Operating manual

Heat Recovery Pipes™

HRP290 and HRP530

for electrically heated tumble dryers

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Heat Recovery Pipes

Contents

The manufacturer reserves the right to modify design and material specifications without notice.

Safety instructions.

General maintenance of the HRP unit must be maintained.

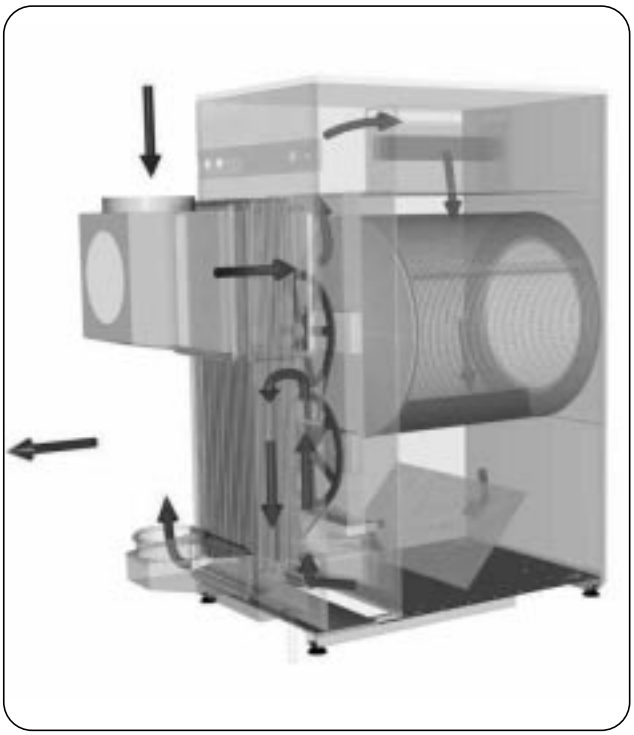
If the HRP unit is not maintained, the drying process will not function optimally.

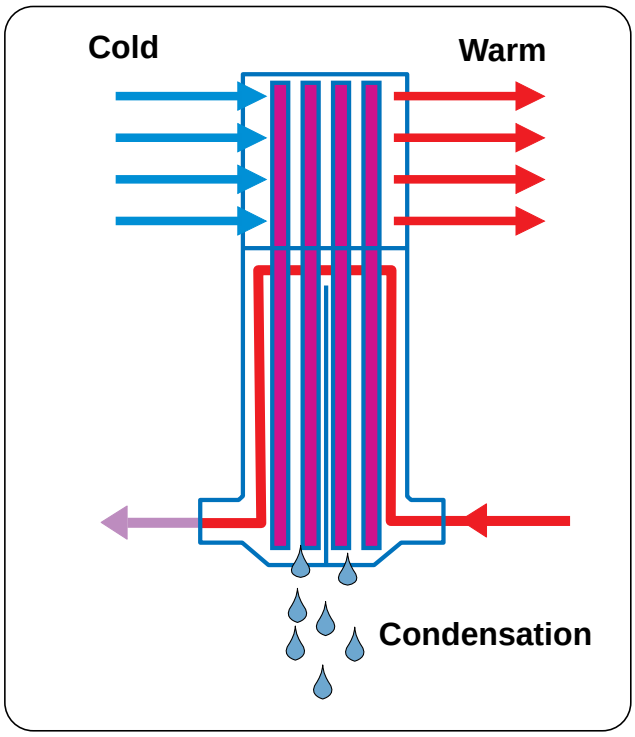
General information

A HRP unit is used to preheat the supply air to a tumble dryer; in this way, it is the heat in the exhaust air from the drying process which is reused.

