# Installation manual Tumble dryer

DE-6100, DE-6135 Type N4...









## FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death or property damage.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

# WHAT TO DO IF YOU SMELL GAS:

- · Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Clear the room, building or area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

The above information; "What to do if you smell gas", shall be posted in a prominent location. The information to be posted shall be obtained by consulting with the local gas supplier.

# **FOR YOUR SAFETY**

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

The above information; "For your safety", shall be posted in a prominent location.

MAKE CERTAIN TO KEEP THIS MANUAL IN A SECURE PLACE FOR FUTURE REFERENCE.





This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

**WARNING:** The dryer is intended for use only with fabrics that have been washed with water.

**WARNING:** To avoid fire hazard, do not dry articles containing foam rubber or similarly textured

rubberlike materials.

**WARNING:** ALL OPERATING AND MAINTENANCE PROCEDURES SHOWN ON THE NEXT PAGE OF THIS MANUAL MUST BE FOLLOWED DAILY FOR PROPER OPERATION OF YOUR MACHINE.

Keep the dryer area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

PLEASE ENTER THE FOLLOWING INFORMATION AS IT APPEARS ON THE MACHINE(S) DATA PLATE(S).

MACHINE TYPE OR MODEL	
MACHINE SERIAL NUMBER(S)	
ELECTRICAL CHARACTERISTICS:VOLTS,	PHASE,HZ.

Warning: For your safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personnel injury or death.

# **NOTICE TO: OWNERS, OPERATORS AND DEALERS**

IMPROPER INSTALLATION AND INADEQUATE MAINTENANCE, POOR HOUSEKEEPING AND WILLFUL NEGLECT OR BYPASSING OF SAFETY DEVICES MAY RESULT IN SERIOUS ACCIDENTS OR INJURY. TO ASSURE THE SAFETY OF CUSTOMERS AND/OR OPERATORS OF YOUR MACHINE, THE FOLLOWING MAINTENANCE CHECKS MUST BE PERFORMED ON A DAILY BASIS.

- 1. Prior to operation of the machine, check to make certain that all operating instructions and warning signs are affixed to the machine and legible. Missing or illegible ones must be replaced immediately. Be sure you have spare signs and labels available at all times. These can be obtained from your dealer.
- 2. Check the door safety interlock, as follows:
  - a. OPEN THE DOOR of the machine and attempt to start in the normal manner:
    - For coin-operated models, insert the proper coins to start the machine.
    - For manually operated models, place the ON-OFF switch in the ON position and press the Start switch.

# THE MACHINE(S) MUST NOT START!

- 3. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO BYPASS OR REWIRE ANY OF THE MACHINE SAFETY DEVICES AS THIS CAN RESULT IN SERIOUS ACCIDENTS.
- 4. **Be sure to keep the machine(s) in proper working order:** Follow <u>all</u> maintenance and safety procedures. Further information regarding machine safety, service and parts can be obtained from your dealer.
  - All requests for assistance must include the model, serial number and electrical characteristics as they appear on the machine identification plate. Insert this information in the space provided on the previous page of this manual.
- 5. **WARNING:** DO NOT OPERATE MACHINE(S) WITH SAFETY DEVICES BYPASSED, REWIRED OR INOPERATIVE! DO NOT OPEN MACHINE DOOR UNTIL DRUM HAS STOPPED ROTATING!

# **NOTICE TO INSTALLER**

Improper installation of this machine:

- May cause serious damage to the machine.
- · May result in other property damage.
- · May cause personal injury.
- · Will void the manufacturer's warranty.

Connection to line Voltage or over-current protection devices other than those specified on the data plate may result in severe damage to machine components, and will void the manufacturer's warranty.

Refer to complete installation instructions provided in manuals accompanying the machine.

Contact Electrolux Technical Support with any questions BEFORE installing this machine. Damage resulting from inadequate installation materials or improper installation techniques will void the manufacturer's warranty.

# **Electrical Information**

It is your responsibility to have **ALL** electrical connections (including grounding) made by a properly licensed and competent electrician to assure that the electrical installation is adequate and conforms with local and state regulations or codes.

In the absence of such codes, ALL electrical connections, material, and workmanship must **conform** to the applicable requirements of the NATIONAL ELECTRIC CODE ANSI/NFPA NO. 70 or the CANADIAN ELECTRICAL CODE, CSA C22.1 - both the latest edition.

**IMPORTANT:** Failure to comply with these codes or ordinances and/or the requirements stipulated in

this manual can result in personal injury or component failure.

**NOTE:** Component failure due to improper installation will **VOID THE WARRANTY**.

**IMPORTANT:** A separate circuit serving each dryer must be provided. The dryer must be connected to

copper wire only. **DO NOT** use aluminum wire which could cause a fire hazard.

**NOTE:** The use of aluminum wire will **VOID THE WARRANTY** 

**CAUTION**: Label all wires prior to disconnection when servicing controls. Wiring errors can cause

improper operation or component failure.

# **Electrical Service**

Steam and gas dryers ONLY

**IMPORTANT:** The dryer must be connected to the electrical supply shown on the data label affixed to

the dryer. In the case of 208 VAC or 240 VAC, the supply voltage **must match** the electric service specifications of the data label **exactly.** Wire **must be** properly sized to

handle the rated current.

**WARNING:** 120 VAC, 208 VAC and 240 VAC ARE NOT THE SAME. Any damage done to dryer

components due to improper voltage connections will VOID THE WARRANTY.

# Electric dryers ONLY

**IMPORTANT:** ALL electrically heated dryers must be connected to the electric supply service shown

on the dryers data label which is affixed to the back side of the control (service) door.

The connecting wires must be properly sized to handle the rated current.

**NOTE:** Component failure due to improper voltage application will **VOID THE WARRANTY**.

# **Gas Information**

It is your responsibility to have **ALL** plumbing connections made by a qualified professional to insure that the installation is adequate and conforms with local and state regulations or codes. In the absence of such codes, **ALL** plumbing connections, material, and workmanship must conform to the applicable requirements of **the National Fuel Gas Code ANSI Z223.1** or the **CAN/CGA-B149**, **INSTALLATION CODES** - both the latest edition.

On dryers not equipped with a gas union in the dryer manifold, the instructions shall specify that a listed connector in compliance with the **Standard for Connectors for Gas Appliances ANSI Z21.24 CSA 6.10**, be used to connect the dryer to the supply piping.

**IMPORTANT:** Failure to comply with these codes or ordinances, and/ or the requirements stipulated in this manual, can result in personal injury and improper operation of the dryer.

The dryer **must be** isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than 1/2 psig (3.5 kPa).

**IMPORTANT:** Failure to isolate or disconnect the dryer from the gas supply as noted can cause

irreparable damage to the gas valve and will VOID THE WARRANTY.

WARNING: FIRES or EXPLOSION COULD RESULT.



# **Gas Supply**

The gas dryer installation must meet the American National Standard, National Fuel Gas Code Z223.1-LATEST EDITION, as well as local codes and ordinances and **must be** done by a qualified professional,

**NOTE:** Undersized gas piping will result in ignition problems, slow drying, increased use of energy, and can create a safety hazard.

The dryer **must be** connected to the type of heat/ gas indicated on the dryer data label. If this information does not agree with the type of gas available, **do not** operate the dryer, contact your local dealer.

**IMPORTANT:** Any burner changes or conversions must be made by a qualified licensed professional.

The input ratings shown on the dryer data label are for elevations of up to 1,999 feet. The adjustment or conversion of the dryer(s) in the field for elevations over 2,000 feet are made by changing each burner orifice. If these conversions are necessary, contact your local dealer.

## **Natural Gas**

If the pressure is too low, ignition failure and/or slow drying times may result. Excessively high supply pressure will result in erratic operation of the gas valves internal pressure regulator. Further information in section: Gas connection.

# **Propane Gas**

Dryers made for use with propane gas have the gas valve pressure regulator blocked open, so that the gas pressure **must be** regulated upstream of the dryer. In accordance with American Gas Association (AGA) standards, a gas pressure regulator, when installed indoors, must be equipped with a vent limiter or a vent line must be installed from the gas pressure regulator vent to the outdoors. The water column pressure **must be** regulated at the source (propane tank), or an external regulator must be added to each dryer. Further information in section: Gas connection.

# **Piping/Connections**

The dryer is provided with a 1/2" N.P.T. inlet pipe connection extending out the rear area or through the top of the dryer. For ease of servicing, the gas supply line of each dryer should have its own shut-off valve. The size of the gas supply line (header) will vary depending on the distance this supply line travels from the gas meter or, in the case of propane gas, the supply tank, the number of tees, other gas-operated

appliances, etc. Specific information regarding supply line size should be determined by the gas supplier.

**NOTE:** Undersized gas supply piping can create a low or inconsistent gas pressure which will result in erratic operation of the burner ignition system.

Consistent gas pressure is essential at **ALL** gas connections. It is recommended that a 3/4- inch pipe gas loop be installed in the supply line serving the bank of dryers. An in-line pressure regulator **must be** installed in the gas supply line (header) if (natural) gas line pressure exceeds 12-inches water column pressure.

**IMPORTANT:** The information regarding the settings of the water column pressure for Natural gas dryers and Propane gas dryers is found in section: Gas connection. The pressure is required at the gas valve pressure tap of each dryer for proper and safe operation.

A 1/8" N.P,T. plugged tap, accessible for test gauge connection, **must be** installed in the main gas supply line immediately upstream of each dryer.

**IMPORTANT:** Pipe joint compounds that resist the action of natural gas and propane gas **MUST BE** 

usea.

**WARNING:** Test **ALL** connections for leaks by brushing on a soapy water solution (liquid detergent

also works well). NEVER TEST FOR GAS LEAKS WITH AN OPEN FLAME.

ALL components / materials **must conform** to NATIONAL FUEL GAS CODE specifications. It is important that gas pressure regulators meet applicable pressure requirements and that gas meters are rated for the total amount of appliance BTU's being supplied.

# Contents

# Contents

1	Salet	y Precautions	. T
	1.1	Additional safety precautions for gas heated tumble dryer	. 14
	1.2	General safety information	
	1.3	Commercial use only	
	1.4	Copyright	
	1.5	Ergonomics certification	14
	1.6	Symbols	
2		anty terms and exclusions	
3		nical data	
3			
	3.1	Drawing	
		3.1.1 Standard models	.1/
		3.1.2 Models with sliding door and tilt	
	0.0	3.1.3 Models with sliding door	
	3.2	Technical data	.20
		3.2.1 Electric heated machines	
		3.2.2 Steam heated machines	
	2.2	3.2.3 Gas heated machines	
	3.3	Connections	
4	3.4	Motor specifications	
4		)	
	4.1	General	
	4.2	Unpacking	
	4.3	Recycling instruction for packaging	
	4.4	Siting	
_	4.5	Mechanical installation	
5	Instal	lation of heating unit	
	5.1	Gas heating unit installation	. 32
	5.2	Electric heating unit installation	
	5.3	Steam heating unit installation	.51
6	Moun	ting equipment for sliding door	.60
7	Inetal	lation of tilting unit	~
,	IIIotai	iauon oi ulung unit	.b1
'		lation of tilting unit	
,	7.1	Set up	.61
,		Set up	.61 .61
,		Set up	.61 .61
,	7.1	Set up	.61 .61 .61
,	7.1 7.2	Set up	.61 .61 .61
	7.1 7.2 7.3	Set up	.61 .61 .61 .62
	7.1 7.2 7.3 Evac	Set up	.61 .61 .61 .62 .63
	7.1 7.2 7.3 Evacu 8.1	Set up	.61 .61 .61 .62 .63
	7.1 7.2 7.3 Evaci 8.1 8.2	Set up	.61 .61 .61 .62 .63 .76
	7.1 7.2 7.3 Evact 8.1 8.2 8.3	Set up	.61 .61 .62 .63 .76 .77
	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4	Set up	.61 .61 .62 .63 .76 .77
	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5	Set up	.61 .61 .62 .63 .76 .77 .77
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6	Set up	.61 .61 .61 .62 .63 .76 .77 .77
	7.1 7.2 7.3 Evaci 8.1 8.2 8.3 8.4 8.5 8.6 Electri	Set up	.61 .61 .61 .62 .63 .76 .77 .77 .78
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1	Set up	.61 .61 .62 .63 .76 .77 .77 .78 .86
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2	Set up	.61 .61 .62 .63 .76 .77 .77 .78 .78 .86
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1	Set up	.61 .61 .62 .63 .76 .76 .77 .78 .78 .86 .87
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electi 9.1 9.2 9.3	Set up 7.1.1 Flexible piping connection, gas heated machines 7.1.2 Flexible piping connection, steam heated machines 7.1.3 Outlet duct, all heating types Contents of the tilting unit kit Installation uation system Air principle Fresh air Exhaust duct Shared exhaust duct Exhaust dimensioning Adjusting the air flow rical connection  Electrical installation Internal connection Machine connection 9.3.1 Three-phase connection	.61 .61 .61 .62 .63 .76 .77 .77 .77 .78 .86 .87 .88
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electi 9.1 9.2 9.3	Set up. 7.1.1 Flexible piping connection, gas heated machines. 7.1.2 Flexible piping connection, steam heated machines. 7.1.3 Outlet duct, all heating types. Contents of the tilting unit kit Installation. uation system. Air principle Fresh air. Exhaust duct Shared exhaust duct Exhaust dimensioning Adjusting the air flow rical connection. Electrical installation Internal connection. Machine connection 9.3.1 Three-phase connection Electrical connections	.61 .61 .61 .62 .76 .77 .77 .77 .86 .86 .88 .88
8	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear	Set up. 7.1.1 Flexible piping connection, gas heated machines. 7.1.2 Flexible piping connection, steam heated machines. 7.1.3 Outlet duct, all heating types. Contents of the tilting unit kit. Installation. uation system. Air principle. Fresh air. Exhaust duct. Shared exhaust duct. Shared exhaust duct. Exhaust dimensioning. Adjusting the air flow. rical connection. Electrical installation Internal connection. Machine connection. 9.3.1 Three-phase connection Electrical connections n connection.	.61 .61 .61 .62 .63 .76 .77 .77 .78 .86 .86 .88 .88
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1	Set up	.61 .61 .62 .63 .76 .77 .77 .78 .86 .87 .88 .88 .88 .89
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1 Gas of	Set up	.61 .61 .62 .63 .76 .77 .77 .77 .86 .87 .88 .88 .88 .90
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1 Gas c 11.1	Set up	.61 .61 .62 .63 .76 .77 .77 .78 .88 .87 .88 .89 .90
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1 Gas of	Set up	.61 .61 .62 .63 .76 .77 .77 .78 .86 .87 .88 .88 .88 .90 .92 .92
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1 Gas c 11.1	Set up	.61 .61 .61 .62 .63 .76 .77 .77 .78 .86 .87 .88 .88 .88 .90 .92 .92
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electr 9.1 9.2 9.3 9.4 Stear 10.1 Gas of	Set up	.61 .61 .61 .62 .63 .76 .77 .77 .77 .86 .87 .88 .88 .88 .89 .90 .92 .92
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electi 9.1 9.2 9.3 9.4 Stear 10.1 Gas of 11.1 11.2 11.3	Set up	.61 .61 .61 .62 .63 .76 .77 .77 .78 .86 .87 .88 .88 .88 .90 .92 .92 .92
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electi 9.1 9.2 9.3 9.4 Stear 10.1 Gas of 11.1 11.2 11.3	Set up 7.1.1 Flexible piping connection, gas heated machines 7.1.2 Flexible piping connection, steam heated machines 7.1.3 Outlet duct, all heating types Contents of the tilting unit kit Installation uation system Air principle Fresh air Exhaust duct Shared exhaust duct Exhaust dimensioning Adjusting the air flow rical connection.  Electrical installation Internal connection Machine connection 9.3.1 Three-phase connection Electrical connections n connecting the steam connection Connecting the steam connection General Gas installation Table of pressure and adjustment 11.3.1 DE-6100 11.3.2 DE-6135 Nozzles sizes depending on altidudes	.61 .61 .61 .62 .63 .76 .77 .77 .78 .88 .88 .88 .88 .88 .90 .92 .92 .92 .92 .92
9	7.1 7.2 7.3 Evact 8.1 8.2 8.3 8.4 8.5 8.6 Electi 9.1 9.2 9.3 9.4 Stear 10.1 Gas of 11.1 11.2 11.3	Set up	.61 .61 .61 .62 .63 .76 .77 .77 .78 .88 .88 .88 .88 .92 .92 .92 .92 .92 .92 .92

# Contents

11.6.1 Checklist	99
11.7 Data label	
12 At first power up	101
12.1 Select language	101
12.2 Set time and date	
12.3 Activate/Deactivate the service alarm	101
13 Function check	102
14 Disposal information	103
14.1 Disposal of appliance at end of life	103
14.2 Disposal of packing	103

The manufacturer reserves the right to make changes to design and component specifications.

# 1 Safety Precautions

- Servicing shall be carried out only by authorized personnel.
- Only authorized spare parts, accessories and consumables shall be used.
- The machine is not to be used if industrial chemicals have been used for cleaning.
- Do not dry unwashed items in the machine.
- Items that have been soiled with substances such as cooking oil, acetone, alcohol, petrol, kerosene, spot removers, turpentine, waxes and wax removers should be washed in hot water with an extra amount of detergent before being dried in the machine.
- Items such as foam rubber (latex foam), shower caps, waterproof textiles, rubber backed articles and clothes or pillows fitted with foam rubber pads should not be dried in the machine.
- Fabric softeners or similar products should be used as specified by the fabric softener instructions.
- The final part of a drying cycle occurs without heat (cool down cycle) to ensure that the items are left at a temperature that ensures that the items will not be damaged.
- Remove all objects from pockets such as lighters and matches.
- WARNING. Never stop the machine before the end of the drying cycle unless all items are quickly removed and spread out so that the heat is dissipated.
- Adequate ventilation has to be provided to avoid the back flow of gases into the room for appliances burning other fuels, including open fires.
- Exhaust air must not be discharged into a flue which is used for exhausting fumes from appliances burning gas or other fuels.
- The machine must not be installed behind a lockable door, a sliding door or a door with a hinge on the opposite side to that of the machine in such a way that a full opening of the machine is restricted.
- If the machine has a lint trap this has to be cleaned frequently.
- The lint must not be accumulated around the machine.
- DO NOT MODIFY THIS APPLIANCE.
- When performing service or replacing parts, the power must be disconnected.
- When the power is disconnected, the operator must see that the machine is disconnected (that the plug is removed and remains removed) from any point to which he has access. If this is not possible, due to the construction or installation of the machine, a disconnection with a locking system in the isolated position shall be provided.
- In accordance with the wiring rules: mount a multi-pole switch prior to the machine to facilitate installation and service operations.
- WARNING: The appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by a utility.
- If different rated voltages or different rated frequencies (separated by a /) are stated at the machine data plate, instructions for adjusting the appliance for operation at the required rated voltage or rated frequency are stated in the installation manual.
- Stationary appliances not fitted with means for disconnection from the supply mains having a contact separation in all poles that provide full disconnection under overvoltage category III, means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
- The openings in the base, shall not be obstructed by a carpet.
- Maximum mass of dry cloth: DE-6100: 50 kg / 110 lbs, DE-6135: 67 kg / 148 lbs.

A-weighted emission sound pressure level at working stations: < 70 dB(A).</li>

# 1.1 Additional safety precautions for gas heated tumble dryer

- Before installation, check that the local distribution conditions, nature of gas and pressure and the adjustment of the appliance are compatible.
- The machine is not to be installed in rooms containing cleaning machines with perchloroethylene, TRICHLOROETHYLENE or CHLOROFLUOROCONTAINING HY-DROCARBONS as cleaning agents.
- NOTE: it is pointed out that the connection and commissioning of appliances complying
  with this standard are subject to observance of the installation regulations in force in
  the countries where these appliances are marketed.
- Connection to the appliance shall be made with a flexible hose suitable for the appliance category in accordance with national installation regulations of the country of destination and that in case of doubt the installer shall contact the supplier.
- The appliance should be installed on non-flammable materials for the floor, worktop and/or wall close to the appliance if required.
- If you can smell gas:
  - Do not switch on any equipment
  - Do not use electrical switches
  - Do not use telephones in the building
  - Evacuate the room, building or area
  - Contact the person responsible for the machine

## 1.2 General safety information

In order to prevent damage to the electronics (and other parts) that may occur as the result of condensation, the machine should be placed in room temperature for 24 hours before being used for the first time.

## 1.3 Commercial use only

The machine/machines covered by this manual is/are made for commercial and industrial use only.

## 1.4 Copyright

This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Electrolux Professional AB company.

# 1.5 Ergonomics certification

The human body is designed for movement and activity but physical stress injuries as a result of static and repetitive movements or unfavorable working postures may occur.

The ergonomic features of your product, the ones which may influence your physical and cognitive interaction with it, have been assessed and certified.

A product which exhibits ergonomic features, in fact, shall fulfil specific ergonomic requirements, belonging to three different areas: Polytechnic, Biomedical and Psychosocial (usability and satisfaction).

For each of these areas, specific tests with real users have been performed. The product was therefore compliant with the ergonomic acceptability criteria requested by the standards.

In case several machines are managed by the same operator the repetitive movements will increase and as a consequence of this the related biomechanical risk will increase exponentially.

