

Installation manual

Tumble dryer

D7-290

Type N2...



Contents

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Contents

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.
- **WARNING:** Items that have been soiled with substances such as hair care products, cooking oil, acetone, alcohol, petrol, kerosene, spot removers, turpentine, waxes and wax removers shall be cleaned sufficiently to remove the contaminant before being tumble dried. When washing such soiled items ensure the use of detergent as specified by the detergent manufacturer and select the highest suitable temperature. If in doubt, wash the items several times.
- 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.
- Oil-affected items can ignite spontaneously, especially when exposed to heat sources such as in a tumble dryer. The items become warm, causing an oxidation reaction in the oil. Oxidation creates heat. If the heat cannot escape, the items can become hot enough to catch fire. Piling, stacking or storing oil-affected items can prevent heat from escaping and so create a fire hazard.
- Maximum mass of dry cloth: 16.1 kg.
- A-weighted emission sound pressure level at working stations: 70 dB(A).
- Additional requirements for the following countries; AT, BE, BG, HR, CY, CZ, DK, EE, FI, FR, DE, GR, HU, IS, IE, IT, LV, LT, LU, MT, NL, NO, PL, PT, RO, SK, SI, ES, SE, CH, TR, UK:
 - The appliance can be used in public areas.
 - This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
 - Children of less than 3 years should be kept away unless continuously supervised.
- Additional requirements for other countries:
 - This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

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 HYDROCARBONS 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

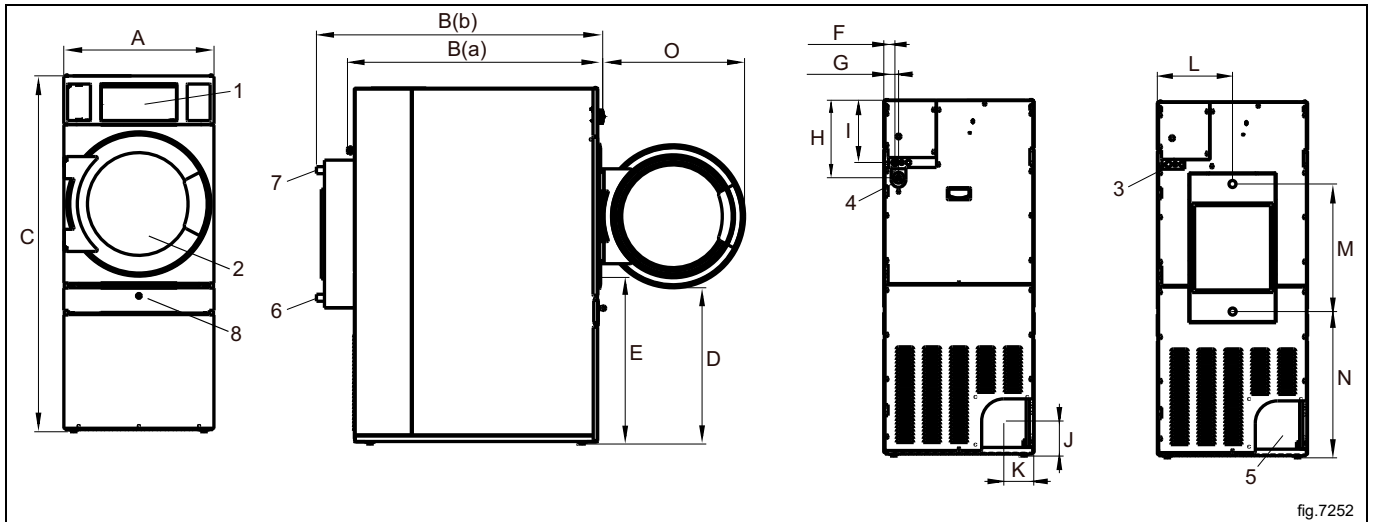
This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Wascomat.

1.5 Symbols

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

2 Technical data

2.1 Drawing



1	Operating panel
2	Door opening, $\varnothing$ 580 mm
3	Electrical connection
4	Gas connection
5	Exhaust connection
6	Steam: in
7	Steam: out

	A	B(a)	B(b)	C	D	E
mm	715	1210	1360	1690	740	790

	F	G	H	I	J	K
mm	55	70	365	295	165	140

	L	M	N	O
mm	355	605	695	675

2.2 Technical data

Weight, net	kg	189
Drum volume	litres	290
Drum diameter	mm	680
Drum depth	mm	770
Drum speed, medium load	rpm	47
Rated capacity, filling factor 1:18 (Max. load)	kg	16.1
Rated capacity, filling factor 1:22 (Recommended. load)	kg	13.2
Heating: Electricity	kW	18
	kW	13.5
Heating: Gas	kW	21
Heating: Steam at 600–700 kPa	kW	23
Steam pressure	kPa	100–1000
Maximum air flow, Electric 50 Hz / 60 Hz	m ³ /h	550 / 550
Maximum air flow, Gas 50 Hz / 60 Hz	m ³ /h	610 / 610
Maximum air flow, Steam 50 Hz / 60 Hz	m ³ /h	690 / 690
Maximum static back pressure, Electric 50 Hz / 60 Hz	Pa	400 / 700
Maximum static back pressure, Gas 50 Hz / 60 Hz	Pa	400 / 700
Maximum static back pressure, Steam 50 Hz / 60 Hz	Pa	600 / 1100
Sound power/pressure level at drying*	dB(A)	69/53
Heat emission of installed power, max	%	15

* Sound power levels measured according to ISO 60704.

Note!

- The default gas appliances are built to run on natural gas (GNH) according to 2H or 2E (G20).
- The default gas appliance shall not be installed at an altitude above 610 m (2001 ft).
- To run on another gas type or/and an altitude above 610 m (2001 ft) gas converting must be done on the machine.
- The gas converting accessories for other gases at altitudes below 610 m (2001 ft) are in the accessory bag.
- The high altitude accessory kit for altitudes above 610 m (2001 ft) is not included.
- The high-altitude kit is available to order for natural gas 2E (G20) and propane 3P, for the kit no. please refer to the spare parts list.
- For LPG use gas qualities according to GPA Midstream Standard 2140-23.

2.3 Connections

Air outlet	ø mm	200
Steam inlet/outlet	1"	ISO 7/1–R1
Gas connection	1/2"	ISO 7/1–R1/2

3 Setup

3.1 General

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

1. Unpacking
2. Positioning/siting, levelling or/and securing the machine.
3. 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.
4. Electric connections, connect the power supply to the machine.
5. Air flow or static back pressure adjustments in a cold empty machine in considering a stand-alone machine or sharing exhaust duct.
6. Gas connection, gas converting, high altitude kit installation. (For gas heated machine).
7. Function check.
8. Option functions check.

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

3.2 Unpacking

Note!

Two persons are recommended for the unpacking.

Remove the bolts between the machine and pallet. There are two bolts in the front of the machine and two in the back of the machine. Remove the lower front panel and remove the two bolts in the front of the machine. Remove the lower rear panel and remove the two bolts in the back of the machine.

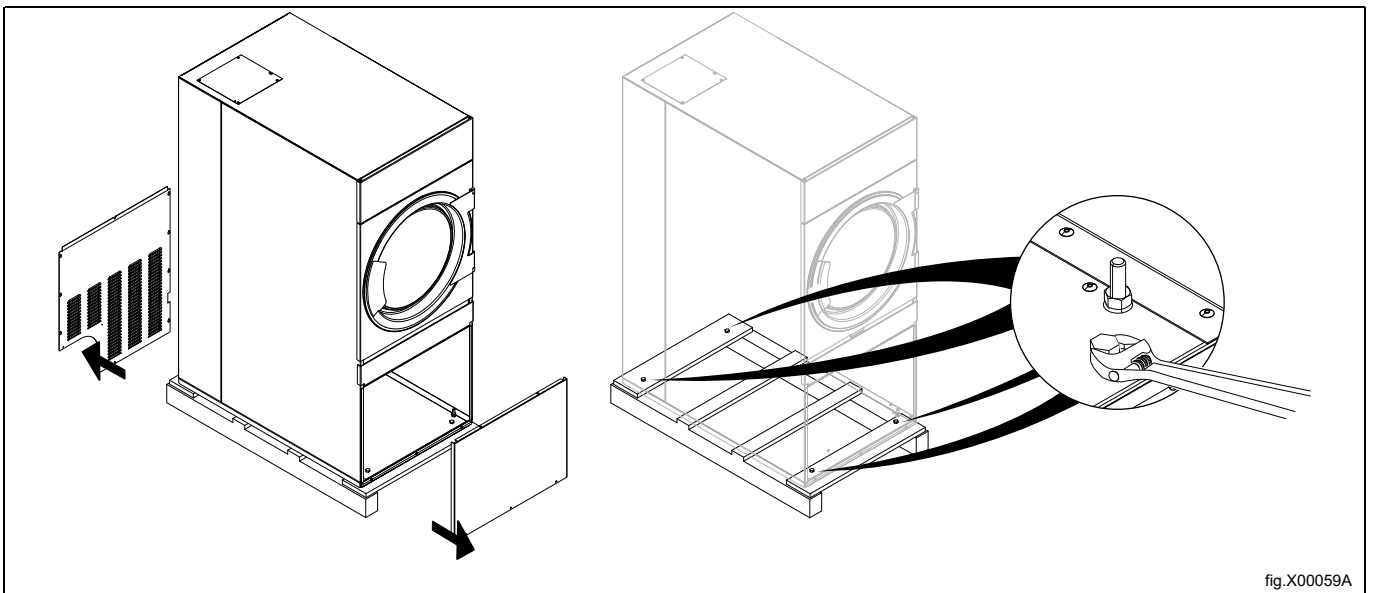


fig.X00059A

Remove the machine from the pallet.

Note!

When moving the machine, handle it with care. The drum has no transport clamps.

Place the machine on its final position.

3.3 Recycling instruction for packaging

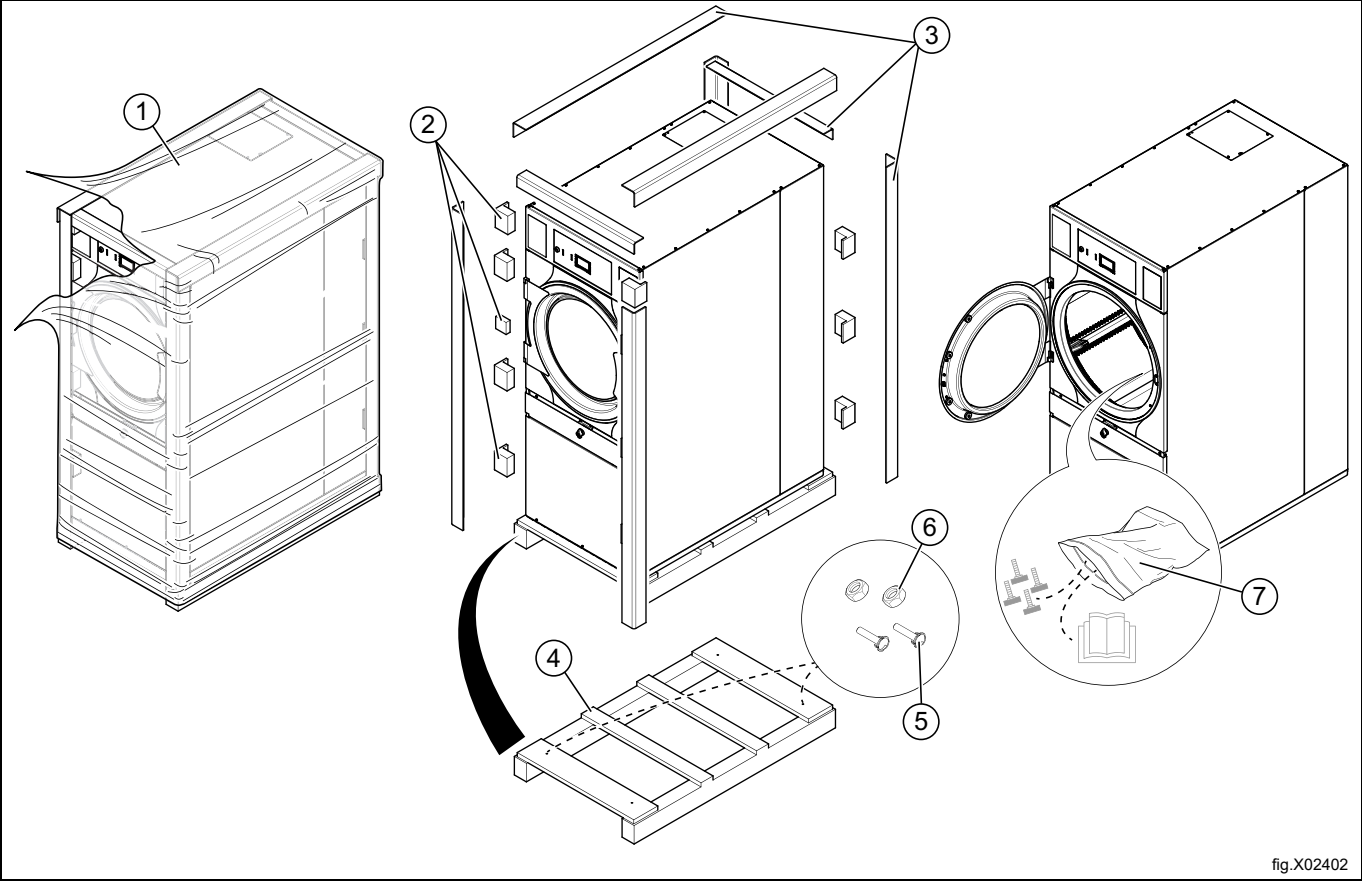
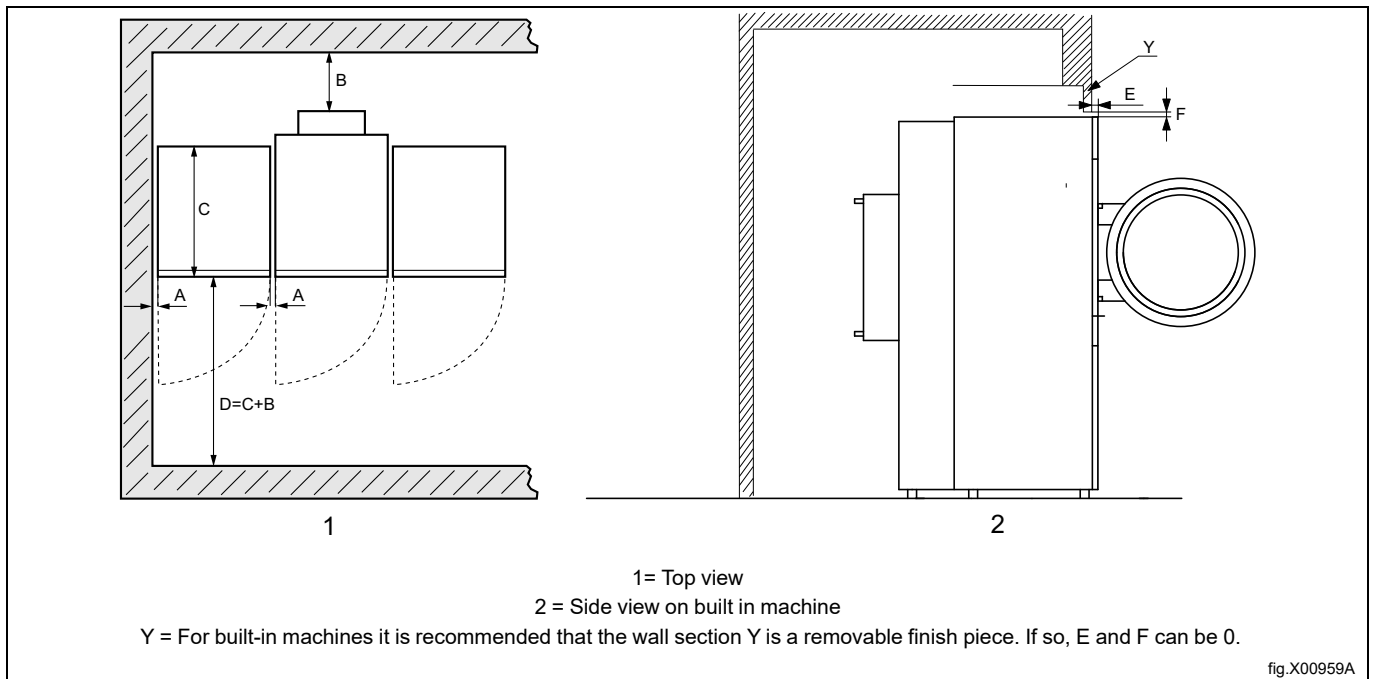


