

# DESICCANT COMPRESSED AIR DRYERS

Heated Blower Purge; Heated; Heatless

3 - 10,000+ scfm







# CLEAN, DRY COMPRESSED AIR IS ESSENTIAL

Sullair Desiccant Compressed Air Dryers are engineered for the most critical applications — providing dry compressed air where you need it most.

Compressed air contamination such as water, dust, bacteria, microorganisms and industrial acids can ruin product and foul processes. Removing it is essential to help protect your downstream equipment and reduce maintenance cost and downtime.

Ideal for applications requiring extremely low dew point -40°F/-40°C (-100°F/-73°C optional)

## REGENERATION METHODS

#### **Heatless**

Uses roughly 15% of process air during the regeneration process

Heatless dryers divert a small amount of dried process air from the drying vessel to regenerate the opposite vessel.

Uses roughly 7% of process air during the regeneration process

Heated dryers use an additional heat source—reducing process air loss during the regeneration process. The additional heat source helps enhance the drying and regeneration process while saving energy.

## **Heated Blower Purge**

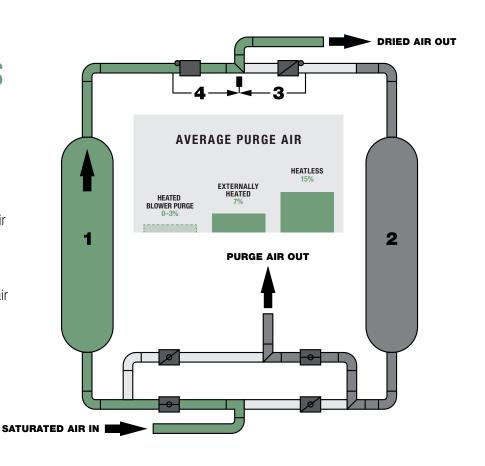
Uses roughly 0-3 % of process air during the regeneration process

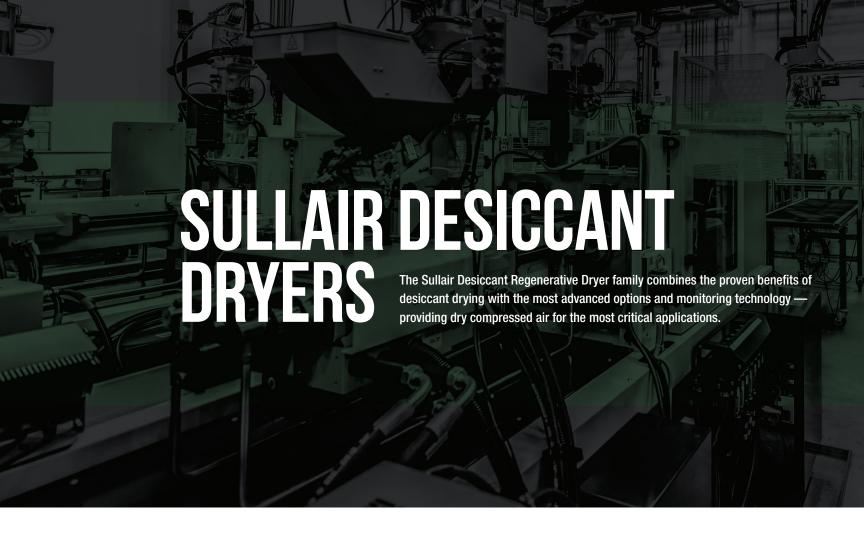
Heated Blower Purge Dryers use a combination of an additional heat source, air from a blower and little to no process air. The three-tiered method helps optimize drying and regeneration processes while reducing energy consumption — maximizing energy cost savings over the lifecycle.

# **HOW DESICCANT DRYING WORKS**

Sullair Desiccant Dryers have a dual tower design in which both vessels are filled with desiccant material.

