
ADSORPTION DEHUMIDIFIER CTR 10000

USER MANUAL



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User Manual CTR 10000

Intended use

The CTR 10000, a trailer based high capacity adsorption dryer, is developed and intended for construction drying and water damage restoration. Through use of adsorption drying, it does not have the same dependency on ambient temperature as condensation dryers have and functions even well below the freezing point. The trailer allows both crane lift as well as forklift transportation, and as it can be used both indoors and outdoors, the CTR 10000 is truly deployable, readily and easily used where ever required.

As all other Corroventa machines, the CTR 10000 is very energy efficient.

Features

- Energy efficient
- High Capacity
- Robust
- Service friendly
- Hour counter

Waiver of Liability

- Faulty, incorrect installations and/or incorrect use can cause damage to property and human injury.
- The manufacturer assumes no responsibility or liability for damages or injuries caused by non-compliance with the instructions herein, use for other purposes than the intended, or failure to observe its warnings. Such damage, injuries or liabilities are not covered by the product warranty.
- The product warranty does not cover consumables or normal wear and tear.
- It is the responsibility of the buyer to inspect the product at time of delivery and before use to ensure its good function. The product warranty does not cover damage resulting from use of faulty products.
- Changes or modifications to the equipment must not be made without written consent by Corroventa Avfuktning AB.
- The product, technical data and/or installation and operation instructions can be changed without prior notice.
- This manual contains information that is protected by the Intellectual Property laws. No part of this manual may be copied, stored in an information system or transferred in any form or in any way without the written consent of Corroventa Avfuktning AB.

Any comments on the contents of this document shall be sent or addressed to:

Corroventa Avfuktning AB
Mekanikervägen 3
564 35 Bankeryd
SWEDEN

Tel: +46 (0)36-37 12 00
E-mail: mail@corroventa.se

Safety information

This equipment is not intended to be used by individuals with physical or mental disabilities impeding their operation or understanding of it or by individuals lacking required knowledge or experience unless they are supervised and instructed by another person with responsibility for their safety.

Children must only use this equipment under supervision of an adult to ensure that it is not used as a toy, something that it is not designed for.

Electrical installations made in connection with the installation of the dehumidifier or the CTR 500XT shall be made by authorized personnel in accordance with local and national regulations.

Furthermore, the following warnings and instructions shall be read and observed:

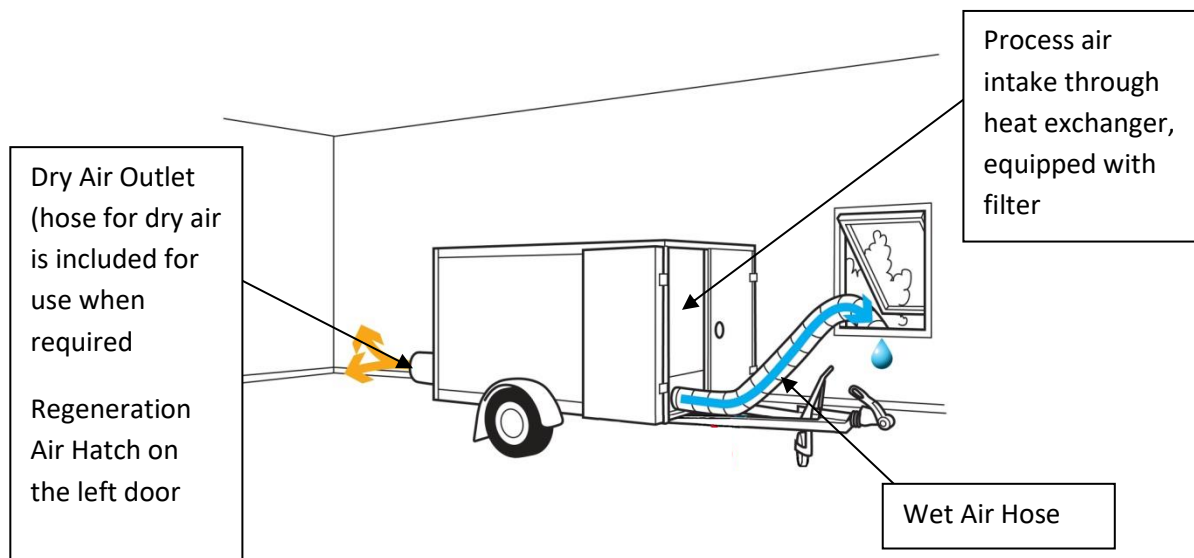
1. The dryer must not be powered until the installation is finished in accordance with this manual.
2. The powered dryer must not be covered as this can lead to overheating and fire hazard.
3. The dryer must not be used to sit, step or stand on.
4. Never use the dryer without the filter installed as this can cause damage to it. Ensure that the filter is clean. A cluttered filter can cause the dryer to overheat.
5. Bases or organic material with high boiling point such as oil, fat, solvents, boracol or similar substances must not be drawn into the dryer. It may damage the rotor.
6. The dryer must not be used in spaces where explosive gases can be present.
7. Do not stick objects into the air outlets or intakes as this can cause damage to the machinery as well as human injury.
8. Install the dryer steadily and leveled, lower the rear stabilizer and apply parking brake and wheel chocks so that the trailer remains in place.
9. Keep children, animals and spectators away from the workplace while installation is undertaken.
10. If the dryer is broken, if the power connector or the cable is damaged, contact the authorized service technician. Do not repair the equipment if you have not received specific training by the manufacturer.
11. Be careful not to damage the power cable. The cable must not go through water or pass sharp edges.
12. Never tow the dryer by its cable.
13. To use electrical equipment in humid or wet environment can be dangerous. Never power the dryer if it is standing in water.
14. A residual-current device / ground fault circuit interrupter should be used to minimize the risk of electric shocks.
15. Water must not come in contact with the electrical components of the equipment. If this has happened, ensure that the equipment is dry before it is used again.
16. The power must always be disconnected before the electric cabinet is opened.
17. If the dryer is set to emergency mode, one or several alarms deactivated, it must never be left operating unattended.
18. Repairs to the electronics/electrical system of the CTR 10000 must only be made by qualified electrician.
19. The dryer must never be used with any other accessories than those listed in this manual or those specifically approved by Corroventa Avfuktning AB.