Follow the below recommendations to avoid, as much as possible, operators acquiring bodily injury.

- · Make sure there are suitable trolleys or baskets for loading, unloading and transportation.
- Organize job rotation in the working place in the case several machines are managed by the same operator.
- When using the operating panel: Increase the distance from the machine by taking steps back before looking up at the display.
- To avoid injuries to the back when opening/closing the filter door, the operators should, as far as possible, bend their knees instead of their backs.
- While the operators lift the filter door, they should reduce the distance between the feet and the handles as much as possible and flex their legs instead of their backs.
- · When loading and unloading:

Reduce as much as possible the picking distance. If a trolley is used; avoid the trolley being positioned between the operator and the machine.

If the operator needs to raise the arm above shoulder height, he/she should reduce the number of objects handled during each picking operation.

# 1.6 Symbols

<u></u>	Caution
	Caution, hot surface
4	Caution, high voltage
	Warning, risk of fire / flammable material
	Danger, crush hazard
	Read the instructions before using the machine

# 2 Warranty terms and exclusions

If the purchase of this product includes warranty coverage, warranty is provided in line with local regulations and subject to the product being installed and used for the purposes as designed, and as described within the appropriate equipment documentation.

Warranty will be applicable where the customer has used only genuine spare parts and has performed maintenance in accordance with Electrolux Professional AB user and maintenance documentation made available in paper or electronic format.

Electrolux Professional AB strongly recommends using Electrolux Professional AB approved cleaning, rinse and descaling agents to obtain optimal results and maintain product efficiency over time.

The Electrolux Professional AB warranty does not cover:

- · service trips cost to deliver and pick up the product;
- · installation;
- training on how to use/operate;
- replacement (and/or supply) of wear and tear parts unless resulting from defects in materials or workmanship reported within one (1) week from the failure;
- · correction of external wiring;
- correction of unauthorized repairs as well as any damages, failures and inefficiencies caused by and/or resulting from:
  - insufficient and/or abnormal capacity of the electrical systems (current/voltage/frequency, including spikes and/or outages);
  - inadequate or interrupted water supply, steam, air, gas (including impurities and/or other that does not comply with the technical requirements for each appliance);
  - plumbing parts, components or consumable cleaning products that are not approved by the manufacturer;
  - customer's negligence, misuse, abuse and/or non-compliance with the use and care instructions detailed within the appropriate equipment documentation;
  - improper or poor: installation, repair, maintenance (including tampering, modifications and repairs carried out by third parties not authorized third parties) and modification of safety systems;
  - Use of non-original components (e.g.: consumables, wear and tear, or spare parts);
  - environment conditions provoking thermal (e.g. overheating/freezing) or chemical (e.g. corrosion/oxidation) stress;
  - foreign objects placed in- or connected to- the product;
  - accidents or force majeure;
  - transportation and handling, including scratches, dents, chips, and/or other damage to the finish of the product, unless such damage results from defects in materials or workmanship and is reported within one (1) week of delivery unless otherwise agreed;
- product with original serial numbers that have been removed, altered or cannot be readily determined;
- · replacement of light bulbs, filters or any consumable parts;
- any accessories and software not approved or specified by Electrolux Professional AB.

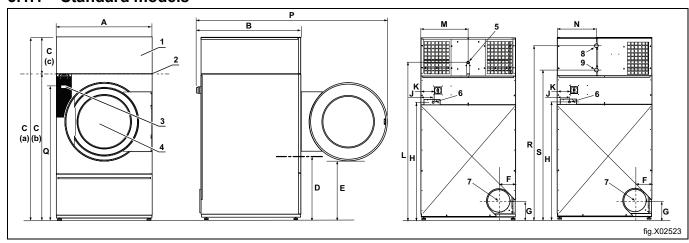
Warranty does not include scheduled maintenance activities (including the parts required for it) or the supply of cleaning agents unless specifically covered within any local agreement, subject to local terms and conditions.

Check on Electrolux Professional AB website the list of authorized customer care.

# 3 Technical data

# 3.1 Drawing

# 3.1.1 Standard models



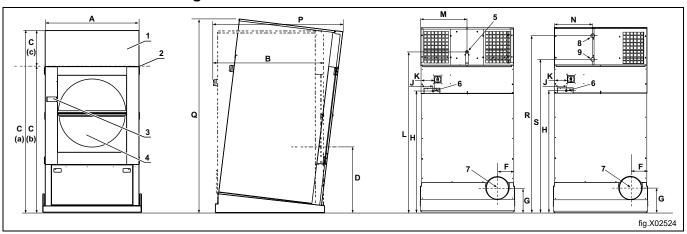
-	
1	Heating unit
2	Delivery height, excl. 100 mm / 3 15/16 inch packaging
3	Operating panel
4	Door opening, Ø 940 mm / Ø 37 inch
5	Gas connection
6	Electric connection
7	Exhaust duct
8	Steam inlet
9	Steam return

mm inch	Α	В	C (a)	C (b)	C (c)	D	E	F
DE-6100	1290 50 13/ 16	1215 47 13/ 16	2465 97 1/16	1965 77 3/8	500 19 11/ 16	850 33 7/16	790 31 1/8	230 9 1/16
DE-6135	1290 50 13/ 16	1405 55 5/16	2465 97 1/16	1965 77 3/8	500 19 11/ 16	850 33 7/16	790 31 1/8	230 9 1/16

mm inch	G	Н	J	K	L	M	N	Р
DE-6100	245 9 5/8	1590 62 5/8	165 6 1/2	180 7 1/16	2055 80 7/8	660 26	530 20 7/8	2400 94 1/2
DE-6135	245 9 5/8	1590 62 5/8	165 6 1/2	180 7 1/16	2055 80 7/8	660 26	530 20 7/8	2590 101 15/ 16

mm inch	Q	R	S	
DE-6100	1868	2350	2060	
	73 9/16	92 1/2	81 1/8	
DE-6135	1868	2350	2060	
	73 9/16	92 1/2	81 1/8	

# 3.1.2 Models with sliding door and tilt



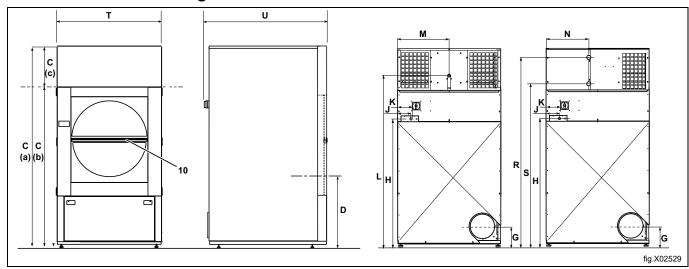
1	Heating unit
2	Delivery height, excl. 100 mm / 3 15/16 inch packaging
3	Operating panel
4	Door opening, Ø 940 mm / Ø 37 inch
5	Gas connection
6	Electric connection
7	Exhaust duct
8	Steam inlet
9	Steam return

mm inch	Α	В	C (a)	C (b)	C (c)	D	E	F
DE-6100	1320 51 15/ 16	1305 51 3/8	2550 100 3/8	2045 80 1/2	500 19 11/ 16	930 36 5/8		230 9 1/16
DE-6135	1320 51 15/ 16	1495 58 7/8	2550 100 3/8	2045 80 1/2	500 19 11/ 16	930 36 5/8	_	230 9 1/16

mm inch	G	Н	J	K	L	М	N	Р
DE-6100	330	1670	165	180	2130	660	530	1550
	13	65 3/4	6 1/2	7 1/16	83 7/8	26	20 7/8	61
DE-6135	330	1670	165	180	2130	660	530	1750
	13	65 3/4	6 1/2	7 1/16	83 7/8	26	20 7/8	68 7/8

mm inch	Q	R	S
DE-6100	2660	2425	2130
	104 3/4	95 1/2	83 7/8
DE-6135	2680	2425	2130
	105 1/2	95 1/2	83 7/8

# 3.1.3 Models with sliding door



10 Door opening with sliding door, ø 940 mm / ø 37 inch

mm inch	C (a)	C (b)	C (c)	D
DE-6100	2465 97 1/16	1965 77 3/8	500 19 11/ 16	845 33 1/4
DE-6135	2465 97 1/16	1965 77 3/8	500 19 11/ 16	845 33 1/4

mm inch	G	Н	J	К	L	М	N
DE-6100	245	1590	165	180	2055	660	530
	9 5/8	62 5/8	6 1/2	7 1/16	80 7/8	26	20 7/8
DE-6135	245	1590	165	180	2055	660	530
	9 5/8	62 5/8	6 1/2	7 1/16	80 7/8	26	20 7/8

mm inch	Q	R	ø	T	U
DE-6100	1868 73 9/16	2350 92 1/2	2060 81 1/8	1314 51 3/4	1300 51 3/16
DE-6135	1868 73 9/16	2350 92 1/2	2060 81 1/8	1314 51 3/4	1490 58 11/ 16

# 3.2 Technical data

#### **Electric heated machines** 3.2.1

		DE-6100	DE-6135
Weight, standard machine	kg	440	470
	Ibs	970	1036
Weight, with sliding door	kg	494	524
	Ibs	1087	1153
Weight, with sliding door and tilt	kg	546	576
	Ibs	1203	1270
Weight, heating unit, electric	kg	42	42
	Ibs	93	93
Weight, tilting unit	kg	66	66
	Ibs	146	146
Drum volume	litres	900	1200
	ft³	31.8	42.4
Drum diameter	mm	1240	1240
	inch	48 13/16	48 13/16
Drum depth	mm	770	1000
	inch	30 5/16	39 3/8
Drum speed, medium load	rpm	38	38
Rated capacity, filling factor 1:18 (Max. load)	kg Ibs	50	67
Rated capacity, filling factor 1:20 (Recommended load)	kg Ibs	45	60
Input rating	kW	48/60	60/72
Sound power/pressure level at drying*	dB(A)	< 70	< 70
Heat emission of installed power, max	%	15	15

<sup>\*</sup> Sound power levels measured according to ISO 60704.

# Air flow data

		DE-6100		DE-6	6135
		STD <sup>1</sup>	SLD <sup>2</sup>	STD <sup>1</sup>	SLD <sup>2</sup>
Optimum air flow, 60 kW, 50 Hz**	m³/h	1815	2145	_	_
Optimum air flow, 72 kW, 50 Hz**	m³/h	_	_	1782	_
Optimum static back pressure, 60 kW, 50 Hz**	Pa	435	150	_	_
Maximum static back pressure, 60 kW, 50 Hz**	Pa	540	220	_	_
Optimum static back pressure, 72 kW, 50 Hz**	Pa	_	_	1120	_
Maximum static back pressure, 72 kW, 50 Hz**	Pa	_	_	1170	_

Standard machine Machine with sliding door

<sup>\*\*</sup> In a cold empty machine.

# 3.2.2 Steam heated machines

		DE-6100	DE-6135
Weight, standard machine	kg	440	470
	lbs	970	1036
Weight, with sliding door	kg	494	524
	lbs	1087	1153
Weight, with sliding door and tilt	kg	546	576
	lbs	1203	1270
Weight, heating unit, steam	kg	50	50
	lbs	110	110
Weight, tilting unit	kg	66	66
	lbs	146	146
Drum volume	litres	900	1200
	ft <sup>3</sup>	31.8	42.4
Drum diameter	mm	1240	1240
	inch	48 13/16	48 13/16
Drum depth	mm	770	1000
	inch	30 5/16	39 3/8
Drum speed, medium load	rpm	38	38
Rated capacity, filling factor 1:18 (Max. load)	kg lbs	50	67
Rated capacity, filling factor 1:20 (Recommended load)	kg lbs	45	60
Input rating At 100 psi	kW	60	80
Steam pressure	kPa	100–1000	100–1000
Sound power/pressure level at drying*	dB(A)	< 70	< 70
Heat emission of installed power, max	%	15	15

<sup>\*</sup> Sound power levels measured according to ISO 60704.

# Air flow data

		DE-6100		DE-6135	
		STD <sup>1</sup>	SLD <sup>2</sup>	STD <sup>1</sup>	SLD <sup>2</sup>
Optimum air flow, 50 Hz**	m³/h	1804	_	2178	2178
Optimum static back pressure, 50 Hz**	Pa	490	_	640	640
Maximum static back pressure, 50 Hz**	Pa	570	_	710	750

Standard machine
 Machine with sliding door

<sup>\*\*</sup> In a cold empty machine.

#### Gas heated machines 3.2.3

		DE-6100	DE-6135
Weight, standard machine	kg lbs	440 970	470 1036
Weight, with sliding door	kg Ibs	494 1087	524 1153
Weight, with sliding door and tilt	kg Ibs	546 1203	576 1270
Weight, heating unit, gas	kg Ibs	39 86	46 101
Weight, tilting unit	kg Ibs	66 146	66 146
Drum volume	litres ft³	900 31.8	1200 42.4
Drum diameter	mm inch	1240 48 13/16	1240 48 13/16
Drum depth	mm inch	770 30 5/16	1000 39 3/8
Drum speed, medium load	rpm	38	38
Rated capacity, filling factor 1:18 (Max. load)	kg Ibs	50	67
Rated capacity, filling factor 1:20 (Recommended load)	kg lbs	45	60
Input rating <sup>1</sup>	kW	63	84
Natural gas (GNH)	m³/h	6.00	8.00
Input rating <sup>1</sup>	kW	63	83
Propane (LPG)	m³/h	2.37	3.12
Sound power/pressure level at drying*	dB(A)	< 70	< 70
Heat emission of installed power, max	%	15	15

Referring to gross calorific value.

This default gas appliance is build to run on natural gas (group I2H and I2E), commonly identified by GNH. Japan to run on LPG (group I3B/P) 2800 Pa inlet pressure, no regulation.

This default gas appliance is built to be installed at not over than 610 m (2001 ft) high altitude otherwise a kit

for high altitude must be installed to the machine. For the kit No. please refer to the spare parts list.

## Air flow data

		DE-6100		DE-	6135
		STD <sup>1</sup>	SLD <sup>2</sup>	STD <sup>1</sup>	SLD <sup>2</sup>
Optimum air flow, 50 Hz**	m³/h	1815	_	2068	1914
Optimum air flow, 60 Hz**	m³/h	1518	_	2321	_
Optimum static back pressure, 50 Hz**	Pa	350	_	900	940
Optimum static back pressure, 60 Hz**	Pa	1230	_	150	_
Maximum static back pressure, 50 Hz**	Pa	460	_	980	1030
Maximum static back pressure, 60 Hz**	Pa	1300	_	260	_

<sup>\*</sup> Sound power levels measured according to ISO 60704.

Standard machine Machine with sliding door

<sup>\*\*</sup> In a cold empty machine.

# 3.3 Connections

		DE-6100	DE-6135
Air outlet	ø mm	315	315 12
Gas connection	1"	ISO 7/1-R1	ISO 7/1-R1
Steam inlet/outlet		ISO 228/1-G1	ISO 228/1-G1

# 3.4 Motor specifications

		DE-6100	DE-6135
Blower motor 3-phase, effect	kW	1.1	1.1
50 Hz	rpm	2800	2800
60 Hz	rpm	3400	3400
Drum motor 3-phase, effect	kW	1.5	1.5
50 Hz	rpm	1440	1440
60 Hz	rpm	1730	1730

# 4 Setup

## 4.1 General

The principle work flow to setup or install this machine is as follows:

- Unpacking
- 2. Positioning/siting, levelling or/and securing the machine.
- 3. Heating unit installation
- 4. Tilting unit installation (option)
- 5. Correcting the fresh air/air intake's size, exhaust duct's size and pipe(s) connections in considering a stand-alone machine or sharing exhaust duct.
- 6. Electric connections, connect the power supply to the machine.
- 7. Air flow or static back pressure adjustments in a cold empty machine in considering a stand-alone machine or sharing exhaust duct.
- 8. Gas connection, gas converting, high altitude kit installation. (For gas heated machine).
- 9. Function check.
- 10. Option functions check.

More details are described in each part of this installation manual.

## 4.2 Unpacking

## Note!

The procedure when unpacking the machine is the same on machines with standard door and with sliding door. The following pictures shows a machine with standard door except from the sections relating to sliding door.

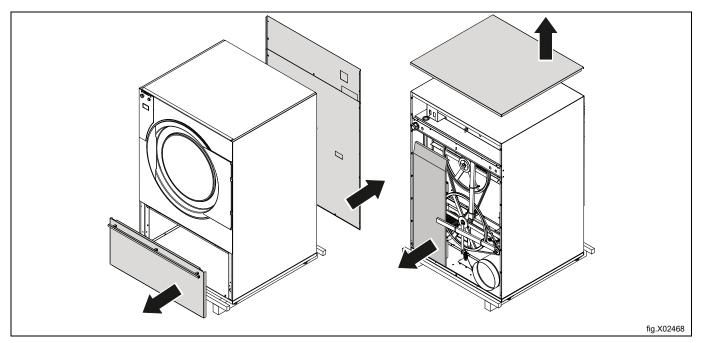
## Note!

Two persons are recommended for the unpacking.

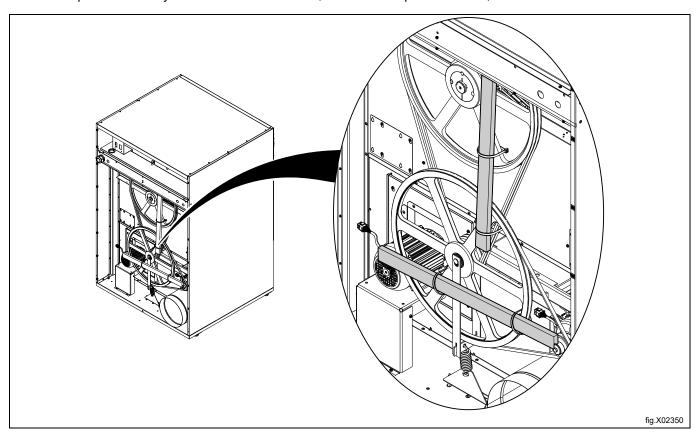
The heating unit is separated from the top of the machine from the factory and delivered as a separate package. The top panel for the heating unit is placed on top of the machine and the rest of the material are placed in the rear area of the machine.

Demount the rear panels and the filter door.

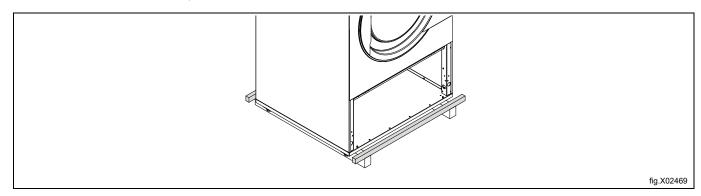
Carefully remove the top panel for the heating unit which is placed on top of the machine and the rest of the material from the rear area of the machine.



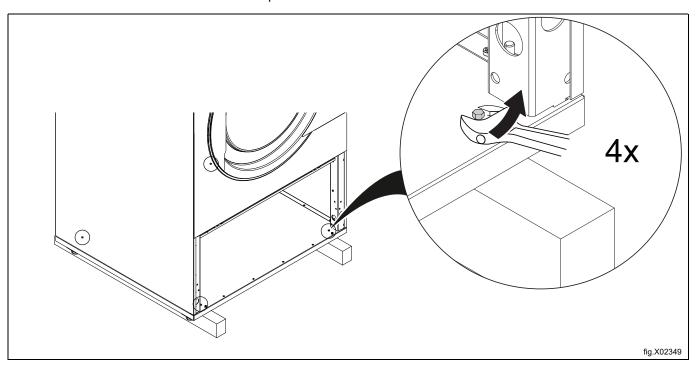
Cut the straps and carefully remove the wooden bars, used as transport securities, from the rear of the machine.



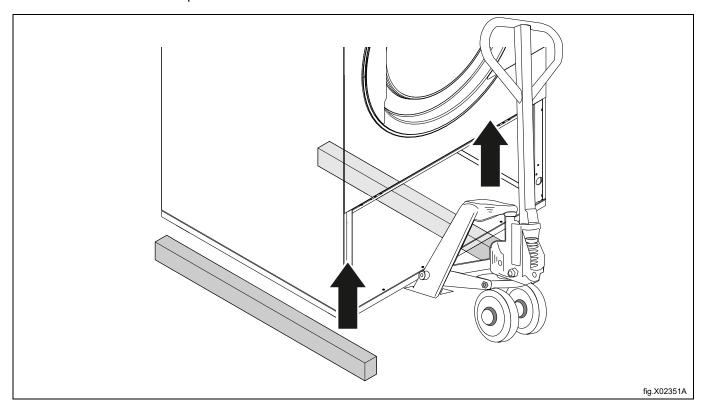
Remove the two wooden bars, one in the front and one in the back.



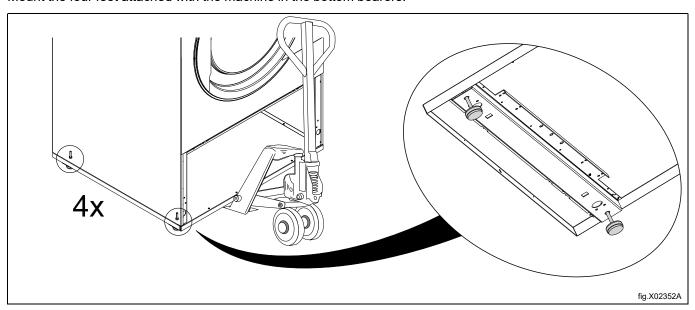
Remove the bolts between the machine and pallet.



