SERVICE MANUAL

T3900 / T31200
TD100 / TD135

487 03 29 41.01
EN

NOTICE TO SERVICE PERSONNEL

INSTALLATION

Improper installation of Wascomat laundry and wet cleaning equipment can result in personal injury and severe damage to the machine.

REFER INSTALLATION TO QUALIFIED PERSONNEL!

RISK OF ELECTRIC SHOCK

The equipment utilizes high Voltages. Disconnect electric power before servicing.
The use of proper service tools and techniques, and the use of proper repair procedures, is essential to the safety of service personnel and equipment users.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!

RISK OF PERSONAL INJURY

This equipment contains moving parts, and some components that may have sharp edges. Improper or careless service procedures may result in serious injury to service personnel.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!

ABOUT THIS MANUAL

This manual is intended to provide service guidance to qualified service personnel. Wascomat and its authorized dealers make no determination regarding the qualification of individuals requesting this service manual. The service provider assumes all risks inherent to the servicing of this equipment and any risks that arise as result of the lack of knowledge or ability of any person servicing this equipment.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL!

NOTE:

Improper installation or servicing of Wascomat equipment will void the manufacturer's warranty!

Content

Safety instructions

This machine is only intended for drying water-washed garments.

Clothes that have been cleaned with chemicals/flammable liquids, must NOT be dried in the machine.

Remove clothes from the tumble dryer as soon as they are dry. This prevents them from becoming creased, and reduces the risk of spontaneous ignition.

The machine must not be used for drying foam rubber or foam-like materials.

The machine must not be used for drying floor mops.
(This applies only to floor mops containing polypropylene).

The machine must not be used by children.

The machine must not be hosed down with water.

Mechanical, electrical and gas installations must only be carried out by qualified, licensed personnel.

Report machine malfunctions to qualified service personnel immediately. This is important for your own safety and for the safety of others.

Gas dryers only:

The machine is not to be installed in rooms containing cleaning machines with PERCHLORETHYLENE, TRICHLOROETHYLENE or CHLOROFLUOROCONTAINING HYDROCARBONS as cleaning agents.

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.

Evacuate the room, building or area.

Contact appropriate authorities.

Servicing the dryer

Refer servicing to qualified personnel.
Improper servicing can result in hazardous conditions, fire, explosion, property damage, and personal injury.

Some components may have sharp edges!
Wear gloves when handling mechanical components.

Content

Technical data - type T3900

Heating		Gas	Steam	Electric
Drum volume:		900 litres	900 litres	900 litres
Weight net:	Basic: Standard door	440 kg	440 kg	440 kg
	Basic: Sliding Door	494 kg	494 kg	494 kg
	Heating unit	39 kg	50 kg	42 kg
Motors:	Effect: Fan (3-phase)	1.1 kW	1.1 kW	1.1 kW
	RPM: 50 Hz	2800 rpm	2800 rpm	2800 rpm
	RPM: 60 HZ	3400 rpm	3400 rpm	3400 rpm
	Effect: Drum (3-phase)	1.5 kW	1.5 kW	1.5 kW
	RPM: 50 Hz	1440 rpm	1440 rpm	1440 rpm
	RPM: 60 Hz	1730 rpm	1730 rpm	1730 rpm
Drum:	Diameter	1240 mm	1240 mm	1240 mm
	Depth	770 mm	770 mm	770 mm
	Revolutions per minute	38 rpm	38 rpm	38 rpm
Capacity:		45 kg	45 kg	45 kg
Heat effect:	Gas heating	64 kW		
	Steam heating		Depending upon steam pressure	
	Electric heating			48 / 60 kW
Air consumption:		Max. 2300 m^3/h	Max. 2300 m^3/h	Max. 2300 m^3/h
Piping:	Exhaust duct	Ø 315 mm	Ø 315 mm	Ø 315 mm
	Gas connection	ISO 7/1 - Rp 1		
	Steam in		ISO 228/1 - G1	
	Steam out		ISO 228/1 - G1	
Pressure drop:		max. 100 Pa	max. 100 Pa	max. 100 Pa
Gas pressure: See page regarding pressure in the installations manual supplied with the dryer				
Sound pressure level:		< 70 dB (A)	< 70 dB (A)	< 70 dB (A)

Technical data - type T31200

Heating		Gas	Steam	Electric
Drum volume:		1200 litres	1200 litres	1200 litres
Weight net:	Basic: Standard door	470 kg	470 kg	470 kg
	Basic: Sliding Door	524 kg	524 kg	524 kg
	Heating unit	46 kg	50 kg	42 kg
Motors:	Effect: Fan (3-phase)	1.1 kW	1.1 kW	1.1 kW
	RPM: 50 Hz	2800 rpm	2800 rpm	2800 rpm
	RPM: 60 HZ	3400 rpm	3400 rpm	3400 rpm
	Effect: Drum (3-phase)	1.5 kW	1.5 kW	1.5 kW
	RPM: 50 Hz	1440 rpm	1440 rpm	1440 rpm
	RPM: 60 Hz	1730 rpm	1730 rpm	1730 rpm
Drum:	Diameter	1240 mm	1240 mm	1240 mm
	Depth	1000 mm	1000 mm	1000 mm
	Revolutions per minute	38 rpm	38 rpm	38 rpm
Capacity:		60 kg	60 kg	60 kg
Heat effect:	Gas heating	82 kW		
	Steam heating		Depending upon steam pressure	
	Electric heating			60 / 72 kW
Air consumption:		Max. 3000 m³/h	Max. 3000 m³/h	Max. 3000 m³/h
Piping:	Exhaust duct	Ø 315 mm	Ø 315 mm	Ø 315 mm
	Gas connection	ISO 7/1 - Rp 1		
	Steam in		ISO 228/1 - G1	
	Steam out		ISO 228/1 - G1	
Pressure drop:		max. 100 Pa	max. 100 Pa	max. 100 Pa
Gas pressure:	See page regarding pressure in the installations manual supplied with the dryer			
Sound pressure level:		< 70 dB (A)	< 70 dB (A)	< 70 dB (A)

Technical data - type TD100

Heating		Gas	Steam	Electric
Drum volume:	(900 litres)	32 cu.ft	32 cu.ft	32 cu.ft
Weight net:	Basic: Standard door (440 kg)	970 lb	970 lb	970 lb
	Basic: Sliding Door (494 kg)	1087 lb	1087 lb	1087 lb
	Heating unit	86 lb (39 kg)	110 lb (50 kg)	93 lb (42 kg)
Drum:	Diameter (1240 mm)	48 13/16”	48 13/16”	48 13/16”
	Depth (770 mm)	30 5/16”	30 5/16”	30 5/16”
	Revolutions per minute	38 rpm	38 rpm	38 rpm
Capacity:	(45 kg)	100 lb	100 lb	100 lb
Heat effect:	Gas heating (64 kW)	219000 BTU/h		
	Steam heating		Depending upon steam pressure	
	Electric heating (48 kW)			164000 BTU/h
	Electric heating (60 kW)			205000 BTU/h
Air consumption:	Heat effect (2300 m^3/h)	1354 cu.ft./ min		
	Steam (2300 m^3/h)		1354 cu.ft./ min	
	Electric (2300 m^3/h)			1354 cu.ft./ min
Piping:	Exhaust duct (Ø 315 mm)	Ø 12”	Ø 12”	Ø 12”
Piping	Gas connection	1” NPT		
	Steam in		ISO 228/1 - G1	
	Steam out		ISO 228/1 - G1	
Max counter-pressure:	(100 Pa)	0.37” W.C	0.37” W.C	0.37” W.C
Gas pressure:	See page regarding pressure in the installations manual supplied with the dryer			
Sound pressure level:		< 70 dB (A)	< 70 dB (A)	< 70 dB (A)

Technical data - type TD135

Heating		Gas	Steam	Electric
Drum volume: (1200 litres)		42.4 cu.ft	42.4 cu.ft	42.4 cu.ft
Weight net:	Basic: Standard door (470 kg)	1036 lb	1036 lb	1036 lb
	Basic: Sliding Door (524 kg)	1153 lb	1153 lb	1153 lb
	Heating unit	101 lb (46 kg)	110 lb (50 kg)	93 lb (42 kg
Drum:	Diameter (1240 mm)	48 13/16”	48 13/16”	48 13/16”
	Depth (1000 mm)	39 3/8”	39 3/8”	39 3/8”
	Revolutions per min	38 rpm	38 rpm	38 rpm
Capacity:	(60 kg)	135 lb	135 lb	135 lb
Heat effect:	Gas heating (82 kW)	280000 BTU/h		
	Steam heating		Depending upon steam pressure	
	Electric heating (60 kW)			205000 BTU/h
	Electric heating (72 kW)			240000 BTU/h
Air consumption:	Gas max (3000 m^3/h)	1765 cu.ft / min		
	Steam max (3000 m^3/h)		1765 cu.ft / min	
	Electric. max (3000 m^3/h)			1765 cu.ft / min
Piping:	Exhaust duct (Ø 315 mm)	Ø 12”	Ø 12”	Ø 12”
Piping:	Gas connection	1” NPT		
	Steam in		ISO 228/1 - G1	
	Steam out		ISO 228/1 - G1	
Max. counter-pressure: (100 Pa)		0.37” W.C	0.37” W.C	0.37” W.C
Gas pressure:	See page regarding pressure in the installations manual supplied with the dryer			
Sound pressure level:		< 70 dB (A)	< 70 dB (A)	< 70 dB (A)

Content

Machine description

This service manual deals with two types of dryers:
• 900 litres T3900 / TD100
• 1200 litres T31200 / TD135.

Dryer types T3900 / TD100 and T31200 / TD135 are available as electric heated, gas heated or steam heated.

Both types with ordinary vent into the air.

Both types with either standard door or with Sliding Door.
Sliding Door can also be fitted with tilt and rotation speed of the drum, see next page.

Programs - Selecta Control

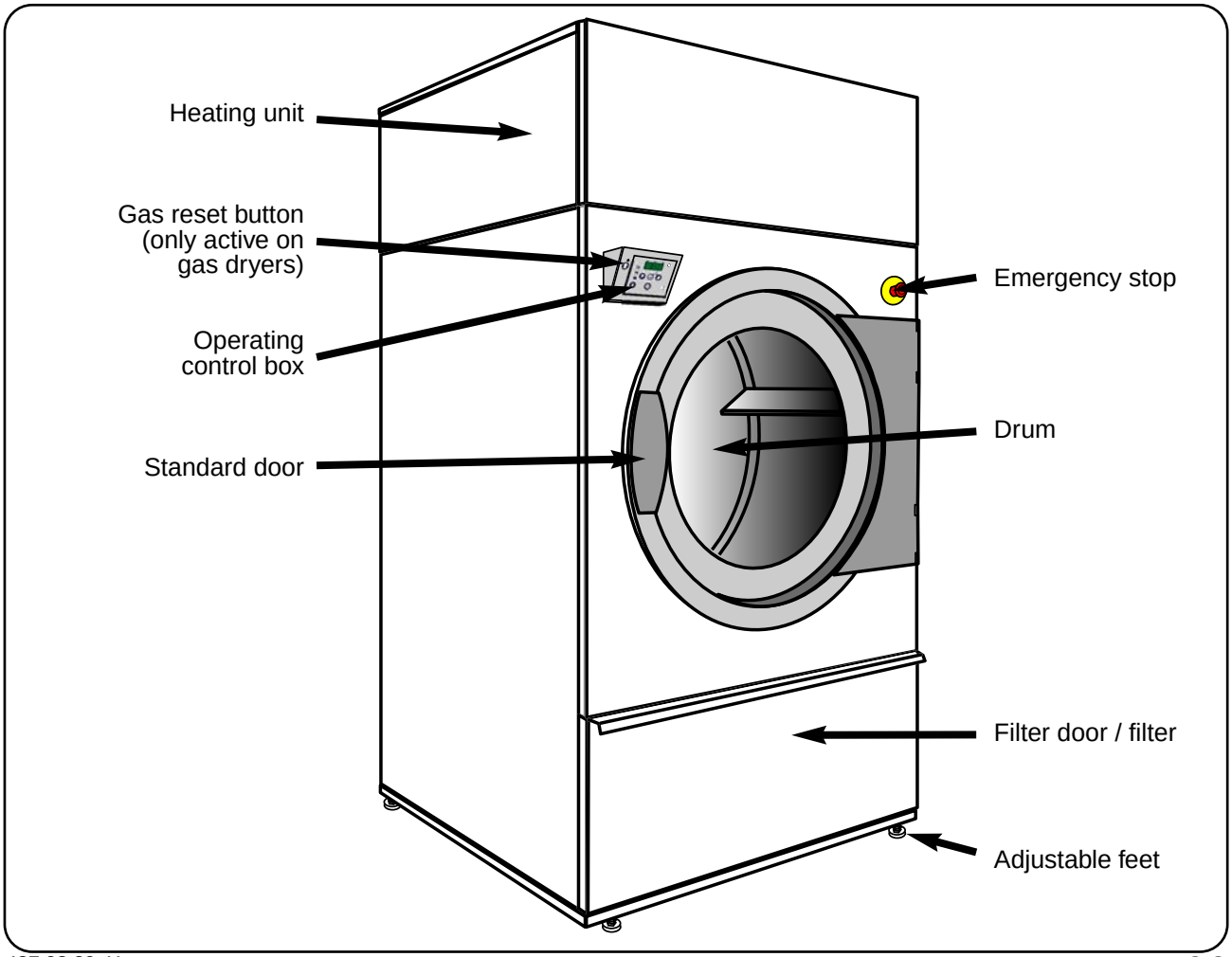
The dryer has a microprocessor. The microprocessor control has different functions including:

• Drum reversing (optional).

• An anticrease function which engages after the end of the program sequence.

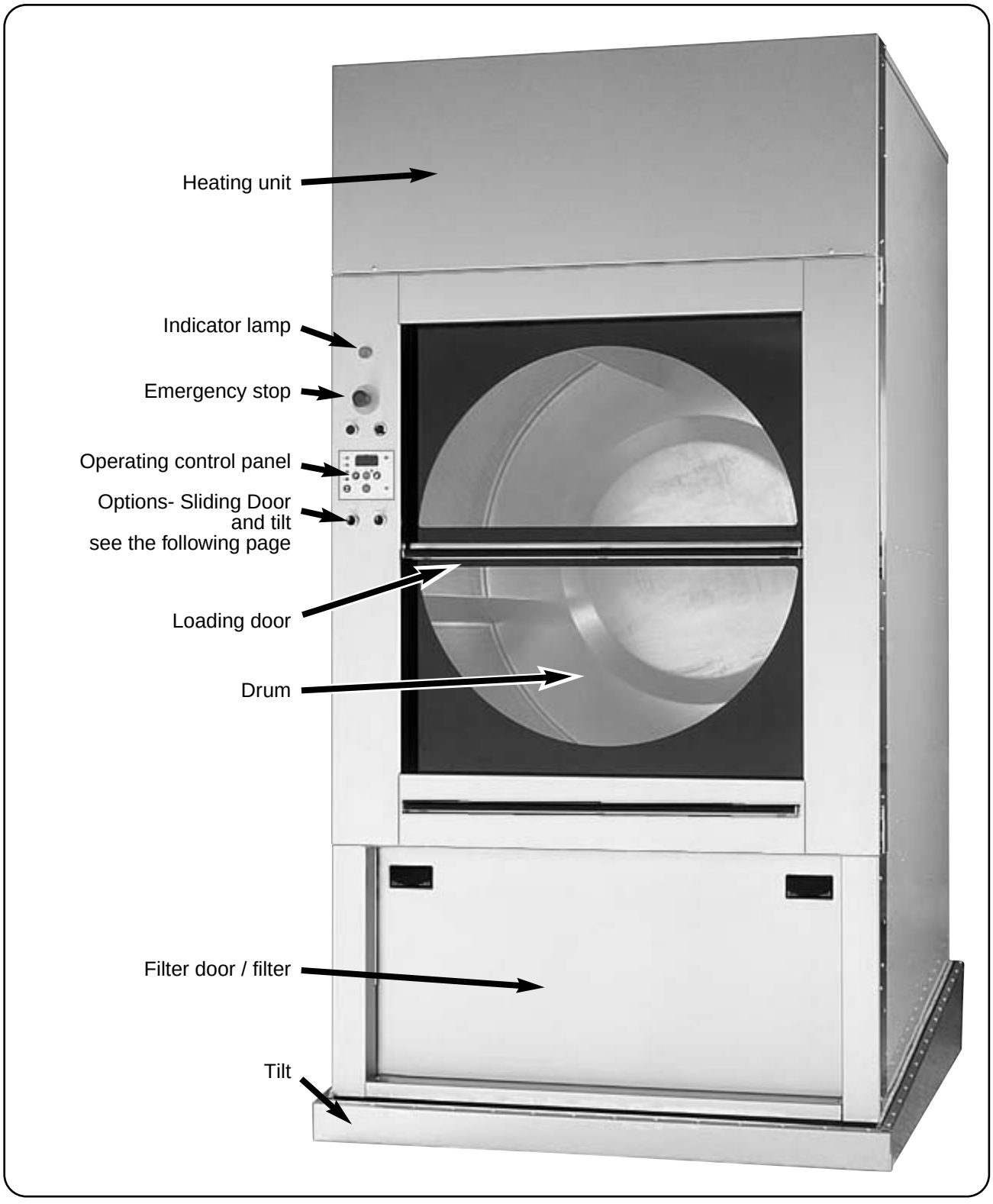
• Dryer functions monitoring - errors occurred during the program sequence are registered in the log. Some error codes are shown on the display at the same time.

• Autostop, the dryer stops automatically when the clothes are dry.

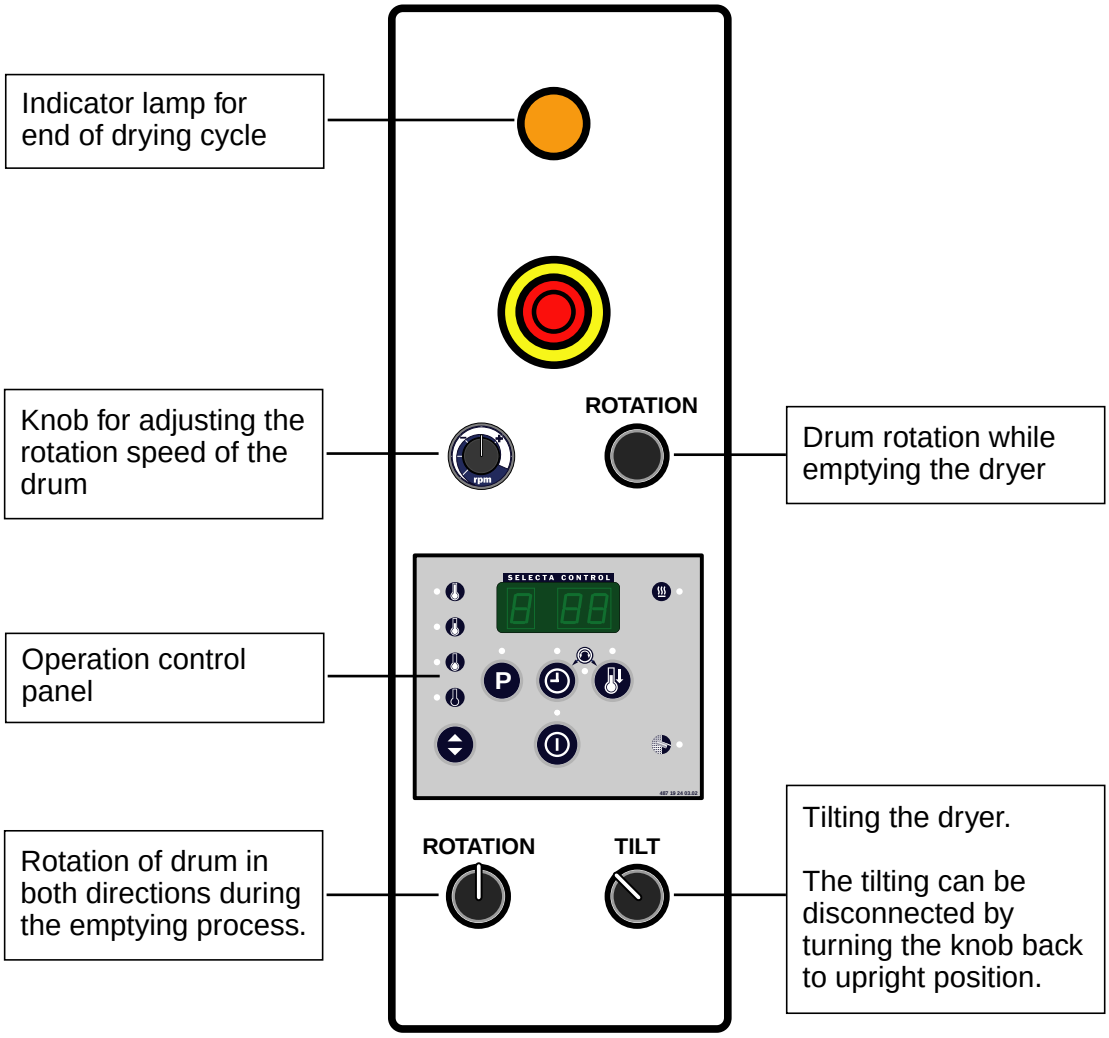


3. Description of principal components

Sliding Door and Tilt
Operating panel



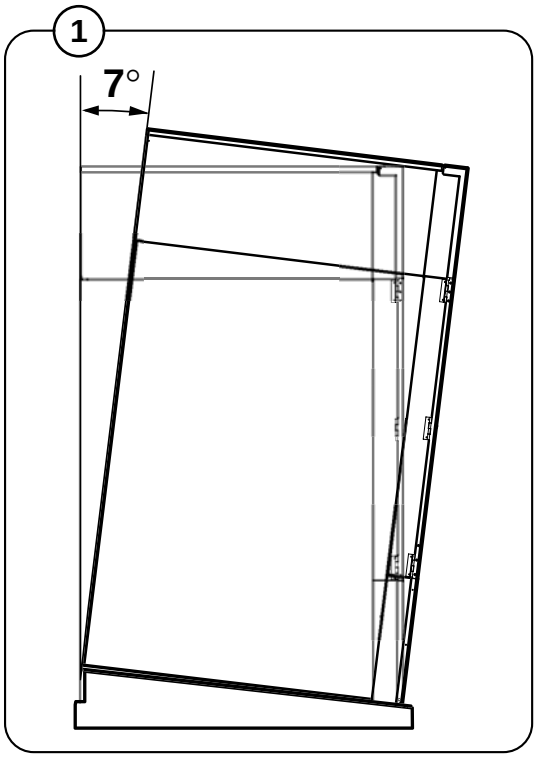
Options Sliding Door and tilt buttons and symbols



3. Description of principal components

Sliding Door - Tilt

With tilt the dryer can tip forwards at 7°, fig. 1.



Rotation of the drum

The drum can be rotated with or without tilt and with the door open or closed.

Gas reset button

Fig.2 Open the control panel.
The gas reset button can be found on the rear of the control panel

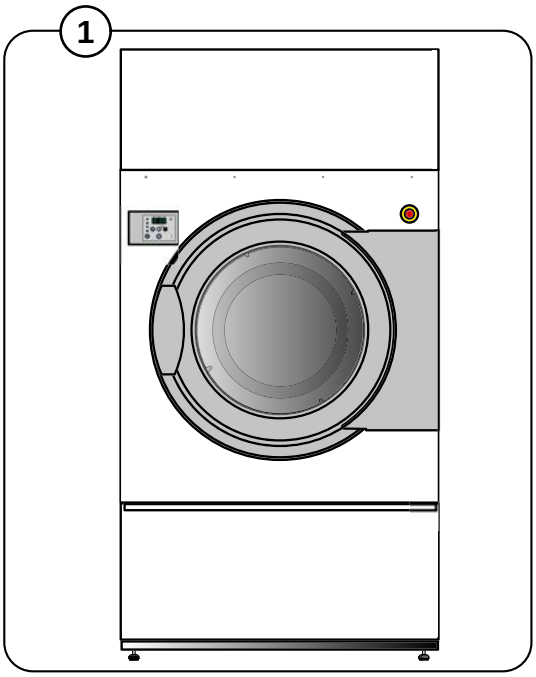
Active on gas dryers only.

Drum

The drum is rear suspended in a bearing where the bearing housing is mounted in a cross beam mounted on the inner back plate.

The drum is either made of stainless or galvanized steel.

See section 42.



Loading door

The dryer has a right or a left hinged standard door, **fig. 1**. or Sliding Door, **fig. 2**.

A door switch ensures that the dryer stops automatically if the door is opened during a program sequence.

See section 29.

Motor

Both dryer types (900 litres and 1200 litres) have 2 motors:
- 1 drum motor.
- 1 blower motor.

See section 30.

Heating unit

The heating unit is positioned in the top of the dryer.

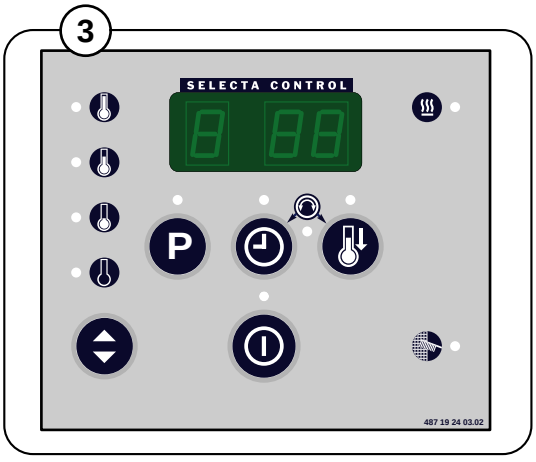
See section 40.

Operating control box/panel

The operating control, **fig. 3**. box or panel is equipped with:

- Buttons for setting programs, temperatures, and drying time.
- Start/stop button.
- Display showing program selection, remaining drying time and error code, if any.
- Heating indicator, lamp lights when heating is on.

See section 21.



Contents

Function check

Check that the drum is empty and the loading door is closed.

Checking the micro switches

Start the dryer.

Check if the micro switches are working properly:

• The dryer **must** stop if the loading door is opened.

If the dryer operates with the loading door open, go to section 29.

• The dryer **must** stop when the filter door is opened.

If the dryer operates with the filter door open, go to section 29.

Correct direction of rotation

For dryers with a 3-phase motor the direction of rotation must be checked.

Correct direction of rotation must be **clockwise**, **fig. 1**.

If the direction of rotation is not correct, swap two phases on the power input connection terminal block.

Final test

1. Start the dryer and allow it to operate for 5 minutes on a program with heat.

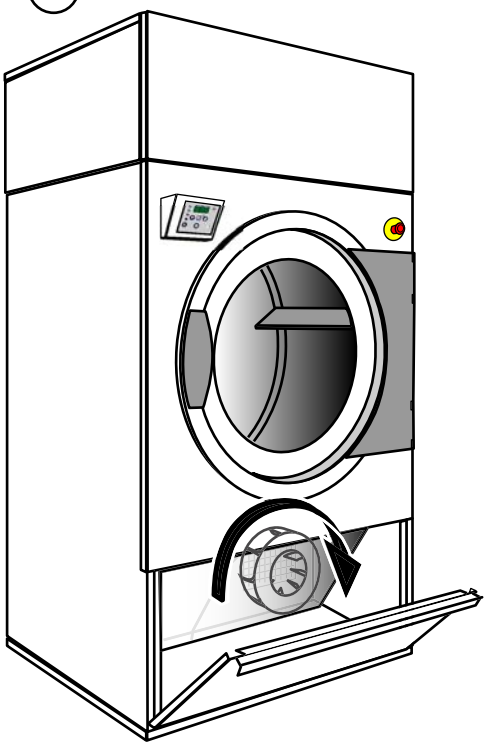
2. Check if the heating is working by opening the loading door and feeling the heat.

If the above test-points have been carried out and the dryer is operational, the dryer is ready for use.

Note! Gas heating

To ensure the correct amount of air to the combustion, plate A (fig. 2) must be mounted before starting the dryer.

1



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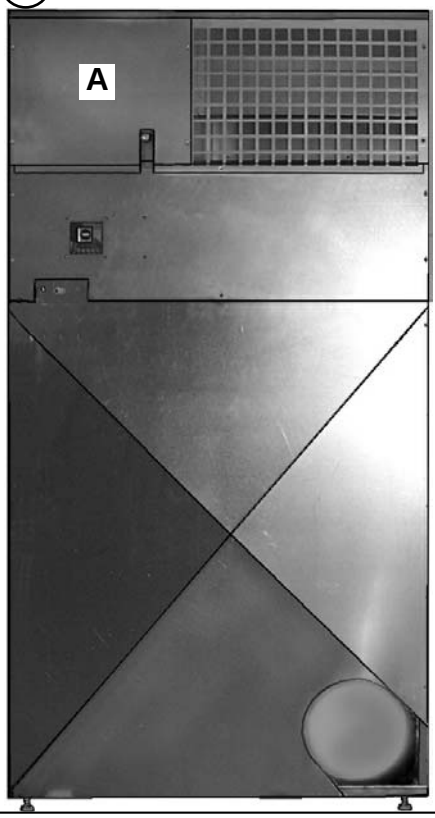


Maintenance

Exhaust duct

Check that the exhaust duct on the back of the dryer has not become blocked with lint or other debris (after three months, then every three to six months, as required).

Nonreturn flap in evacuation pipe

If the evacuation pipe has a nonreturn flap (2 dryers on a shared evacuation pipe), it must be cleaned at least once quarterly .
Check that the flap is working.

Fan

After six months check that the fan has not become blocked with lint or other debris, then once every year, as required. Be careful not to damage the fan wheel.

Door gasket

Standard door**:**
Check that the loading door gasket is clean and in good condition. Use a suitable cleaner. Do not use solvents that may damage sensitive plastics or painted finish.

Check that the gaskets are clean and give a tight seal.

Cleaning as for Standard door.

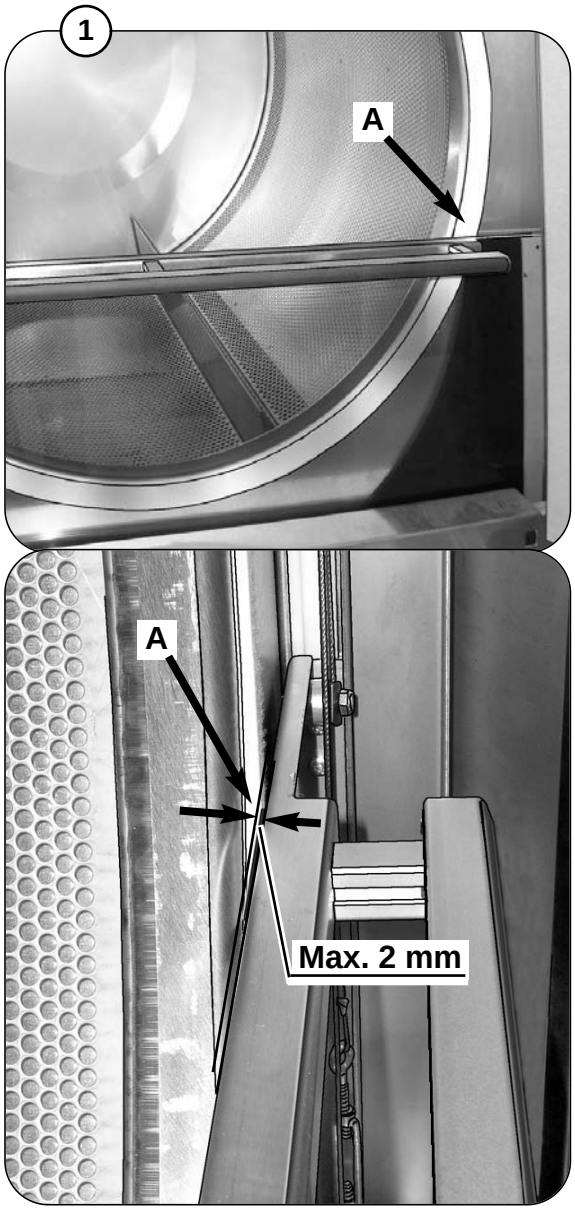
Check that felt gasket A is intact and in good condition.

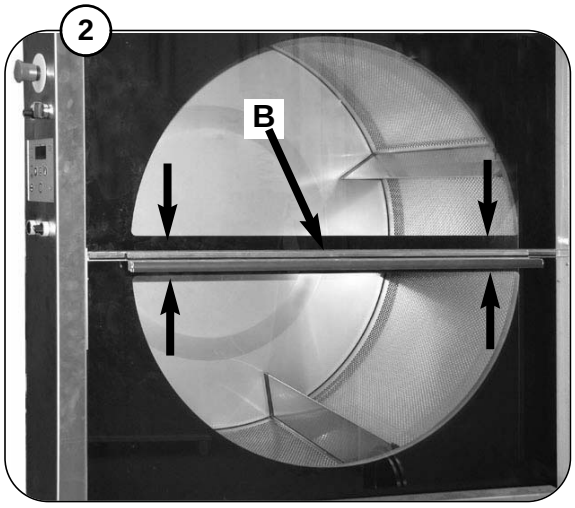
There may be a maximum of 2 mm between steel frame and felt, fig. 1.

The 2 doors must close parallel and the rubber B gasket must be intact, fig. 2.

Defective gaskets must be replaced.

If the doors need to be adjusted,
see section 43.





