MÄTFORUM

MANUAL

Dehumidifier Drybox X2

Drybox X2

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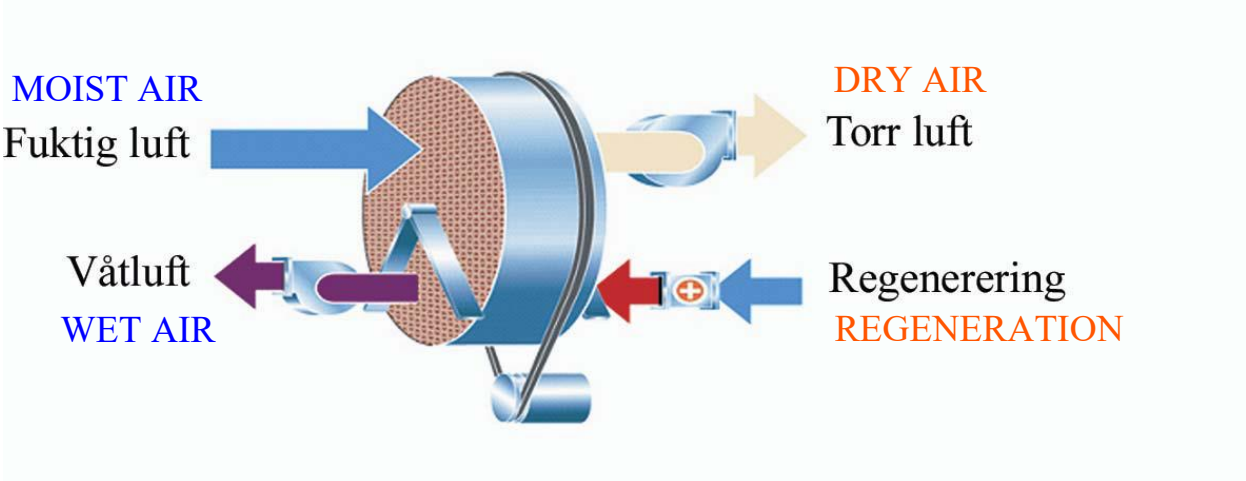
Introduction
Congratulations on your choice of dehumidifier Drybox X2.
For proper operation, it is important to read these operating instructions.
NOTE: Check the rotary potentiometer according to explanation page 5.

General about dehumidifiers
A sorption dehumidifier works so that the moist air is sucked into a rotating rotor, "honeycomb", which absorbs the moisture.
The rotor has a large number of air ducts where the surface is impregnated with a moisture-absorbing agent (eg silica gel or zeolite)
The rotor is dried out with the help of a heating element. Hot air is blown through the honeycomb, the water molecules evaporate and the moisture is blown out of the dehumidifier and out of the space being dehumidified.

- The sorption technology dehumidifies effectively within the temperature range of -20 ° C
  + 40 ° C
- The adsorption dehumidifier also creates a negative pressure, which means that the risk of spreading bad odors is reduced.



How to lower the relative humidity

The traditional way to lower the relative humidity is to heat and ventilate. Unfortunately, this is both expensive and energy consuming.