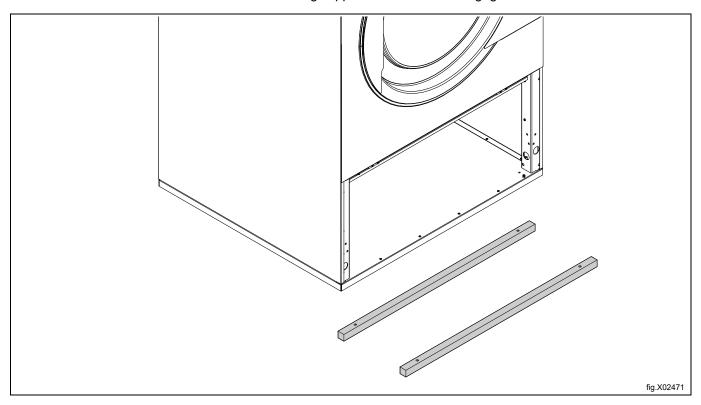
Lift the machine with for example a fork-lift truck and remove the wooden bars.



Mount the four feet attached with the machine in the bottom bearers.



When the fork-lift truck is removed the two remaining support sections are disengaged.



Place the machine on its final position, please refer to the section <u>Siting</u>.

# 4.3 Recycling instruction for packaging

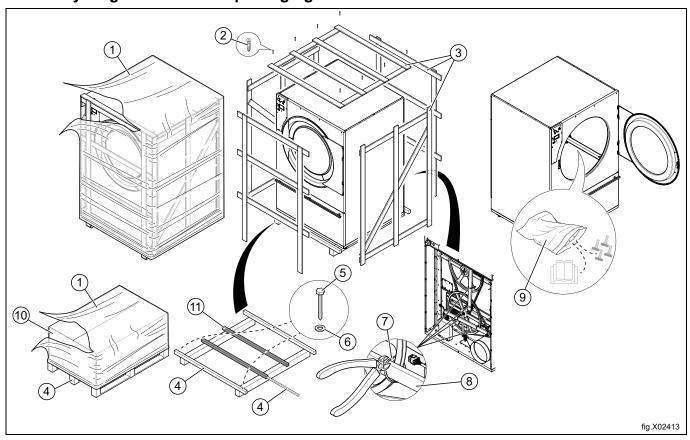


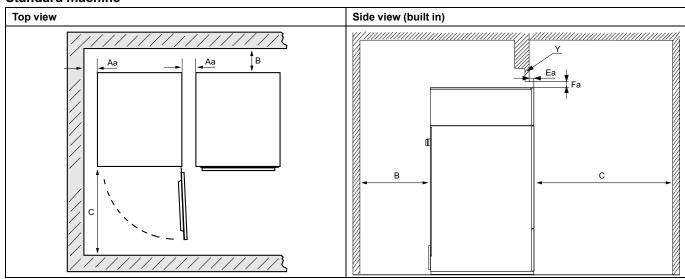
Fig.	Description	Code	Туре
1	Wrapping film	LDPE 4	Plastics
2	Screw	FE 40	Steel
3	Packaging	FOR 50	Wood
4	Pallet	FOR 50	Wood
5	Screw	FE 40	Steel
6	Washer	FE 40	Steel
7	Cable Tie		Nylon
8	Transport security	FOR 50	Wood
9	Plastic bag	PET 1	Plastics
10	Cardboard packaging	PAP 20	Paper
11	Steel sections	FE 40	Steel

# 4.4 Siting

Place the machine on its final position.

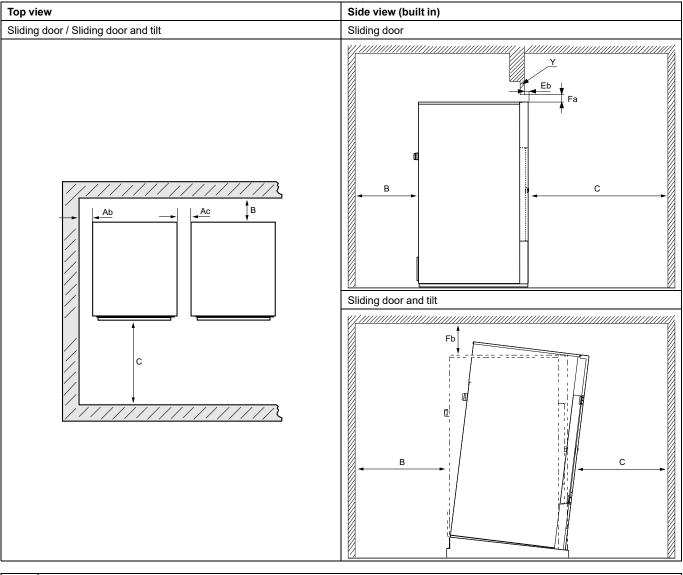
The figure shows recommended distance to walls and / or other machines.

# Standard machine



Aa	≥ 10 mm	
В	≥ 500 mm (Min. 200 mm)	
С	≥ 1250 mm	
Ea	≥ 40 mm	
Fa	≥ 25 mm	
	(The overhead soffit may be used to close the gap above the machine. Min. required clearance: 0 mm)	
Υ	For built-in machines it is recommended that the wall section Y is a removable finish piece.	

## Machine with Sliding door / Sliding door and tilt



Ab	≥ 50 mm	
Ac	≥ 100 mm	
В	≥ 500 mm (Min. 200 mm)	
С	≥ 1250 mm	
Eb	≥ 120 mm	
Fa	≥ 25 mm	
	(The overhead soffit may be used to close the gap above the machine. Min. required clearance: 0 mm)	
Fb	≥ 200 mm	
Υ	For built-in machines it is recommended that the wall section Y is a removable finish piece.	

## Note!

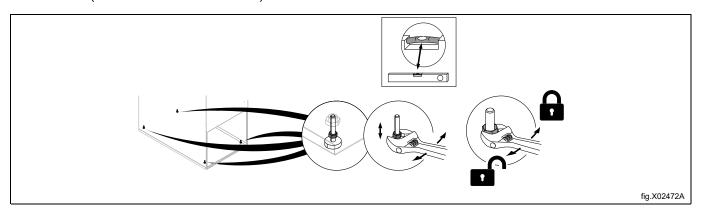
The machine should be positioned so that there will be enough space for working, both for the user and service personnel.

Respecting the given recommendations will provide easy access for maintenance and service operations.

In case of space limitations, it is possible to install machines without respecting to the given recommendations. If so, keep in mind that it might be necessary to disconnect and move other machines to be able to reach and perform service on affected machine.

# 4.5 Mechanical installation

Level the machine with the feet of the machine. (The height adjustment must be as low as possible). The maximum height adjustment of the feet is 70 mm / 2 3/4 inch and is only to be used cautiously while removing the fork truck (if a fork truck has been used).



For further instructions on how to install the heating unit, please refer to the section <u>Installation of heating unit</u>.

# 5 Installation of heating unit

## Note!

The procedure when mounting the heating unit is the same on machines with standard door and with sliding door. The following pictures shows a standard door except from pages relating specifically to sliding door.

# **Heating unit**

The heating unit is to be mounted on top of the machine.

It is recommended that the mounting is carried out by two persons.

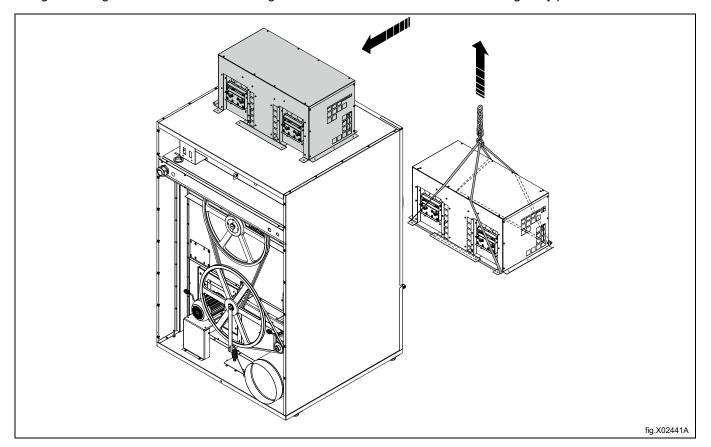
Use the supplied screws.

# 5.1 Gas heating unit installation

Put the gas heating unit in position on top of the machine.

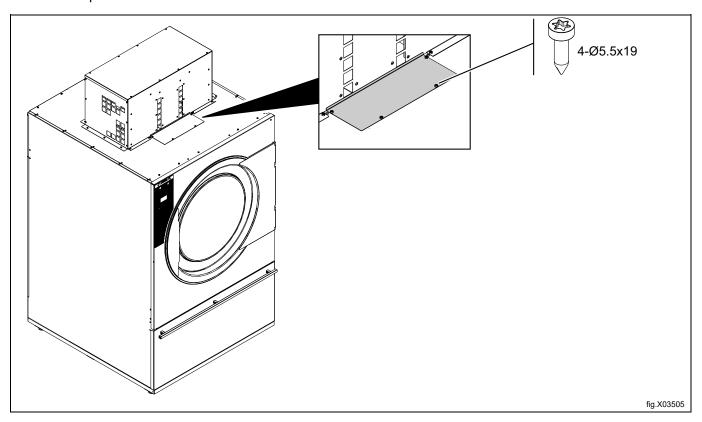
The weight of the gas heating unit is approximately 29 kg / 64 lbs.

The gas heating unit shall be lifted according to the illustration. Be careful not to damage any parts.

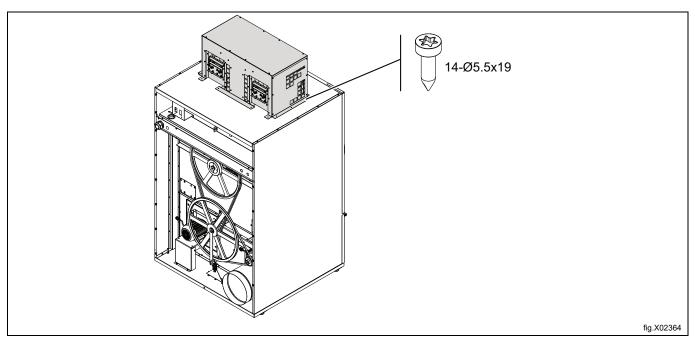


# For DE-6135 only:

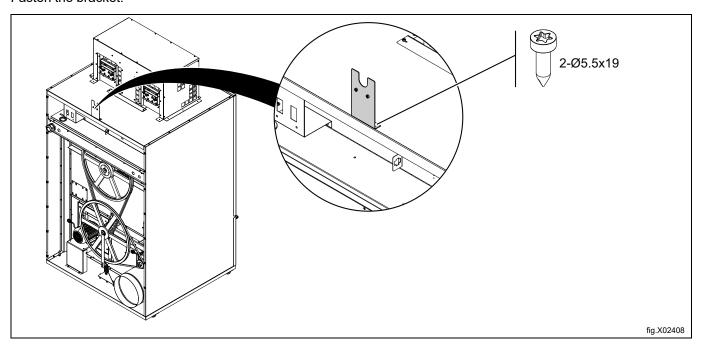
• Mount the panel at the front of the machine.



Fasten the gas heating unit on the machine.



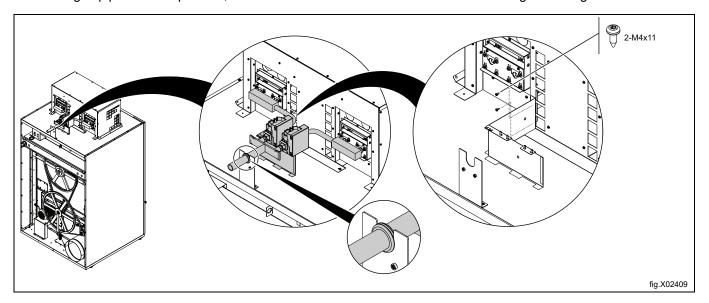
## Fasten the bracket.



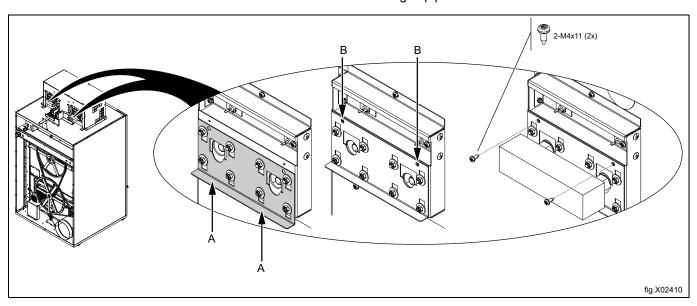
If the machine is to be converted to another gas type, do the gas converting before this step. Please refer to the section: "Converting instructions".

Insert the gas nozzles by positioning the gas pipe unit on the bracket. Make sure to mount the grommet to protect the gas pipe.

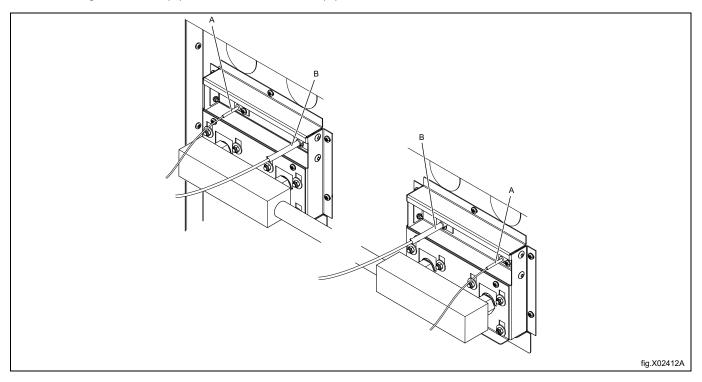
When the gas pipe unit is in position, fasten the lower bracket with three screws on the gas heating unit.



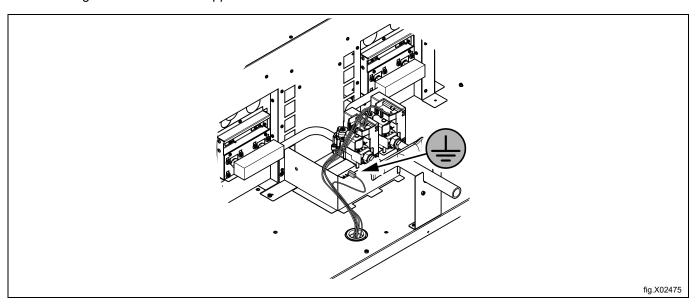
Lock the nozzles by pushing the bracket (A) on the gas heating unit upwards until the screw holes are visible (B) and then fasten the two screws. This is to be made on both sides of the gas pipe unit.



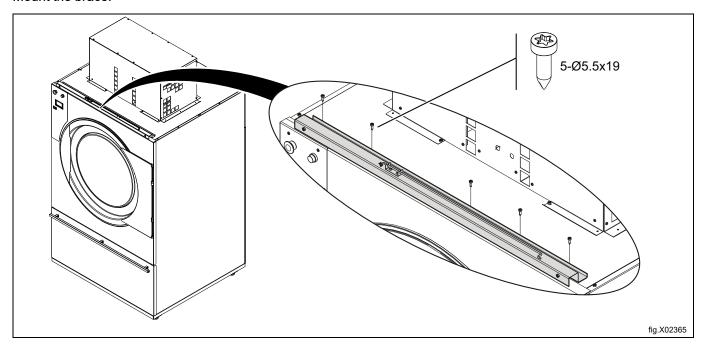
Make sure all cables are lead up through the machine. Connect the ignition cable (B) and the ionization wire (A).



Connect the ground cable to the support bracket.



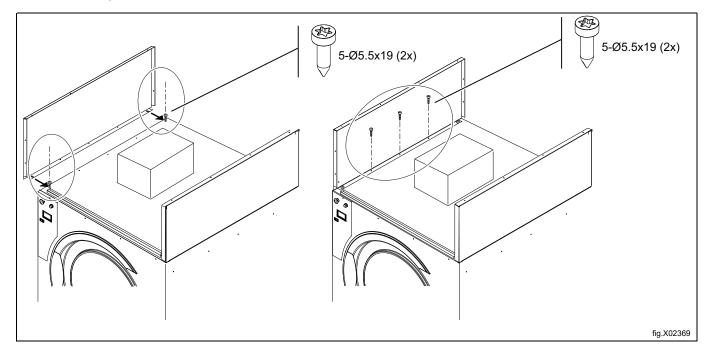
# Mount the brace.



If the machine has sliding door, go to section <u>Mounting equipment for sliding door</u>, before carrying out the next step. Mount the side panels using 5 screws on each side as follows:

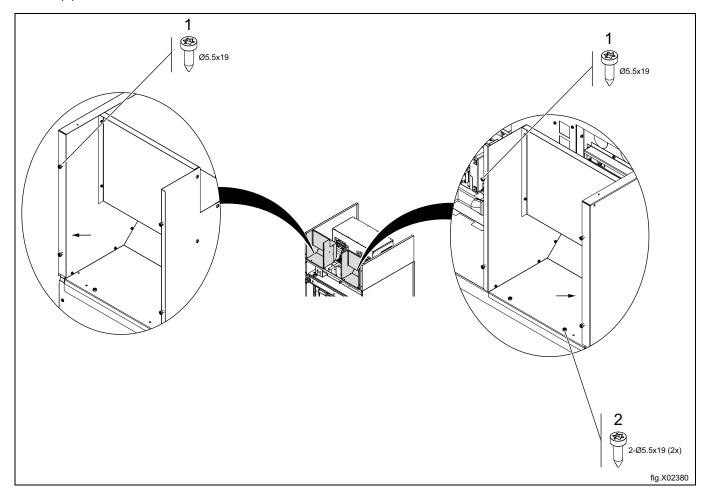
First fasten the front screw and the back screw but not all the way down. Turn the side panel with the grooves facing downward and mount the side panel in the grooves. Tighten the screws.

Fasten the last 3 screws.

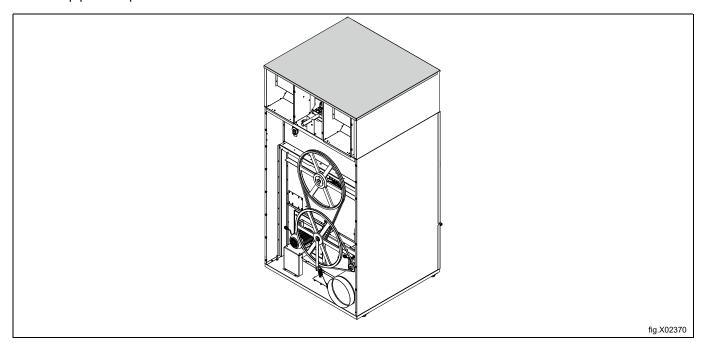


Mount the air mazes.

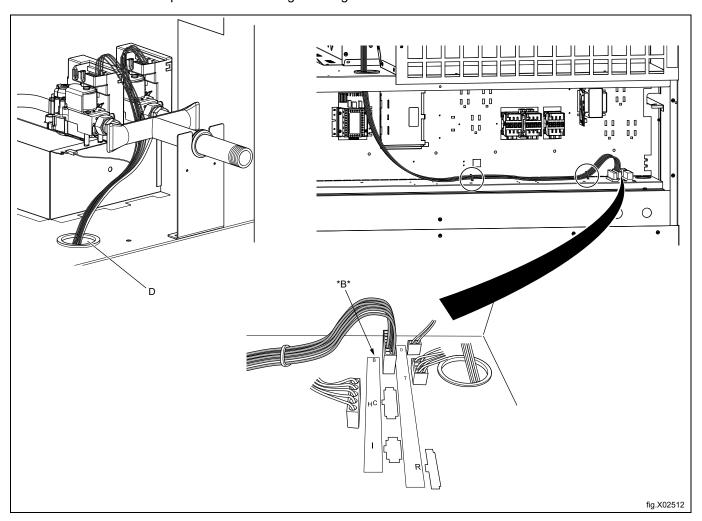
On the side of air mazes and panels, pre-mount the screws (1) through the panels to the air mazes. Fasten the screws (2).



Put the top panel in position but do not fasten it.



Lead the multiple plug from the gas control down through the cable gland (D) to the component unit and place it in connector marked \*B\*. Strap the wires according to the figure.

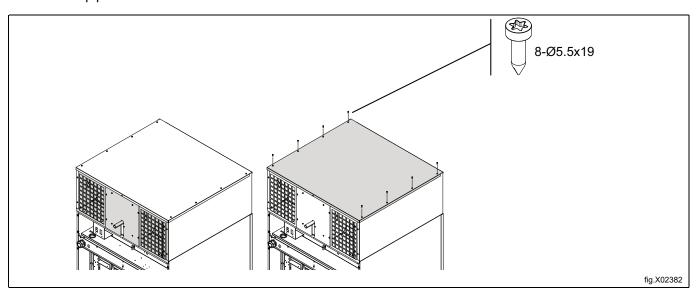


Pre-mount the panels to the air mazes.

#### Note

Do not fasten the middle panel before the Test run is performed.