Maintenance

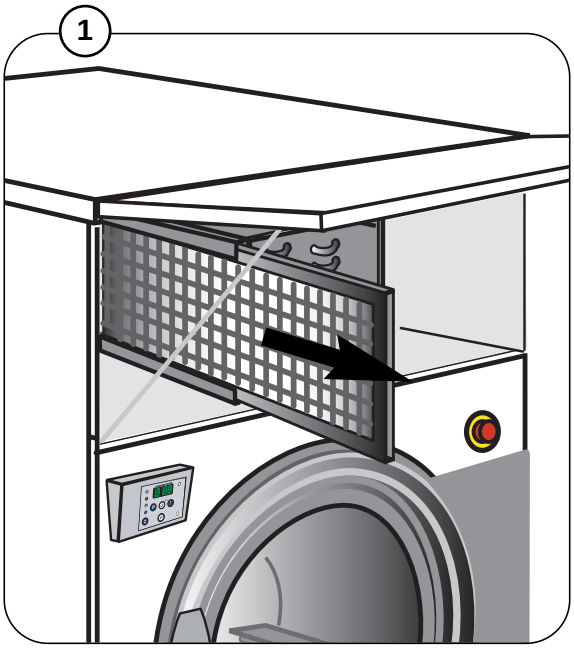
Lint filter

Make a daily lint check. When maintaining the lint filter on a daily basis it does not have to be removed.

Monthly, steam heated dryer

Cleaning the filter in front of steam calorifer.

1. Open the front panel.
2. Remove the filter as shown, **fig. 1.**
3. Clean the filter with water or with compressed air.
4. Replace the filter and close front panel.

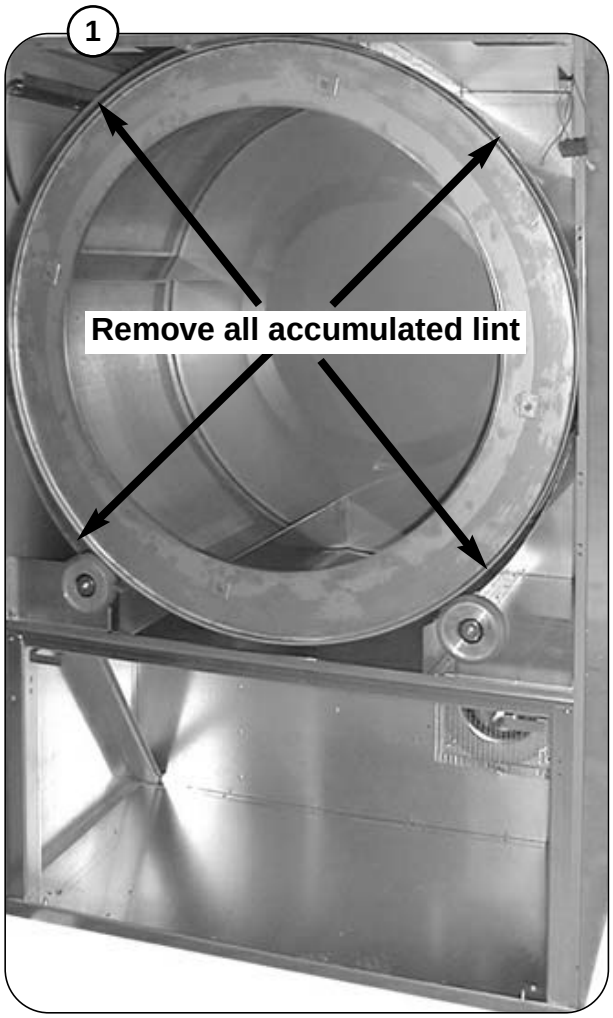


Maintenance - Internal wearing parts

Maintenance should be conducted to an extent related to operation frequency and the conditions on the premises, or at least once a year.

Cleaning around the drum

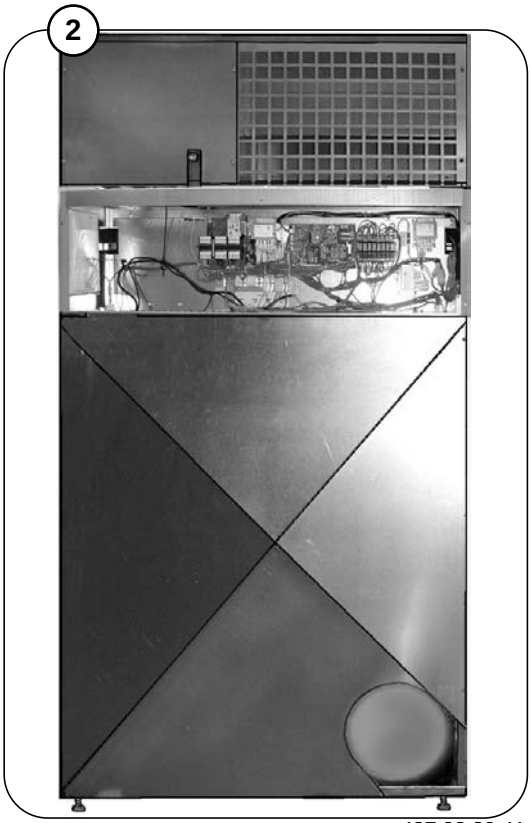
1. Disconnect the power supply to the dryer.
2. Dismount the front panel (see section 42: Drum with bearing).
3. Remove the lint using a vacuum cleaner, **fig. 1.**
4. Inspect the two supporting rollers and replace them if necessary.



Cleaning the component unit

The component unit must be checked for lint and if necessary vacuumed carefully.

1. Dismount the back plate and vacuumed carefully, **fig. 2.**
2. Reassemble the dryer.
3. Connect the power supply.
4. Function check the dryer.



Dryer with RMC

To ensure that the moisture tracing is always working optimally it is important to clean the lifters.

Lack of cleaning the lifters can reduce the automatic residual moisture control in the clothes resulting in the clothes being moister than requested when the program has ended.

Cleaning

Wipe off/clean drum and lifters with citric acid (Acidum citricum). If soap/softener residue remains, it is recommended also to use a coarse sponge.

The frequency of cleaning should depend on the operating frequency - with a minimum of once a week.

487 03 29 41

Maintenance

Cleaning around the drum

From serial no.: T3900/TD100 0401/000358

T31200/TD135 0401/000114

As from 1 January 2004 the design has been changed so that it is possible to clean around the support rollers without having to dismantle the front of the dryer.

Cleaning is performed through the 2 service holes B, fig. 1.

Cleaning around the upper section, emergency stop and door switch can be performed through the service holes F.

1. Disconnect the power supply to the dryer.

2. Open and remove the filter door.

   The finger guard is removed by unscrewing the 2 screws A, fig. 2.

Continued on the following page

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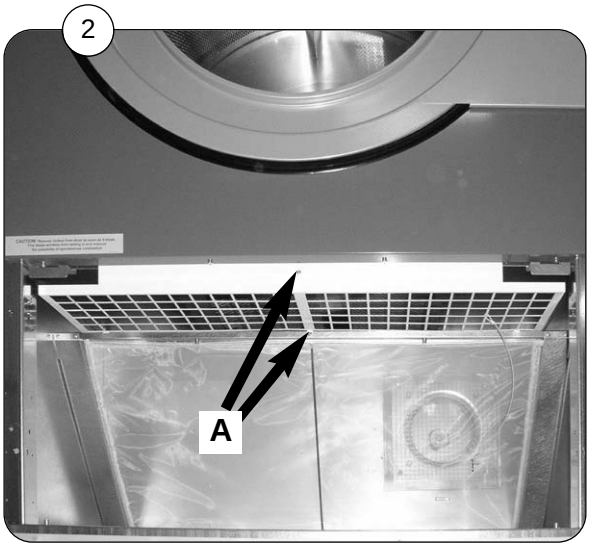

Cleaning around the drum.

(continued from the previous page)

3. Service cover plates **B**, **fig. 3.**

4. Undo the 8 screws in each service cover plate (the screws must not be completely unscrewed), fig. 4.

5. Dismantle service cover plates **B**, fig. 5.

6. Open front shutter.
   Dismantle service cover plates **F** (the screws must not be completely unscrewed), fig. 6.

7. Remove the lint using a vacuum cleaner.

8. Reassemble the dryer.

9. Connect the power supply.

10. Function check the dryer.

- **Note!**

  The filter must turn so that the centre brace **M** in the filter is visible, **fig. 7.**

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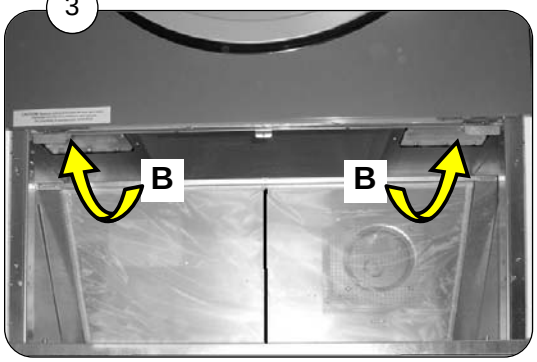

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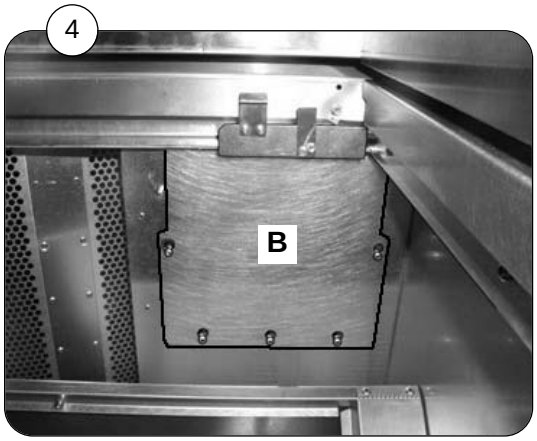

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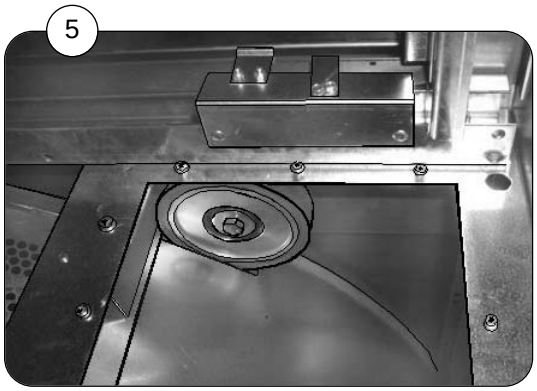

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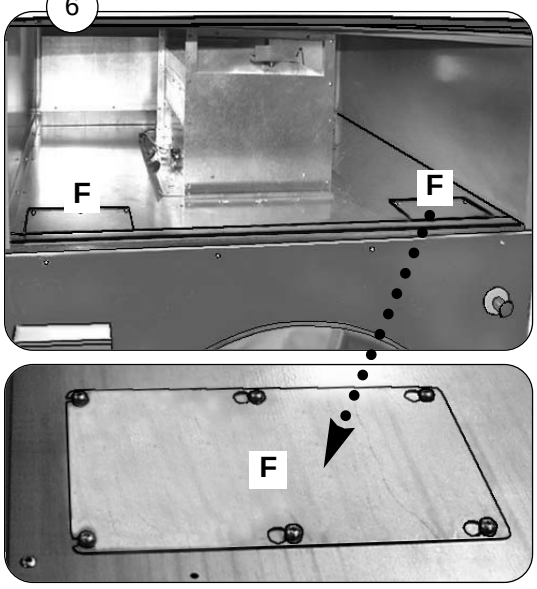

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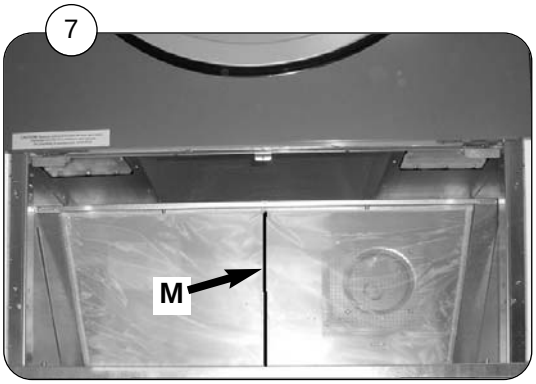

Tightening belt

1. Remove back plate.

2. Check that the spring is tightened as shown **B** Spring length **A** should be 45 mm ±1 mm, **fig. 2**.

3.Loosen the 4 bolts **C** holding the motor and mount the belt between the motor pulley and the idler

4. Tighten the screws **D** to 230N, **fig. 3.**

5. Gauge the belt tension using a V-belt tension gauge, **fig. 4.**

6. Tighten the 4 bolts **C, fig. 3.**

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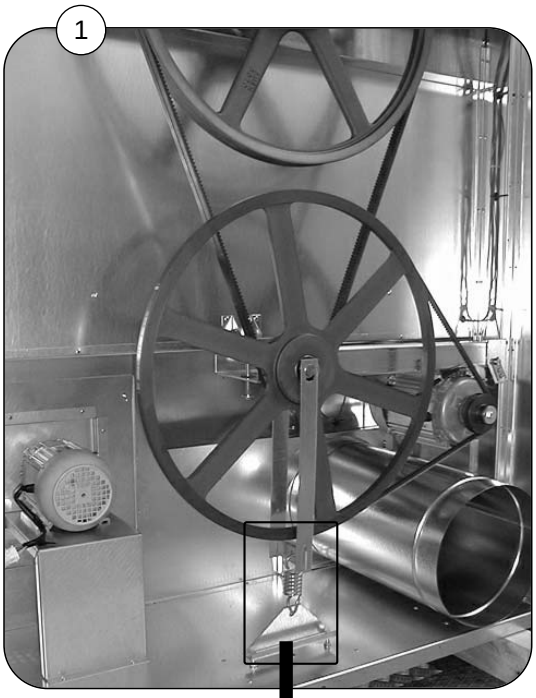

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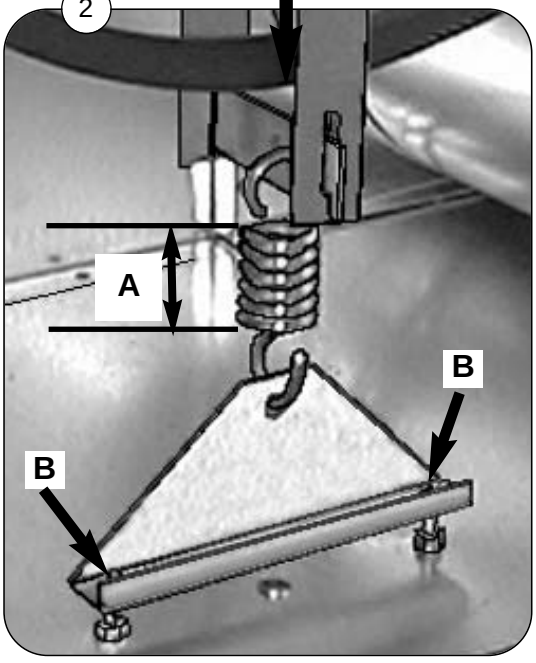

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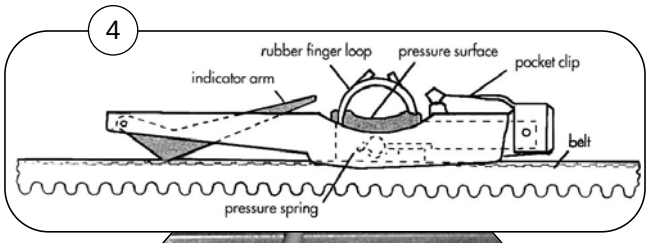

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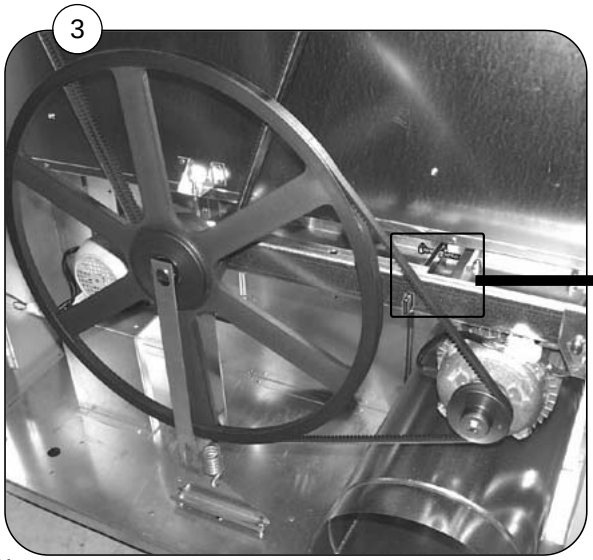

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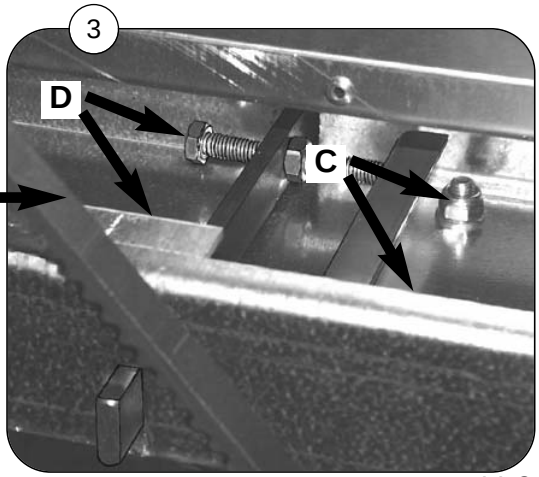


The area surrounding the dryer

Fresh-air intake to the room

Check that the fresh-air intake to the room and the exhaust ducts/pipes from the room are not clogged by lint/dust or blocked in any other way.

Dryer area

Check that the dryer area is clear and free from combustible materials, gasoline and other flammable vapours and liquids.

Contents

Circuit boards MUST be protected from static electricity!

Remember!

- Always use an earthed wrist strap.
- Without the antistatic wrapping, the board is unprotected.
- Keep all items that can cause static discharge (such as plastic bags, fabric, and the like) away from the circuit board.
- Items like plastic, foam plastic, nylon, or cellophane wrapping are all big generators of static electricity.
- Static electricity can not be felt, heard or seen till the voltage reaches 2500V.
- Board components can be damaged by static electricity under 100V.

Control locations

Tumble dryer with standard loading door

User module circuit board

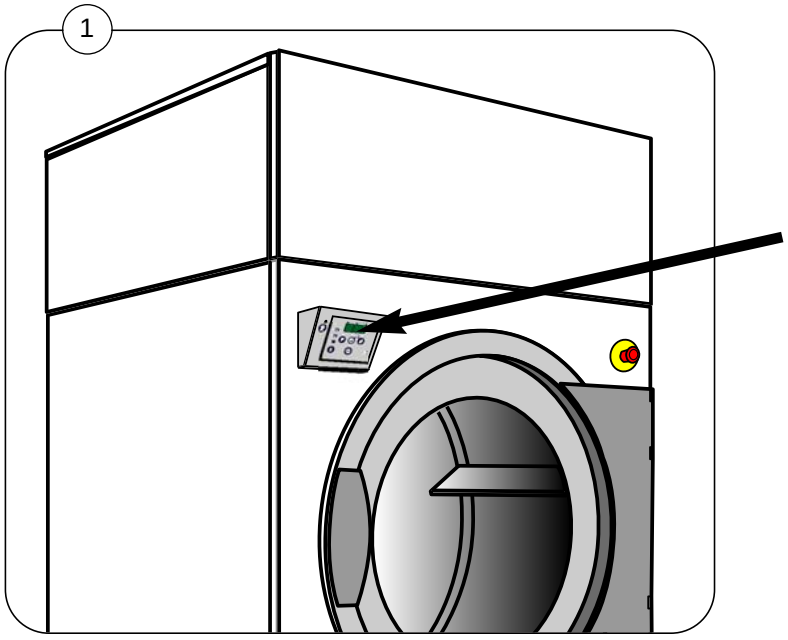
Fig. 1 The user module is placed in the operating box.

The user module contains a circuit board with display, indicator lamps, a connector for the user keypad, and electronics to communicate commands to the main circuit board via a serial interface.

Fig. 2 The circuit board also contains a slide switch **A** for changing to programming mode.

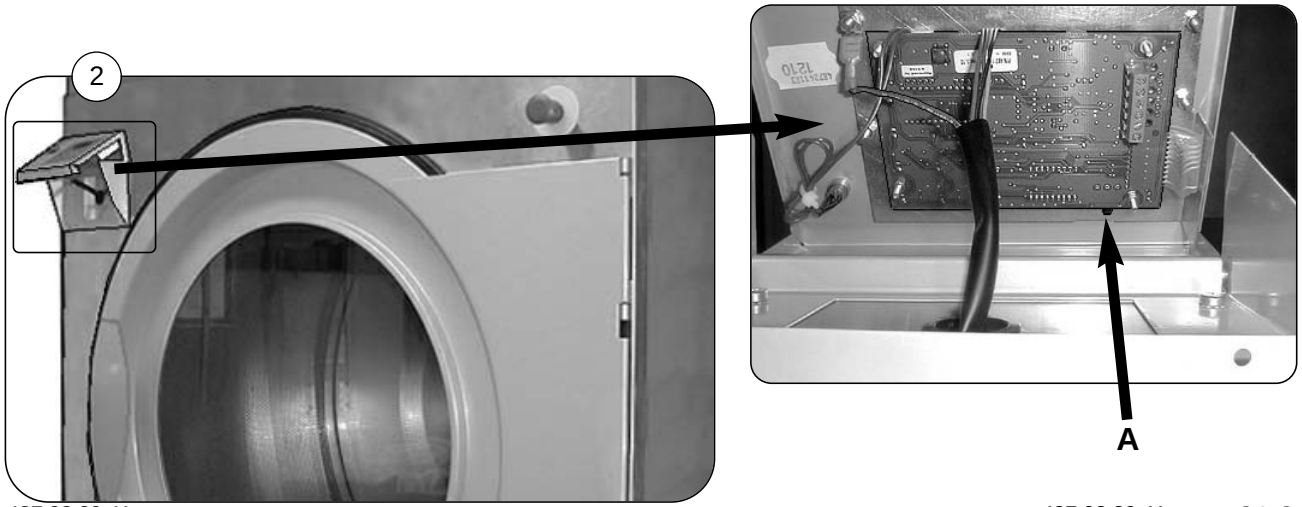
See Selecta Control Service Manual for programming the dryer.

1



Inside operating box:
User module circuit board

2



Warning!
High voltage behind the screen

Control locations

Tumble dryer with Sliding Door

Fig. 1 The user module is placed behind the panel.

The user module circuit board contains display, indicator lamps, a connector for the user keypad, and electronics to communicate commands to the main circuit board via a serial interface.

Fig. 2 The circuit board also contains a slide switch **A** for changing to programming mode.
See Selecta Control Service Manual for programming the dryer.

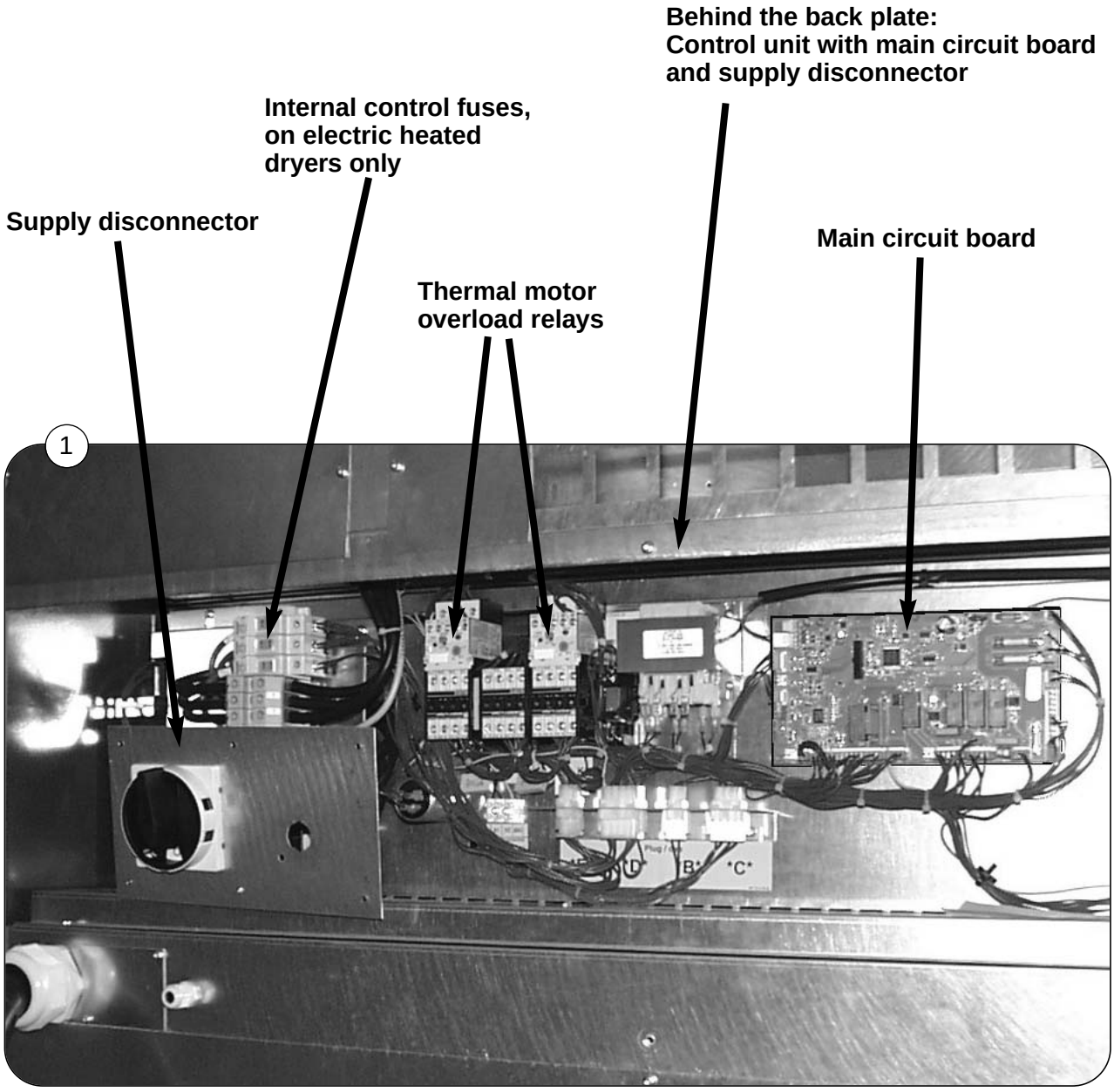
Fig. 3 When replacing/repairing the circuit board or buttons, the protective screen must be removed.
Note! Remember to mount protective screen after service.

Remember to disconnect the power!

Control unit with main circuit board

Dryer with standard loading door

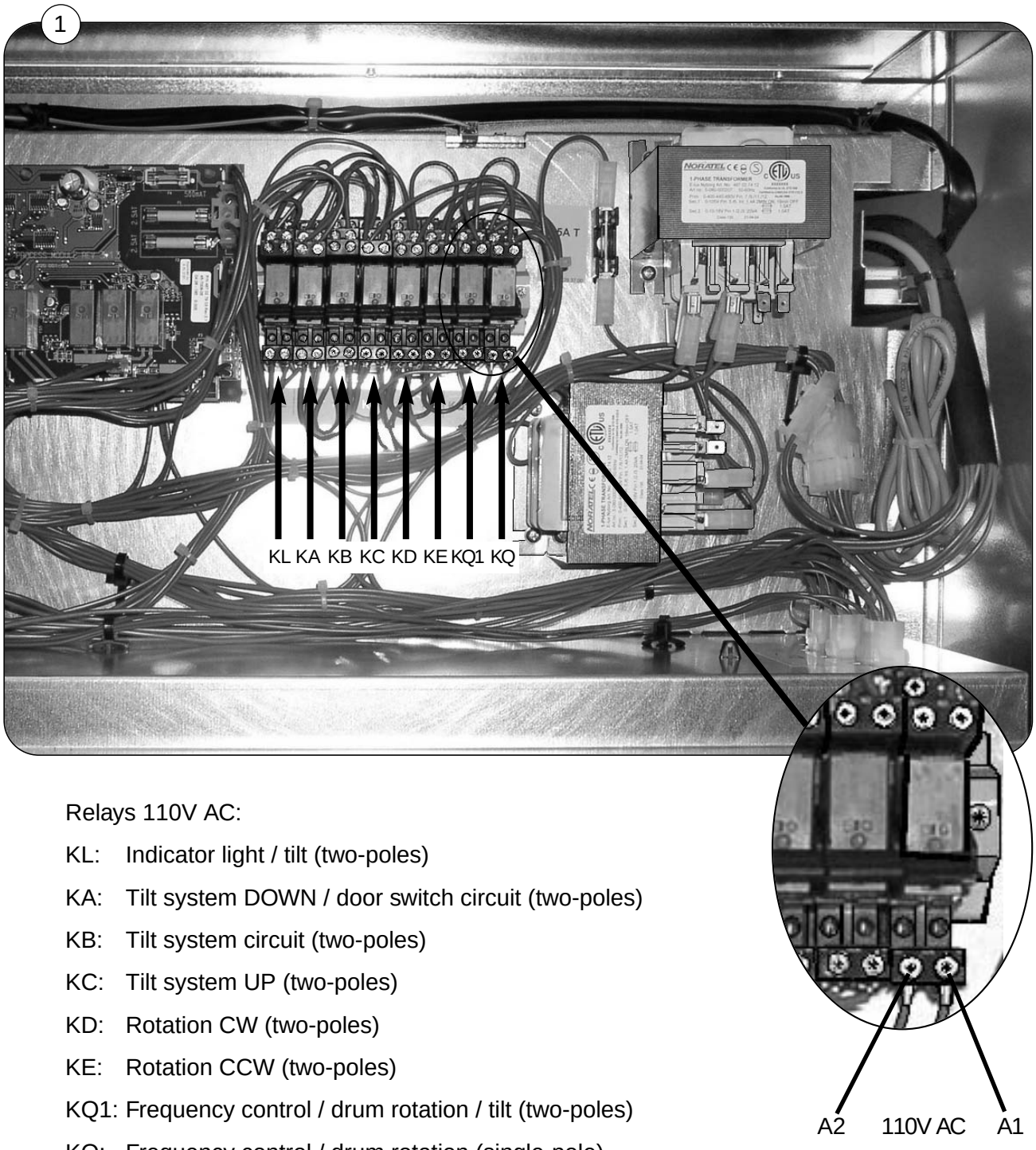
Fig. 1 Control unit is placed behind the rear panel.



Control unit with main circuit board

Dryer with sliding door, tilt and frequency control

Dryers with sliding doors can be controlled with up to 8 extra relays that govern tilt, drum rotation speed and frequency converter.



Relays 110V AC:

KL: Indicator light / tilt (two-poles)

KA: Tilt system DOWN / door switch circuit (two-poles)

KB: Tilt system circuit (two-poles)

KC: Tilt system UP (two-poles)

KD: Rotation CW (two-poles)

KE: Rotation CCW (two-poles)

KQ1: Frequency control / drum rotation / tilt (two-poles)

KQ: Frequency control / drum rotation (single-pole)

Sliding Door

Troubleshooting - Tilt

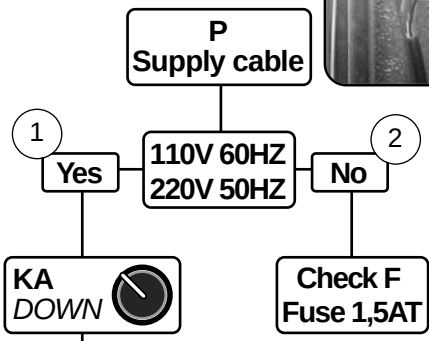
If the tilt function does not work:

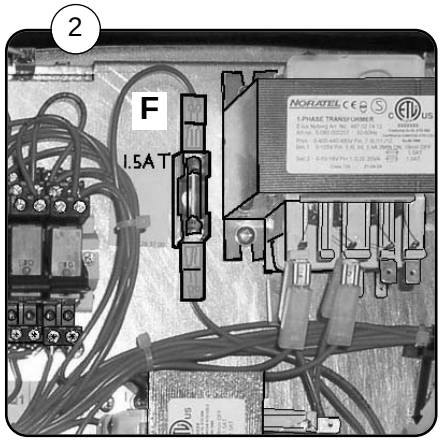
1. The input cable P to the control box K should give a reading of approximately 110V at 60 Hz or 220V at 50 Hz.

• **If "Yes"**: If a reading of 110V/220V is given, check that there is 110V on relay coils KA DOWN or KC UP; at the same time, the tilt button on the control panel should be turned either to the left or the right.

• Check glass fuse in control box K:
• Remove the plug and dismantle the control box.
• Remove the rear and replace the fuse with an equivalent fuse

2. If "No": If no voltage (110V/220V) can be read off on the input plug P, check glass fuse F on the secondary side of the transformer; in the event of a defect, replace with an equivalent fuse.





General note!