Fig.	Description	Code	Type
1	Wrapping film	LDPE 4	Plastics
2	Corner protection	PS 6	Plastics
3	Cardboard packaging	PAP 20	Paper
4	Pallet	FOR 50	Wood
5	Screw	FE 40	Steel
6	Nut	FE 40	Steel
7	Plastic bag	PET 1	Plastics

3.4 Siting

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



A	5–500 mm (Min. 5 mm)
B	500 mm (Min. 200 mm)
C	Depth of machine
D	$D = C + B$ (Min. 1220 mm to be able to use the machine)
E	Min. 20 mm
F	Min. 25.4 mm (The overhead soffit may be used to close the gap above the machine. Min. required clearance: 0 mm)

Note!

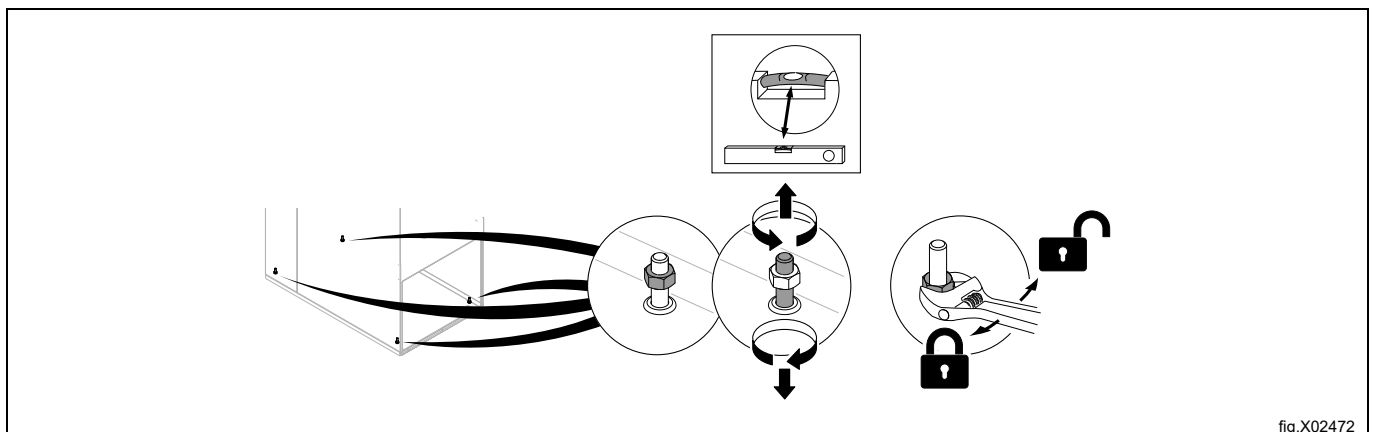
The machine should be positioned so that there will be enough space for working, both for the user and service personnel.

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.

3.5 Mechanical installation

Level the machine with the feet of the machine. The maximum height adjustment of the feet is 15 mm.



Remount the panels.

3.5.1 Securing the machine

To ensure steadiness of the machine it is important to fasten the machine to the foundation.

Fasten the four fittings (A) to the foundation using four x M10 set screws (B). If the four fittings are not supplied, order kit No. 487193544.

Fasten the machine to the fittings.

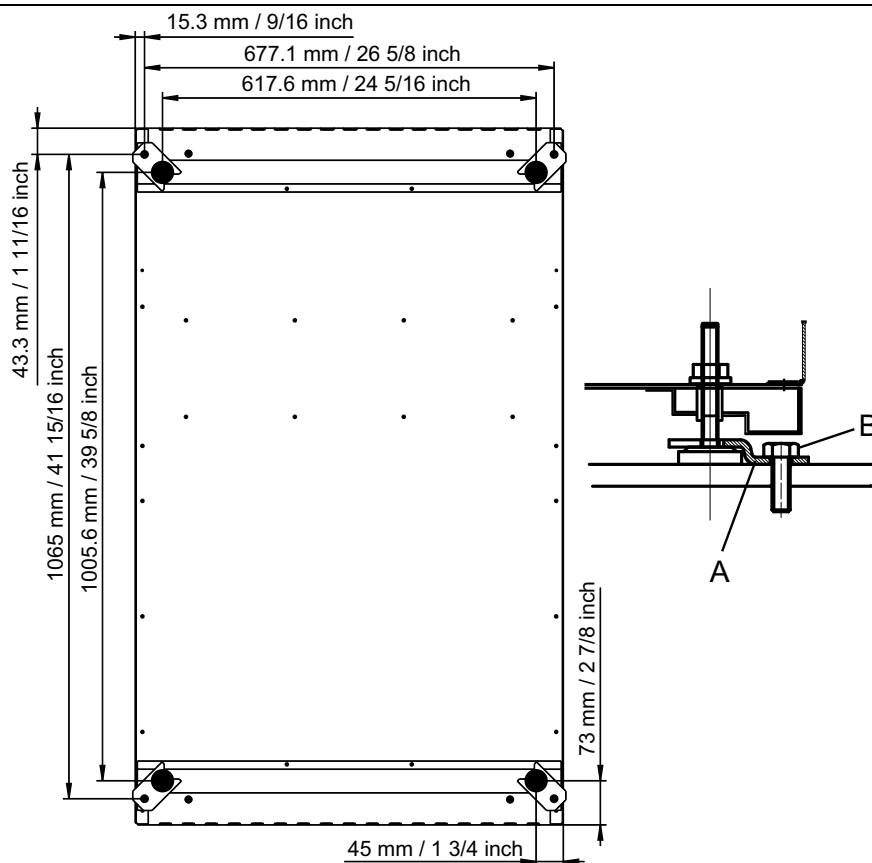


fig.X00120

4 Evacuation system

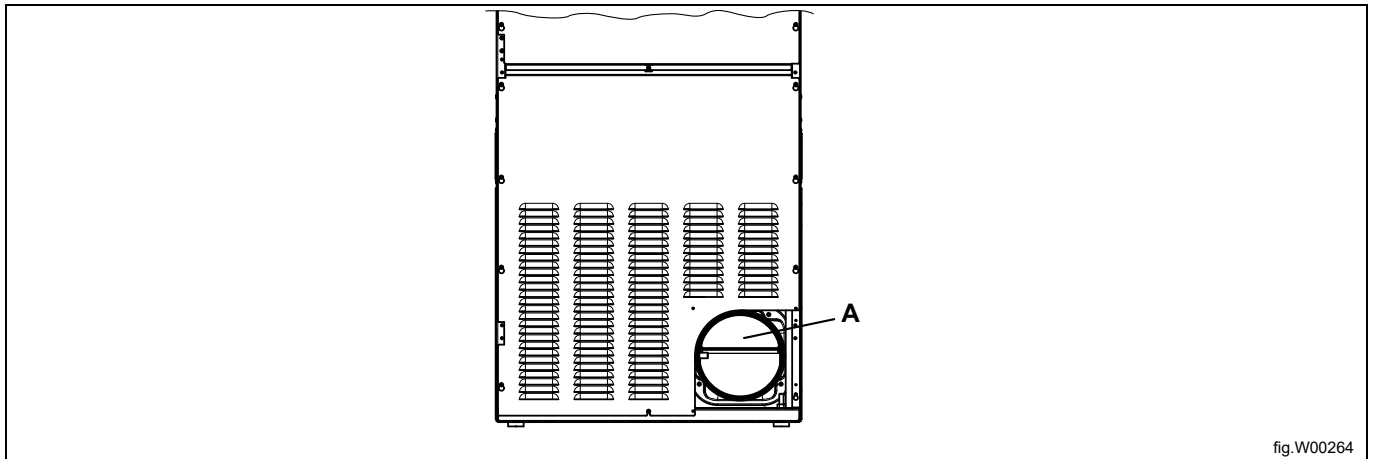
4.1 Air principle

The fan 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.

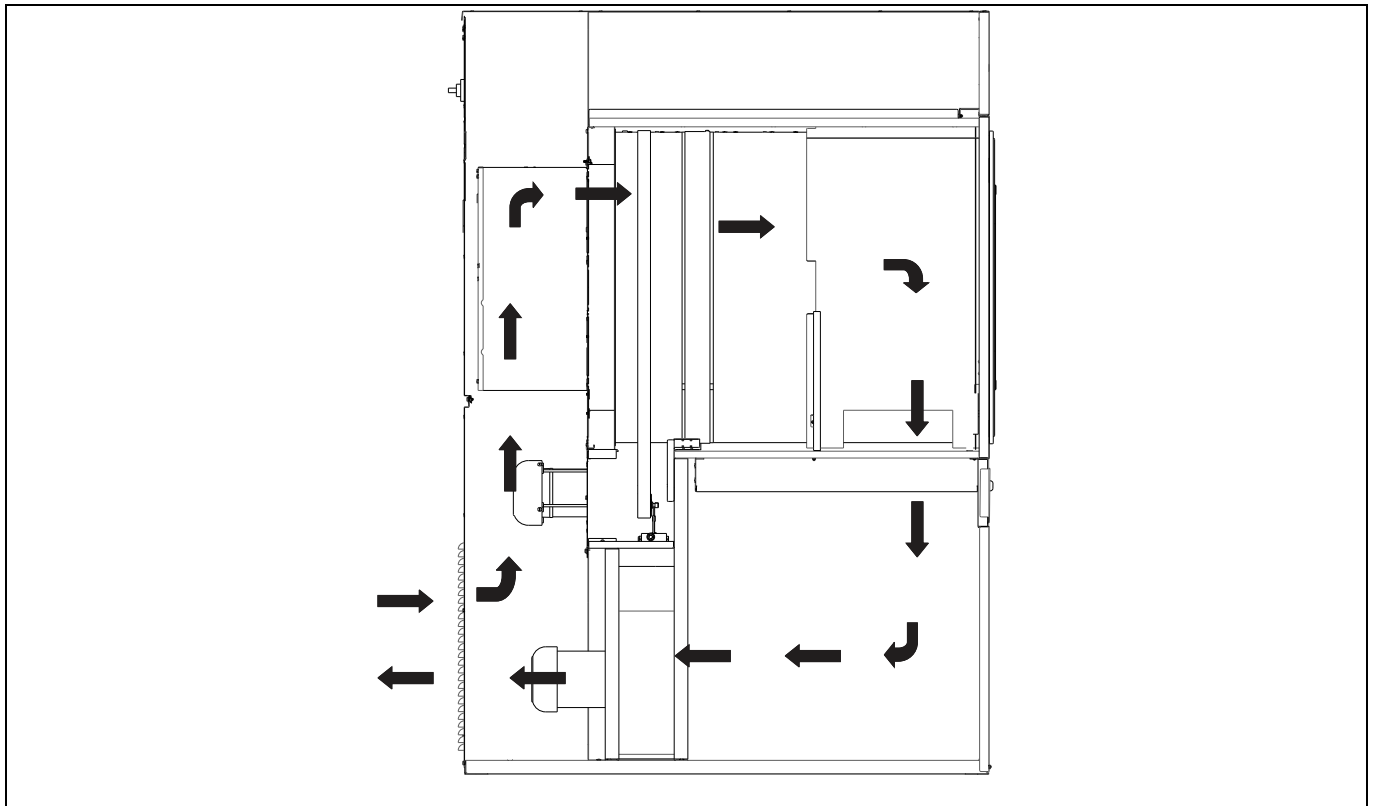
The air then flows out through a lint filter positioned below the drum. Then the air is evacuated through the fan and exhaust system.