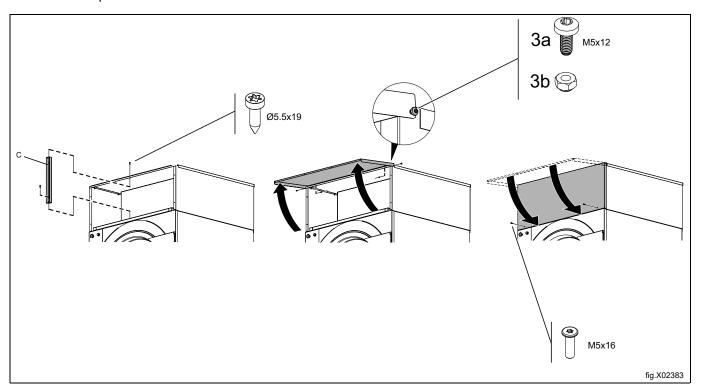
Fasten the top panel.



Mount the support plate (C).

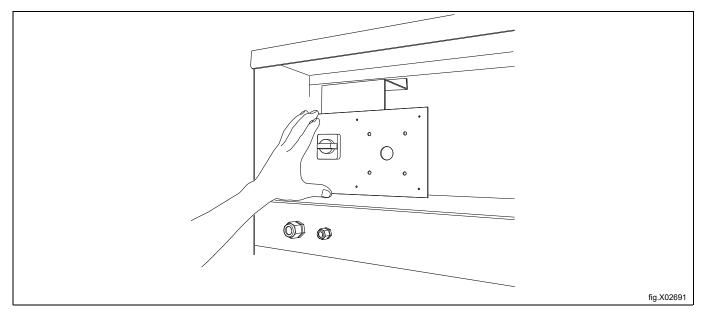
Mount the front panel with 2 screws (3a) and locking nuts (3b) on the sides.

Close the front panel and fasten it with 2 screws on the front.



Place the supply disconnector panel with handle in its place.

For more information, see section "Electrical connection".



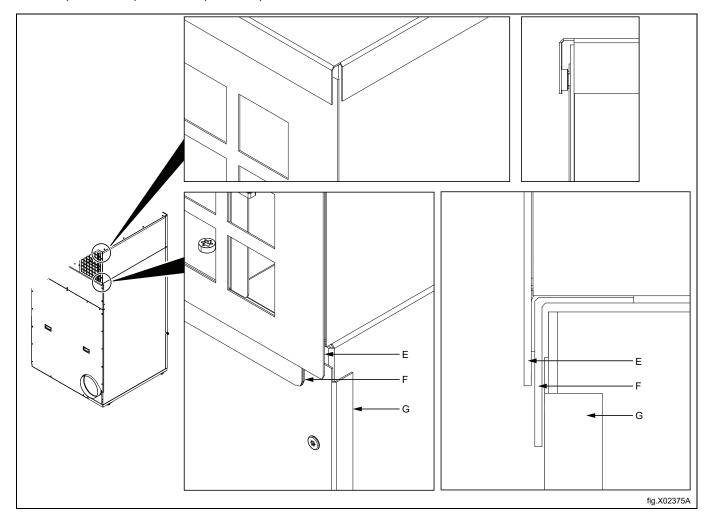
Mount the back panels (E).

When mounting the component unit back panel (G) its top edge must be tilted under the basic machine's top panel.

E: 2 rear panels: Heating unit (6 screws)

F: Top panel: Basic machine

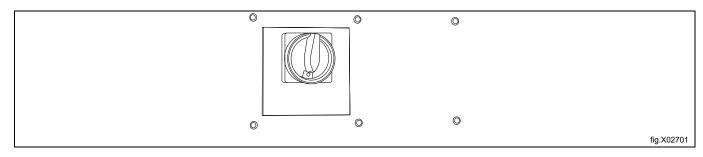
G. Rear panel: Component unit (6 screws)



Fasten the supply disconnector panel with handle into the back panel using 6 screws.

#### Note!

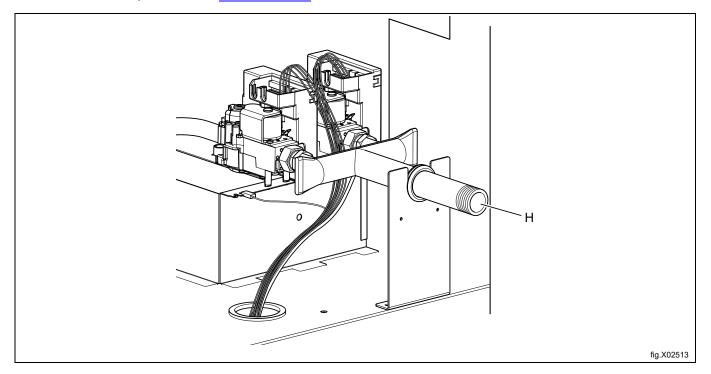
Check that the supply disconnector can connect and disconnect the power.



Connect gas supply to (H).

Mount a manual shut-off valve on the gas pipe upstream from the machine.

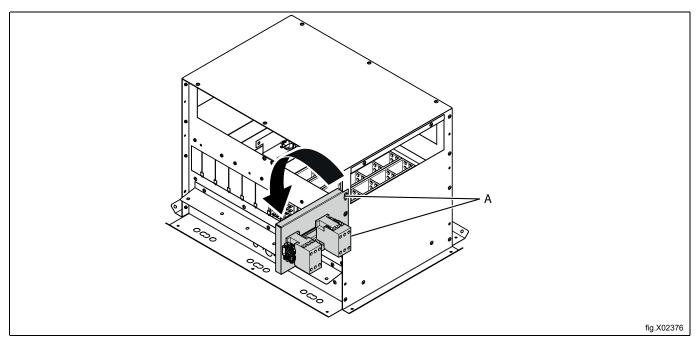
For more information, see section "Gas connection".



# 5.2 Electric heating unit installation

Check that the electric heating unit is not damaged during transport.

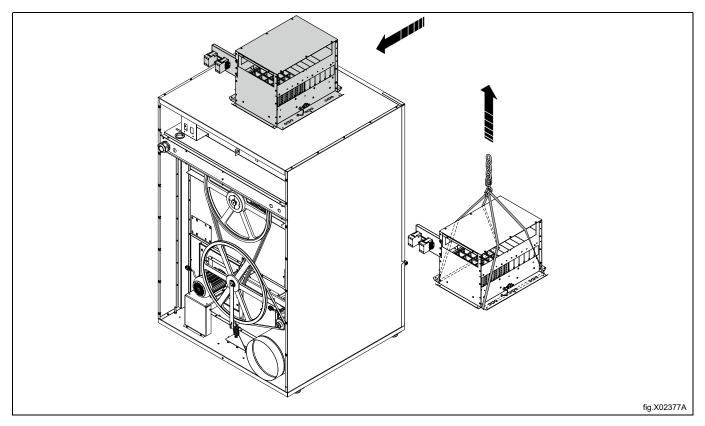
Check that wiring connections and terminals are not bent or defective so there is no risk of short-circuiting. During transport the contactor console is only fastened loosely, turn it down and fasten it on the side using two screws (A).



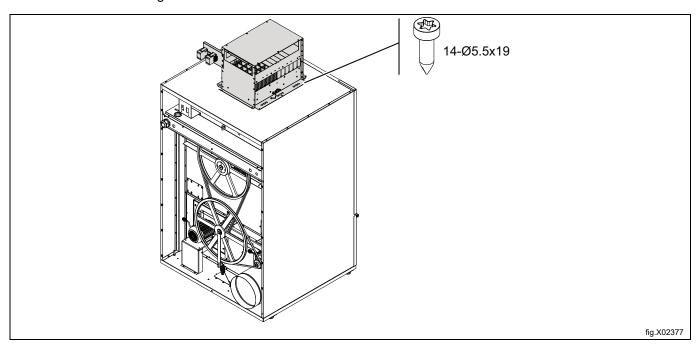
Put the electric heating unit in position on top of the machine.

The weight of the electric heating unit is approximately 24 kg / 53 lbs.

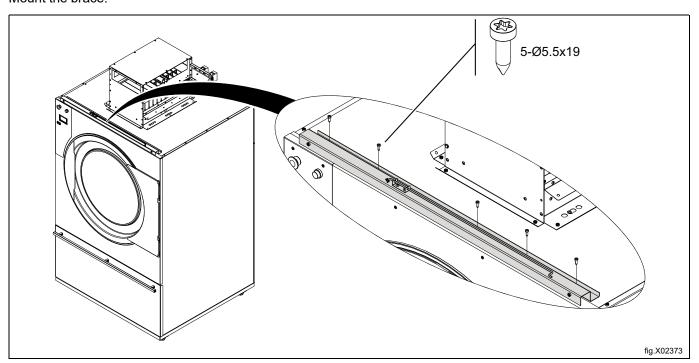
The electric heating unit shall be lifted according to the illustration. Be careful not to damage any parts.



Fasten the electric heating unit on the machine.



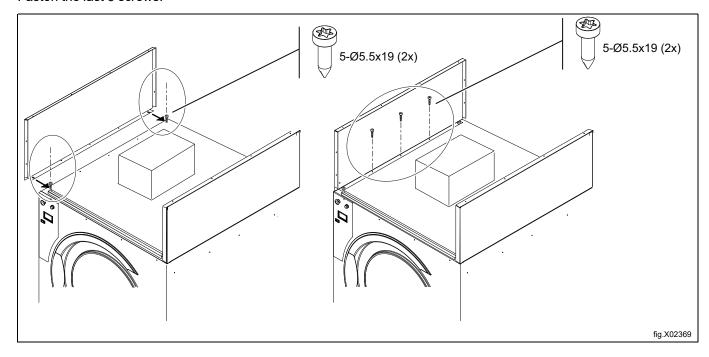
### Mount the brace.



If the machine has sliding door, go to section <u>Mounting equipment for sliding door</u>, before carrying out the next step. Mount the side panels using 5 screws on each side as follows:

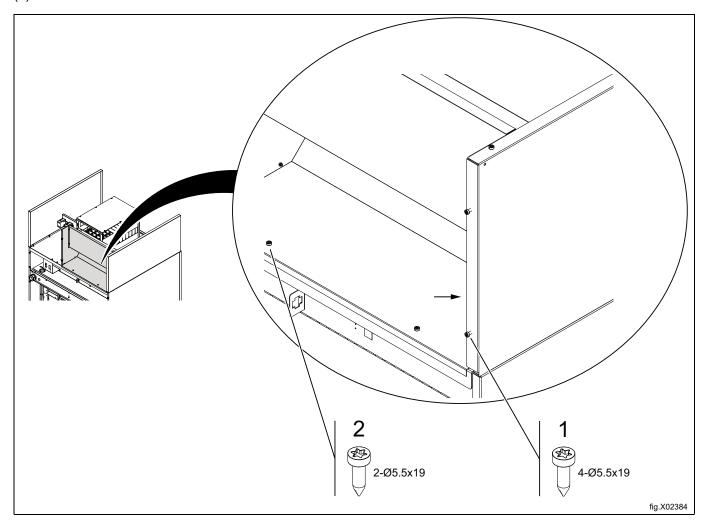
First fasten the front screw and the back screw but not all the way down. Turn the side panel with the grooves facing downward and mount the side panel in the grooves. Tighten the screws.

Fasten the last 3 screws.

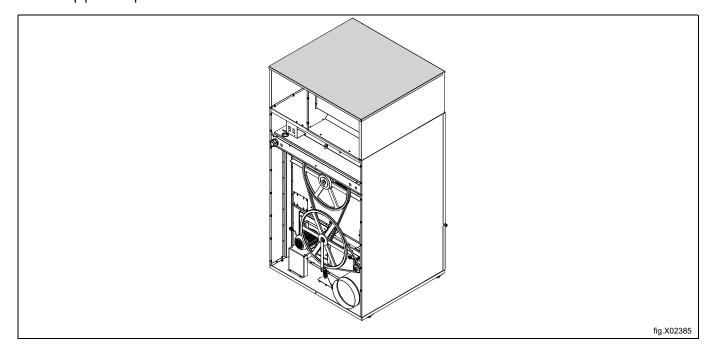


Mount the air maze.

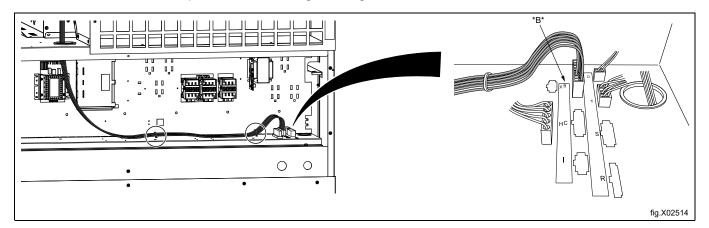
On the side of air maze and panels, pre-mount the screws (1) through the panels to the air maze. Fasten the screws (2).



Put the top panel in position but do not fasten it.

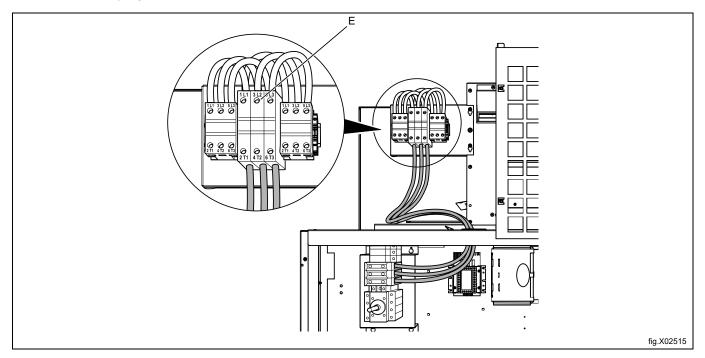


Lead the multiple plug from the electric heating unit down through the cable gland to the component unit and place it in connector marked \*B\*. Strap the wires according to the figure.

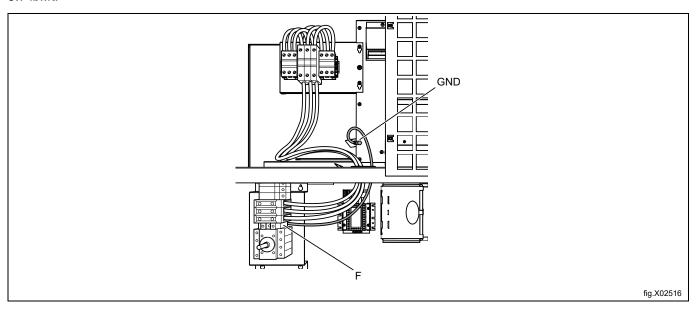


Lead the cables from the connection plinth (E) through the cable gland and connect L1-1 to T1, L2-1 to T2, L3-1 to T3.

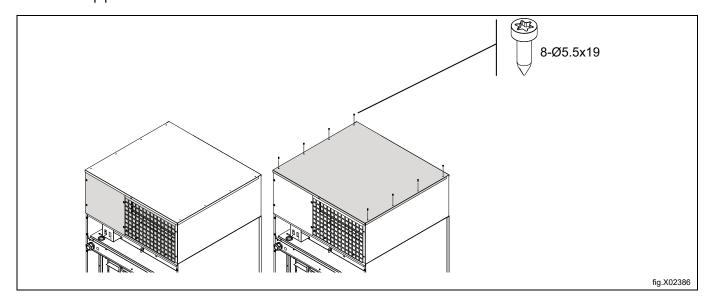
Fasten with 4 Nm / 2.9 lbf.ft.



Lead the earthing conductor from the electric heating unit to GND on the connection plinth (F). Fasten with  $5 \, \text{Nm} / 3.7 \, \text{lbf.ft.}$ 



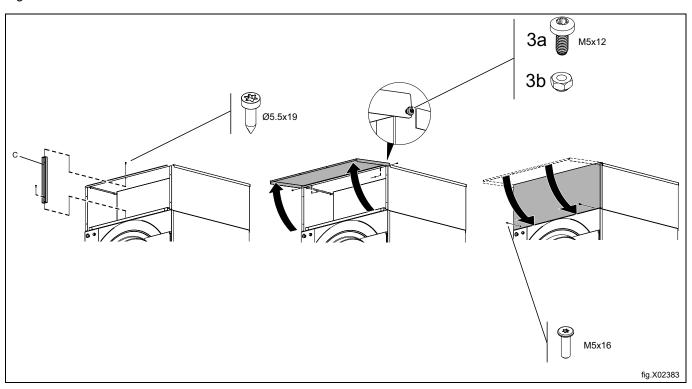
Fasten the panels to the air maze. Fasten the top panel.



Mount the front panel with 2 screws and locking nuts on the sides. Do not tighten the screws completely. Hold the front panel in open position when mounting the support plate (C).

Close the front panel and fasten it with 2 screws on the front.

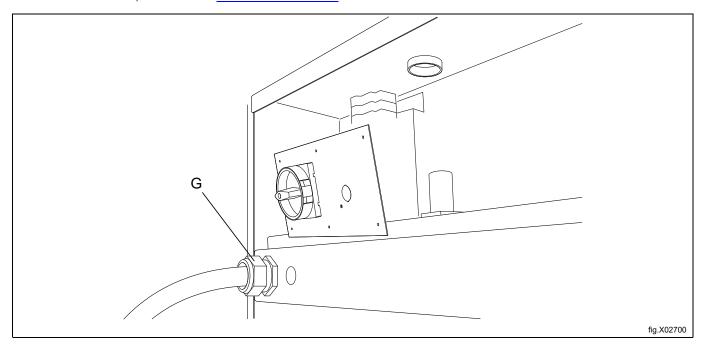
Tighten the 2 screws on the sides.



Place the electrical supply disconnector panel with handle in its place.

Mount the supplied M63 cable gland (G) and nut.

For more information, see section "Electrical connection".



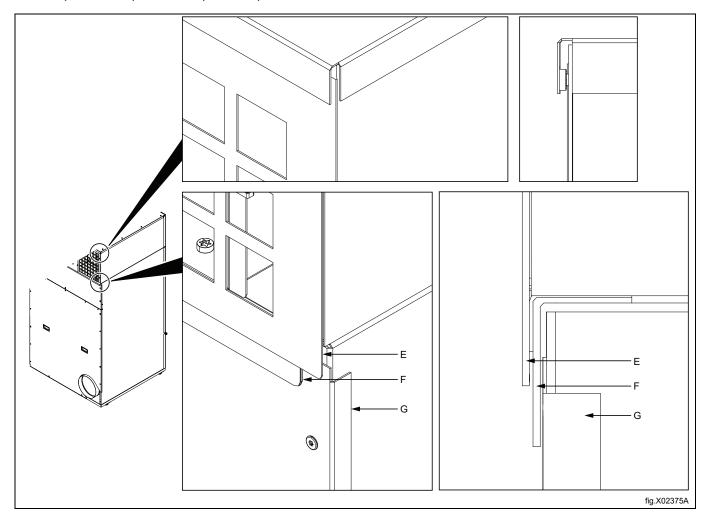
Mount the back panels (E).

When mounting the component unit back panel (G) its top edge must be tilted under the basic machine's top panel.

E: 2 rear panels: Heating unit (7 screws)

F: Top panel: Basic machine

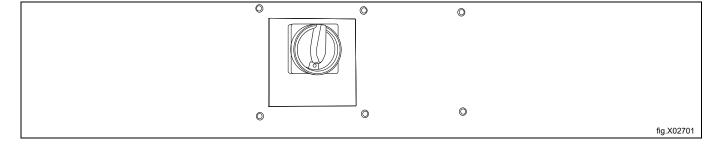
G. Rear panel: Component unit (6 screws)



Fasten the supply disconnector into the back panel using 6 screws.

#### Note!

Check that the supply disconnector can connect and disconnect the power.

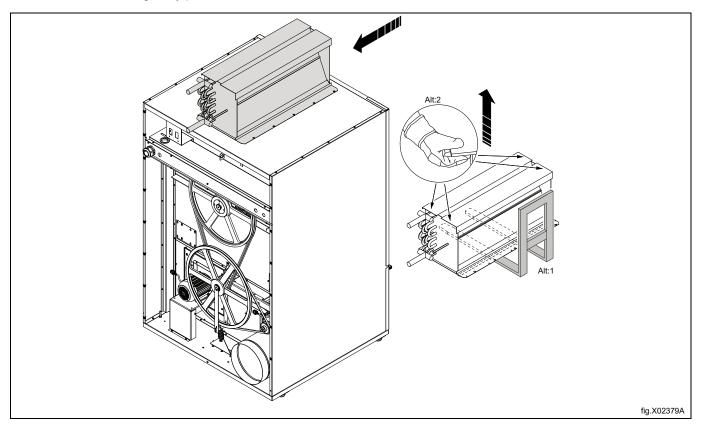


# 5.3 Steam heating unit installation

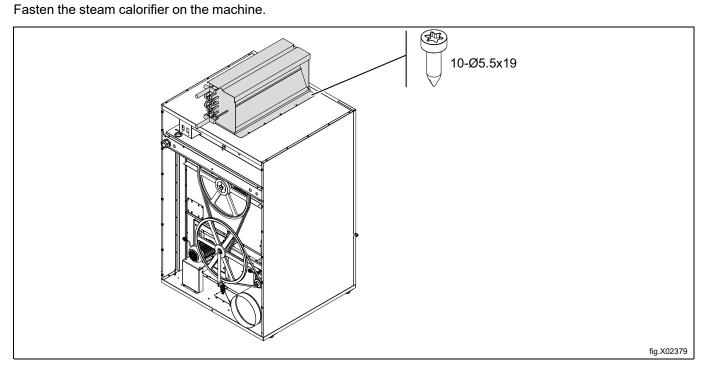
Put the steam calorifier in position on top of the machine.