When troubleshooting on tilt, rotation and inverter systems

• Check loose cables/connections

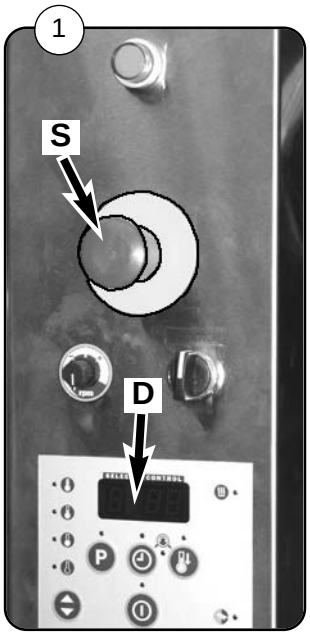
• Check that all 7 or 8 (according to equipment) small relays for tilt have a coil voltage of 110V AC. If there is no pick-up, they must be replaced.

If the tilting function fails in tilted position

See section 43: **Cabinet**.

Sliding Door

Troubleshooting: No light on display D



1 **No light on display D**

Power ON/ OFF

ON

1 **Check S emergency stop is not switched off or is loose**

2 **Check F4 fuse on Process module**

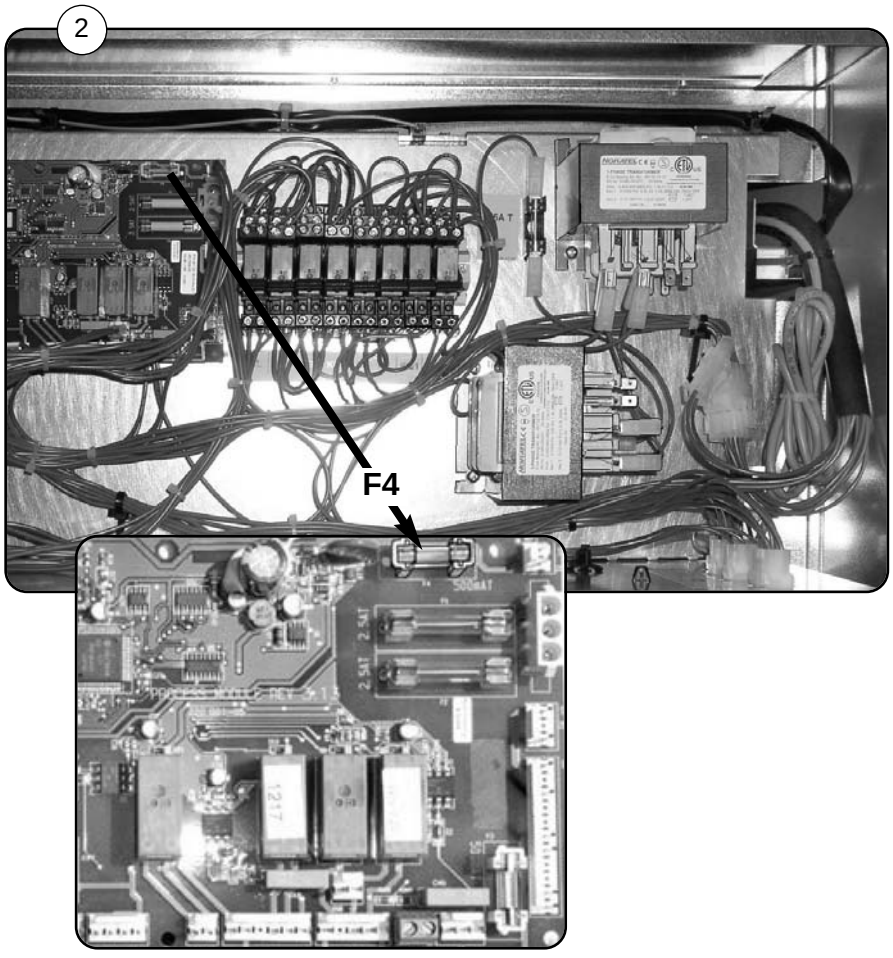
Check all electrical connections and tighten any loose connections

Replace User module circuit board

OFF

Make sure main control switch is ON

Check line fuses



Replacement of main circuit board

The main circuit board (Selecta Control) is not serviceable. It must be replaced if it fails.

The main circuit board can be ordered as a spare part.

The spare part consists of: Circuit board with fuses in anti-static packing and instructions.

Follow the instructions when replacing the main circuit board.

The new main circuit board (Selecta Control) is pre-programmed with specific features and may need to be “post-programmed” after installation.

In order to start the programming, the programming mode has to be entered, see the following page.

Following settings must be programmed:

- Reversing (Yes or No). 4.01
- Heating type (gas, electric or steam). 4.02
- Payment settings (No payment). 4.03
- Panel type (OPL). 4.04
- Program type (OPL RMC, Auto Stop). 4.05

Selecta Control Service Manual

Certain main circuit board parameters need to be set after installation, according to the characteristics of the dryer and the preferences of the owner.

See Selecta Control Service Manual for further details.

Programming

To enter the programming mode on the User Module:

1. Fig. 1 a Standard Door: Open the operating box.
   Fig. 1 b Sliding Door: Open the operating panel.

2. **Fig. 1** Move the mode switch on the board into the position indicated by the arrow.

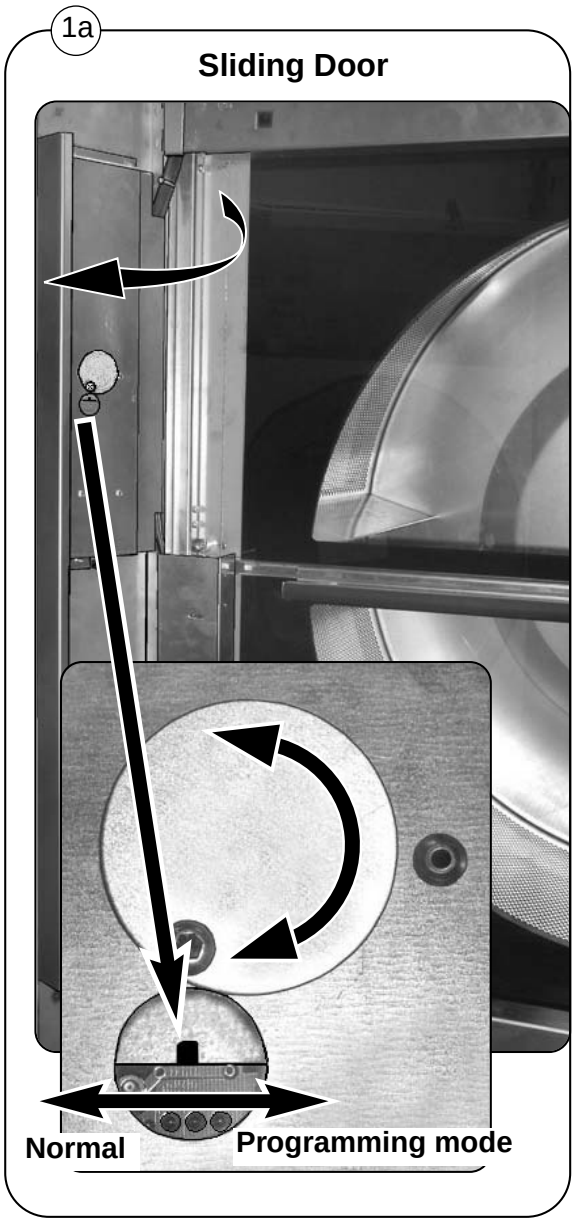
3. **Fig. 2** The display shows **0** _ _ and is ready for programming.

Refer to Selecta Control Service Manual for programming details.

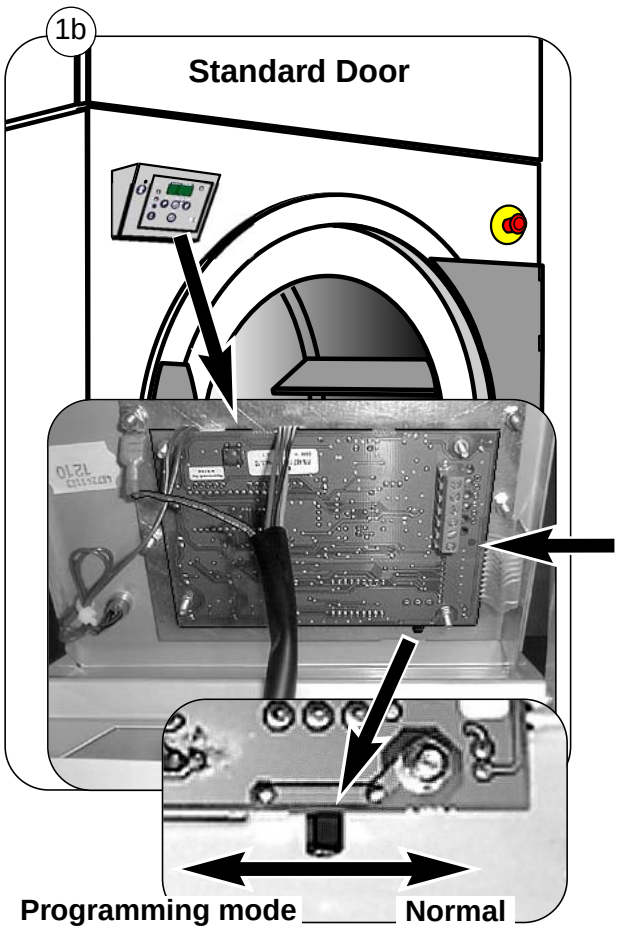
Note! Remember to move the mode switch back to **normal position** after programming.

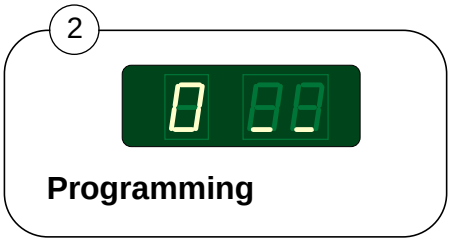
Function check

Test the dryer, see section 11: **Function check.**



Caution! Static-sensitive components!
Do not touch the circuit board.





Contents

Overview, Inlet air

Positioning of sensors and overheating thermostats for inlet air.

Fig. 1a+1b. Gas and Electric heating types have 1 overheating thermostat and thermistor element on the side of the heating calorifer.

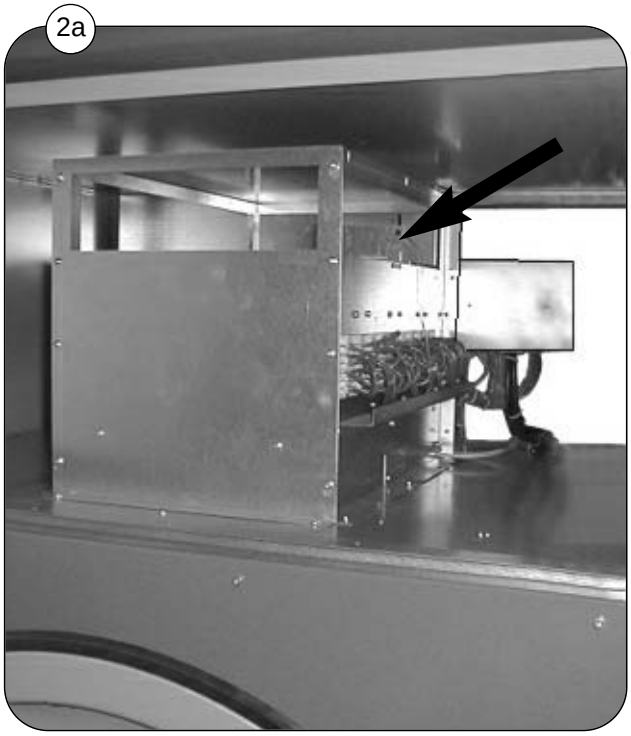
Fig. 2a+2b. Electric heated dryers have an extra overheating thermostat placed on top of the heating elements.

(On steam heated dryers there is no inlet overheating thermostat).

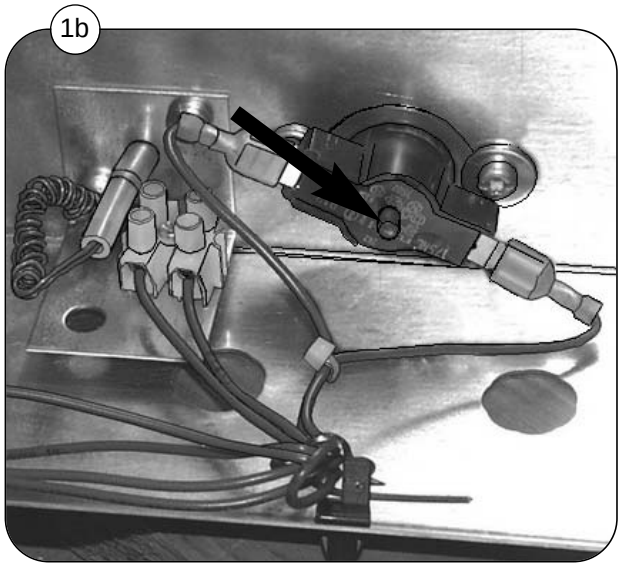
On the following pages replacement and manual resetting is described.

1a

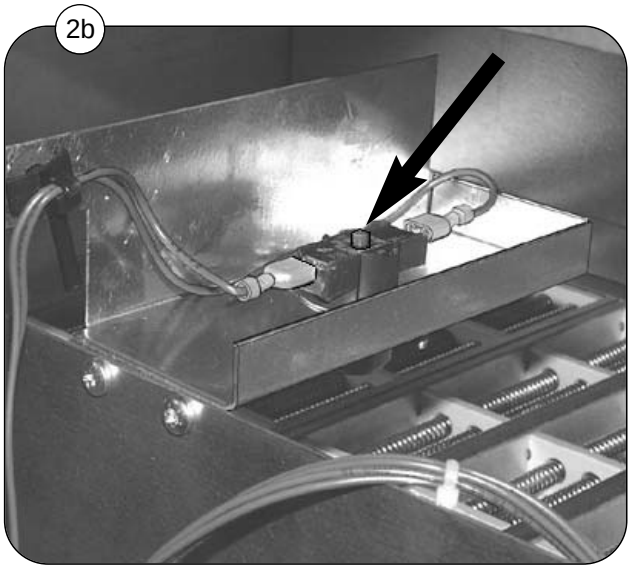
2a



1b



2b



Inlet air - Overheating thermostat

Function

The inlet overheating thermostat opens automatically in the event of overheating, and shuts off the dryer.

The thermostat opens and has to be reset manually.

Resetting

Electric heated dryers, fig. 1a+1b

The overheating thermostats (2 pcs) are located behind the front shutter of the dryer,
- one on side of the heating unit **1a** and one just above the heating elements **1b**.

Gas heated dryers, fig. 2

The overheating thermostat is located behind the front shutter of the dryer on the left side of the gas heating unit.

Note! In order to reset the thermostats, open the front shutter and press the reset button **A** on the thermostats.

Steam heated dryers.

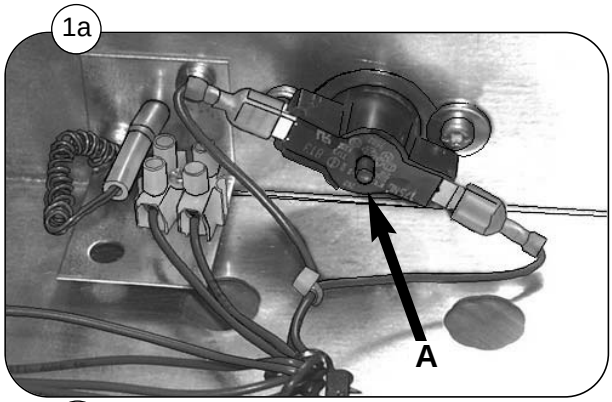
On steam heated dryers there is no inlet overheating thermostat.

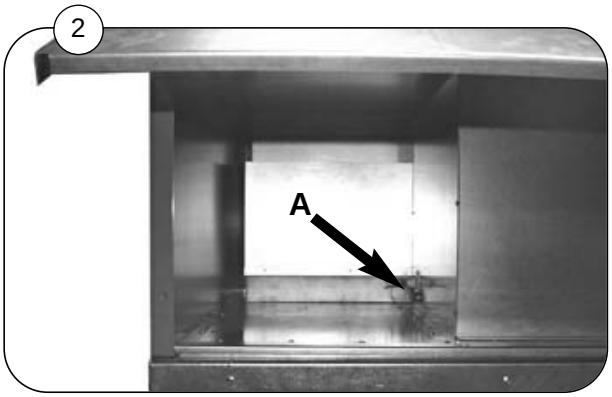
Error code

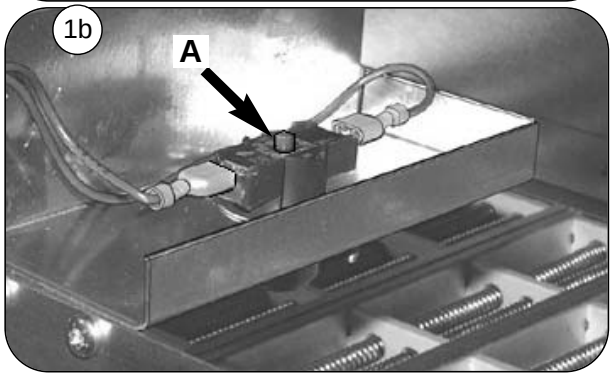
The following error code is related to this section:

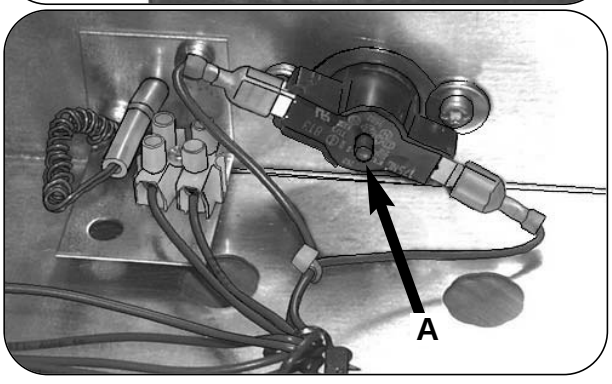
E08

Refer to Selecta Control Service Manual, section 12 for more information.









Inlet air - Thermistor element (NTC sensor)

Function

The thermistor element measures the temperature of the heated air entering the drum. The resistance of this device is normally 80 to 100 kOhms at 20°C and drops as the temperature increases.
The signal is returned to the main circuit board and this ensures that the inlet air does not become excessively hot, thus preventing scorching of garments.

Replacement

Gas and electric heated dryers, fig. 1

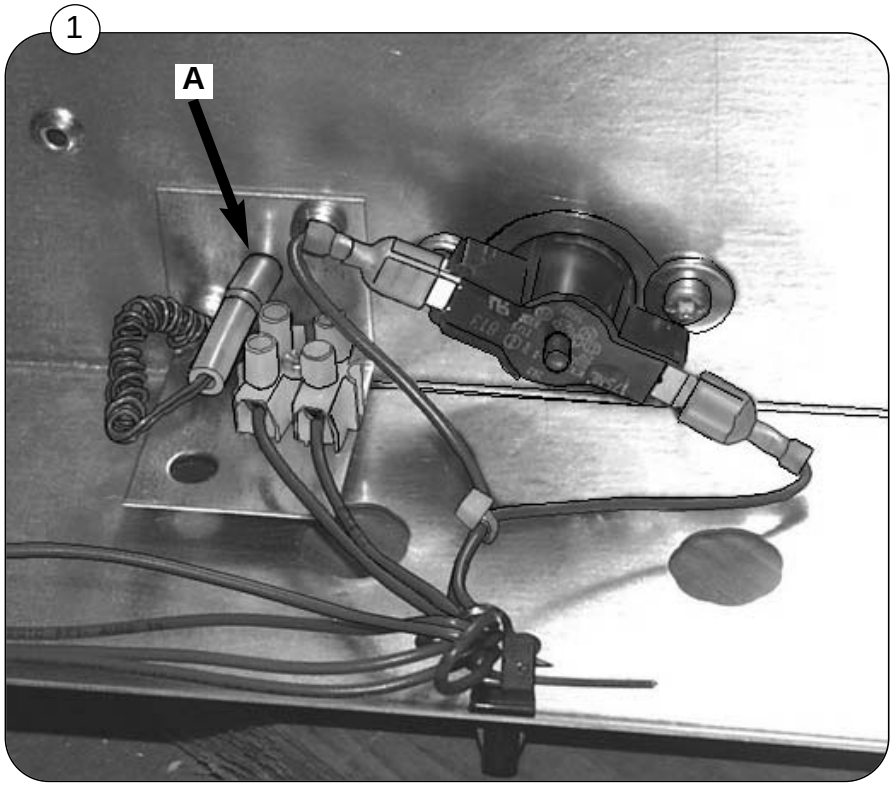
The element **A** is located in the heating unit.
Fig. 1 Open the front shutter. Element **A** can now be replaced by dismounting the angle plate.

Error codes

The following error codes are related to this section:

E01, E03, E17

Refer to Selecta Control Service Manual for more information.

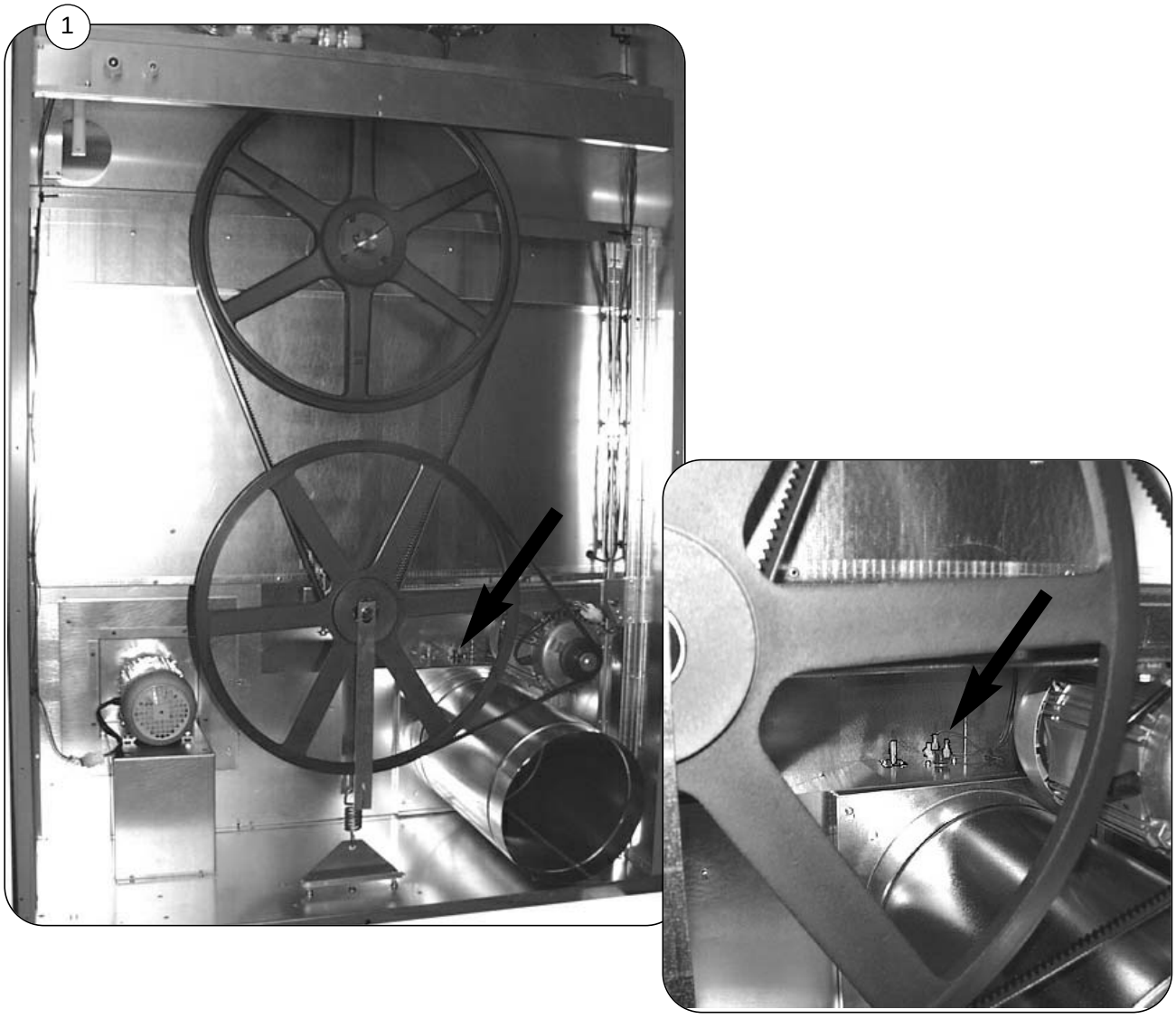


Overview, Outlet air

Positioning of sensors and overheating thermostats for outlet air.

Fig. 1. Overheating thermostat and thermistor element, on electric, steam and gas heated dryers.

On the following pages replacement and manual resetting are described.



Outlet air - Overheating thermostat

Electric, gas and steam heated dryers

Function

The outlet air overheating thermostat is located on the outlet pipe at the back of the dryer.

The overheating thermostat ensures that the dryer does not overheat during program operation.

The thermostat opens automatically and has to be reset manually.

Resetting

1. Disconnect the power supply to the dryer.
2 Remove bottom back plate.
4. **Fig. 1** The thermostat can now be reset manually by pressing the reset button **A** on the thermostat.

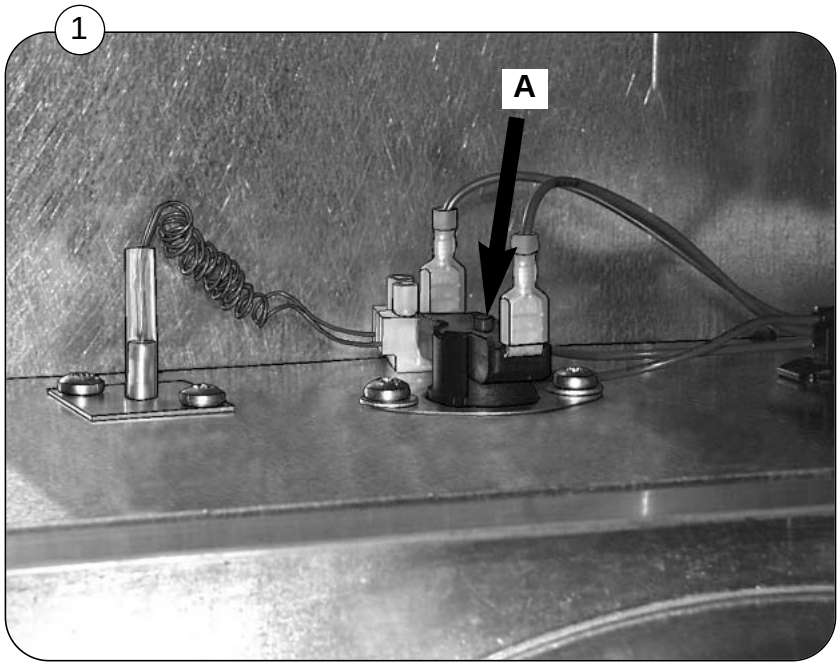
Error code

The following error code is related to this section:

E08

Refer to Selecta Control Service Manual for more information.

1



Outlet air - Thermistor element (NTC sensor)

Function

The sensor measures the temperature in the outlet air and the signal is returned to the main circuit board.
The main circuit board turns the heating unit off when the outlet air thermistor indicates that the required temperature has been reached.

The resistance of this device is normally 80 to 100 kOhms at 20°C and it drops as the temperature increases.

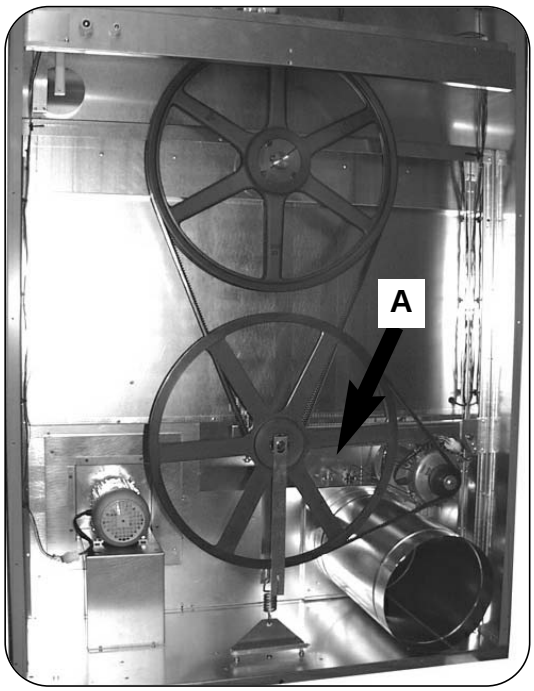
The sensor **A** is mounted near the outlet air overheating thermostat.

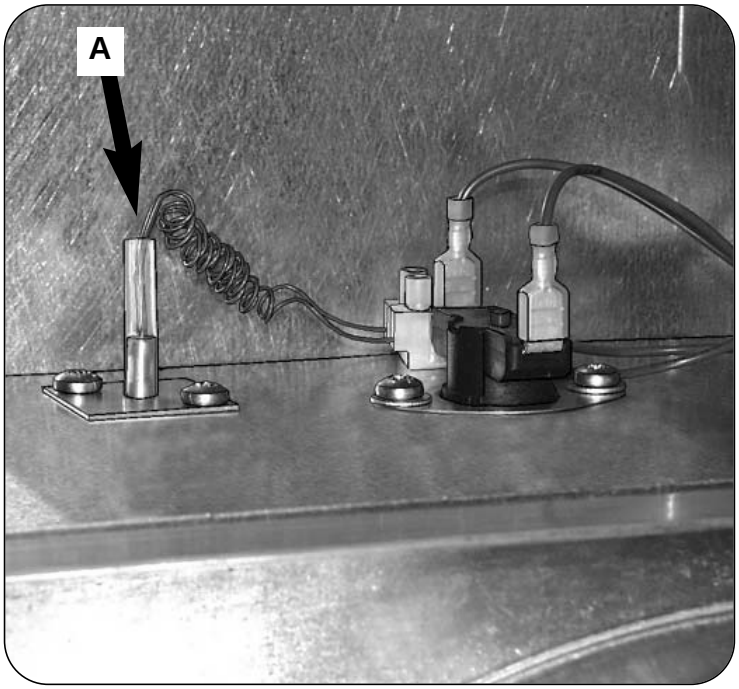
Error codes

The following error codes are related to this section:

E02, E04, E18

Refer to Selecta Control Service Manual for more information.





Vacuum shutter and switch

Active on electric and gas heated dryers only

Function

The vacuum switch ensures the necessary airflow in the dryer.

Adjustment

The switch must click when the distance from the vacuum shutter plate to the body of the dryer is approx. 7 mm.

If the distance is too big, the vacuum shutter might not close properly.

Vacuum shutter and shutter switch are located behind the back plate.

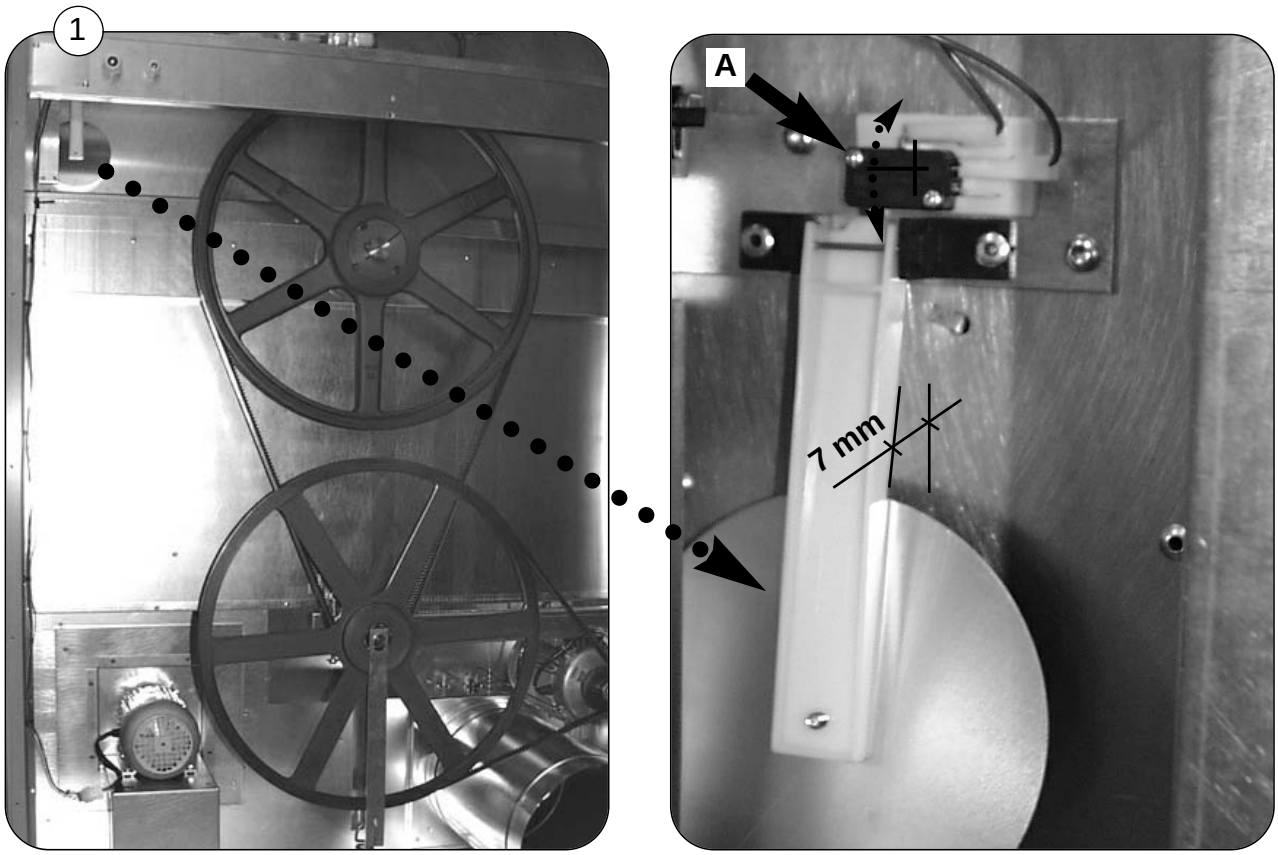
Fig. 1 The top screw **A** on the switch is used for adjusting the vacuum shutter distance from the body of the dryer.

