

Dehumidification Of Air By Silica

The silica gel rotor that stands up to close examination

The heart of dehumidifiers is the very efficient patented silica rotor.

The rotor matrix is manufactured from alternate layers of flat and corrugated sheets of silica gel. It is made to form a vast number of axial air channels running parallel through the structure. The large internal surface area combined with the special microstructure of silica gel material, ensures maximum contact area and transferability between the air and the desiccant to give the rotor an extremely high capacity for adsorbing water vapour.

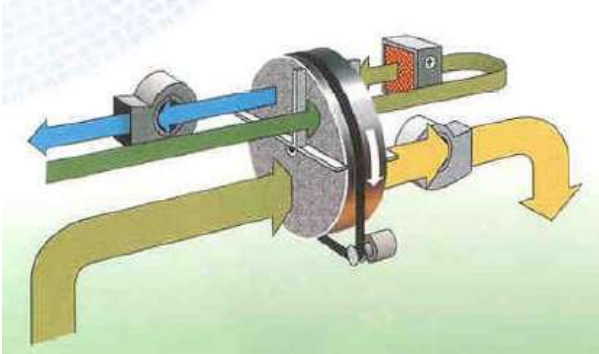
Major Advantages Of The Silica Gel Rotor

There is no problem associated with passing saturated air through the rotor as the dehumidification process is based on physical adsorption and not chemical absorption. Dust deposits on the rotor surface can be flushed away with water. Oily and sticky deposits can be removed with detergents.

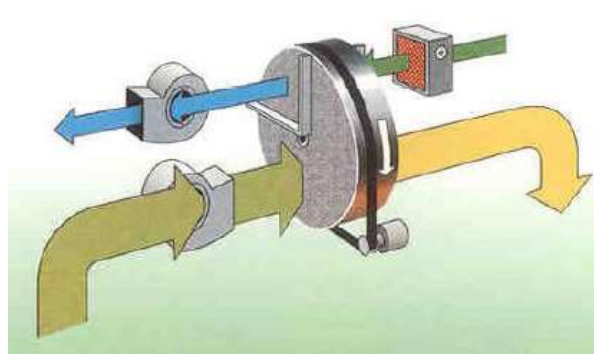
As a result of the silica gel being firmly bonded with the matrix base, it is not possible to have carry over of desiccant material with the airflow. Whilst the dryer is out of operation the rotor is not affected by over saturation. No precautions are therefore required during shut down or on restarting.

The rotor has a high mechanical strength and is noncombustible. Its bacteria static thanks to inorganic materials. According to tests done by USR and the Gas Research Institute of USA, most of the bacteria in the air is killed when it passes through the silica gel rotor.

Dehumidification Techniques Adapted To Meet Demands:



Continuous drying with built in heat recovery system



Continuous drying with low regenerating temperature

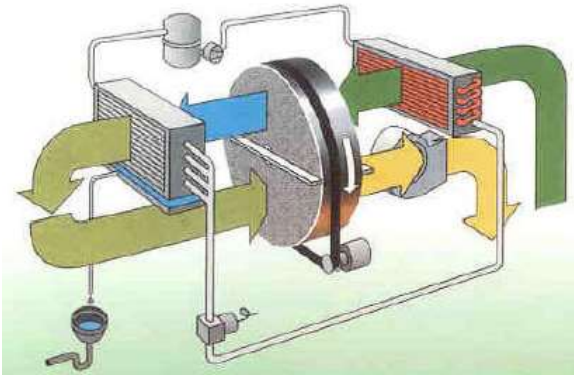


Range of Dehumidifiers

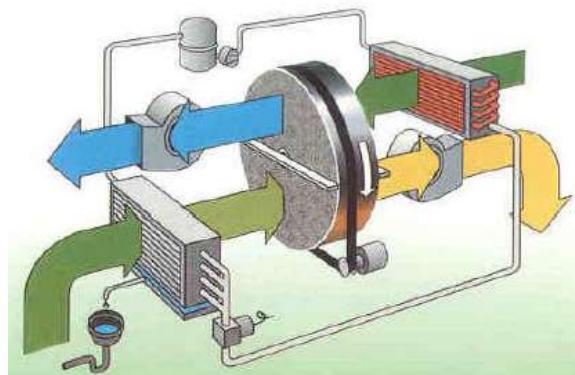
Design and manufacture dehumidifiers using rotors from 100mm diameter to 4,000mm with dehumidifying capacities from 0.5kg to 700 kg per hour. Dry air flowrate are available from 50m³/h to 85,000m³/h. Beside the standard range of dehumidifiers, we also custom manufacture units to suit any particular drying application.

Products Designed With Experience

Combined with a wealth of experience and knowledge to design, we produce the most advanced industrial dehumidification systems today.



Continuous drying where the dehumidified moisture is condensed



Continuous low energy drying combining sorption and heat pump technology