

Kondensationstrockner/Condensation dryer

Serie/Series	
	KT 20 KT 45

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1 Device models

This operating manual covers various device models. Their functions and operation are however nearly identical. To find out which model you have, refer to the type plate. For further information, see *Technische Daten/Technical Data*.

Model	Main features
KT 20	Extendable handle, carrier handle, 2 castors
KT 45	Fixed handle, 2 large transport wheels

2 Product overview

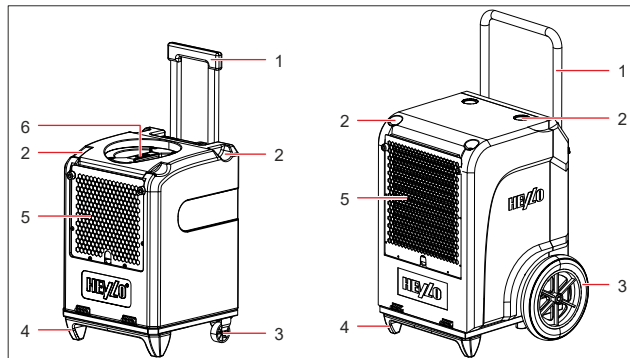


Illustration 1: Front view

1	Handle	2	Recess for stacking dryers
3	Transport wheel	4	Base
5	Inlet air grille with filter holder	6	Carrier handle (KT 20 only)

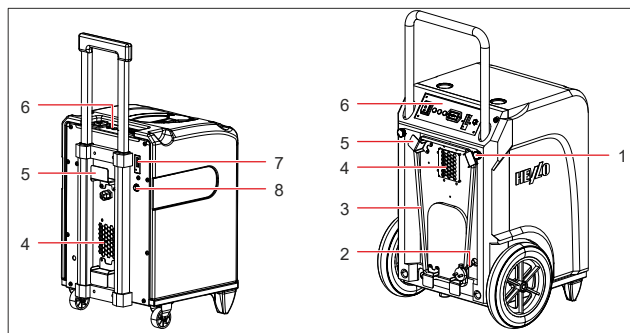


Illustration 2: Rear view

1	Knurled screw for handle adjustment (KT 45 only)	2	Drain hose connection
3	Power cord	4	Air outlet

5	Cable winder	6	Control panel
7	Power meter (KT 20 only)	8	Port for optional hygrostat (KT 20 only)

3 Control panel

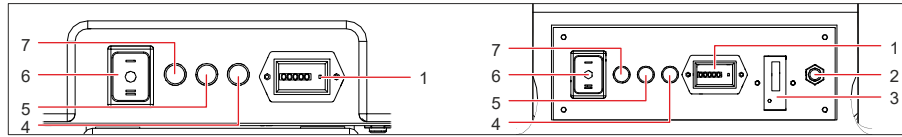


Illustration 3: Control panel

1	Operating hours counter	2	Port for optional hygrostat (KT 45 only)
3	Power meter (KT 45 only)	4	Red fault indicator
5	Yellow indicator	6	Device switch
7	Green indicator		

But- ton/indicator	Description
Device switch	Switching device ON/OFF: <ul style="list-style-type: none"> ■ Position [I]: Device continuously on ■ Position [II]: Starting pump and draining off condensate
Indicators	Operating status of device: <ul style="list-style-type: none"> ■ Green: Device running ■ Yellow: Device in defrosting mode ■ Red: Fault, device shut down
Operating hours counter	Display of operating hours
Power meter	Display of power consumption in kilowatt per hour.

4 About this operating manual

This instruction manual (hereinafter referred to as the manual) enables the company operating the device to work safely with the condensation dryer (hereafter referred to as the device).

Reproduction of this document or parts thereof is only permitted with the explicit written consent of DAN-THERM GmbH (hereinafter referred to as the manufacturer).

NOTICE! Before using the device, please read this manual carefully. Keep this document for future reference.

Safety signs and instructions

DANGER! Warning regarding an imminent risk of injury

This safety/warning instruction refers to an **imminent** danger of serious or even fatal injury.

WARNING! Warning regarding a potential risk of injury

This safety warning/instruction refers to a **potential** danger of serious or even fatal injury.

