

Installation manual

Washer extractor

Wascator FOM71 CLS



Electrolux
PROFESSIONAL

Contents

Contents

1	Safety Precautions	5
1.1	General safety information.....	6
1.2	Commercial use only.....	6
1.3	Symbols.....	6
1.4	Additional notes.....	6
2	Technical data.....	7
2.1	Drawing.....	7
2.2	Technical data.....	8
2.3	Connections.....	8
2.4	Function/subsystem.....	9
3	Setup.....	11
3.1	Transportation and unpacking.....	11
3.2	Siting and floor.....	13
3.3	Mechanical installation.....	14
4	Water connection.....	16
5	Drain connection.....	17
6	Sample tap.....	17
7	Connection of external liquid supplies.....	18
8	Electrical installation.....	21
8.1	Electrical connections.....	22
9	Function checks.....	23
9.1	Manual operation.....	23
10	Assembling the ruler.....	24
11	Calibration of level control system.....	25
12	Calibration of the scale (weight function).....	28
13	Connection of thermosensor.....	29
14	Disposal information.....	30
14.1	Disposal of appliance at end of life.....	30
14.2	Disposal of packing.....	30

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.
- Only use detergent intended for water-wash of textiles. Never use dry cleaning agents.
- The machine shall be connected with new water hoses. Re-used water hoses must not be used.
- The machine's door lock must under no circumstances be bypassed.
- If the machine develops a fault, this must be reported to the person in charge as soon as possible. This is important both for your safety and that of others.
- 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.
- 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, the instructions state that 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: 7 kg.
- A-weighted emission sound pressure level at working stations:
 - Wash: <70 dB(A).
 - Extraction: <70 dB(A).
- Maximum inlet water pressure: 1000 kPa
- Minimum inlet water pressure: 50 kPa
- 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:
 - CAUTION: This appliance shall not be installed where the public has access.
- 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.
 - This appliance is intended to be used in household and similar applications such as: (IEC 60335-2-7) staff kitchen areas in shops, offices and other working environments, farm houses, by clients in hotels, motels and other residential type

environments, bed and breakfast type environments, areas for communal use in blocks of flats or in laundrettes.

1.1 General safety information

The machine is only intended for water-wash use.




Do not hose down the machine with water.

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.

1.2 Commercial use only

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

1.3 Symbols

	Caution
	Caution, high voltage
	Read the instructions before using the machine

1.4 Additional notes

Note!

Weight calibration (only Wascator FOM71 CLS):

If the value in the display shows more than ± 0.1 kg, reset scale to zero.

Level calibration:

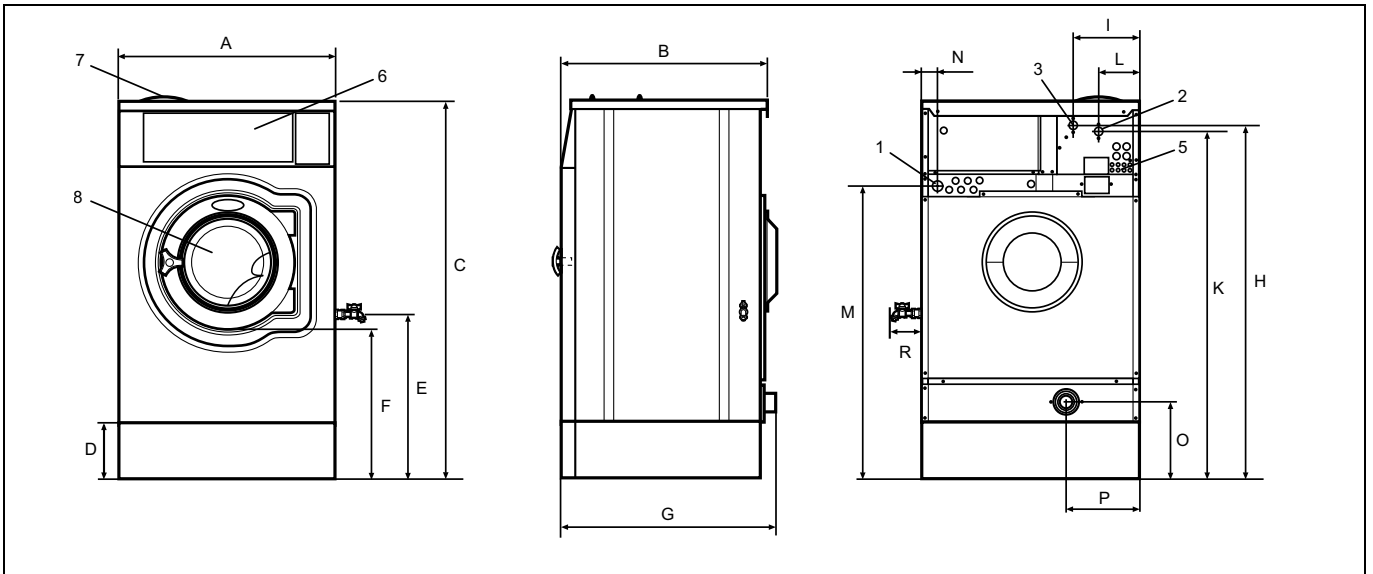
Check and calibrate if a longer test serie is to commence.

Note!

Some of the display texts and functions may not appear on your machine version.

2 Technical data

2.1 Drawing



1	Electrical connection
2	Cold water
3	Hot water
4	Drain
5	Liquid detergent supply
6	Control panel
7	Soap box
8	Door opening, \varnothing 310 mm

mm	A	B	C	D	E	F	G	H
	720	690	1315	200	750	555	720	1230

mm	I	K	L	M	N	O	P	R
	220	1010	135	825	45	100	240	135

2.2 Technical data

Inner drum, volume	litres	61
Inner drum, diameter	mm	520
Heating, electricity	kW	5.4
G-factor	max	350
Weight, net	kg	195

2.3 Connections

Water valves connection	DN20 BSP	3/4"
Recommended water pressure	kPa	200–600
Functioning limits for water valve	kPa	50-1000
Capacity at 300 kPa	l/min	20
Drain valve outer \varnothing	mm	50/75
Draining capacity	l/min	170

2.4 Function/subsystem

Ambient conditions The machine shall be able to function during the same ambient conditions as normal washing machines. However the functional values with tolerances will only be valid if following ambient conditions are kept.	
Voltage	Nominal $\pm 2\%$
Frequency	Nominal $\pm 2\%$
Water hardness	(2.5 ± 0.2) mmol/l
Inlet water, Cold	$(15 \pm)$ °C
Inlet water, Hot	Max (60 ± 2) °C
Water pressure	(240 ± 50) kPa
Ambient temperature	(20 ± 5) °C
Inner drum	
Diameter	(520 ± 1) mm
Depth	(315 ± 1) mm
Volume	61 l
Lifting vanes: Number	3
Height	53 mm
Radius	17 mm
Base width	65 mm
Perforation: Diameter	5 mm
Depth of countersink	2.5 mm
Total hole area	600 mm ²
Material: Stainless steel	2333 (SS 18/8)
Outer drum	
Diameter	554 mm
Sump	~ (1300 ± 25) ml
Material: Stainless steel	2333 (SS 18/8)
Door opening	
Opening diameter	310 mm
Cabinet	
Stainless steel	2333 (SS 18/8)
Drum speed	
Washing speed: Programmable	$(20 - 59 \pm 1)$ RPM
Extraction: Programmable	$(200 - 1100 \pm 20)$ RPM
Reversing rhythm	
Programmable	$(0 - 250 \pm 0.1) = \text{sec.}$ (Tolerance area refers to timer intervals)
Water level	
Weight sensing:	
Repeatability	± 0.1 kg/bath
Step size	≤ 0.05 kg
Dosing accuracy weight control	≤ 0.2 kg/bath
Level sensing:	
Repeatability	± 5 mm
Step size	≤ 2 mm
Dosing accuracy level control	≤ 0.8 litre/bath
Thermostat	
Continuous variable in each wash sequence	Yes
Selectable interval	$(4-97)$ °C
Programming steps	1 °C
Switch off temperature accuracy in Interval 30-97 °C	± 1 °C

Interval switch off temperature – switch on temperature	≤4°C
Soap box	
Number of compartments	4
Number of programmable liquid detergents	4
Wash programs	
Memory cards for	IEC 60456 ISO 6330 M&S
Approvals	
The machine shall have same approvals as normal washing machines	CE
Special equipment	
Manual tap for sampling of bath water on right side:	Yes
Connection for temperature recording sensor in rear gable:	Yes
Possibility to connect lint trap:	Yes
Memory card with copy safe programs for M&S and (IEC; ISO):	Yes
Procedure for calibration of the machine according to ISO 9000 rules:	Yes
Possibility to take out test pieces from wash bath during the wash:	Yes
Analog output from load cells to data acquisition systems:	Yes

3 Setup

3.1 Transportation and unpacking

The machine is delivered bolted onto the transport pallet and packed in a crate or box.