For further advice on product safety and use, please contact the supplier.

How the dehumidifier works

Although much larger and with much higher capacity, the CTR 10000 works according to the same principles as the portable adsorption dryers of the Corroventa product range. The rotor is coated with Silica Gel, a crystal with enormous amounts of microscopic pores which makes its total surface very large. A single gram has an active surface of 500 to 700m² and the material can absorb water corresponding up to 40% of its own weight. Silica gel is not water soluble and can therefore not be washed away nor dissipate into the passing air.

The process air fan draws the process air through the filter and the rotor, letting the Silica Gel dry it and then leaves the machine through the dry air outlets on the rear right door. Meanwhile, another fan is drawing regeneration air through the regeneration air hatch on the rear. This air is heated by the regeneration heater before it moves through a sector segment of the rotor. The water in the rotor is carried as vapor by the wet air that is evacuated from the area to be dried through the wet air hose.



Product Overview

Regeneration Air
Inlet Hatch

Dry Air Outlet



Process Air Intake

Wet Air Outlet



Control panel located on side door. Air hoses together with power cables are stored in this compartment.

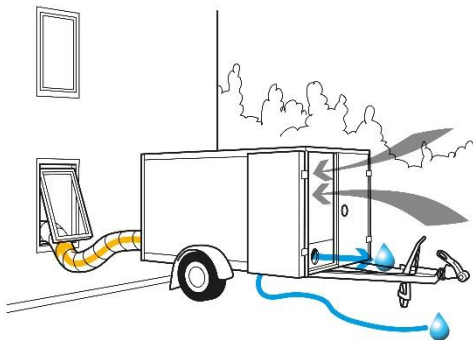


Installation

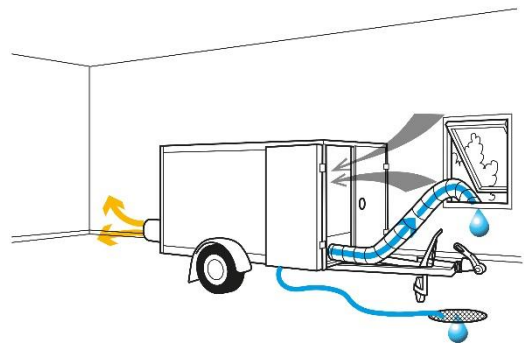
The CTR 10000 can be used and positioned both indoors and outdoors as depicted below. When the machine is positioned outdoors, the generated dry air is led into the building to be dried through the dry air hose.

When used indoors, the wet air is evacuated through a wet air hose led through window or other opening.

The condensate hose depicted in illustrations below is only valid for the A50 TD2.



Outdoor use



Indoor use

Installation Instructions

Open reg air hatch and remove sleeves for dry air.



