at the burner

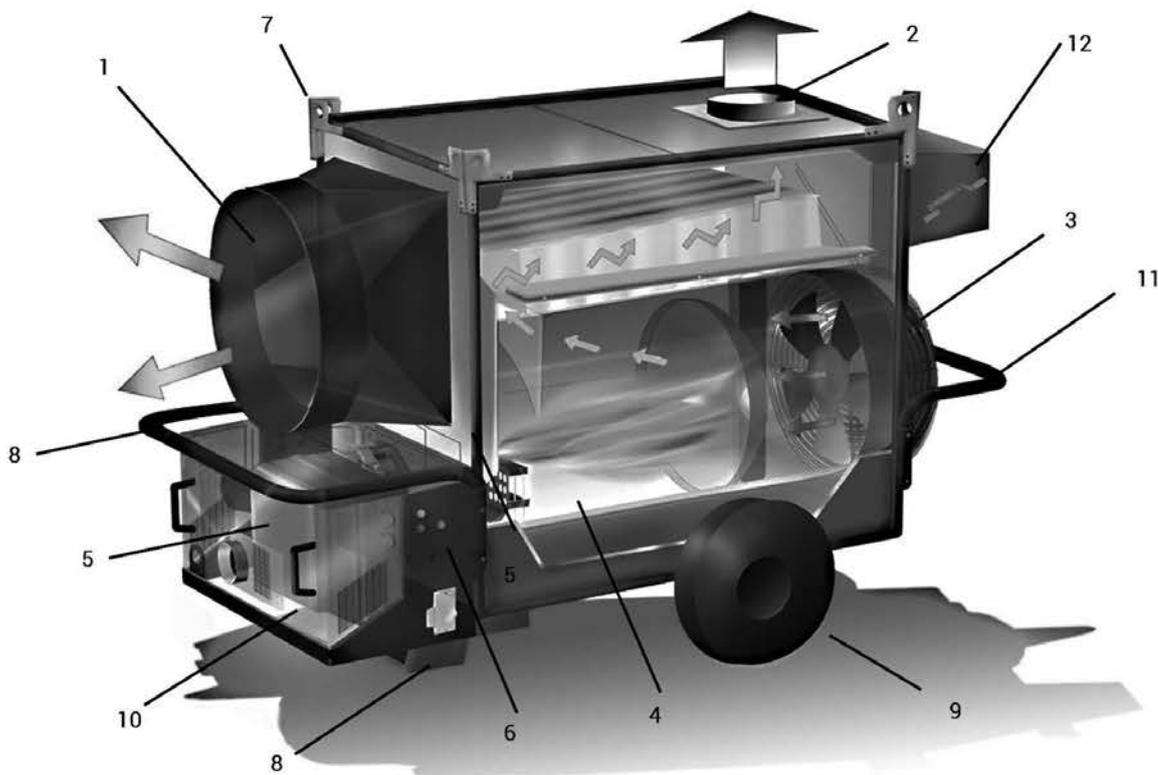


Safety shutdown signal indicating that the burner's flame monitoring has triggered.