- Remove packing from the machine.
- Remove front and rear foundation panels.
Remove the bolts between the machine and pallet.
- Mount front and rear panel.
- Mount the feet and spacers in the load cells.
Do not move the machine until the feet have been mounted.
Note the threaded holes for the feet.

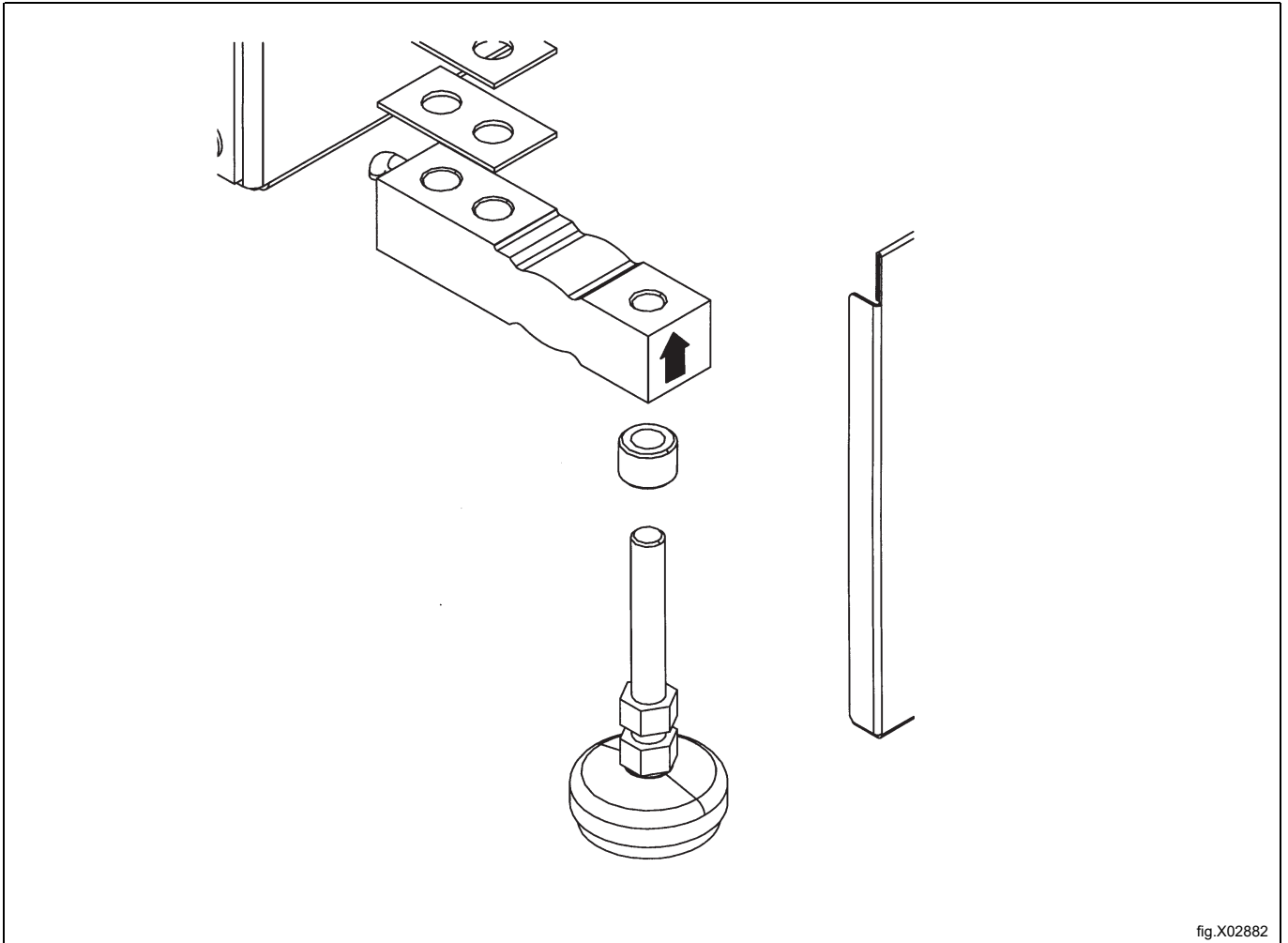


fig.X02882

- Push the machine back and mount the two rear feet and then the two front feet. The feet shall be mounted in the holes on the load sensor bridge.
- Lift the machine and remove the transport pallet.
- Place the machine on its final position.

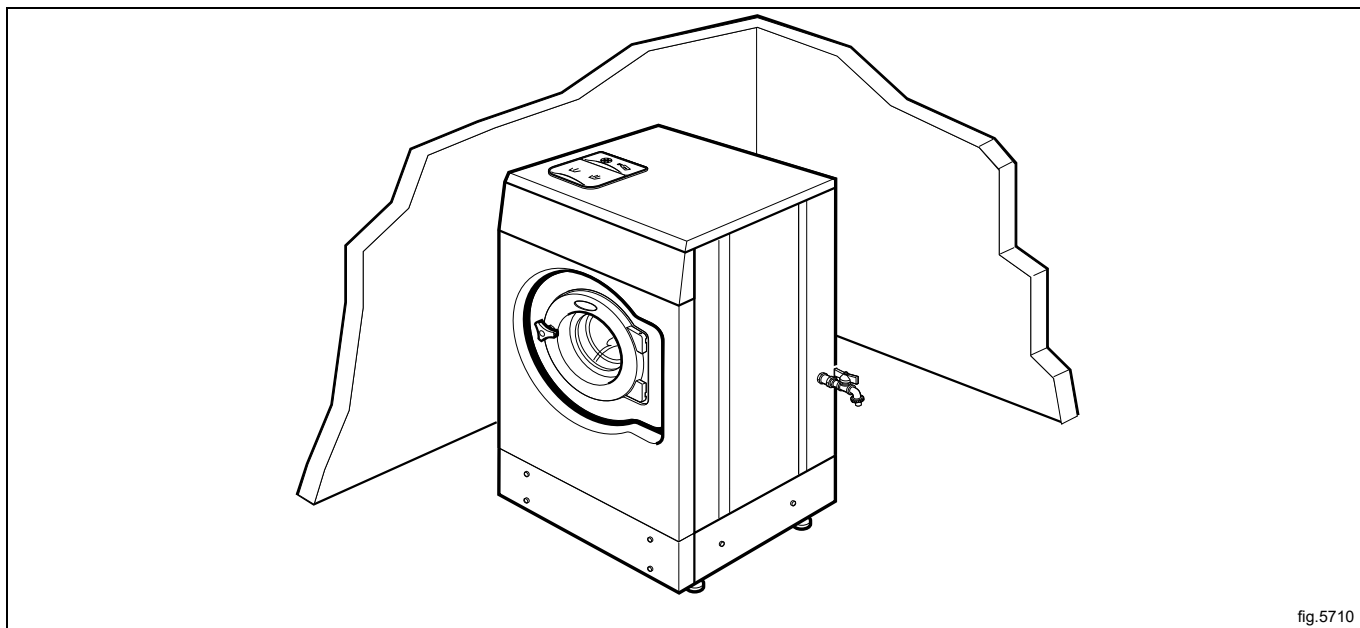


fig.5710

- Level the machine with the feet of the machine. The machine also comes with transport safety devices (four plate angles between the support and the drum).

