

# **Building Dryer WDH-500AH**



Dear Customer,

You have chosen a high-quality product. To ensure that you get a lot of enjoyment from this product, here are a few more tips:

**In case of any problems:**

We hope that the unit meets your expectations! If, despite the greatest possible care, there should ever be cause for complaint, please contact us briefly, as we are very concerned about your satisfaction and would like to clear up any misunderstanding.

## Mounting the castors and the transport handle:

To reduce the volume of a new unit, the transport handle and the castors incl. axle are dismantled.

The following accessories are included for castor assembly:

- 2 x castors
- 2 x hubcaps
- 1 x axle
- 1 x small parts bag, consisting of:
- 4 x washers
- 4 x axle clamps (cotter pins)

The following accessories are included for the transport handle assembly:

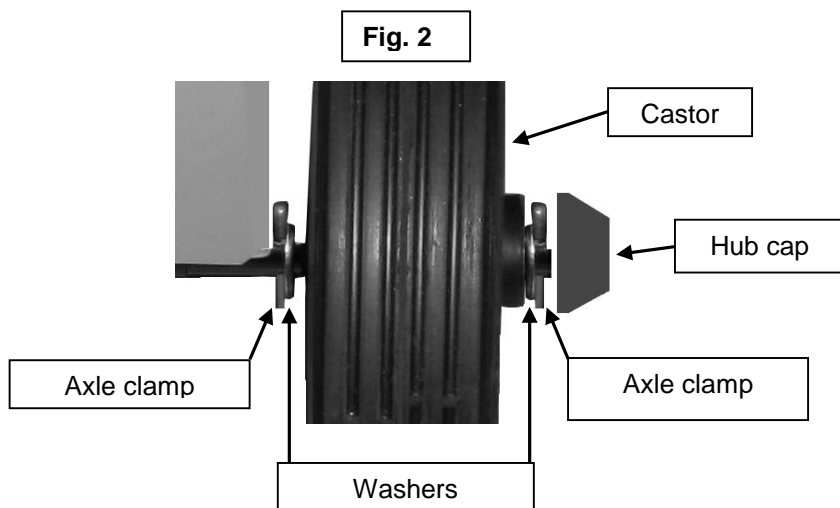
- 1 x transport handle
- 1 x small parts bag, consisting of:
- 2 x connecting rail
- 8 x hexagon socket screws (4 mm)
- 1 x hexagon spanner (4 mm)

To assemble, place the building dryer on the front (front panel). To protect the unit, we strongly recommend using a soft base. This can be e.g. a blanket, towel, polystyrene or similar!



**Fig. 1**

- A) Loosen the two axle fastening screws located in the base plate with a 10 mm spanner (see fig. 1 above).
- B) Now insert the axle fastening screws through the axle holes that are at the same height and then screw the screws firmly back into the base plate of the building dryer using the 10 mm spanner.
- C) Insert one axle clamp on each side through the small holes at the level of the outside of the dryer housing and then bend them up or apart (see Fig. 2 below).
- D) Now put a washer on the axle from each side - up to the axle clamp.
- E) Now the castors can be attached to the axle on each side.
- F) Now put a washer on each side of the axle again - up to the roller.
- G) Finally, fix the whole thing in place by again inserting an axle clamp through the top of the outer axle hole on each side and then bending it upwards to secure it.
- H) Now put on the hub cap from the outside (put it over the axle clamp).
- I) To assemble the transport handle, first take a connecting rail included in the scope of delivery and 2 hexagon socket screws. Insert the connecting rail halfway into the open hollow linkage and fasten it with the two hexagon socket screws (see Fig. 3 below). Repeat this step with the second connecting rail and the two more hexagon socket screws on the other side.
- J) Now put the transport handle over the open connecting rail on each side and screw it tight with the four remaining hexagon socket screws. DONE !



**Fig. 3**



## **After transport or assembly:**

As the unit works with cooling liquid, we ask you to let it stand upright for at least 1 hour before using it for the first time or after mounting the castors (transport handle), so that the cooling liquid in the unit can settle again.