Error codes

The following error codes are related to this section.

E15, E16

Refer to Selecta Control Service Manual for more information.



Contents

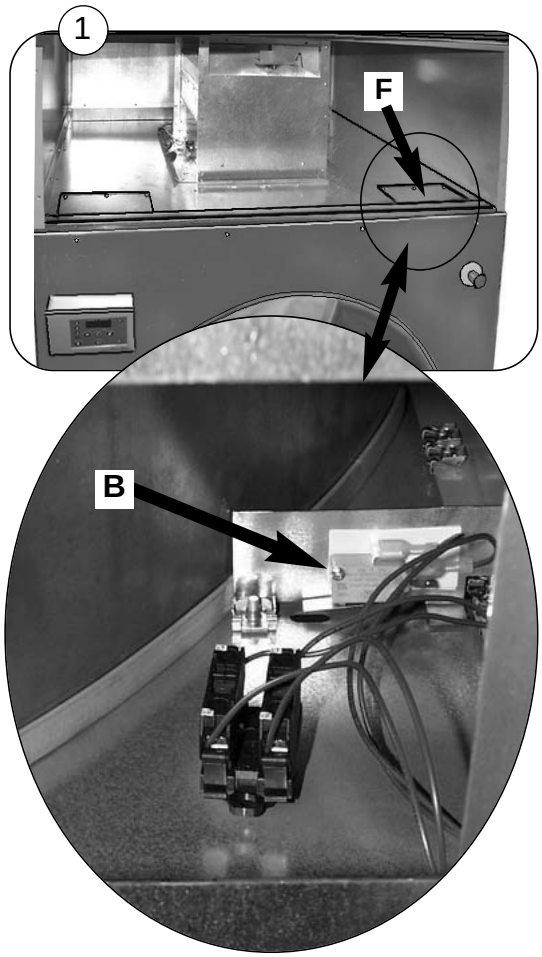
Loading door switch

Standard door

A switch is mounted at the loading door hinge.

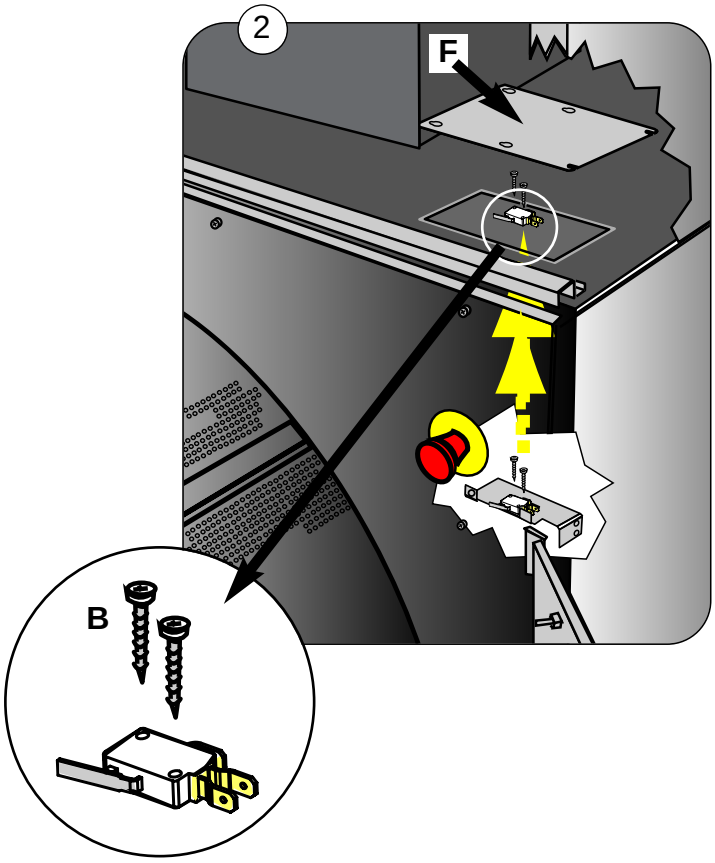
The switch ensures that the dryer stops automatically if the loading door is opened during operation.

If the dryer does not stop when the loading door is opened, the switch needs replacing.



Replacing door switch

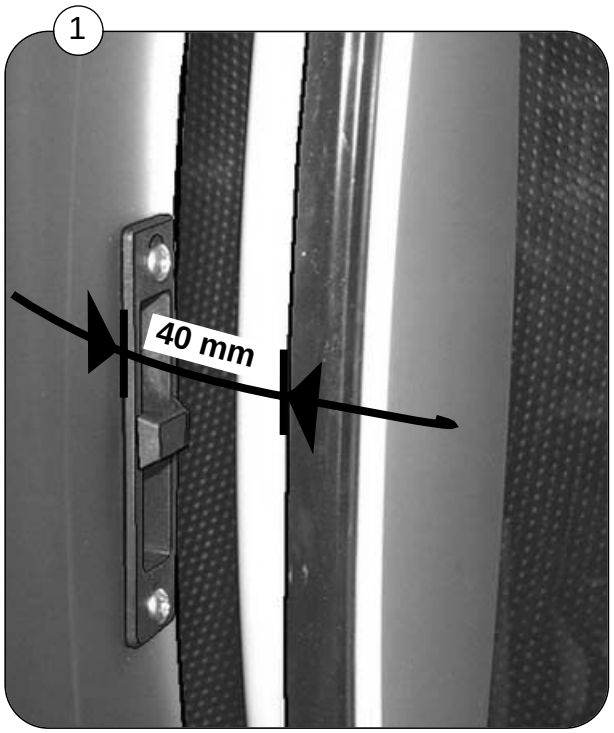
1. Disconnect the power supply to the dryer.
2. Open front shutter and dismount right service cover plate **F, fig. 1.**
3. Dismount switch from console by unscrewing screws **B, fig 2.**
4. Disconnect the wires from the switch.
5. Mount the new switch.
6. Connect the wires.
7. Re-assemble and test the new door switch, see next page.

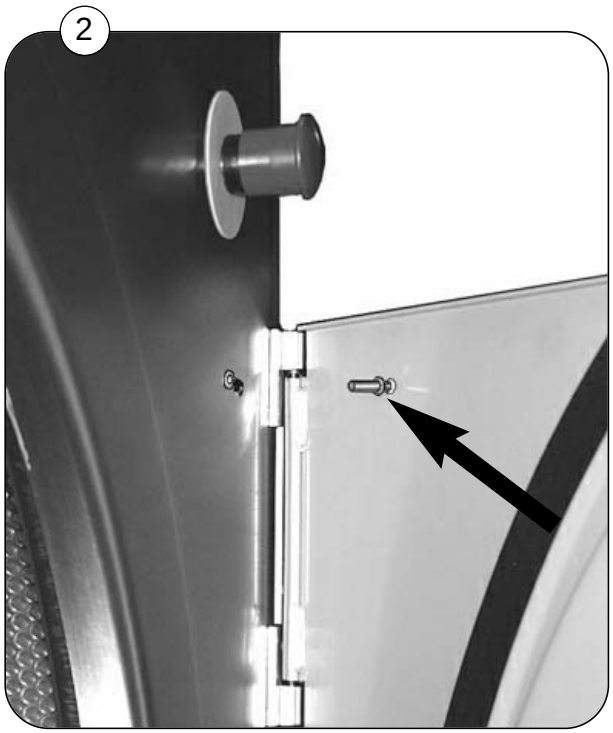


Testing door switch

Standard door

1. Connect the power supply to the dryer.
2. Start the dryer.
3. **Fig. 1** Check that the fan, drum rotation and heat all stop when the door is opened max. 40 mm.
Fig. 2 If it is possible to open the door more than 40 mm before the dryer stops, it is necessary to adjust the activating pin on the door.





Testing door lock on loading door

Standard door

It must be possible to open the door lock on the loading door from the inside with a force not exceeding 70N (7.138Kp).

The door must be strained with a force corresponding to the above 70N (7.138Kp). The strain must be done as far from the door hinge as possible.

The door lock is adjustable by tightening or loosening the screws **A**, **fig. 1.**

Lint filter switch, Standard door

Function

The lint filter switch ensures that the dryer will not operate when the filter door is open.

If the dryer does not operate with the lint filter door closed and locked, the lint filter switch might need replacing.

Replacement

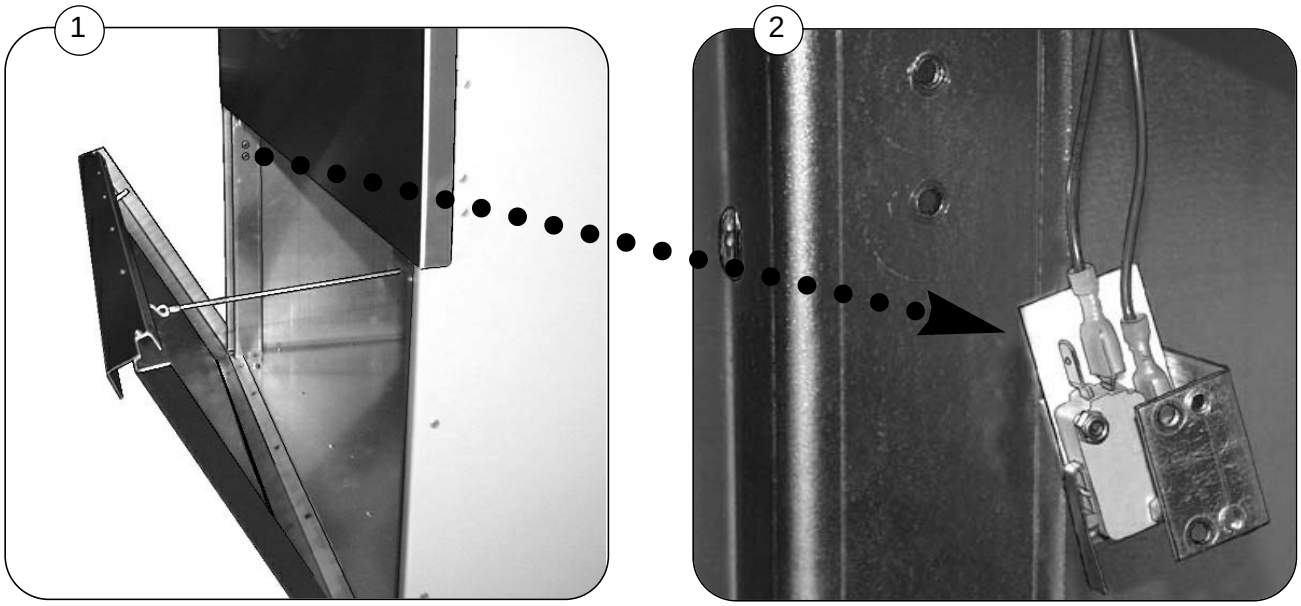
1. Disconnect the power supply to the dryer.
2. **Fig. 1**. Open the filter door.
3. **Fig. 2.** Unscrew the switch mounting bracket and pull out the bracket with switch.
4. Disconnect the wires from the switch.
5. Mount the new switch on the bracket.
6. Connect wires to the new switch.
7. Remount the bracket with the new switch.
8. Close the filter door.

Testing the lint filter switch

1. Connect the power supply to the dryer.
2. Start the dryer.
3. If the dryer does not start when the filter door is closed and the start button is pressed, check that the filter door is activating the lever on the lint filter switch.

- If the filter switch fails/hangs (without disconnecting) and the filter door is opened, false air is drawn in and this can cause vacuum error, error code **E15.**

4. Confirm that the fan, drum and heat all stop when the filter door is opened during operation.



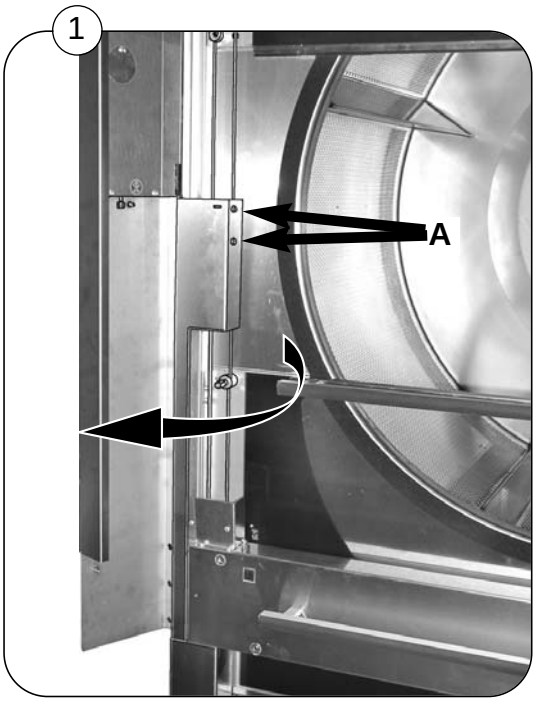
Loading door switch Sliding Door

Two switches are installed at the loading door.

Both switches are located in a box behind the control panel.

The switches are connected in series, which ensures that the dryer stops automatically if the loading door or the panel is opened during operation.

If the dryer does not stop when the loading door or panel is opened, the switch(es) needs replacing.



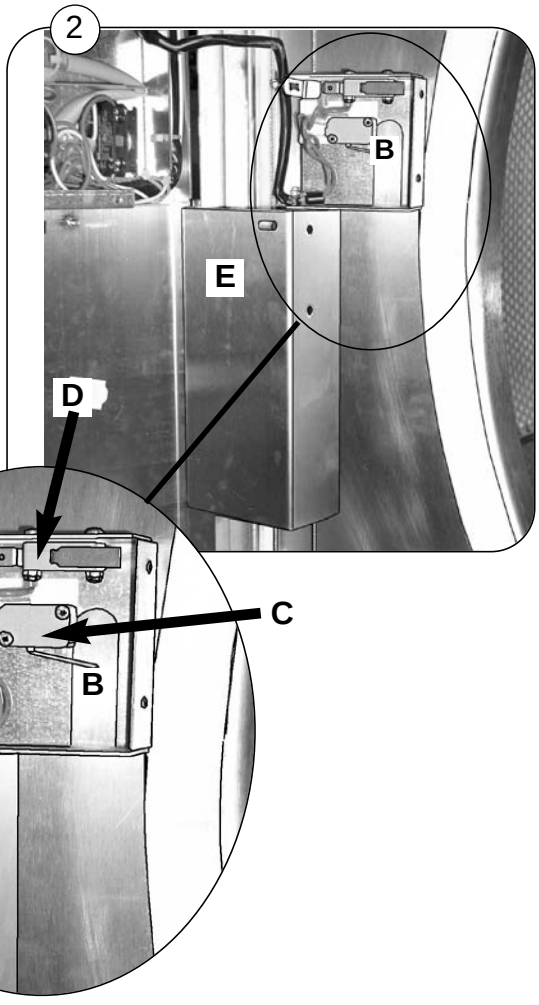
Replacing door/panel switch

1. Disconnect the power supply to the dryer.
2. Open the control panel and undo the 2 screws **A**, **fig. 1.**
3. Pull the box **B** containing the 2 switches up away from the protective screen **E**.

   Dismantle the defective switch from the box, **fig. 2.**

   C: Loading door switch

   D: Control panel switch
4. Disconnect the wires from the switch.
5. Install the new switch.
6. Connect the wires.
7. Re-assemble and test the new switch, see next page.



Testing door switch

Sliding Door

1. Connect the power supply to the dryer.
2. Start the dryer.
3. Check that the blower, drum and burner stop when the door or panel is opened, **fig. 1.**

If the loading door or panel can be opened without the dryer stopping, the switch(es) must be checked for defects (disconnect power, click).

Lint filter switch, Sliding Door

Function

The lint filter switch ensures that the dryer will not operate when the filter door is open.

If the dryer does not operate with the lint filter door closed and locked, the lint filter switch might need replacing.

Replacement

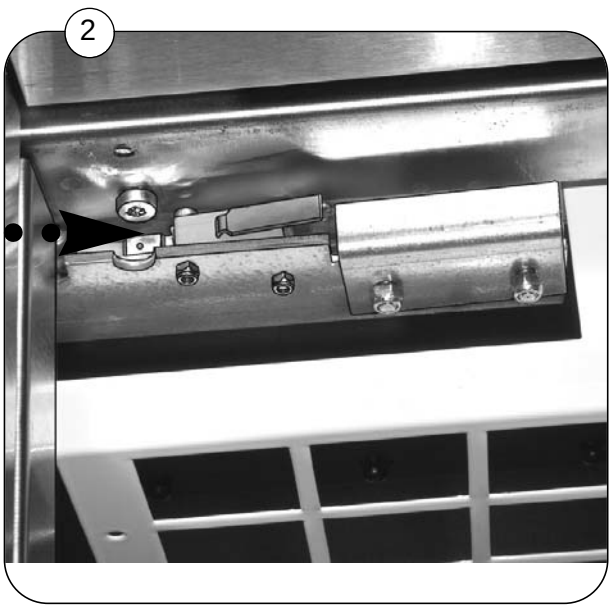
1. Disconnect the power supply to the dryer.
2. **Fig. 1**. Open the filter door.
3. **Fig. 2.** Unscrew the switch.
4. Connect wires to the new switch.
5. Mount the new switch.
6. Close the filter door.

Testing the lint filter switch

1. Connect the power supply to the dryer.
2. Start the dryer.
3. If the dryer does not start when the filter door is closed and the start button is pressed, check that the filter door is activating the lever on the lint filter switch.

- If the filter switch fails/hangs (without disconnecting) and the filter door is opened, false air is drawn in and this can cause vacuum error, error code **E15.**

4. Confirm that the fan, drum and heat all stop when the filter door is opened during operation.



Contents

Motor and transmission, general

Fan module. Fig. 1, A,

Transmission module. Fig. 1, B.

The dryer has two motors, one for the fan and one for the drum.

Both motor types are protected by thermal overload relays **C**, **fig. 2.**

If a motor overheats, the thermal overload relay is switched off and the control displays an error code.

The overheat protection re-closes automatically when the motor cools sufficiently. The dryer can then be re-started.

The motors are located at the back of the dryer.

Note!

On electric heated dryers the internal control is protected with safety fuses. See next page.

Before replacing the motor

It is important to compare the data sign on the new motor with the one on the old motor regarding voltage and rpm.

Error code

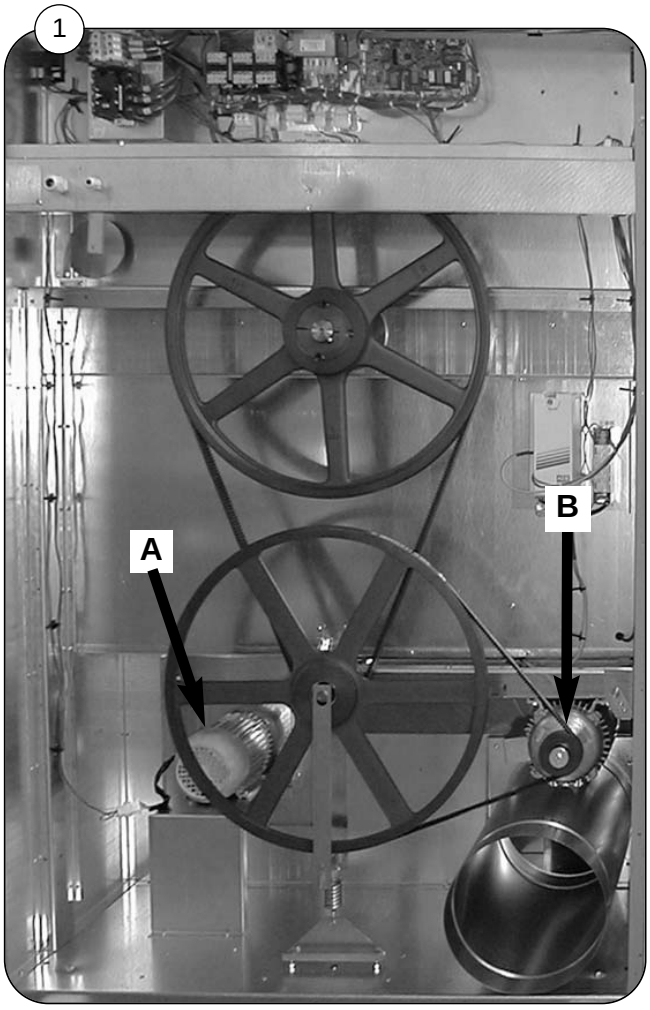
The following error code is related to this section:

E05 Motor, blower (A)

E06 Motor, drum (B)

Refer to Selecta Control Service Manual, section 12 for more information.

1



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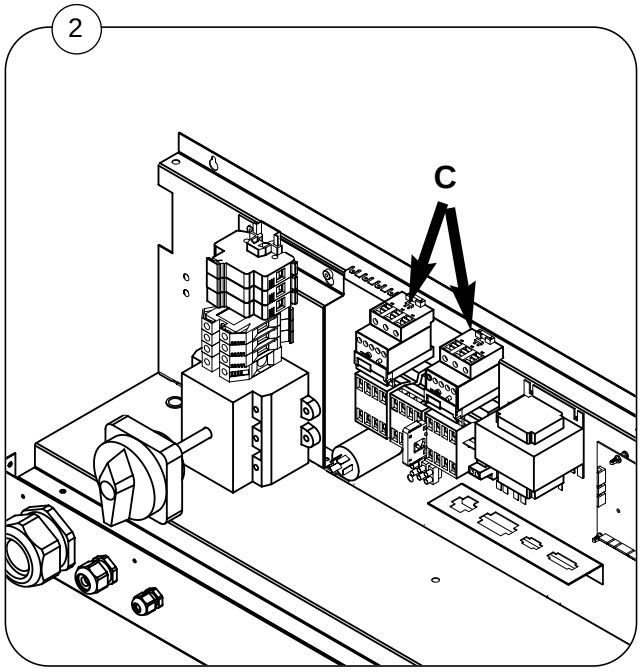


Internal fuses on electric heated dryers

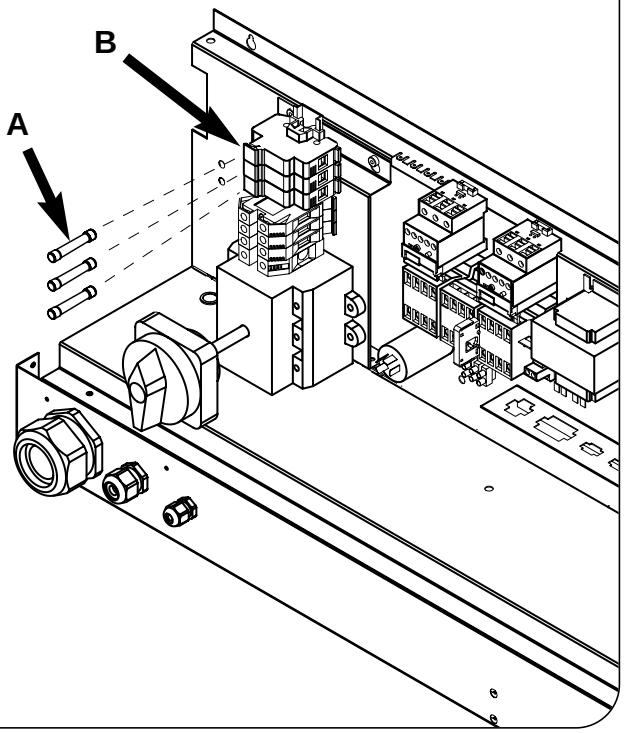
Internal control

On electric heated dryers the internal control is protected by internal fuses **A** located in fuse retainers **B** on the supply disconnector, **fig. 1.**

Fuse sizes are in the table below, **fig. 2.**

1

Electric heating

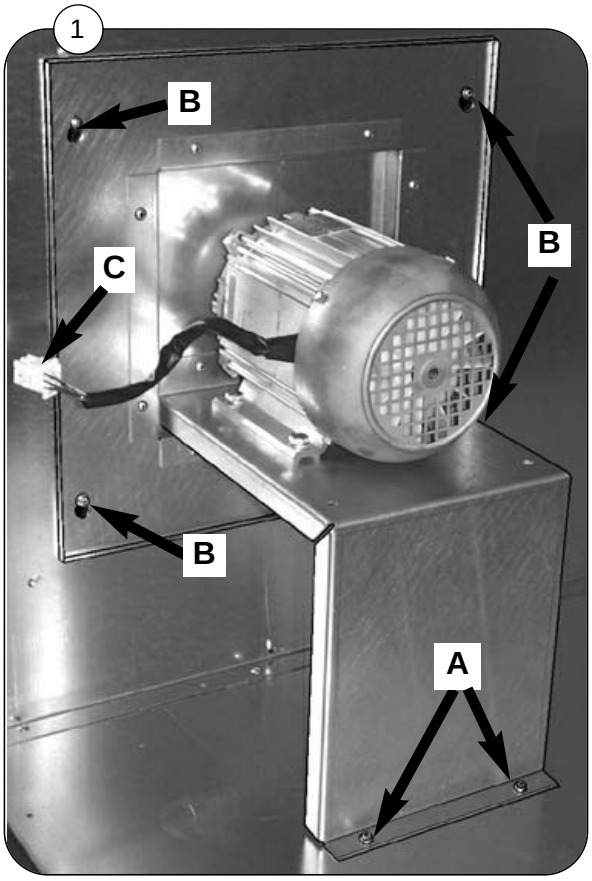


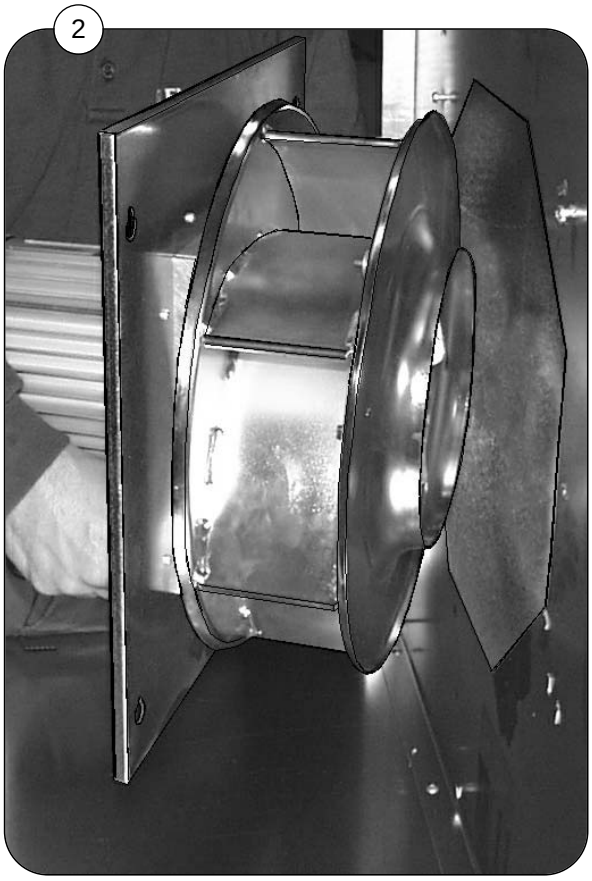
2

Voltage/ frequency V/Hz	Heat effect kW	Fuse size A
200-240V 3AC 50/60Hz	48kW	20A
400-480V 3AC 50/60Hz	48-60-72kW	16A
440-480V 3AC 60Hz (USA)	48-60-72kW	15A

Dismounting fan module

1. Disconnect the power supply to the dryer.
2. Remove the back plate.
3. **Fig. 1** Remove the 2 screws **A** from the bottom of the dryer.
   Loosen the 4 screws **B**.
4. **Fig. 1**. Disconnect the motor plug **C.**
5. **Fig. 2.** Dismount the whole fan unit.
   The fan wheel is mounted directly on the motor shaft.





Replacements on fan module

Fig. 1 It is now possible to change the following:

- **Motor** (**a**)
- **Fan wheel** (**b**)

Dismounting fan wheel / motor

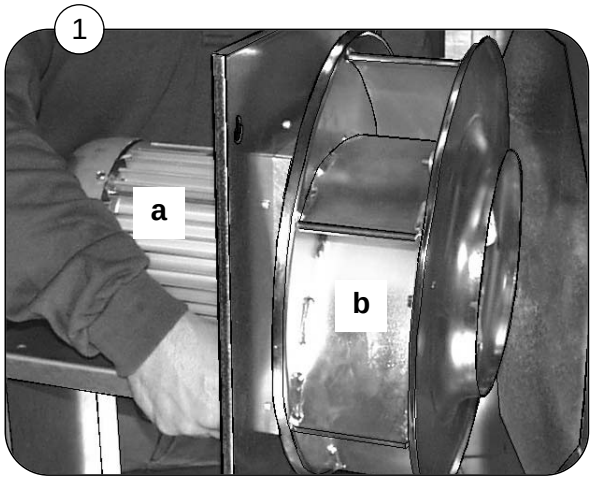
1. **Fig. 2.** Unscrew screw **A** with washer.
2. **Fig. 3.** Pull the fan wheel off the motor shaft using a wheel dresser.
3. Fan wheel or motor can now be replaced. Be careful not to damage the fan wheel.

Mounting motor

If a motor has been taken apart / replaced it is important to lubricate the motor shaft with an anti-fretting paste (Antifret LAGF 3 / 0.6 or similar quality).