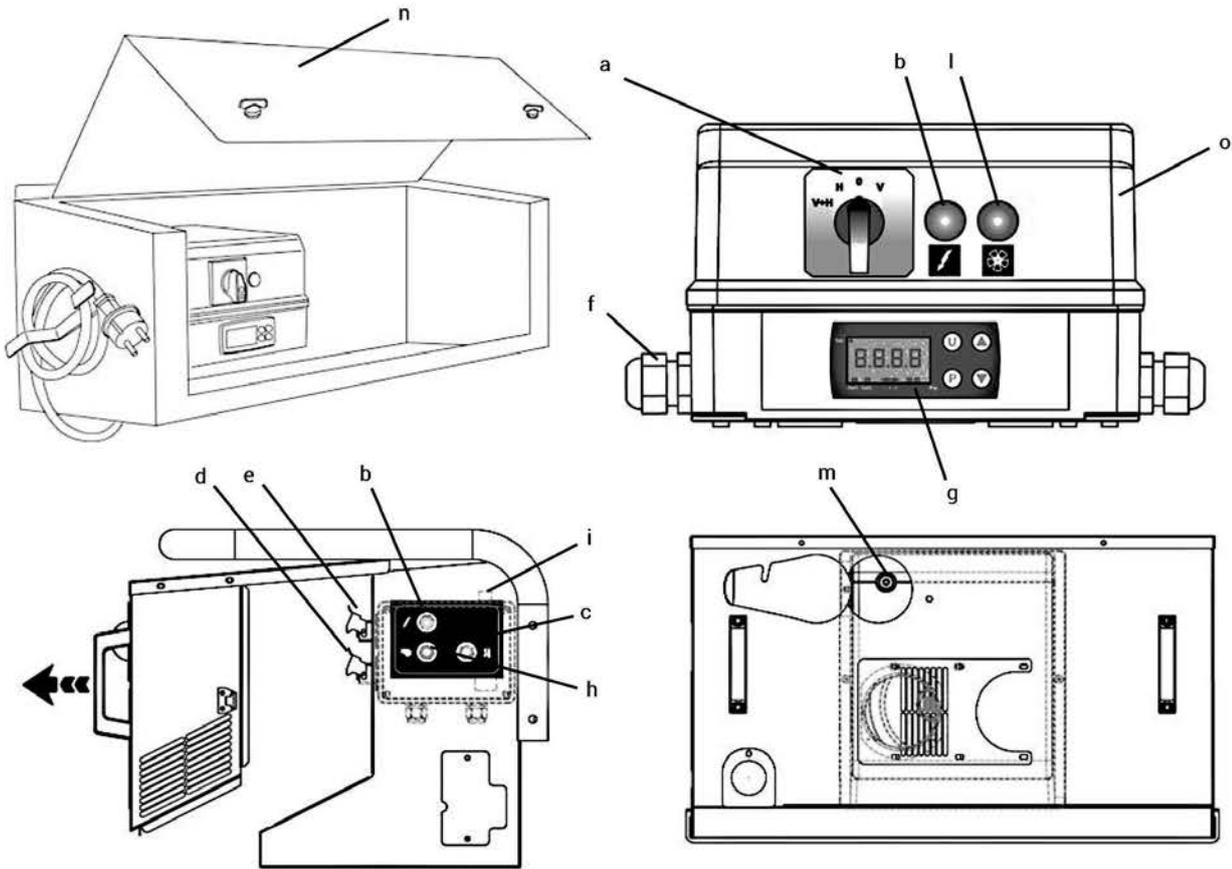
**⚠ In the event of a safety shutdown, do not carry out two consecutive restarts. Unburned fuel components can accumulate in the combustion chamber and might suddenly ignite during the subsequent restart.**

If the inspections and corrective measures do not produce any results, please contact your nearest sales and service centre.