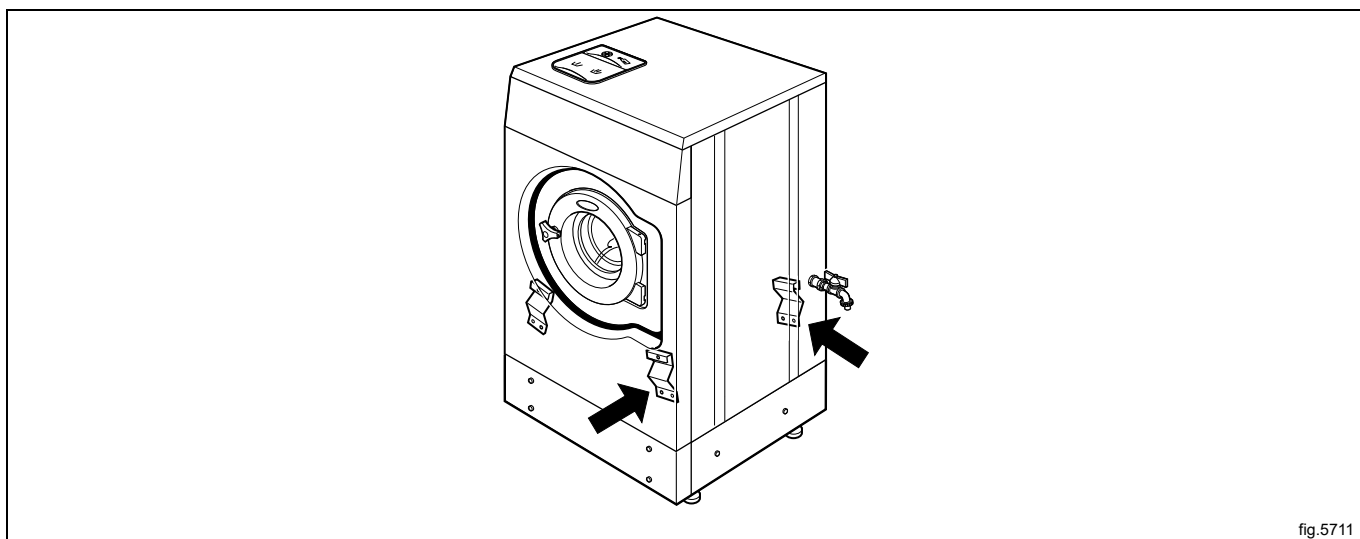
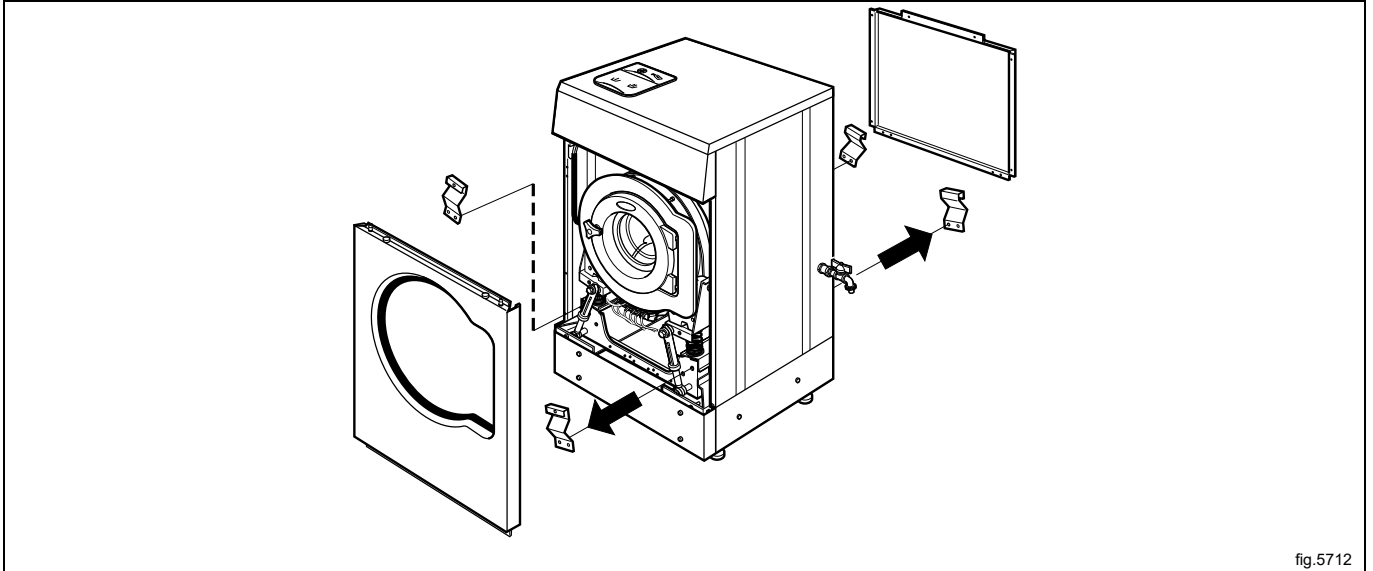


fig.5711

In order to remove the safety devices:

- Remove front and rear panel.
- Remove both front metal angels.
- Remove both rear metal angels.
- The machine may not be moved with the transport securities removed. Save the transport securities for future use.

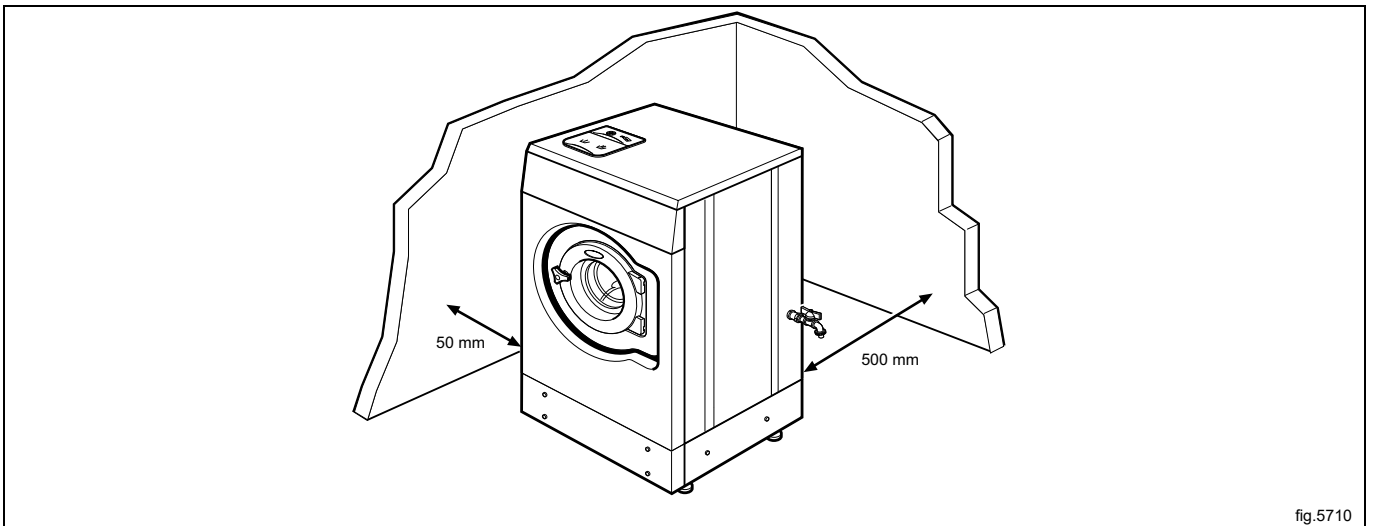


3.2 Siting and floor

Install the machine close to a floor drain or open drain.

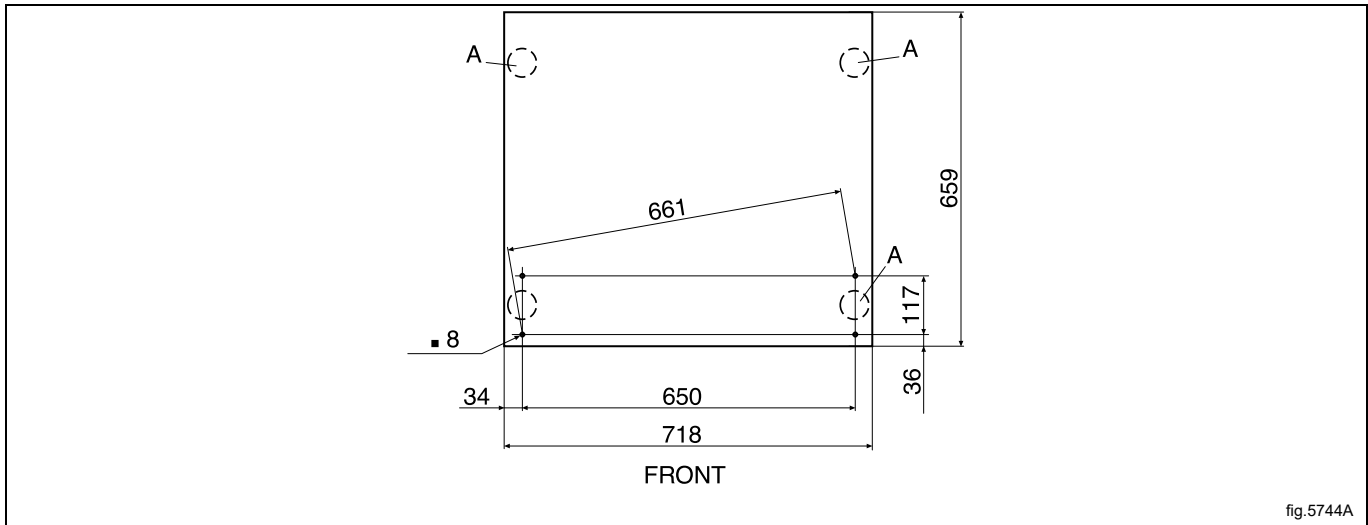
In order to make installation and servicing the machine easier the following clearances are recommended:

- At least 500 mm between the machine and the wall behind.
- Min. 50 mm on both sides of the machine whether installed next to the wall or other machines.

