



# DESICCANT DRYERS

Heated; Heatless

*3 – 10,000 scfm*



# THE IMPORTANCE OF CLEAN, DRY COMPRESSED AIR

## HOW MUCH WATER IS TOO MUCH? ANY AMOUNT OF WATER IS TOO MUCH.

Water jeopardizes everything you want your compressed air system to do. It ruins product and fouls processes. Removing it is vital in order to protect both your equipment and your operations.

Sullair Desiccant Dryers reliably remove harmful moisture and contaminants from compressed air, helping protect your compressed air system, machinery and downstream tools.

### How?

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—expelling clean, 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

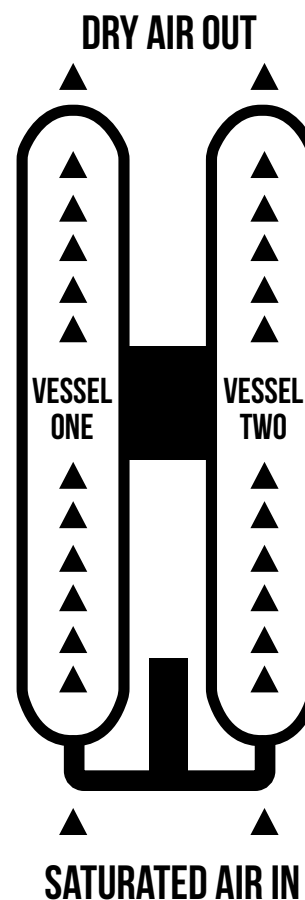
## REGENERATION METHODS

### Heatless

Heatless dryers use part of the compressed air to regenerate the desiccant in the opposite tank.

### Heated

Heated dryers use an external heat source such as a hot air blower—reducing or eliminating process air loss during the regeneration process.

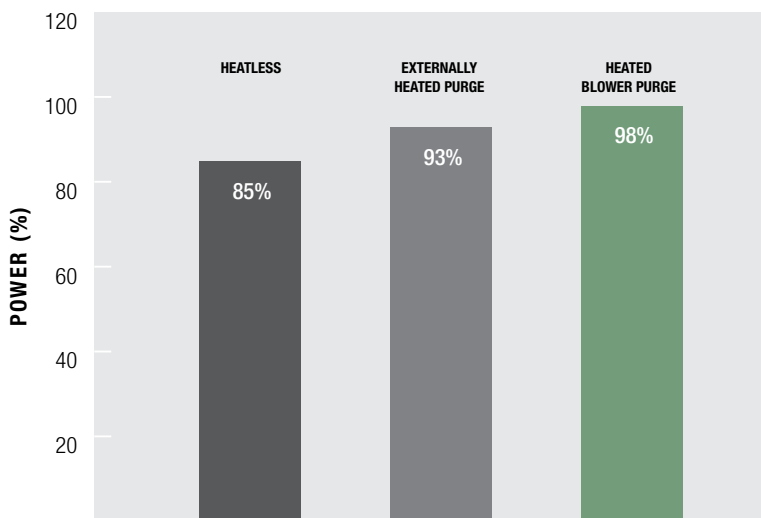


# SULLAIR DESICCANT DRYERS

The Sullair Desiccant Dryer family combines the proven benefits of desiccant drying with the most advanced designs and monitoring technology to offer a reliable system to clean and compress air for the most critical applications.

Sullair desiccant dryers are ideal for outdoor piping and operations that require an extremely low dew point to -40°F/-40°C (-4°F/-20°C or -100°F/-73°F optional).

## INLET-TO-OUTLET PERFORMANCE



SUPPLY-SIDE EFFICIENCIES WITH SULLAIR DESICCANT DRYERS

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

- ATDMD—Desiccant Modular — 3 to 240 scfm
- ATDHR—Desiccant Heatless Regenerative — 70 to 8000 scfm
- ATDEH—Desiccant Externally Heated Regenerative — 150 to 3000 scfm
- ATDBP—Desiccant Heated Blower Purge Regenerative — 800 to 10,000 scfm



## ATDBP SERIES

### DESICCANT HEATED BLOWER PURGE REGENERATIVE DRYERS 800 – 10,000 scfm

Engineered for maximum energy savings using a high-efficiency blower and parallel cooling mode.