Dimension for air evacuation (A) is 200 mm.



Note!

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



4.2 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.

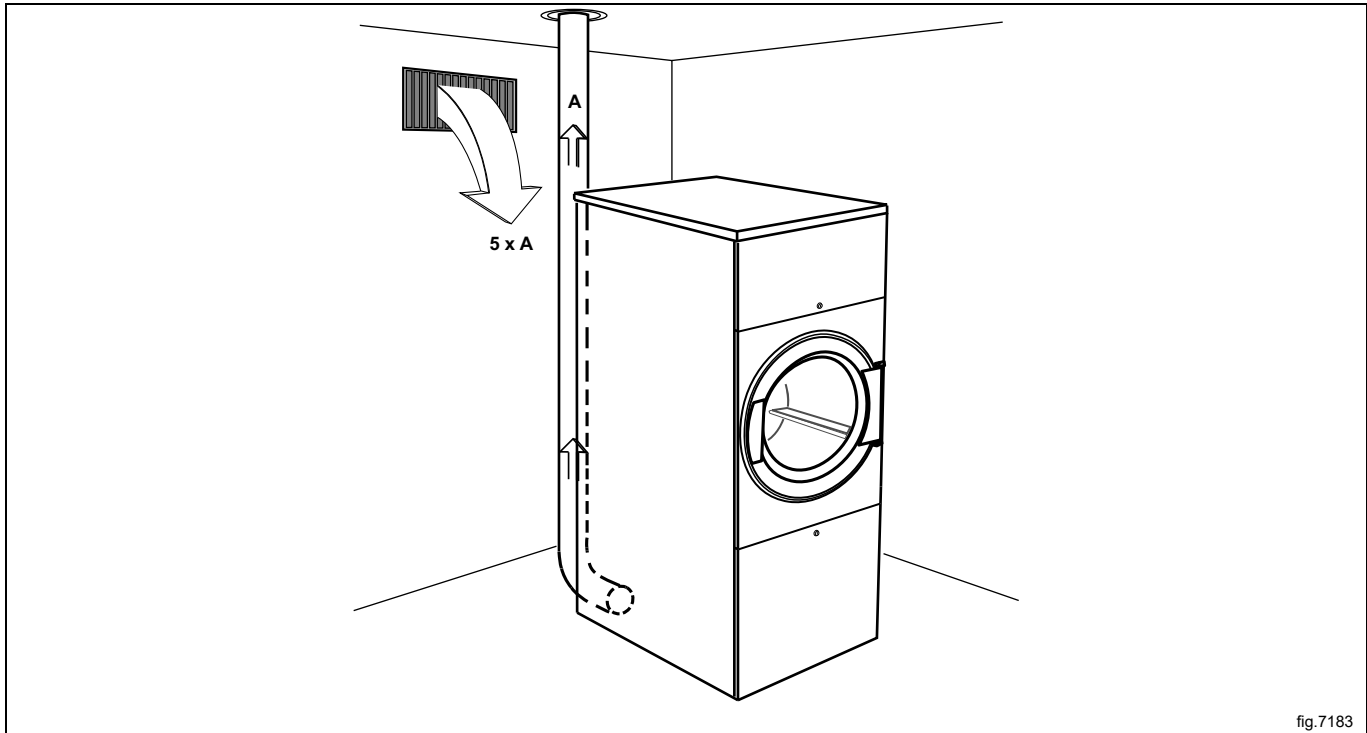


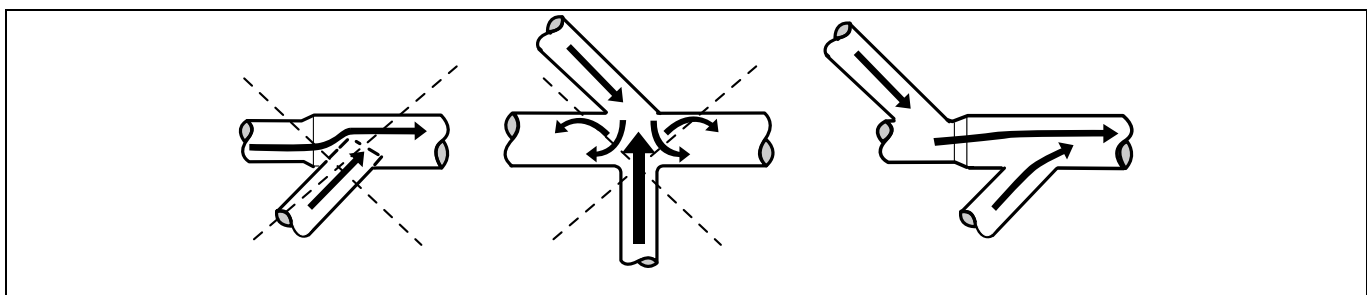
fig.7183

Note!

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

4.3 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.



4.4 Shared exhaust duct



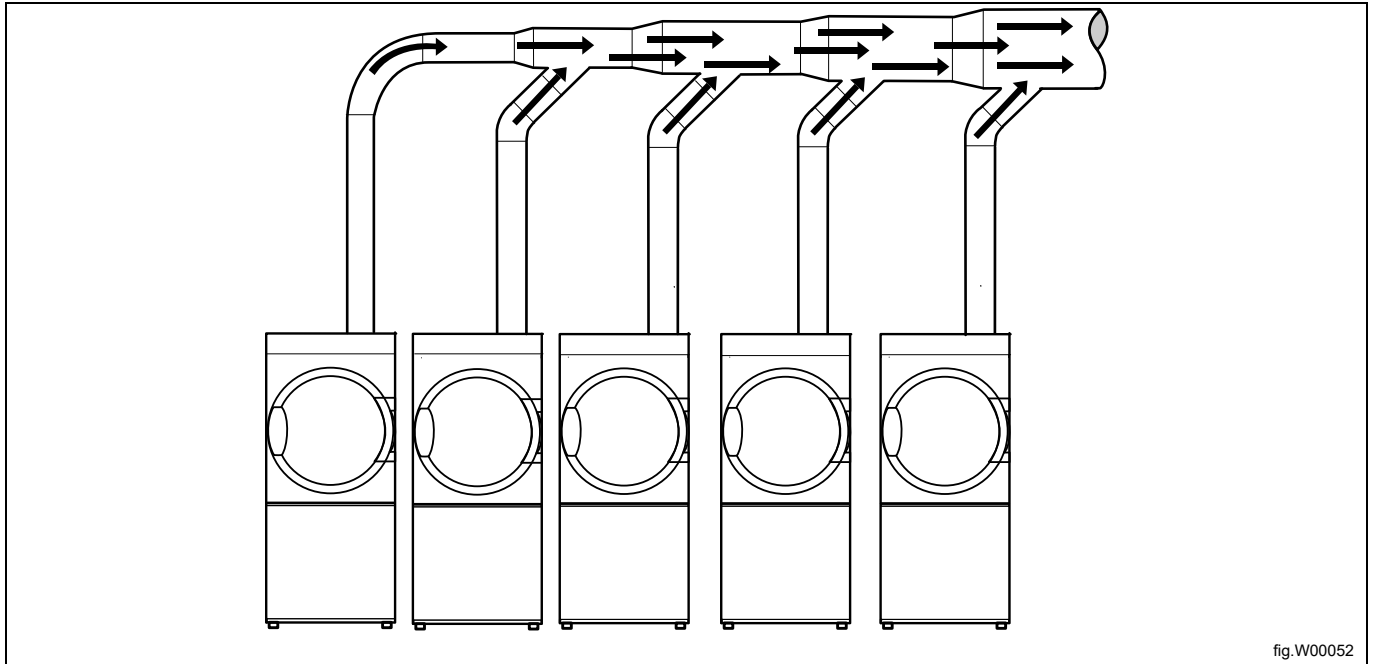
It is recommended that each machine is connected to a separate exhaust duct.



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.

If several machines are installed on the same exhaust pipe, it is recommended to adjust the airflow on the machines when all machines are started and running a program with no heat.

Please consider that unnecessarily large ducts create issues with the draught.



Number of machines		1	2	3	4	5	6	7	8	9	10
Exhaust duct	ø mm	200	315	400	400	500	500	630	630	630	800
Recommended area of fresh air intake	m ²	0.16	0.39	0.63	0.63	0.98	0.98	1.56	1.56	1.56	2.51
Minimum area of fresh air intake	m ²	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.3



The exhaust duct diameter must not be reduced.



4.5 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.

The machine is designed to work with the maximum static back pressure according to the table in the technical data section.

The exhaust duct must be designed so the static back pressure measured 1 m from the exhaust outlet does not exceed the maximum allowable back pressure specified in Technical data.

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.

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

4.6 Adjusting the dryer



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



The dryer is pre-set for optimal air flow with up to 15 m equivalent pipe length. For longer pipes it is necessary to adjust the dryer according to the following instructions.

For default settings from factory, check the label attached on the damper.

Adjust the dryer by demounting the lower back panel and measure the pressure in the fan housing.

Demount the lower back panel.

From machine number 4512020301-; also demount the cover positioned over the heating sensor.

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

Loosen the screws on the damper and open the damper (B) as much as possible.

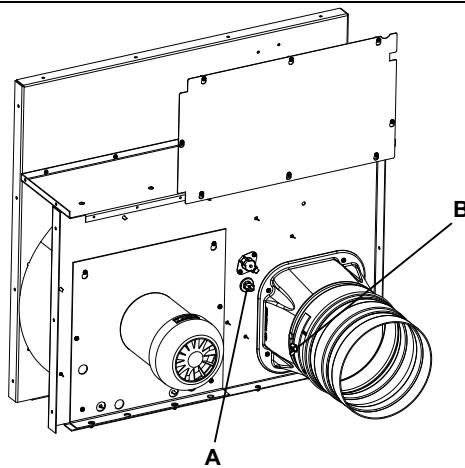


fig.7525

Measure with a pressure measuring instrument (manometer) with an empty drum and with a program without heat. By opening and closing the damper (B) the pressure at the heating sensor (NTC sensor) (A) is either lowered or raised.

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

Model name	Heating / Frequency	Static pressure in NTC sensor position (Pa)	Resulting Nominal air flow cold empty machine (m ³ /h)
D7-290	Electric / 50 Hz	400	550
D7-290	Electric / 60 Hz	850	550
D7-290	Gas / 50 Hz	400	610
D7-290	Gas / 60 Hz	850	610
D7-290	Steam / 50 Hz	600	690
D7-290	Steam / 60 Hz	1100	690

Alternative measuring meathod

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



Use a home made U tube manometer, a hose (max $\varnothing$ 10 mm), with water. Insert one end of the hose in the hole, 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.

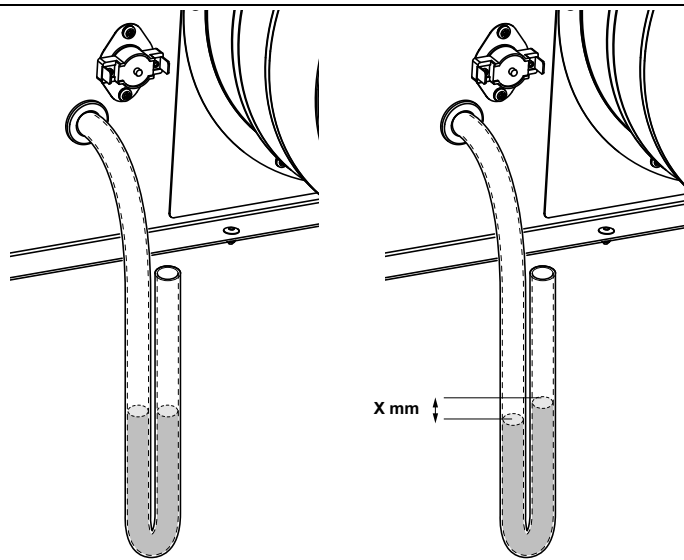


fig.7528

When the dryer is adjusted remount the heating sensor (NTC sensor) (A) and lock the damper (B) in the new position with the screws.

From machine number 4512020301-; remount the cover positioned over the heating sensor.

Remount the lower back panel.

5 Steam connection

5.1 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).

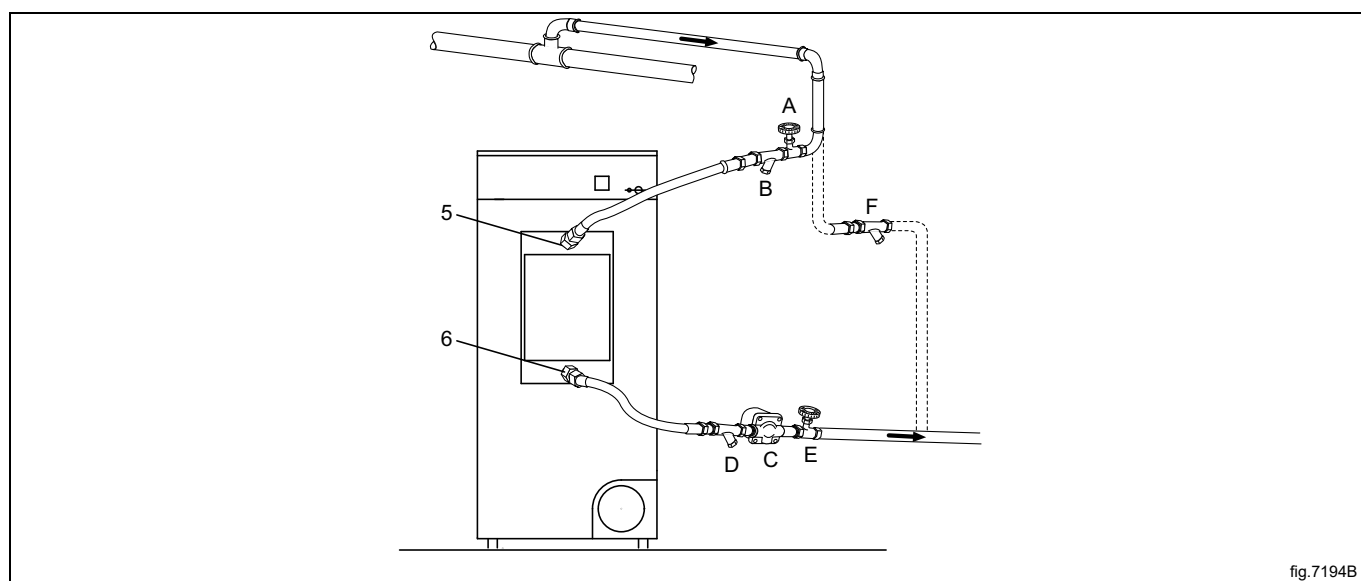


fig.7194B

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.