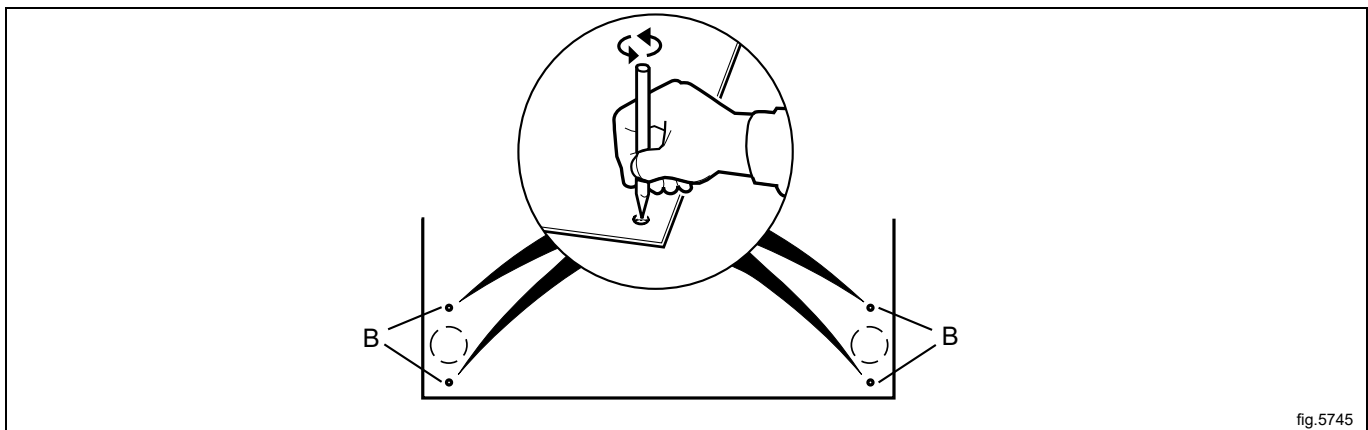


3.3 Mechanical installation

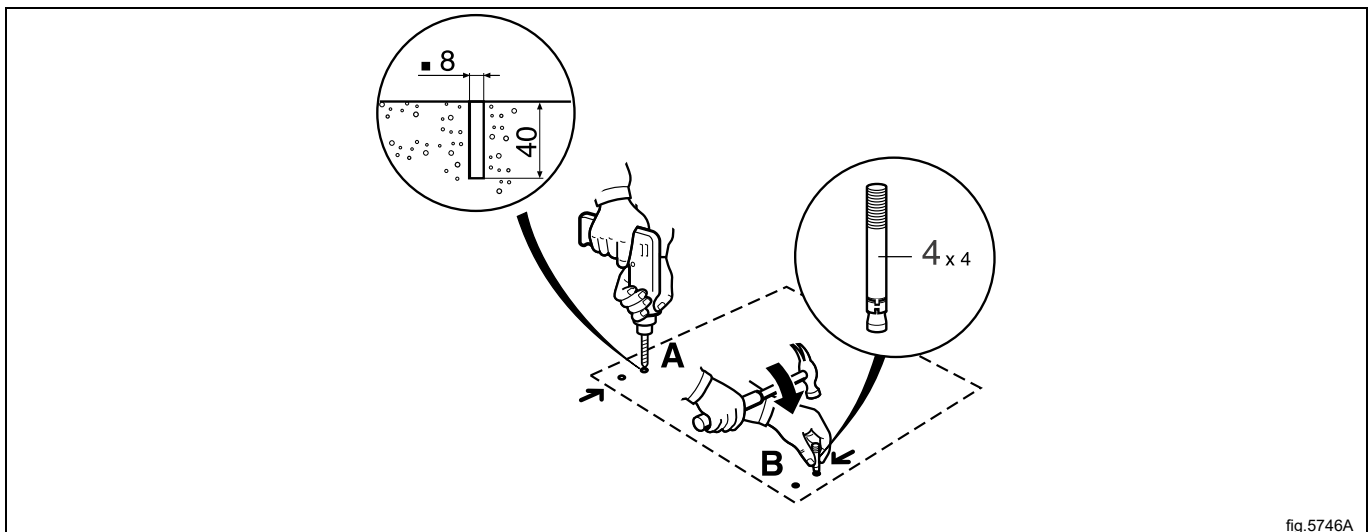
- Mark the site of the machine installation.
- The round mark up (A) on the drawing are the site for the feet of the machine.



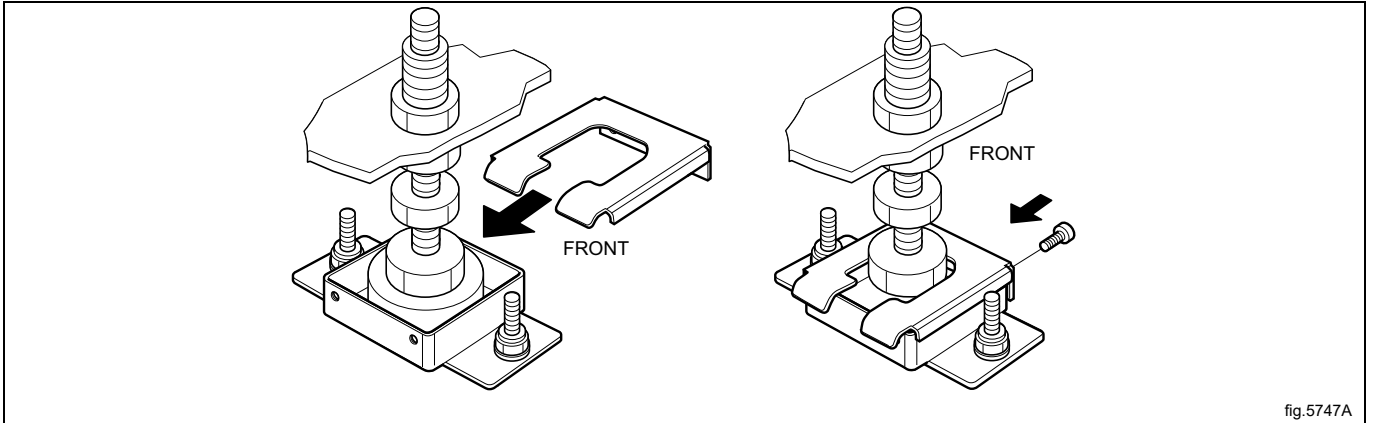
- Two tilt protections shall be mounted for the two feet at the front of the machine.
- Mark the four holes (B) on the floor.



- Drill $\varnothing 8$ to a depth of 40 mm. Mount the four expander bolts in the holes.



- Lift the machine in the bottom frame and place it with the feet in the cups. Center the feet in cups as much as possible.
- Mount the tilt protection and tighten with two screws.



- Check that the machine is placed in level. Adjust with the feet, the lock with the counter nuts.



It is of utmost importance that the machine is placed in level, from side to side as well as front to rear. If the machine is not properly levelled, it may result in out-of-balance without a real out of balance in the drum.