## **During first operation / hose connection:**

If you want to use a hose connection for draining the condensate, make sure that the hose connection is properly seated and that the condensate (water) can always drain off unhindered! If this is not observed, the water condensed by the building dryer (up to 50 litres per day) can cause damage to the room!

## **Room humidity and dehumidification performance:**

If you want to check the room humidity and the associated dehumidification performance with your own humidity meter (hygrometer), please avoid attaching this humidity meter to a wall, as this will falsify the true humidity content of the room air. See also the explanations under Troubleshooting !!!

## **Important safety instructions:**

- Supervise the building dryer when children are near the unit !
- Watch out for electricity - never walk into or insert objects into the appliance !
- Do not place any objects on the construction dryer !
- Do not block the exhaust and intake louvres of the unit and please ensure sufficient space/clearance at and around the fan !
- Make sure that there is sufficient air supply to the unit, otherwise it can lead to a reduction in performance and, in the worst case, to overheating and/or fire ! Please always keep a distance of approx. 20 cm to the wall to avoid possible overheating of the unit ! Do not use in airtight rooms !
- Only qualified personnel or electricians are allowed to open the unit or carry out repairs !
- Make sure that no moisture gets into or onto the unit !
- Only use the recommended voltage for operating the unit !
- Make sure that the power cable is unfolded (untied) before connecting it to the socket !
- Make sure that the plug is cleanly and properly connected to the socket before using the appliance !
- Do not use multiple sockets to operate the building dryer !
- Make sure that highly flammable substances (e.g. gases/oils etc.) are never in the vicinity of the unit !
- Do not use any insect, oil or paint spray etc. near the building dryer. This may cause damage to the unit or even fire !
- If you are not going to use the unit for a long time, switch it off and disconnect the mains plug !
- Do not disconnect the mains plug by pulling on the power cable !
- Please keep the unit away from heat sources and avoid direct sunlight !
- Always hold and transport the unit in its proper position ! Never place the unit on its side or even upside down !
- Make sure that the unit is earthed !

Please switch off the unit immediately and disconnect it from the mains/power supply if anything seems to be wrong !!! In this case, please contact a specialist and do not attempt to repair the unit yourself !!!

**Examples:** Fan does not run during operation, fuse has blown, there is a funny smell or the compressor rattles loudly.

## **Important operating and safety instructions regarding the refrigerant R290 in this unit:**

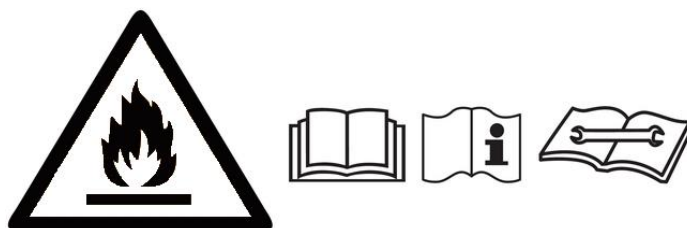
(Read these instructions carefully and observe them before using the unit ! )

- The unit operates with the refrigerant R290. This refrigerant is highly flammable and explosive if the safety instructions are not observed!
- The refrigerant R290 complies with the European environmental directives !
- The unit contains 0.23 kg of refrigerant R290 - the maximum permitted charge of refrigerant R290 for dehumidifiers/building dryers is 0.3 kg !
- The unit should not be stored or operated in a room with burning/heating appliances or open fire !
- Protect the unit and especially the parts installed inside from damage or flames/heat !
- Please note that the refrigerant is odourless and therefore a leak cannot be detected immediately by an emerging odour !
- If refrigerant leaks, it may ignite or explode, especially in poorly ventilated rooms in conjunction with high heat, sparks or flames !
- Make sure that the outlet of the exhaust air is always ensured and not obstructed by other objects !
- Set-up, operation and storage of the unit should take place in a room with a minimum size of 11 m<sup>2</sup> !
- Pack the unit carefully when you are no longer using it and protect it from damage!
- When cleaning, proceed strictly according to the manufacturer's instructions and do not use any additional heat sources to possibly accelerate the defrosting process of the appliance !
- Never work on the cooling circuit or parts containing refrigerant yourself !