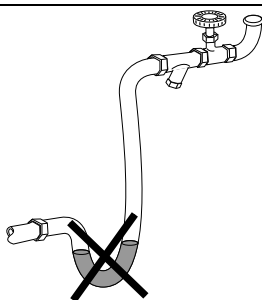


fig.7195

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

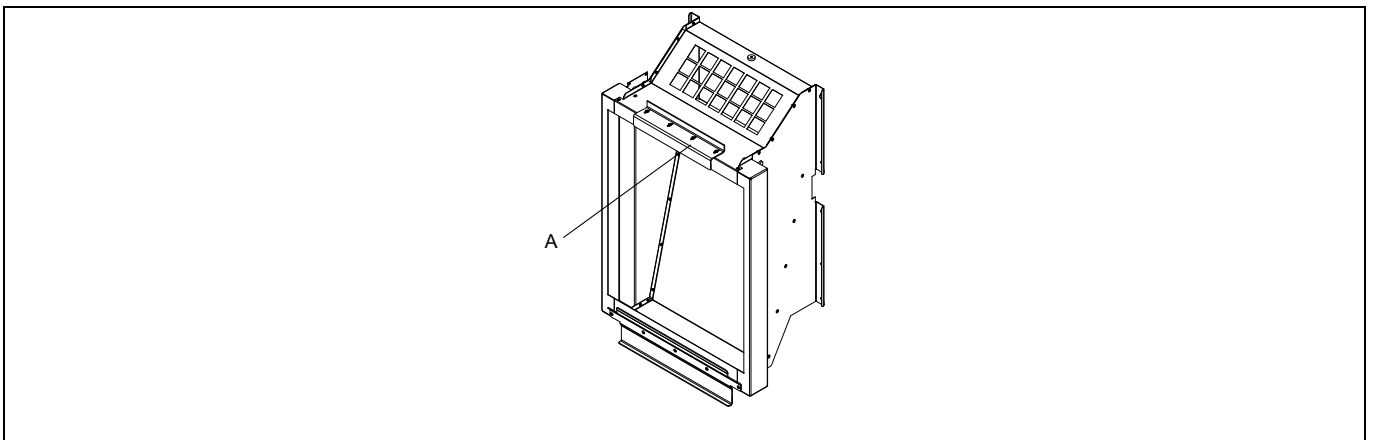
- Leak test the system.
- Clean the dirt collectors.

5.2 Steam calorifier**Mount the steam calorifier**

Unpack the steam calorifier.

Demount the back panel on the machine.

Demount the supporting rail on the machine (A). Note which way the supporting rail turns as it has to be remounted the same way.



Hang the calorifier on the bottom supporting rail on the machine.

Hold the calorifier towards the machine and remount the supporting rail. Make sure that it grasps the calorifier.

Fasten the calorifier into the supporting rail with the screws.

Note!

There must be no space between the machine and the calorifier.

Mount the back panel.

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.

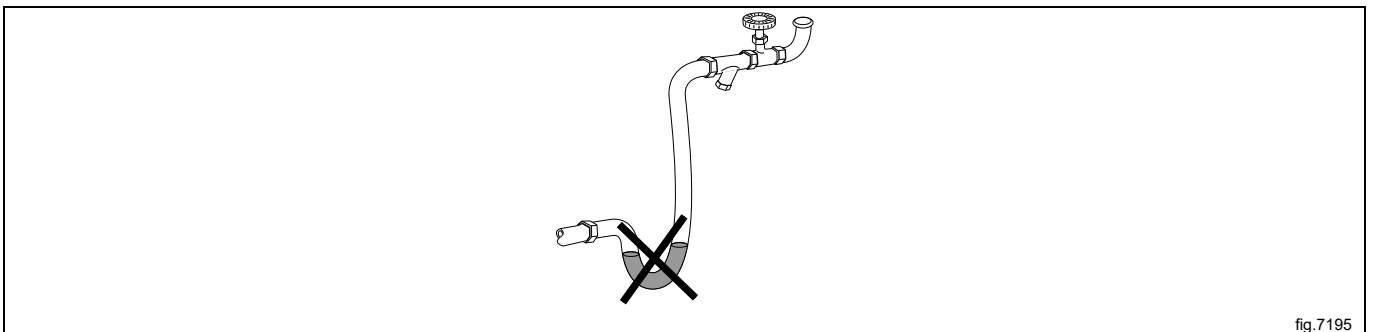


fig.7195

When ready

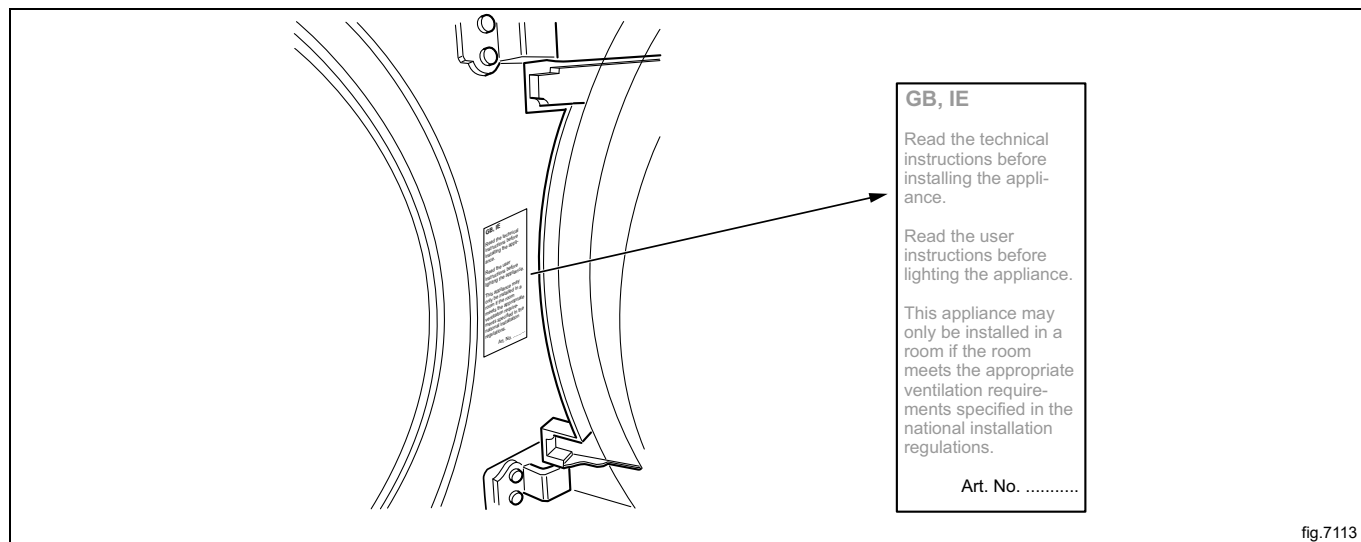
- Leak test the system.
- Clean the dirt collectors.
- Perform a function check.

6 Gas connection

6.1 Fasten the label

Before installing the machine fasten the label “Read the user instructions” on the inside of the door in a suitable place and at the front panel.

The label must have the correct country code, choose the correct label from the gas kit.



6.2 General



May only be carried out by qualified personnel.



Mount a shut-off valve upstream from the machine.

The factory nozzle pressure setting corresponds 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.

6.3 Gas installation

Note!

- The default gas appliances are built to run on natural gas (GNH) according to 2H or 2E (G20).
- The default gas appliance shall not be installed at an altitude above 610 m (2001 ft).
- To run on another gas type or/and an altitude above 610 m (2001 ft) gas converting must be done on the machine.
- The gas converting accessories for other gases at altitudes below 610 m (2001 ft) are in the accessory bag.
- The high altitude accessory kit for altitudes above 610 m (2001 ft) is not included.
- The high-altitude kit is available to order for natural gas 2E (G20) and propane 3P, for the kit no. please refer to the spare parts list.
- For LPG use gas qualities according to GPA Midstream Standard 2140-23.

The data label shows the injector size and the injector pressure and the countries that use this gas quality:

AL	Albania	IE	Ireland
AT	Austria	IS	Iceland
BE	Belgium	IT	Italy
BG	Bulgaria	LT	Lithuania
CH	Switzerland	LU	Luxembourg
CY	Cyprus	LV	Latvia
CZ	Czech Republic	MK	Republic of Macedonia
DE	Germany	MT	Malta
DK	Denmark	NL	Netherlands
EE	Estonia	NO	Norway
ES	Spain	PL	Poland
FI	Finland	PT	Portugal
FR	France	RO	Romania
GB	United Kingdom	SE	Sweden
GR	Greece	SI	Slovenia
HR	Croatia	SK	Slovakia
HU	Hungary	TR	Turkey

You should check the kind of energy gas that is available in your place and check high altitude of the machine located place.

There are many gas types of the same kind but the machine should be equipped with different kinds of nozzles depending on the gas type.

For non-european countries check the heat value of the energy gas and compare it to the declared heat value of gas in the attached label.

6.4 Table of pressure and adjustment

Liquid petroleum gas (LPG)	Gas category	Inlet pressure (mbar)	Nozzle pressure (mbar)	Nozzle size (ø mm)	Air reducing/restriction plate (mm)	Label number	May be available in following countries
BP mixtures according to GPA Midstream Standard 2140-23	3+	28-30 / 37	No regulation	2.30	Default 487230035	490375643	BE, CH, CY, CZ, ES, FR, GB, GR, IE, IT, LT, LU, LV, PT, SK, SI
Commercial Butane according to GPA Midstream Standard 2140-23	3B/P	30, 37, 50	28	2.30	Default 487230035	490375644	BE, CY, DK, EE, FI, FR, GB, HU, IT, LT, NL, NO, SE, SI, SK, RO, HR, TR, BG, IS, LU, MT, PL, AT, CH, DE, SK
Propane HD-5 according to GPA Midstream Standard 2140-23	3P	30, 37, 50	28	2.40	Default 487230035	490375645	FI, NL, RO, BE, CH, CZ, IE, IT, ES, FR, GR, GB, HR, LT, NL, PL, PT, SI, SK, AT, CH, DE, NL, LU, SK

Natural gas	Gas category	Inlet pressure (mbar)	Nozzle pressure (mbar)	Nozzle size (ø mm)	Air reducing/restriction plate (mm)	Label number	May be available in following countries
	2H, 2E	20	8	4.00	Default 487230035	Default	AT, BG, CZ, DK, EE, FI, GR, HR, HU, IS, IE, IT, LV, LT, NO, PT, RO, SK, SI, ES, SE, CH, TR, GB, DE, PL, LU
	2E+	20 / 25	No regulation	3.30	Default 487230035	490375641	BE, FR
	2E (G20)	20	8	4.00	Default 487230035	490375642	NL
	2L (G25)	25	12				
	2(43.46-45.3 MJ/m ³ (0 °C)) (G25.3)	25	12				
	2LL (G25)	20	12	4.00	Default 487230035	490375642	DE

Note!

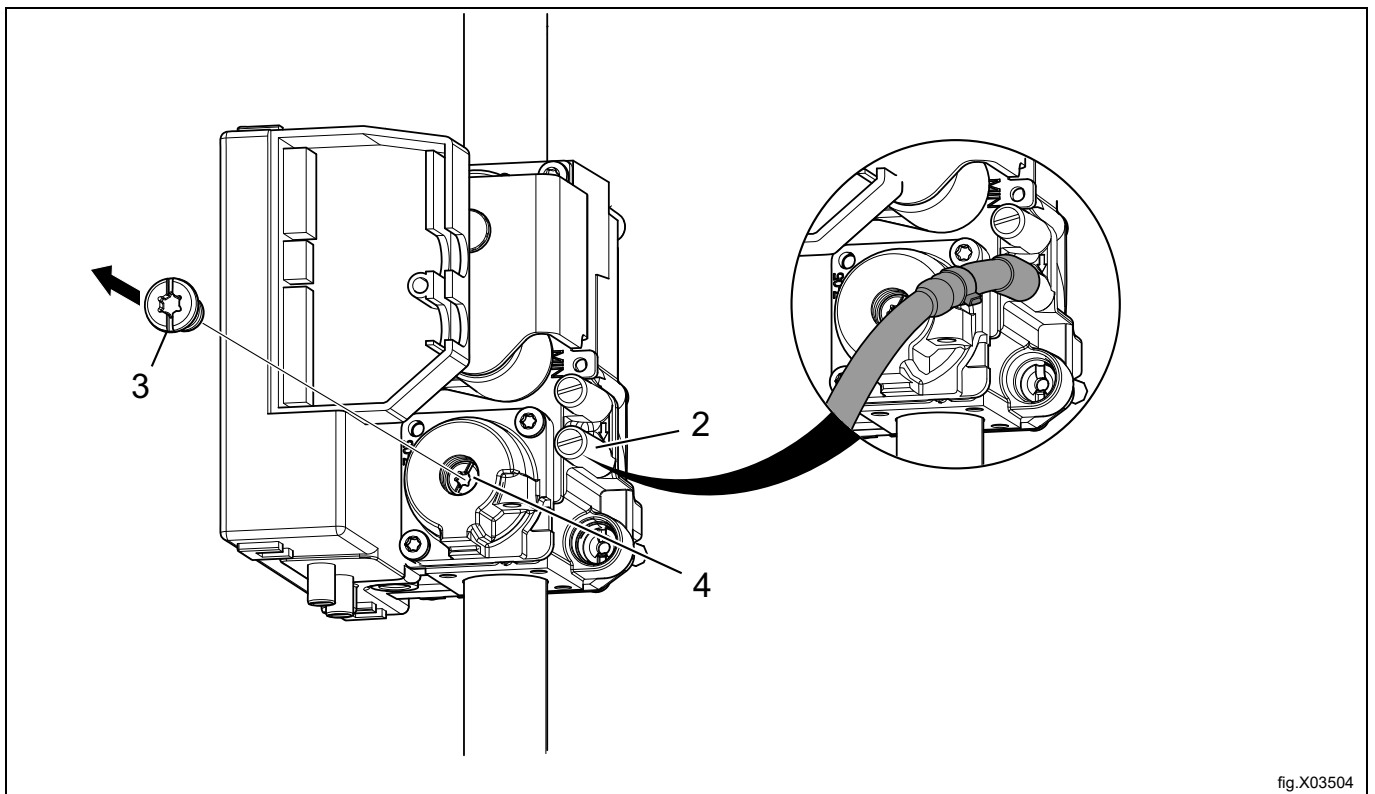
- The default gas appliances are built to run on natural gas (GNH) according to 2H or 2E (G20).
- The default gas appliance shall not be installed at an altitude above 610 m (2001 ft).
- To run on another gas type or/and an altitude above 610 m (2001 ft) gas converting must be done on the machine.
- The gas converting accessories for other gases at altitudes below 610 m (2001 ft) are in the accessory bag.
- The high altitude accessory kit for altitudes above 610 m (2001 ft) is not included.
- The high-altitude kit is available to order for natural gas 2E (G20) and propane 3P, for the kit no. please refer to the spare parts list.
- For LPG use gas qualities according to GPA Midstream Standard 2140-23.