<b>Malfunction</b>	<b>Cause</b>	<b>Troubleshooting</b>
<ul style="list-style-type: none"> <li>• Device does not start</li> </ul>	<ul style="list-style-type: none"> <li>• No power supply</li> </ul>	<ul style="list-style-type: none"> <li>• Check the functioning and position of the switch</li> <li>• Check the characteristics of the electrical line</li> <li>• Check the electrical connections</li> <li>• Check whether the fuses are intact</li> </ul>
	<ul style="list-style-type: none"> <li>• Incorrect main switch position</li> </ul>	<ul style="list-style-type: none"> <li>• Set to the right position</li> </ul>
	<ul style="list-style-type: none"> <li>• Room thermostat only functions sporadically</li> </ul>	<ul style="list-style-type: none"> <li>• Check and correct the thermostat position</li> <li>• Check whether the thermostat is operational</li> </ul>
	<ul style="list-style-type: none"> <li>• The safety system (burner, thermostat L2, thermal relay of the fan) was not reset after repair</li> </ul>	<ul style="list-style-type: none"> <li>• Press the reset button:</li> <li>• Burner (button on control system)</li> <li>• Thermostat L2 (button (6))</li> <li>• Thermal relay of the fan (button (11))</li> </ul>
<ul style="list-style-type: none"> <li>• Tripping of thermostat L1</li> </ul>	<ul style="list-style-type: none"> <li>• Overheating of the combustion chamber</li> </ul>	<ul style="list-style-type: none"> <li>• Check fuel supply</li> <li>• Check the correct positioning of any flaps, nozzles etc.</li> <li>• Remove any parts which might be stuck in the air ducts or ventilation grilles</li> </ul>
<ul style="list-style-type: none"> <li>• Tripping of thermostat L2 (warning light (9) lights up)</li> </ul>	<ul style="list-style-type: none"> <li>• Overheating of the combustion chamber</li> </ul>	<ul style="list-style-type: none"> <li>• Check as described above</li> <li>• If unsuccessful, please contact your supplier</li> </ul>
<ul style="list-style-type: none"> <li>• Tripping of thermal relay RM (light (10) lights up)</li> </ul>	<ul style="list-style-type: none"> <li>• Excessive power consumption of the fan motor</li> </ul>	<ul style="list-style-type: none"> <li>• Heater with axial fan: Remove any obstacles from the air intake. Reduce the lengths of the air ducts</li> </ul>
		<ul style="list-style-type: none"> <li>• Heater with centrifugal fan: Check the fan belt setting as described in the "CONNECTION TO AIR DUCTS" chapter</li> </ul>
		<ul style="list-style-type: none"> <li>• In any case check that the power consumption is lower than the value indicated on the nameplate</li> </ul>
<ul style="list-style-type: none"> <li>• The burner starts, the flame does not ignite and the reset indicator on the control system is illuminated</li> </ul>	<ul style="list-style-type: none"> <li>• Irregular operation of the burner</li> </ul>	<ul style="list-style-type: none"> <li>• Should this situation reoccur after pressing the restart button and starting the device, please contact the technical customer service</li> </ul>
<ul style="list-style-type: none"> <li>• The fan does not start or starts with a delay</li> </ul>	<ul style="list-style-type: none"> <li>• No power supply</li> </ul>	<ul style="list-style-type: none"> <li>• Check whether the fuses are intact</li> <li>• Check the electrical connections</li> </ul>
	<ul style="list-style-type: none"> <li>• Thermostat F damaged</li> </ul>	<ul style="list-style-type: none"> <li>• Check, adjust or exchange the thermostat</li> </ul>
	<ul style="list-style-type: none"> <li>• Motor winding burnt or interrupted</li> </ul>	<ul style="list-style-type: none"> <li>• Exchange fan motor</li> </ul>
	<ul style="list-style-type: none"> <li>• Motor capacitor burnt (Mod. "M")</li> </ul>	<ul style="list-style-type: none"> <li>• Exchange capacitor</li> </ul>
	<ul style="list-style-type: none"> <li>• Motor bearing blocked</li> </ul>	<ul style="list-style-type: none"> <li>• Exchange bearing</li> </ul>
<ul style="list-style-type: none"> <li>• The fan makes noises or vibrates</li> </ul>	<ul style="list-style-type: none"> <li>• Foreign objects on fan blades</li> </ul>	<ul style="list-style-type: none"> <li>• Remove foreign objects</li> </ul>
	<ul style="list-style-type: none"> <li>• Insufficient air circulation</li> </ul>	<ul style="list-style-type: none"> <li>• Remove any obstacles affecting air circulation</li> </ul>
<ul style="list-style-type: none"> <li>• Insufficient heating</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient heat output of the burner</li> </ul>	<ul style="list-style-type: none"> <li>• Please contact the technical customer service</li> </ul>

**08. Functional diagram and control panel**


1	USCITA ARIA CALDA SORTIE AIR CHAUD WARMLUFTAUSRITZ HOT AIR OUTFLOW SALIDA DE AIRE CALIENTE ВЫХОД ГОРЯЧЕГО ВОЗДУХА	7	STAFFE DI SOLLEVAMENTO ÉTRIERS DE LEVAGE TRAGWANGEN HOISTING BRACKETS SOPORTES DE ELEVACIÓN ПОДЪЕМНЫЕ КРОНШТЕЙНЫ
2	CAMINO CHEMINEE SCHORNSTEIN CHIMNEY CHIMENEA ДЫМОХОД	8	PIEDE / MANIGLIA SUPPORT/POIGNEE STUTZE/HANDGRIFF SUPPORT/HANDLE AYUDA Y MANIJA НОЖКА/РУЧКА
3	VENTILATORE RAFFREDDAMENTO VENTILATEUR REFROIDISSEMENT KÜHLVENTILATOR COOLING FAN VENTILADOR DE ENFRIAMIENTO ВЕНТИЛЯТОР ОХЛАЖДЕНИЯ	9	RUOTA ROUE RAD WHEEL RUEDA КОЛЕСО
4	CAMERA DI COMBUSTIONE CHAMBRE DE COMBUSTION BRENNKAMMER COMBUSTION CHAMBER CÁMARA DE COMBUSTIÓN КАМЕРА СГОРАНИЯ	10	SCATOLA BRUCIATORE BOÎTIER BRÛLEUR BRENNERGEHÄUSE BURNER BOX CAJA DEL QUEMADOR КОЖУХ ГОРЕЛКИ
5	BRUCIATORE BRULEUR BRENNER BURNER QUEMADOR ГОРЕЛКА	11	PARAURTI PARE-CHOCS PUFFER BUFFER PARACHOQUES АМОРТИЗИРУЮЩИЕ ПРОКЛАДКИ
6	SCATOLA TERMOSTATI L2 BOÎTIER THERMOSTATS L2 THERMOSTATGEHÄUSE L2 THERMOSTATS L2 BOX CAJA DE TERMOSTATOS L2 КОРОБКА ТЕРМОВЫКЛЮЧАТЕЛЕЙ L2	12	SCATOLA QUADRO ELETTRICO BOÎTIER TABLEAU ÉLECTRIQUE SCHALKASTEN ELECTRICAL PANEL BOX CAJA DEL CUADRO ELÉCTRICO КОЖУХ ЭЛЕКТРОШКАФА