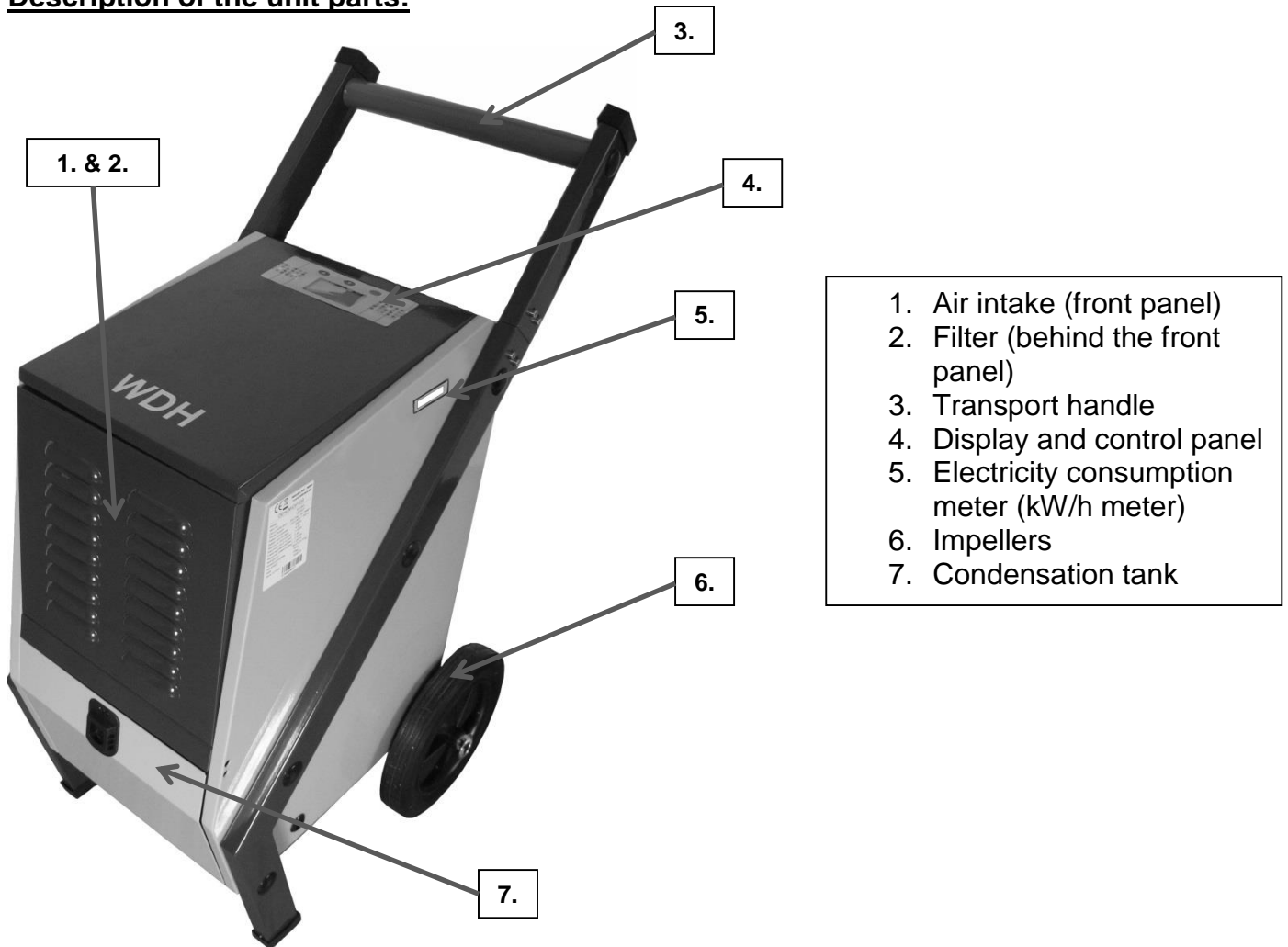
**This unit has parts that must not be replaced or repaired !**