6.5 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.

- 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.

Note!

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

6.6 Converting instructions

- Disconnect the power to the machine.
- Demount the back panel.
- Demount the air restriction plate (1).
- Demount the nozzle (2) and mount the new supplied nozzle.
- Re-mount the air restriction plate.

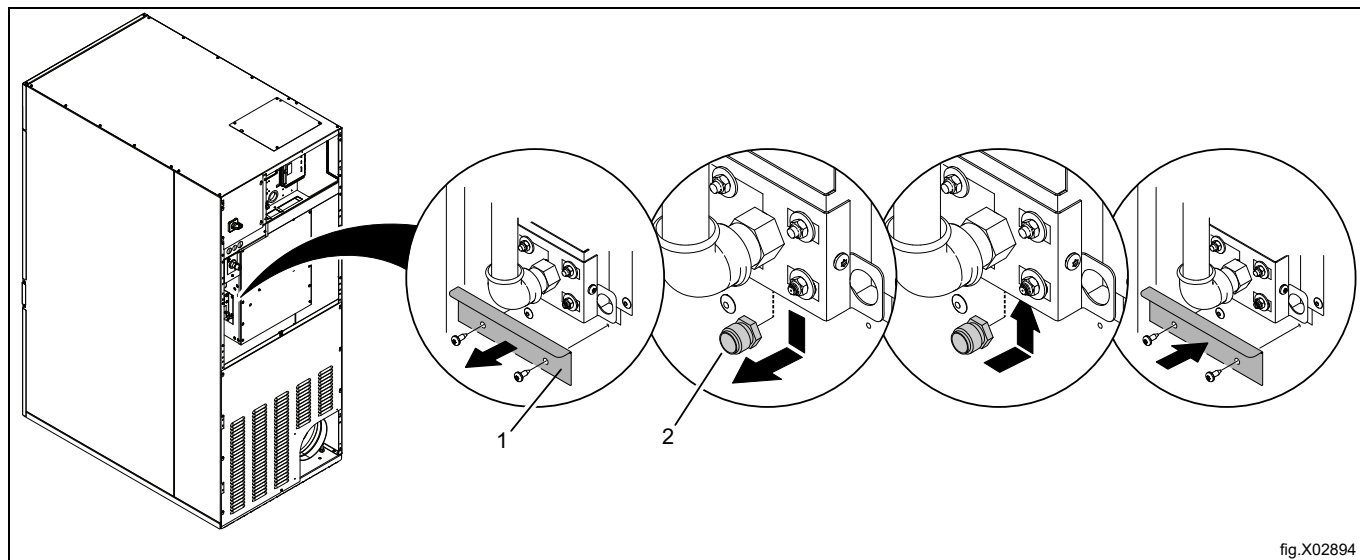


fig.X02894

- Loosen the measuring branch screw (2) 1/4 turn; connect a manometer to the measuring branch.
- Connect the power to the machine and select a program with heat.
- Start the machine.
- Set the correct nozzle pressure according to the table on setting screw (4) under the cover screw (3).

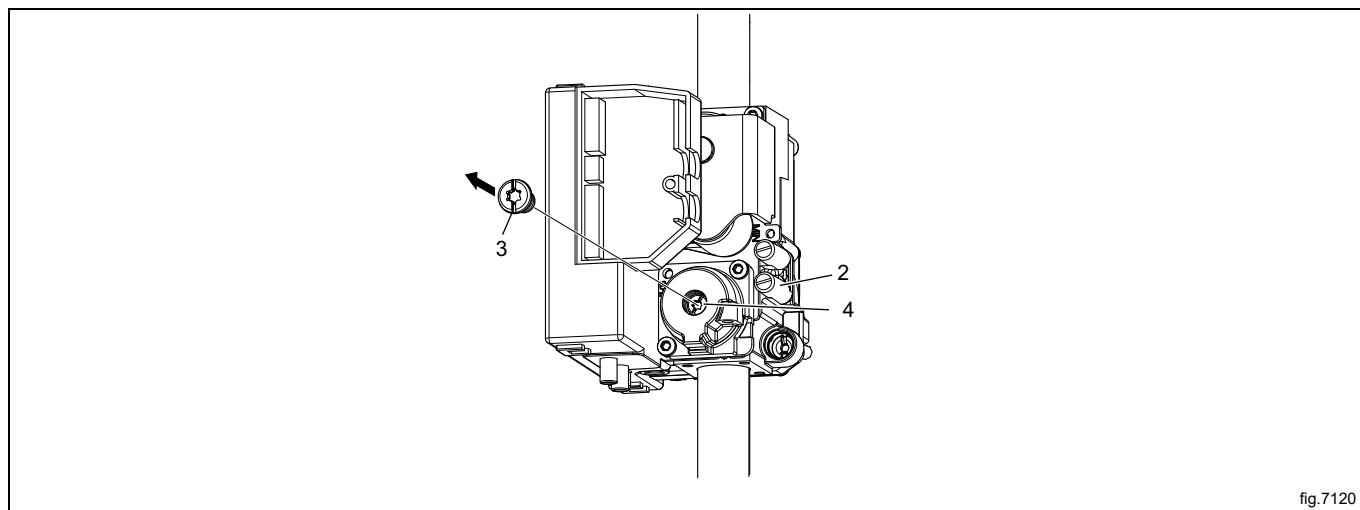


fig.7120

- Check that the gas flame burns evenly.
- Mount the cover screw (3).
- Tighten the screw (2) when the adjustments are done.
- Remount the lower back panel.

Note!

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

6.7 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.

The diagram illustrates the correct placement of a conversion kit data label. It shows a main data label on the machine with a conversion kit label placed on top of it. An arrow indicates the alignment of the conversion kit label over the main label's technical specifications.

Main Data Label:

WXXXXX
 Product no.: 9868XXXXXX
 Serial no.: 09XXX / 99XXXXXX
 OC: 09XXXXXX Date: 10XX Wiring diag: 432XXXXXXX
 Program: 432XXXXXX, 5XXX
 Type: WN3...WN3XXXX

WXXXXX
 Product no.: 9868XXXXXX
 Serial no.: 09XXX / 99XXXXXX
 OC number: 09XXXXXX Date(YMM): 10XX
 Capacity: X kg
 Type/Model: WN3...WN3XXXX
 Voltage: 380 – 400V 3N ~ 50Hz

Rated Input: 1,6kW

10A

ΣQn(Hs) 21 KW PIN NO. 2575DM30487
 AT, BG, CZ, DK, EE, FI, GR, HR, HU, IS, IE, IT, LV,
 LT, NO, PT, RO, SK, SI, ES, SE, CH, TR : I2H (20MBAR)
 DE, PL, LU : I2E (20/25MBAR)
 GB : I2H (20MBAR) PIN NO. 359BQ491
 MANIF. PRESS.: 8 MBAR INJECTOR: Ø 4.00 MM
 NATURAL GAS : G20
 (INLET PRESS.: 20-25 MBAR, CAL. VAL. 37780 KJ/M3)

For safety reasons use only genuine spare parts.

Made in Sweden
 Electrolux Professional AB
 341 80 Ljungby, Sweden

WXXXXX
 Product no.: 9868XXXXXX
 Serial no.: 09XXX / 99XXXXXX
 OC: 09XXXXXX Date: 10XX Wiring diag: 432XXXXXXX
 Program: 432XXXXXX, 5XXX
 Type: WN3...WN3XXXX

Conversion Kit Data Label:

ΣQn(Hs) 21 KW PIN NO. 2575DM30487
 BE, CH, CY, CZ, ES, FR, GR, IE, IT,
 LT, LU, LV, PT, SK, SI : I3+ (28-30/37MBAR)
 GB : I3+ (28-30/37MBAR) PIN NO. 359BQ491
 MANIF. PRESS.: 28-30/37MBAR INJECTOR: Ø 2.30 MM
 LPG GAS: G30/G31
 (INLET PRESS.: 28-30/37 MBAR, CAL. VAL. 125810/95650 KJ/M3)

fig.X02295

7 Electrical connection

7.1 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.

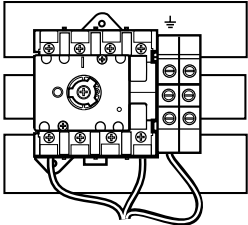
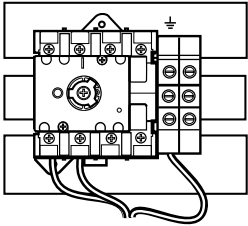
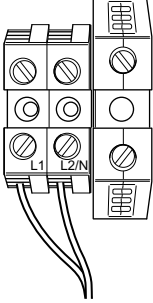
In accordance with the wiring rules: mount a multi-pole switch prior to the machine to facilitate installation and service operations.

The connecting cable shall hang in a gentle curve.

For AU/NZ: Fixed wiring is in accordance with AS/NZS 3000.

7.2 Single-phase connection

Demount the cover panel from the supply unit. Connect the earth and other wires as shown.

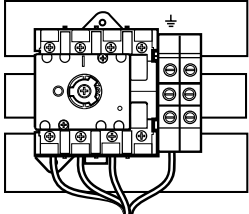
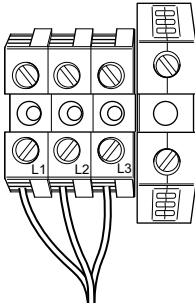
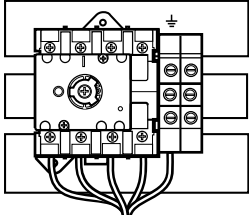
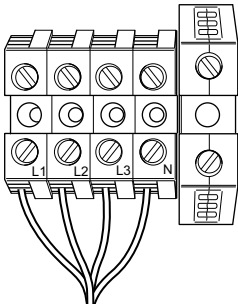
1NAC	
1AC	
1AC	

When the installation is completed remount the cover panel and check:

- That the drum is empty.
- That the machine operates by connecting the power to the machine and start a program with heat.

7.3 Three-phase connection

Demount the cover panel from the supply unit. Connect the earth and other wires as shown.

3AC	
3AC	
3NAC	
3NAC	

When the installation is completed remount the cover panel and check:

- That the drum is empty.
- That the machine operates by connecting the power to the machine and start a program with heat.

7.4 Electrical connections

Electrical connections					
Heating alternative	Main voltage	Hz	Heating power kW	Total power kW	Recommended fuse A
Electric heated	220-240V 1/1N~	50/60	9.0/13.5	9.8/14.3	50/63
	220-230V 3~	50/60	13.5/18.0	14.3/18.8	50/50
	240V 3~	50/60	13.5/18.0	14.3/18.8	35/50
	380-400V 3N/3~	50/60	13.5/18.0	14.3/18.8	25/32
	415V 3N/3~	50/60	13.5/18.0	14.3/18.8	20/32
	440V 3~	60	13.5/18.0	14.3/18.8	20/25
	480V 3~	60	13.5/18.0	14.3/18.8	20/25
Gas heated/Steam heated	220-480V 1/1N/3/3N~	50/60	1	0.8	10

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

7.5 Functions for I/O-cards

The electrical schematic can be one of the following:

7.5.1 Central payment (2J)

To start the machine from a central payment system, the payment system must transmit a start pulse 300–3000 ms (500 ms is recommended) with a minimum pause of 300 ms (500 ms is recommended) between two pulses. The start pulse can be either 230V or 24V. In order to receive a feedback signal once the machine has started, 230V or 24V must be connected to connection 19. The feedback signal on connection 18 remains active (high) during the entire program.