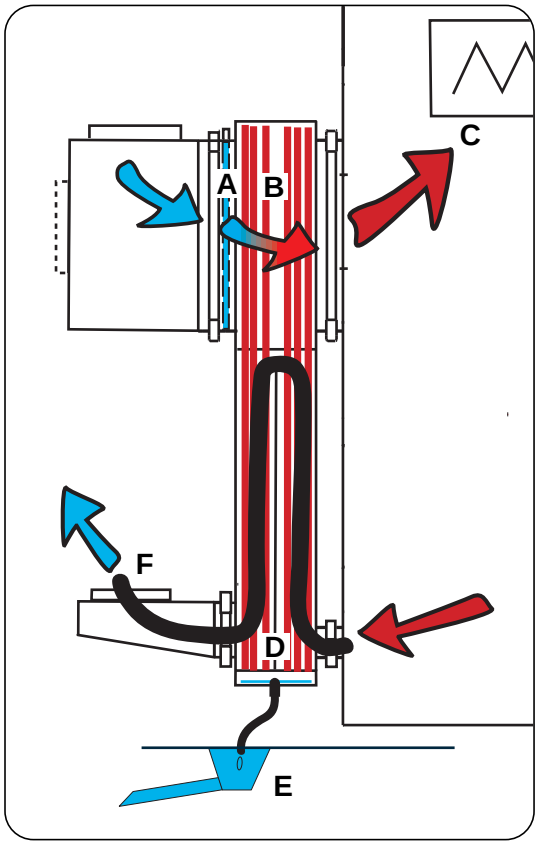
Thus the surplus energy of the exhaust air is used to heat the supply air, before this air passes the heating unit in the tumble dryer.

Schematic diagrams





Air principle



Supply air

The supply air to the tumble dryer passes filter **A** in the HRP unit.
Here all impurities are removed from the air.

Condenser B

After this, the air passes condenser **B** and is preheated.

Heating unit C

After being preheated in the HRP unit, the air is led into the dryer through a heating unit **C**.
At **C**, the air is further heated, the air is then led into the drum where the drying process takes place.

Exhaust air

Evaporator D

The warm and moist exhaust from the drum is led through evaporator **D**.
The exhaust air heats up a refrigerant in the many pipes of the evaporator. The refrigerant evaporates.

During the evaporation of the refrigerant, heat is transported up into condenser **B**. Heat from the pipes heats up the supply air.

The supply air cools the refrigerant which condenses in the pipes and falls back to evaporator **D**.

Condenser **B** and evaporator **D** are two separate rooms, therefore lint cannot come up into the condenser.

At the same time as the exhaust air passes through the evaporator, the moisture in the air also condenses.
The condensed water is collected at the bottom of the evaporator, and is led to a drain **E**.

Exhaust F

Air is led through connecting piece F to the external exhaust system.

Maintenance

Maintenance should be conducted in an extent related to operation frequency and the conditions on the premises.

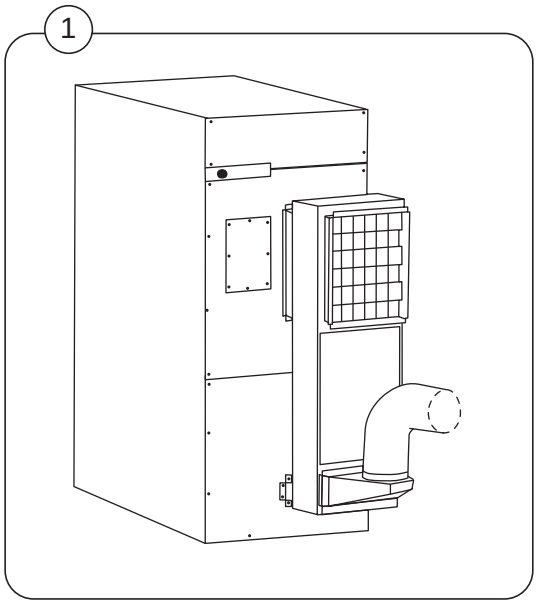
If the HRP unit is not maintained sufficiently, the drying process will not function optimally.

HRP unit connected with direct air supply from the room

1

- **Inlet filter** must be cleaned every week.
- **HRP unit** must be cleaned every second month.

Maintenance must be conducted more often in case of for example higher outdoor temperature or the drying of textiles which submits much lint.