**The refrigerant cannot be renewed or replaced !**

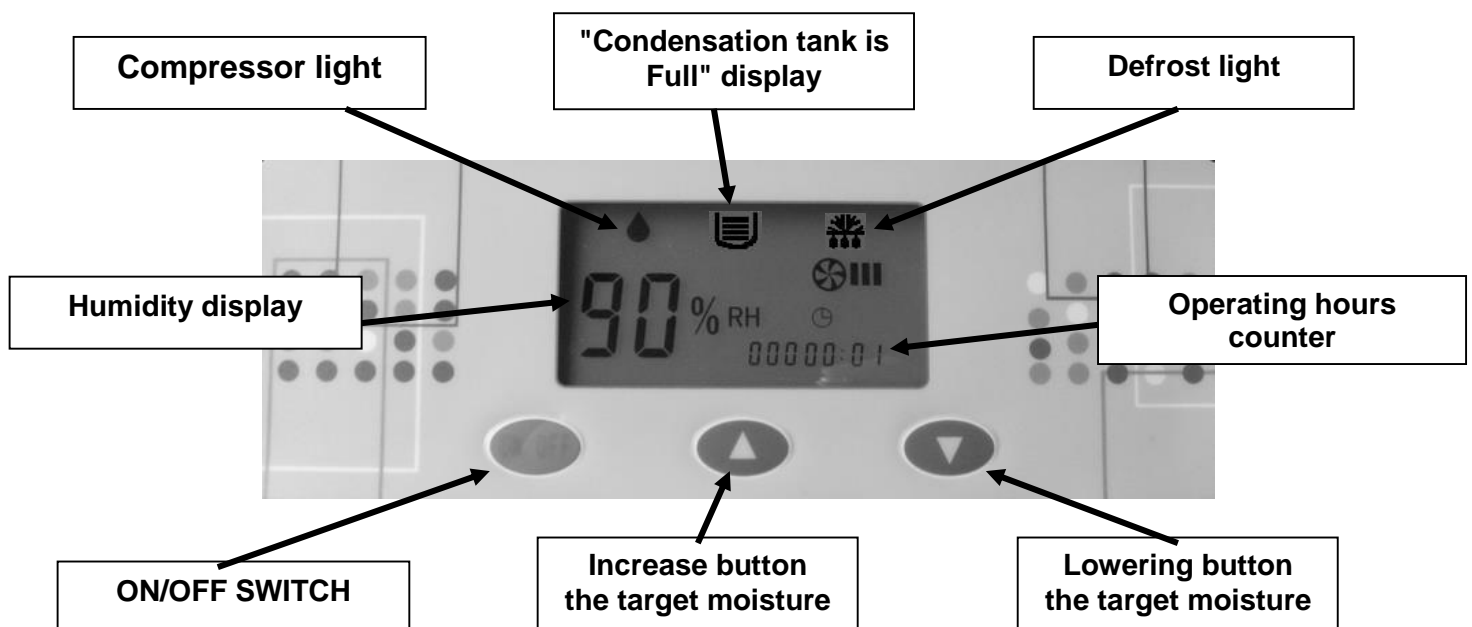
**Do not carry out any independent repairs or modifications to your unit !**



## Description of the unit parts:



## Control element:



## Instructions for use:

### 1. Commissioning

Insert the mains plug properly into the socket.

Switch on the unit with the "On/Off switch".

Now set your desired target humidity value between 30% and 90% or select continuous operation. To do this, press the "button for lowering the target humidity value" (▼) or the "button for increasing the target humidity value" (▲), as appropriate. Pressing briefly changes the target humidity value by 1% each time. By pressing and holding (1.5 sec.), the target humidity value can be set by fast forwarding.

A target value of below 30% humidity is indicated in the display with "CO" and signals that the building dryer is now set to continuous operation !!!

After approx. 5 seconds of inactivity, the target humidity value goes out and the currently determined room humidity is shown in the display.