- 1. Saturated, compressed air passes through vessel one where the desiccant adsorbs moisture lowering the dewpoint to expel dry compressed air\*
- 2. Once vessel one reaches a set level of saturation, the air switches to pass through vessel two
- **3.** While the air is passing through vessel two, vessel one dries and regenerates the desiccant material
- 4. When vessel two reaches a set level of saturation, the air switches to pass through vessel one









# SULLAIR DESICCANT COMPRESSED AIR DRYERS ARE AVAILABLE IN THE FOLLOWING CONFIGURATIONS:

- **DBP Series Heated Blower Purge** 500 to 10,000+ scfm
- DEX Series Externally Heated 200 to 3500 scfm
- DHL Series Heatless 80 to 5000 scfm
- DP Series Heatless Premium 80 to 2800 scfm
- D Series Heatless 80 to 800 scfm
- DMD Series Modular 3 to 240 scfm



# **DBP SERIES**

# DESICCANT HEATED BLOWER PURGE REGENERATIVE DRYERS 500 – 10,000 scfm

- Direct drive blower and in-line heater
  - Helps optimize drying and regeneration process
  - Helps save energy costs
- 7" Color Desiccant Touch Screen (DTS) Controller for reliable control wherever you are
  - Remote connectivity via PROFINET
- -40°F/-40°C dew point performance
  - -4°F/-20°C can be user selected from controller
- NEMA 12
- High-quality valves, actuators and air distribution schemes help provide worry-free performance tailored to your application
- Engineered to stand up to harsh environments
  - Rugged frame with forklift pockets for easy transit and installation
- Alarm systems designed to help reduce downtime with easy detection and diagnostics

- Demand cycle control with digital dew point monitor
- Remote communication enhancements
  - PROFIBUS
  - Tank-mounted temperature gauge
  - Inlet/outlet pressure gauge
- Failure to switch pressure alarm
- Pre-mounted filters
- 3-valve and 9-valve duplex filter bypass options
- Robust enclosure options:
  - NEMA 4
  - NEMA 4 stainless steel
  - NEMA 7 Class1, Div II Group C & D electrical enclosure
- Subzero & low ambient package options
- Tank insulation with safety jacket
- Optional voltages
  - **575/3/60**
  - **380-400/3/50**
- Stainless steel control air tubing
- High-pressure design 200, 250 and 300 psi
- Fusible disconnect for NEMA 1 (indoor) and NEMA 4X (outdoor)
- Visual moisture indicator





# **DEX SERIES**

# DESICCANT EXTERNALLY HEATED REGENERATIVE DRYERS 200 – 3500 scfm

- In-line heater
  - Helps save energy costs
- 7" Color DTS Controller for reliable control wherever you are
  - Remote connectivity via PROFINET
- -40°F/-40°C dew point performance
  - -4°F/-20°C can be user selected from controller
- NEMA 12
- High-quality valves, actuators and air distribution schemes help provide worry-free performance tailored to your application
- Engineered to stand up to harsh environments
  - Rugged frame with forklift pockets for easy transit and installation
- Alarm systems designed to help reduce downtime with easy detection and diagnostics

- Demand cycle control with digital dew point monitor
- Remote communication enhancements
  - PROFIBUS
  - Tank-mounted temperature gauge
  - Inlet/outlet pressure gauge
- Failure to switch pressure alarm
- Pre-mounted filters
- 3-valve and 9-valve duplex filter bypass options
- Robust enclosure options:
  - NEMA 4
  - NEMA 4 stainless steel
  - NEMA 7
- Subzero & low ambient package options
- Tank insulation with safety jacket
- Optional voltages
  - **575/3/60**
  - **380-400/3/50**
- Stainless steel control air tubing
- High-pressure design 200, 250 and 300 psi
- Fusible disconnect for NEMA 1 (indoor) and NEMA 4X (outdoor)
- Visual moisture indicator





- Advanced operating interface for ease of use and simple plant system integration
  - WindEDIT App
  - Embedded Ethernet port
  - Embedded SD memory port
  - Modbus TCP and RTU
  - Embedded RS232C/RS485 user selectable
  - Data logging
  - Web Server Functions



# **DHL SERIES**

# DESICCANT HEATLESS REGENERATIVE DRYER 80 – 5000 scfm

- Easy-access 4.3" PLC color touch screen controller
- Completely automatic operation
- NEMA 4
- High-performance, stainless steel angle body valves with PTFE seals help reduce air leakage (80–600 scfm)
- Field adjustable timer cycle, 6, 10, or 15 minutes
- Pre-piped and mounted pre-filter and after filter
- Fail-safe design in case of power failure
- Safety alarms

- Pneumatic control timer eliminates need for electric power
- NEMA 4x and NEMA 7
- High pressure design up to 10,000 psig
- Demand cycle control
- Optional voltage
  - **208**, 220, 230/1/60
  - **208**, 220, 230/1/50
- High dewpoint alarm
- Failure to switch pressure alarm
- -100° F pressure dew point
- Special finishes for harsh environments