The weight of the steam calorifier is approximately 40 kg / 88 lbs.

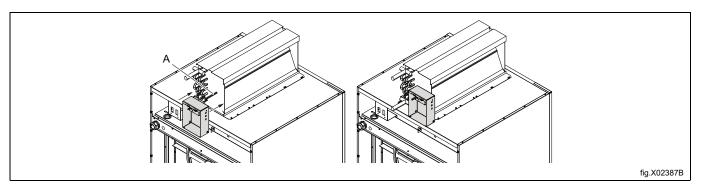
Lift the steam calorifier either with a fork-lift truck or by hand according to the illustration — two persons are required. Be careful not to damage any parts.



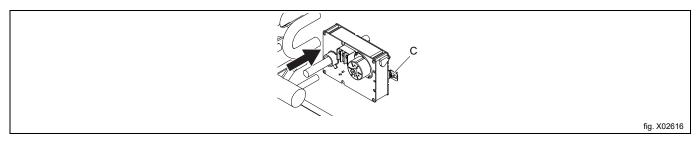
Put the steam calorifier in position on top of the machine.



Place the actuator box so that the end of the shaft from the steam calorifier (A) is lead into the hole in the actuator.

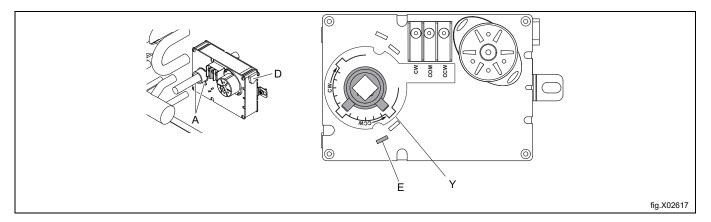


Fasten the screw (C).

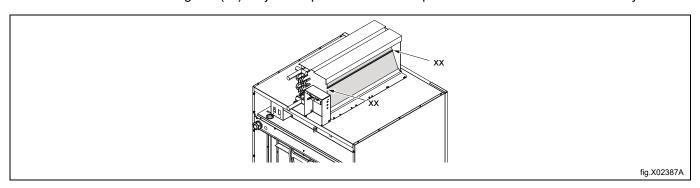


Release the declutch lever (D) and rotate the hub until it is in CCW position (Y).

Insert the range stop pin (E) in position (supplied with the actuator). (Do not insert the range stop pin (E) until the hub position shown has been reached). The range stop pin is clipped into its final position only after the pin passes through both actuator plates. The range stop pin should snap into position and not be removable manually.



Keep the damper in open position. Ensure that the damper opens and closes smoothly and that the damper does not scratch the sides of the heating unit (xx). Adjust the position of the damper forward or backward if necessary.



### Note!

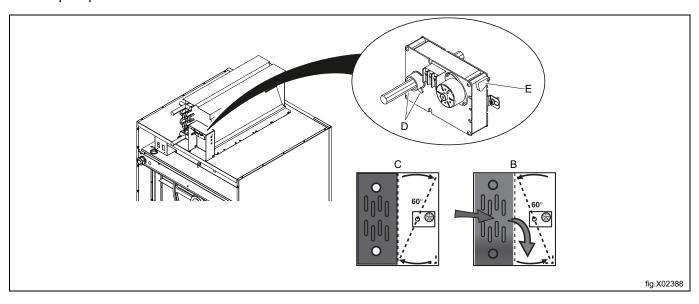
### When tightening the end of the shaft the damper must be open (B).

Using two tailstock screws tighten the end of the shaft (D) to 5 Nm with a 1/8" Allen key **Note! It is a 1/8" key, not a mm key.** 

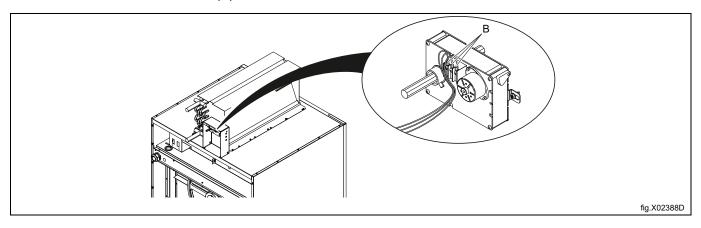
It is possible to adjust the damper opening by turning the manual declutch lever (E) according to the illustration:

C = damper closed,

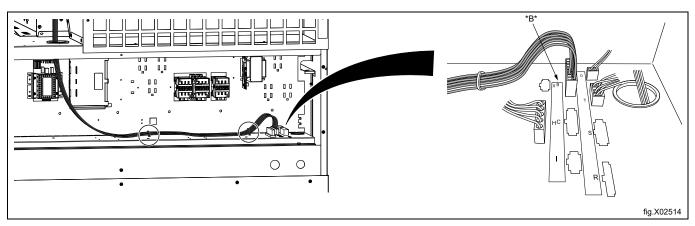
B = damper open.



Mount the wires in screw terminals (B).

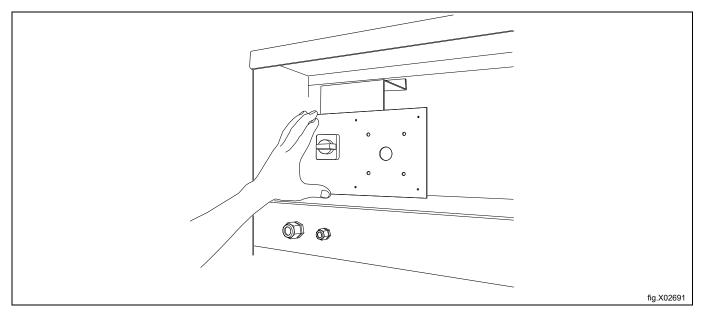


Lead the multiple plug from the actuator box down through the cable gland to the component unit and place it in connector marked \*B\*. Strap the wires according to the figure.



Place the supply disconnector panel with handle in its place.

For more information, see section "Electrical connection".



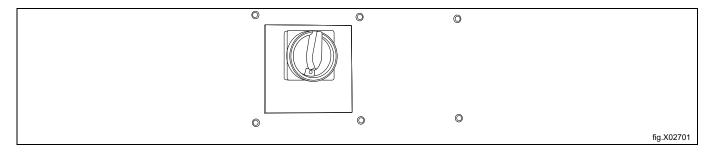
Mount the two back panels. When mounting the component unit back panel its top edge must be tilted under the basic machine's top panel.

It is possible to mount the wires from the installation before mounting the back panel.

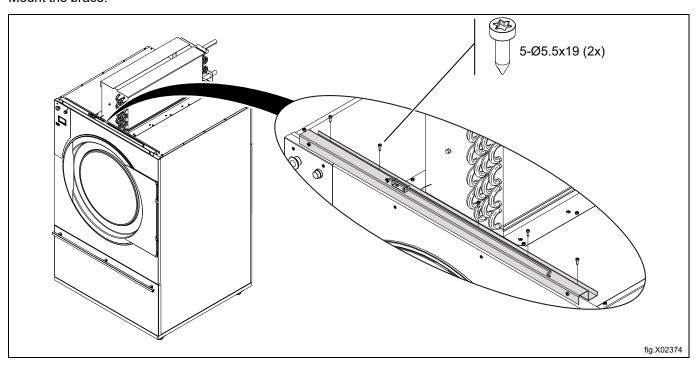
Fasten the supply disconnector panel with handle into the back panel using 6 screws.

#### Note!

Check that the supply disconnector can connect and disconnect the power.

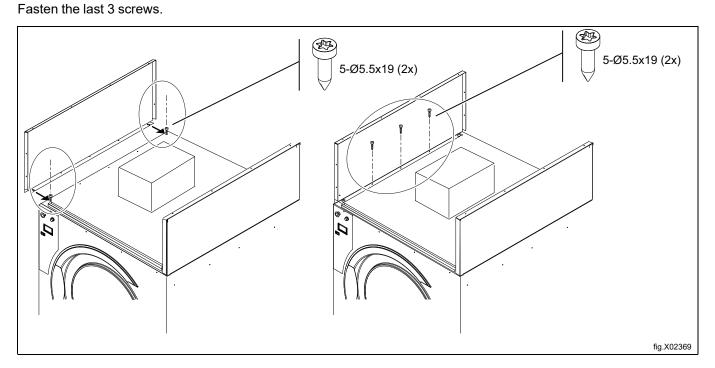


### Mount the brace.



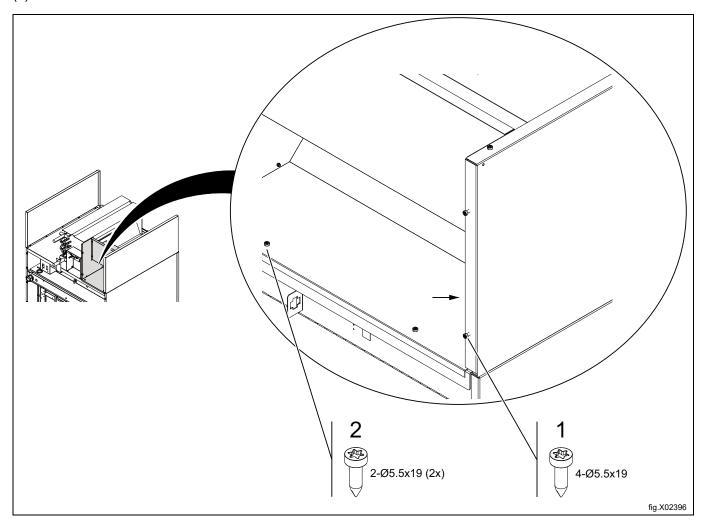
If the machine has sliding door, go to section <u>Mounting equipment for sliding door</u>, before carrying out the next step. Mount the side panels using 5 screws on each side as follows:

First fasten the front screw and the back screw but not all the way down. Turn the side panel with the grooves facing downward and mount the side panel in the grooves. Tighten the screws.

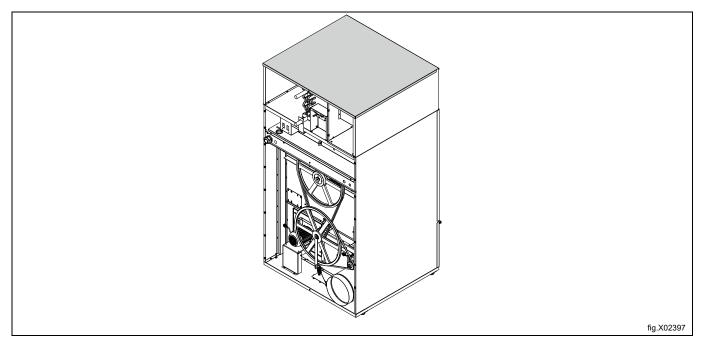


Mount the air maze.

On the side of air maze and panels, pre-mount the screws (1) through the panels to the air maze. Fasten the screws (2).

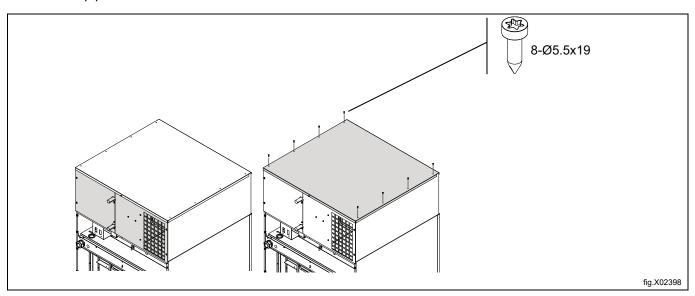


Put the top panel in position but do not fasten it.



Fasten the panels to the air maze.

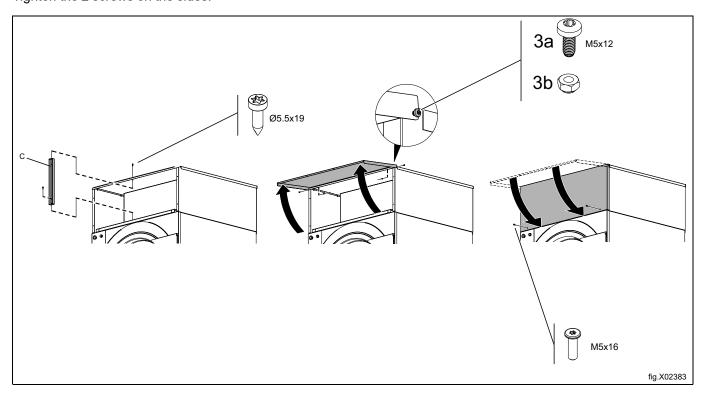
Fasten the top panel.



Mount the front panel with 2 screws and locking nuts on the sides. Do not tighten the screws completely. Hold the front panel in open position when mounting the support plate (C).

Close the front panel and fasten it with 2 screws on the front.

Tighten the 2 screws on the sides.



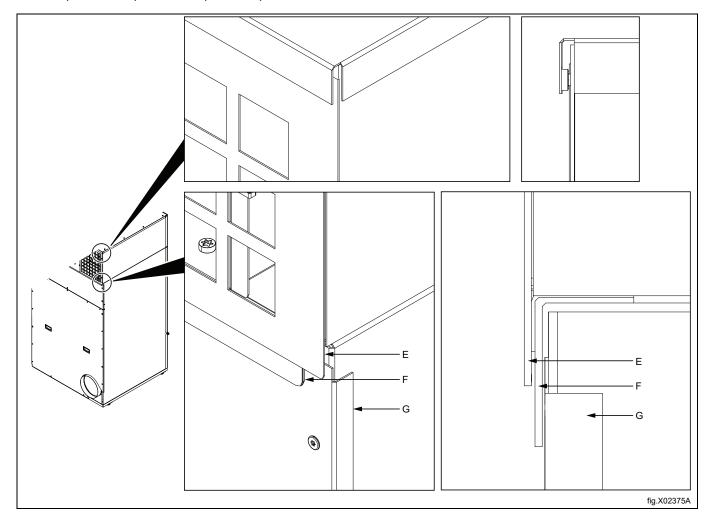
Mount the back panels of the heating unit (E).

When mounting the component unit back panel (G) its top edge must be tilted under the basic machine's top panel.

E: 2 rear panels: Heating unit (6 screws)

F: Top panel: Basic machine

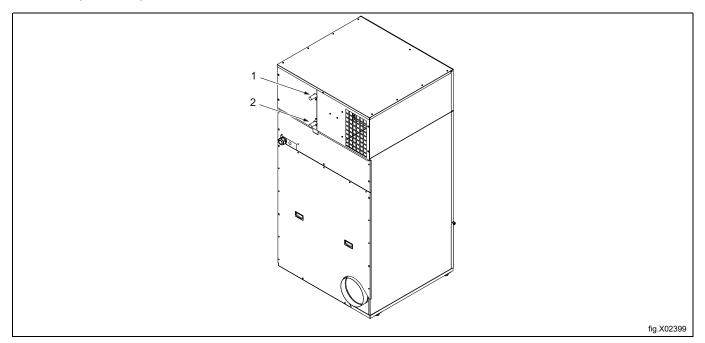
G. Rear panel: Component unit (6 screws)



Connect the steam.

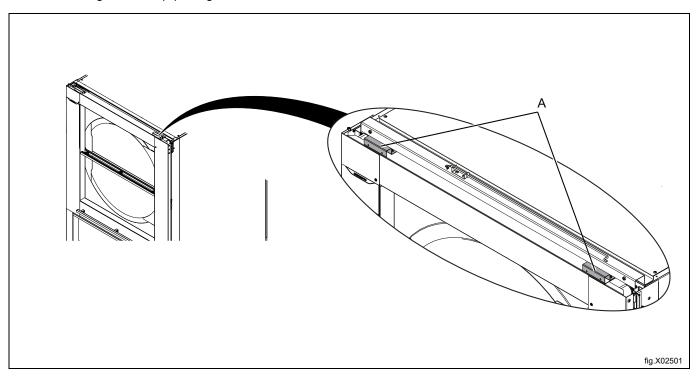
For more information, please refer to the section "Steam connection".

- 1 = Inlet
- 2 = Return (condense)



# 6 Mounting equipment for sliding door

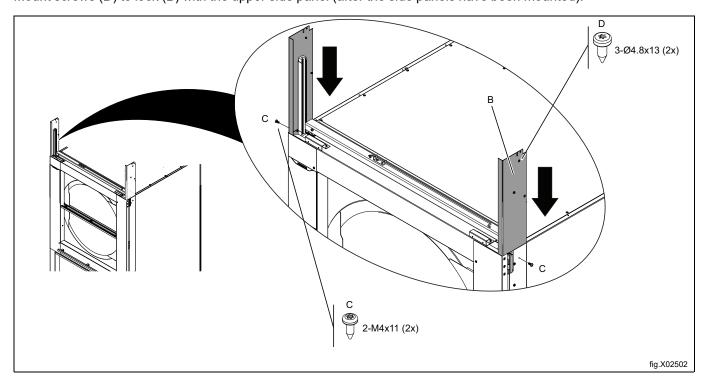
Mount the 2 angle braces (A) using 2 screws in each one.



Mount the side panels (B) from above and push them down as far as they will go.

Mount screws (C) in order to lock the side panels (2 screws on each side).

Mount screws (D) to lock (B) with the upper side panel (after the side panels have been mounted).



Mount the side panels and the remaining parts as described in <u>Installation of heating unit</u>. Check that the doors slide open easily.

#### Note!

It is important that the mounting is carried out carefully, vertical and level as this influences the movement of the sliding door.

# 7 Installation of tilting unit

# 7.1 Set up

# 7.1.1 Flexible piping connection, gas heated machines

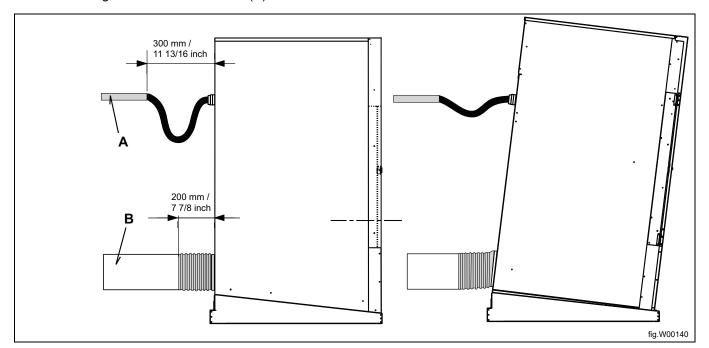
Due to the tilting function gas pipe (A) must end 300 mm / 11 13/16 inch before the machine and the last piece of it must be flexible eg. an approved 600 mm / 23 5/8 inch gas hose.

# 7.1.2 Flexible piping connection, steam heated machines

Due to the tilting function the steam hoses must have an excessive length of 300 mm / 11 13/16 inch.

### 7.1.3 Outlet duct, all heating types

Due to the tilting function the outlet duct (B) must have a flexible hose 200 mm / 7 7/8 inch before the machine.



# 7.2 Contents of the tilting unit kit

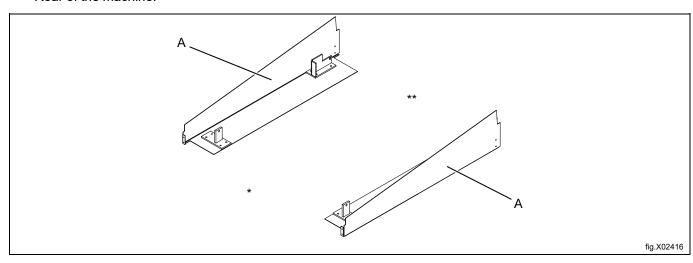
Description	Art. No.	Pcs	ID in this instruction	Comment
Left mounting base	487242771	1	A	With 2 foundation feet (F)
Right mounting base	487242770	1	A	With 2 foundation feet (F)
Mounting base front	487243655	1	В	
Mounting base back piece	487243755	1	С	
Adjusting plate 1 mm	487242725	5	D	
Adjusting plate 2 mm	487242726	5	D	
Adjusting plate 3 mm	487242727	5	D	
Expansion bolt	471830102	8	R	M8 x 120 for fastening in the floor
Bolt	487242778	2	Е	M20 x 30
Washer	487242777	2	E	M20
Console	487242605	2	E	For front foundation foot
Shouldered bolt	487242779	2	G	M10 x 80, lock for front foundation foot
Locking nut	732212001	2	G	M10, lock for front foundation foot
Actuator	487028988	2	Н	
Centre bolt	487242799	4	J	M8 for clamping actuator
Locking nut	732211801	4	J	M8 for clamping actuator
Bevel washer	734116431	4	J	M8 for clamping actuator
Left side skirt	487242788	1	M	
Right side skirt	487242775	1	M	
Clip screw	487242796	6	Mm	M5 for mounting in side skirts
Nut	731231401	6	Mn	M5 for clip screws in side skirts
Back skirt	487240222	1	0	
Front cross bearer	487240221	1	N	Front skirt
Top nut	487242797	4	Q	M5 for back skirt
Plate screw	471834033	12	Р	4.8 x 13 (Torx)
Connecting piece	487240611	1	L	For outlet pipe 315 mm — 303 mm / 12"
Bits extension piece	487242254	1	LI	For mounting outlet pipe

### 7.3 Installation

The machine shall be mounted on a concrete floor with a thickness of at least 100 mm / 3 15/16 inch. Make sure the floor is in level.