#### STANDARD FEATURES:

- 2% average purge consumption
- Parallel cooling mode
  - Faster, more efficient regeneration
  - Minimizes temperature and dew point spikes
- Backup heatless mode operation
- Heater backup contactor
- Large 3.5" tower pressure gauges

#### 1. Allen-Bradley PLC MicroLogix™ 7" color touchscreen controller

- Standard Energy Management System (EMS) for energy efficiency, digital purge reduction and adjustable alarms
- Displays energy savings, cycle modes, dew point selection and more

#### 2. High Efficiency Blower

- Uses atmospheric air for regeneration
- Durable design
- Easy maintenance
- TEFC premium motor including filtered air intake

#### 3. Thermal Relief Valves

- Protects equipment by relieving harmful pressure spikes

#### 4. Butterfly Valve

- High-performance to reduce seal wear and leakage



## ATDHR SERIES

### DESICCANT HEATLESS REGENERATIVE DRYERS WITH ENERGY MANAGEMENT SYSTEM

70 – 8000 scfm

Combines Sullair durability with instant energy saving technology allowing complete control of the system in every sequence of operation.

#### STANDARD FEATURES:

- Designed for total energy efficiency
- Precise dew point
- No user adjustment and virtually no maintenance
- Mounted filters to reliably remove condensate
  - 1 micron pre-filter with automatic condensate drain
  - 5 micron outlet after-filter with manual drain
- Purge exhaust valves

#### 1. Sullair Programmable Controller (SPC) for reliable control at your fingertips

- Displays energy savings, cycle modes and alarm conditions
- Energy Management System (EMS) for optimum performance and purge reduction

#### 2. LED Tower Operation

- Easy-to-read operation sequence indicators

#### 3. Durable Inlet Valves

- Reduces seal wear and leakage

#### 4. Thermal Relief Valves

- Protects equipment by relieving harmful pressure spikes

#### 5. Tower Pressure Gauges

- Large 3.5" tower pressure gauges



**Tower Pressure Gauge**



**Color Touchscreen Controller**



## ATDEH SERIES

### DESICCANT EXTERNALLY HEATED REGENERATIVE DRYERS

150 – 3000 scfm

Designed to significantly reduce process air used in the regeneration process by heating the air prior to entry in the offline vessel.

#### STANDARD FEATURES:

- 7% average purge consumption
- Removable, stainless steel bed support screens
- Tower pressure gauges
- High-temperature outlet check valves
- Fail-safe design
- ASME Carbon Steel Vessels with Premium Grade Desiccant

#### 1. Sullair Programmable Controller (SPC) for reliable control at your fingertips

- Displays energy savings, cycle modes and alarm conditions
- Energy Management System (EMS) for optimum performance and purge reduction