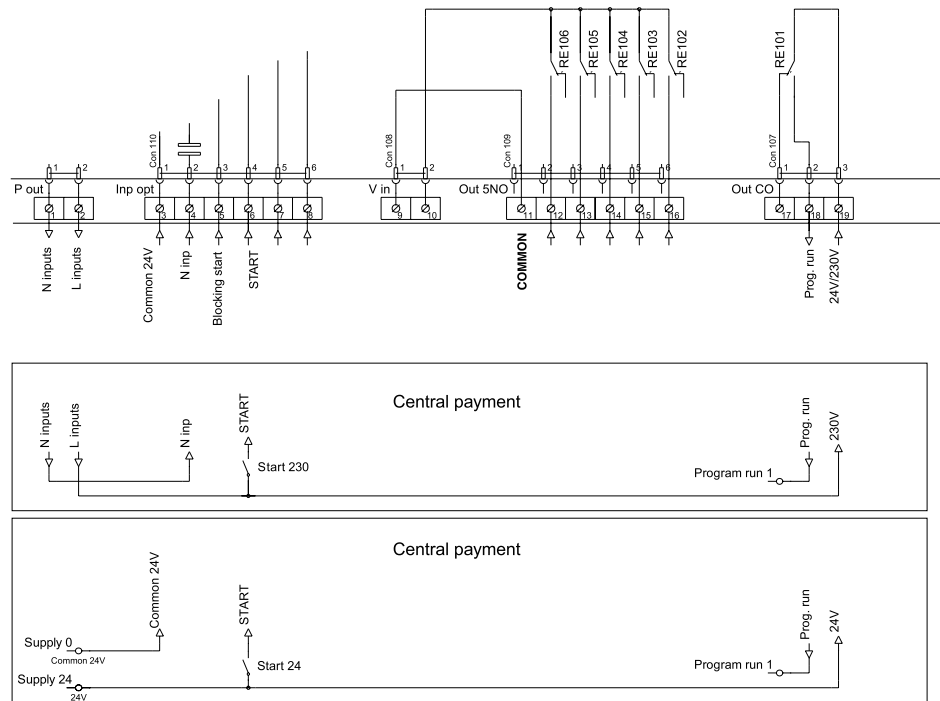


fig.7440

7.5.2 Central payment (2J)

The central payment or booking system shall transmit an active (high) signal to the machine once permission has been granted to start the machine. The signal must remain active (high) during drying. When the signal gets inactive (low) the machine will abort ongoing program and enter cooling. The signal can be either 230V or 24V. In order to receive a feedback signal once the machine has started, 230V or 24V must be connected to connection 19. The feedback signal remains active (high) during the entire program.

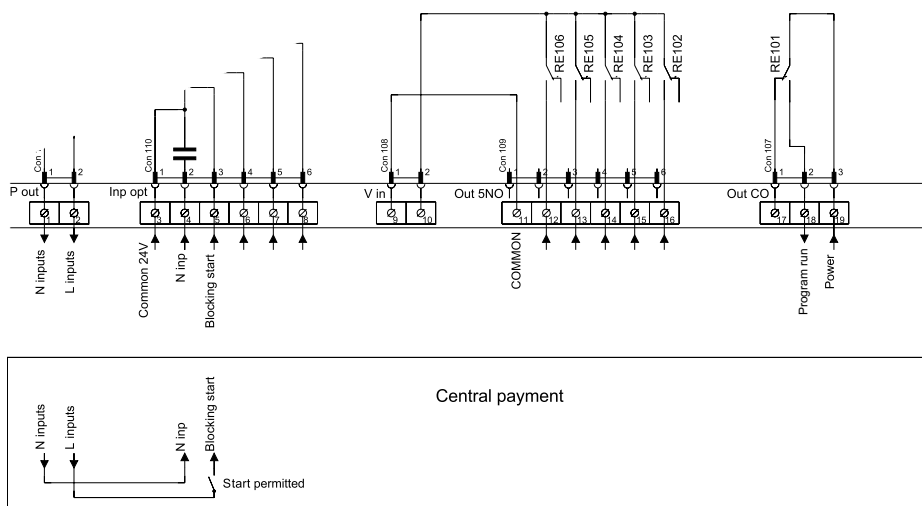


fig.7439

7.5.3 External coin meter/Central payment (2K)

The signal received from external coin meters must be a pulse between 300–3000 ms (500 ms is recommended) with a minimum pause of 300 ms (500 ms is recommended) between two pulses.

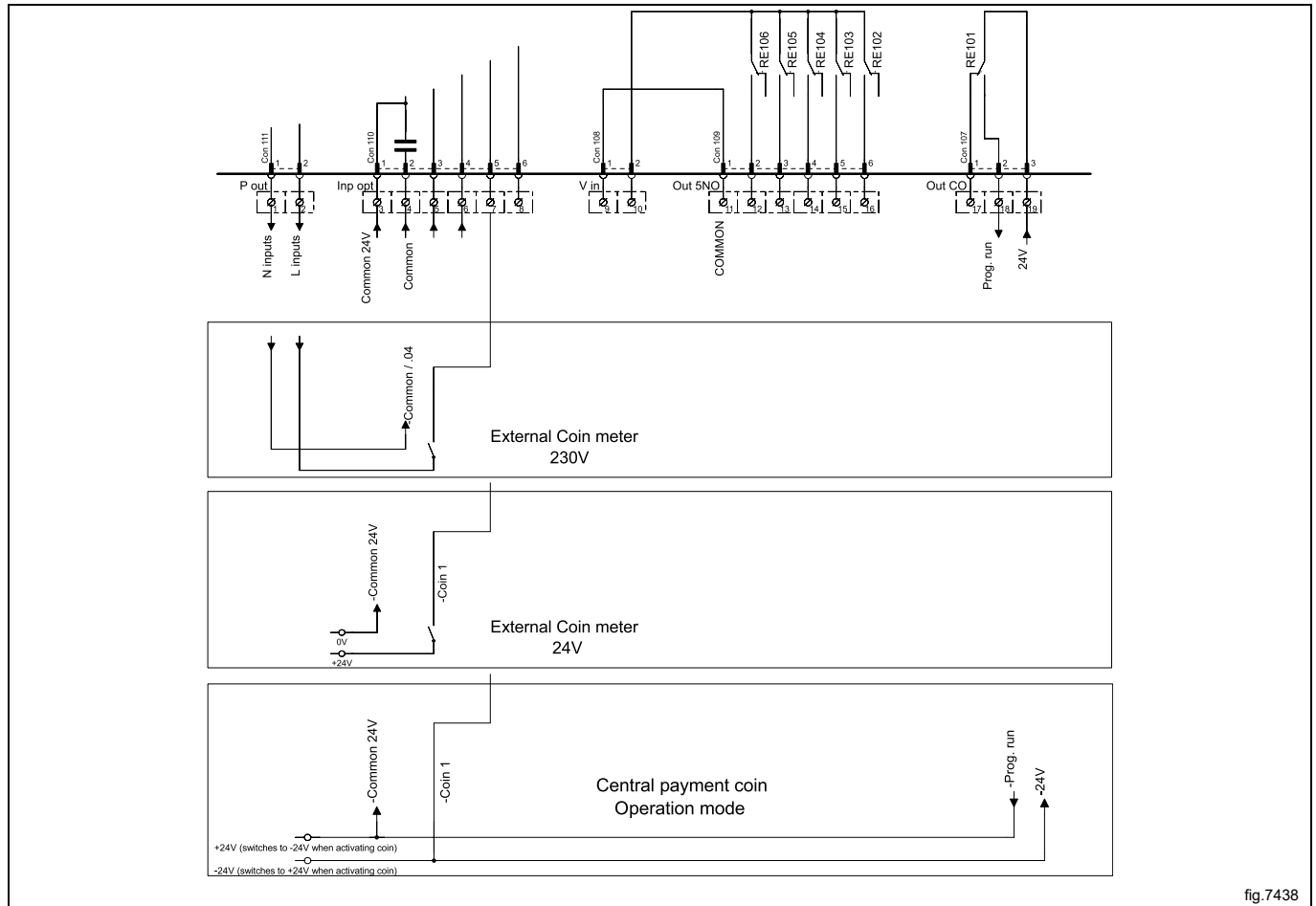


fig.7438

7.5.4 Price reduction (2K)

By maintaining an activated (high) signal on connection 5 ("Price red"), the price of the program can be reduced. This function has a number of uses, including providing reductions during a specific period of the day. Whilst the signal remains active (high), the price of the program is reduced (or the time is increased on time programs), by the percentage entered in the price programming menu.

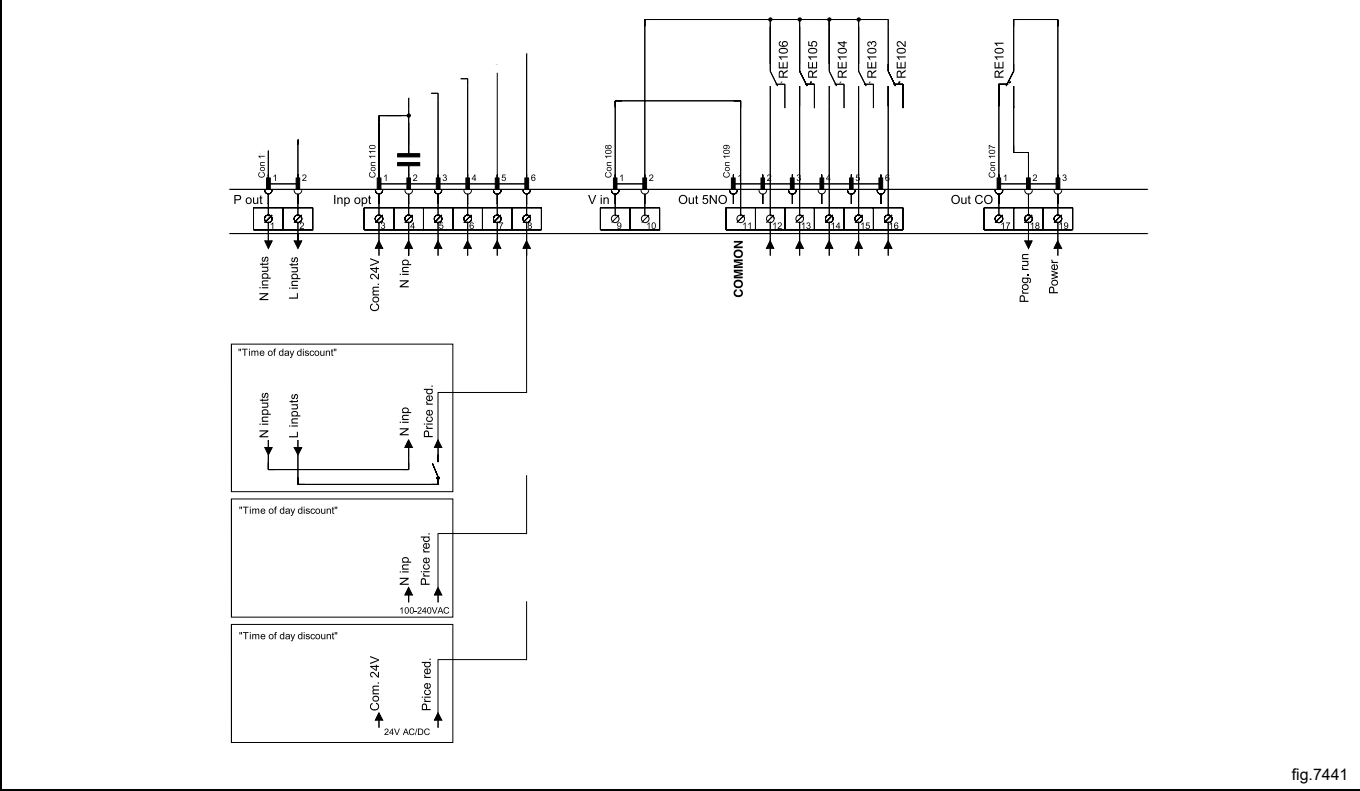


fig.7441

7.6 Option

7.6.1 External connection 100 mA

A special connection terminal is located on the connection console. This connection can be used as external control of a fan. The terminal for external control is equipped with 220–240V max. 100 mA and is intended solely for the operation of a contactor. Max. connection 100 mA. Gnd. must not be used for earthing of external board.