1. Mount motor on motor bridge with 4 screws.
2. Tighten the 4 screws with 20 Nm.
3. **Fig. 4.** Mount fan wheel, lubricate screw **A** using a protection product such as Omnifit Seal 40M or similar quality and tighten with 5 Nm.
4. Fan module can now be mounted on the dryer.
5. Tighten the belt, see section 11: **Tightening belt.**

1



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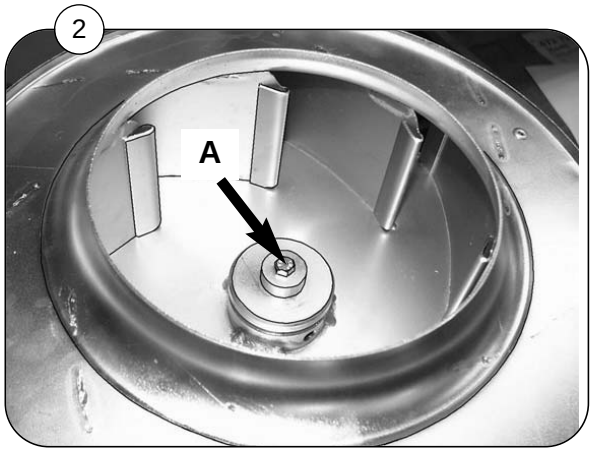

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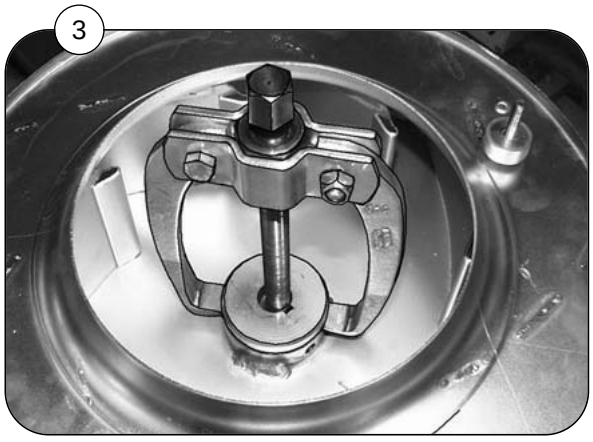

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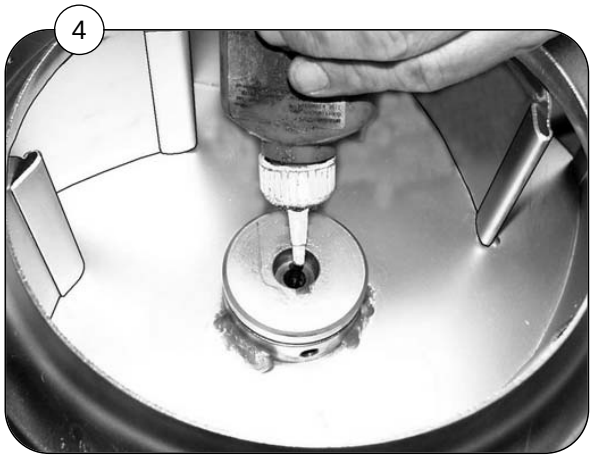


After replacements on fan module

Finishing replacement

1. Assemble the dryer.
2. Connect the power supply to the dryer.

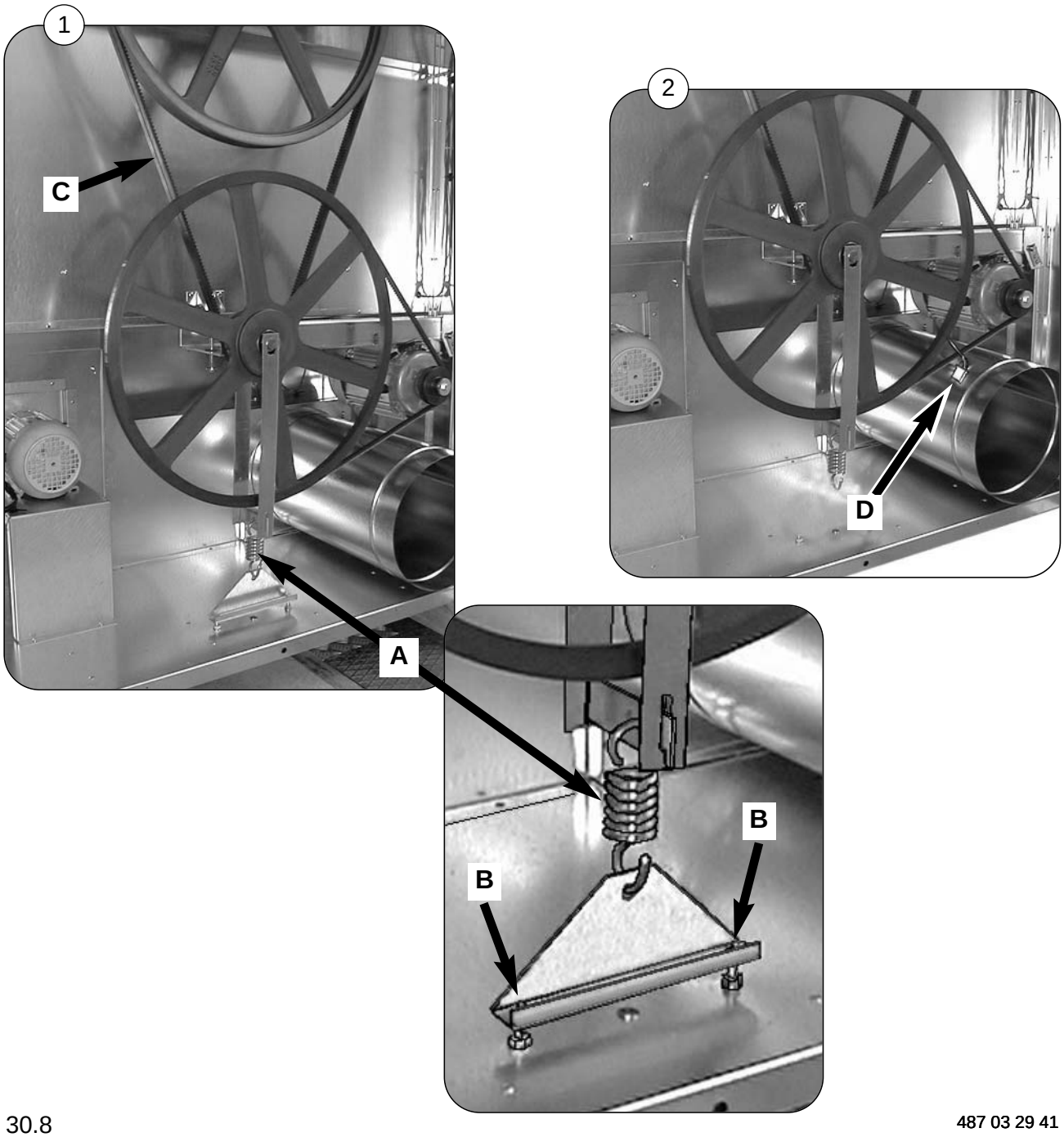
Function check

Check the dryer, see section 11: **Function check**

Dismounting transmission module

1. Disconnect the power supply to the dryer.
2. Remove the back plate.
3. **Fig. 1** Loosen the spring **A** by unscrewing screws **B**.
4. Disconnect the motor plug **D**, **fig. 2**.

See next page.



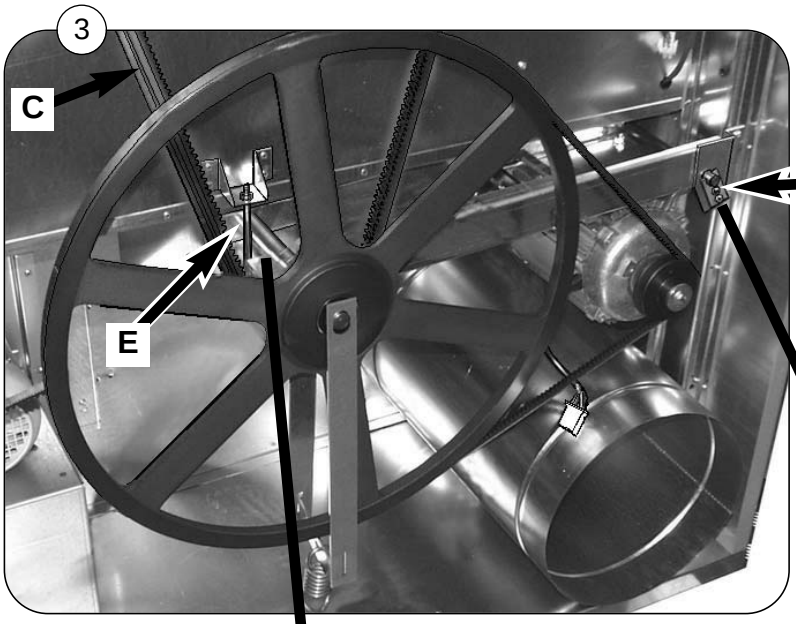
Dismounting transmission module

5.Fig. 3 Remove screw E (the whole motor bridge then hangs from the belts C).

6. Dismount locking plate G in order to remove the motor bridge shaft F, fig. 4.

7.Lift the belts C off the pulleys and the whole transmission module with motor bridge can now be removed.
Motor/transmission/pulley can be replaced or fixed.

3



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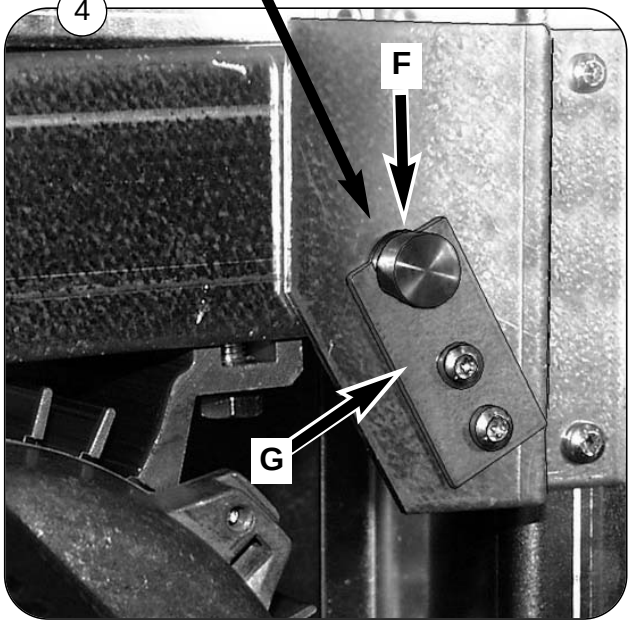


After replacement on transmission module

Finishing replacement

1. Assemble the dryer (Tightening belts, see section 11: **Function check).**
2. Connect the power supply to the dryer.

Function check

Check the dryer, see section 11: **Function check**

Contents

Gas heated dryers

Description

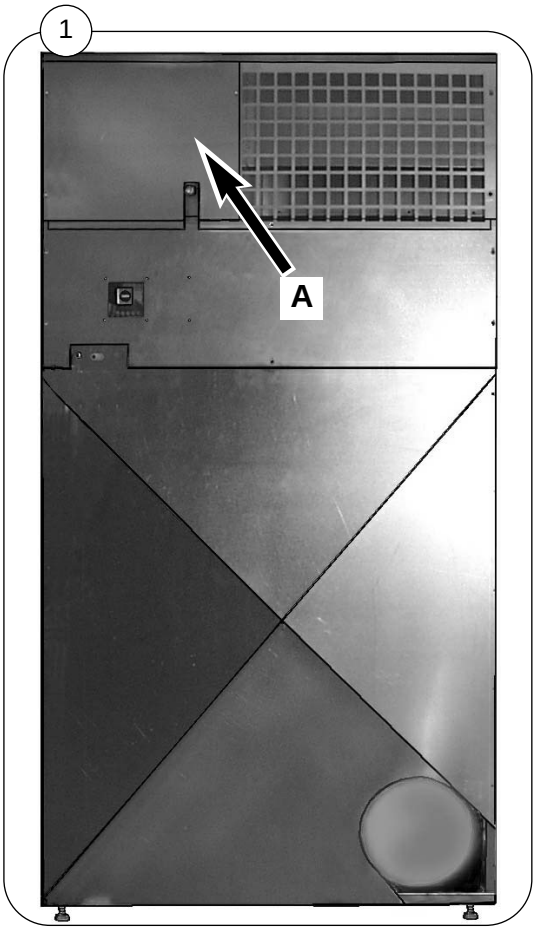
The gas burners (2 pcs) are located in the gas heating unit on the top of the dryer behind back plate **A**, **fig. 1.**

The air is drawn through the louvres on the back plate and into the heating unit.

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

The air then flows from the perforation through the filter and via the outlet to the open air, **fig. 2**.

The gas burners with ignition electrodes, nozzles and gas valves are controlled by the Selecta Control and the thermostats.



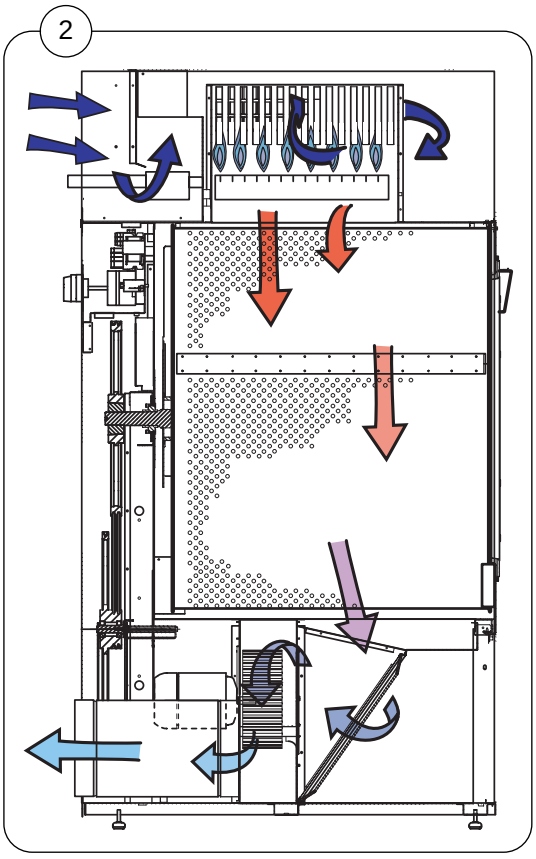
Overheating thermostats (also see section 27)

Gas heated dryers are equipped with two overheating thermostats connected in series, one in the inlet and one in the outlet.

In the event of overheating, the dryer stops and ***E08*** flashes in the display.

Resetting see section 27.

This error is often caused by reduction of the air circulation in the dryer due to not enough air in the room or due to the dryer being overloaded.
If the dryer is also stopped before the cool down function has started the after-heat can cause the overheating thermostats to switch off.



The following error codes are related to this section:

E 08 overheating

E 14 gas error

See Selecta Control service manual.

Gas error

Should a gas error occur error code ***E 14*** will be displayed, **fig. 1.**

In general gas errors occur due to supply shortage either if there is a gas failure or the gas pressure is too low.

Other errors which can cause ***E 14*** :

• Ignition failure. Check the distance between the electrodes on one burner, fig. 2.
The distance must be 3.5 mm (± 0.5 mm).
The distance above the burner must be 5 mm (± 0.5 mm).

• The sensor **S** on the other burner (the ionization must detect the flame), **fig. 3.**

Control measuring the ionization current

1. Demount wire with quick connector A.

2. Connect an ammeter/gauge between the quick connector A and the ignition electrode B, fig. 4.

3. Start the dryer on High heat.

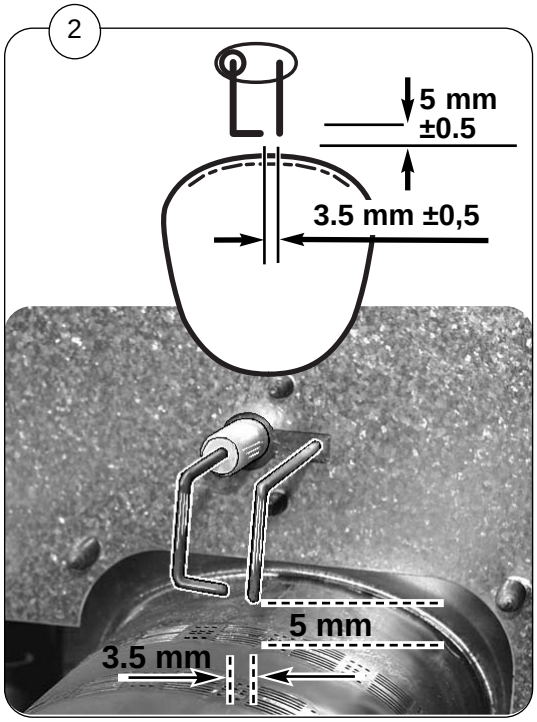
4. Measure the current between the quick connector A and the ignition electrode B.

The current must be at least 0.9 µA DC.

To be continued on the following page

1

2



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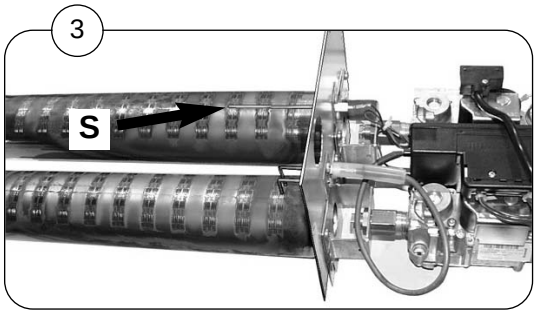

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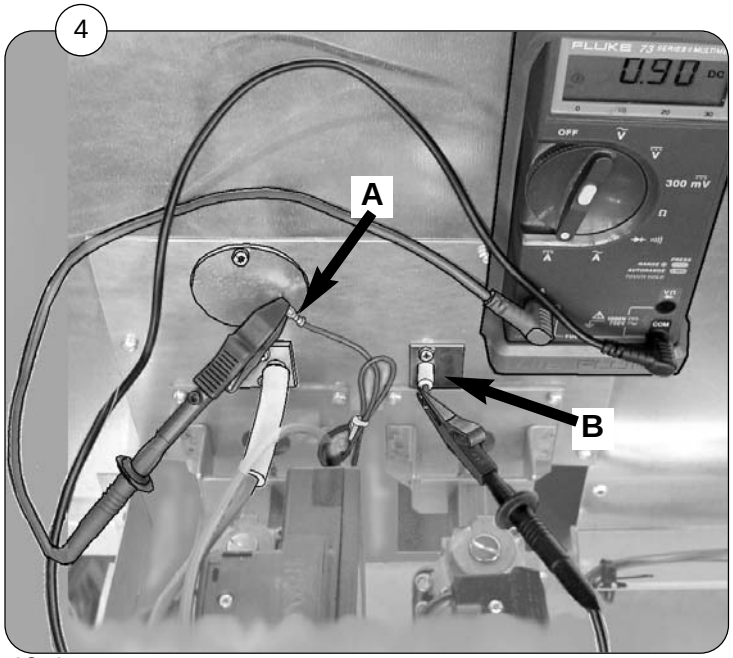

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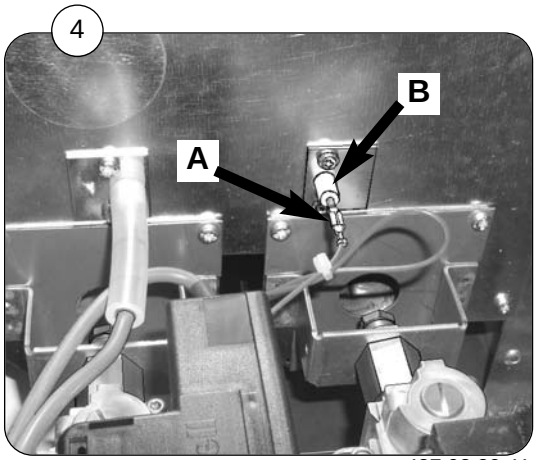

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- The control box could be defective.
  Replace the defective control box, **fig. 1.**

As mentioned earlier gas heating problems often occur due to shortage in the air supply. It is therefore very important that the air supply to the room is sufficient. The flame must be bluish as a yellowish flame indicates a shortage in the air supply. The glare from the flame is visable through the loading door glass, **fig. 2.**

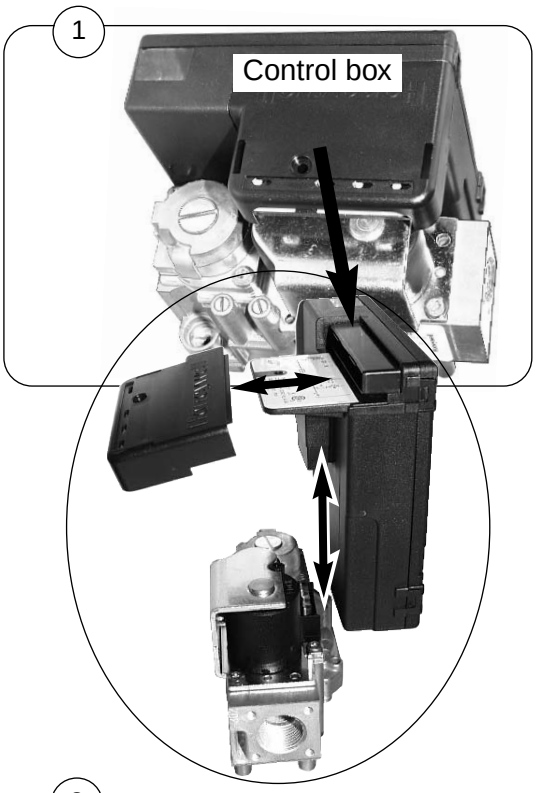
A rule of thumb for dimensioning the room's air inlet is that the air inlet opening must be 5 times the size of the air outlet opening.

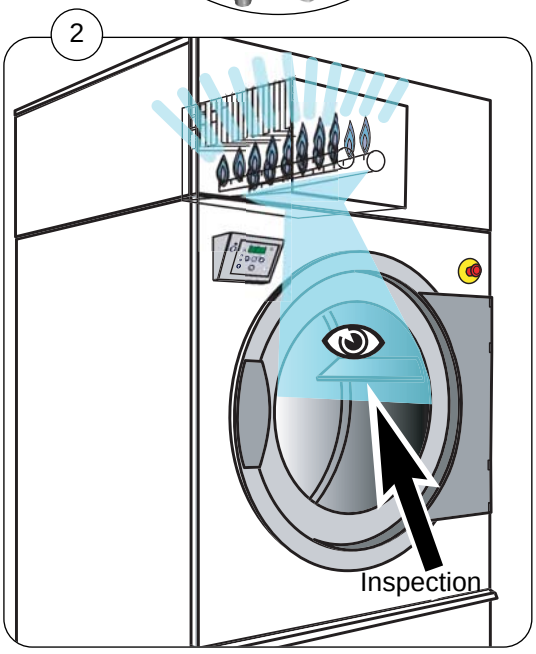
To read more about the exhaust system see the installation manual for T31200 /T3900, TD135/TD100.

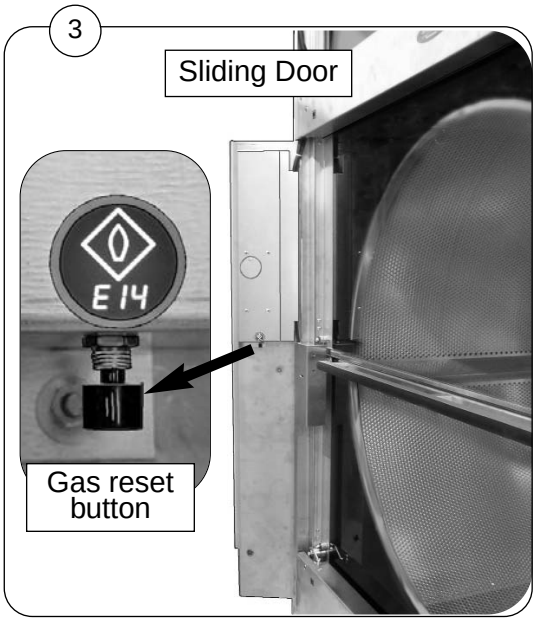
Resetting gas error (*E 14*)

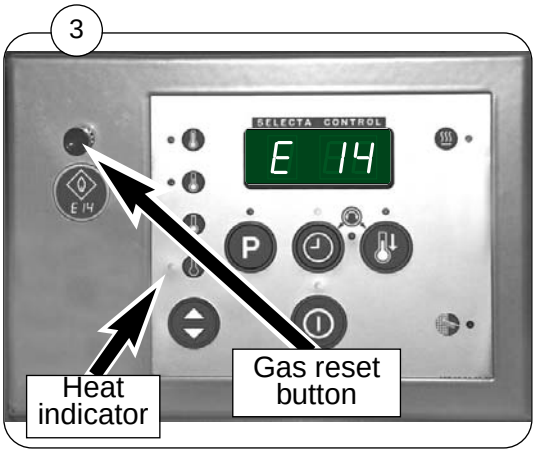
When resetting gas error ***E-14*** the dryer **must** operate on a program with heat and the heat indicator must be on.
On standard door the gas reset button is on the control box.
On Sliding Door, the gas reset button is on the rear of of the control panel, **fig. 3.**

The dryer must only be reset 3 times. If the dryer, however, has to be reset more than three times it has to be put out of order and a service technician must be called (does not apply for Japan).









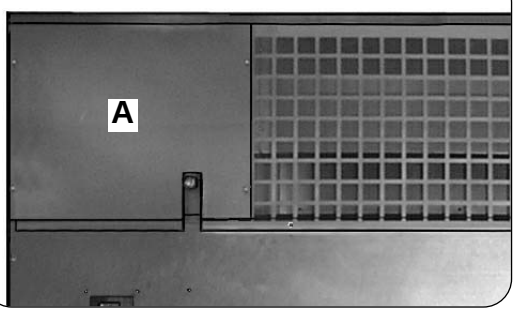
Replacing/adjusting gas burner/gas valve/ ignition electrode/flame sensor

1. Disconnect power to the dryer.
2. Dismount the top back plate **A, fig. 1.**
3. Remove the 6 screws **B** in order to dismount the 2 gas burners with valves and the control box , **fig. 2.**
4. Replace/adjust electrode/flame sensor/ gas burner/gas valve, **fig. 3.**
5. Check the distance between the electrodes, **fig. 4.**
   (See “Gas error” earlier in this section).
7. Test for leaks.
8. Remount in the opposite order.

Test run

Note! To ensure the correct amount of air to the combustion, plate A (fig. 1) must be mounted before starting the dryer.

1



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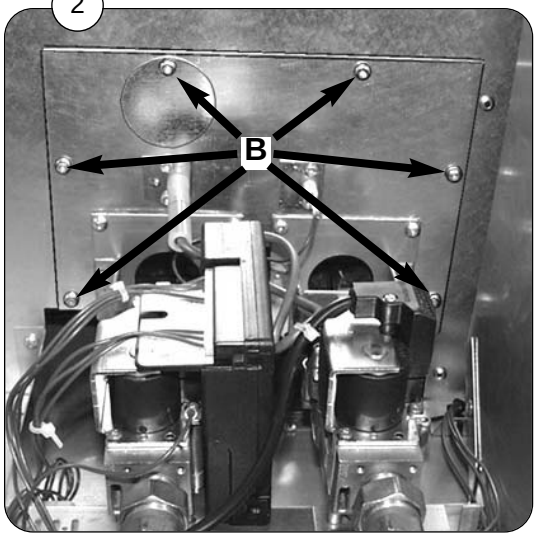

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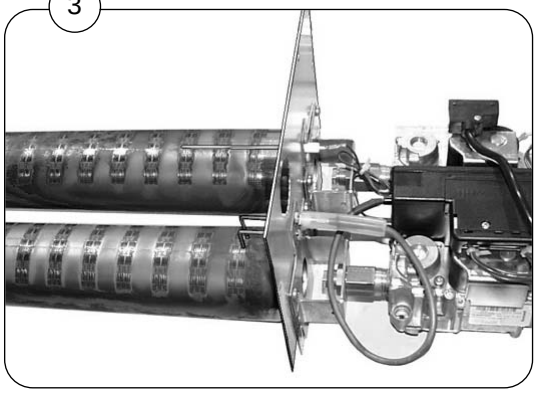

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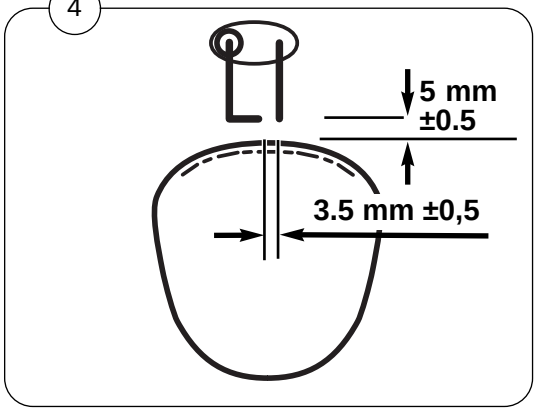


Steam heated dryers

Description

The steam calorifer **A** is located in the steam heating unit at the top of the dryer behind back plate **A**, **fig. 1.**

The air is drawn through the louvres on the back plate and into the heating unit.

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

Then the air flows from the perforation through the filter and via the outlet to the open air, **fig. 2.**

Overheating thermostat (also see section 27)

Steam heated dryers are equipped with one overheating thermostat in the outlet

In the event of overheating, the dryer stops and ***E08*** flashes in the display.

Reset must be done manually but first the error must be detected.

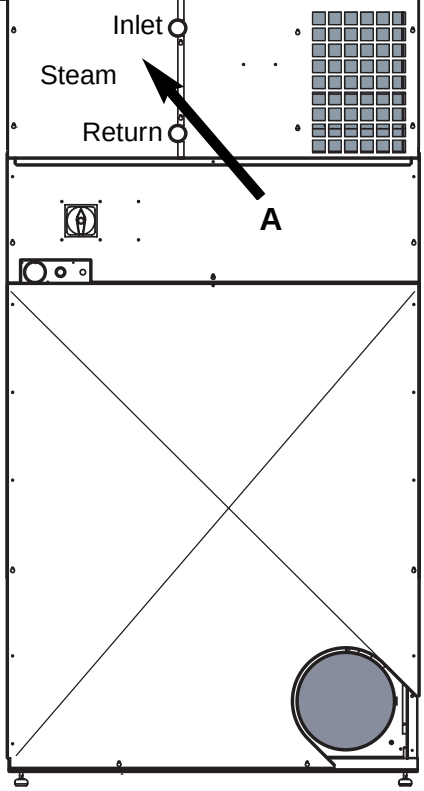
The following error code are related to this section:

E 08 overheating

See Selecta Control service manual.

To be continued on the following page

1



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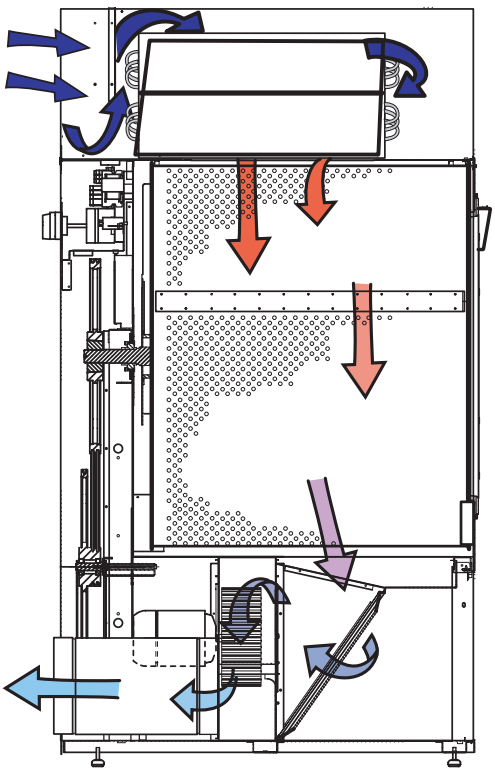


Replacing actuator

Troubleshooting:

• Voltage of screw terminals **B** must be 18V AC, **fig. 1.**

• Damper must be adjusted correctly, wide open or shut.

Dismounting actuator

1. Disconnect the power to the dryer.

2. Loosen the Allen screws **A**. This releases the damper shaft (Note! It is a 1/8” key, **not mm key**)

3. Dismount the 3 wires in the screw terminals **B** (mark out the wiring positions).

4. Unscrew screw **C**.

The actuator is now dismountable.

Mounting new actuator

1. Mount the screw **C**

2. Turn the actuator as shown on **fig. 3.**

3. Stick the end of the shaft through the hub at the Allen screws **A**.

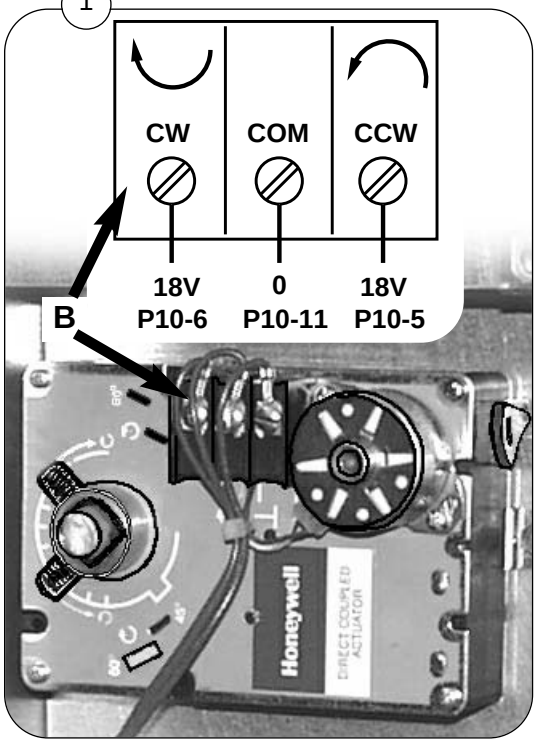
4. Release the declutch lever and rotate the hub until it is in the same position as shown on **fig 3.**

5. Insert the range stop pin in position **D** (supplied with the actuator). (Do not insert the range stop pin **D** until the hub position shown on fig. 3 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.

6. Tighten the Allen screws **A** into the damper shaft with 5 Nm. It is possible to adjust the damper opening by turning the manual declutch lever (Note! When tightening the end of the shaft the damper must be open).

To be continued on the following page

1



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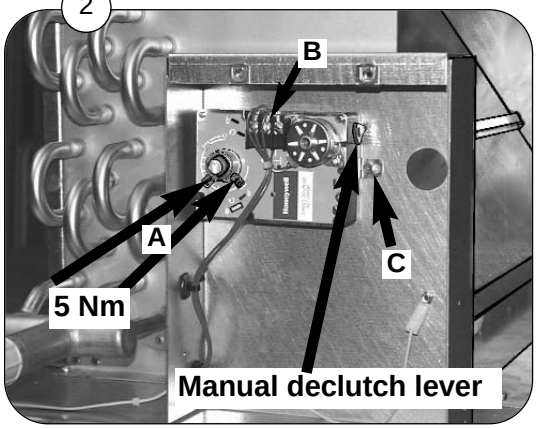

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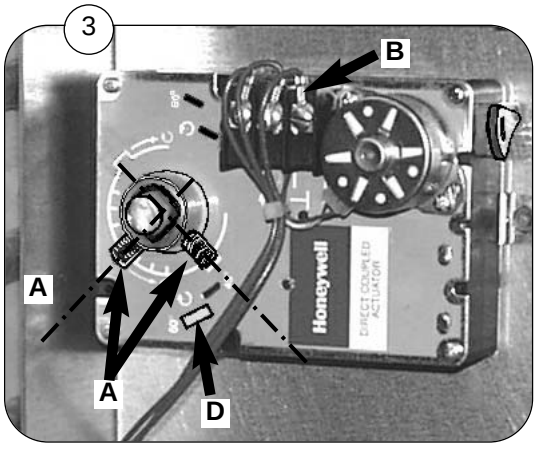


Replacing actuator

continued

7. See closed and open damper, fig. 4 and 5.

8. Mount the wires in screw terminals **B**.

Too long drying time

The actuator on a steam calorifer pulls via a shaft a damper which opens/closes the air inlet to the drum.

It is important that the actuator is firmly fastened on the shaft, this is done by locking the shaft extra tight to the actuator.

1. Unscrew one of the two hexagon head screws in order to mark the positioning on the shaft, the other screw must clamp the shaft, while the marking is done. Repeat this with screw no. 2.