#### 2. Tower Pressure Gauge

- Large 3.5" tower pressure gauges

#### 3. Thermal Relief Valves

- Protects equipment by relieving harmful pressure spikes

#### 4. Purge Exhaust Mufflers

- Reduces noise
- Built-in safety relief valve

## ATDMD SERIES

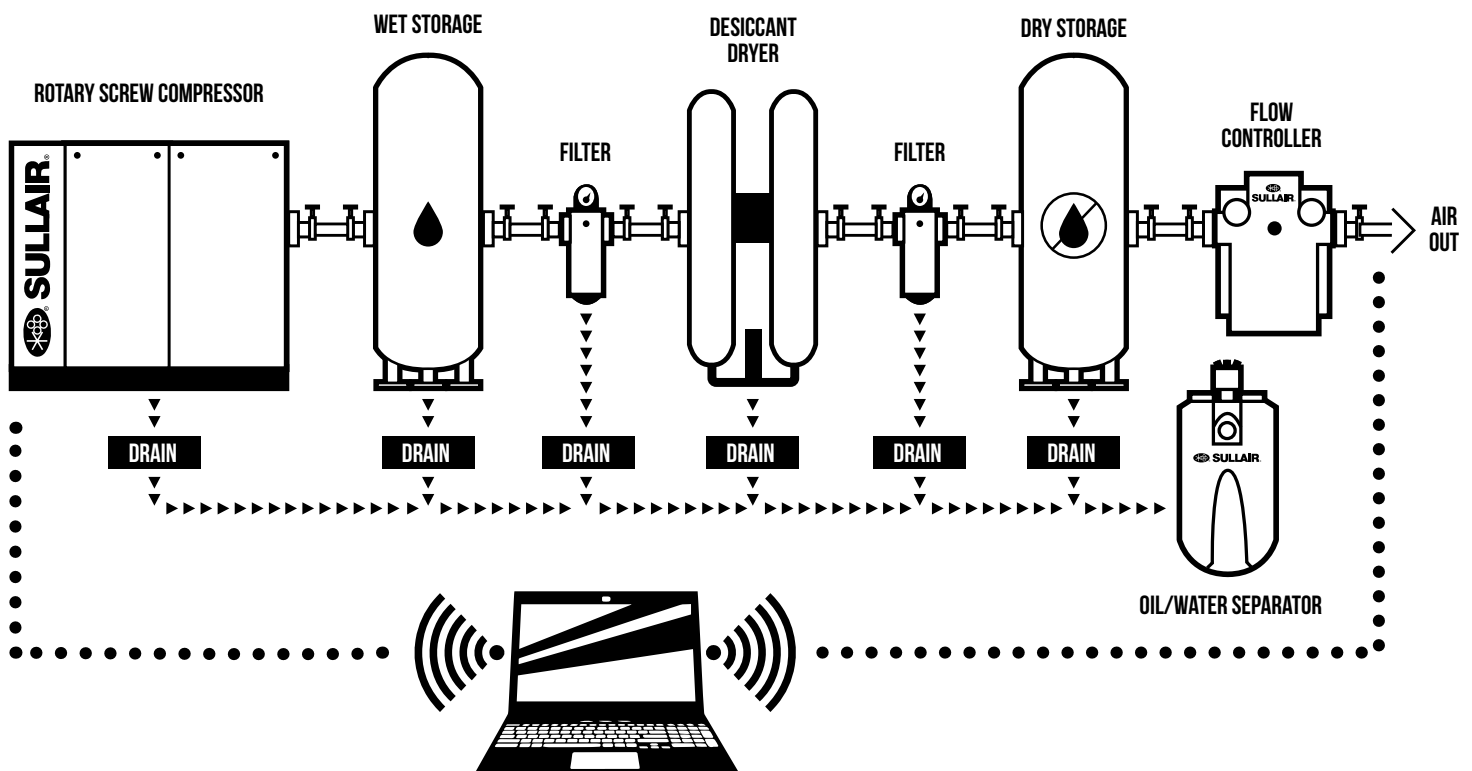
### DESICCANT MODULAR DRYERS

3 – 240 scfm

Provides clean, dry compressed air virtually anywhere with a lightweight, compact design.

#### STANDARD FEATURES:

- Compact design
- Inlet and purge manifold design for low pressure drop
- Mini PLC monitor
- Completely automatic
- Quiet enough to be placed in most work environments



# ENERGY SAVINGS AT YOUR FINGERTIPS

## THE ALLEN-BRADLEY PLC MICROLOGIX™ COLOR TOUCHSCREEN CONTROLLER

Syncs with overall control system to provide digital access to dryer data from virtually anywhere.

