

# Dawn of a New Era in Dehumidification

Bidding farewell to Silica Gel Rotors after 35 years

Just Launched

THE GAME CHANGER

**Bry-Air**  
**P80°<sup>x</sup> Dehumidifier**

with

**P**  
for Pharma



Powered by

Nobel Prize-Winning 'MOF' Technology



**A boon for the Pharma Industry**

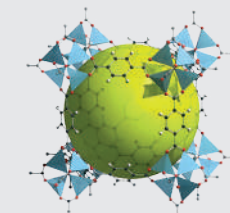
Higher Performance | Lower Energy Cost | Quicker Pay-Back Period

# The Game Changer has just arrived... experience the benefits of MOF

## **P80<sup>x</sup>** *Bry-Air*<sup>®</sup> Dehumidifier

**P** for Pharma

with **Next Gen Rotor**



### Metal-Organic Frameworks (MOFs)

MOFs are crystalline porous materials composed of metal ions and organic linkers that can be engineered into application-specific rotors for efficient water adsorption.

### Redefining Dehumidification

For over three decades, the world relied on Silica Gel as the most viable desiccant for dehumidification. That era has now given way to MOFs (Metal-Organic Frameworks)—ultra-porous materials with dedicated molecular structures that unlock unprecedented drying performance, energy saving, and sustainability.

Bry-Air has just launched with pride the new generation of P80<sup>x</sup> Dehumidifiers for the Pharma industry, powered by the MIRACLE Next-Gen Rotor, built on this revolutionary MOF technology.

The pathbreaking MOF technology is just the beginning of many more game changers to come. It's time to take off and stay ahead.



### Outstanding features

- Stainless Steel Welded Frame
- Vapour Tight Construction – SMACNA class 6
- Zero Leakage – Minimum air egress/ingress
- FDA and CGMP Compliant
- Robust Structural Design

**Performance Enhanced**  
**> 25%**

#### Unmatched Performance

The enhanced porosity means higher adsorption capacity, which in turn results in over 25% better performance.

**Energy Saved**  
**> 50%**

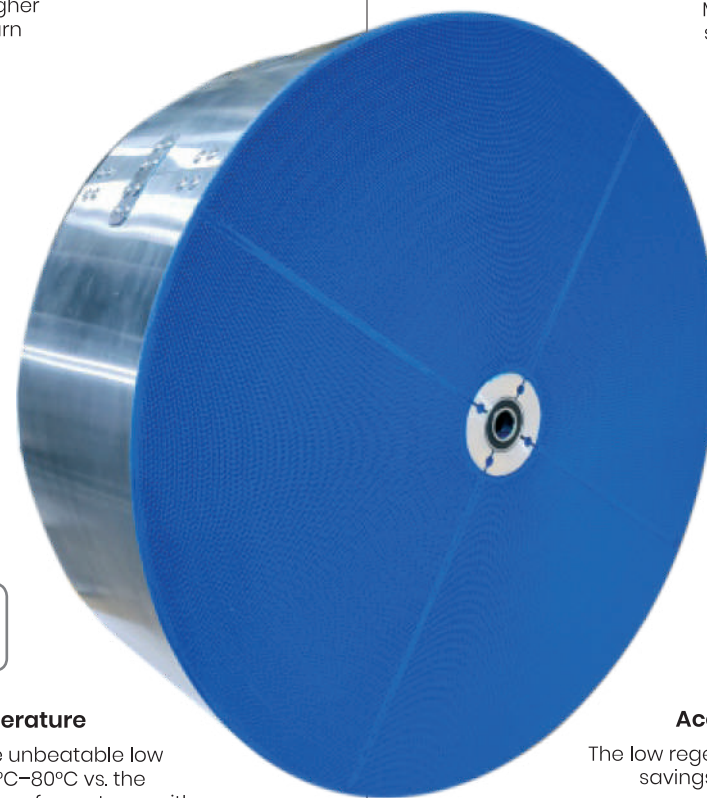
#### Unbelievable Energy Saving

The low regeneration temperature results in over 50% energy saving and very high reduction in operating costs.

**Regeneration**  
**at 60°C–80°C**

#### Unbeatable Regeneration Temperature

What makes P80<sup>x</sup> Dehumidifier unique is the unbeatable low temperature of its regeneration sector (60°C–80°C vs. the conventional 120°C–140°C). This also paves the way for systems with an integrated heat pump and net zero processing, if required. Low temperature reactivation significantly reduces the risk profile for fire hazards in pharmaceutical clean room settings.