a  
 INTERRUTTORE RISCALDAMENTO-VENTILAZIONE  
 INTERRUPTEUR CHAUFFAGE-VENTILATION  
 SCHALTER HEIZUNG-LÜFTUNG  
 HEATING-VENTILATION SWITCH  
 INTERRUPTOR CALEFACCION/VENTILACION  
 ПЕРЕКЛЮЧАТЕЛЬ НАГРЕВА-ВЕНТИЛЯЦИИ

b  
 LAMPADA TENSIONE  
 TEMOIN TENSION  
 LEUCHTE SPANNUNG  
 VOLTAGE LAMP  
 TESTIGO TENSION  
 ИНДИКАТОР НАПРЯЖЕНИЯ

c  
 LAMPADA TERMOSTATI DI SICUREZZA L2  
 TEMOIN THERMOSTATS DE SURCHAUFFE, L2  
 KONTROLLLEUCHTE SICHERHEITSTHERMOSTATE L2  
 OVERHEAT THERMOSTATS CONTROL LAMP, L2  
 TESTIGO TERMOSTATOS DE SEGURIDAD, L2  
 ИНДИКАТОР ПРЕДОХРАНИТЕЛЬНЫХ  
 ТЕРМОВЫКЛЮЧАТЕЛЕЙ L2

d  
 PRESA PER TERMOSTATO AMBIENTE  
 PRISE THERMOSTAT D'AMBIANCE  
 RAUMTHERMOSTAT STECKDOSE  
 ROOM THERMOSTAT PLUG  
 ENCHUFE TERMOSTATO AMBIENTE  
 РАЗЪЕМ ДЛЯ ТЕРМОСТАТА ОКРУЖАЮЩЕЙ СРЕДЫ

e  
 PRESA PER FILTRO PRERISCALDO  
 PRISE POUR FILTRE PRECHAUFFAGE  
 ANSCHLUSS FÜR FILTER VORWÄRMANLAGE  
 INTAKE FOR PRE-HEAT FILTER  
 TOMA PARA FILTRO DE PRECALENTAMIENTO  
 гнездо для фильтра подогрева  
 f PRESSACABO PER CAVO ALIMENTAZIONE  
 PRESSE-CÂBLES POUR CÂBLE D'ALIMENTATION  
 KABELDURCHFÜHRUNG FÜR STROMVERSÖRGUNGSKABEL  
 CABLE CLAMP FOR POWER CABLE  
 PRENSACABLE PARA CABLE DE ALIMENTACION  
 КАБЕЛЬНАЯ ВТУЛКА ДЛЯ СИЛОВОГО КАБЕЛЯ

g  
 TERMOREGOLATORE  
 THERMORÉGLATEUR  
 TEMPERATURREGLER  
 TEMPERATURE CONTROLLER  
 TERMORREGULADOR  
 ТЕРМОРЕГУЛЯТОР

h  
 LAMPADA BRUCIATORE  
 VOYANT BRÛLEUR  
 BRENNERANZEIGE  
 BURNER LIGHT  
 TESTIGO DEL QUEMADOR  
 ИНДИКАТОР ГОРЕЛКИ  
 LAMPKA SYGNALIZACYJNA PALNIKA

i  
 PULSANTE DI RIARMO TERMOSTATO DI SICUREZZA, L2  
 POUSSOIR DE RÉARMEMENT THERMOSTAT DE SECURITE, L2  
 ENTSTÖRTASTE DES SICHERHEITSTHERMOSTATEN, L2  
 SAFETY THERMOSTAT RESET BUTTON, L2  
 BOTÓN DE REARME DEL TERMOSTATO DE SEGURIDAD, L2  
 КНОПКА СБРОСА ПРЕДОХРАНИТЕЛЬНОГО ТЕРМОВЫКЛЮЧАТЕЛЯ, L2