# **DP SERIES**

# PREMIUM DESICCANT HEATLESS REGENERATIVE DRYERS 80 – 2800 scfm

- 3.8" DTS Controller for maximum efficiency
  - Condition monitoring for ease of operation
  - Energy Management System
  - Humidity sensor helps reduce purge air and energy consumption
  - Optional dew point sensor
- -40°F/-40°C dew point performance
  - Optional -100°F/-73°C
- Built for simplified maintenance and service with open frame design and histogram
- Engineered to stand up to harsh environments
- High performance angle body valves with PTFE seals help reduce air leakage
  - Reduced maintenance costs with service kits
- Minimized noise via exhaust valve speed control

- Smart condition-based switching for ease of operation
- Easy touch screen access to maintenance & operational data including histogram

- Dew point monitor display
- Failure to switch pressure alarm
- Delta pressure filter alarm with gauge
- Webpage with data log
- Pneumatic controls
- Pre-piped filters with 3-valve bypass



# **D SERIES**

# DESICCANT HEATLESS REGENERATIVE DRYERS 80 – 800 scfm

- LED Desiccant Controller (DC) with dryer schematic
- -40°F/-40°C dew point performance
- Built for simplified maintenance and service
- High performance angle body valves with PTFE seals help reduce air leakage
  - Reduced maintenance costs with service kits
- Minimized noise via exhaust valve speed control

## **Options**

Pre-piped filters with 3-valve bypass



# **DMD SERIES**

## **DESICCANT MODULAR REGENERATIVE DRYERS** 3 - 240 scfm

- Compact design
- Inlet and purge manifold design for low pressure drop
- Mini PLC monitor
- Completely automatic
- Point-of-use placement

- Pre- and after-filter (shipped loose)
- Mounted filters with 3-valve bypass
- Visual moisture indicator
- Energy efficient demand cycle control with dew point monitor
- Dew point monitor
- -4°F (-20°C) or -100°F (-73°C) pressure dew point



For more than 50 years, Sullair has been on the leading edge of compressed air solutions. We were one of the first to execute rotary screw technology in our air compressors, and our machines are famous all over the world for their legendary durability. As the industry moves forward, Sullair will always be at the forefront with quality people, innovative solutions, and air compressors that are built to last.

Sullair was founded in Michigan City, Indiana in 1965, and has since expanded with a broad international network to serve customers in every corner of the globe. Sullair has offices in Chicago and manufacturing facilities in the United States and China — all ISO 9001 certified to ensure the highest quality standards in manufacturing. In addition, the Sullair Suzhou facility is ISO 14001 and OHSAS 18001 certified.

Sullair is A Hitachi Group Company



These are the pillars that drive the quality of Sullair compressed air solutions. It's a promise we keep with every machine we make.

# RELIABILITY

Customers who work with Sullair have found that the intangibles make all the difference—things like trust, confidence, and peace of mind. They go to work every day having full faith in their equipment, as well as the knowledge that dedicated distributors and Sullair personnel have their back every step of the way.

# **DURABILITY**

Bulletproof. Built to last. However you spin it, Sullair compressed air solutions are in it for the long haul, driven by innovative designs pioneering the air treatment industry. And ready to stand the test of time.

# **PERFORMANCE**

Sullair is constantly innovating to improve our compressed air solutions. For our compressed air treatment line, this means more energy efficiency. With air treatment being a vital part of your entire compressed air system, Sullair is committed to helping you protect your equipment and manage your operating expenses.

