



[www.ZencoDesiccantRotors.com](http://www.ZencoDesiccantRotors.com)



**Your ONE-STOP solution  
for all types of  
Desiccant Rotors & Cassettes  
(New as well as replacements)  
for locations Worldwide**

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# Zenco Desiccant ROTOR

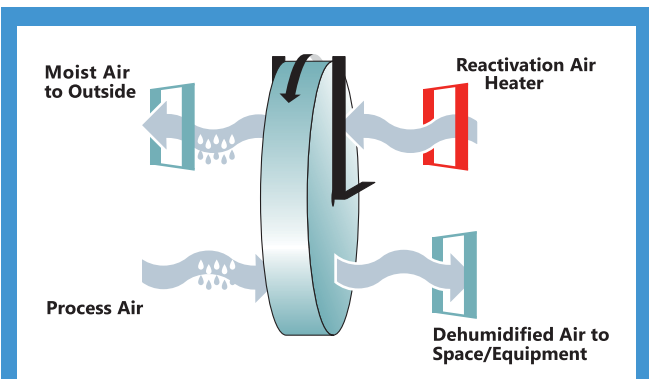
## ZENCO DRY FLUTE™

Zenco is a leading manufacturer of Desiccant Silica Honey Comb Rotors and Molecular & Zerolite Rotors & Cassettes. We provide Hygromedia desiccant dehumidification rotors and cassettes, as well as "Zenco Cool™" Evaporative Cooling Pads. These components are included in HVAC applications from custom engineered environmental control systems to conventional commercial cooling units.

Zenco's philosophy is simple: Provide high quality, high capacity products to the marketplace with the shortest lead time possible.

### Desiccant Dehumidification Rotors and Cassettes

- Inorganic media withstands high heat
- High capacity meets and exceeds the competition
- Lower pressure drop than the competition
- No maintenance internal bearings
- Welded structure maintains tolerance
- Stainless steel flange compatible with all seals
- Low cost for industrial & commercial applications
- 4 week lead time
- Standard sizes to 3.5 meter diameter - larger diameters available
- Standard depths include 100mm, 200mm & 400mm
- Available in non-standard sizes
- Complimentary Performance Software Program (ZENSELECT)



### Advantages

#### The Source of High Capacity Dehumidification

- ★ 98% Inorganic Content - Industry's Highest
- ★ 82% Desiccant Loading - Industry's Highest
- ★ 16 LBS/CUFT Optimum Density
- ★ 200 KPA Mechanical Strength
- ★ Low Pressure Drop
- ★ Water Washable

#### Rotor Source Hub and Spoke System

##### The Source of a Rigid Structure

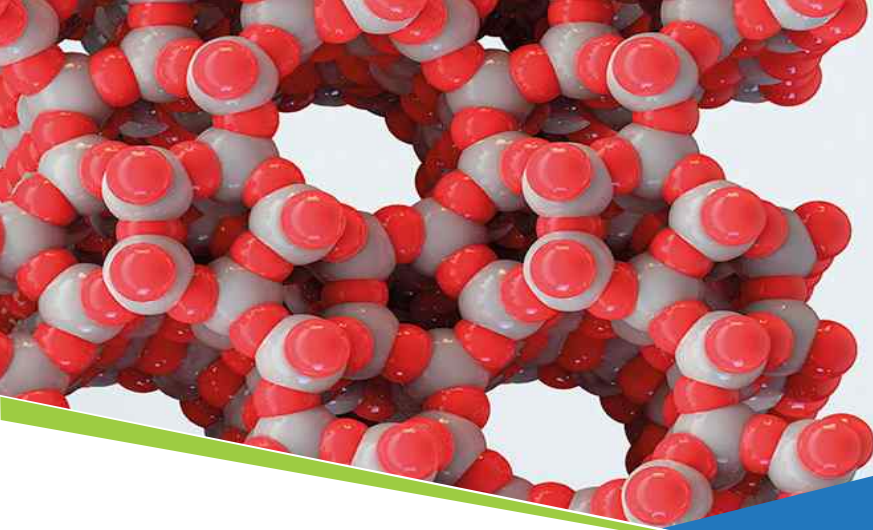
- ★ Thick wall D.O.M. tubing machined hub
- ★ Welded 10 gauge spokes
- ★ Welded coupling nut at spoke end
- ★ Welded media retention strip