CAUTION! Warning regarding a potential risk of injury

This safety warning/instruction refers to a **potential** danger of minor or medium injury.

ATTENTION! Warning regarding damage to property

These safety warnings highlight potential risks of damage to the device.

Contacting DANThERM GmbH

See *Technische Daten/Technical Data*.

5 Product description

The device dehumidifies the air in the room. In the process, condensate collects in the condensate tank from where it can be removed by means of a built-in pump to a collecting vessel or an on-site drain. The device is automatically defrosted when necessary.

By connecting an external hygrostat (optional), the device can be used to control the air humidity in a room.
















Scope of delivery

- Condensation dryer
- Drain hose
- Filter pad
- Operating manual

Optional accessory

- Prod. no. 1306539 Exhaust air adapter for 1 hose (100 mm)
- Prod. no. 1306553 Exhaust air adapter for 3 hoses (3 x 50 mm)
- Prod/ no. 1110552 External hyg-rostat
- Adapter to connect 3 hoses

Type plate

Dantherm GmbH Oststraße 148, 22844 Norderstedt Germany	
CE UK CA    	
Model	HEYLO KT20
SN	12345678
Code	1110579  12-2022
RT 30°C RH 80%	21 l/24h
 1,0  2,5	 P _{max.} 2,5 MPa
 30–90%	 375 m ³ /h
 5–35°C	 20 kg
 230 V _n / 50 Hz / IP X4 380 W / 1,3 A	
 R290 0,13 kg / GWP: 3 / CO ₂ 0,0 t	
Art. N°: 1110579	

The type plate is attached to the device.

Intended use

The device is intended solely for dehumidifying air at atmospheric pressure in a commercial environment.

Intended use also includes compliance with the operating conditions (see *Operating conditions*).

Any use other than the specified is deemed improper. Improper use shall void all warranty cover.

The air dehumidifier must not be operated by children or by persons

with limited physical, sensory or mental faculties.

Before operating the device, users must have read and understood this operating manual.

Reasonably foreseeable misuse

The device must not be used:

- In rooms/spaces that are not enclosed, or outdoors
- In rooms with a potentially explosive or aggressive atmosphere
- In rooms with air that has been treated with ozone, or that contains a high concentration of solvents or dust.
- At locations where the prescribed minimum safety distances cannot be maintained

6 Safety

General safety instructions

- The device must only be operated by persons who have been **properly instructed** in its operation.
- It is forbidden to make any modifications to device.
- Maintenance and troubleshooting tasks must be performed by suitably qualified persons only. Shut down the device and disconnect the mains plug.

WARNING! Risk of explosion, injury from burns or poisoning by refrigerant

The device is operated with an odourless and flammable refrigerant. If the device is operated incorrectly, there is a risk that the refrigeration causes

explosion, fire, poisoning or other injury. The refrigerant is pressurised.

- Only operate the device in rooms larger than 4 m².
- Never drill holes into the device, and do not use welding equipment or cutting torches in its vicinity.
- Do not attempt to speed up defrosting by using implements.
- All work on the refrigeration circuit must be performed by staff of the manufacturer or an authorised technician.
- Avoid contact with the refrigerant.
- When handling the refrigerant, strictly adhere to the applicable safety regulations.

WARNING! Risk of electric shock

When carrying out work on electrically powered components, or if such components come into contact with water, there is a risk of serious or even fatal injury from electric shock.

- All work on the electrical equipment must be carried out by qualified electricians.
- Take suitable measures to prevent electrically powered components coming into contact with water.
- Before moving the device to a different location, disconnect the mains plug and empty the condensate tank.

WARNING! Risk of infection

The condensate may be contaminated with pathogens.

- Never drink the condensate.
- Regularly pump off the condensate. Avoid leaving condensate in

the collecting vessel or in the condensate drain hose for a longer period of time.

Operating conditions

The device is intended for mobile or stationary use indoors, on construction sites, as well as in garages and storage rooms. The device operates efficiently:

- At temperatures between +5 °C and +35 °C and at relative humidity levels between 40% and 100%.
Ideal conditions: room temperature between 20 °C and 27 °C.
- In closed rooms where there is as little air exchange as possible.
- When placed as close as possible to the centre of the room.
- When the dry air discharged by the device is directed towards the humid part of the room.