# D SERIES DESICCANT HEATLESS REGENERATIVE DRYERS



#### FREQUENCY: 60 Hz & 50 Hz

| Model # | Flow Rate<br>(scfm) | Connection Size<br>(NPT) | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Empty Weight<br>(lbs) | Total Fill Weight<br>(lbs) |
|---------|---------------------|--------------------------|----------------|---------------|---------------|-----------------------|----------------------------|
| D80     | 80                  | 3⁄4″                     | 54             | 37            | 21            | 232                   | 364                        |
| D100    | 100                 | 1″                       | 68             | 38            | 23            | 295                   | 462                        |
| D120    | 120                 | 1″                       | 64             | 38            | 23            | 296                   | 463                        |
| D160    | 160                 | 1¼″                      | 68             | 40            | 26            | 320                   | 582                        |
| D200    | 200                 | 1¼″                      | 68             | 40            | 26            | 320                   | 582                        |
| D250    | 250                 | 1½″                      | 69             | 44            | 30            | 413                   | 797                        |
| D300    | 300                 | 1½″                      | 69             | 44            | 30            | 412                   | 796                        |
| D400    | 400                 | 2″                       | 71             | 48            | 34            | 594                   | 1133                       |
| D500    | 500                 | 2″                       | 73             | 53            | 36            | 717                   | 1432                       |
| D650    | 650                 | 2½″                      | 73             | 56            | 40            | 871                   | 1788                       |
| D800    | 800                 | 2½″                      | 71             | 61            | 43            | 925                   | 2039                       |

|                         |   | CAPA | ACITY CORRECT | ION FACTORS FO | OR DIFFERING OF | PERATING PRESS | SURE |      |      |     |  |  |  |  |
|-------------------------|---|------|---------------|----------------|-----------------|----------------|------|------|------|-----|--|--|--|--|
| Operating Pressure psig | Operating Pressure psig         60         70         80         90         100         110         120         130         140         150 |      |               |                |                 |                |      |      |      |     |  |  |  |  |
| Correction Factor       | 0.65  | 0.74 | 0.82          | 0.91           | 1               | 1.09           | 1.17 | 1.22 | 1.25 | 1.3 |  |  |  |  |

|                                      | CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |      |     |      |      |      |      |  |  |  |  |  |  |  |
|--------------------------------------|--|------|-----|------|------|------|------|--|--|--|--|--|--|--|
| Inlet Air Temperature ${}^\circ\! F$ | 90   | 95   | 100 | 105  | 110  | 115  | 120  |  |  |  |  |  |  |  |
| Correction Factor                    | 1.07   | 1.04 | 1   | 0.92 | 0.84 | 0.77 | 0.70 |  |  |  |  |  |  |  |

#### Air flow capacity = Operating pressure x Inlet air temperature

Standard outlet pressure dew point  $^{\circ}\!F$  -40 Standard operating voltage 115V/1PH

Pre- and post-filtration recommended

Pre-filtration grade μm.01Post-filtration grade μm1

**cULus** control panel

IP-55

**ASME approved vessels** 

CRN approved vessels available. For more details, contact your Sullair Sales Representative.

Min/max inlet air temperature  $^{\circ}F$ 40/120Min/max operating pressure psig60/150Average purge air\*15%





<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.

<sup>\*\*</sup> Base model weight and dimensions reflected--does NOT include filter and bypass

# DP SERIES PREMIUM DESICCANT HEATLESS REGENERATIVE DRYERS



#### FREQUENCY: 60 Hz & 50 Hz

| Model # | Flow Rate<br>(scfm) | Connection Size | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Empty Weight<br>(lbs) | Total Fill Weight<br>(lbs) |
|---------|---------------------|-----------------|----------------|---------------|---------------|-----------------------|----------------------------|
| DP80    | 80                  | 3/4" NPT        | 54             | 37            | 21            | 251                   | 383                        |
| DP100   | 100                 | 1″ NPT          | 68             | 38            | 23            | 314                   | 481                        |
| DP120   | 120                 | 1″ NPT          | 64             | 38            | 23            | 315                   | 482                        |
| DP160   | 160                 | 1¼″ NPT         | 68             | 40            | 26            | 339                   | 601                        |
| DP200   | 200                 | 1¼″ NPT         | 68             | 40            | 26            | 339                   | 601                        |
| DP250   | 250                 | 1½″ NPT         | 69             | 44            | 30            | 433                   | 817                        |
| DP300   | 300                 | 1½″ NPT         | 69             | 44            | 30            | 432                   | 816                        |
| DP400   | 400                 | 2" NPT          | 71             | 48            | 34            | 613                   | 1152                       |
| DP500   | 500                 | 2" NPT          | 73             | 53            | 36            | 736                   | 1451                       |
| DP650   | 650                 | 2½" NPT         | 73             | 56            | 40            | 892                   | 1809                       |
| DP800   | 800                 | 2½" NPT         | 71             | 61            | 43            | 944                   | 2058                       |
| DP1000  | 1000                | 2½" Flange ANSI | 90             | 66            | 30            | 1490                  | 2650                       |
| DP1200  | 1200                | 2½" Flange ANSI | 91             | 66            | 32            | 1792                  | 3192                       |
| DP1500  | 1500                | 3" Flange ANSI  | 90             | 72            | 39            | 2814                  | 4654                       |
| DP1900  | 1900                | 3" Flange ANSI  | 96             | 72            | 39            | 2814                  | 5054                       |
| DP2300  | 2300                | 4" Flange ANSI  | 103            | 78            | 45            | 4168                  | 7428                       |
| DP2800  | 2800                | 4" Flange ANSI  | 103            | 78            | 45            | 4168                  | 7428                       |