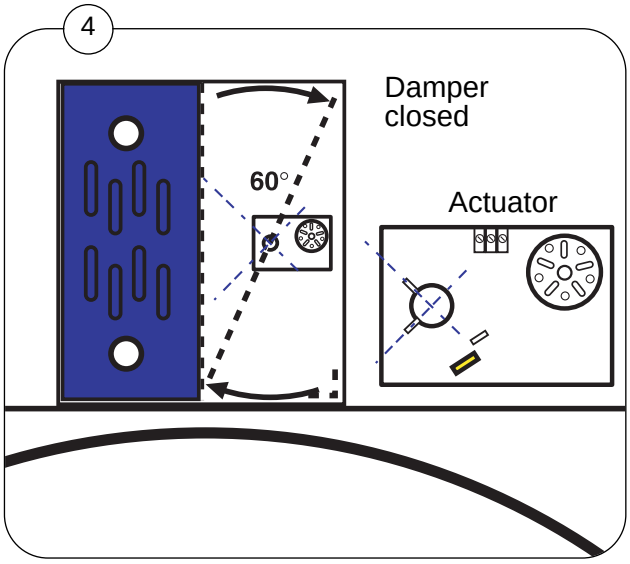
2. Dismount actuator.

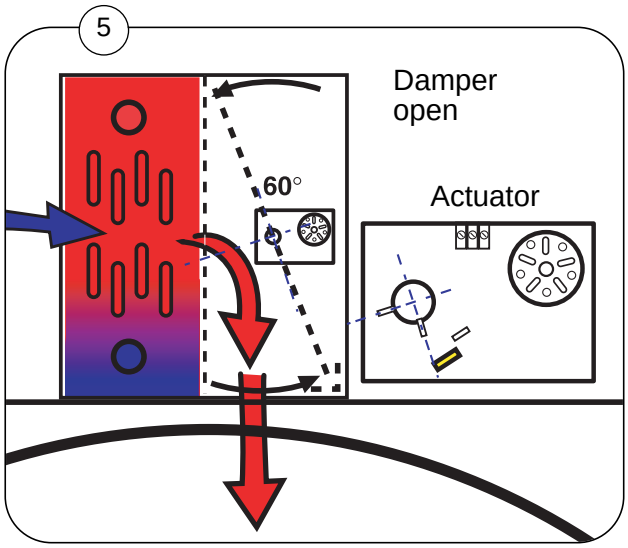
3. Drill a groove in the two marked spots. This way the two screws are locked tighter to the shaft when they are tightened.

4. Mount the actuator and tighten the 2 hexagon head screws with 5Nm.
(Note! It is a 1/8” key, **not mm key**)

Function check

Test the dryer, see section 11: **Function check**.





Electric heated dryers

Description

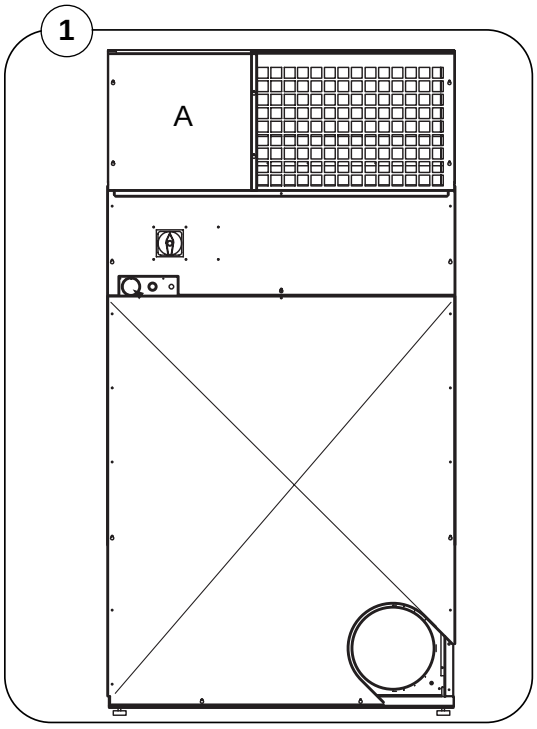
The electric heating unit is located on the top of the dryer behind back plate **A**, **fig. 1.**

The air is drawn through the louvres on the back plate and into the heating unit.

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

Then the air flows from the perforation through the filter and via the outlet to the open air, fig. 2.

The heating element is switched on by the heating contactor K4, which is controlled by the Selecta Control.



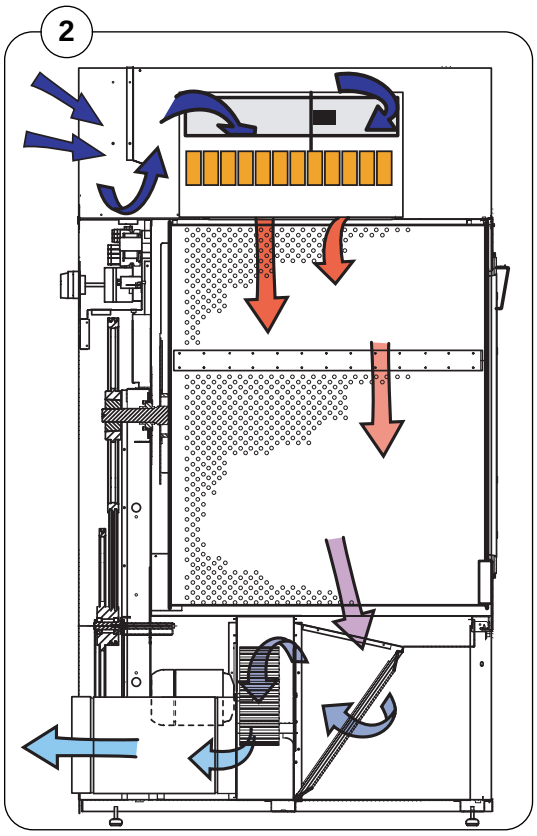
Overheating thermostats (also see section 27)

Electric heated dryers are equipped with three overheating thermostats connected in series, two in the inlet and one in the outlet.

In the event of overheating, the dryer stops and ***E08*** flashes in the display.

Reset must be done manually but first the error must be detected and the switched off overheating thermostat must be found, see section 27.

This error is often caused by reduction of the air circulation in the dryer due to not enough air in the room or due to the dryer being overloaded. If the dryer is also stopped before the cool down function has started the after-heat can cause the overheating thermostats to switch off.



The following error code are related to this section:

E 08 overheating

See Selecta Control service manual.

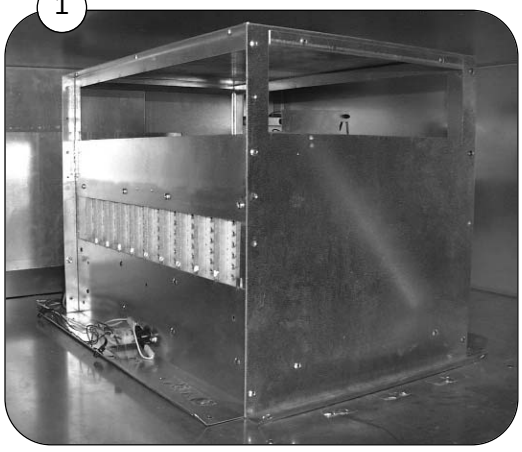
Electric heating unit types

Dryer type	Voltage	Heating effect	Number of elements
T3900/TD100	230 - 240V 50/60Hz	48 kW	6
T3900/TD100	400 - 415V 50Hz	48 kW	6
T3900/TD100	400 - 480V 60Hz	48 kW	6
T3900/TD100/T31200/TD135	400 - 415V 50Hz	60 kW	10
T3900/TD100/T31200/TD135	400 - 480V 60Hz	60 kW	10
T31200/TD135	400 - 415V 50Hz	72 kW	12
T31200/TD135	400 - 480V 60Hz	72 kW	12

Electric heating unit

Electric heating unit seen from the front with open front shutter -
from the left, **fig. 1**.
and from the right side , **fig. 2**.

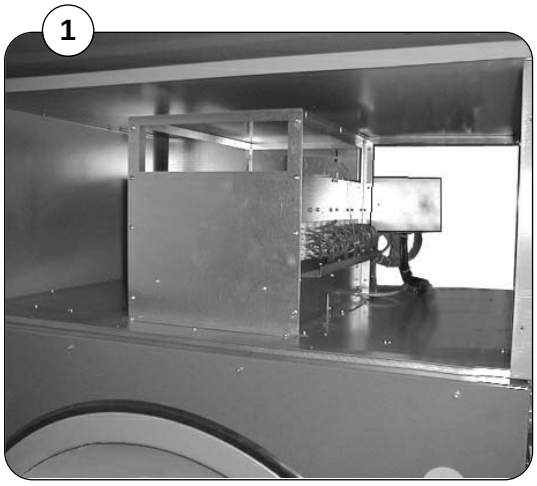
1

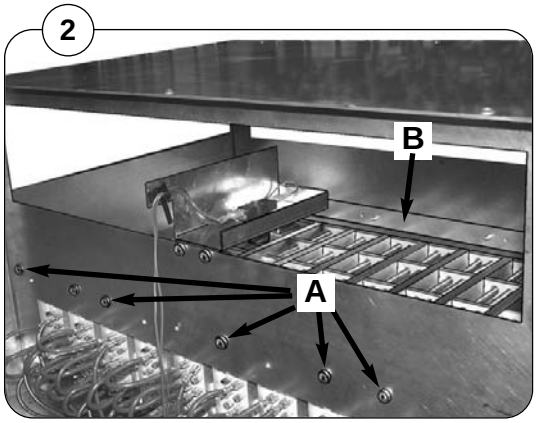


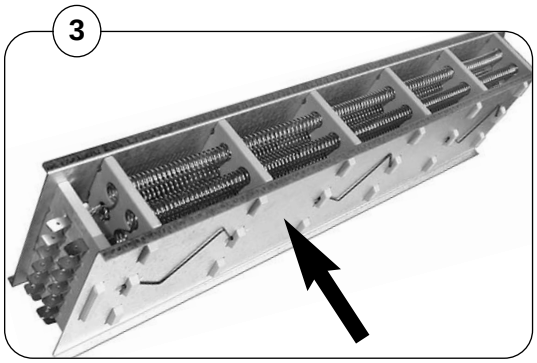
2

Replacing electric heating element

1. Disconnect the power to the dryer.
2. Open front shutter, **fig. 1**.
3. Remove screws **A** from both sides of the heating unit, **fig.2.**
4. Remove the 2 bars **B** and the heating elements are now loose, **fig. 2.**
5. Check that the data stamps (kW and V) on the side of the new and the old elements correspond with each other , **fig. 3.**
   Mark the cables. Carefully dismount the cables making sure not to loosen the cable terminals.
6. Mount the new heating element in the opposite order as described above.
7. Remember to remount the earthing conductors if they have been dismounted.
8. Carry out a function check (see section 11).
9. Let the dryer operate on a program with heat.







42. Drum with bearing

Content

Replacing supporting rollers, bearings or drum

To serial no.: T3900/TD100 0312/000357

T31200/TD135 0312/000113.

The drum is rear suspended in a bearing where the bearing housing is mounted in a cross beam mounted on the inner back plate.

At the front the drum rests on two supporting rollers which are mounted on a console each.

To replace supporting rollers, bearings or drum follow the steps below:

2 people with a crane, a truck or another lifting equipment are recommended for dismounting the drum.

1. Disconnect the power to the dryer

2. Dismounting front plate:
   a) Open control box and remove multiple plug **A** and earthing conductor **B**, **fig 1**.
   b) Remove door by dismounting hinges.**C,** fig. **2**.
   c) Lift off the door and dismount hinges **D** and screw **E**, **fig 3**.

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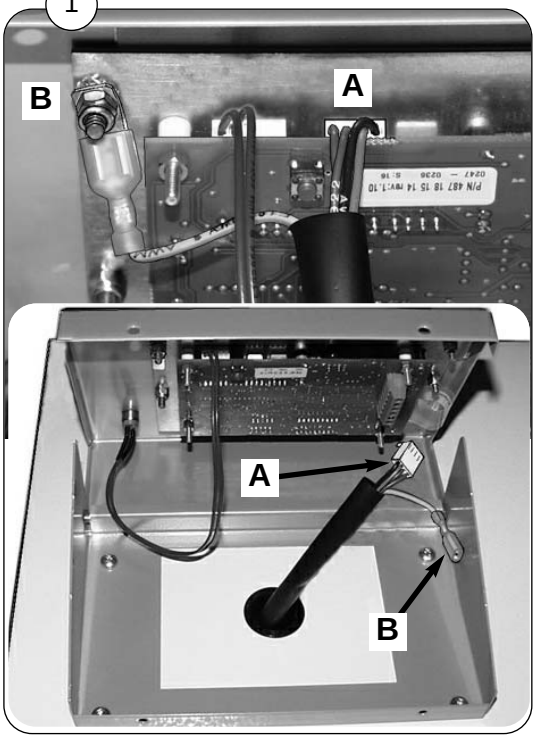

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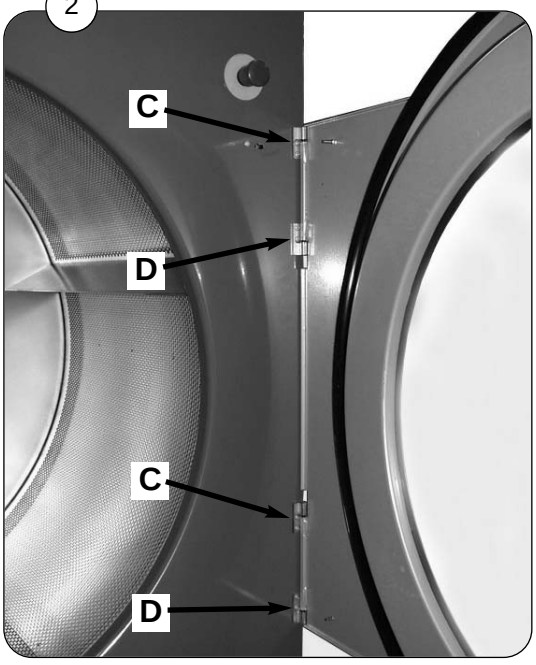

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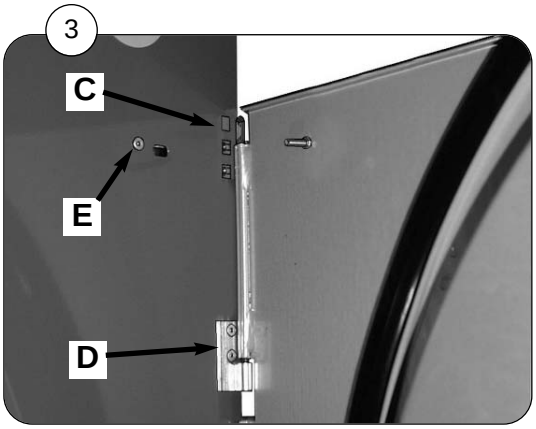

42. Drum with bearing

Replacing supporting rollers, bearing or drum

(continued from the previous page)

d) Open front shutter.

e) Dismount service cover plates **F**, **fig 4**. Service cover plate for emergency stop socket, **fig 5**.

f) Tip a screw driver under the loop **G** in order to dismount the emergency stop with wires.

Note! When mounting the loop **G** it must face upwards, **fig 6**.

g) Pull the control box wire behind the front plate, **fig 7**.

Continued on the following page.

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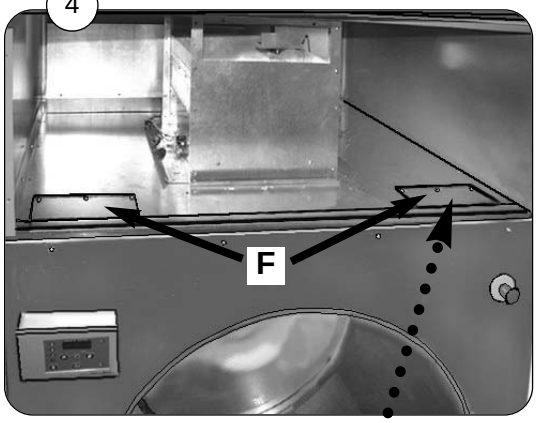

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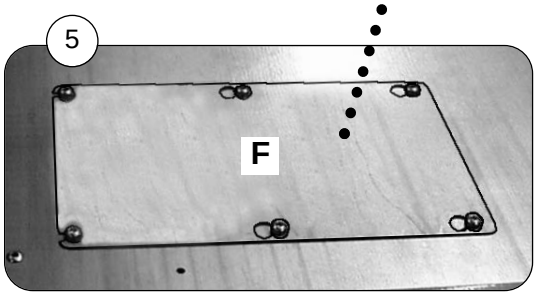

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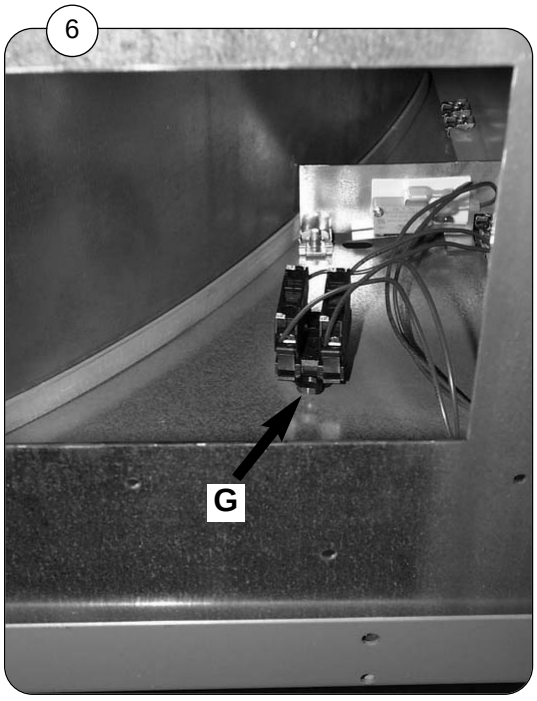

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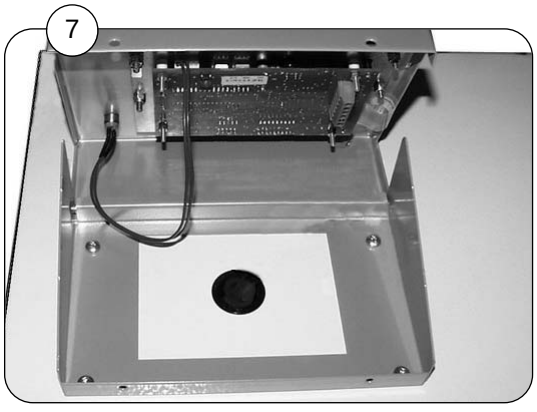

Replacing supporting rollers, bearing or drum

Continued on the following page

h) Dismount 4 screws **H** at the bottom of the front plate, **fig 8**.

i) Dismount 4 screws **I** at the top of the front plate, **fig 9**.

j) Lift off the front plate, **fig 10**.

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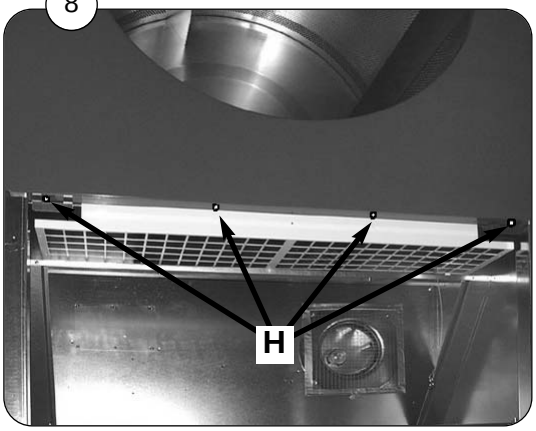

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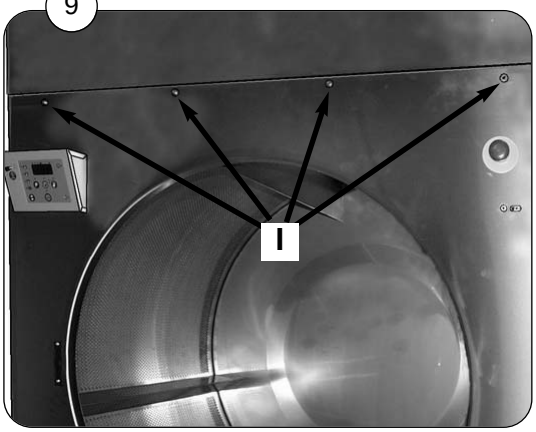

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42. Drum with bearing

Replacing supporting rollers, bearing or drum

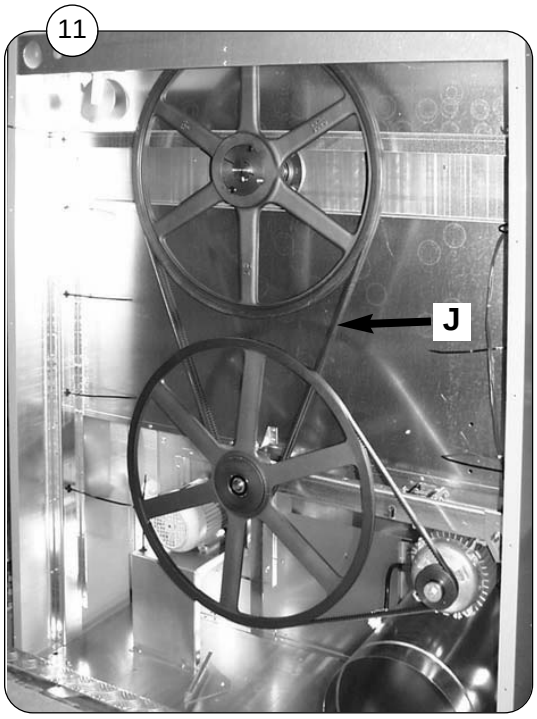
(continued from the previous page)

3. Dismount back plate and remove the 2 V-belts **J**, **fig 11**.

4. Remove screws **K** in order to dismount the pulley.
   Mount one screw in hole **L**.
   The clamping sleeve is loosened when hole **L** is being used, **fig 12**.

5. Dismount pulley, **fig 13**.
   Dismount wedge **M**.
   Loosen the 2 tailstock screws **N**.

11



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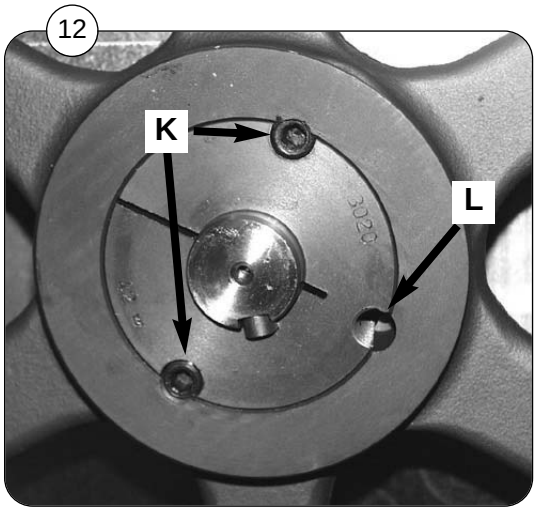

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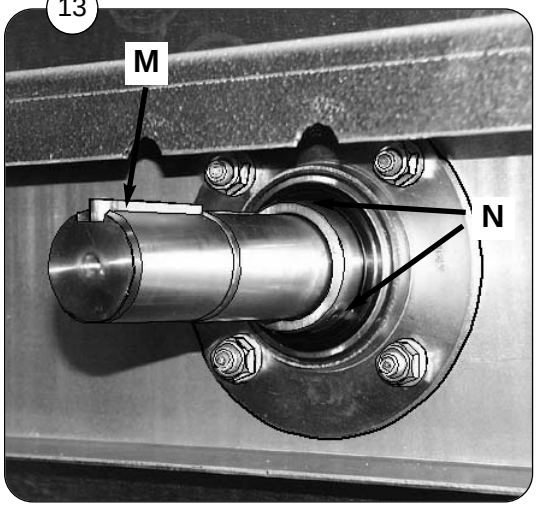

Replacing supporting rollers, bearing or drum

(continued from the previous page)

6. Pull the drum out carefully using a crane, a fork truck or another equipment, **fig. 14.**

7. Replacing bearing:

   a) Dismount defective bearing.

   b) Mount new bearing and mount the 4 nuts **O** without tightening them, **fig. 15.**

8. Dismounting/replacing supporting rollers:

   a) Dismount screw **P** with washer and bush, **fig 16**.

   Note! Supporting rollers are replaceable without dismounting the drum

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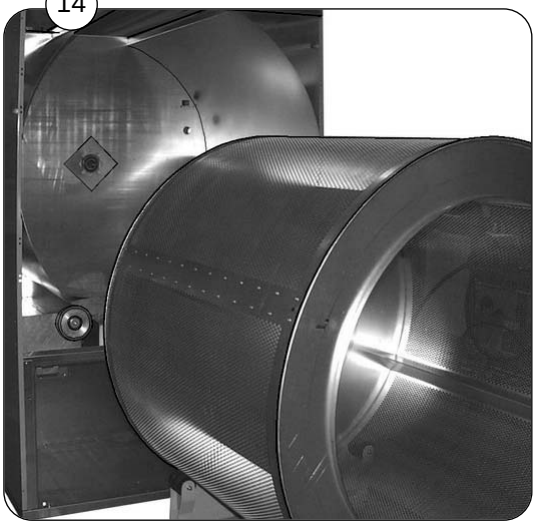
14



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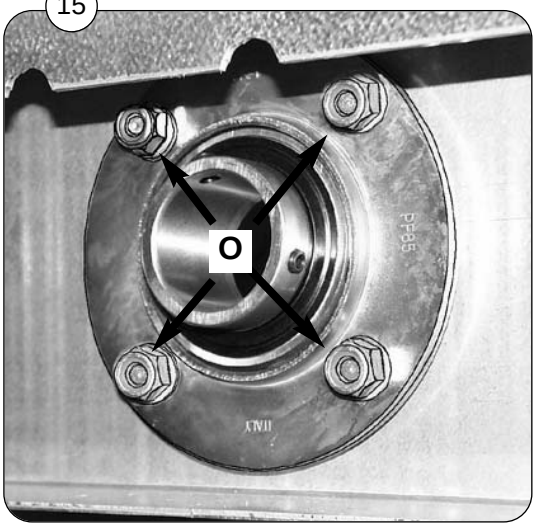

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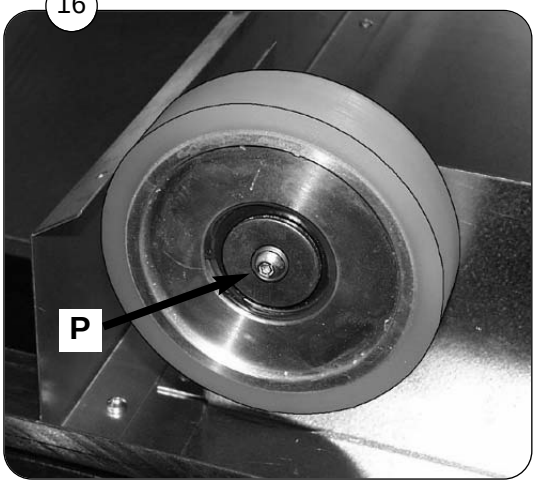


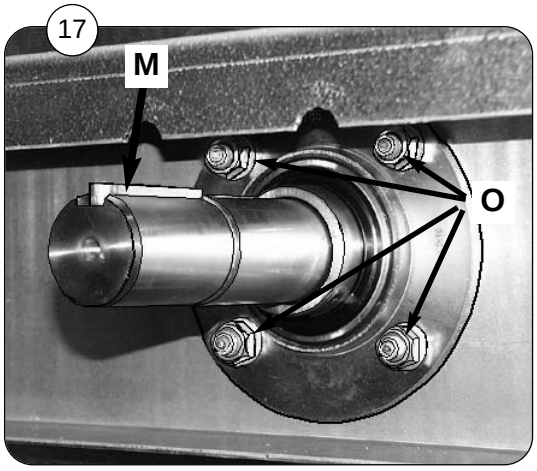
Remount bearing and drum

(continued from the previous page)

9. Remount in the opposite order.
10. Place drum carefully. Use Antifret paste or similar quality to lubricate the bearing surface.

    Note! After mounting the drum tighten the 4 nuts **O** in the bearing disc using 40 Nm.
11. Mount wedge **M**, **fig 17**.
12. Fasten the 2 tailstock screws **Q** in the outer ring using Omnifit Seal 40 Nm or similar quality and tighten them using 16 Nm, **fig 18**.
13. Mount pulley with clamping sleeve.
14. Tighten the 2 tailstock screws using 90 Nm, **fig 19**.
15. Mount V-belts **J**, **fig 20**.
    Tighten the belt, see section 11.

17



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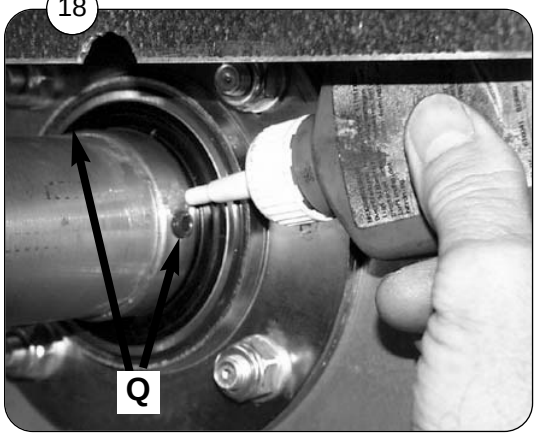

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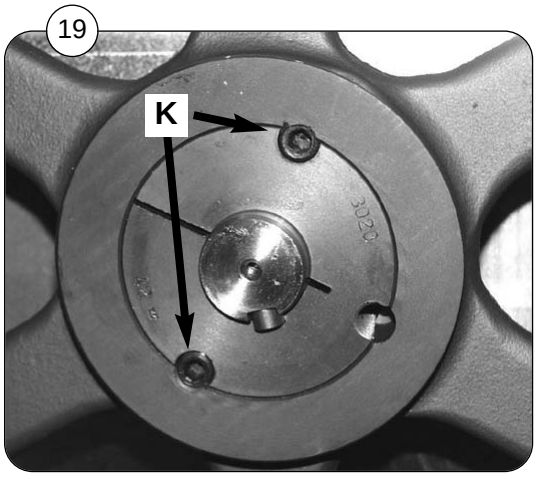

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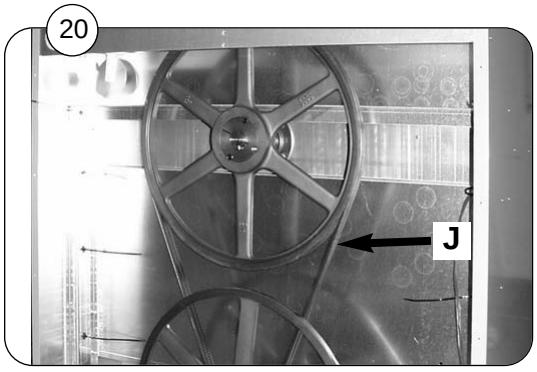


16. Mount front plate with door in the opposite order as the dismounting (see “Dismounting front plate” earlier in this section).

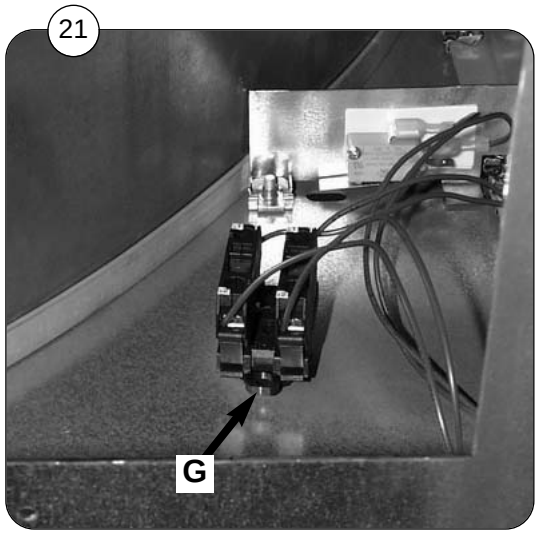
    Note! When mounting the emergency stop socket the loop **G** must face upwards, **fig 21**.

17. Remember to mount the 2 cover plates **F**, **fig 22**.

18. Mount back plates, **fig 23**.

19. Test the dryer, see section 11.

21



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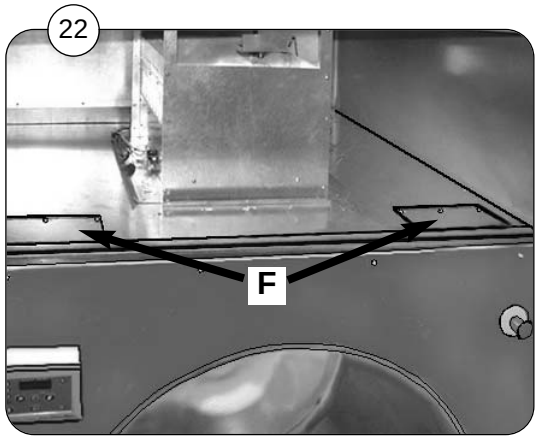

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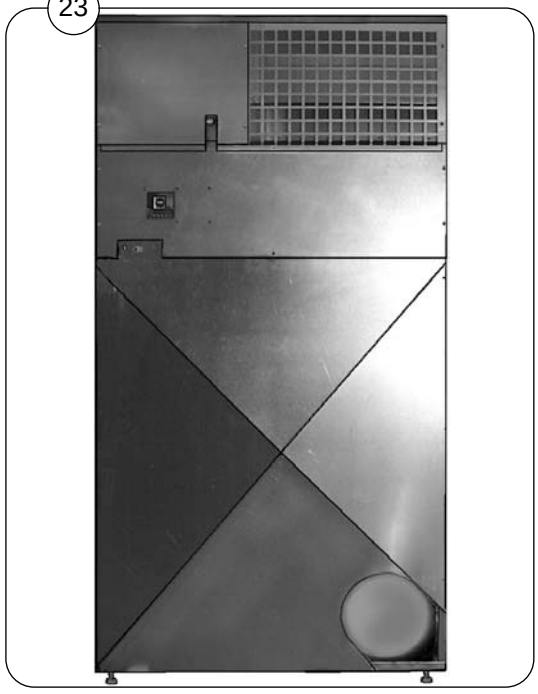

Replacing supporting rollers.