Do not use the device under the following ambient conditions:

- Rooms with a potentially explosive atmosphere, or an atmosphere containing sulphur or salt.
- Atmospheres with high solvent or dust concentration.

7 Transport and installation

Transport

WARNING! Risk of injury from device toppling over

- Transport the device in an upright position and secure it against tipping or slipping.
- Place the device on a level, firm surface.

WARNING! Risk of injury during machine transport

- To transport the device, use the handle and the castors/transport wheels.
- For heavy loads, work in teams of two and use suitable lifting gear.

Procedure

1. Before transporting the device, empty the condensate tank.
2. Ensure that the drain hose is removed from the device and that the mains plug is disconnected.
3. Transport the device to the location of operation.
4. To transport heavy loads, work in teams of two and use suitable lifting gear.
5. When the device is at its location of operation, apply the transport wheel brake.

NOTICE! Ensure that the air can circulate freely around and through the device. Do not cover the air inlet and outlet openings. The distance between the air outlet and the air filter must be minimum 1 m.

Unpacking

1. Remove the device from the cardboard box and place it on the ground.
2. Check the delivery for completeness. Report any transport damage or incomplete delivery to your dealer.

Adjusting handle

1. Loosen the two knurled screws, pull the handle to the desired position and then tighten the knurled screws.

Connecting drain hose

For operation, the supplied drain hose must always be connected to the device.

ATTENTION! Poor device performance

- Do not kink the drain hose.
- Do not place any objects on the hose.

Procedure

1. Secure the quick-release coupling of the drain hose to the connector at the rear of the device.
2. Lead the drain hose away from the device and place the free end in an on-site drain opening or a sufficiently large collecting vessel (maximum level difference: 6 m).

Connecting hygostat

1. Connect the hygostat (HEYLO prod. no. 1110552) to the port at the rear of the device.
 - ⇒ The device automatically recognises the hygostat and then runs


in continuous mode until the target humidity is reached.

Stacking devices

For operation or storage, it is permissible to combine maximum two devices in a stack.

1. Do to this, loosen and fully retract the handle of the device at the bottom.
2. Place the second device on the first one. Ensure that the bases of the second device slot into the recesses in the first one.

Connecting device to electric power mains

1. Ensure that the voltage of the power mains corresponds to that specified in the *Technische Daten/Technical Data*.
2. Ensure that the mains socket is sufficiently protected (see  in *Technische Daten/Technical Data*).
3. The power socket to which the device is connected must be equipped with a RC circuit breaker. This is particularly important for operation in humid rooms and on construction sites.
4. Make sure that the mains socket is earthed and matches the power plug of the device.
5. Connect the power plug into the mains socket.

8 Device operation and control

Prior to switching on

1. Make sure that the device is not standing on a wet ground and ensure that it is in an upright and stable position.
2. Make sure that the condensate can drain off properly.
3. If necessary, record the readings of the operating hours counter and the power meter.

NOTICE! Before starting the device for the first time, after transport and after prolonged storage, leave the device in its final position for approx. 15 minutes before switching it on.

Switching on device and continuous operation

1. Set the device switch to position [I].
 - ⇒ The green indicator is lit, indicating that the compressor is running.
 - ⇒ The device is set to continuous mode and runs until the automatic defrost function is triggered (yellow indicator lit). In continuous mode, condensate is automatically pumped off.

Pumping off condensate (before moving device to a different location)

- ✓ The device must **not** be in defrost mode (yellow indicator must be off).

1. Set the device switch to position [II].
 - ⇒ The condensate pump starts to pump the condensate through the drain hose into the drain or the on-site drain / collecting vessel.
2. As soon as there is no condensate left in the tank, **quickly** set the switch to position [0], to prevent the pump from running dry.

Operation with external hygrostat

- ✓ A hygrostat is connected to the port on the device.