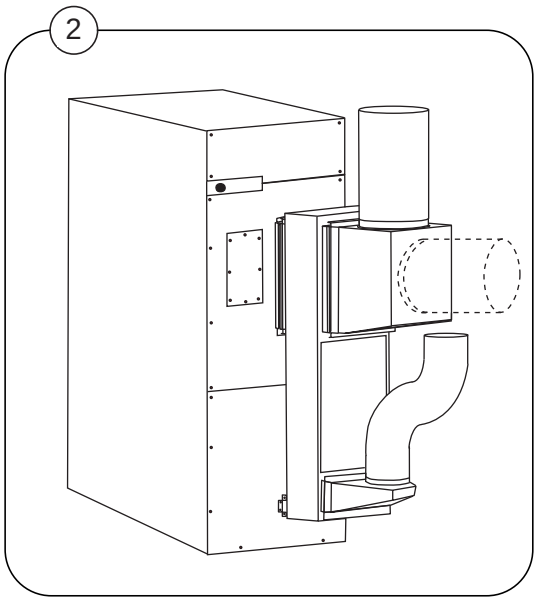


HRP unit connected to channel for outside air supply

2

- **Inlet filter** must be cleaned at least twice a year.
- **HRP unit** must be cleaned at least twice a year.

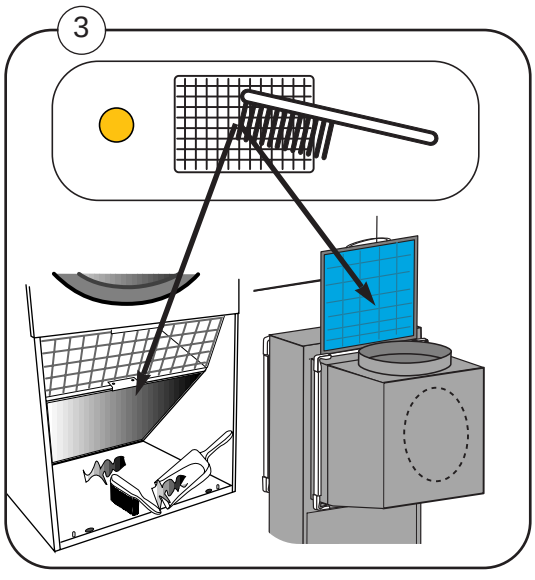
Maintenance must be conducted more often in case of for example higher outdoor temperature or the drying of textiles which submits much lint.



The filter lamp on the tumble dryer lights up

3

If the filter lamp on the tumble dryer lights up, then this can be because the filter in the HRP and/or lint filter / filter room in the tumble dryer is blocked and needs to be cleaned.

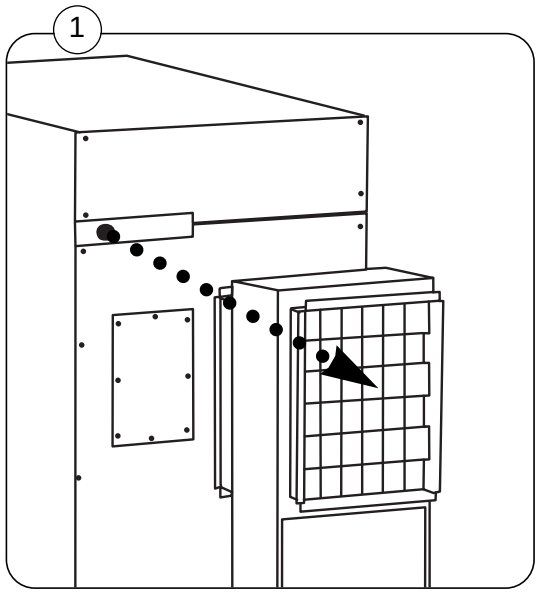


Inlet filter

Check that the filter in front of the condenser is in one piece and is not blocked with impurities from the air supply.