Note: The construction dryer has an automatic memory function. In the event of a power failure, this function ensures that the building dryer resumes operation where it was previously interrupted. All set values remain stored. To protect the compressor, however, its switch-on process is delayed by approx. 3 minutes ! (Compressor light flashes during this time).

### 2. Operating procedure

After the building dryer is properly connected to the socket, the backlight of the display panel lights up.

After switching on the unit (On/Off), the detail display in the control panel lights up automatically. The target humidity value is already preset to 60% r.l. by default.

The unit is programmed so that the compressor switches on for dehumidification as soon as the selected target humidity value has been exceeded by 3% points (of the current room value).

The compressor then switches off again automatically as soon as the target humidity value has been undershot by 3% points. The compressor is then switched on again in the same way, so that there is a tolerance of 6% points between the automatic switch-on and switch-off.

After switching off the unit (On/Off), all functions switch off and all displays go out.

### 3. Operating instructions

If the current humidity is below the target humidity value, the unit does not switch on.

To protect the compressor, the unit should always run for at least 3 minutes or be switched off before you press the On/Off switch again!

At cold ambient temperatures or icing in the unit, a sensor automatically controls a defrosting process. This is indicated by the following defrost symbol (❄️ in the display field at the top right). Meanwhile, the defrost mode automatically controls the air circulation and the compressor operation!

### 4. Error codes / display indication

"E1" or "E3" The humidity sensor cannot determine a measurable value or the determined value is outside the displayable range (below 30% or above 90%) or the sensor is damaged. (In this case, please contact your specialist dealer).

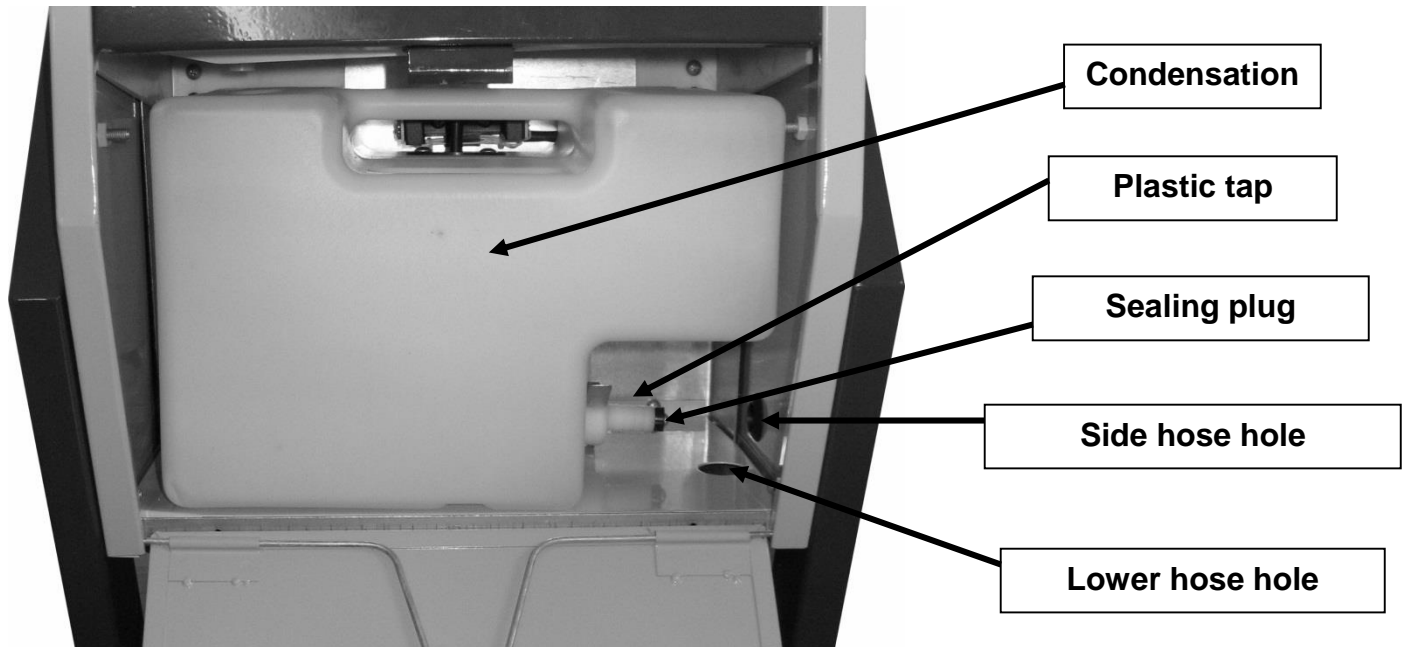
"E2" or "E5" The defrost sensor cannot determine a value. (Please contact your specialist dealer if necessary).