1. Set the hygrostat to the desired target humidity.
2. Set the device switch to position [I].
 - ⇒ The device starts in dehumidifying mode.
 - ⇒ The device switches off automatically as soon as the set target humidity is reached. The device remains however in ready mode. If the target humidity is again exceeded, the device is automatically restarted.

Switching device off

1. Set the device switch to position [0].
 - ⇒ The indicator in the device switch is off and the device is shut down.

NOTICE! For planned prolonged standstills, pump off the condensate before shutting down the device.

9 Maintenance and care

WARNING! Risk of injury from inhaling harmful substances

- ⇒ Depending on the location of operation, the components of the device may become contaminated with mould or other hazardous organisms or substances.
- ⇒ When using compressed air to clean the device and/or the filter, work in a well-ventilated area, preferably outdoors.
- ⇒ During cleaning, wear safety goggles and a breathing mask.

ATTENTION! Risk of damage to property

- ⇒ Detergents can cause damage to surfaces. Use only mild detergents.
- ⇒ Use only approved original spare parts.

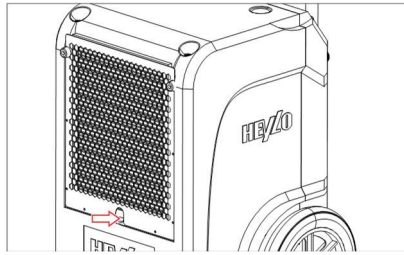
Cleaning housing and filter

The cleaning intervals for the device depend on the actual operating conditions. Check and clean the device regularly.

If the device is used for drying at construction sites, it must be checked and cleaned after each use; the air filter must be replaced at least once a week.

1. Switch off the device at the device switch.
2. Disconnect the power plug.
3. Clean the housing with a damp, lint-free cloth and a mild detergent. The original gloss can be restored with polish.

4. Remove the filter holder by the recessed grip.



5. Remove the contaminated filter. If the device is equipped with a foam filter: Clean the filter thoroughly with a mild detergent and water. Let the filter dry.
6. Insert the new or cleaned filter in the filter holder.
7. Mount the filter holder together with the filter in the same way as it was installed at the factory.

Cleaning evaporator

- ✓ The evaporator must be de-iced and dry.
1. Switch off the device at the device switch and disconnect the power plug.
 2. Remove the housing cover and place it on the ground.
 3. Clean the cooling coils from both sides with compressed air.

To remove greasy dirt from the cooling coils, proceed as follows:

1. Clean the condensate tray under the cooling coils as well as the drain hose.
2. Spray the cooling coils with a mild detergent solution, using a spray bottle.

NOTICE! Remove encrustation with a special cleaner

To remove encrustations, use the cooling coil cleaner from HEYLO. Strictly follow the use instructions for the product.

1. Let the cleaned components dry.
2. Mount the covers in the same way as they were installed at the factory.
 - ⇒ You have now cleaned the evaporator.

Cleaning pump sump

Depending on the way the device is used, deposits may form in the pump sump. To clean the pump sump, proceed as follows:

1. Switch off the device at the device switch and disconnect the power plug.
2. Remove the housing cover and place it on the ground.

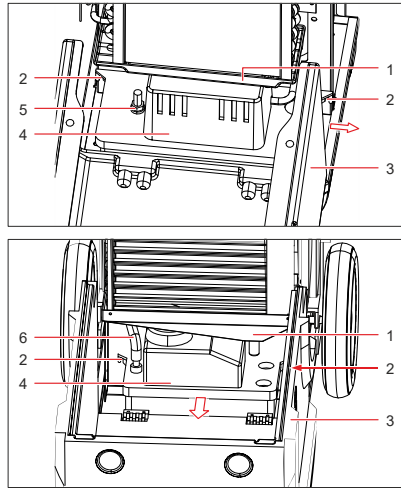


Illustration 4: Removing condensate tank (top: KT 20; bottom: KT 45)

1	Condensate tray	2	Securing screws of condensate pump
3	Housing	4	Condensate pump
5	Fixture of condensate pump (KT 20)	6	Condensate hose

3. Disconnect the condensate hose from the condensate pump.
4. Loosen the two securing screws of the condensate pump and pull the pump from the device (for KT 20: to the side; for KT 45: toward the front).
The connection remains attached to the device, as it is sufficiently long.
5. Clean the condensate pump with a damp cloth and a mild detergent.
6. Replace the condensate pump in the device. Secure the condensate pump and push the condensate hose into the pump.