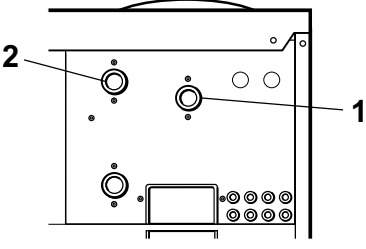
4 Water connection

All intake connections to the machine are to be fitted with manual shut-off valves and filters, to facilitate installation and servicing. In certain cases non-return valves will need to be fitted before the machine to comply with local plumbing regulations.

Water pipes and hoses should be flushed clean before installation. After installation hoses should hang in gentle arcs.

All water connectors must be connected up, otherwise the wash program will not function correctly.

Mount the supplied water hoses or the Y-hose to the machine. Make sure the hose(-s) hang in gentle arcs. A stiff hose may cause error in the weighing system.

	Water type	Water connection
	<ul style="list-style-type: none"> • Cold and hot 	<ol style="list-style-type: none"> 1. Cold 2. Hot

5 Drain connection

Connect a 75 mm (2 1/2") flexible rubber hose to the machine's drain pipe, ensuring a downward flow from the machine. Avoid sharp bends which may prevent proper draining.

There shall be an air-gap of 50 mm between the drain hose and the drain.

Be sure that the drain hose is flexible enough not causing weight problems for the scale.

PVC-pipe or corresponding material may not be connected to the machine due to the load cells.

The drainage hose should be located over a floor drain, drainage channel or the like so that the distance between the outlet and the drain is at least 25 mm (1").

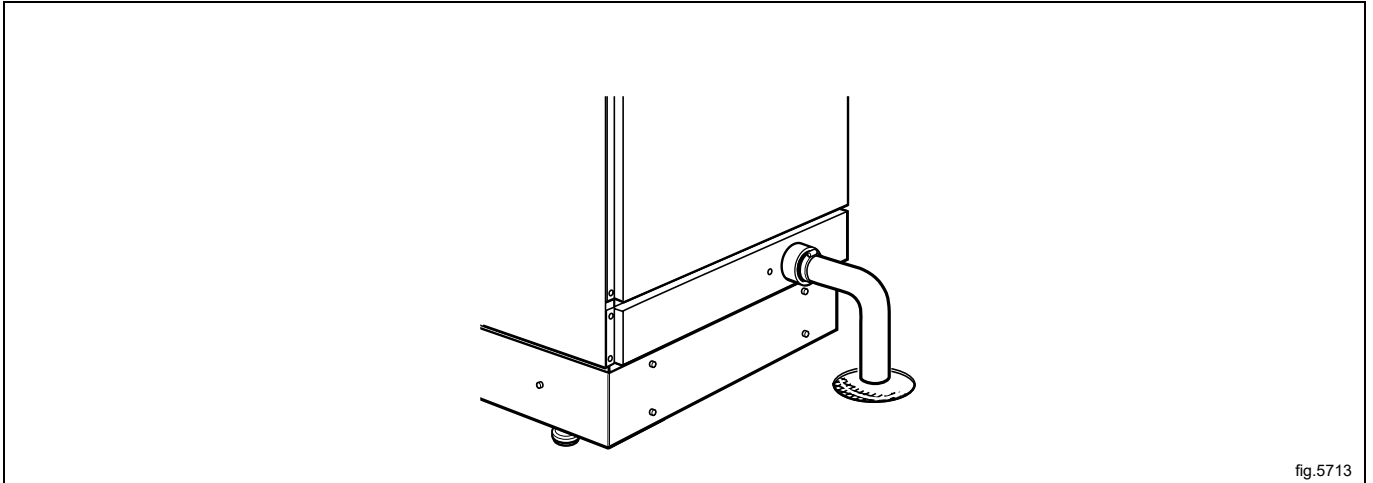


fig.5713

6 Sample tap

Mount the tap on the right hand side of the machine. When mounting use thread tape.

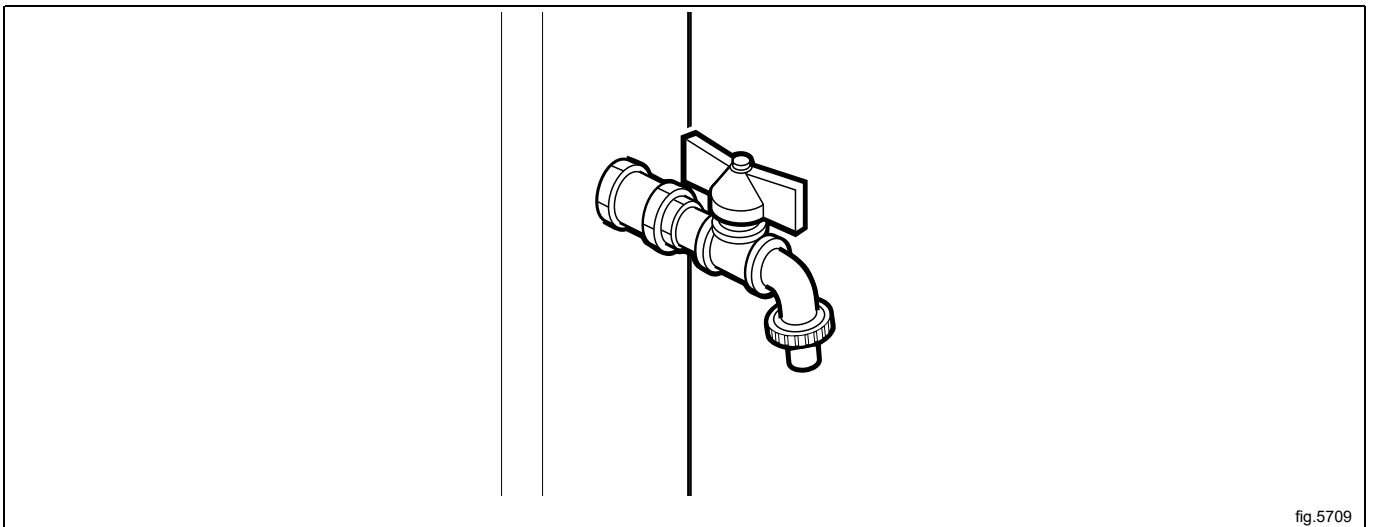


fig.5709

7 Connection of external liquid supplies



Electrical installation must be carried out by an authorized personnel!



All optional equipment connected must be EMC-approved to EN 50081-1 or EN 50082- 2.



Distribution card A can be used to control external functions, output and input signals.