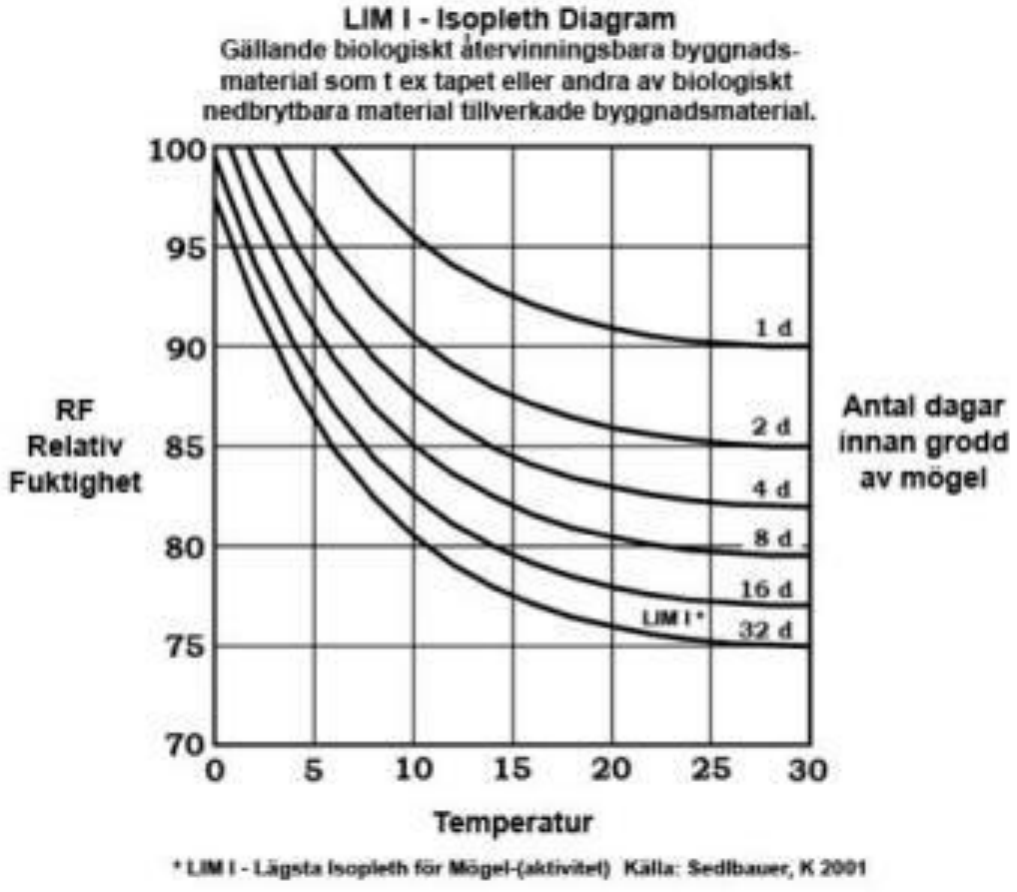
If it is condensation you want to get rid of, you must heat all materials and media except the air.

The most efficient and least energy-intensive way to lower the relative humidity is to dehumidify instead.
Often the energy savings are upwards of 50% compared to heating the space.

Some common areas of use where you want a moisture-controlled climate are, for example: crawl spaces, basements, laundry rooms, bathrooms, summer cottages and garages.

Mold growth

The diagram below shows how many days it takes before mold spores germinate on a non (biologically) contaminated building material:



Relative humidity (RF) vs moisture ratio in wood (FK)
What is an acceptable moisture ratio in wood varies both with climatic conditions and local practice, standard or regulation.
The table below shows how the moisture ratio at equilibrium depends on the ambient humidity. The values are approximate and can vary with the density of the wood.

Relative humidity	Moisture ratio in wood
10%	3 –5 %
20%	5 –6 %
30%	6 –8 %
40%	8 –10 %
50%	10 –11 %
60%	11 –13 %
70%	13 –15 %
80%	15 –18 %
90%	18 –23 %
100%	23+ %

The properties of the wood are also affected by how much or how little water is in it. In order for the properties not to be adversely affected, it is important that the moisture ratio is within certain limits.

Moisture damage or moisture problems also occur in concrete, plasterboard or other building materials. The construction process is also significantly affected in time by the drying times for concrete and there may be other reasons to measure the moisture ratio. Moisture damage does not have to be visible but can hide under the surface.

With a dehumidifier Drybox, you can make sure that the moisture content of the material stays within the limits required to protect yourself against elevated moisture values and e.g. mold.

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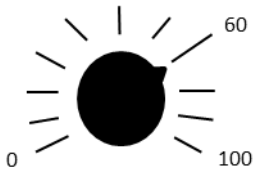
Rotary potentiometer
Factory setting 60% RF.
Can be adjusted for personal setting.
If, for example, iron is to be protected against rust, it is usually sufficient to dehumidify down to about 50% RH.



For maximum drying, the rotary potentiometer is set down to 0% RH. This means that the dehumidification will take place continuously, no matter how dry it is in the room.

When installing in a crawl space, the practice in the industry is to measure the moisture ratio in a clean board (dirty board gives the wrong value). A value below 17% is to strive for.

The fan runs continuously, regardless of setting.

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