



Hygro dehumidification solutions can deliver consistent and precise environmental control to meet the demanding specifications required throughout all the production steps in your plant. Each area and chemistry may demand different specifications. In order to fully understand your specific needs, a complimentary Site Review with the customer, Consultant, contractor or engineer and Hygro engineer is a good first step.

At HYGRO, we are more than a manufacturer. We are Humidity problem solving professionals who take the time to understand your requirements.



HYGRO TECH ENGINEERS

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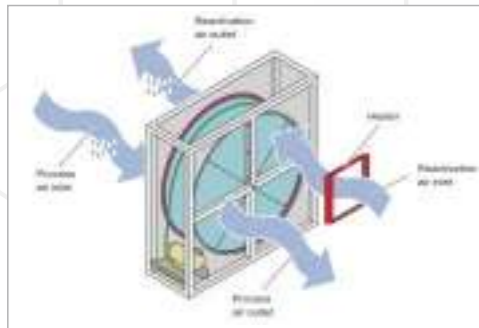


Your Partner in Optimizing the Best Solution



MOISTURE PROBLEM...???

THINK HYGRO TECH...!!!



ABOUT US

HYGRO TECH ENGINEERS established in the year 2000, arrived to treat moisture problems, Hygro Tech is an application company involved in air control and stimulation to sustain the desired environment.

HYGRO TECH ENGINEERS are specialists in humidity control with an extensive range of products and services that help our customers achieve their performance and production goals.

Hygro Tech Engineers has two decades of experience in Design, manufacturing, supply & service of customised products to treat moisture & temperature problems in various industries across the South Asian countries.

We have provided hundreds of industrial products to treat moisture in industries defined by manufacturing lead acid battery, lithium battery, pharmaceutical industry, food & beverage industries, electronic industry, Tobacco industry, automotive, aviation, Defence, Government institutions, R&D and many more.

Hygro is specialized in Drying of various products in a most suitable manner under desired conditions.

HYGRO PRODUCTS

- Desiccant Dehumidifiers
- Dry Rooms
- Industrial Ovens
- Product Drying Chambers
- Dry Cool Dehumidifiers
- Wood Drying Kilns
- Refrigeration Dehumidifiers
- Seed Box Dryer
- Battery Plate curing and Drying chamber
- Dry Rooms for Lithium Battery Manufacturing
- Dry Rooms for Low Dew Point Applications
- Customized Dry Cabinets
- Anti- Grid Aging Ovens
- Epoxy Curing Conveyor Ovens
- Grid Aging Ovens
- Battery Test Ovens
- Plate Drying Ovens
- Flash Drying Ovens
- Specialized Ovens for Extended Plates
- Control Atmosphere Chamber
- Heating Chamber
- Flash Drying Ovens
- Gas Purification System
- Environliners

HYGRO DESICCANT DEHUMIDIFIERS

All HYGRO dehumidifiers provides efficient and consistent humidity control regardless of the ambient or outdoor conditions, ensuring consistent conditions for manufacturing all year round using our Hygro Desiccant Dehumidifiers with two air streams pass simultaneously through two sectors of the desiccant rotor. One air stream is dehumidified to the required humidity level. The other air stream dries the rotor so it can adsorb moisture again and this accumulated moisture is then exhausted to a atmosphere.

Hygro desiccant dehumidification systems are designed with innovative energy recovery to minimize operating costs of the customer.

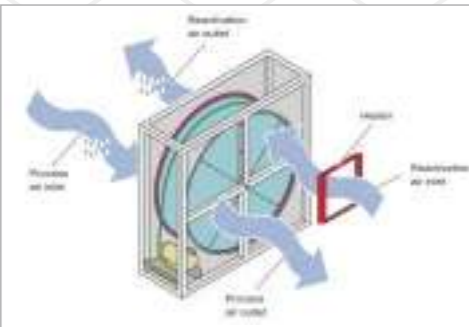
We deliver cost effective solutions at the highest quality level and our systems are designed according to your requirements.

Advantages of Hygro Dehumidifiers

- High efficiency and reliability
- High moisture removal
- A Totally self-contained unit
- Patented Desiccant Rotor
- Rotor is non-flammable & water washable
- Necessary controls and safeties provided
- PLC with HMI display
- Easy to Install
- Easy to Operate
- Easy to maintenance
- Custom Built

OPTIONS including but not limited to.

- High Performance Molecular sieve (Low RH)
- High Performance Metal silicate (High RH)
- Stainless steel construction
- Desiccant Hygienic Rotor
- Desiccant cooling
- Rotary Heat Exchanger
- Multiple choices of reactivation heat sources like electrical steam etc
- Various mounting and installation options are available
- More customization on engineered dehumidifiers
- Customized Dehumidifiers drying chambers for product drying applications.