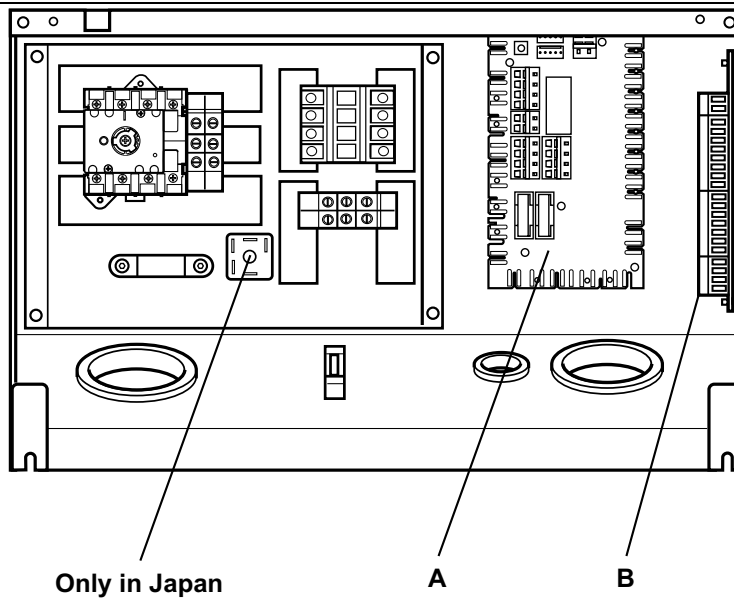


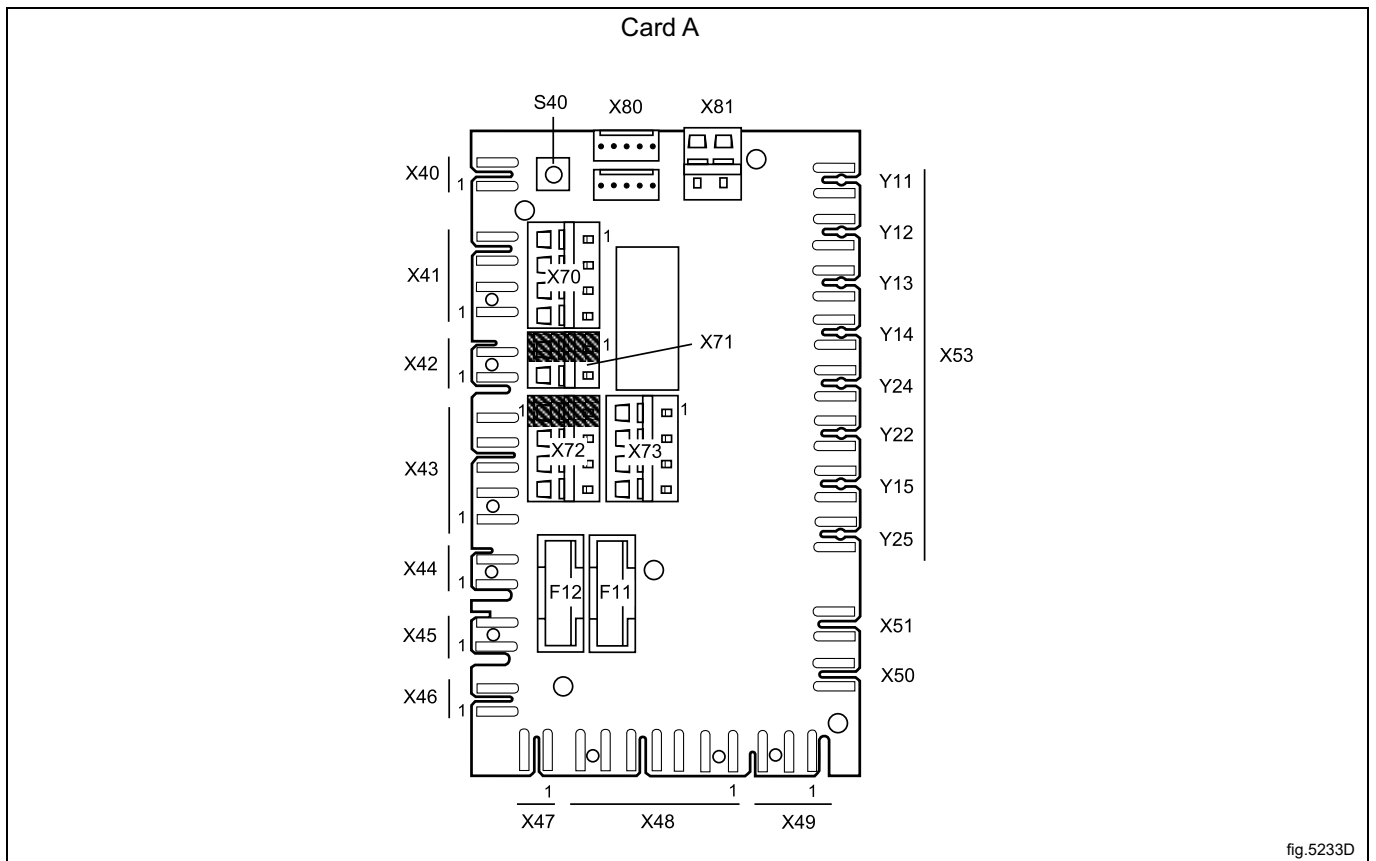
fig.5331

Outputs (200-240V AC):

- X71:1,2 Signal "Door locked, program on"
- X72:1 0 V (common)
- X72:2 Liquid supply 1
- X72:3 Liquid supply 2
- X72:4 Liquid supply 3
- X72:5 Liquid supply 4
- X73:1 Detergent box 1 (Y11)
- X73:2 Detergent box 2 (Y12)
- X73:3 Detergent box 3 (Y13)
- X73:4 Detergent box 4 (Y24)
- X73:5 Detergent box 2 (Y22)

Inputs:

- X70:1,2 Paus/PC5
- X70:3,4 Start/Stop



If more signals are required the machine can be equipped with a second distribution card B.

Outputs (200-240V AC):

X75:1 0 V (common)

X75:2 Liquid supply 5

X75:3 Liquid supply 6

X75:4 Liquid supply 7

X75:5 Liquid supply 8

X76:1 0 V (common)

X76:2 Drain lock

X76:3 Drain A

X76:4 Drain B

X76:5 Drain C

X76:6 Inlet A

X76:7 Inlet B

X76:8 Inlet C

X77:1,2 Buzzer

Inputs:

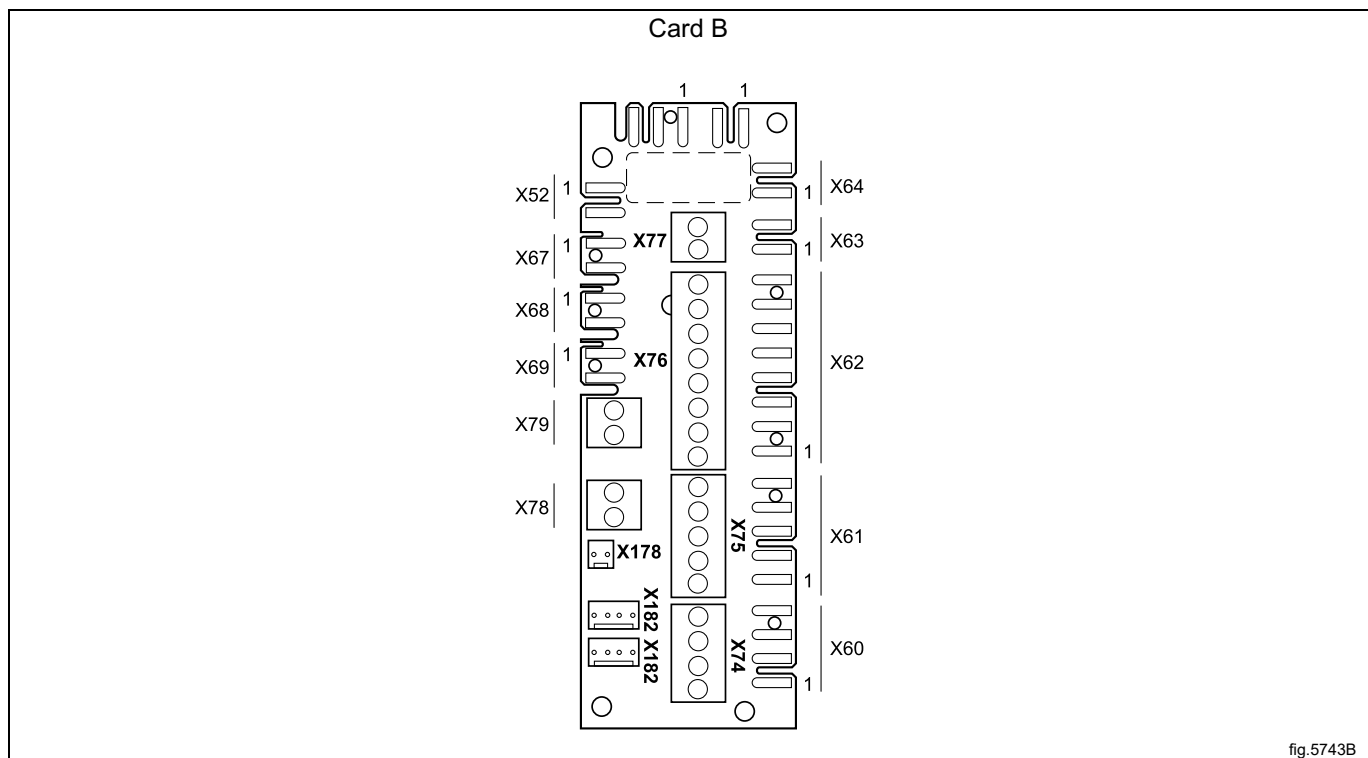
X74:1,2 Switch between heating 1/heating 2

X74:3,4 No function

Outputs:

X78:1 + 4-20 mA (4 mA equal to 0 kg and 20 mA 80 kgs)

X78:2 – analogue output



8 Electrical installation



Electrical installation must be carried out by an authorized 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. 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, including to the earth leakage circuit breaker.



Mount a multi-pole switch prior to the machine to facilitate installation and service operations.

The connecting cable should hang in a gentle curve.

Fuse size, see table.

Three-phase connection

Connect the earth, neutral and phase wires as shown in example "3AC" and "3N AC" in the figure.

When the installation is completed, check:

- that the drum is empty.
- that the machine operates by turning on the mains switch, starting the machine and using **RAPID ADVANCE** to reach the spin cycle (please refer to the operating manual).