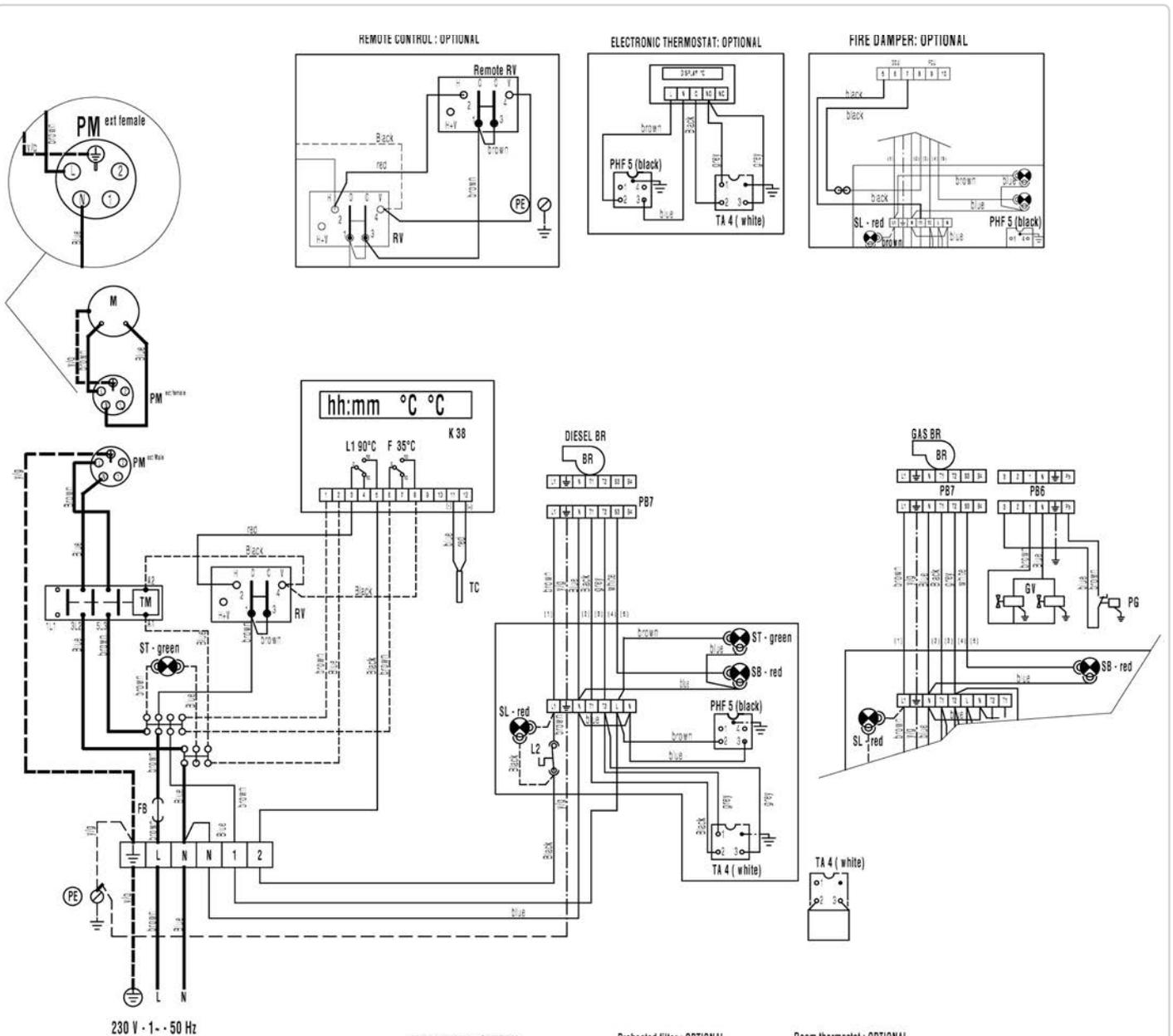
l  
 LAMPADA BLOCCO VENTILATORE (solo per modelli trifase)  
 TEMOIN BLOCAGE VENTILATEUR (uniquement pour modèles triphasés)  
 KONTROLLLEUCHTE SICHERHEITSABSCHALTUNG DES VENTILATORS (nur Modelle mit  
 3-Phasen-Betrieb)  
 FAN BLOCK LAMP (for 3-phase models only)  
 TESTIGO BLOQUEO VENTILADOR (solo para modelos trifásicos)  
 ИНДИКАТОР БЛОКИРОВКИ ВЕНТИЛЯТОРА (только для трехфазных моделей)