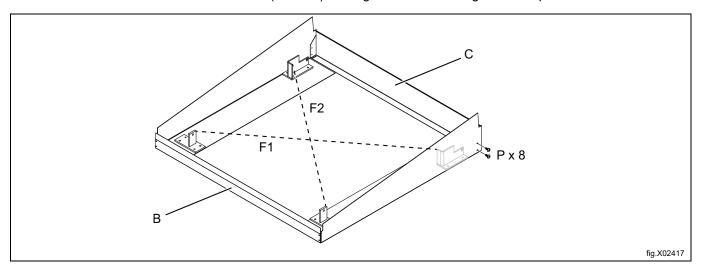
Place the 2 mounting base sides (A) (fastened on wooden pallet with 4 transportation screws which should be removed) on the concrete floor, where the machine is going to be mounted.

- \* = Front of the machine.
- \*\* = Rear of the machine.



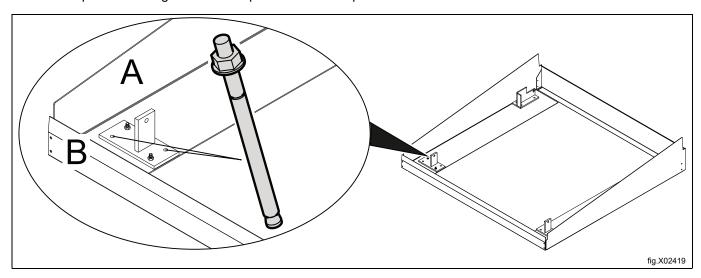
Pre-mount the mounting base front piece (B) and the mounting base back piece (C) on the mounting base sides with screws (P).

Cross measure between the foundation feet (F1 = F2) making sure the mounting base is square.

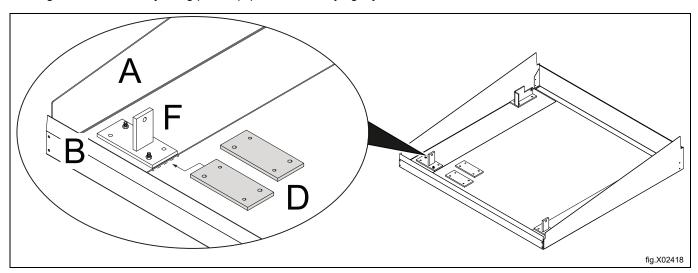


Mark out the 8 holes. Move the complete mounting base and drill the 8 holes  $\emptyset$  8 x 100 mm. Insert the 8 expansion bolts (R) into the floor.

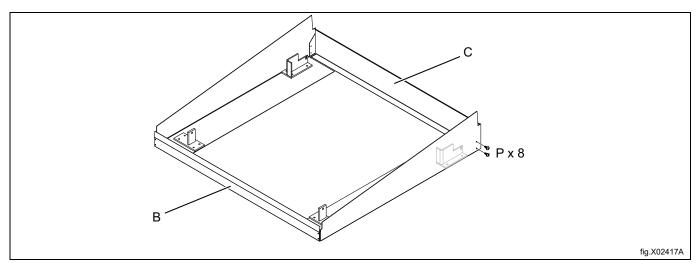
Put the complete mounting base back in position on the expansion bolts.



For alignment use the adjusting plates (D), as an underlying layer.



When the complete mounting base is in position and in level fasten the 8 expansion bolts, Before continuing, the mounting base front piece (B) and the mounting base back piece (C) shall be demounted.

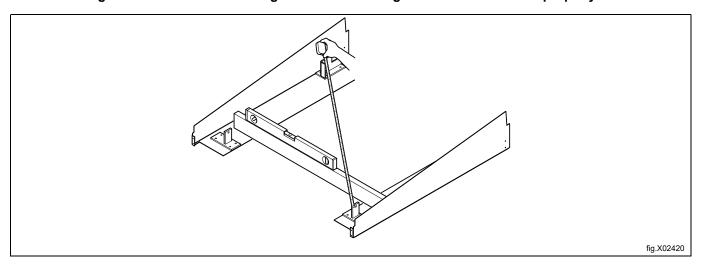


Control measure; the mounting base must be diagonally level and the mounting base sides must be parallel. It is important to be careful when aligning the mounting base.

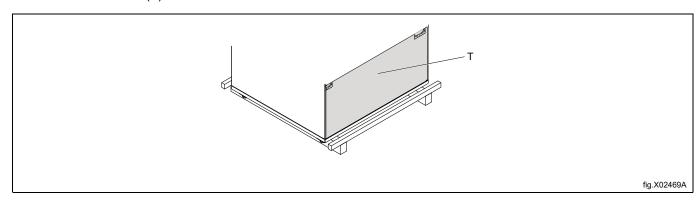
If necessary use adjusting plates (D).

### Note!

If the mounting base is crooked the sliding door and the tilting function will not work properly.

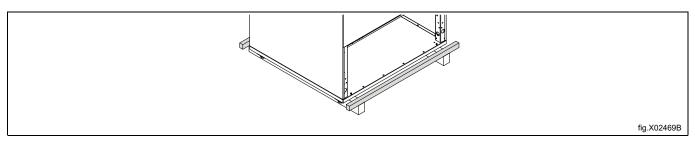


### Remove the filter door (T).

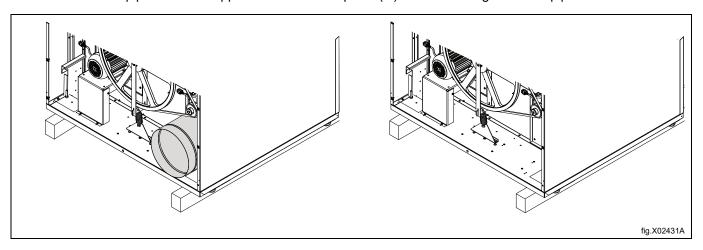


Remove the two wooden bars, one in the front and one in the back.

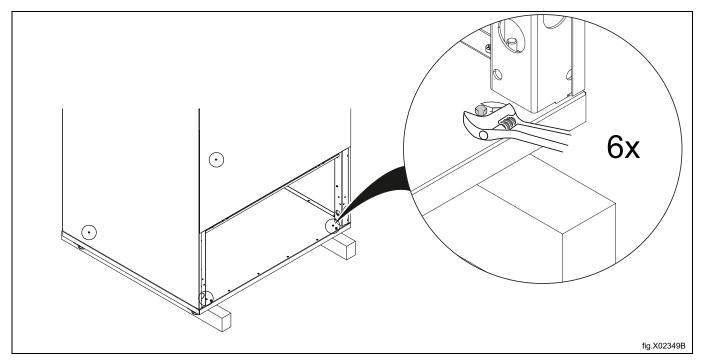
For further information about the unpacking, please refer to the section <u>Unpacking</u>.



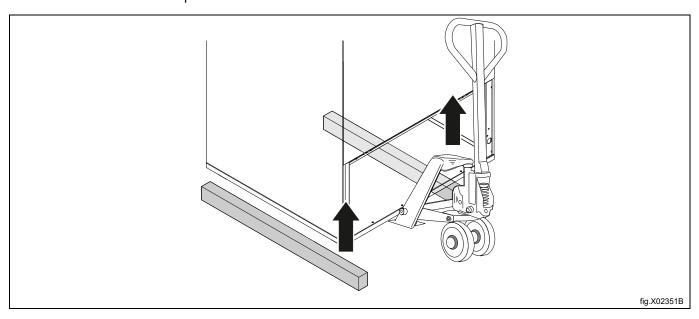
Demount the outlet pipe. Use the supplied bits extension piece (LI) for demounting the outlet pipe.



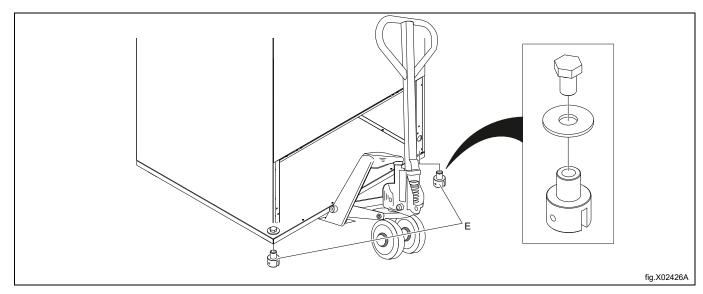
Remove the bolts between the machine and pallet.



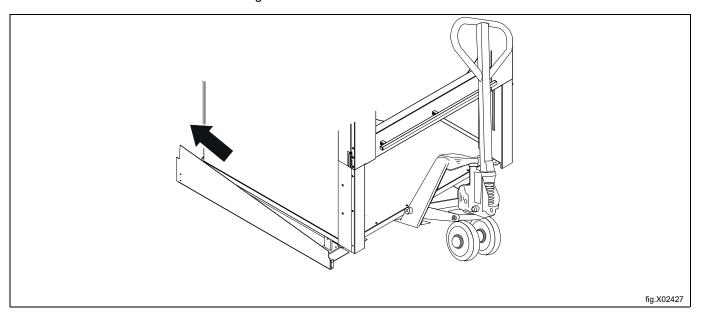
Lift the machine with for example a fork-lift truck and remove the wooden bars.



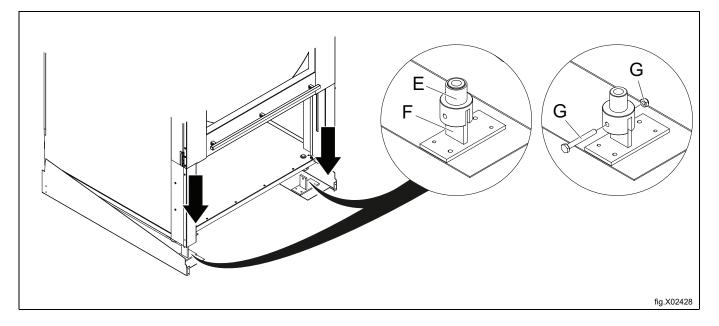
Pre-mount the 2 front guiding consoles (E) with the foundation bolts M20 (E). Do not tighten the bolts.



Position the machine above the 2 mounting base sides.

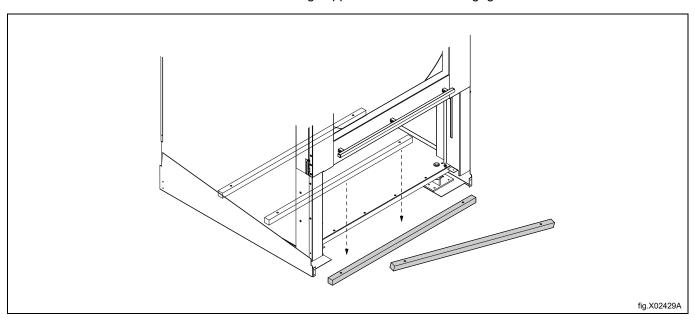


Carefully lower the machine so the guiding consoles (E) engage with the foundation feet (F). Insert the 2 locking bolts (G) and tighten them.

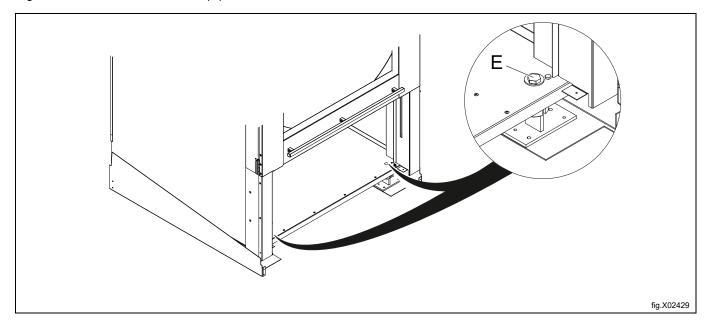


Remove the fork-lift truck.

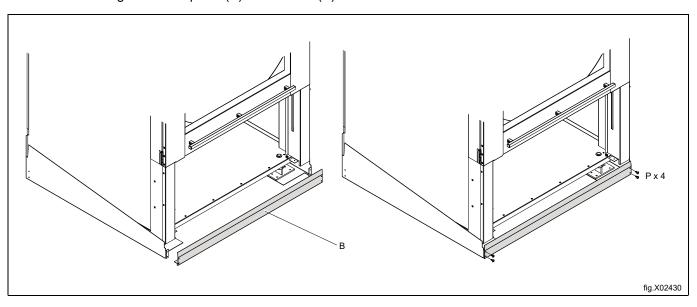
When the fork-lift truck is removed the two remaining support sections are disengaged and shall be removed.



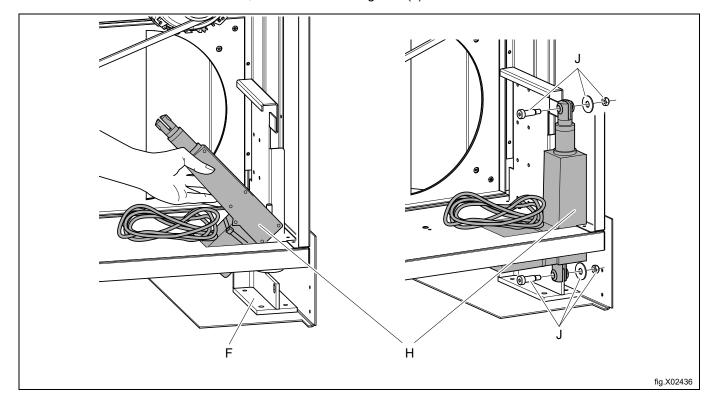
Tighten the 2 foundation screws (E).



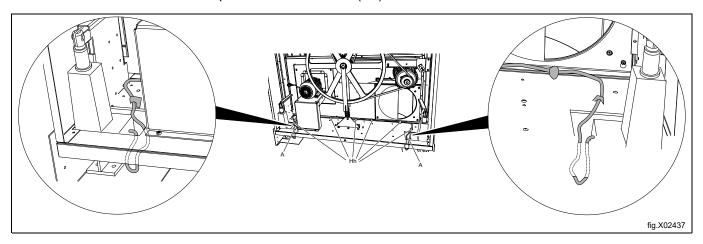
Mount the mounting base front piece (B) with screws (P).



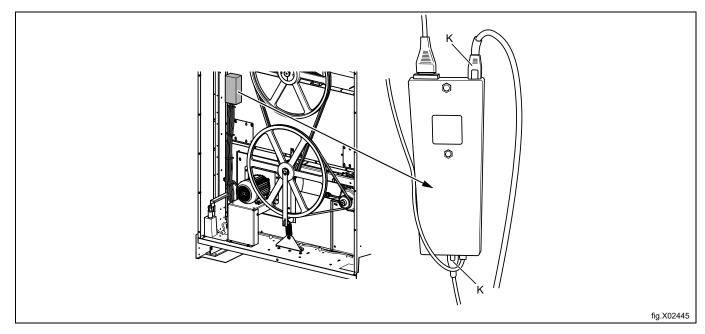
Mount the 2 actuators (H) on the back foundation feet (F) by tilting them through the 2 square openings. Fasten the actuators with 2 centre bolts, washers and locking nuts (J).



Due to the tilting function the cables must have an excessive length of 300 mm (A). Fasten the actuator cables with the pre-mounted cable ties (Hh).

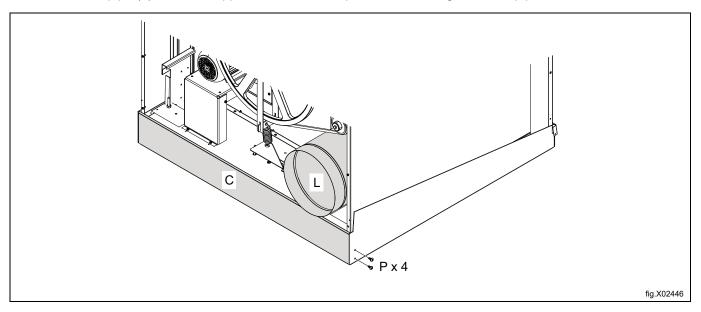


Place the 2 multiple plugs (K) from the actuators in the control box.



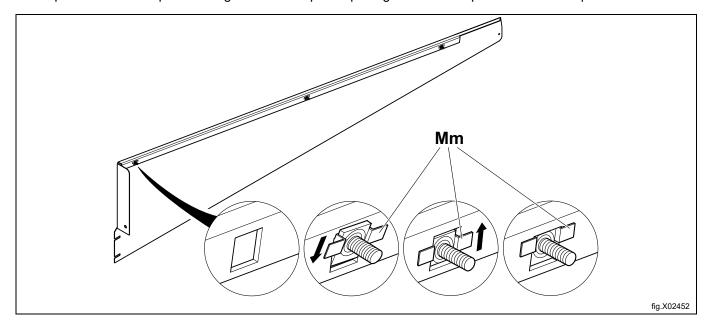
Mount the back mounting base piece (C) with screws (P).

Mount the outlet pipe (L). Use the supplied bits extension piece for mounting the outlet pipe.

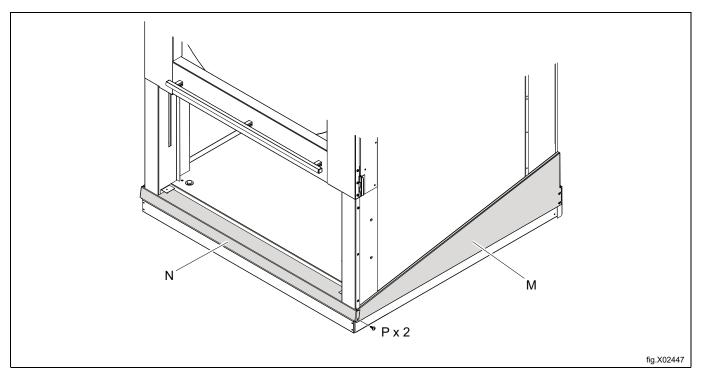


Mount 3 clip screws (Mm) in both side skirts.

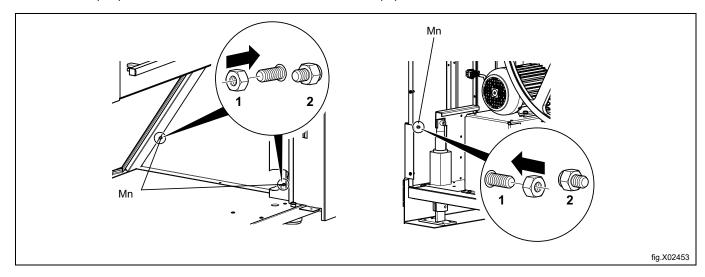
The clip screws shall be pressed angled into the square openings and slided up to lock in correct position.



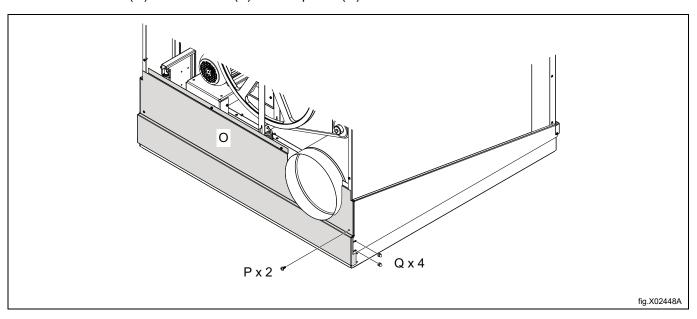
Mount the side skirts (M) and the cross bearer/front skirt (N) with screws (P).



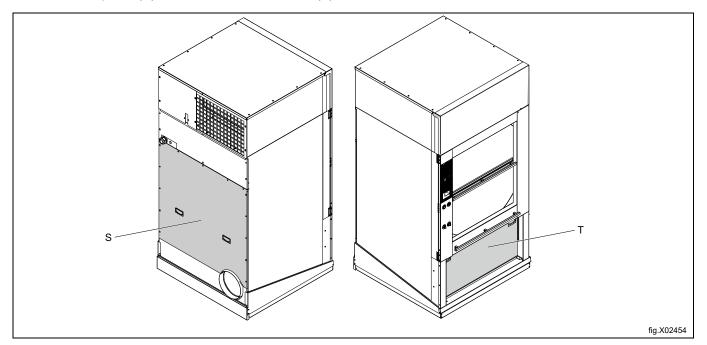
Mount 3 nuts (Mn) inside of the machine to lock the side skirts (M).



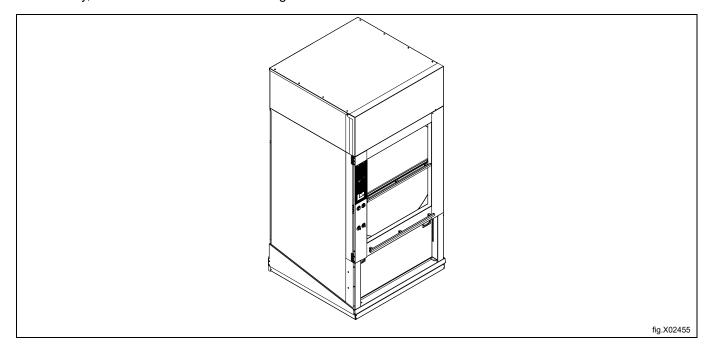
Mount the back skirt (O) with 2 screws (P) and 2 top nuts (Q).