"E4" There is a problem with the water tank. Check the water tank, if the problem persists, please contact your dealer.



## 5. Connecting a hose

- 5.1. The connection point for the drain hose is located on the right-hand side of the condensation tank (see diagram below). First remove the black sealing plug there.
- 5.2. It is best to use a ½ inch plastic hose and pass it through the hole provided on the side (alternatively the lower hole) and then put the hose over the plastic tap provided for this purpose.
- 5.3. Make sure that it fits properly. For safety, we recommend fixing the hose with a clamp/clip !
- 5.4. Make sure that the hose always has a slight slope !



## 6. Cleaning

### 6.1 Cleaning the housing

- Please disconnect the mains plug before cleaning the construction dryer.
- Only use mild cleaning agents to clean your construction dryer.
- NEVER spray your building dryer (e.g. with water or similar).

### 6.2 Cleaning the air filter screen and the cooling fins

The air filter screen at the front of the air intake filters lint, hair and coarse construction dust. Furthermore, the air filter ensures that less dust is deposited on the cooling fins, thus ensuring higher efficiency. Too much dust and dirt in the filter sieve or on the cooling fins reduces the dehumidification performance and can lead to a loss of efficiency in the  
In the worst case, this can even cause damage to your construction dryer, so the following applies in the case of coarse soiling or in rooms with a lot of construction dust: clean the air filter screen and also the evaporator unit regularly!

- Clean the filter whenever it can be assumed that the air intake is reduced by the dirty fan screen or that dirt and dust has been deposited on the cooling fins. (This can sometimes even be the case daily on dusty construction sites. )
- Switch off the unit and disconnect the mains plug !
- Open the front door where the air filter screen is attached as follows: Reach under the top two metal slats and open the front panel by gently jerking it away from the unit.
- The air filter screen is attached to the inside of the front fairing. Now remove the retaining rods of the air filter screen by passing the retaining rods through the upper and outer holes of the outer frame.
- Now you can remove the air filter screen. Wash the dirty sieve well under lukewarm water or vacuum it out thoroughly with a Hoover.

- Allow the air filter screen to dry and then put it back into its holder on the inside of the front fairing from above.
- Then push the retaining rods back through the outer and inner holes of the metal frame/front panel from above.
- Now check the cooling fins and clean them with a soft hand brush or a Hoover if necessary.
- Finally, insert the front cover with the integrated air filter screen back into the holder of the building dryer from above and close/fasten it to the unit with a slight tug. DONE !!!

## 7. Other notes

Do not expose the compressor to temperatures above 45°C. Please do not do this even if the unit is not switched on/connected. This could damage the compressor !

The exhaust air of the building dryer is 2°C - 3°C warmer than the supply air (room temperature). This can lead to greatly increased room temperatures in smaller and well-insulated rooms, this is quite normal.

For an effective and economical dehumidification operation, please close all doors and windows in the operating room of the building dryer, if possible !

## Technical data

<b>Model name:</b>	WDH-500AH
<b>Voltage:</b>	220-240V ~ 50Hz
<b>Normal power consumption:</b>	700 W (3.2 A)
<b>Maximum power consumption:</b>	820 W (3.7 A)
<b>Dehumidification capacity (optimal):</b>	50 ltr./day (30°C / 80% r.h.)
<b>Air circulation:</b>	Approx. 350 m <sup>3</sup> /h
<b>Compressor:</b>	Rotary compressor
<b>Dimension (H/W/D):</b>	925 x 605 x 462 mm
<b>Weight:</b>	31 kg
<b>Waterproofness:</b>	IPx0
<b>Cooling pressure (max.):</b>	2.5 MPa
<b>Vapour pressure (max.):</b>	1.0 MPa
<b>Refrigerant:</b>	R290 (230 g)
<b>Range of use:</b>	5°C - 32°C

For the technical data, deviations are reserved !