From serial no.: T3900/TD100 0401/000358

T31200/TD135 0401/000114

As from 1 January 2004 the design has been altered so that support rollers can be replaced without having to dismantle the front of the dryer.

1. Disconnect the power supply to the dryer.
2. Open and remove the filter door.

Remove the finger guard by unscrewing the 2 screws **A, fig. 1.**

3. Service cover plates **B, fig. 2.**
4. Undo the 8 screws in each service cover plate (the screws must not be completely unscrewed), **fig. 3.**
5. The service cover plates are removed, **fig 4.**

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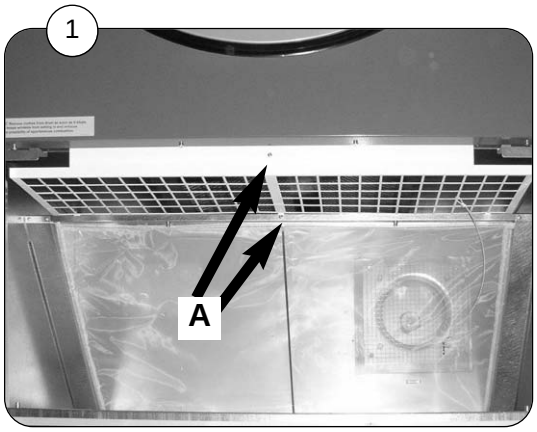

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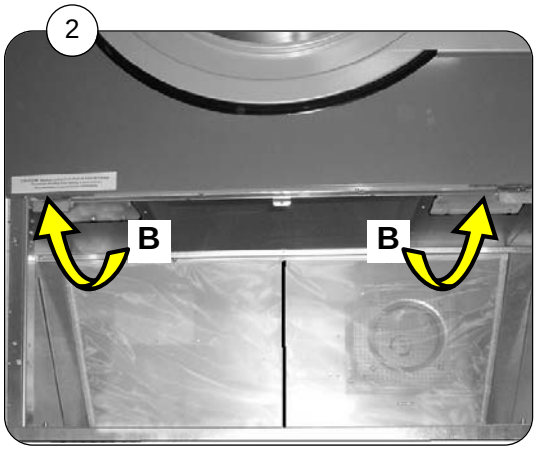

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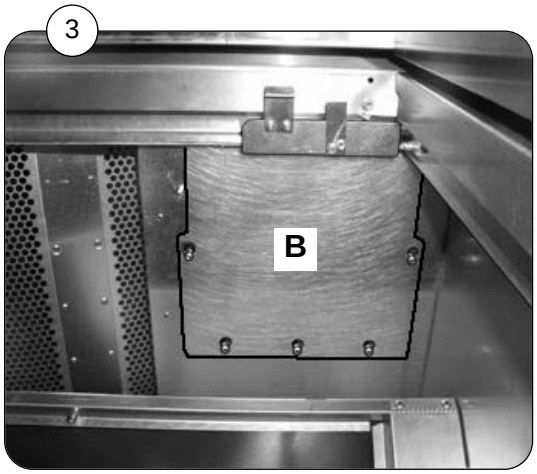

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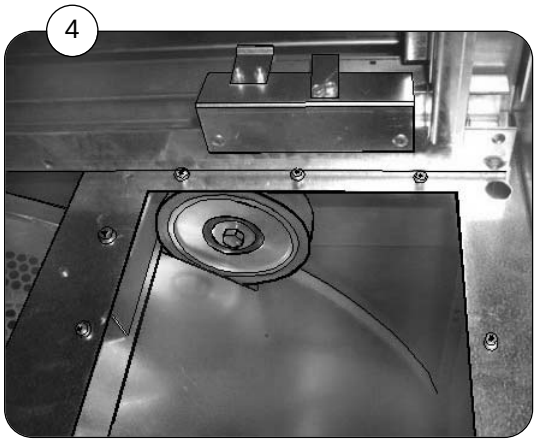
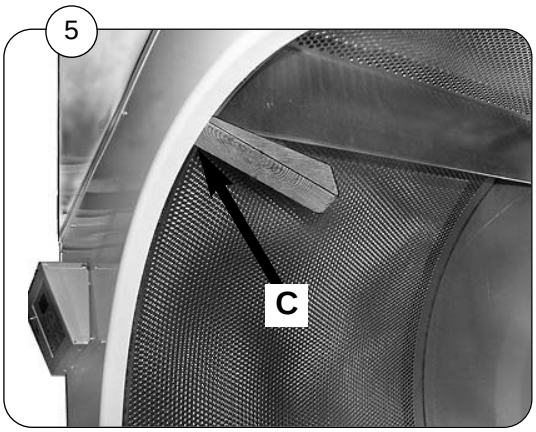


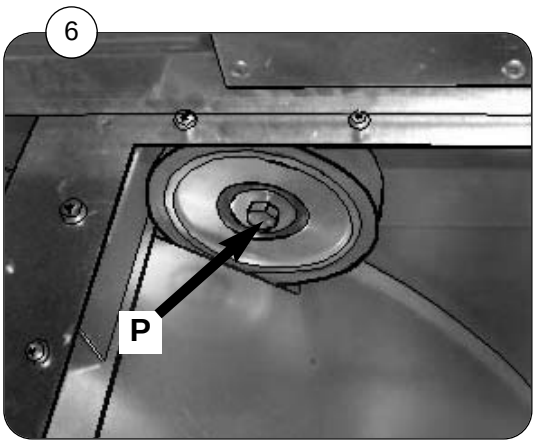
6. Open the door, lift the drum and insert a wedge **C** between the front and the drum so that the support rollers are relieved of the pressure of the drum, **fig. 5.**

7. Dismount screw P with washer and bush and supporting rollers can be Dismounted/replaced.
Ved mounting: Protect the screw **P** with Omnifit Seal 46M or similar quality.
Tighten the screw **P** with 30 Nm, **fig 6**.

8. Reassemble the dryer.

9. Connect the power supply.





Function check

Function check the dryer, see section 11.

Sliding Door
Replacing drum

When removing / replacing the drum in a dryer with Sliding Door, all extra equipment for the Sliding Door must be dismantled.

1. Side screens in the filter compartment.
2. Left or right panel with microswitch.
3. Wire.
4. Cross members.
5. Door to burner unit.
6. The 2 upper side panels.
7. Rail in which the door slides.
8. Loading doors.
9. Support rail.
10. Front .

After this, the procedure for dismantling the drum is exactly the same as on a dryer with standard door, as described earlier in this section.

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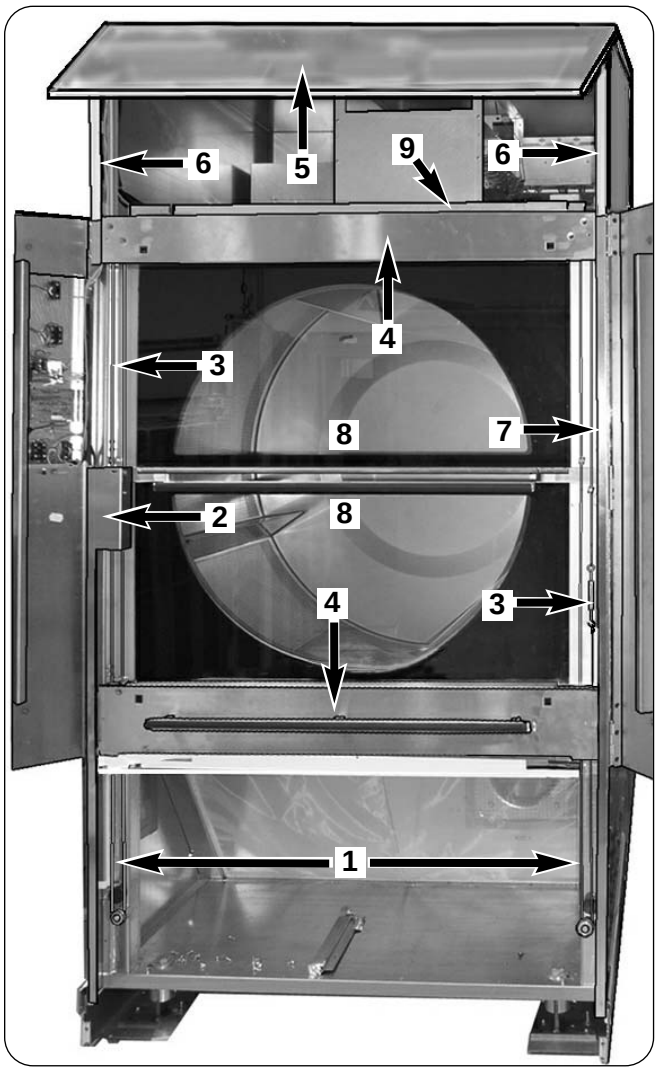

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Removing Sliding Door equipment:

Recommended for removing the drum.

- Disconnect the power to the dryer

1. Removing side screens **P** in filter compartment:
2. On the side panel with the door switch, remove rivets using a chisel or a drill. Do not remove the top and bottom rivets. This means that the panel is only secured at the top and the bottom.
3. Remove the wire: Adjust a board to 555 mm for securing doors.

   See section 43 *Replacing of wire rope*

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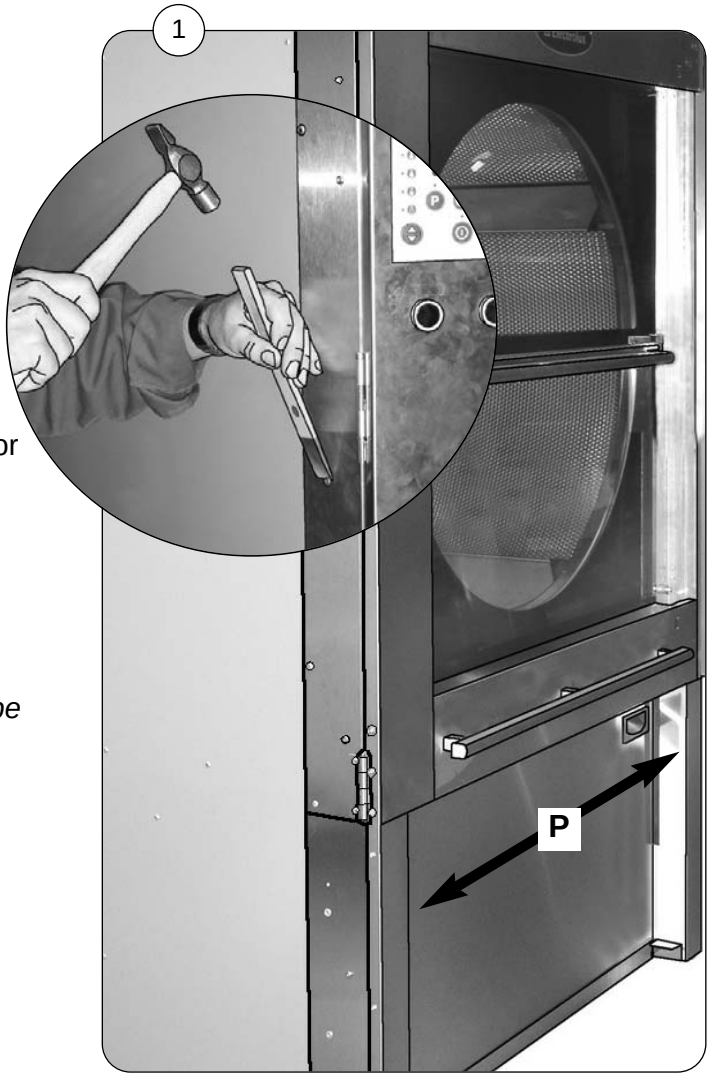

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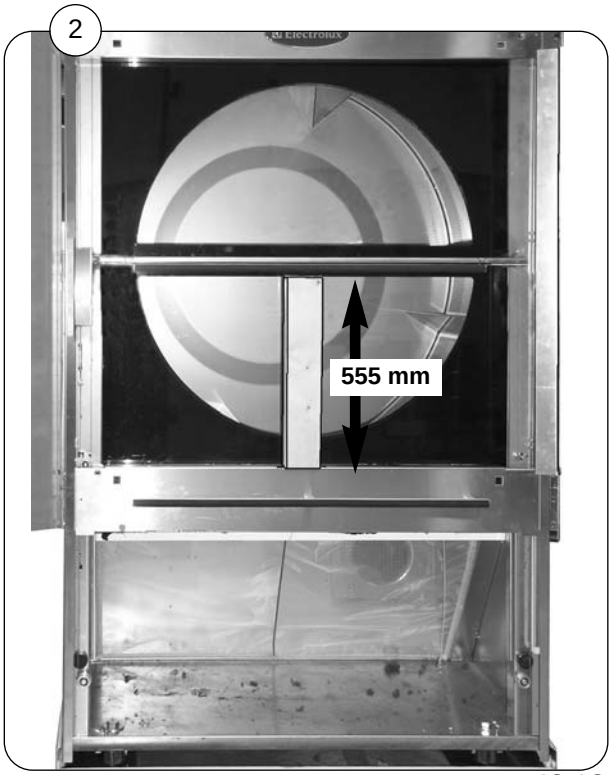

42. Drum with bearing

Removing Sliding Door equipment:

(continued from the previous page)

4. Carefully lower the doors onto the rubber buffers **R**.
   Take care! They weigh 24 kg.

   Dismantle the 2 cross members **D** by unscrewing the 3 screws **E** on either side and pull the members towards the clock:

5. Remove the door for the heating unit.

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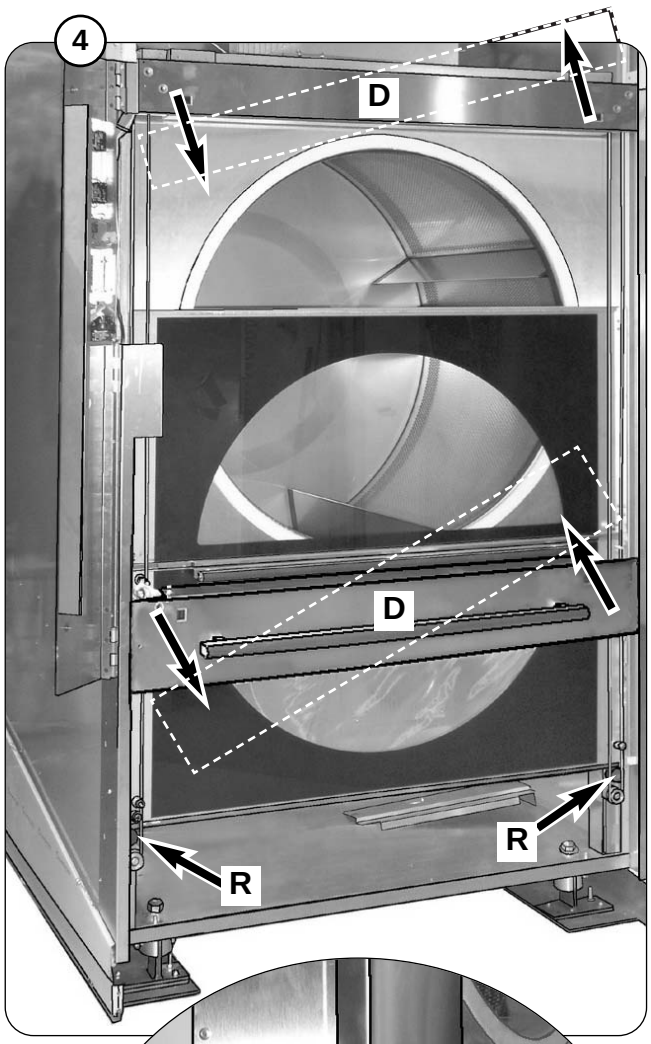

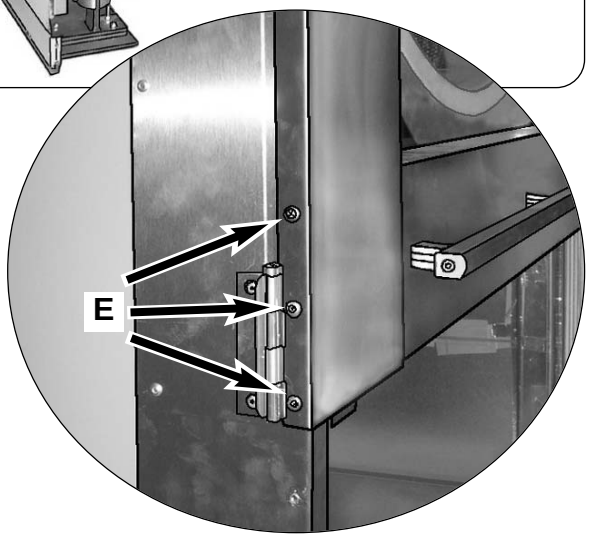

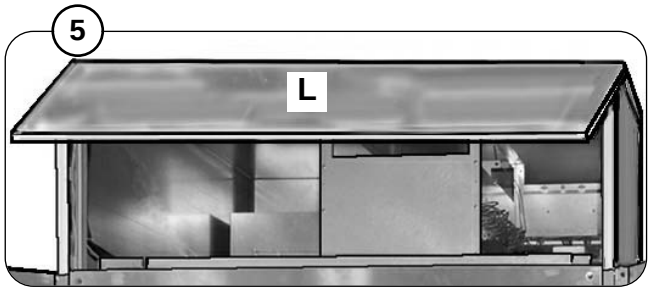

Removing Sliding Door equipment:

(continued from the previous page)

6. Unscrew screw **S** in the bottom side panel. Unscrew the 3 screws in the top panel **H**.

- Ties holding cables and wiring are untied or cut off, and the cable holders **K** are bent out so that the cable can be released.

  After this, the 2 uppermost side panels **H** can be pulled up.

6b. **Note!** The ties retaining button **F** must not be cut off, but is pushed back through the hole.

During installation, the cable must be carefully located in the same position, so that the Sliding Door movement does not damage the cables.

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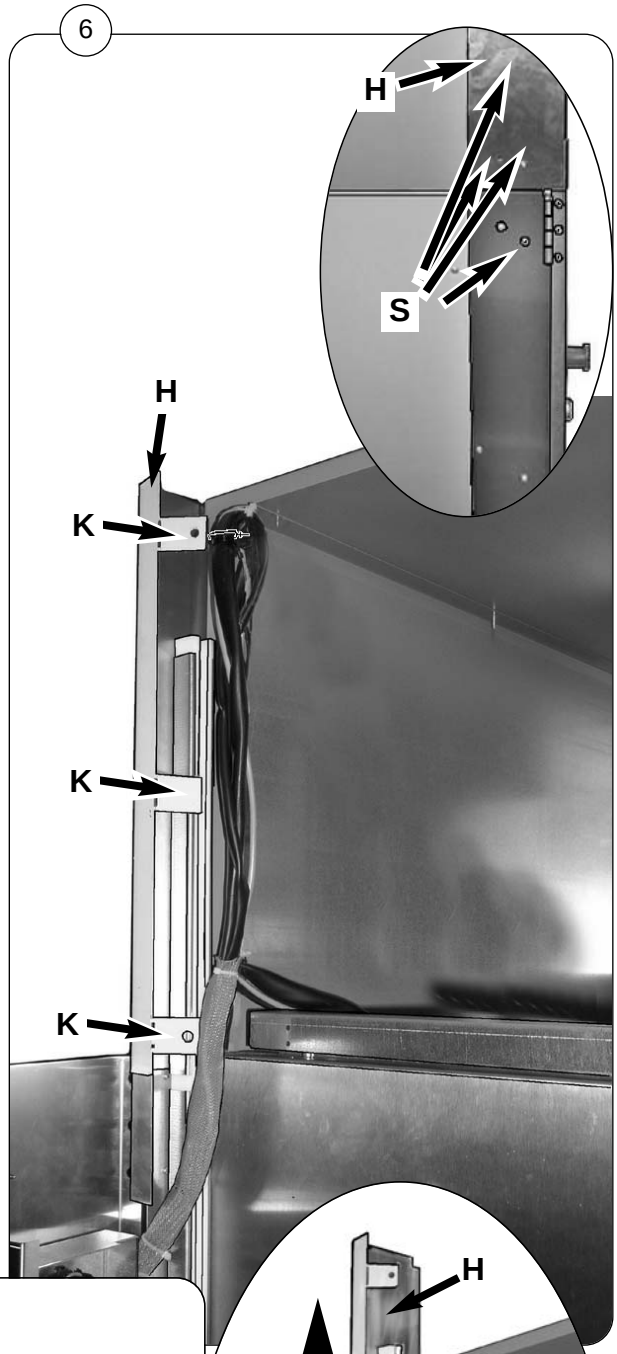
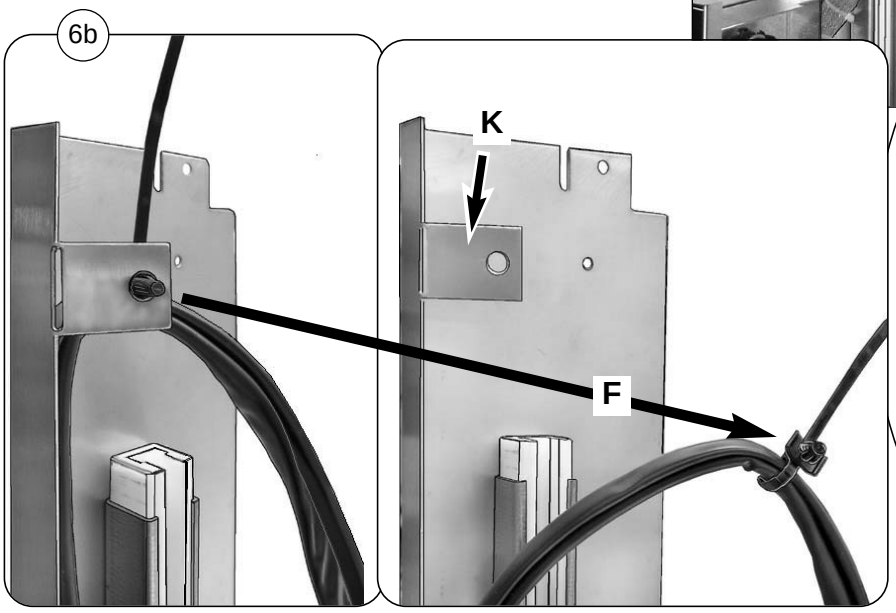
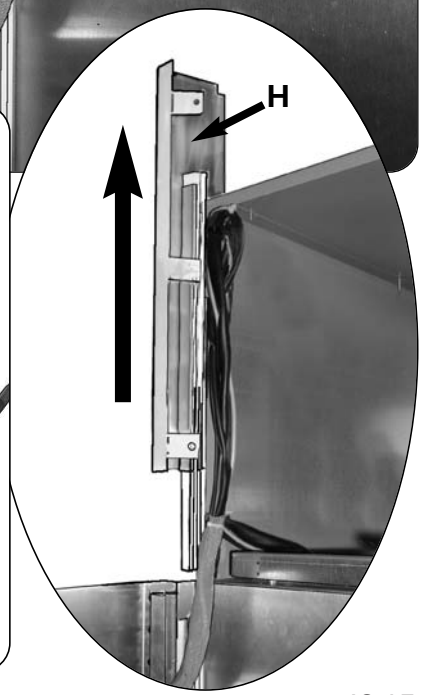






42. Drum with bearing

Removing Sliding Door equipment:

(continued from the previous page)

7. The top glass door is lifted up in the slide rails and secured to the front with lock grip pliers or clamps.
8. The bottom door can then be edged out of the slide rails by pressing gently to the right or left.

   The top door is edged out in the same way.

Continued on the following page

7

8

487 03 29 41

Removing Sliding Door equipment:

(continued from the previous page)

9. Remove the top rivet in the side panel. The panel is then swung out at the top and secured with string as illustrated.

10. The slide rail Q is dismantled.

Continued on the following page

9

10

42. Drum with bearing

Removing Sliding Door equipment:

(continued from the previous page)

11. The support rail **T** is dismantled.

    The front **U** is dismantled

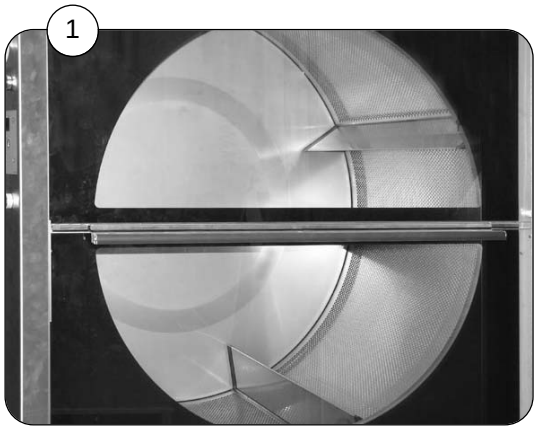
12. After this, the procedures for dismantling and installing the drum are exactly the same as on a dryer with standard door, as described earlier in this section.

- **Note!** When installing the side panels, use 5 mm rivets

487 03 29 41

Content

Sliding Door.



Adjustment of sliding doors

It is important that the 2 sliding doors are parallel in order for the doors to close tightly, fig. 1.

1. Disconnect the power supply to the dryer.
2. Adjust a board to 555 mm for fixation of doors.
   • Place it between handle and girder **B.**
3. Loosen all 6 wire clamps **A**.
4. Check that the 2 sliding doors are closing parallel.
5. Tighten the wire in all wire clamps **A, fig. 2**.

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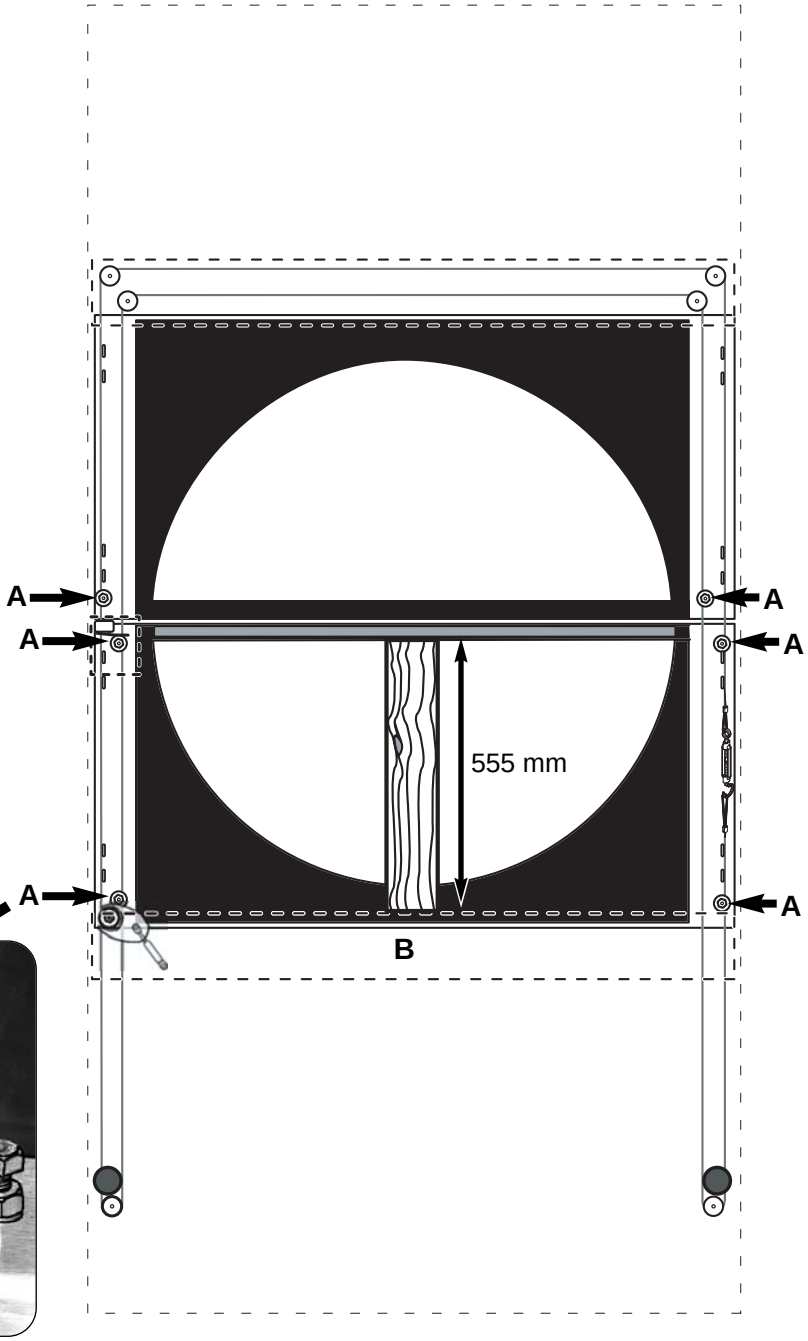

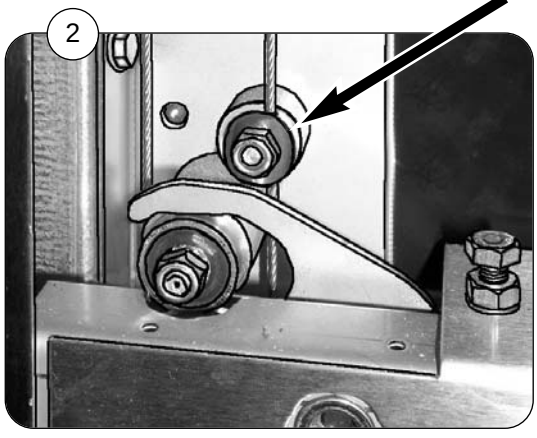

Sliding Door.

(continued from the previous page)

Adjusting of the wire rope

1. Check that the wire is tighten:
   - Loosen all 6 wire clamps **A**.
   - 2,5 kg wire traction must result in a motion of 100 mm as shown in figure 3.
2. Adjustment with adjusting screw **J**.
3. Place the wire in the wire clamps **A** and tighten all 6 of them.

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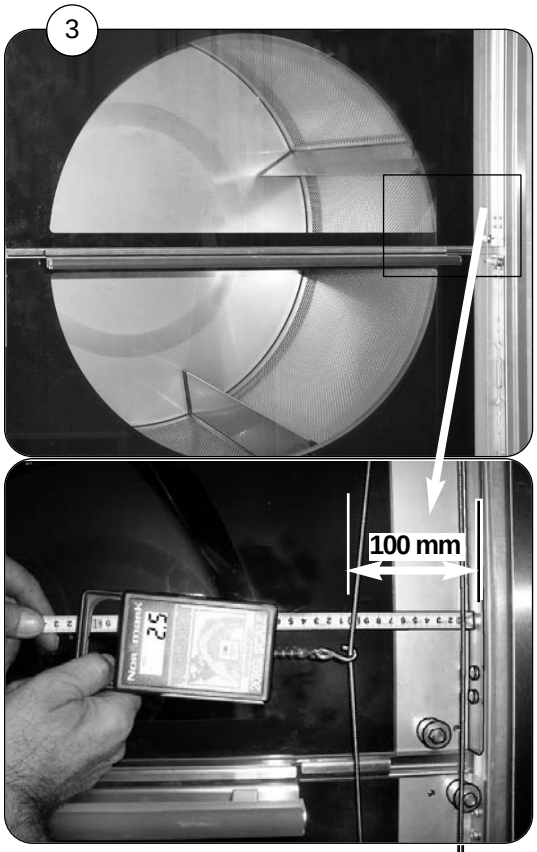

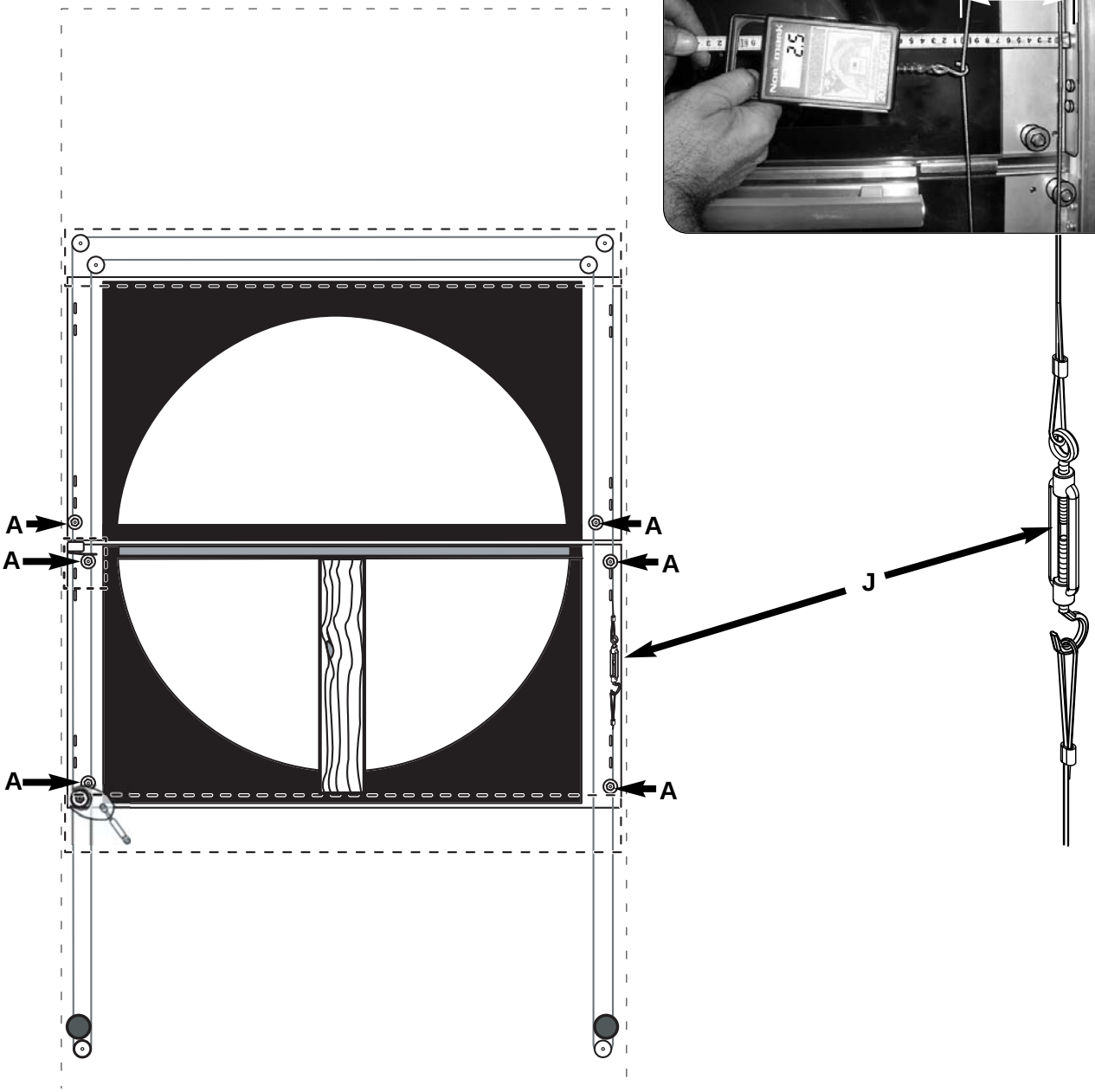

Sliding Door.