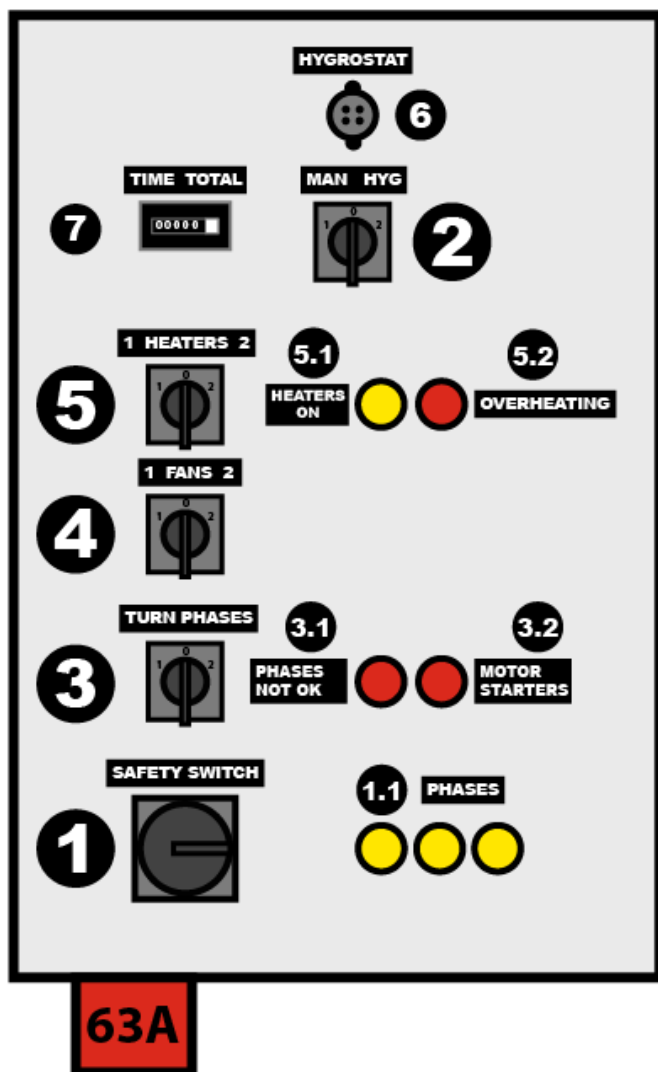
Open hatch for process air and remove sleeve for wet air.



Connect dryer to 400V 63A with 63A cable.



For startup, follow the instructions below (*this information can also be found on a sticker inside the unit, below the control panel*)



NOTE!

THE REG.AIR HATCH AND PROCESS AIR HATCH MUST BE OPENED BEFORE STARTUP. ALSO MAKE SURE THAT THE BACK DOORS ARE CLOSED.

POWER ON SEQUENCE

- 1** TURN SAFETY SWITCH TO "ON". LIGHTS **1.1** AND **3.1** SHOULD NOW LIGHT UP.
- 2** SELECT "MAN" OR "HYG". IF HYGROSTAT IS USED, CONNECT THIS TO SOCKET **6**.
- 3** TURN SWITCH TO "1" OR "2" UNTIL LIGHT **3.1** TURNS OFF, INSURING THE CORRECT PHASE SEQUENCE.
- 4** SELECT THE NUMBER OF DRY AIR FANS TO RUN. "1" = 1 DRY AIR FAN (5000M³/H) AND "2" = 2 DRY AIR FANS (10 000M³/H).
- 5** SELECT HEATING OUTPUT. POSITION 1 = 15,5kW AND POSITION 2 = 31kW. LIGHT **5.1** TURNS ON.

THE HOURCOUNTER **7** SHOWS TOTAL OPERATION TIME.

POWER OFF SEQUENCE

TURN OFF HEATERS **5** AND LET THE UNIT COOL DOWN FOR 10 MINUTES.

WHEN DONE TURN SWITCHES **4**, **3** AND **1** TO "OFF/0"



If you need, connect dry air hoses. Try to create rotation in dry air at the place you will dry, use the hoses.



Connect wet air hose. **IMPORTANT!** If dryer is placed indoor, you must lead out the wet air outdoor.



Make sure to change filter at regular intervals depending on where the dryer operates. This is process air filter. (Art no. 05111).



Make sure to change filter at regular intervals depending on where the dryer operates. This is the reg air filter. (Art no. 05110).

The CTR 10000 allows for transportation with a forklift. Follow the steps below to unload it from the trailer.