## Troubleshooting

### The unit is icing up.

At cold temperatures or during long periods of continuous operation, the unit may freeze up despite the defrost sensor. In this case, we recommend that you manually defrost the unit by switching it off and then only operate it with a target humidity value of 60% r.l. for the time being, or warm up the room a little. The target humidity value can then be gradually lowered each day (e.g. 50%, then 40%, etc.).

### The unit does not dehumidify enough.

Please remember that the primary objective is not to extract as much condensation water as possible, but to dry and/or keep dry the room air or ceilings, walls and inventory !

Furthermore, bear in mind that the building dryer can only extract moisture from the air and only indirectly from materials (screed/plaster). Depending on the condition of the ceilings, walls and fixtures, it can take several weeks before they release the stored moisture back into the air! For this reason, we also recommend that if you use your own humidity meter (hygrometer), you place it as freely as possible and somewhat away from walls and ceilings, because otherwise the determined humidity value of the room air will be falsified !!!



As with all building dryers, the dehumidification performance is decisively influenced by the following factors:

A) Humidity content of the room air and B) Heat/temperature in the room.

For safety's sake, here is an approximate dehumidification table for DURABLE OPERATION:

<b>30 degrees</b> and <u>80% r.h. = approx. 50 litres</u>	and at <u>60% r.h. = approx. 25 litres</u>
<b>20 degrees</b> and <u>80% r.h. = approx. 25 litres</u>	and at <u>60% r.h. = approx. 14 litres</u>
<b>15 degrees</b> and <u>80% r.h. = approx. 18 litres</u>	and at <u>60% r.h. = approx. 10 litres</u>
<b>10 degrees</b> and <u>80% r.h. = approx. 10 litres</u>	and at <u>60% r.h. = approx. 7 litres</u>

All figures are approximate per day (fluctuation tolerance) when measured directly at the unit inlet and of course these values only apply if the temperature and moisture content remain constant!

## Other

### **Warranty statement:**

Notwithstanding the statutory warranty claims, the manufacturer grants a warranty in accordance with the laws of your country, but at least 1 year (in Germany 2 years for private individuals). The warranty begins on the date of sale of the appliance to the end user.

The warranty only covers defects that are due to material or manufacturing faults.  
are.

Warranty repairs may only be carried out by an authorised customer service. To

To make your warranty claim, please enclose the original sales receipt (with date of sale).

Excluded from the guarantee are:

- Normal wear
- Improper applications, such as overloading the appliance or non-approved accessories.
- Damage due to external influences, use of force or foreign objects
- Damage caused by non-observance of the operating instructions, e.g. connection to an incorrect mains voltage or non-observance of the assembly instructions.
- Completely or partially dismantled units

### **Conformity:**

The construction dryer has been tested and itself and/or parts thereof have been manufactured under the following (safety) standards:

**CE (EMC + LVD) conformity, of course.**

CE conformity tested according to: EN 55014-1:2017, EN 55014-2:2015  
EN 61000-3-2:2014, EN 61000-3-3:2013  
EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019  
EN 60335-2-40:2003+A11:2014+A12:2005+A1:2006+A2:2009+A13:2012  
EN 62233:2008

### **Correct disposal of this product:**



Within the EU, this symbol indicates that this product should not be disposed of with household waste. Old appliances contain valuable recyclable materials that should be recycled. In addition, the environment or human health should not be harmed by uncontrolled waste disposal. Therefore, please dispose of old appliances via suitable collection systems or send the appliance for disposal to the place where you bought it. They will then recycle the appliance.

We hope you enjoy using this device..... *Your Aktobis AG*

### Notes:

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