m  
 LAMPADA / PULSANTE DI RIARMO BRUCIATORE  
 TEMOIN / POUSSOIR DE RÉARMEMENT  
 BRÛLEUR  
 LAMPE / ENTSTÖRTASTE BRENNER  
 BURNER RESET BUTTON / LAMP  
 TESTIGO/BOTÓN DE REARME DEL QUEMADOR  
 ИНДИКАТОР / КНОПКА СБРОСА ГОРЕЛКИ

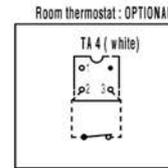
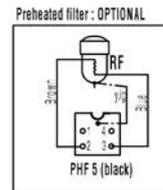
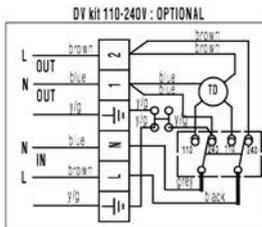
n  
 PANNELLO SCATOLA QUADRO ELETTRICO  
 PANNEAU BOÎTIER TABLEAU ELECTRIQUE  
 ABDECKUNG SCHALTkasten  
 ELECTRICAL PANEL BOX PANEL  
 PANEL DE LA CAJA DEL CUADRO ELECTRICO  
 ПАНЕЛЬ КОЖУХА ЭЛЕКТРОШКАФА

o  
 QUADRO ELETTRICO  
 TABLEAU ELECTRIQUE  
 SCHALTkasten  
 ELECTRICAL PANEL  
 CUADRO ELECTRICO  
 ЭЛЕКТРОШКАФ

## 09. Circuit diagram



230 V · 1 - 50 Hz



- C Capacitor
- M Fan motor
- F Air controller
- FB Fuse for burner 6A
- TM Remote switch for fan
- RM Thermal relay for fan
- ST Indicator light
- SB Fan "OFF" indicator light

- BR Burner
- TA Room thermostat
- PB Burner
- L1 Overheating protection thermostat, L1
- L2 Safety thermostat with manual release, L2
- RV Switch heating-stop-ventilation
- SL Overheating protection indicator light, L1, L2

## 10. Technical data

	<b>Type IDS 900</b>
Article number	1.430.000.160
Air flow rate	12,500 m <sup>3</sup> /h
Fan	axial fan
Max. nominal heat input	235 kW
Nominal heat output	221 kW (181,427 kcal)
Temperature increase* ( $\Delta T$ )	47 °C
Input voltage	230 V / 50 Hz
Current consumption	12 A
Max. oil consumption	21.67 l/h
Air transport hose connector $\emptyset$	1 x 700 mm** 2 x 600 mm** 4 x 400 mm**
Chimney connection $\emptyset$	200 mm
Thermostat connection	standard
Tank contents	208 l
Sound level (distance 1m)	81.3 dB(A)
Length	2,245 mm
Width	982 mm
Height	1,584 mm
Weight kg	351 kg
Combustion	indirect

\*  $\Delta T$  indicates the temperature increase. The outlet air temperature is calculated from  $\Delta T$  + ambient temperature.

\*\* Optionally available accessories required.

## 11. Available accessories

Accessory	Article number
Hose connector 	1 x $\varnothing$ 700 mm, standard equipment
Two-way hose distributor 	2 x $\varnothing$ 600 mm, Article no. 6.100.006.174
Four-way hose distributor 	4 x $\varnothing$ 400 mm, Article no. 6.100.006.175
Thermostat with 10 m cable 	Article no. 6.100.007.016
Connection kit for external oil tank 	Standard equipment
Oil pre-heating 	Article no. 6.100.006.177
Filler neck oil filter 	Article no. 6.100.006.161
Oil tank pedestal IDS 900, capacity 208 litres 	Article no. 6.100.006.176
Exhaust gas pipe rigid, length 1 m 	Article no. 6.100.006.214
90° arc connection for exhaust gas pipe 	Article no. 6.100.006.220
Exhaust gas pipe rain cover 	Article no. 6.100.006.226
Air hose Tronect SP-C <sup>3</sup> , length 7.6 m 	Article no. 6.100.001.273



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