|                         |      | CAPA | ACITY CORRECT | ION FACTORS FO | R DIFFERING OF | PERATING PRES | SURE |      |      |     |
|-------------------------|------|------|---------------|----------------|----------------|---------------|------|------|------|-----|
| Operating Pressure psig | 60   | 70   | 80            | 90             | 100            | 110           | 120  | 130  | 140  | 150 |
| Correction Factor       | 0.65 | 0.74 | 0.82          | 0.91           | 1              | 1.09          | 1.17 | 1.22 | 1.25 | 1.3 |

|                                      | CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |      |     |      |      |      |      |  |  |  |  |  |  |  |
|--------------------------------------|--|------|-----|------|------|------|------|--|--|--|--|--|--|--|
| Inlet Air Temperature ${}^\circ\! F$ | 90   | 95   | 100 | 105  | 110  | 115  | 120  |  |  |  |  |  |  |  |
| Correction Factor                    | 1.07   | 1.04 | 1   | 0.92 | 0.84 | 0.77 | 0.70 |  |  |  |  |  |  |  |

#### Air flow capacity = Operating pressure x Inlet air temperature

Standard outlet pressure dew point  $^{\circ}\!F$  -40 Optional outlet pressure dew point  $^{\circ}\!F$  -100 Standard operating voltage 115V/1PH

Pre- and post-filtration recommended

Pre-filtration grade μm.01Post-filtration grade μm1

**cULus** control panel

NEMA 4

**ASME** approved vessels

CRN approved vessels available. For more details, contact your Sullair Sales Representative.

Min/max inlet air temperature  $^{\circ}F$ 40/120Min/max operating pressure psig60/150Average purge air\*15%

<sup>\*\*</sup> Base model weight and dimensions reflected--does NOT include filter and bypass





<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.

# DHL SERIES DESICCANT HEATI ESS REGENERATIVE DRYERS



#### FREQUENCY: 60 Hz & 50 Hz

| Model #  | Flow Rate<br>(scfm) | Connection Size | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Weight<br>(lbs) |
|----------|---------------------|-----------------|----------------|---------------|---------------|-----------------|
| DHL-80   | 80                  | 34" NPT         | 84             | 24            | 31            | 450             |
| DHL-100  | 100                 | 1″NPT           | 84             | 24            | 31            | 550             |
| DHL-125  | 125                 | 1″NPT           | 84             | 24            | 31            | 600             |
| DHL-150  | 150                 | 1"NPT           | 85             | 24            | 34            | 650             |
| DHL-200  | 200                 | 1"NPT           | 85             | 24            | 34            | 880             |
| DHL-250  | 250                 | 1½″ NPT         | 87             | 24            | 39            | 1250            |
| DHL-300  | 300                 | 1½" NPT         | 87             | 24            | 39            | 1350            |
| DHL-400  | 400                 | 2″ NPT          | 89             | 26            | 45            | 1900            |
| DHL-500  | 500                 | 2″ NPT          | 89             | 26            | 47            | 2200            |
| DHL-600  | 600                 | 2″ NPT          | 89             | 26            | 47            | 2500            |
| DHL-800  | 800                 | 3″ FLG          | 95             | 40            | 66            | 2800            |
| DHL-1000 | 1000                | 3″ FLG          | 95             | 40            | 66            | 4150            |
| DHL-1250 | 1250                | 3″ FLG          | 95             | 40            | 70            | 4400            |
| DHL-1500 | 1500                | 3″ FLG          | 95             | 40            | 70            | 4700            |
| DHL-2000 | 2000                | 4" FLG          | 114            | 59            | 84            | 4900            |
| DHL-2500 | 2500                | 4" FLG          | 114            | 59            | 84            | 5600            |
| DHL-3000 | 3000                | 6" FLG          | 118            | 70            | 103           | 8100            |
| DHL-3500 | 3500                | 6″ FLG          | 137            | 70            | 103           | 8300            |
| DHL-4000 | 4000                | 6" FLG          | 137            | 70            | 103           | 10500           |
| DHL-4500 | 4500                | 6" FLG          | 137            | 75            | 110           | 11800           |
| DHL-5000 | 5000                | 6″ FLG          | 137            | 75            | 110           | 14500           |