Mount the rear panel (S) and remount the filter door (T).



When ready, the machine shall look like the figure and the tilt function can be used.



# 8 Evacuation system

# 8.1 Air principle

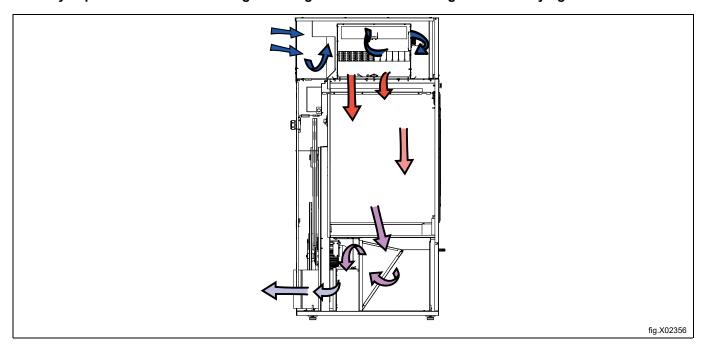
The blower creates low pressure in the machine, drawing air into the drum via the heating unit.

The heated air passes through the garments and the drum holes.

The air then flows out through a lint filter positioned immediately below the drum. After this, the air is evacuated through the blower and exhaust system.

## Note!

It is very important that the machine gets enough fresh air in order to get the best drying result.

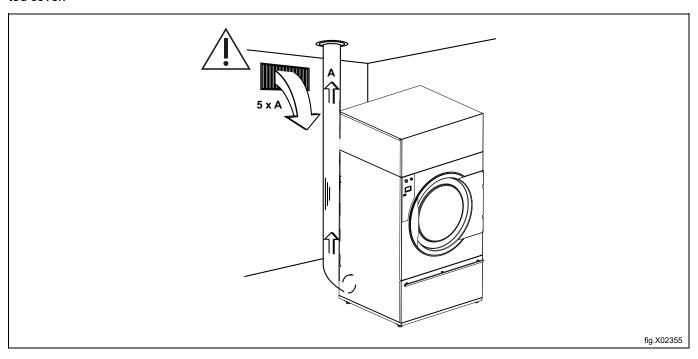


### 8.2 Fresh air

For maximum efficiency and the shortest possible drying time, it is important to ensure that fresh air is able to enter the room from the outside in the same volume as that is blown out of the room.

To avoid draught in the room it is important to place the air inlet behind the machine.

Provisions for adequate air supply: The area of the air inlet opening should be five times the size of the exhaust pipe area. The area of the inlet opening is the area through which the air can flow without resistance from the grating/slatted cover.



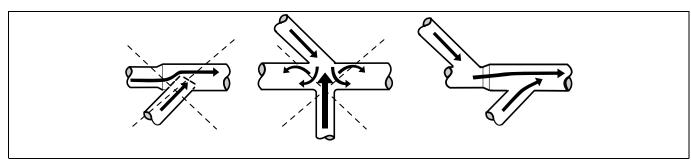
The resistance in the grating/slats on the air inlet cover plate should not exceed 10 Pa (0.1 mbar).

### Note!

Gratings/slatted covers often block half of the total fresh air vent area. Remember to take this into account.

### 8.3 Exhaust duct

- · Only rigid or flexible metal duct should be used for exhausting.
- · Plastic ducting is not to be used.
- · Recommended material for exhaust is galvanized steel.
- The duct is not to be assembled with screws or other fastening means that extend into the duct and catch lint, instead use for example clamps and high temperature silicone.
- The exhaust air should not be vented into a wall, a ceiling, or a concealed space of building.
- The exhaust duct must lead clear of the building as condensation may cause frost damage to the building.
- The exhaust duct must lead to the outdoors.
- The exhaust duct must be placed in such a way that it is protected on the outside from for example impacts or water ingress.
- The exhaust duct must be smooth on the inside (low air resistance).
- The exhaust duct must have gentle bends.



### 8.4 Shared exhaust duct

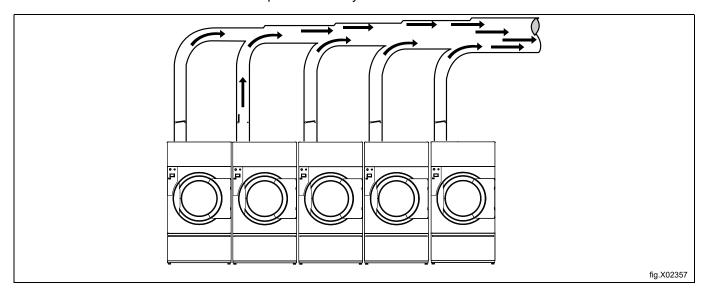




It is recommended that each machine is connected to a separate exhaust duct.

When several machines shall use the same exhaust duct the exhaust duct must increase after each machine. The recommended diameter increase progression is the one in the table. Please consider that unnecessarily large ducts create issues with the draught.

The exhaust duct must have a nonreturn flap after each dryer.



Number of machines		1	2	3	4	5	6	7	8	9	10
Exhaust duct	ø mm	315	500	630	630	800	800	1000	1000	1000	1000
	ø inch	12	18	22	26	28	32	34	36	38	40
Recommended area	m²	0.39	0.98	1.56	1.56	2.51	2.51	3.93	3.93	3.93	3.93
of fresh air intake	ft <sup>2</sup>	4	8.8	13.2	18.4	21.3	27.9	31.5	35.3	39.4	43.6
Minimum area of	m <sup>2</sup>	0.27	0.54	0.81	1.08	1.35	1.62	1.89	2.16	2.43	2.7
fresh air intake	ft <sup>2</sup>	2.9	5.8	8.7	11.6	14.5	17.4	20.3	23.2	26.1	29





The exhaust duct diameter must not be reduced.

## 8.5 Exhaust dimensioning

It is important that the machine has correct air volume compared to each machines power.

If the air flow is smaller or larger this will result in a longer drying period.

If the outlet pipe is long or the ventilation is not properly designed we recommend to clean the outlet pipes periodically. Usually, longer ducts need more frequent cleaning.

The exhaust pipes shall be short in order for the machine to work in the best way.

All cover panels must be mounted in order for the machine to work in the best way.

## 8.6 Adjusting the air flow





Adjusting the air flow may only be carried out by authorized personnel.

It is important that the machine has the correct air flow compared to each machines heat input. If the air flow is below the minimum, the machine will be forced to switch the heating off which will result in longer drying time.

An air flow above needed is unnecessary and can result in a cold laundry room and noise from the piping and outlet. In extreme causes this can result in longer drying time.

The optimum drying performances are achieved when the measured static back pressure correspond to the value listed in the following table.

### **DE-6100**

Heating	Effect	Hz	Optimum static back pres- sure — measured at position A (Pa) in a cold empty machine		Resulting: Nominal air flow in a cold empty machine (m³/h)	
			STD <sup>1</sup>	SLD <sup>2</sup>	STD <sup>1</sup>	SLD <sup>2</sup>
Electric	60 kW	50	435	150	1815	2145
Gas	63 kW	50	350	_	1815	_
Gas	63 kW	60	1230	_	1518	_
Steam	60 kW	50	490	_	1804	_

Standard machine

#### DE-6135

Heating	Effect	Hz	Optimum static back pres- sure — measured at position A (Pa) in a cold empty machine		Resulting: Nominal air flow in a cold empty machine (m³/h)	
			STD <sup>1</sup>	SLD <sup>2</sup>	STD <sup>1</sup>	SLD <sup>2</sup>
Electric	72 kW	50	1120	_	1782	_
Gas	83 kW	50	900	940	2068	1914
Gas	83 kW	60	150	_	2321	_
Steam	80 kW	50	640	640	2178	2178

For piping systems which deviate from this provided data it is necessary to adjust the piping system.

### Note!

The adjustable air damper is not supplied with the machine from factory.

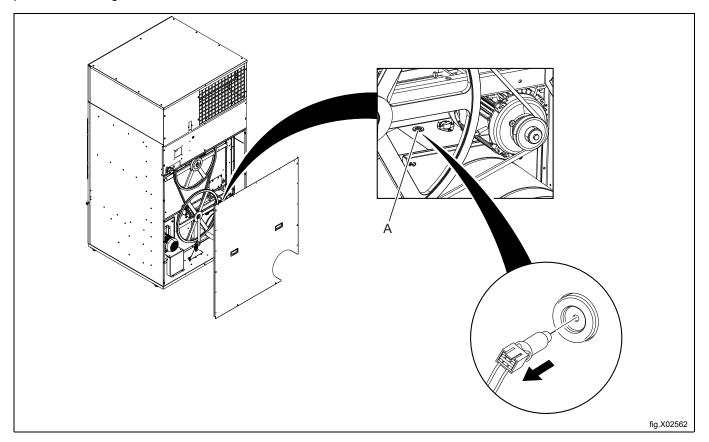
Machine with sliding door

Standard machine Machine with sliding door

# Checking the back pressure

Demount the lower rear panel.

Demount the heating sensor (NTC sensor) (A) and insert the measuring device. Make sure the connection is tight to prevent air leakage.



## Alternative measuring method

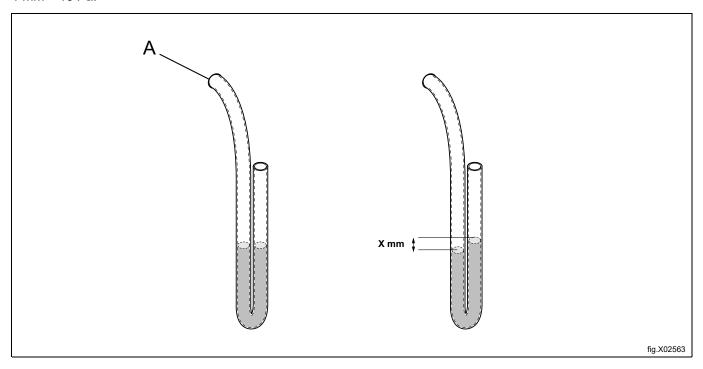




Adjusting the air flow may only be carried out by authorized personnel.

Use a home made U tube manometer, a hose (max. outer  $\emptyset$  10 mm and min. outer  $\emptyset$  5 mm), with water. Insert one end of the hose in the hole (A) (after the NTC-sensor has been removed), hold the hose according to the picture so that the water is in level.

Start the machine and measure the difference between the water in one of the hose ends with the other. 1 mm = 10 Pa.

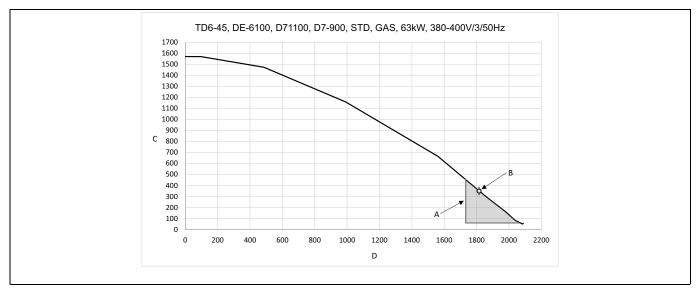


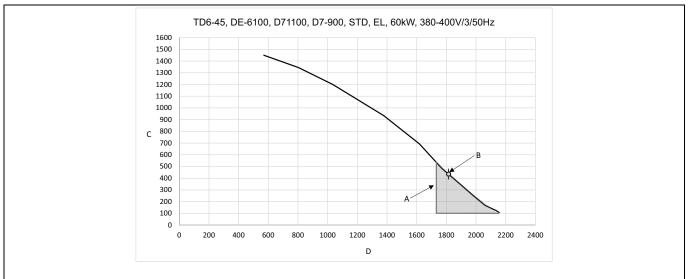
When the back pressure is according to recommended value, remount the heating sensor (NTC sensor) (A). Remount the lower rear panel.

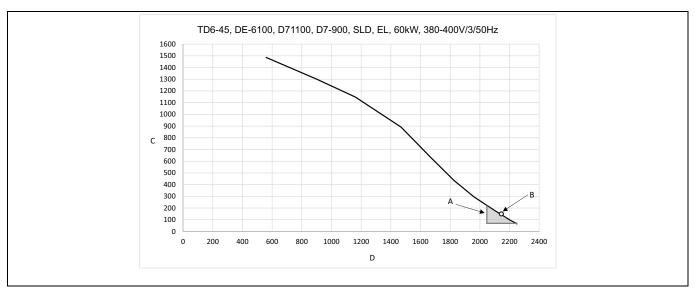
# Diagram with pressure drop curve

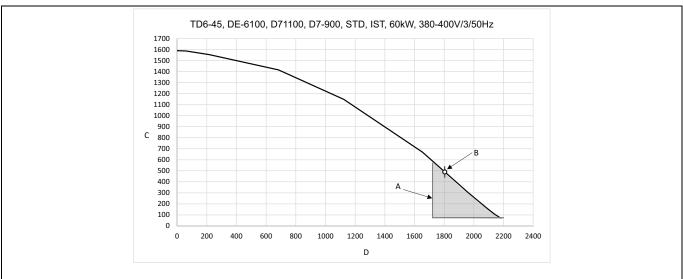
The grey area (A) illustrates the optimal working area.

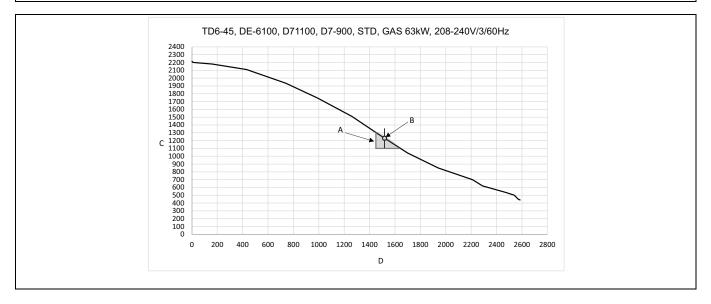
Α	Working area
В	Optimum airflow cold empty machine
С	Static back pressure, Pa
D	Air flow m³/h

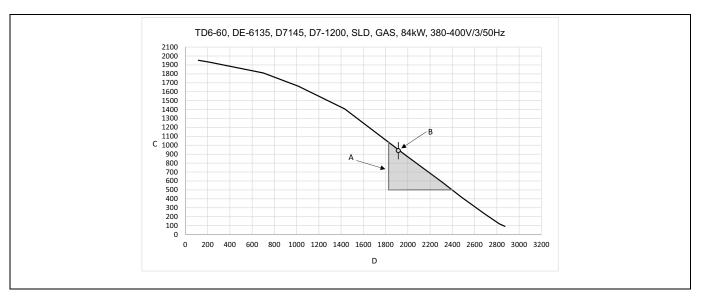


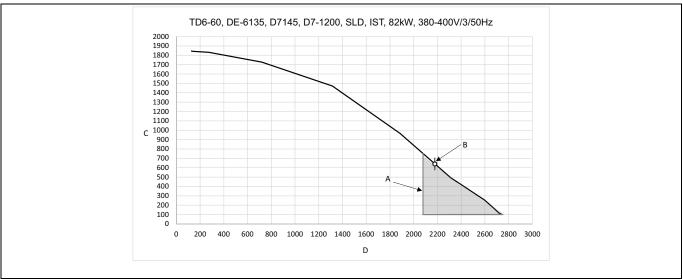


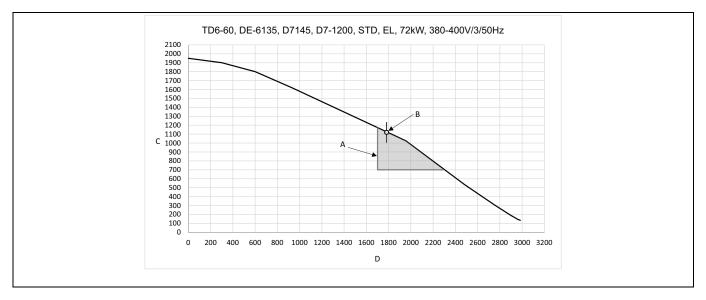


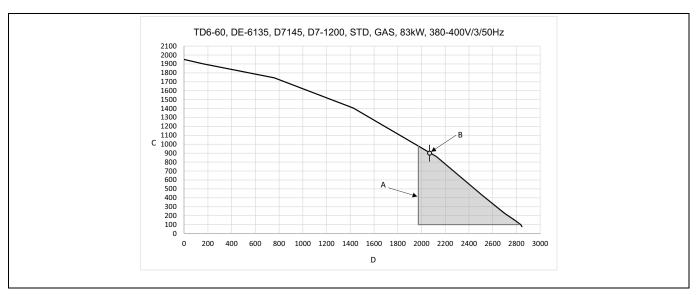


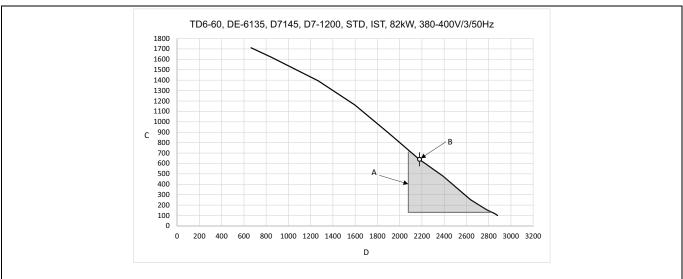


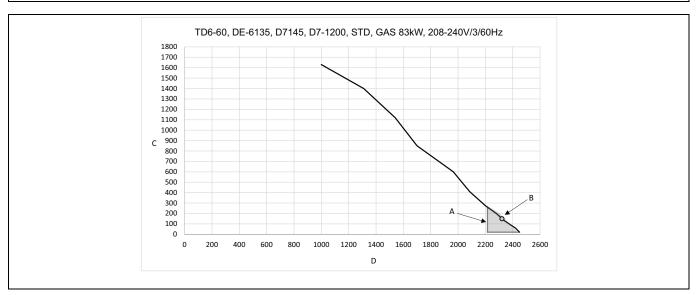












# 9 Electrical connection

## 9.1 Electrical installation





The electrical installation may only be carried out by qualified personnel.





Machines with frequency-controlled motors can be incompatible with certain types of earth leakage circuit breaker. It is important to know that the machines are designed to provide a high level of personal safety, which is why items of external equipment such as earth leakage circuit breakers are not necessary but is recommended. If you still want to connect your machine across an earth leakage circuit breaker, please remember the following:

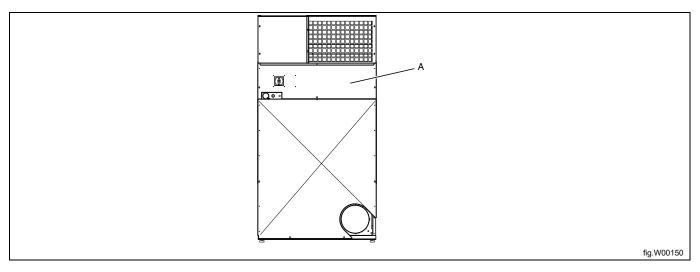
- contact a skilled, authorised installation company to ensure that the appropriate type of breaker is chosen and that the dimensioning is correct
- for maximum reliability, connect only one machine per earth leakage circuit breaker
- it is important that the earth wire is properly connected.

In instances where the machine is not equipped with an omni-polar switch, one must be installed beforehand. In accordance with the wiring rules: mount a multi-pole switch prior to the machine to facilitate installation and service operations.

The connecting cable shall hang in a gentle curve.

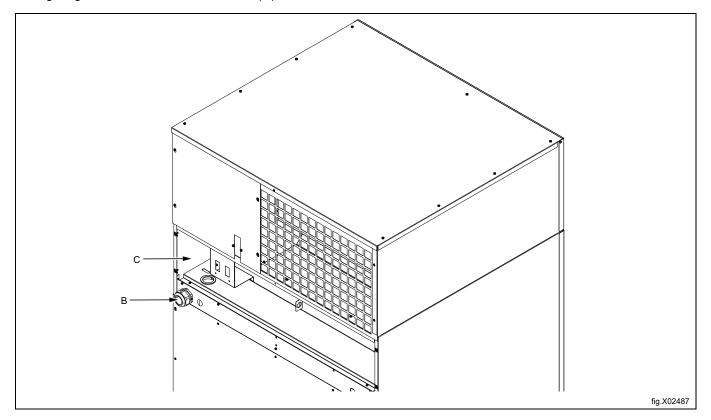
## 9.2 Internal connection

Demount the rear panel (A) with the supply disconnector grip.



Lead the cable through the cable gland (B) to the supply disconnector.

Connect the cable according to the following table. If there is a neutral conductor it must be connected to terminal N. Wiring diagrams are enclosed at location (C).