**Silica Gel replaced by**

**MOF Adsorbent Core**

#### MOFs: Revolutionizing Dehumidification

MOFs are setting new standards with their ultra-porous structures, delivering superior drying, energy efficiency, and sustainability.

**Medically Hygenic**

**Bacteriostatic, Anti-fungal**

#### High Pharma Standards

Specially treated to meet cleanliness and hygiene standards of the Pharma Industry. It is bacteriostatic and prevents fungal growth.

**Pay-back Period**

**Shorter**

#### Accelerated ROI with Energy Savings

The low regeneration temperature ensures over 50% energy savings and a significantly faster payback period.

## Why Bry-Air?



Over 60 years experience in desiccant dehumidification



Fastest growing adsorption technology group in the world



Partnering the pharmaceutical industry for over 6 decades



BryCare Service, best in the industry



9 R&D Labs, 114 total active patent applications



Worldwide network



# Dehumidifier Range Customised for the Pharma Industry



**P80°x  
Dehumidifier**



**P95°x  
Dehumidifier**



**FLP series  
Dehumidifier**



**Compact Dehumidifier**  
170 CMH to 4500 CMH

## Specification ... Process Airflow 1000 CMH to 25000 CMH

MODEL	PROCESS AIR FLOW CMH	PROCESS ESP (P.A.)	PROCESS MOTOR (KW)	REACT AIR FLOW CMH	REACT MOTOR (KW)	REACT HEATER (KW)*	POWER REQUIRED**
P80°x-1000	1000	300	1.1	333	0.37	6	415/3/50
P80°x-1500	1500	300	1.1	500	0.75	9	415/3/50
P80°x-2000	2000	300	1.5	667	1.1	12	415/3/50
P80°x-2500	2500	300	1.5	833	0.75	14	415/3/50
P80°x-3000	3000	300	2.2	1000	0.75	18	415/3/50
P80°x-4200	4200	300	3.7	1400	1.1	24	415/3/50
P80°x-5000	5000	300	2.2	1667	1.1	28	415/3/50
P80°x-6200	6200	300	3.7	2067	1.5	35	415/3/50
P80°x-7300	7300	300	3.7	2433	1.5	42	415/3/50
P80°x-8000	8000	300	3.7	2667	1.5	45	415/3/50
P80°x-9000	9000	300	3.7	3000	2.2	50	415/3/50
P80°x-10500	10500	300	3.7	3500	2.2	58	415/3/50
P80°x-12500	12500	350	7.5	4167	3.7	69	415/3/50
P80°x-15000	15000	350	7.5	5000	3.7	83	415/3/50
P80°x-20000	20000	350	11	6667	7.5	112	415/3/50
P80°x-25000	25000	350	11	8333	7.5	138	415/3/50

\* Heater design voltage is 210 VAC, React ESP is 250 Pa

\*\* Other voltages available are 200/220/240/415/440/460 V AC, 3Ph, 50/60 Hz

## Other Product Divisions

**Gas Phase Filtration**  
for removal of Corrosive & Odorous Gases

**Plastic Auxiliaries**  
for Drying, Conveying, Blending, Heating, Cooling and Mould Dehumidification

**Dry Rooms**  
Critical for Lithium Battery Production

**Adsorption Chiller**  
use low grade waste heat for Energysmart Green Cooling

**High Temperature Heat Recovery Wheel**

## Unlimited Applications for the Pharma Industry

- Ampoule Manufacturing
- Capsule Drying (Soft & Hard Gelatin)
- Effervescent Manufacturing
- Liver Extract Processing
- Serums Processing
- Glandular Product Manufacturing
- Animal Room
- Capsule Storage
- General Pharmaceutical Production
- Micro Analysis Laboratories
- Storage of Anti-Alpha Drugs
- Finished Powder Manufacturing & Packing Areas
- Biological Manufacturing
- Cough Drop Manufacturing
- Gelatin Drying
- Milling Rooms
- Storage of Powders & Tablets
- Cryogenic Cylinder Storage/Manufacturing
- Biomedical Dry Rooms
- Cough Syrup Manufacturing
- Gelatin Powder Processing
- Penicillin Packaging
- Tablet Coating
- Colloid Manufacturing
- Diagnostic Reagent Powders
- Vial Filling
- Powder Storage
- Tablet Compression



Leaders in Dehumidification... Worldwide

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