1. There are four container locks, one in each corner. Unscrew all of them until they fall to the unlocked position.



2. Make sure that the container locks are all the way down. They should be flush with the trailer bed.



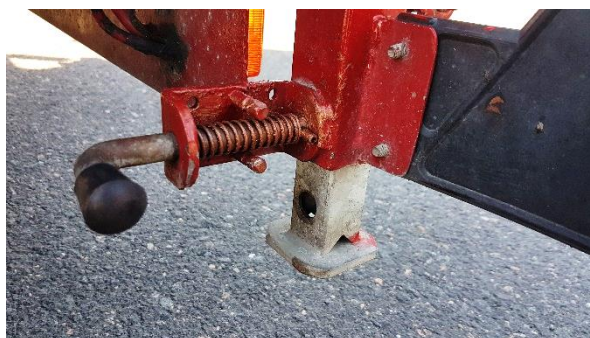
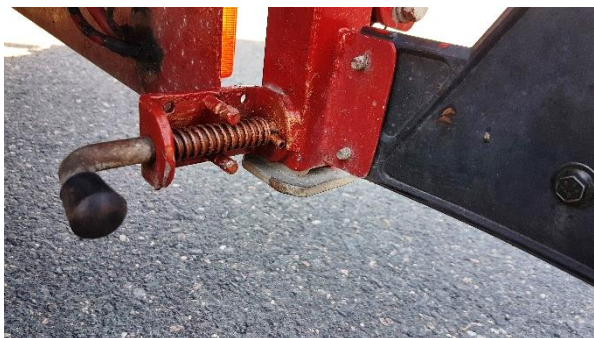
3. Open the back gate and pull out the ramps.



4. Unhook the two latches in the front. This enables the trailer to be tilted.



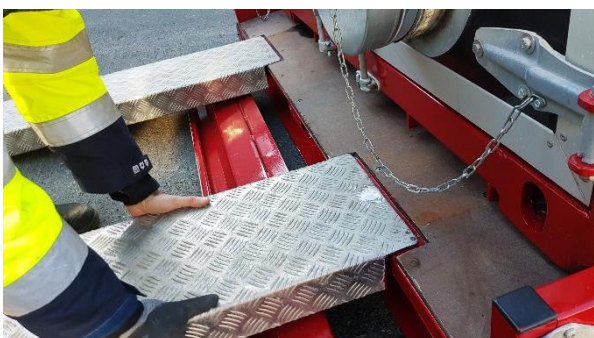
5. Pull out the two support legs in the rear.



6. Tilt the trailer until the support legs touch the ground.



7. Place the ramps in the designated cutouts on the trailer.



8. Unlock the pulley and start unloading the CTR 10 000. It might need a light push to get started.



Accessories and consumables

The following articles are available as accessories and consumables to the CTR 10000:

| Article number | Name |
|----------------|-------------------------|
| 01100 | Humidistat, HR1-5 |
| 05111 | Process air filter |
| 05110 | Regeneration Air Filter |

Troubleshooting

OVERHEATING

If the dryer overheats act according to the list below:

- Check process air door and reg air door, they must be open.
- Check filters, process air and reg air.
- Check if the dryer was disconnected from 400V without cooling (it overheats).
- Check wet air hose. The wet air must have free flow.
- After resetting the heater and you have restarted the CTR 10000. Check that the rotor is turning clockwise.



If the machine is overheated it stops and the red lamp (no. 11 on electric cabin) will light up. Let the machine cool, make sure hatches are open, change filters. Open the back doors and reset the red buttons.

Technical Data

| | |
|--------------------------------|--------------------------------|
| Power supply | 3 ~ 400 V 63 A |
| Power consumption | 36,2 kW |
| Dry air - 1 fan | 5000 m ³ /h 2,2 kW |
| Dry air - 2 fans | 10000 m ³ /h 4,4 kW |
| Reg-air | 1800 m ³ /h 0,75 kW |
| Reg-power - one heater | 15,5 kW |
| Reg-power - two heaters | 31,0 kW |
| Capacity +20°C, 80% RF | 875 l/day |
| Size | H 1,80 x B 1,70 x L 3,00 m |
| Weight | 1080 kg |
| Weight with trailer | 1560 kg |
| Size incl. trailer | H 2,20 x W 2,33 x L 4,85 m |



DO YOU HAVE QUESTIONS OR NEED HELP?

*Visit www.corroventa.com or call us to speak with an expert.
We have the knowledge and the equipment to find a solution as efficiently as possible.*

Corroventa develops, manufactures, sells and rents high quality products for dealing with water damage, moisture, odours and radon. We are one of the market leaders and specialists in innovation within the industry. Our products are compact, effective, ergonomic and energy efficient. In emergency situations and during flooding, Corroventa's customers have access to one of the largest rental parks in Europe. All our products are manufactured in Bankeryd, Sweden.



www.corroventa.com



CORROVENTA LTD

Unit 47, Melford Court, Hardwick Grange, Warrington
England, WA1 4RZ • Tel +46 (0)161-2449523