#### Rotor Source Flanged Outer Band

##### The Source of Accurate Dimension

- ★ Laser cut for maximum accuracy
- ★ Stainless steel construction
- ★ Welded seam w/bolted attachment



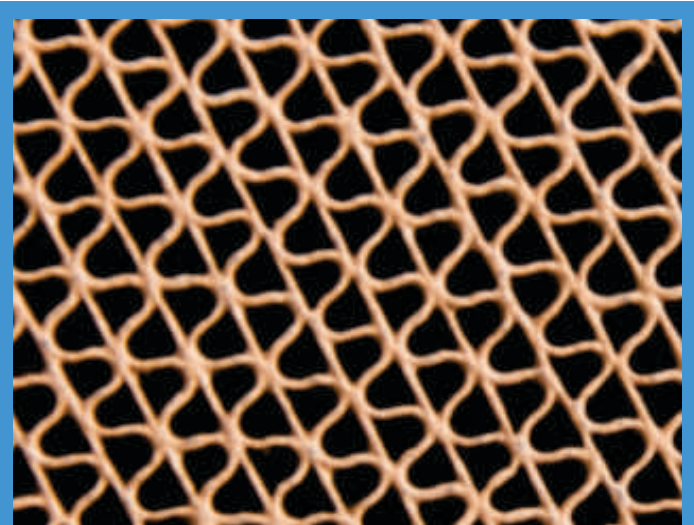


## ZEOLITE ROTOR

### Zeolite Zenco Concentration Rotors For VOC's (ZENCO-DRY-FLUTE - Z Series)

Zeolite Honey Comb rotors are manufactured from a imported corrugated mineral fiber , substrate treated with a proprietary zeolite and other inorganic materials to provide physical integrity, rigidity and enough flexibility to withstand thermal stress. The HoneyComb rotor, capable of withstanding 1,100°F is not affected by corrosive substances such as strong acid and is not blocked by high boiling solvents, particulates or resinous materials. Air flow through the flutes is uniform and of low velocity, resulting in very low pressure drop (less than 1.5" w.c.). It has continuous operation, non-fluctuating outlet conditions with no adsorbent attrition and few moving parts. The rotor has low friction contact seals to prevent leakage.

Innovative Solutions for VOC Abatement over 100 successful installations in many different industrial applications, designs abatement systems to meet the individual needs of our customers.

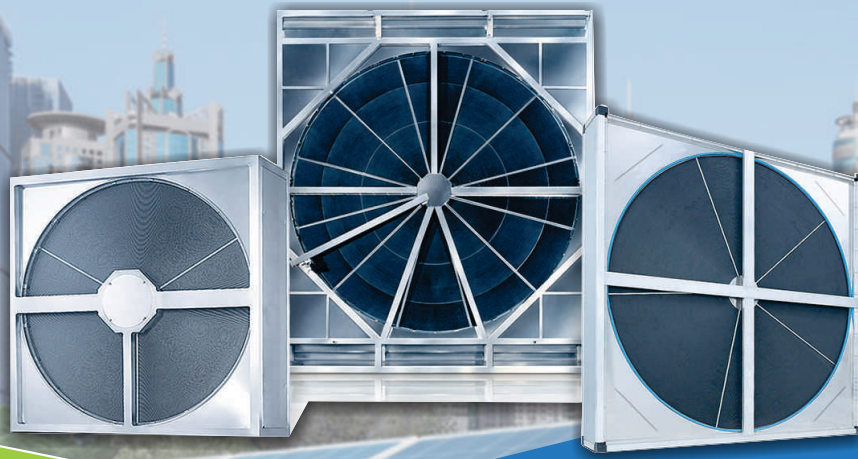


#### INDUSTRIAL APPLICATIONS

**Our experience allows Zenco to design optimal solutions for any application. Typical applications are:**

- ★ Paint Finishing
- ★ Coating Operations
- ★ Wood Finishing
- ★ Semiconductor Manufacturing
- ★ Electronics Manufacturing
- ★ Printing
- ★ Flexible Packaging
- ★ Styrene/Composites
- ★ Paint Manufacturing
- ★ Chemical Processing
- ★ Pharmaceutical Manufacturing
- ★ Ground Water Remediation
- ★ Investment Casting
- ★ Pulp & Paper
- ★ Bio filtration of VOCs is in effluent Gas using zeolite rotor.