HRP unit connected with direct air supply from the room

1 Clean the filter with compressed air, vacuum-cleaning or if it is necessary use water.



HRP unit connected to channel for outside air supply

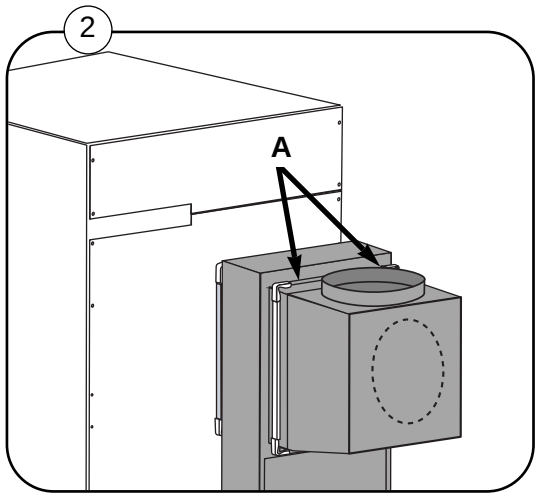
If a connecting piece for air supply is mounted in the HRP, then the filter must be cleaned as follows:

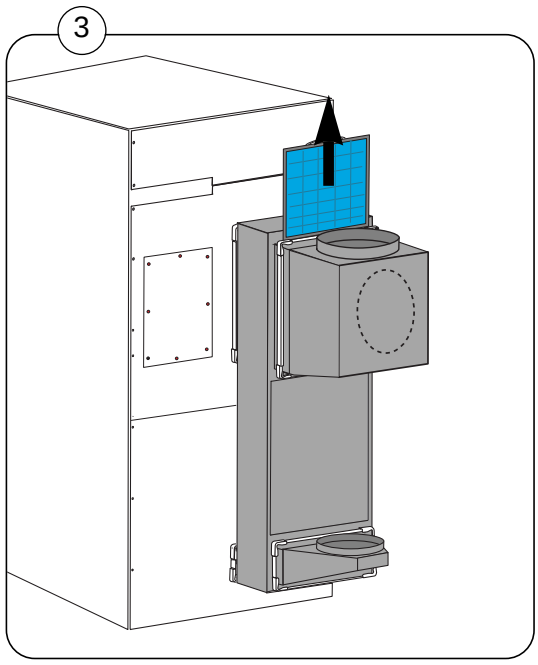
2 Remove the two screws **A**, positioned at the cover.

3 Remove the filter by pulling up the cover. Clean the filter with compressed air, vacuum-cleaning or if it is necessary use water.

After the filter has been cleaned, return it to its original position.

Mount the two screws.

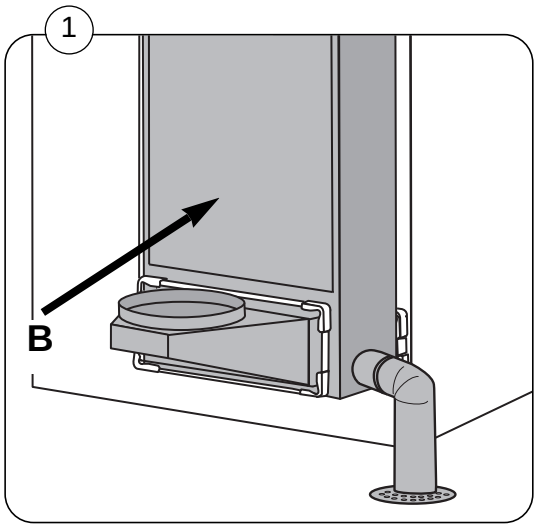




Evaporator

In the tumble dryer, the exhaust air passes a lint filter. The filter collects lint from the drying process.

Despite this, lint will collect in the HRP unit evaporator. The evaporator must therefore be regularly cleaned.



1 Clean the evaporator as follows:

Remove the screws in panel **B** and remove the panel.

2 Clean with a brush and flush with a little water.

The evaporator comprises two connecting rooms with a connection at the top of the evaporator.

Remember therefore to flush at the top of the evaporator. In this way the rear room will also be cleaned.

Remount panel **B** and mount the screws.