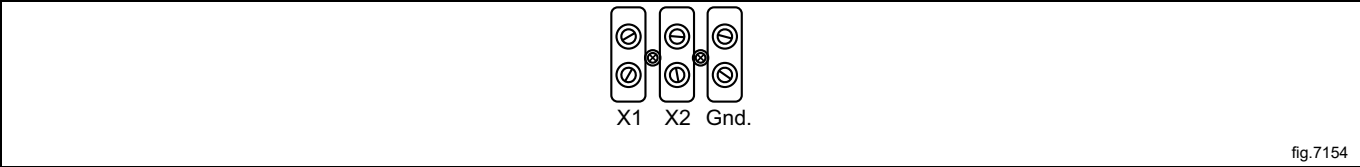


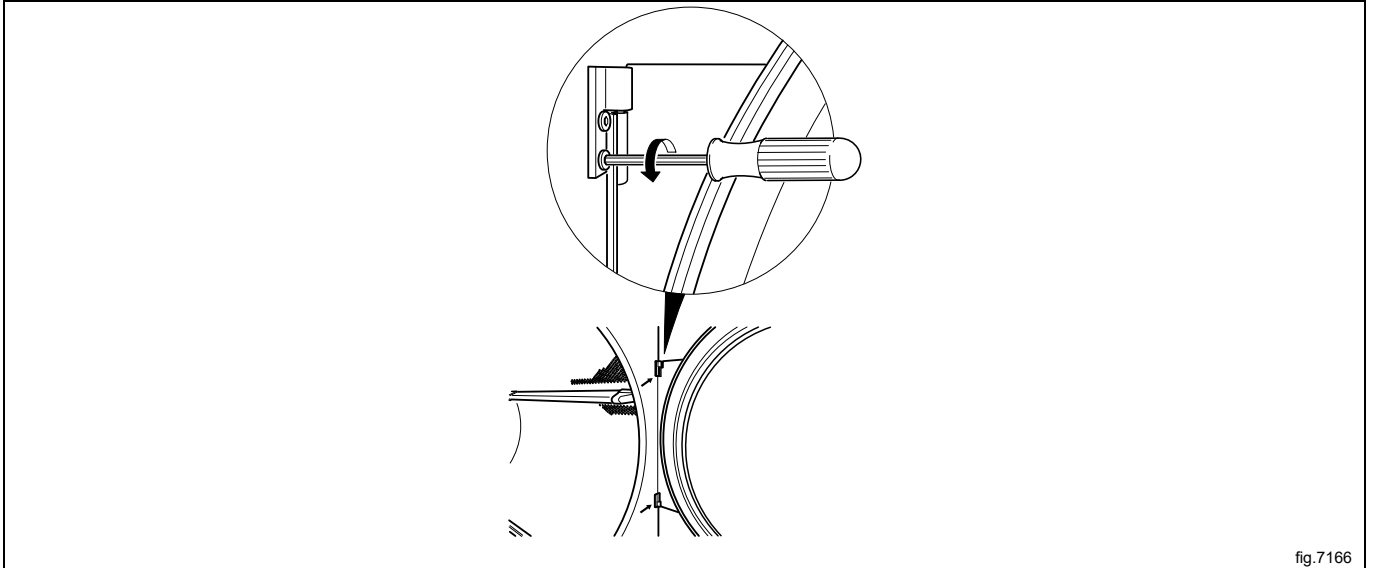
fig.7154

8 Reversing the door

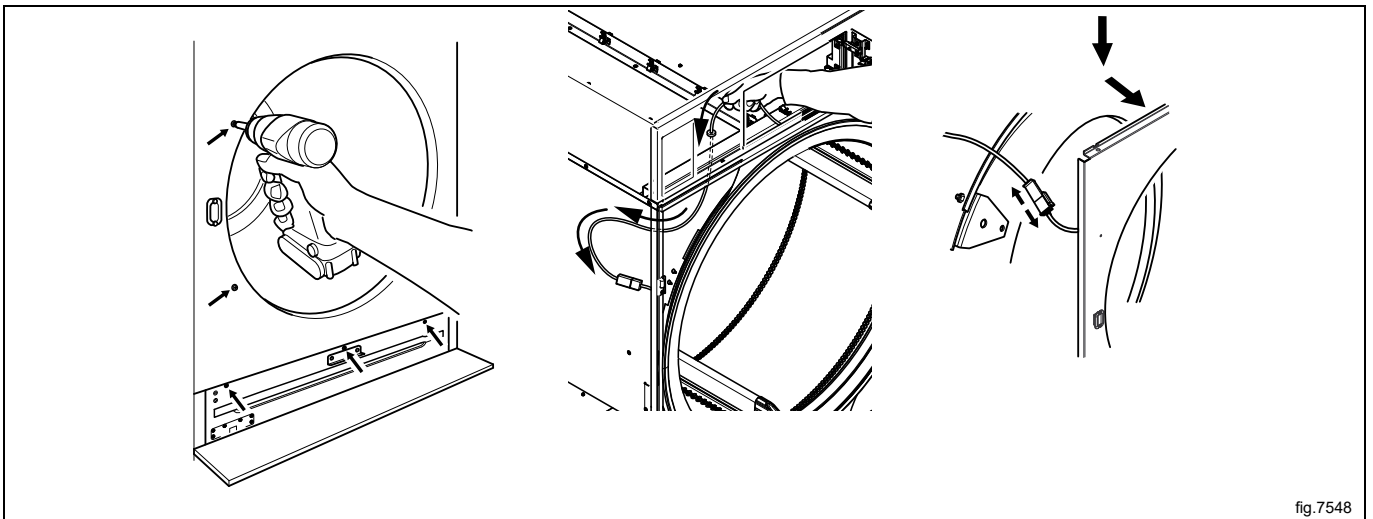
Disconnect the power to the machine.

Demount the hinges and remove the door.

- Remove the upper hinge first.
- Hold the door properly while removing the upper hinge. This is to avoid the lower hinge being bent by the door's load, which can affect the lower hinge to be broken in the future.
- Remove the door by vertically lifting it from the lower hinge. (Do not lean the door while lifting it).
- Remove the lower hinge.



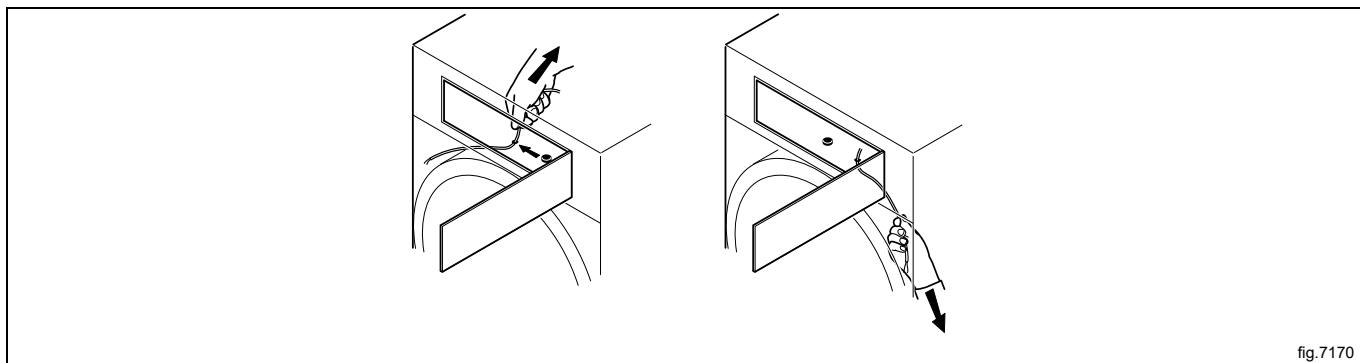
Remove the screws on the front panel and carefully loosen the panel. Push the door switch cable down through the hole in order to access the cable and then disconnect the cable. Remove the panel.



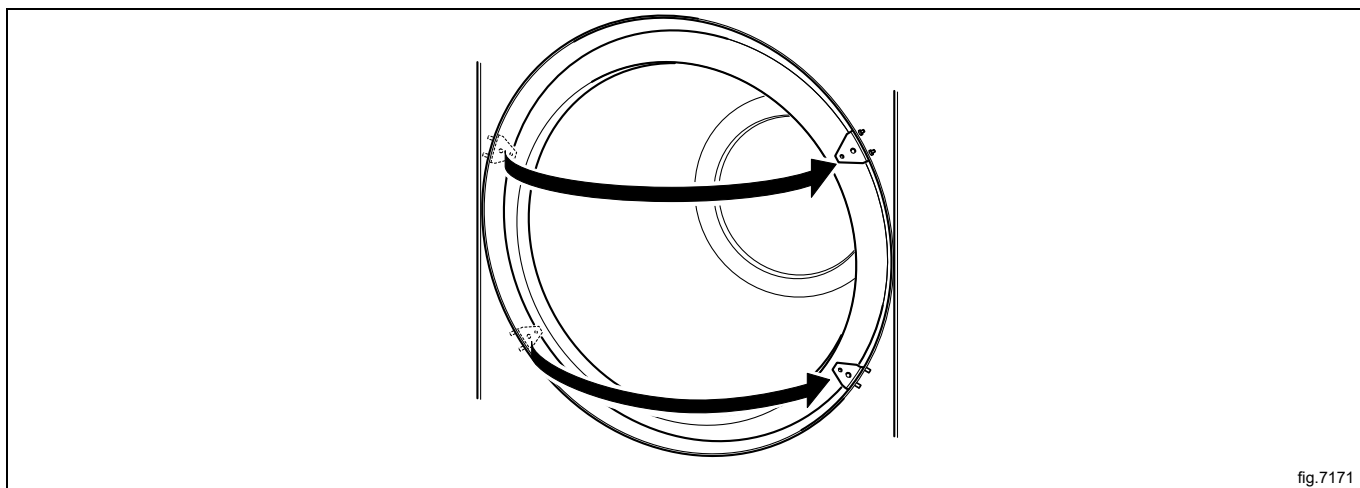
Move the door switch cable to the opposite side.

Note!

The plastic plug **MUST** be placed in the hole where the door switch cable was before.



Loosen the nuts and move the two brackets to the opposite side.



Move the door switch on the front panel.

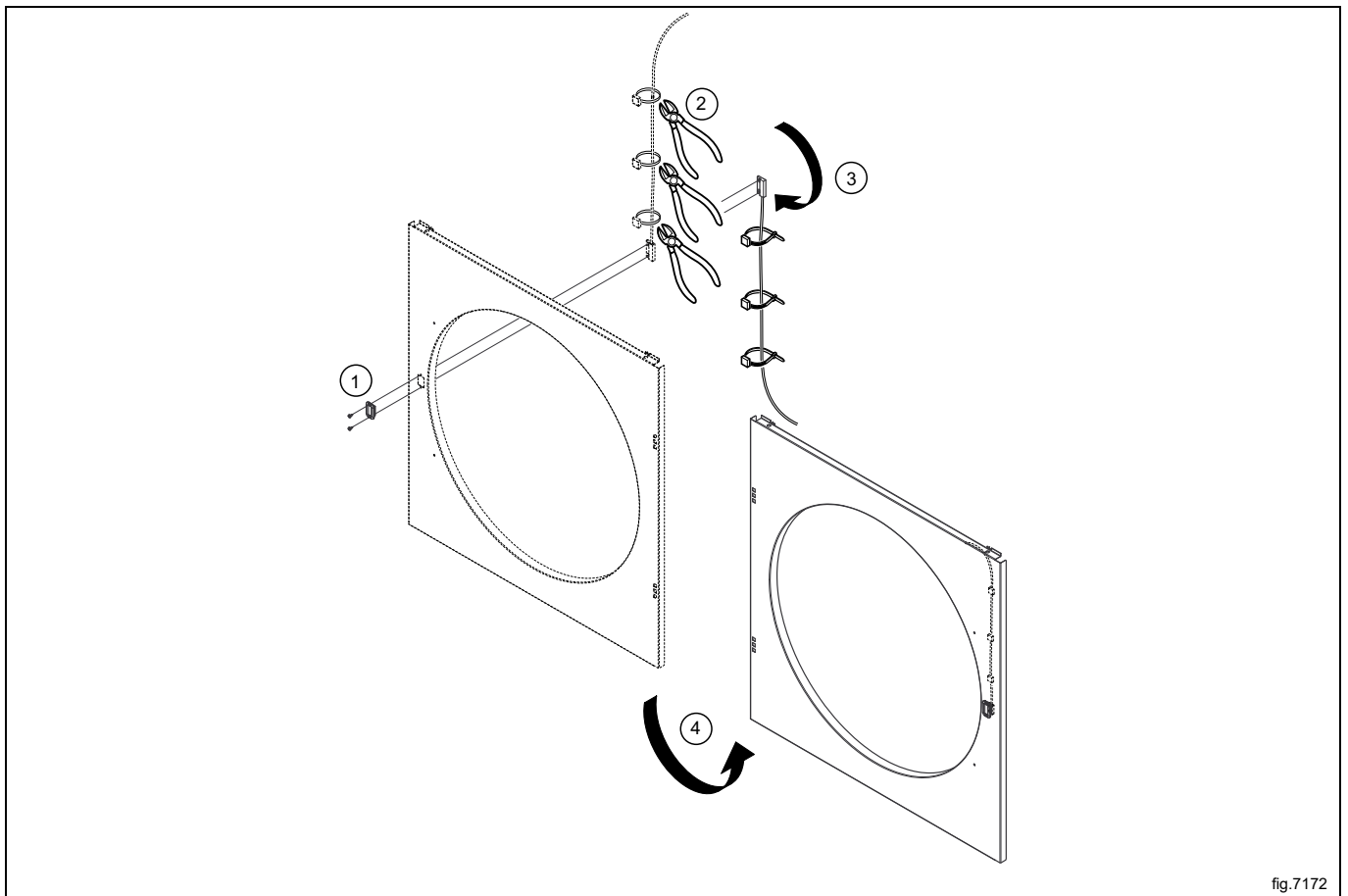


fig.7172

Move the four metal clips from the opposite side.

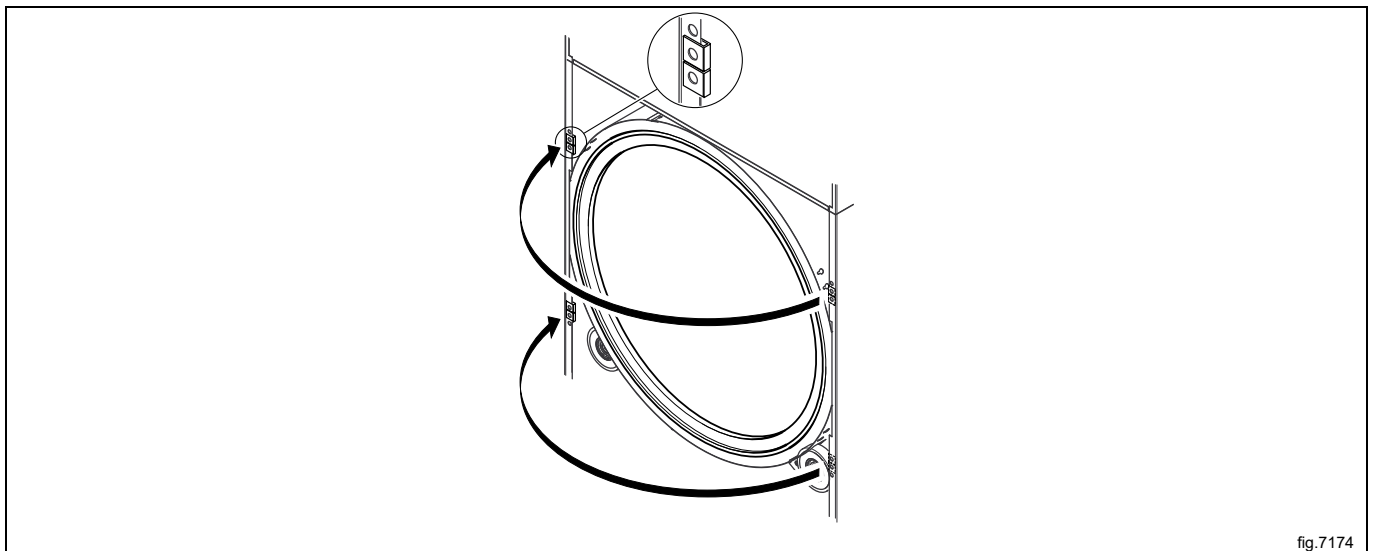
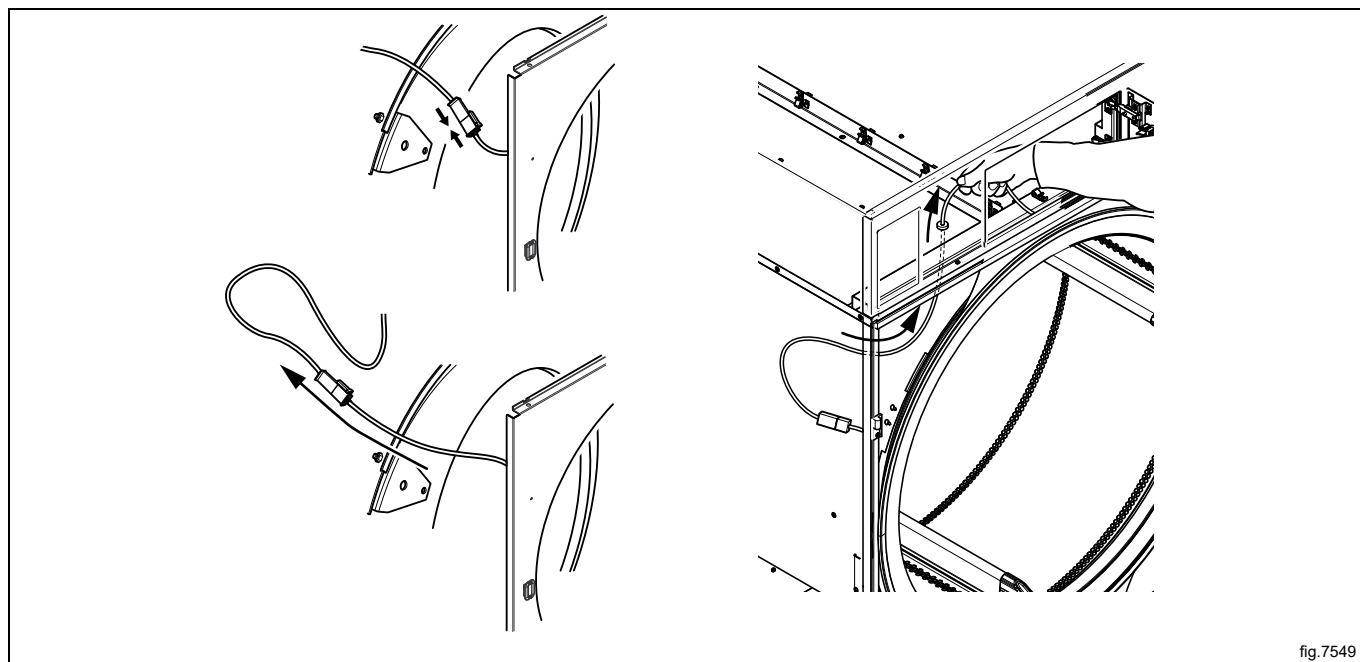