### STANDARD FEATURES:

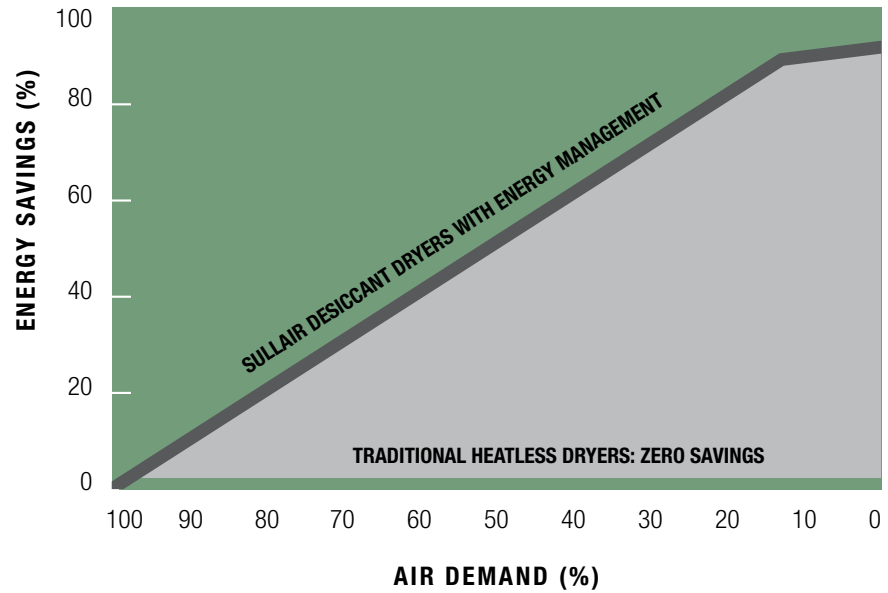
- 7" LED Touchscreen
- Data logging
- Standard Energy Management System (EMS) for energy efficient, digital purge reduction
  - Displays energy savings, cycle modes, dew point selection and more
- Backup heatless mode
- Ethernet ready





## STANDARD ENERGY MANAGEMENT SYSTEM

### PART LOAD PERFORMANCE ASSESSMENT



## SULLAIR PROGRAMMABLE CONTROLLER (SPC)

Combines with standard Energy Management System (EMS) to provide maximum energy savings and purge reduction.

### STANDARD FEATURES:

- Displays energy savings, cycle modes and alarm conditions
- Digitally adjusts regeneration cycle based on demand
- Early heat regeneration termination
  - Reduces wear and tear on critical machine components
- Outlet dew point sensor
  - Monitors moisture content
  - Ensures accurate dew point



# ABOUT SULLAIR

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, China and India — all ISO 9001 certified to ensure the highest quality standards in manufacturing. In addition, Sullair Suzhou and Shenzhen facilities are ISO 9001, ISO 14001 and OHSAS 18001 certified.*

**RELIABILITY.  
DURABILITY.  
PERFORMANCE.**

*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 the design of the legendary air end. In factories and shops all over the world, you'll find Sullair compressors that have stood the test of time, running consistently today like they did on day one.