<p>3AC</p>		
<p>3N AC</p>		

8.1 Electrical connections

Heating alternative	Voltage alternative	Total kW	Fuse A
Electric heating	200 V 3 AC	5.8	20
	220/230 V 1 AC	5.8	35
	240 V 1 AC	5.8	25
	220 V 3 AC	5.8	20
	230/240 V 3 AC	5.8	16
	380/400/415 V 3/3N AC	5.8	10

9 Function checks

9.1 Manual operation

- Switch on the machine's main switch.
- Check that the drum is empty and close the door.
- Close the drain valve.
- Open the manual valves for water.

In the operating manual, chapter "Manual operation", one can find how to operate the machine manually.

- Operate the machine manually to fill with cold water, then hot water. Check that these water supplies are connected as they should be.
- Start the motor on wash action, and check that the motor is revolving clockwise and anticlockwise alternately, as normal for wash action.
- Start heating by entering a final temperature and then pressing **START**. Check that the heating element relay reacts, as appropriate.
- Check that all sources of detergent supply are working as they should, including the built-in detergent supply compartments, where present.
- Check the water connections and the drain valve for signs of any leakages.
- Empty the water from the machine and open its door.

10 Assembling the ruler

- Mount the scale and ruler as shown on pictures.

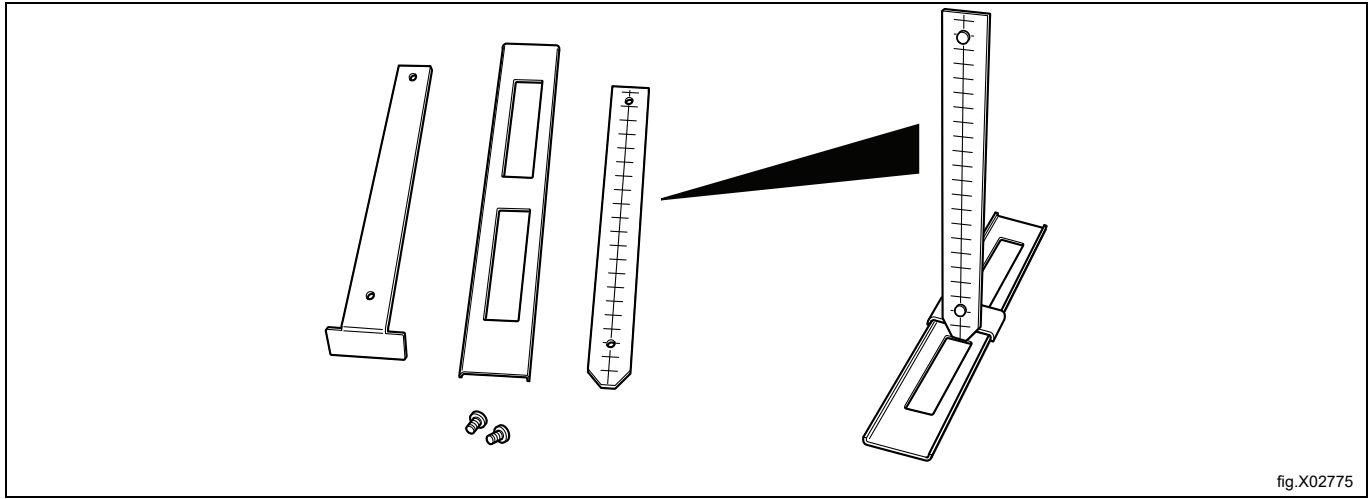
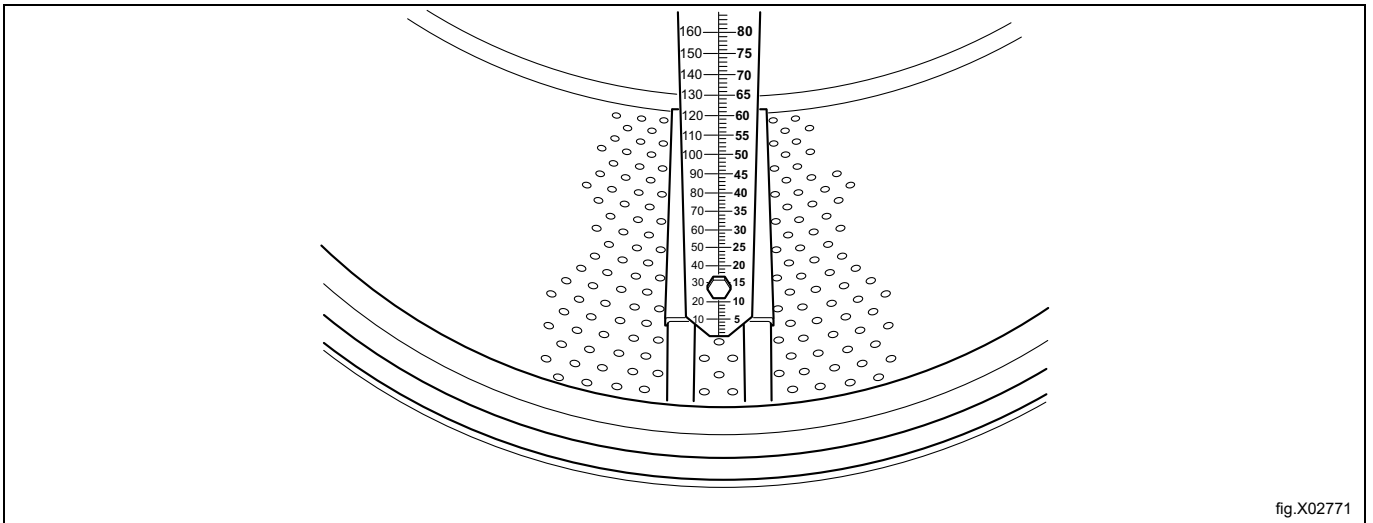


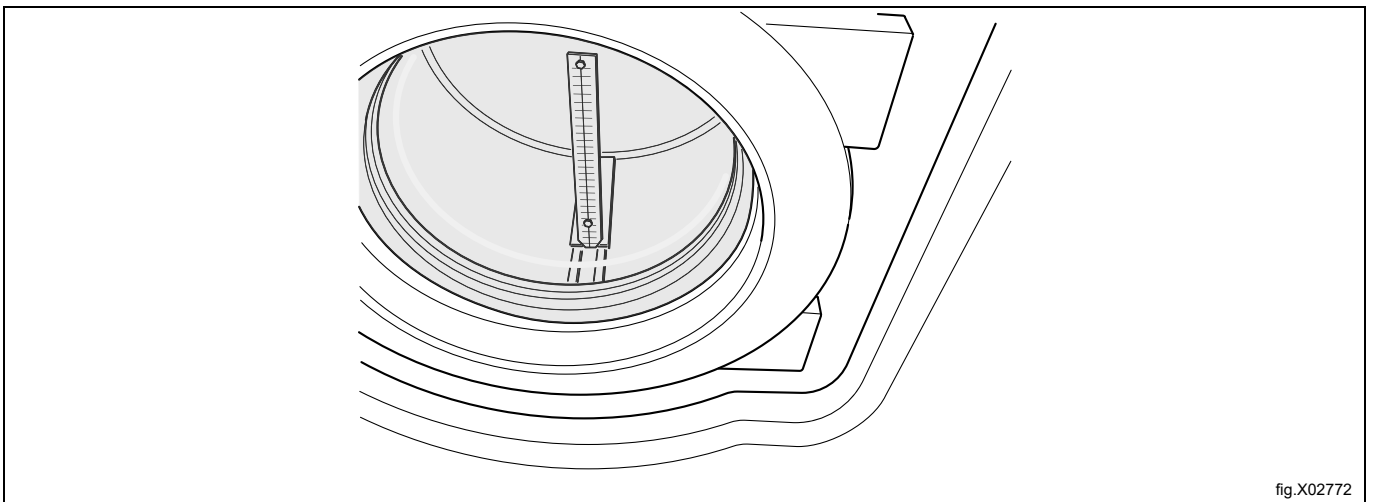
fig.X02775

11 Calibration of level control system

The level control system can be individually and manually calibrated. The calibration starts at the level at the bottom of the inner drum. The calibration can be made up to 250 mm from the bottom of the inner drum. A ruler is supplied with the machine where the water level above the inner drum can be read.