|                         | CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE |      |      |      |      |      |      |      |      |      |     |      |      |      |      |
|-------------------------|--|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| Operating Pressure psig | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150 | 175  | 200  | 225  | 250  |
| Correction Factor       | 0.56   | 0.65 | 0.74 | 0.83 | 0.91 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.2 | 1.29 | 1.37 | 1.45 | 1.52 |

|   | CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |     |      |     |      |      |     |      |  |  |  |  |  |
|---|--|-----|------|-----|------|------|-----|------|--|--|--|--|--|
| Inlet Air Temperature $^{\circ}\!\mathcal{F}$ | 70   | 80  | 90   | 100 | 105  | 110  | 115 | 120  |  |  |  |  |  |
| Correction Factor                             | 1.12   | 1.1 | 1.06 | 1   | 0.93 | 0.86 | 0.8 | 0.75 |  |  |  |  |  |

#### Air flow capacity = Operating pressure x Inlet air temperature

**Standard outlet pressure dew point**  $^{\circ}\mathcal{F}$  -40 (Customer selectable -4)

Optional outlet pressure dew point  $^{\circ}F$  -100

Standard operating voltage 110,115V/1PH

Pre- and post-filtration recommended

Pre-filtration grade μm.01Post-filtration grade μm1

**ASME** certified vessels

**CRN** approved vessels available

DHL-80 to DHL-2500 units CRN for all provinces.

For more details on units larger than the DHL-2500, contact your Sullair Sales Representative.

**cULus control panel** 

Min/max inlet air temperature  $^{\circ}F$ 40/120Min/max operating pressure psig60/150Average purge air\*15%

<sup>\*\*</sup> Desiccant ships separate for dryers rated 2000 scfm and above





<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.

# **DBP SERIES**

#### DESICCANT HEATED BLOWER PURGE REGENERATIVE DRYERS



#### **FREQUENCY: 60 Hz**

| Model #    | Flow Rate<br>(scfm) | Connection Size | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Weight<br>(lbs) |
|------------|---------------------|-----------------|----------------|---------------|---------------|-----------------|
| DBP-500    | 500                 | 2" NPT          | 92             | 45            | 71            | 2500            |
| DBP-650    | 650                 | 2" NPT          | 92             | 45            | 71            | 2750            |
| DBP-800    | 800                 | 3" Flange ANSI  | 95             | 60            | 93            | 4100            |
| DBP-1000   | 1000                | 3" Flange ANSI  | 95             | 60            | 93            | 4500            |
| DBP-1250   | 1250                | 3" Flange ANSI  | 97             | 60            | 93            | 8200            |
| DBP-1500   | 1500                | 3" Flange ANSI  | 97             | 60            | 93            | 8200            |
| DBP-2000   | 2000                | 4" Flange ANSI  | 114            | 65            | 106           | 9800            |
| DBP-2500   | 2500                | 4" Flange ANSI  | 114            | 65            | 106           | 15,000          |
| DBP-3000   | 3000                | 6" Flange ANSI  | 134            | 82            | 130           | 15,000          |
| DBP-3500   | 3500                | 6" Flange ANSI  | 134            | 82            | 130           | 19,000          |
| DBP-4000   | 4000                | 6" Flange ANSI  | 134            | 82            | 131           | 19,000          |
| DBP-5000   | 5000                | 6" Flange ANSI  | 134            | 82            | 130           | 28,000          |
| DBP-6000   | 6000                | 6" Flange ANSI  | 134            | 83            | 132           | CF              |
| DBP-7000   | 7000                | 8" Flange ANSI  | CF             | CF            | CF            | CF              |
| DBP-7500   | 7500                | 8" Flange ANSI  | CF             | CF            | CF            | CF              |
| DBP-9000   | 9000                | 10" Flange ANSI | CF             | CF            | CF            | CF              |
| DBP-10,000 | 10,000              | 10" Flange ANSI | CF             | CF            | CF            | CF              |