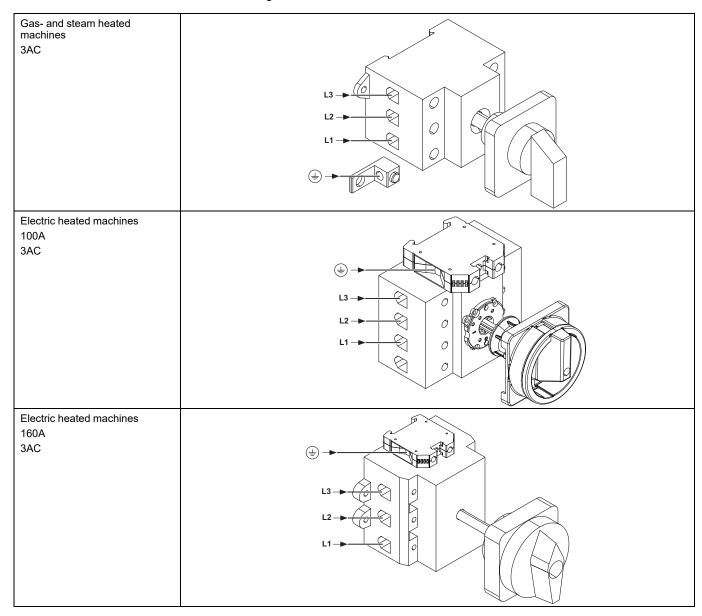
## Note!

The machine must be equipped with supplementary protection in accordance with heavy current regulations.

# 9.3 Machine connection

# 9.3.1 Three-phase connection

Connect the earth and other wires according to the table.



Fasten each cable using tightening torque specified on the label.

# 9.4 Electrical connections

## DE-6100

Electrical connections							
Heating alternative	Main voltage	Hz	Heating power kW	Total power kW	Recommended fuse ITCB A		
Electric heated machines	208-240V 3~	60	48	50.2	160		
	440V 3~	60	48/60	50.2/62.2	100/125		
Gas- and Steam heated machines	208–480V 3~	60	1	2.2	15		

<sup>1.</sup> Total power and recommended fuse does not depend on the heating power in those cases.

## DE-6135

Electrical connections							
Heating alternative	Main voltage	Hz	Heating power kW	Total power kW	Recommended fuse ITCB A		
Electric heated machines	440V 3~	60	60/72	62.2/74.2	125/125		
	480V 3~	60	60/72	62.2/74.2	100/125		
Gas- and Steam heated machines	208–480V 3~	60	1	2.2	10		

<sup>1.</sup> Total power and recommended fuse does not depend on the heating power in those cases.

## 10 Steam connection

# 10.1 Connecting the steam

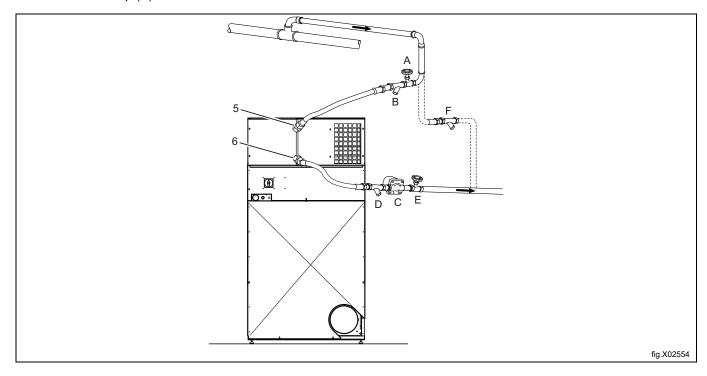




The steam supply must be cut off and must not be under pressure.

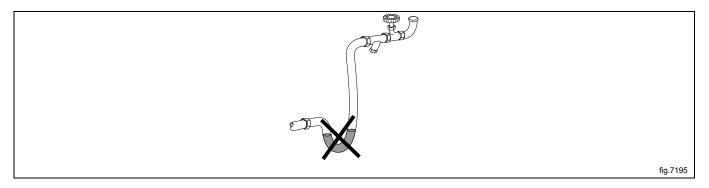
### Steam inlet

- The branch pipes must be located at the top of the main steam pipe to prevent condensation in the steam.
- The branch pipe must have a descending gradient and must end at a height above the inlet connecting branch (5).
- Mount a plug valve (A) and a strainer (B) in the branch pipe.
- If the branch pipes are too far away from the main pipe, to maintain quality of the steam, it is recommended to install a steam trap (F).



Attach the pressure hoses to the machines inlet and outlet connecting branches. It is important to support the inlet and the outlet connecting branches in order to prevent deformation.

The pressure hoses must not hang down.



### **Condensate return**

It is important that the branch pipe for condensed water on return to the main condensate pipe has a descending gradient and is lower than the outlet connecting branch (6).

- Mount a strainer (D) in the return pipe.
- Mount a mechanical water discharger (C) after the dirt collector (D).
- · Mount a plug valve (E).
- Mount pressure hoses between the branch pipes and the machine. Note that hoses are not supplied.

### Pipe insulation

All pipes must be insulated in order to reduce risk of scalding. Insulation also reduces loss of heat to the surroundings.

## When ready

- · Leak test the system.
- · Clean the dirt collectors.

### 11 Gas connection

### 11.1 General



## Caution



It is your responsibility to have all plumbing connections made by a qualified professional to insure that the gas plumbing installation is adequate and conforms with local and state regulations or codes. In the absence of such codes, ALL plumbing connections, material, and workmanship must conform to the applicable requirements of the National Fuel Gas Code ANSI Z223.1 LATEST EDITION or the CAN/CGA—B149, INSTALLATION CODES, both the latest edition.

Mount a shut-off valve upstream from the machine.

The gas connection to the machine should be dimensioned to an output depending upon the kW-rating of the machine.

The factory nozzle pressure setting must correspond to the fuel value given on the data label.

Check that the nozzle pressure and fuel value correspond with the values in the gas tables on the following pages. If not, contact the supplier.

Bleed the pipe system before connecting the machine.

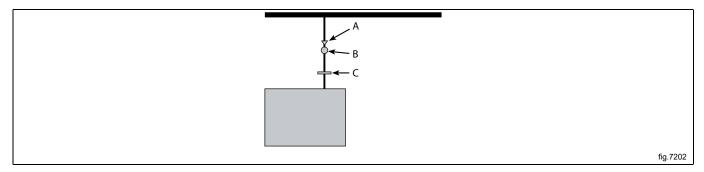
#### Note!

After connection all joints must be checked. There must not be any leaks.

The machine and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 psi (3.5 kPa).

The machine must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than 1/2 psi (3.5 kPa).

A minimum 1/8 inch N.P.T plugged tap, accessible for test gage connection, must be installed immediately upstream from the gas supply connections to the machine.



A = Pressure regulator (option) propane only

B = Gas shut-off valve

C = 1/8 inch N.P.T plugged tap

## 11.2 Gas installation

The default gas appliances are built to run on either GNH (Natural gas) or LPG gas where the machine should be installed at not over than 610 m (2001 ft) high altitude. Otherwise a kit for high altitude must be installed to the machine. For the kit No. please refer to the spare parts list.

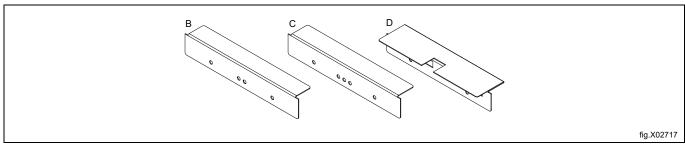
To run on another gas the gas converting must be done. The gas converting accessories for LPG gas (for not over than 610 m (2001 ft) high altitude) is in the accessory bag.

# 11.3 Table of pressure and adjustment

# 11.3.1 DE-6100

Gas category	Heating power (BTH/h)	Inlet pressure (WC")	Nozzle pressure (WC")	Nozzle size (ø mm)	Air reducing/re- striction plate (mm)	Label number
Natural	215200	7	3.2	3.50 471985348	490805703 C	Default
Propane	215200	11	11	2.10 471985359	490805702 B	490823101

# Air reducing/restriction plate

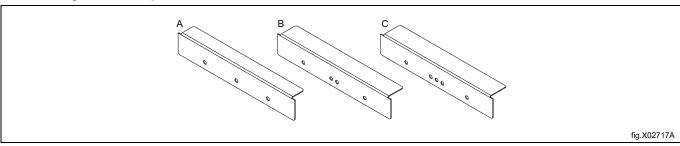


Gas category	Gas consumption
Natural gas (GNH)	214965 BTU/h / 212 ft³/h
Propane (LPG)	214965 BTU/h / 84 ft³/h

# 11.3.2 DE-6135

Gas category	Heating power (BTH/h)	Inlet pressure (WC")	Nozzle pressure (WC")	Nozzle size (ø mm)	Air reducing/re- striction plate (mm)	Label number
Natural	283500	7	3.2	4.00	490805703	Default
				471985380	С	
Propane	283500	11	11	2.40	490805701	490823501
			1	471985369	Α	

# Air reducing/restriction plate



Gas category	Gas consumption
Natural gas (GNH)	286620 BTU/h / 283 ft³/h
Propane (LPG)	283208 BTU/h / 110 ft³/h

# 11.4 Nozzles sizes depending on altidudes

The nozzles have to be ordered separately from your dealer.

### **DE-6100**

	Nozzle for natural gas	Nozzle for natural gas		as			
Altitude (ft.)	Diamenter mm	Art. No	Diamenter mm	Art. No			
0-1999	3.5	471985348*	2.1	471985359*			
2000–3999	3.4	471985358	2.0	471985389			
4000–5999	3.2	471985382	1.9	471985398			
6000-8000	3.1	471985357	1.8	471985363			

### DE-6135

	Nozzle for natural gas		Nozzle for propane g	Nozzle for propane gas		
Altitude (ft.)	Diamenter mm	Art. No	Diamenter mm	Art. No		
0-1999	4.0	471985380*	2.4	471985369*		
2000–3999	3.8	471985360	2.3	471985385		
4000–5999	3.7	471985373	2.2	471985365		
6000-8000	3.5	471985348	2.1	471985359		

<sup>\*</sup> Are enclosed at delivery.

To maintain the nominal input rating on the machine, use the nozzles specified in the table.

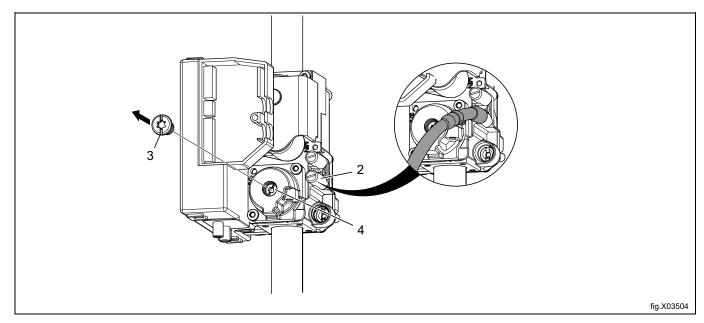
## 11.5 Test run

## Note!

Before test run the machine, ensure that the air flow/static back pressure has been adjusted accorded to the "Evacuation system" section. Adjust the air flow if necessary.

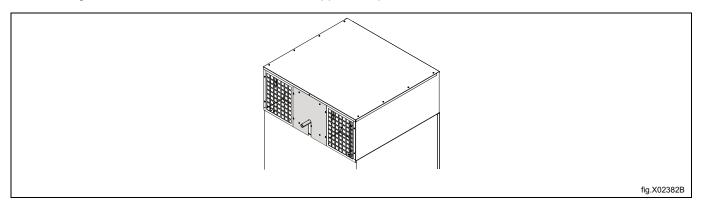
There are 2 gas valves for the heating unit. Check and adjust both gas valves one by one.

- Loosen the measuring branch screw (2) 1/4 turn; connect a manometer to the measuring branch and make sure the connection is tight to prevent air leakage.
- Connect the power to the machine and select a program with heat.
- · Start the machine.
- · Check that the nozzle pressure is correct according to the gas type, see "Table of pressure and adjustment".
- If the nozzle pressure should be adjusted:
  - Demount the cover screw (3).
  - Turn the screw (4). Clockwise: increasing nozzle pressure.
  - Turn the screw (4). Counter Clockwise: decreasing nozzle pressure.
- Check that the gas is burning evenly. The blue flame on the burner is preferred.



- Remount the cover screw (3).
- Remove the manometer and tighten the screw (2) when the adjustments are done.

When both gas valves are tested, fasten the middle upper rear panel.

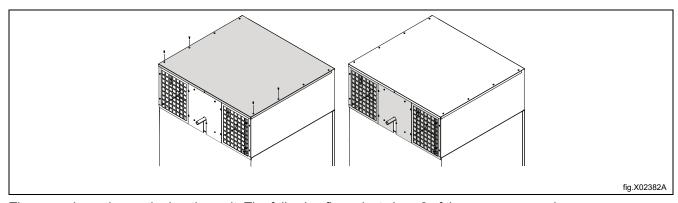


### Note!

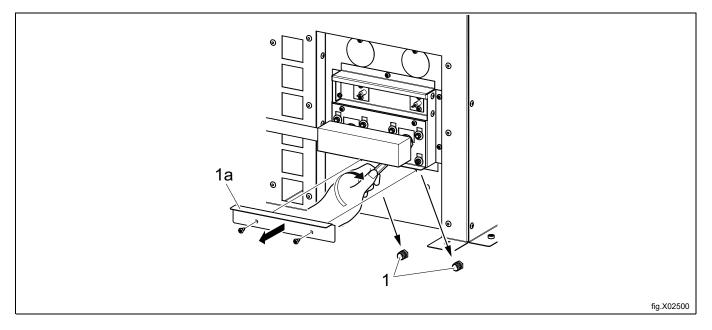
After connection all joints must be checked. There must not be any leaks.

# 11.6 Converting instructions

- · Shut off the manual gas valve.
- Disconnect the power to the machine.
- Remove 4 of the screws on the top panel.
- Demount the upper rear panel and air mazes (lift the top panel a little bit to be able to remove them).



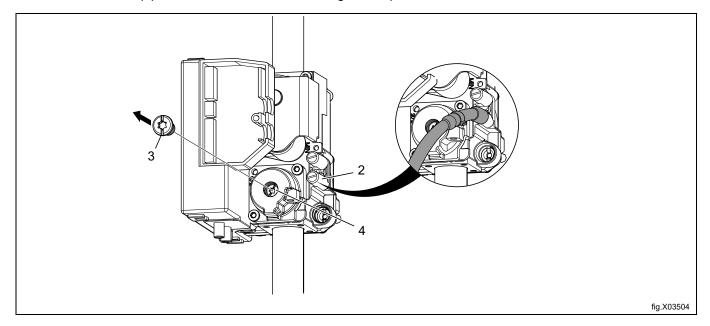
• There are 4 nozzles on the heating unit. The following figure just show 2 of them as an example. Remove the air reducing plate (1a) and the remove the 4 nozzles (1).



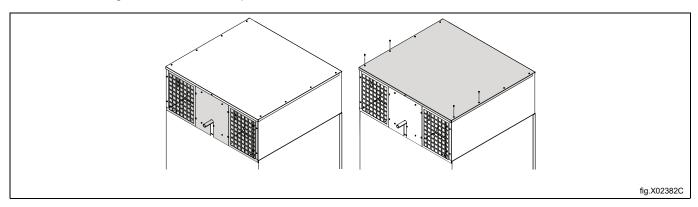
• Mount the 4 new nozzles (1) and then mount the air reducing plate (1a) in accordance with the "Table of pressure and adjustment".

There are 2 gas valves for the heating unit. Check and adjust both gas valves one by one.

- Loosen the measuring branch screw (2) 1/4 turn; connect a manometer to the measuring branch and make sure the connection is tight to prevent air leakage.
- Ensure that the air flow/static back pressure has been adjusted accorded to the "Evacuation system" section. Adjust the air flow if necessary.
- · Connect the power to the machine and select a program with heat.
- Start the machine.
- Check that the nozzle pressure is correct according to the gas type, see "Table of pressure and adjustment".
- If the nozzle pressure should be adjusted:
  - Demount the cover screw (3).
  - Turn the screw (4). Clockwise: increasing nozzle pressure.
  - Turn the screw (4). Counter Clockwise: decreasing nozzle pressure.



- Check that the gas flame burns evenly. The blue flame on the burner is preferred.
- Mount the cover screw (3).
- Remove the manometer and tighten the screw (2) when the adjustments are done.
- · Remount the air mazes and upper rear panels
- Put the correct gas label on the data plate, see "Data label" section.



# Note! After connection all joints must be checked. There must not be any leaks.

# 11.6.1 Checklist

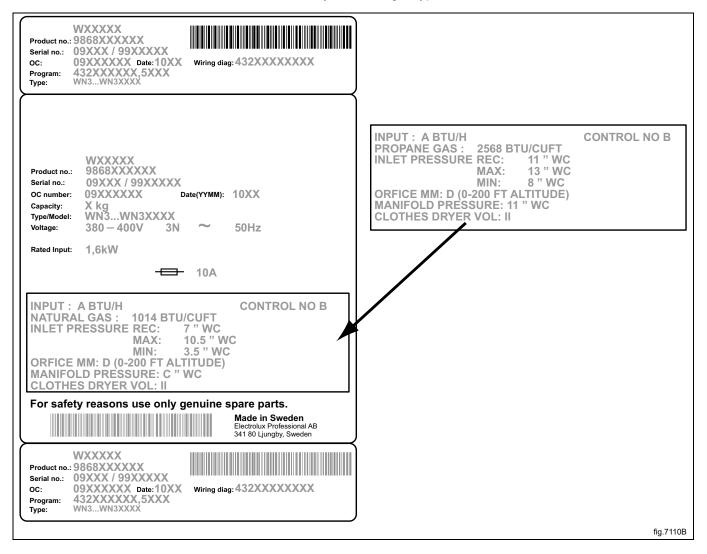
To ensure a safe and correct converting, check and tick in the following boxes when the corresponding step has been done:

□ Nozzles mounted. (4 Pcs) □ Air reducing/restriction plates mounted. (2 Pcs)
□ Nozzle pressures checked and ok. (Both)
☐ Tighten measuring branch screws. (2)
☐ Burning evenly.
☐ Mounted cover screw (3)
☐ Check all joints, no leaks.
☐ Mounted Air mazes.
☐ Mounted upper rear panels.
☐ Mounted screws on top panel.
□ New gas label mounted.
□Conversion signature label (472811567) mounted and signed.
□Conversion to gas label (472811568) mounted and signed.
2 3, 4

### 11.7 Data label

When the machine is to be converted to another gas type, the data label at the rear of the machine must be updated in order for the data to be correct.

Place the data label enclosed in the conversion kit on top of the data label as shown below. If there are more than one data label, select the label with the correct country code and gas type.



# 12 At first power up

When the installation is complete and the power is connected for the first time you will be forced to make the following settings. When one setting is ready you will automatically enter the next one. Follow the instructions on the display.

- · Select language
- · Set time and date
- · Activate/deactivate the service alarm

## 12.1 Select language

Select language from the list on the display. Scroll with the up- and down arrows.

This will be the language that all display messages, program names etc will be presented in.

### 12.2 Set time and date

Select YES and press ► II to get to the TIME/DATE menu.

Activate the SET TIME menu and set the correct time.

Save the settings.

Activate the SET DATE menu and set the correct date. Start by setting the year.

- Set the year. Exit to continue with a long press on **I** .
- Set the month. Exit to continue with a long press on **I**.
- Set the day. Exit with a long press on I and then save with a long press on I. Exit the menu when ready.

## 12.3 Activate/Deactivate the service alarm

Set if the machine shall give a service alarm or not with YES or NO.

Exit and save the settings.

## 13 Function check





May only be carried out by qualified personnel.

A function check must be made when the installation is finished and before the machine can be ready to be used. Whenever a repair has been made, a function check must be performed before the machine can be used again.

### Check the automatic stop of the machine

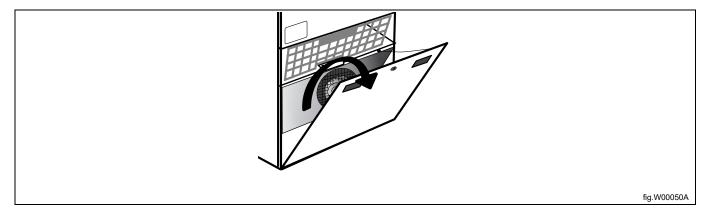
Start the machine.

- Check if the micro switches are working properly:
- · The machine must stop if the door is opened.
- The machine must stop if the filter door is opened.

### Check the direction of rotation (only on machines with 3-phase power supply)

Correct direction of rotation on blower wheel:

- The blower wheel must rotate clockwise.
- If the direction of rotation is not correct, swap two phases on the connection terminal.



### Check the heat

- · Let the machine work for five minutes on a program with heat.
- Check that the heating is working by opening the door and feel if there is heat in the drum.

### Tilt

Check the tilt function.

### Sliding door

Sliding door must be capable of being opened with a force of max 10 kg / 98N.

### Ready to use

If all tests are OK the machine is now ready to be used.

If some of the tests failed, or deficiencies or errors are detected, please contact your local service organisation or dealer.

The installer shall instruct the user on the operation of the appliance before leaving.

# 14 Disposal information

## 14.1 Disposal of appliance at end of life

Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.).

Different regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country where scrapping takes place.

In general, the appliance must be taken to a specialised collection/scrapping centre.

Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the refrigerator and heat pump components are special waste assimilable with urban waste.



The symbol on the product indicates that this product should not be treated as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health. For further information on the recycling of this product, contact the local dealer or agent, the Customer Care service or the local body responsible for waste disposal.

#### Note

When scrapping the machine, any marking, this manual and other documents concerning the appliance must be destroyed.

## 14.2 Disposal of packing

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used. All the packing materials are environmentally friendly.

They can be safely kept, recycled or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as following examples.