## Molecular Sieve Rotor

### Zenco Molecular Sieve Rotor (ZENCO-DRY-FLUTE - M Series)

Zenco Molecular sieve rotor dehumidification technology is based on physical adsorption, 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, the molecular sieves 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. Therefore, no precautions are required during shutting down or restarting operation. The rotor has a high mechanical strength, and is non-combustible.

Bacteriostatic thanks to inorganic materials. most bacteria in the air passing molecular sieve rotor are killed.

The Zenco molecular sieve rotor is intended for use in dehumidifier applications where entering air is dry and/or very hot, and where the processed dry air must be even dryer.

#### **Zenco MS rotors are widely used in the following industries:**

- ★ Pharmaceutical manufacturing
- ★ Food processing and packing
- ★ Lithium battery and electronic producing
- ★ Ship manufacturing and bridge corrosion resistant
- ★ Plastic and chemical products producing
- ★ Storage and maintenance for military.

#### **Advantages**

##### **HIGH Moisture adsorption**

The density of dry media is approximately 240 kg/m<sup>3</sup>. The media can pick up approximately 40% of its dry weight as moisture in humid environment. There is no limit for how high relative humidity the rotor can stand as long as the droplets are not introduced into the rotor during operation. The Zenco MS rotor should not be exposed to a relative humidity exceeding 95% when not in operation.

##### **Fire Resistance**

The rotor media provided by zenco has been tested and achieved a flame-spread index of 0 and a smoke index 0.

##### **Water washable**

The rotors can be washed in the water when it is saturated in humid environment. The MS rotor should be washed with weak alkaline detergent.

##### **High surface strength**

The surface compression strength of the rotor is more than 200kpa.

##### **Variety in construction**

The various kind of rotor construction could be made according to the customers' requirement, such as selection of raw material of the metal parts and with or without flange etc. For the large rotors, the knockdown construction will be very convenience for transportation and assembly on site.

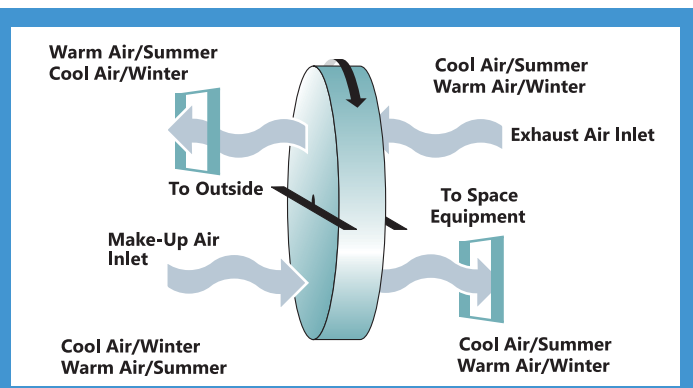




## Energy Recovery

### Zenco Energy Recovery Rotors and Cassettes

- Zenco, a well know multinational manufacturer of energy recovery equipment, has hundreds of applications and an excellent industry reputation for low price, high quality and minimum required maintenance.
- TA3 models offer industry standard 3A nonmigrating molecular sieve desiccant performance on a heavy duty aluminum substrate specifically developed for the US market.
- Welded spoke structure maintains tolerance.
- No maintenance internal bearings
- Low cost for industrial and commercial applications
- 4 week lead time
- Standard sizes to 3.5 meter diameter - larger diameters available
- Standard depths of 100 and 200mm
- Standard flute height of 1.7-1.9 mm offers high capacity and low pressure drop
- Available in non standard sizes
- Complimentary performance software program (Zencoselect)



#### Advantages

##### The Source of High Capacity Energy Recovery

- ★ Industry Standard 3A Molecular Sieve offers high capacity and water selective absorption
- ★ Smooth Face ensures close seal tolerance and minimizes leakage

##### The Source of a Rigid Structure

- ★ Oversized shaft and bearings ensure long life and maximum rigidity
- ★ Welded, heavy gauge, interior spokes provide for maximum rigidity at hub and outer band, minimizing operating run out of rotor.
- ★ Heavy gauge cassette and center post resists flex from operating air pressures. Rigid cassette structure ensures low leakage at higher air velocities by maintaining seal clearance