HYGRO COMPACT DEHUMIDIFIERS

- A Totally Self-Contained Unit
- Compact Dehumidifiers can be installed above the false ceiling eliminating the need for floor space.
- Hygro Compact Dehumidifiers are simple and easy to Operate, Install & maintenance Options



- Multiple mounting & Installation Options
- RH Controller with display unit
- Hygro Compact Dehumidifiers are having unique design which will be compatible for any places for many purposes.
- Hygro Compact Dehumidifiers deals with immense application
- Suitable for Continuous Operations.

Hygro Compact Dehumidifier Models	Process Air Flow CFM	Reactivation Air Flow CFM	React Heater KW	Total Load KW	Power Required	Approx weight in kgs
HDP P-320	200	65	4.5	5.3	415/ 3 /50	168
HDP P-630	400	130	9	9.75	415/ 3 /50	180
HDP P-1100	700	230	12	13.5	415/ 3 /50	245
HDP P-1550	1000	330	18	20.5	415/ 3 /50	313
HDP P-2100	1400	460	24	26.3	415/ 3 /50	325
HDP P-3100	2000	660	36	40	415/ 3 /50	600

*Above dehumidifier models can be customized as per customer requirement

*All data subject to change without notice

INDUSTRIAL DESICCANT DEHUMIDIFIERS

- Pre cooling (DX/Chilled water coil)
- Post cooling (DX/ Chilled water coil)
- PLC Controlled HMI display
- Hygro Industrial dehumidifiers have multiple choice of reactivation heat source:- Electrical, Steam, Thermal Fluid, Direct / Indirect fired gas
- Data Logging Facility
- Inbuilt Bypass Facility
- Suitable for Low Dew Point Applications
- LAN Facility
- BMS Compatibility



Hygro Dehumidified Air Handling Units (D-AHU)	Process Air Flow CFM	Reactivation Air Flow CFM	React Heater KW	Total Load KW	Power Required
HDP E-1100	700	230	12	13.5	415/ 3 /50
HDP E-1550	900	300	18	20	415/ 3 /50
HDP E-2100	1400	460	24	26.3	415/ 3 /50
HDP E-3100	2000	660	36	40	415/ 3 /50
HDP E-4300	2500	830	42	45.7	415/ 3 /50
HDP E-5200	3100	1033	52.5	57.7	415/ 3 /50
HDP E-6300	3700	1200	66	70	415/ 3 /50
HDP E-7700	4500	1500	78	83	415/ 3 /50
HDP E-9200	5400	1800	94.5	104	415/ 3 /50
HDP E-10900	6200	2100	114	120	415/ 3 /50
HDP E-20900	12300	4100	252	275	415/ 3 /50

*All Engineering models above 1000 CMH can be customized by Introducing purge sector for reactivation process for energy saving option.

*Above 20900 CMH all units are customized as per the requirement.

HYGRO DRY ROOMS

Low Dew Point Humidity Control for Battery Production to Ensure high quality and consistency for manufacturing and R&D of the latest battery technologies. Battery research and production requires strictly controlled ultra-low humidity levels in order to ensure process consistency and maximize quality, cycle life, storage capacity and production yield.

Hygro Tech Engineers expertise provides low dew point solutions to meet the demanding performance requirements for battery dry rooms with optimum energy recovery to reduce the customer's energy requirement

Battery Manufacturing Challenges

- Achieving ultra-low dew point conditions (-30° to -55° C or -22° to -67° F dew point)
- Maintaining consistent conditions through personnel challenges
- Maintaining consistent conditions while equipment operates and head loads fluctuate
- Maintaining consistent conditions through seasonal ambient conditions
- Ensuring stable positive pressure
- Minimizing equipment footprint and energy consumption

Benefits Of Hygro Dry Rooms

- Maximizes operational flexibility by meeting performance 24/7, during all seasons, all production modes and varying numbers of personnel
- Precise control of humidity and temperature to ensure high quality, repeatable products
- Consistent low dew point improves cycle life, product yield and storage capacity
- Special low dew point desiccant and purge design saves 30 to 35% on energy requirements and minimizes operational costs.
- Compact, energy-efficient system reduces footprint
- Turnkey Project

Battery Processes Requiring Low Dew Point Conditions

- Slurry Mixing
- Electrode Coating/Drying
- Electrode Stamping/Punching
- Electrode Stacking/Winding
- Cell Assembly
- Laser Welding
- Vacuum Drying
- Electrolyte Filling
- Battery Sealing
- Aging and Formation