|                         | CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE |      |      |      |      |      |      |      |      |      |     |      |      |      |      |
|-------------------------|--|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| Operating Pressure psig | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150 | 175  | 200  | 225  | 250  |
| Correction Factor       | 0.56   | 0.65 | 0.74 | 0.83 | 0.91 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.2 | 1.29 | 1.37 | 1.45 | 1.52 |

|                                      | CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |     |      |     |      |      |     |      |  |  |  |  |  |  |
|--------------------------------------|--|-----|------|-----|------|------|-----|------|--|--|--|--|--|--|
| Inlet Air Temperature ${}^\circ\! F$ | 70   | 80  | 90   | 100 | 105  | 110  | 115 | 120  |  |  |  |  |  |  |
| Correction Factor                    | 1.12   | 1.1 | 1.06 | 1   | 0.93 | 0.86 | 0.8 | 0.75 |  |  |  |  |  |  |

## Air flow capacity = Operating pressure x Inlet air temperature

**Standard outlet pressure dew point** °F -40 (Customer selectable -4)

**Standard operating voltage** 460V/3PH

Pre- and post-filtration recommended

Pre-filtration grade μm.01Post-filtration grade μm1

**NEMA 12** 

**ASME** certified vessels

**CRN** approved vessels in select provinces

**cULus** control panel

Max inlet air temperature  $^{\circ}\mathcal{F}$ 100Min/max ambient air temperature  $^{\circ}\mathcal{F}$ -13/149Min/max operating pressure psig100/125Average purge air\*3%

<sup>\*\*</sup> Desiccant ships separate for dryers rated 2000 scfm and above





<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.

# DEX SERIES DESICCANT EXTERNALLY HEATED REGENERATIVE DRYER



#### **FREQUENCY: 60 Hz**

| Model #  | Flow Rate<br>(scfm) | Connection Size | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Weight<br>(lbs) |
|----------|---------------------|-----------------|----------------|---------------|---------------|-----------------|
| DEX-200  | 200                 | 1″ NPT          | 89             | 38            | 42            | 950             |
| DEX-250  | 250                 | 1½″ NPT         | 90             | 43            | 43            | 1100            |
| DEX-300  | 300                 | 1½″ NPT         | 90             | 43            | 43            | 1250            |
| DEX-400  | 400                 | 2" NPT          | 92             | 45            | 47            | 1500            |
| DEX-500  | 500                 | 2" NPT          | 92             | 45            | 47            | 1600            |
| DEX-600  | 600                 | 2" NPT          | 92             | 45            | 47            | 2100            |
| DEX-800  | 800                 | 3" Flange ANSI  | 95             | 60            | 80            | 2500            |
| DEX-900  | 900                 | 3" Flange ANSI  | 95             | 60            | 80            | 2800            |
| DEX-1000 | 1000                | 3" Flange ANSI  | 95             | 60            | 80            | 4100            |
| DEX-1250 | 1250                | 3" Flange ANSI  | 95             | 60            | 80            | 4700            |
| DEX-1500 | 1500                | 3" Flange ANSI  | 95             | 60            | 80            | 4900            |
| DEX-2000 | 2000                | 4" Flange ANSI  | 113            | 68            | 85            | 5300            |
| DEX-2500 | 2500                | 4" Flange ANSI  | 113            | 68            | 85            | 6200            |
| DEX-3000 | 3000                | 6" Flange ANSI  | 134            | 82            | 125           | 7600            |
| DEX-3500 | 3500                | 6" Flange ANSI  | 134            | 82            | 125           | 8300            |

| CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| Operating Pressure psig                                      | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150 | 175  | 200  | 225  | 250  |
| Correction Factor  | 0.56 | 0.65 | 0.74 | 0.83 | 0.91 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.2 | 1.29 | 1.37 | 1.45 | 1.52 |

| CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |      |     |      |     |      |      |     |      |  |  |  |
|--|------|-----|------|-----|------|------|-----|------|--|--|--|
| Inlet Air Temperature ${}^{\circ}\!\mathit{F}$                   | 70   | 80  | 90   | 100 | 105  | 110  | 115 | 120  |  |  |  |
| Correction Factor  | 1.12 | 1.1 | 1.06 | 1   | 0.93 | 0.86 | 0.8 | 0.75 |  |  |  |

## Air flow capacity = Operating pressure x Inlet air temperature

**Standard outlet pressure dew point**  $^{\circ}\mathcal{F}$  -40 (Customer selectable -4)

**Standard operating voltage** 460V/3PH

Pre- and post-filtration recommended

Pre-filtration grade μm.01Post-filtration grade μm1

**NEMA 12** 

**ASME** certified vessels

CRN approved vessels in select provinces

**cULus** control panel

Max inlet air temperature  $^{\circ}F$ 120Min/max ambient air temperature  $^{\circ}F$ 40/105Min/max operating pressure psig100/125Average purge air\*7%

<sup>\*\*</sup> Desiccant ships separate for dryers rated 2000 scfm and above





<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.