##### The Source of design and application flexibility

- ★ 16 standard sizes - the right size rotor for a wide spectrum of air volumes
- ★ 16 different cassette configurations from one standard "universal" cassette for maximum design flexibility
- ★ Single and three phase motors for all sizes - the right voltage for the application
- ★ Adjustable purge section on all sizes





# Rotor Recores / Replacement / Restoration

## Our rotor recores will improve your desiccant rotor performance

1. Is your rotor deteriorated?
2. Send us the frame from any desiccant rotor manufacturer.
3. Zenco will recore with new, highly durable desiccant dehumidification media, tailored
4. We will return a product ready to insert back into your desiccant dehumidifier.

### Desiccant Media Options

Hygromedia Silica Gel for use in most environments and desiccant cooling applications.

Hygromedia Molecular Sieve for use when the inlet air is hot or dry, alkaline environments, or for low dewpoint applications.



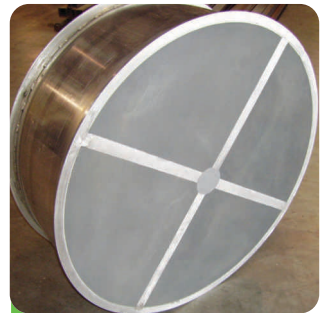
**Step 1**  
Removal of old cores of desiccant