- Place the ruler on the bottom of the inner drum, equally between two lifters and front and rear gables. Rotate the drum so that the ruler is totally vertical and assure that the three pins of the ruler fit in the holes of the inner drum.
- Push the scale to the bottom of the drum and tighten the nuts.



- Close the door.
- The ruler has two different scales, one in mm and one in RU units (exactly 2 mm/RU units).

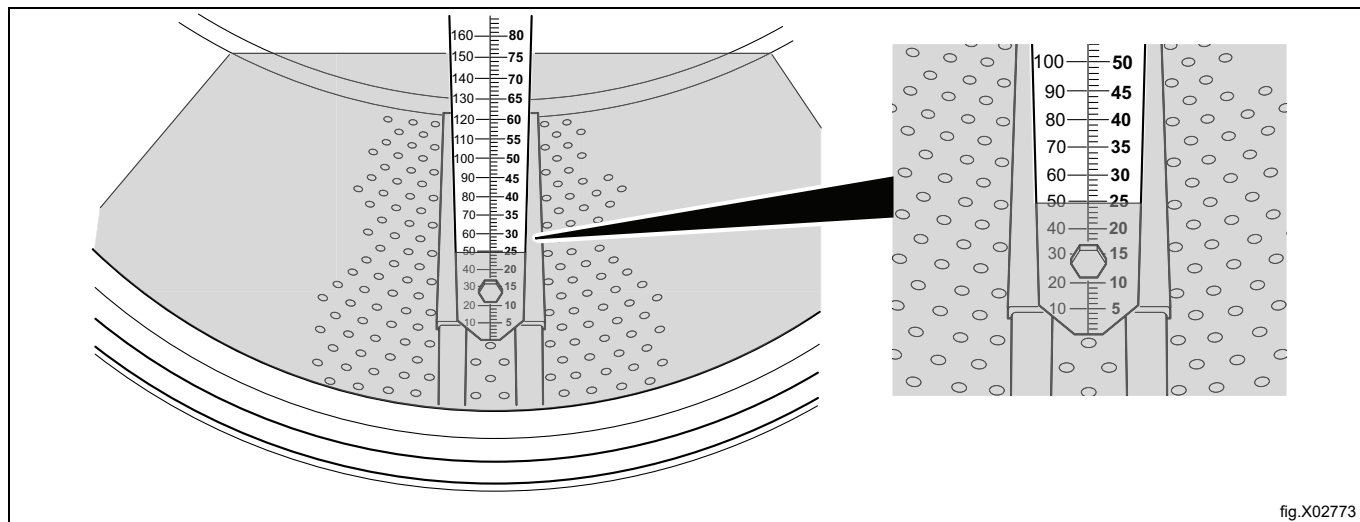
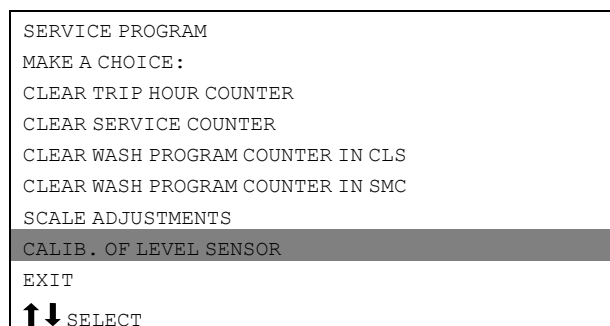


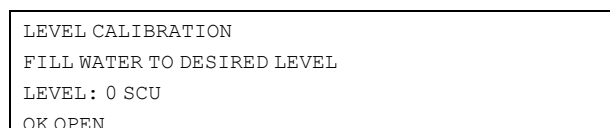
fig.X02773

The calibration shall be made in at least five level steps, and the first step when the water just enters the inner drum. More calibration steps can be made if requested.

- Go down to **OPTIONS MENU**
- Press **SELECT**
- Go down to **SERVICE MODE**
- Press **SELECT**.
- **SERVICE MODE** menu is now shown on the display.
- Close the door.
- Go down to **CALIB. OF LEVEL SENSOR**
- Press **SELECT**



- Press **OPEN** to fill water until the water reaches the bottom of the inner drum where the ruler is placed.
- Press **OK**
- Enter the value read on the ruler in RU units (the first setting is 0=level in drum).
- Press **OK**
- Press **OPEN** to fill more water.
- Press **OK**
- Enter the value read on the ruler in RU units. (If wrong value is entered, press **CLR**. Enter new value.
- Press **OK**
- Enter another three values so that it will be five different totally.
- When all values have been entered, press **SAVE**



- Press OK
- Go down to EXIT
- Press SELECT

LEVEL CALIBRATION
OLD CALIBRATION WILL BE OVERWRITTEN ARE YOU SURE?
PRESS OK ELSE PRESS ANY OTHER KEY
OK

12 Calibration of the scale (weight function)

Zero adjustment of the scale (weight function)

The scale itself is calibrated from factory and no adjustment should be necessary unless some scale parts need to be changed. However a zero adjustment needs to be done as the total weight of the machine needs to be programmed into the scale.

Be sure that the water and drain hoses are in place and properly mounted.

Be sure that all panels are mounted and the cover over the power connection is placed on top of the machine.

- Enter the SERVICE MODE.
- In SERVICE MODE go to SCALE ADJUSTMENT
- Press SELECT
- Go down to ZERO CALIBRATION
- Press SELECT
- Press SELECT (Be sure that there are no extra weight on the machine. And do not lean on the machine).
- When display text RESET SCALE FROM CALIBRATION . . . appears, press SELECT
- Go down to EXIT
- Press SELECT
- Go back to main menu.

The zero adjustment is now done and the weight of the empty machine should now be red on the display as 0.0 kg (a difference of ± 0.1 kg is allowed). If an other value is shown in the display , the zero adjustment has to be done again from the start.

13 Connection of thermosensor

An external thermosensor can be connected to the machine.

On the rear side of the drum is a socket for connecting the sensor. Use a 1/4" clamping nut for the sensor.

Maximum insertion of the sensor is 50 mm from the edge of the socket. Remember that there is a rotating drum.

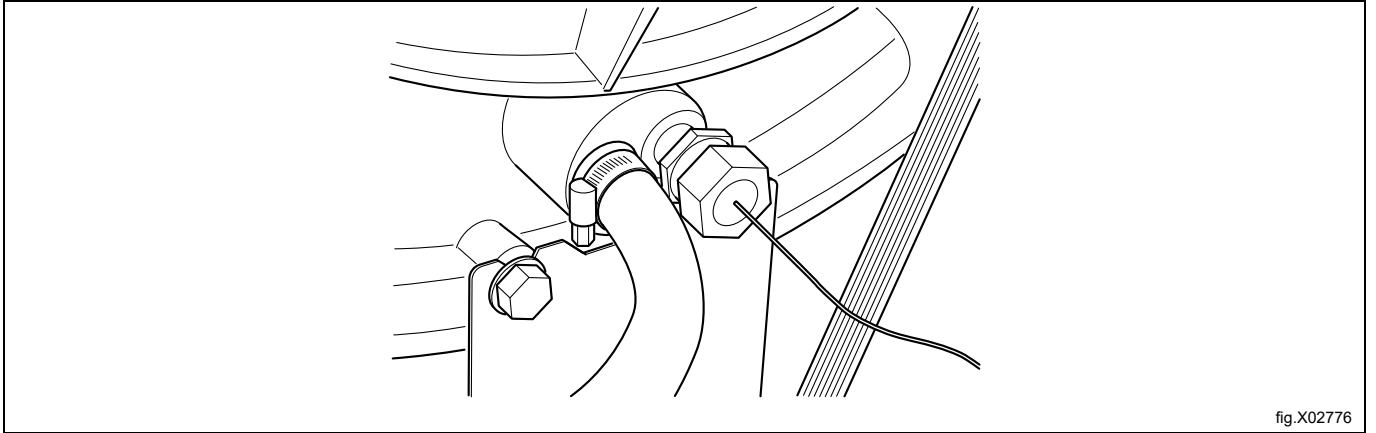


fig.X02776

14 Disposal information

14.1 Disposal of appliance at end of life

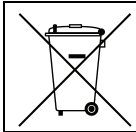
Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

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.

	Polyethylene: <ul style="list-style-type: none"> • Outer wrapping • Instructions bag
	Polypropylene: <ul style="list-style-type: none"> • Straps
	Polystyrene foam: <ul style="list-style-type: none"> • Corner protectors



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