Klingenburg SECO Desiccant / Enthalpy Rotor

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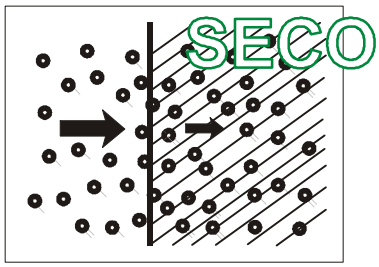
Product description

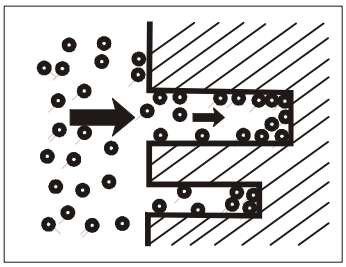
Designed as a desiccant rotor for dehumidification and total energy recovery.
Energy recovery rotor for coupled transfer of energie and substance.
Vertical or horizontal installation position.
Rotor material rolled in wavy and flat layer for laminar air flow. Flat and wavy layer flush at front.
Rotor material is not flammable.
High efficiency an a long life time, based on patented production processes.
Absolutely safe in health terms and germicidal. Very high capacity of moisture absorption, efficient dehumidification.
Regeneration air temperature for dehumidification only 70°C or 158 F.

Water uptake occurs by means of absorption, triggered by the partial pressure difference of the resulting air takes contrary to the conventional principle of adsorption.

Absorption (chemisorption)



Adsorption (physisorption)



(Water uptake triggered by the capillar effect of a pore system with widespread branches)

No deposit of dirt particles, no formation of odours.
SECO eliminates carryover of bacteria and airborne contaminants.

To prevent the transfer of waist air to the fresh air (cross contermnation) SECO can be equipped with a purge sector.
Up to size 2500 the rotor is strut-braced by opposing aluminium twin spokes.
From size 2500 upward frame and rotor are divided.
Divided SECO's have firmly framed segments. This simplifies self assembly considerably.
Stable frame construction out of seewater-resistant aluminium.
Housing plates out of seewater-resistant aluminium, dismountable on all sides.
Little weight and simple maintenance of all equipment components.
The flexible sealing system guarantees minimum leakage.
Easy to reach special ball bearings on outside of the frame for improved load absorption.

Drive

The choice of the drive is depending on the purpose of the SECO.

SECO is driven by a three-phase synchronous motor the rotational speed of which is adjusted by means of a frequency inverter.
Drive can be changed over to summer operation (max. 20 rph rotational speed) or winter operation (max. 10rpm).

Self-tensioning V-belt through motor rocker plate for SECO drive.
With the frequency controller KS4 R the rotational speed of the SECO can be adjusted stepless.