**Step 2**  
Manufacturing of frame or Repairing of old frame



**Step 3**  
Desiccant core design & Preparation



**Step 4**  
Restoration & assembly of Desiccant Rotor

### ZENCO-DRY-FLUTE-ROTOR SPECIFICATIONS AND DESIGN

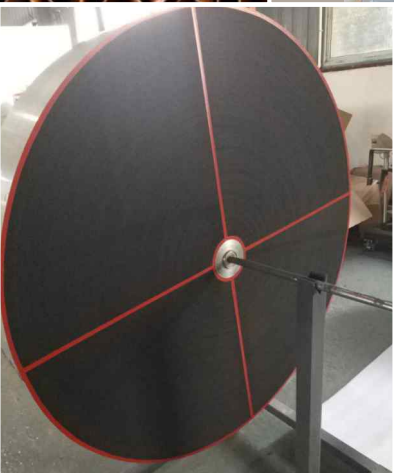
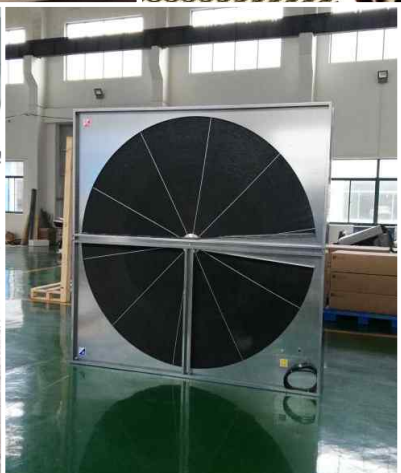
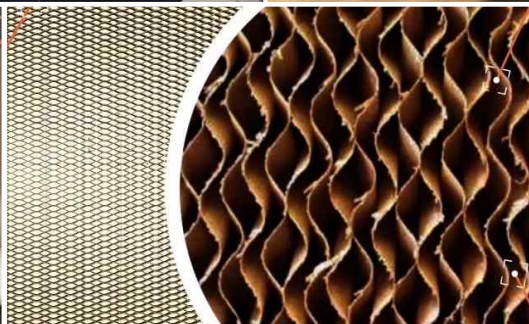
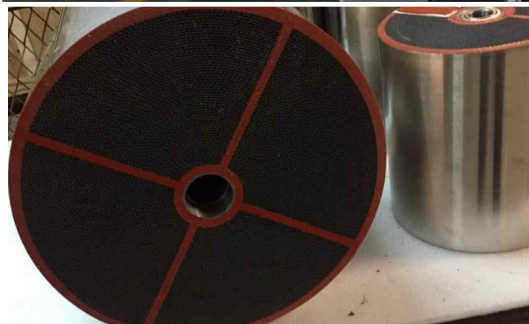
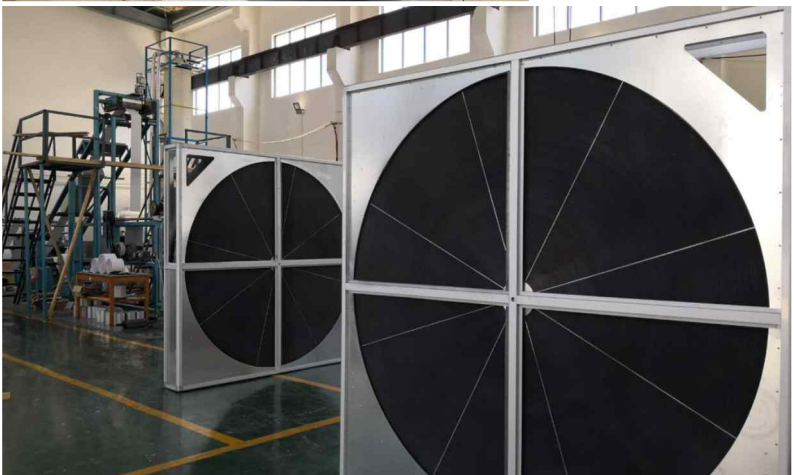
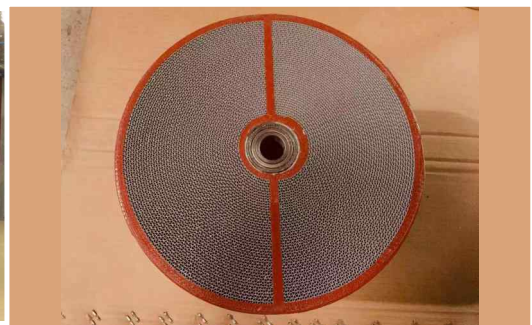
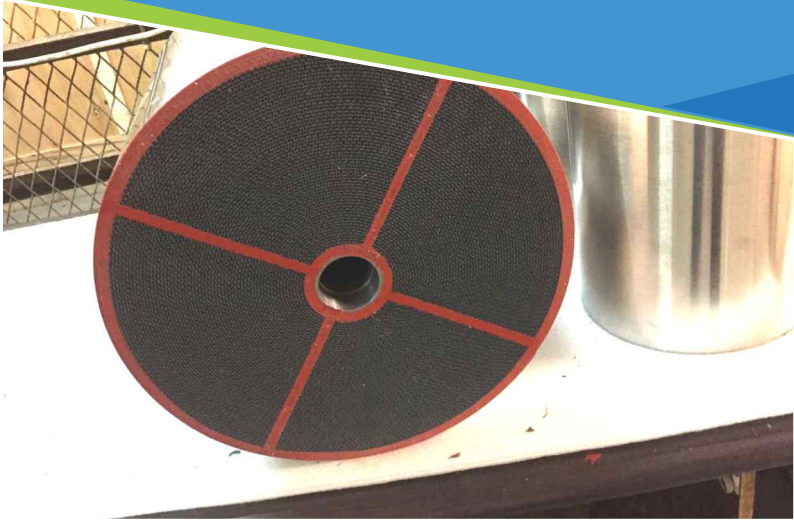
Diameter (mm)	Available Depth (mm)	Shaft Diameter (mm)	Split type for assembly on site	CASSESTE AVAIL
180-600	50,100,200	20	NO	YES
600-1200	200,300,400	20	NO	YES
1220-2200	200,300,400	30	YES	YES
2200-3050	200,300,400	30	YES	YES

Note: the above could be customized according to customers' requirement.



ZENCO-DRY-FLUTE™

# ZENCO-DRY-FLUTE™ Rotor Product Gallery





## ZENCO-DRY-FLUTE™

### WHY CHOOSE US ?

- Proven High Dehumidification performance.
- Competitive pricing in the industry.
- 100% Indigenous and short manufacturing lead time.
- Export quality rigid packing.
- Longer service life.
- Customized design of rim and rotor cores and bearing hub.
- Cassette can be designed for export electrical rating as per client specification.
- One stop solution for all types of rotor replacements of any make in the industry.

Ask for SAMPLE  
CALL :  
**+91 08689928105**

### Zenco Industries

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