# DMD SERIES DESICCANT MODULAR REGENERATIVE DRYERS



#### FREQUENCY: 60 Hz & 50 Hz

| Model # | Flow Rate<br>(scfm) | Connection Size<br>(in) NPT | Height<br>(in) | Width<br>(in) | Depth<br>(in) | Weight<br>(lbs) |
|---------|---------------------|-----------------------------|----------------|---------------|---------------|-----------------|
| DMD-3   | 3                   | 1/2″                        | 22             | 13            | 10            | 32              |
| DMD-5   | 5                   | 1/2″                        | 25             | 13            | 10            | 36              |
| DMD-10  | 10                  | 1/2"                        | 36             | 13            | 10            | 52              |
| DMD-15  | 15                  | 1/2"                        | 32             | 15            | 10            | 57              |
| DMD-20  | 20                  | 1/2″                        | 44             | 15            | 10            | 79              |
| DMD-25  | 25                  | 1/2″                        | 50             | 15            | 10            | 90              |
| DMD-30  | 30                  | 1/2″                        | 59             | 15            | 10            | 107             |
| DMD-40  | 40                  | 1½″                         | 49             | 16            | 17            | 156             |
| DMD-50  | 50                  | 1½″                         | 55             | 16            | 17            | 172             |
| DMD-60  | 60                  | 1½″                         | 69             | 16            | 17            | 202             |
| DMD-75  | 75                  | 1½″                         | 51             | 16            | 23            | 257             |
| DMD-100 | 100                 | 1½″                         | 57             | 16            | 23            | 286             |
| DMD-120 | 120                 | 1½″                         | 69             | 16            | 23            | 334             |
| DMD-180 | 180                 | 1½″                         | 59             | 16            | 28            | 407             |
| DMD-240 | 240                 | 1½″                         | 59             | 16            | 33            | 519             |

| CAPACITY CORRECTION FACTORS FOR DIFFERING OPERATING PRESSURE |      |      |      |      |      |      |      |      |      |      |     |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|
| Operating Pressure psig                                      | 50   | 60   | 70   | 80   | 90   | 100  | 110  | 120  | 130  | 140  | 150 | 175  | 200  | 225  | 250  |
| Correction Factor  | 0.56 | 0.65 | 0.74 | 0.83 | 0.91 | 1.00 | 1.04 | 1.08 | 1.12 | 1.16 | 1.2 | 1.29 | 1.37 | 1.45 | 1.52 |

| CAPACITY CORRECTION FACTORS FOR DIFFERING INLET AIR TEMPERATURES |      |     |      |     |      |      |     |      |  |  |  |
|--|------|-----|------|-----|------|------|-----|------|--|--|--|
| Inlet Air Temperature ${}^{\circ}\!\mathit{F}$                   | 70   | 80  | 90   | 100 | 105  | 110  | 115 | 120  |  |  |  |
| Correction Factor  | 1.12 | 1.1 | 1.06 | 1   | 0.93 | 0.86 | 0.8 | 0.75 |  |  |  |

#### Air flow capacity = Operating pressure x Inlet air temperature

Standard outlet pressure dew point  $^{\circ}$  -40

**Standard operating voltage** 115–230V/1PH

Pre- and post-filtration recommended

Pre-filtration grade  $\mu m$  .01 Post-filtration grade  $\mu m$  1

**ASME compliant** 

**CRN** approved

**cULus** control panel

Max inlet air temperature  $^{\circ}F$ 122Min/max ambient air temperature  $^{\circ}F$ 34/122Min/max operating pressure psig58/232Average purge air\*15%

<sup>\*</sup> Purge air percentage is the amount of dried compressed air diverted from the active drying vessel to the other vessel during the regeneration process. The diverted air does not return to the system. Meaning the lower the average purge percentage, the higher system efficiency is.





## FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.