## PERFORMANCE

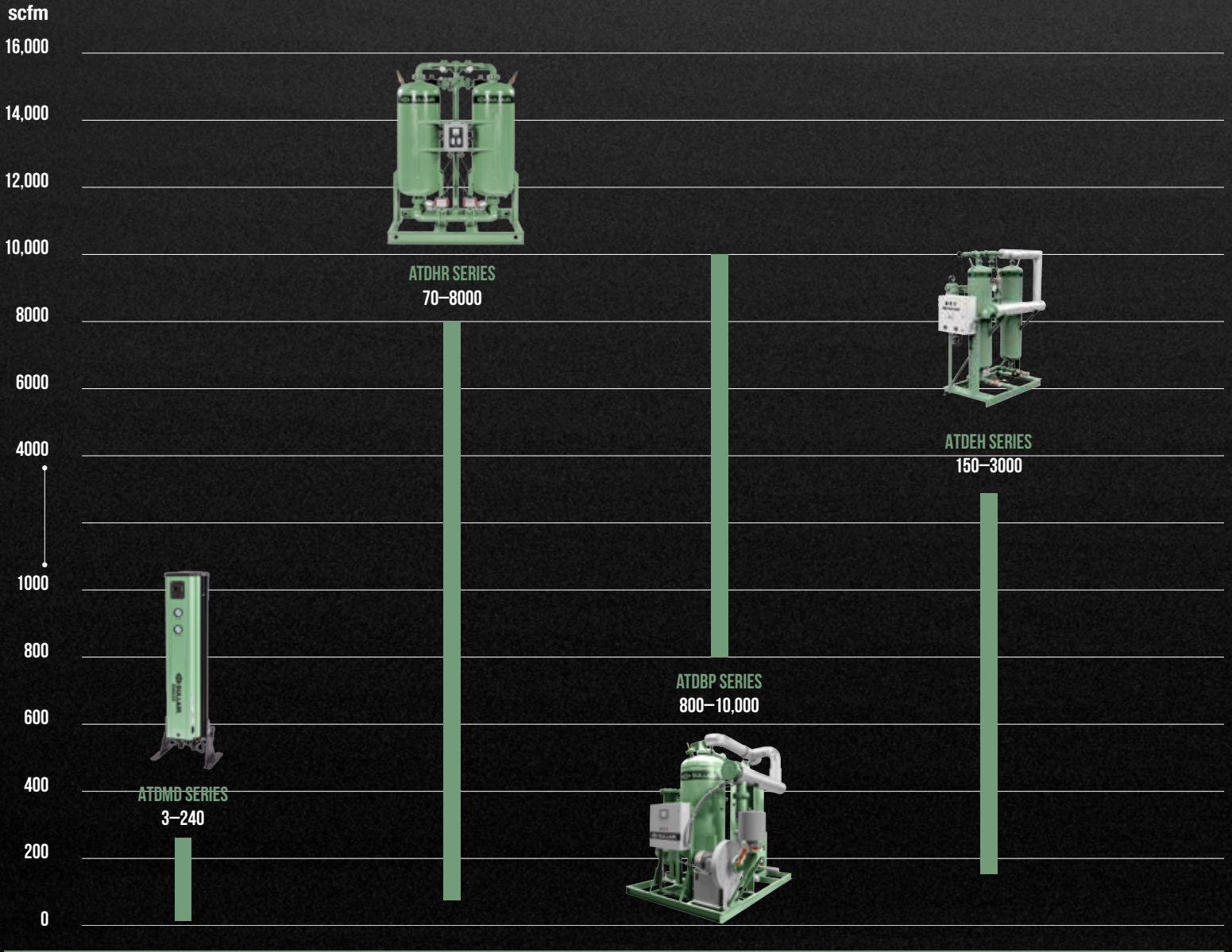
You have high expectations for your operations, and we make machines that share your work ethic. Sullair compressed air solutions do what they're supposed to do, and they do it extremely well for a very long time. And working with us means not only access to clean, quality air, but also the tools you need to optimize this vital resource.



 **SULLAIR**

*Specifications enclosed*

FOR MORE INFORMATION, CONTACT YOUR LOCAL AUTHORIZED SULLAIR DISTRIBUTOR.



## OTHER AIR TREATMENT SOLUTIONS FROM SULLAIR

VISIT [SULLAIR.COM](http://SULLAIR.COM) FOR MORE INFORMATION ON AIR TREATMENT SOLUTIONS



**SULLAIR REFRIGERATED AIR DRYERS**  
CYCLING; NON-CYCLING; HIGH PRESSURE; HIGH TEMPERATURE



**SULLAIR FILTRATION AND MIST ELIMINATORS**



**DRAINS**



**SP OIL/WATER SEPARATORS**

# ATDBP SERIES

DESICCANT HEATED BLOWER PURGE REGENERATIVE DRYERS



# SULLAIR®

## FREQUENCY: 60 Hz

MODEL #	VOLTAGE - PHASE	scfm	INLET/OUTLET CONNECTION (FLG)	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)
ATDBP 800	460/3	800	3"	100	87	60	3600
ATDBP 1000	460/3	1000	3"	97	90	60	4500
ATDBP 1200	460/3	1200	3"	105	98	61	5400
ATDBP 1400	460/3	1400	3"	106	105	71	6800
ATDBP 1600	460/3	1600	4"	108	107	80	7500
ATDBP 2000	460/3	2000	4"	116	106	80	9000
ATDBP 2500	460/3	2500	4"	116	128	84	10,700
ATDBP 3000	460/3	3000	6"	127	131	111	13,400
ATDBP 3500	460/3	3500	6"	120	134	105	15,600
ATDBP 4000	460/3	4000	6"	129	148	114	17,900
ATDBP 5000	460/3	5000	6"	138	163	118	22,300
ATDBP 6000	460/3	6000	8"	CF	CF	CF	CF
ATDBP 7000	460/3	7000	8"	CF	CF	CF	CF
ATDBP 8000	460/3	8000	8"	CF	CF	CF	CF
ATDBP 10,000	460/3	10,000	8"	CF	CF	CF	CF