fig.7174

Connect the door switch cable and push the cable in over the drum and pull it upwards.



Remount the front panel.

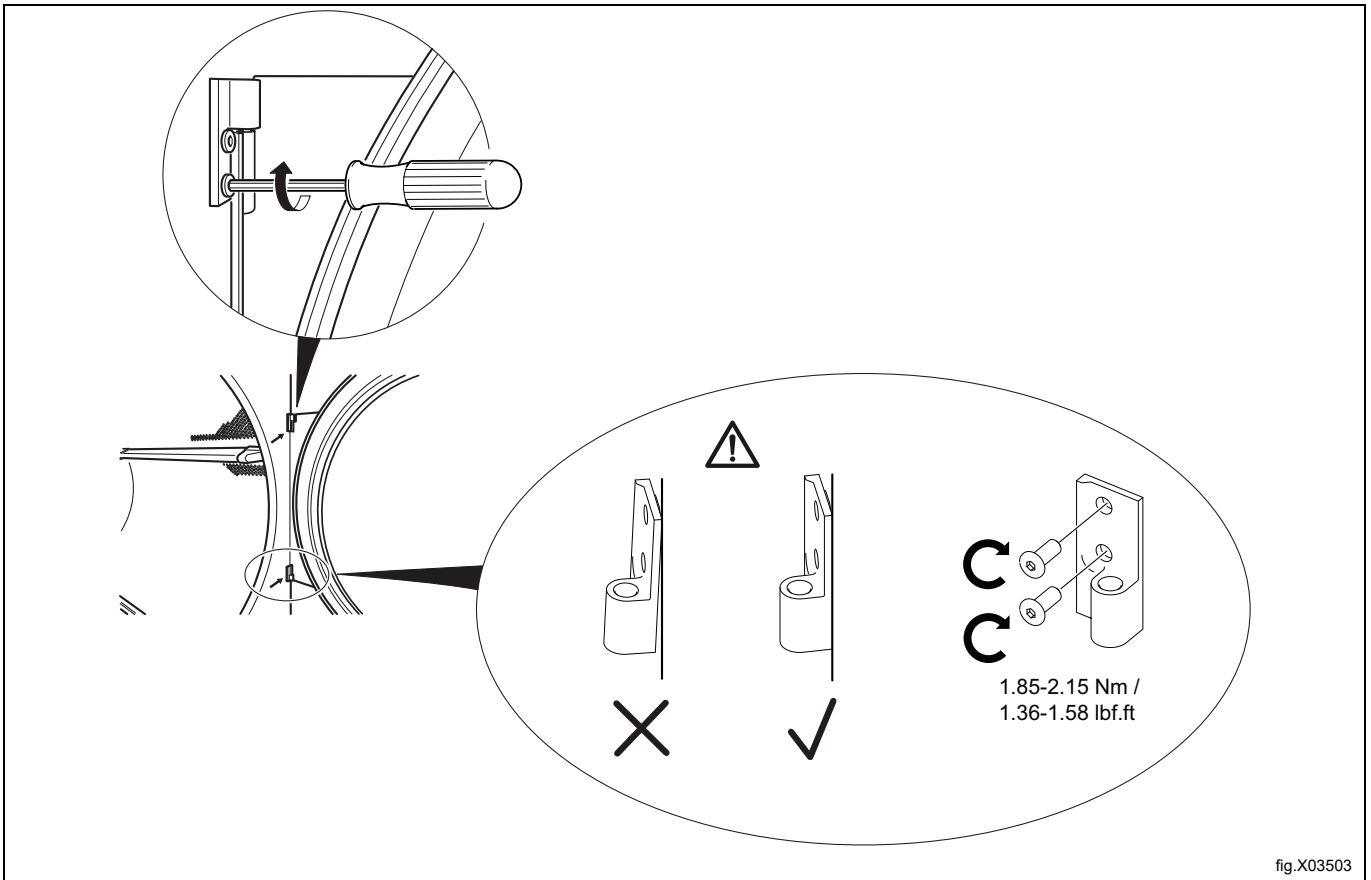


Ensure that the door switch cable does not get damaged when remounting the front panel.



Remount the door on the opposite side.

- Remount the lower hinge first.
- Make sure there is no gap between the hinge and the front panel.
- Fasten the hinge's screws with tightening torque 1.85-2.15 Nm / 1.36-1.58 lbf.ft.



- Remount the door in vertical position to the lower hinge. (Do not lean the door while inserting the door's pin).
- Remount the upper hinge. (Hold the door properly while mounting the upper hinge. This is to avoid the lower hinge being bent by the door's load, which can affect the lower hinge to be broken in the future).

Connect the power to the machine.

Test run the machine.

9 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

9.1 Select language

Select language from the list on the display using the up and down buttons.

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

9.2 Set time and date

Select YES and press the start button 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 the start button.
- Set the month. Exit to continue with a long press on the start button.
- Set the day. Exit with a long press on the start button and then save with a long press on the start button.

Exit the menu when ready.

9.3 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.

10 Function check



May only be carried out by qualified personnel.



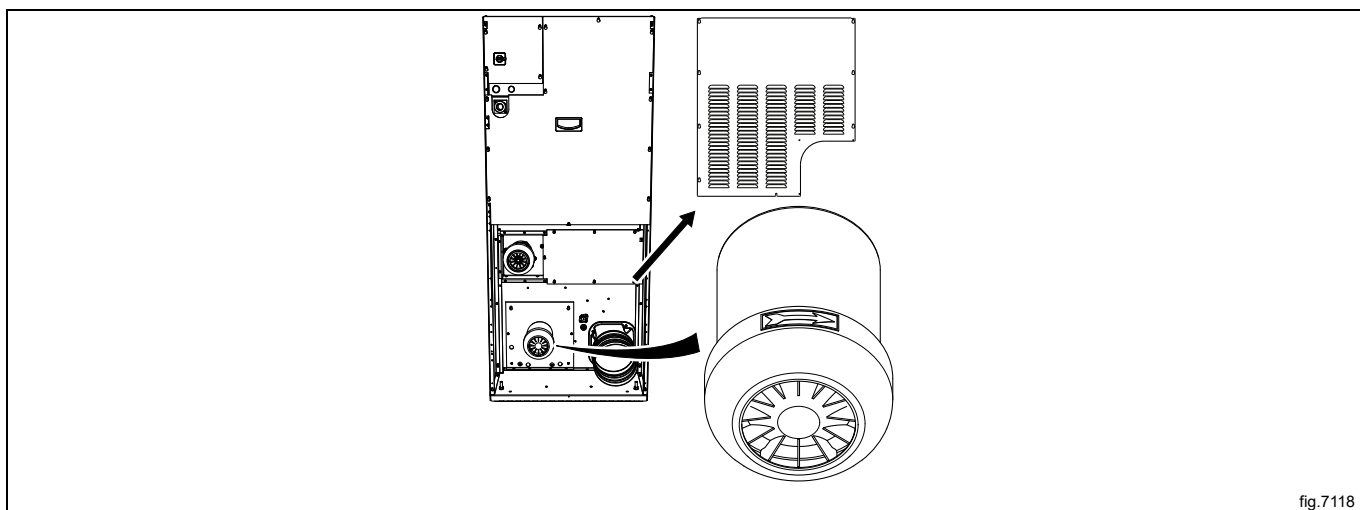
A function check must be made when the installation is finished and before the machine can be ready to be used. Whenever a repair has been made, a function check must be performed before the machine can be used again.

Check the automatic stop of the machine

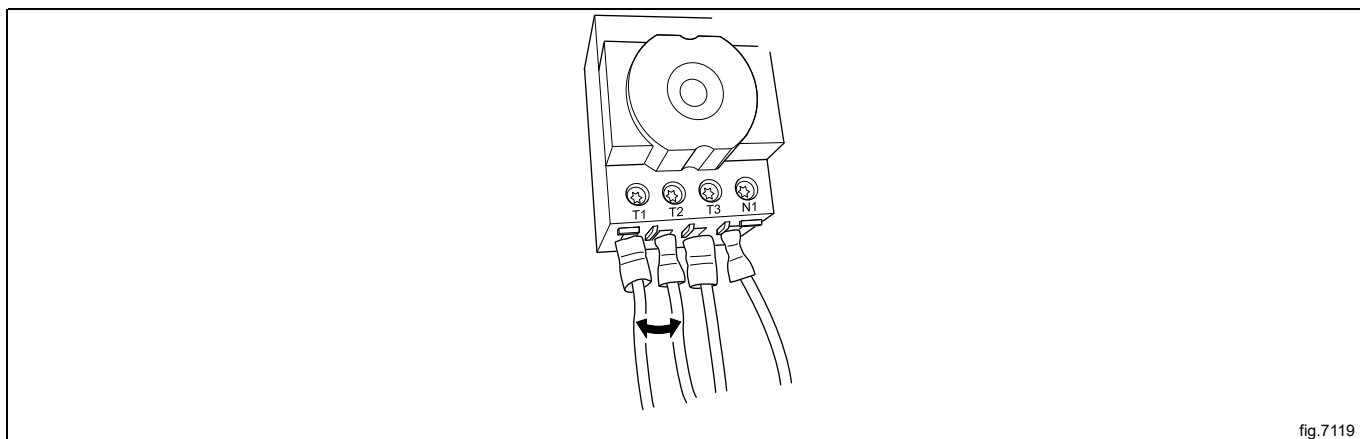
- Start the machine.
- Check if the micro switches are working properly:
The machine must stop if the door is opened.

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

- Demount the lower back panel of the machine.
- Check that the direction of the fan wheel is correct.



If the direction is wrong, swap two of the three phases to the left 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.

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.

11 Disposal information

11.1 Appliance recyclability and disposal

11.1.1 Recyclability

Our appliances are manufactured using a significant percentage of recyclable metals (such as stainless steel, iron, aluminium, galvanized sheet, copper, etc.), which can be recovered through the local recycling systems, in compliance with the regulations in force in the country of use.

National regulations regarding waste disposal may vary. Disposal of the appliance must therefore be carried out in accordance with the applicable legislation and the directives issued by the competent authorities in the country where the appliance is decommissioned.

The components of the appliance must be separated and disposed of in accordance with their material composition (e.g. metals, oils, greases, plastics, rubber, refrigerant gases, insulating boards and other insulating material, glass wool, LEDs, etc.) and in full compliance with applicable local and international waste management regulations.

Compressors may contain oils and refrigerants fluids - are special waste and has to be recycled on local bases regulations.

11.1.2 Procedure regarding appliance disposal and component / material recovery

This product should not simply be disposed of in the environment at the end of its life cycle; it is imperative instead either to dispose of it in accordance with local environmental regulations, or, preferably, to deliver it whole to an authorized recycling center.

All removed components, including doors and other structural parts, must be delivered together with the appliance to an authorized recycling or dismantling facility.

The dismantling/recycling center will apply state of the art technologies and methods available to them to effectively disassemble the products for best recyclability.

Note that printed circuit boards, electrical motors or other components identified in European Union legislation to be of high critical raw materials recovery potential need to be addressed specifically.

In case of doubts or questions, always refer to your reference customer care service.

Before disposing of the appliance, carefully inspect its physical condition and preservation state, checking for potential leaks of liquids or gases, as well as for broken parts that may pose hazards during handling and subsequent dismantling.



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 dismantling the appliance, any marking, this manual and other documents concerning the appliance must be destroyed.

11.2 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.

	Polyethylene: • Outer wrapping • Instructions bag
	Polypropylene: • Straps
	Polystyrene foam: • Corner protectors



Electrolux Professional AB
341 80 Ljungby, Sweden

Share more of our thinking at www.wascomat.com