10 Troubleshooting

Spare parts and customer service

If you have any queries regarding the device or wish to order spare parts, contact your dealer or DANThERM.

WARNING! Risk of poisoning by refrigerant, injury from burns, crushing or electric shock during troubleshooting

- All work in connection with troubleshooting and repairs must be carried out by authorised personnel or the manufacturer.
- In the event of a malfunction, switch off the device and secure it against inadvertent switching on.

- Before starting work, allow hot components to cool down.

Faults and malfunctions during operation

In the event of a fault or malfunction, refer to the table below. If required, contact DANTHERM Customer Service.

Fault/malfunction	Possible cause	Remedy
No function available in continuous or pump mode (all indicators off)	No or incorrect power supply	Check the power cord and mains connection
Device switch is in position ON (continuous mode), but device fails to start (all indicators off)	An external hygrostat is connected and has switched off the device	Change the hygrostat settings or disconnect the hygrostat
	Overpressure protection tripped due to high ambient temperature	Wait until the device switches on automatically (approx. 5-15 min)
Fan running but there is no condensate	Humidity or temperature in room too low	Check the indoor climate values using a thermo-hygrometer
	Filter clogged	Check filter and clean, if necessary
	Refrigeration system defective (in this case, evaporator does not become cold)	Contact DANTHERM technical support
Device is noisy and vibrates, condensate escapes	Device is not in level and upright position	Check the operating conditions, particularly the installation site

Fault/malfunction	Possible cause	Remedy
Device heats up, makes a lot of noise and dehumidifies poorly	Insufficient air circulation; function only available when housing is closed	Ensure that the air can circulate freely; clean evaporator and filter
Water escaping from device	Leak in condensate system	Run condensate pump test with water and locate leak
Red indicator lit	Pump runs dry	Check condensate pump and drain hose for dirt/blockage

Table 1: Troubleshooting table

11 Repair

During the warranty period, all repairs must be performed by persons authorised by the manufacturer.

After the warranty period has elapsed, certain repair can be carried out by the device owner, provided he or she has the necessary skills. DANTHERM shall not be liable for damage caused by such repairs.

If you have any questions about repairs, contact DANTHERM Customer Service or your dealer.

12 Decommissioning, storage and disposal

Decommissioning

1. Pump out the condensate.
2. Switch off the device at the device switch and disconnect the power plug.
3. Clean the device (see *Maintenance and care*).
4. Disconnect all incoming and outgoing lines (discharge and power supply lines).

5. Package the device so that it is protected against moisture and dust.

Storage

CAUTION! Risk of injury from device toppling over

- Do not stack more than two devices one on top of the other.
- Secure devices against toppling over.

Procedure

Store the device at a temperature between 5 °C and +40 °C.

Disposal

CAUTION! Risk of damage to the environment from hazardous substances

- Dismantle the device and recycle or dispose of the materials according to the applicable statutory regulations.
- For the disposal of auxiliary materials and consumables, observe the information in the safety data

sheets and the applicable statutory regulations.



Do not dispose of the device as household waste.

EC Declaration of Conformity

EC Declaration of Conformity in accordance with Machinery Directive 2006/42/EC Annex II 1.A

Manufacturer: HEYLO GmbH	Im Finigen 9	28832 Achim, Germany
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Product: Condensation dryer	Type: KT 20 / KT 45
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We herewith declare that the machine conforms to all relevant requirements of the following EU Directives:

- 2006/42/EC Machinery Directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU EMC Directive
- 2009/125/EC Ecodesign Directive
- 2011/65/EU RoHS Directive

The following harmonised standards have been applied:

DIN VDE 0700 part 1 and part 30	DIN EN 55014-1:2012- 05	EN 60335-1	EN 60335-2- 40
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Achim, 15/11/2021


Manfred Föhlisch — Managing Director