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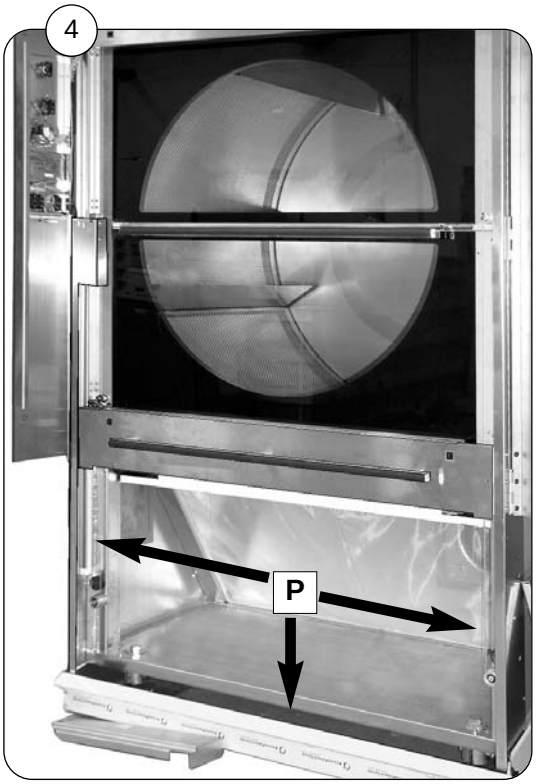

Replacing of wire rope

1. Disconnect the power supply to the dryer.
2. Adjust a board to 555 mm for fixation of doors.
   • Place it between handle and girder **B.**
3. Dismantle panels **P** in filter compartment.
4. Loosen all 6 wire clamps **A**.
5. Replace defective wire.
6. Secure the new wire to adjusting screw **J**
7. See page 3. Adjusting of the wire rope
8. Mount all parts and test the tumble dryer.

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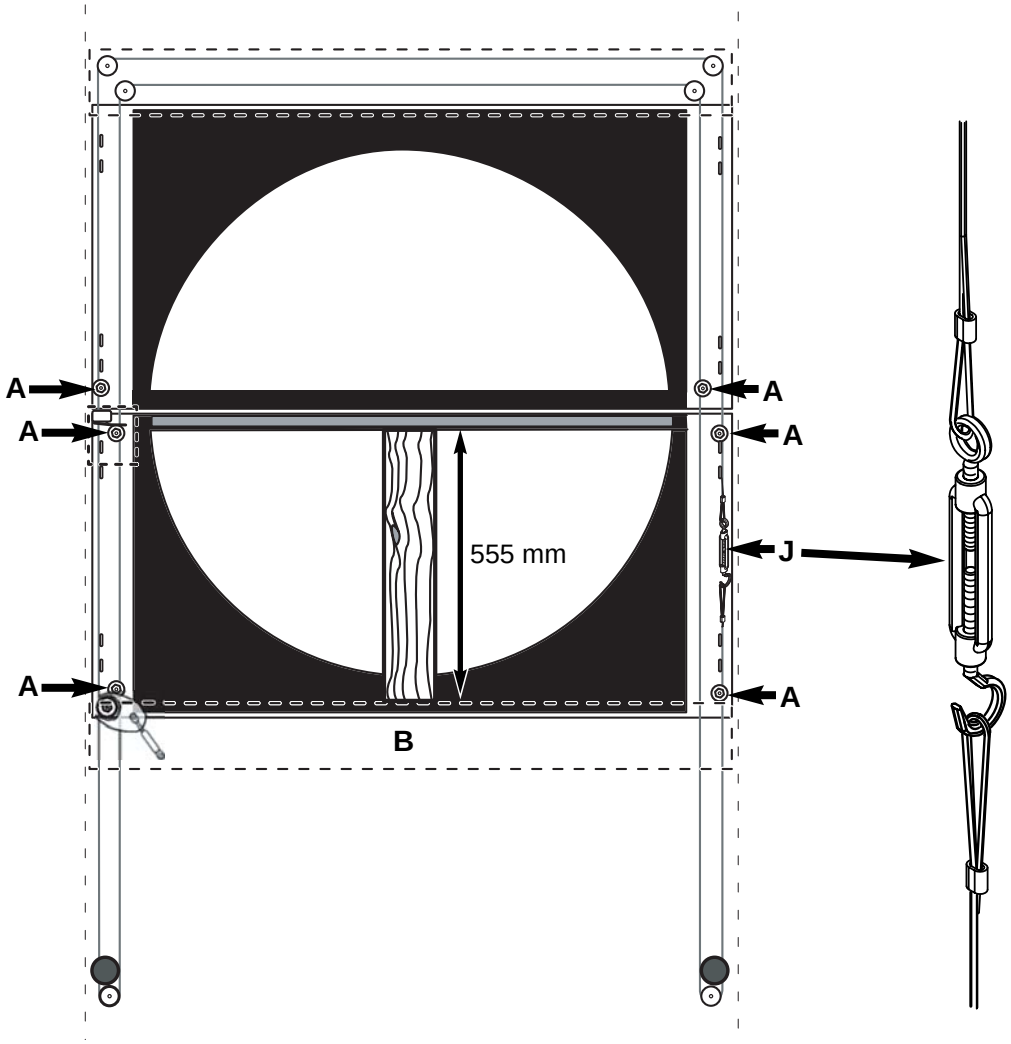


Sliding Door

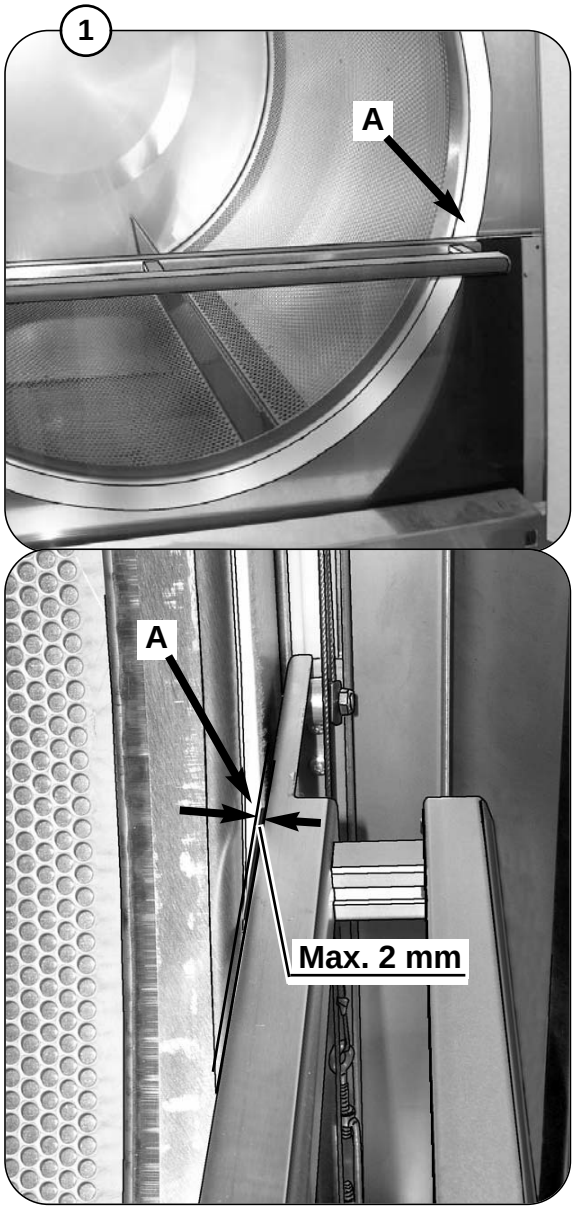
Door gasket

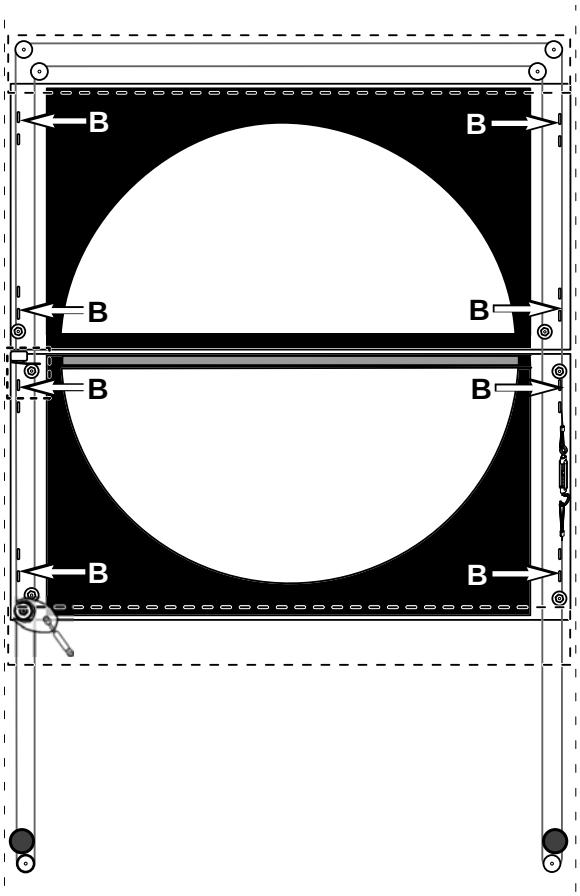
Check that the loading door gasket is clean and in good condition. Use a suitable cleaner. Do not use solvents that may damage sensitive plastics or painted finish.

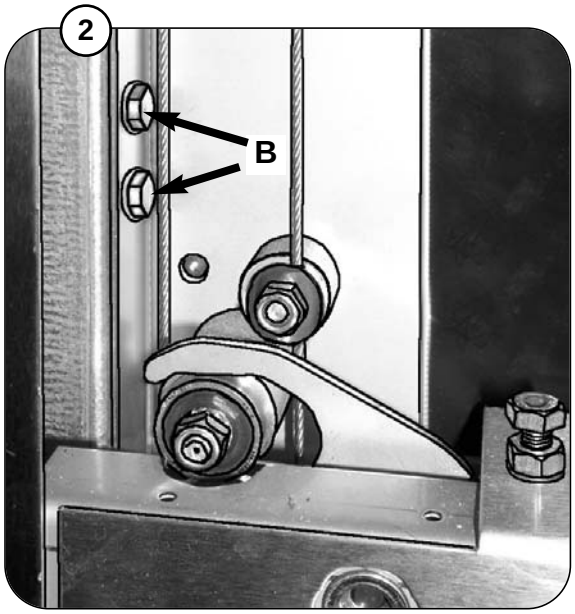
Check that felt packing **A** is intact and in good condition.
There must be a maximum of 2 mm between steel frame and felt, **fig 1**.

Adjusting of space is done by Loosen screws **B** holding gliding shoe and pushing the doors into place, **fig 2**.
There must be a maximum of 2 mm between steel frame and felt.

Check and tighten all screws **B (**with **6 Nm)** holding the gliding shoes.







Sliding Door

Locking plate and gas cylinder

1. The 2 sliding doors are kept closed by a locking plate **A** that engages in a guide bearing B when the 2 sliding doors are closed.

The locking plate is held in position by a gas cylinder **C** that is installed on the reverse of the member, **fig. 1.**

2. If the locking plate or gas cylinder is defective, the member **D** is removed by undoing the 3 screws **E** on either side, **fig. 2.**

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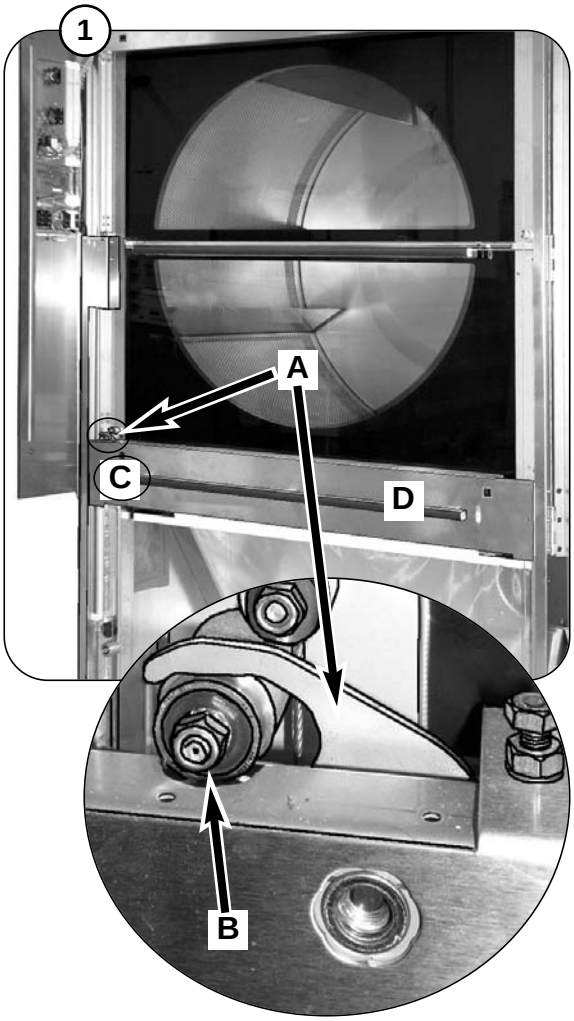
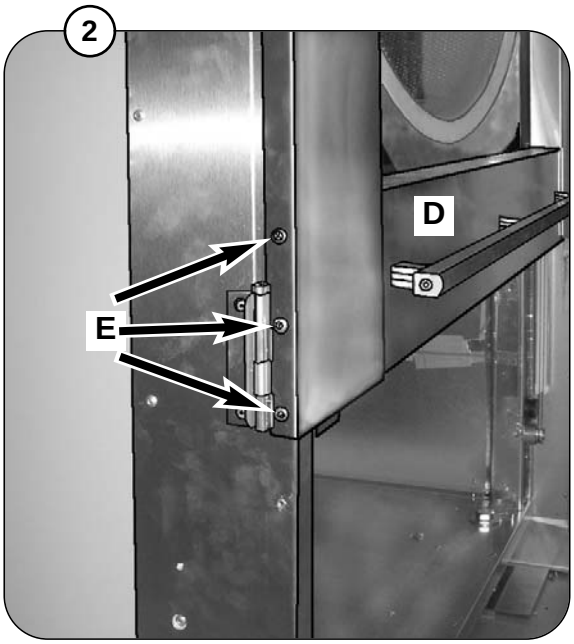




Sliding Door

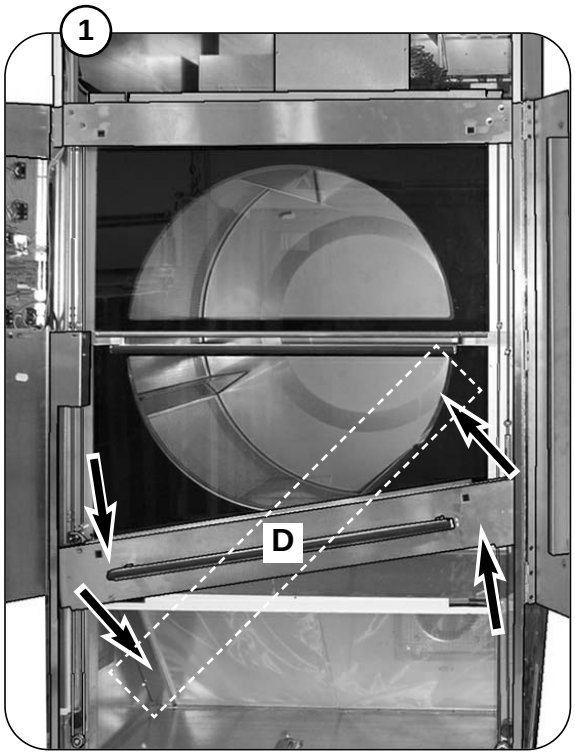
(continued from the previous page)

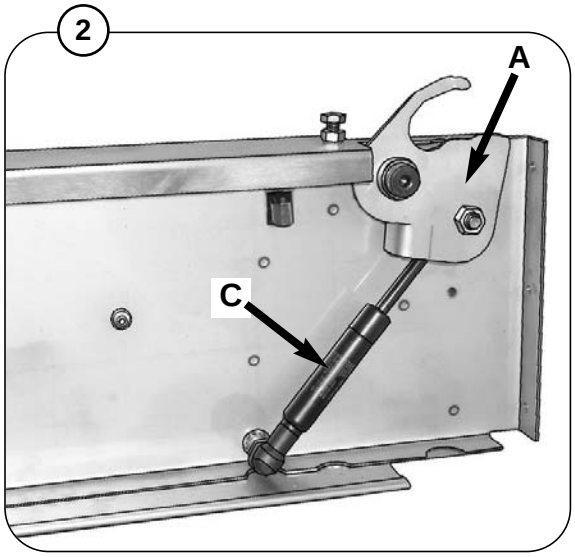
Locking plate and gas cylinder

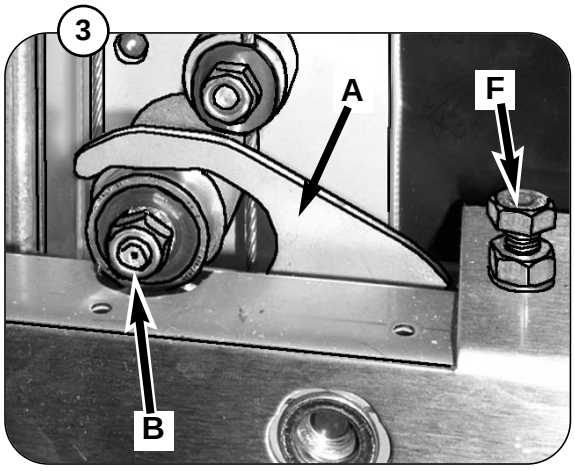
1. The cross member **D** is removed by pulling it towards the clock, **fig. 1.**

2. Gas cylinder **C** or locking plate **A** can now be replaced, **fig. 2.**

3. If the guide bearing **B** does not engage properly in the locking plate **A**, the locking plate's rear stop can be adjusted with screw **F, fig. 3.**







Dryer with tilting function

If the tilting function fails in tilted position

If the actuator fails while the dryer is in tilted position and the dryer is still to be used until the repairs have been carried out, it is necessary to get the dryer back in upright position.

Examples of lifting tackle

To carry out the following steps it is necessary to have one of the illustrated pieces of lifting tackle at one's disposal. Common to all lifting tackle is that the lifting capacity must be min. 1 ton.

Lifting capacity must be min. 1 ton.

Righting the dryer

It is impossible to manually tilt the dryer back in upright position. Carry out the following steps:

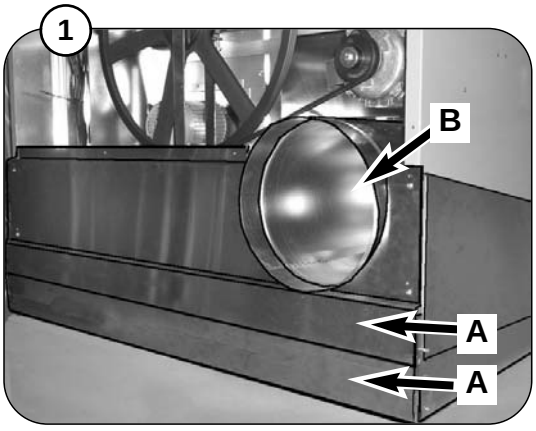
The stabilising of the dryer must be carried out from the back.

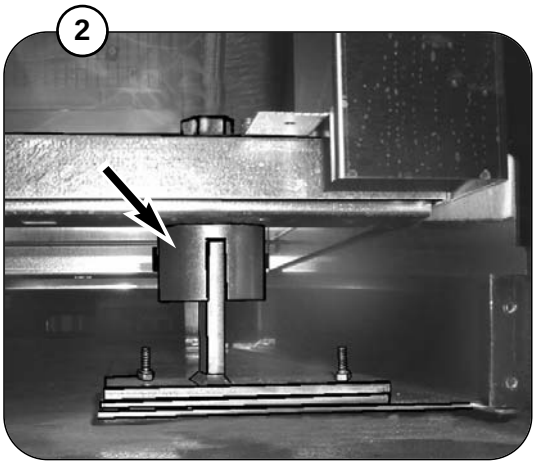
1. Fig. 1 Dismount back plate, back skirt and mounting back piece **A**.

2. Fig. 1 Temporarily dismount the connecting piece **B** at the outlet pipe.

Note Do not remove the front guiding console, see fig. 2.

To be continued





Righting the dryer (continued)

3. Fig. 3 Position the lifting tackle. It is important to position the lifting tackle below the back bearer **C** so the centre of the lifting tackle supports the bearer.

Before starting to lift the dryer ensure that the support under the lifting tackle is stable.

4. Fig. 4 Start lifting the dryer a little bit so the bolt **D** is released in the slot.

5. Remove bolts in both actuators.

6. Turn the actuators loose of the fittings.

7. Carefully lower the dryer in upright position.

8. Remove the lifting tackle.

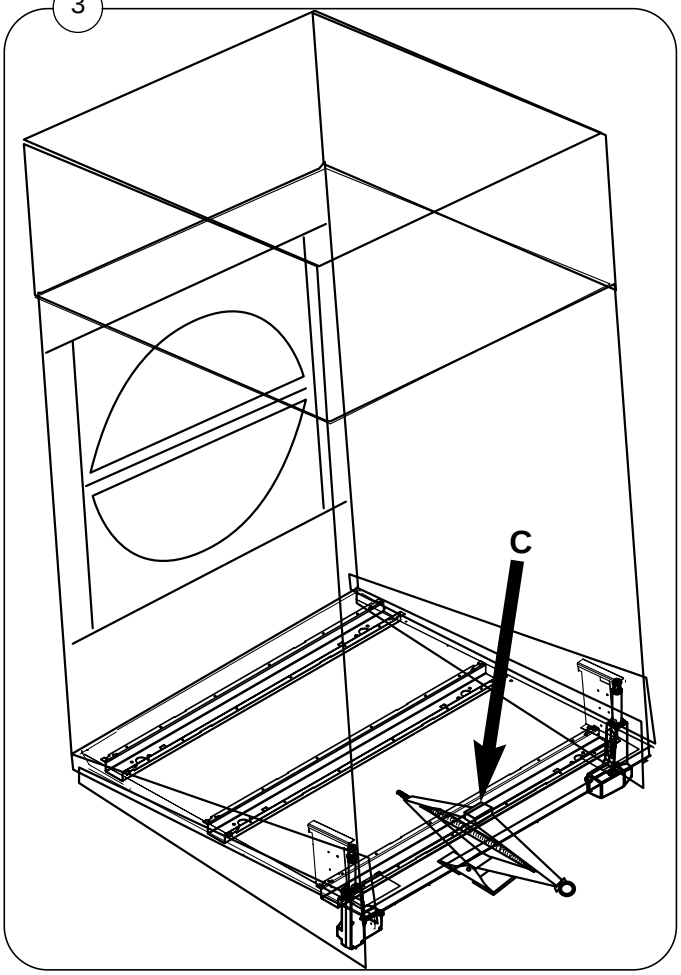
9. Mount the connecting piece at the outlet pipe.

10. Mount the back plates which were dismounted back in step 1.

11. Connect the outlet pipe to the system.

Note! When replacing an actuator, both actuators must always be replaced as a set.

3



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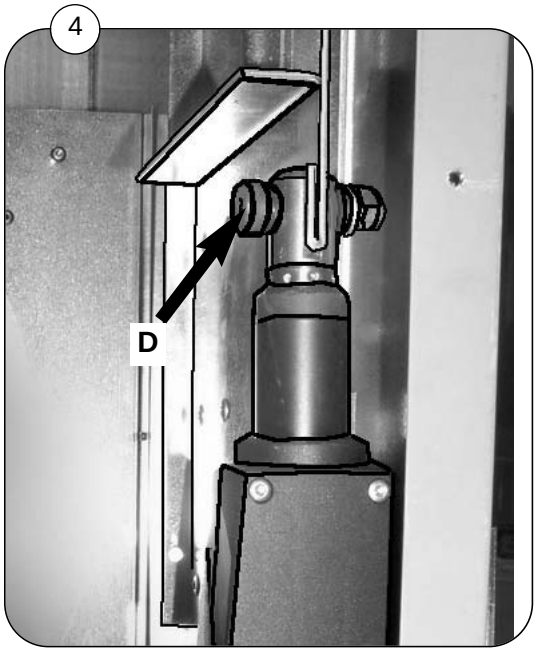


Contents

WARNING !
FIRE AND / OR EXPLOSION HAZARD!

Gas heating system service procedures must be carried out by qualified service personnel!

DO NOT OPERATE THIS MACHINE WITH IMPROPER SUPPLY OR NOZZLE PRESSURES, AS THIS CAN CAUSE FIRE AND/OR EXPLOSION!

Improper installation, adjustment or operation of this gas-heated appliance may result in the risk of fire and/or explosion, damage to property, serious injury, or death.

Gas valve - Natural gas and LPG

Pos. 1. Nozzle

The nozzle orifice size must be correct for the installation altitude (US only) and the type of gas being used.

Refer to the installation manual to determine proper orifice size.

Pos. 2. Measuring tap, nozzle pressure

Measuring see page 47.4.

Pos. 3 + 4. Nozzle pressure adjustment screw and cap

Set the nozzle pressure by using adjusting screw (4) found behind cover screw (3).
Clockwise higher pressure.
Counter-clockwise lower pressure.

Pos. 5. Control box, gas valve

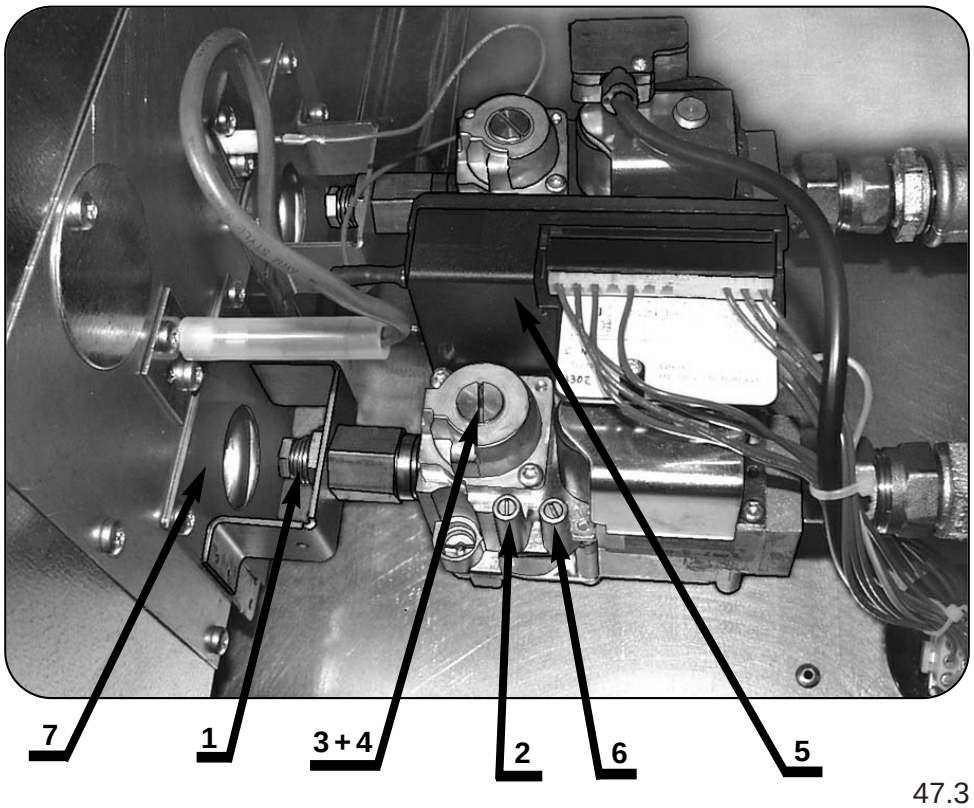
Pos. 6. Measuring tap, supply pressure

Measuring see page 47.4.

Supply pressure see installation manual.

NOTE that the gas supply MUST be turned off before loosening tap pos. 6 (SUPPLY) or gas will escape.

Pos. 7. Primary air flow reducing plate.



Measuring tap, nozzle pressure (pos. 2)

1. With the dryer off, loosen the gas pressure tap (pos. 2) one-quarter of a turn and connect a manometer to the tap.

2. Remove the ignition cable from the ignition electrode and position it so the end of the cable is at least 2 inches from any metal surface and away from any area into which you must reach to carry out this procedure.

This prevents the burner from lighting.

3. Start the dryer with High heat selected.

After a few seconds, the ignition control will energize the gas valve.

Check that the nozzle pressure reading on the manometer is within the allowable range specified in the installation manual for the gas type being used.

Too high nozzle pressure

If the nozzle pressure is too high, adjust it by removing the cap (pos. 3) and turning the screw (pos. 4) beneath this cap counter-clockwise until the nozzle pressure is correct.

Too low nozzle pressure

If the nozzle pressure is too low, it may be due to limited gas flow (and pressure) on the supply side of the valve.

1. Turn off the dryer

2. Close the nozzle pressure measuring tap (pos. 2) and measure the supply pressure tap (as described in section Measuring tap, supply pressure below).

The supply pressure must remain AT LEAST 1.5 inches WC above the desired nozzle pressure.

If it does not, corrective action must be taken on the gas supply system to the dryer.

If the supply side pressure remains at least 1.5 inches WC above the desired nozzle pressure, the nozzle pressure can be increased as described above, with the manometer connected to pressure tap (pos. 2) by turning screw (pos. 4) beneath cap (pos. 3) clockwise.

Measuring tap, supply pressure (pos. 6)

> **NOTE** that the gas supply **MUST** be turned off before loosening tap pos. 6 (SUPPLY) or gas will escape.

Refer to the installation manual for the proper supply pressure for the type of gas being used.

1. Turn off the manual gas valve to the machine and the dryer started on High heat.

2. Loosen the gas pressure tap (pos. 6) one-quarter of a turn and connect a manometer to the tap.

3. Turn on the manual gas supply valve.

4. Start the dryer on High heat and check that the supply pressure is within the allowable range.

Note: If the pressure is not within the range specified in the installation manual,

DO NOT OPERATE THE DRYER.

Contact your gas supplier.

Test run

Test all joints for leaks.

Before operating the dryer with a flame, check the supply and nozzle pressures as described earlier in this section.

Check that the gas is burning evenly and with a bluish flame.

After testing, prepare the dryer for use.

Function check

Check the dryer, see section 11: **Function check**

51. RMC (Residual moisture control)

Contents

RMC, general

The purpose of RMC is to be able to stop the dryer when a pre-selected moisture level has been reached in the clothes.

Also see section 11, **Dryer with RMC**

Replacing the collector graphite

If the dryer stops almost straight away without the clothes being dry this is because the measuring system has been disconnected without a signal being sent to the control, ie. no error code is displayed.

If this happens it could be due to the collector graphite needing cleaning or being defective in which case it must be replaced.

To replace the collector graphite:

1. Disconnect the power supply from the dryer.
2. Remove the back plate
3. **Fig. 1** illustrates collector graphite which either needs cleaning or replacing.
4. Assemble the dryer.
5. Connect the power and test the dryer.

Function check

Check the dryer, see section 11: **Function check**