CF = Consult Factory

MAX AMBIENT TEMPERATURE: 120°F

MIN AMBIENT TEMPERATURE: 38°F

MAX INLET TEMPERATURE: 120°F

MAX PRESSURE: 135 PSIG

# ATDEH SERIES

DESICCANT EXTERNALLY HEATED REGENERATIVE DRYERS



**FREQUENCY: 60 Hz**

MODEL #	VOLTAGE - PHASE	scfm	INLET/OUTLET CONNECTION (FLG)	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)
ATDEH 150	460/3	150	1" NPT	77	58	37	1000
ATDEH 250	460/3	250	1½" NPT	86	58	44	1500
ATDEH 350	460/3	350	2" NPT	87	62	53	2000
ATDEH 500	460/3	500	2" NPT	87	66	53	2300
ATDEH 750	460/3	750	2" NPT	89	70	53	2700
ATDEH 1000	460/3	1000	3"	92	80	68	4100
ATDEH 1250	460/3	1250	3"	97	85	68	4900
ATDEH 1400	460/3	1400	3"	97	85	68	5200
ATDEH 1600	460/3	1600	4"	97	85	73	7200
ATDEH 2000	460/3	2000	4"	109	94	91	7800
ATDEH 2500	460/3	2500	4"	109	94	94	9500
ATDEH 3000	460/3	3000	6"	119	114	100	11,500

**MAX AMBIENT TEMPERATURE: 125°F**

**MIN AMBIENT TEMPERATURE: 38°F**

**MAX INLET TEMPERATURE: 120°F**

**MAX PRESSURE: 150 PSIG**



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# ATDHR SERIES

## DESICCANT HEATLESS REGENERATIVE DRYERS



**FREQUENCY: 60 Hz**

MODEL #	VOLTAGE - PHASE	scfm	INLET/OUTLET CONNECTION (FLG)	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)
ATDHR 70	115/1	70	3/4" NPT	73	26	22	410
ATDHR 100	115/1	100	1" NPT	76	30	24	490
ATDHR 150	115/1	150	1" NPT	76	30	24	560
ATDHR 200	115/1	200	1½" NPT	85	34	24	800
ATDHR 250	115/1	250	1½" NPT	86	34	24	870
ATDHR 300	115/1	300	1½" NPT	86	46	30	990
ATDHR 350	115/1	350	2" NPT	87	46	30	1020
ATDHR 450	115/1	450	2" NPT	87	46	30	1140
ATDHR 500	115/1	500	2" NPT	89	50	30	1250
ATDHR 600	115/1	600	2" NPT	89	50	30	1450
ATDHR 750	115/1	750	2" NPT	89	50	30	1850
ATDHR 1000	115/1	1000	3"	94	66	40	2800
ATDHR 1250	115/1	1250	3"	99	70	40	4000
ATDHR 1500	115/1	1500	3"	99	70	40	4600
ATDHR 2000	115/1	2000	4"	109	82	50	5800
ATDHR 2500	115/1	2500	4"	CF	CF	CF	CF
ATDHR 3000	115/1	3000	4"	CF	CF	CF	CF
ATDHR 3500	115/1	3500	6"	CF	CF	CF	CF
ATDHR 4000	115/1	4000	6"	CF	CF	CF	CF
ATDHR 4500	115/1	4500	6"	CF	CF	CF	CF
ATDHR 5000	115/1	5000	6"	CF	CF	CF	CF
ATDHR 6000	115/1	6000	6"	CF	CF	CF	CF
ATDHR 7000	115/1	7000	6"	CF	CF	CF	CF
ATDHR 8000	115/1	8000	6"	CF	CF	CF	CF

CF = Consult Factory

**MAX AMBIENT TEMPERATURE: 120°F**

**MIN AMBIENT TEMPERATURE: 38°F**

**MAX INLET TEMPERATURE: 120°F**

**MAX PRESSURE: 135 PSIG**



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