HS Turbo Dryer

Precise Air Purification

Single Tower Heat Reactivated Desiccant Air Dryer

EAP
Engineered Air Products

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The Need For Dry Air

Moisture in compressed air is damaging. Using untreated air results in water and contaminants in your air lines, costly shutdowns and poor-quality product. Until now, the choices were simple: take a risk and implement refrigeration technology, and live with poor air quality and high maintenance, but keep costs low; or pay for high quality air from a desiccant adsorption drying system, and suffer with increased utility costs. You no longer have to make this choice.

Introducing the Turbo HS Series Desiccant Air Dryer

The Turbo HS Series is a desiccant air-drying system that costs less to operate than a refrigerated air dryer, while providing higher quality air commonly associated with desiccant drying technology. All Turbo HS Series Dryers are provided with factory installed pre and after filters. resulting in a true all-in one package. With only three moving parts and a rugged construction, Turbo's simplicity will impress, and perform beyond your expectations.

- **Rugged, simple design means The Turbo may be the last dryer you will ever need.**
- **Less than 1% remaining RH for Turbo compared to 30% RH for refrigerated dryers.**
- **No moving parts during the drying cycle eliminates downtime and spoiled products.**
- **No HVAC or refrigerants results in minimal environmental impact.**
- **Lower operating cost than a refrigerated air dryer.**
- **Air Dew Points of 0ºF to -50ºF**

Packaged Filters

- **Oil removal to 99.9% @ 0.3 to 0.6 Microns**
- **Particle Removal to 99.9% @ 1 Micron**

3-Way Electric Ball Valves

- **Only Moves 2x a Day**
- **25 Year Cycle Life Expectancy**
- **3 Year Factory Warranty**

Low Watt Density Heater

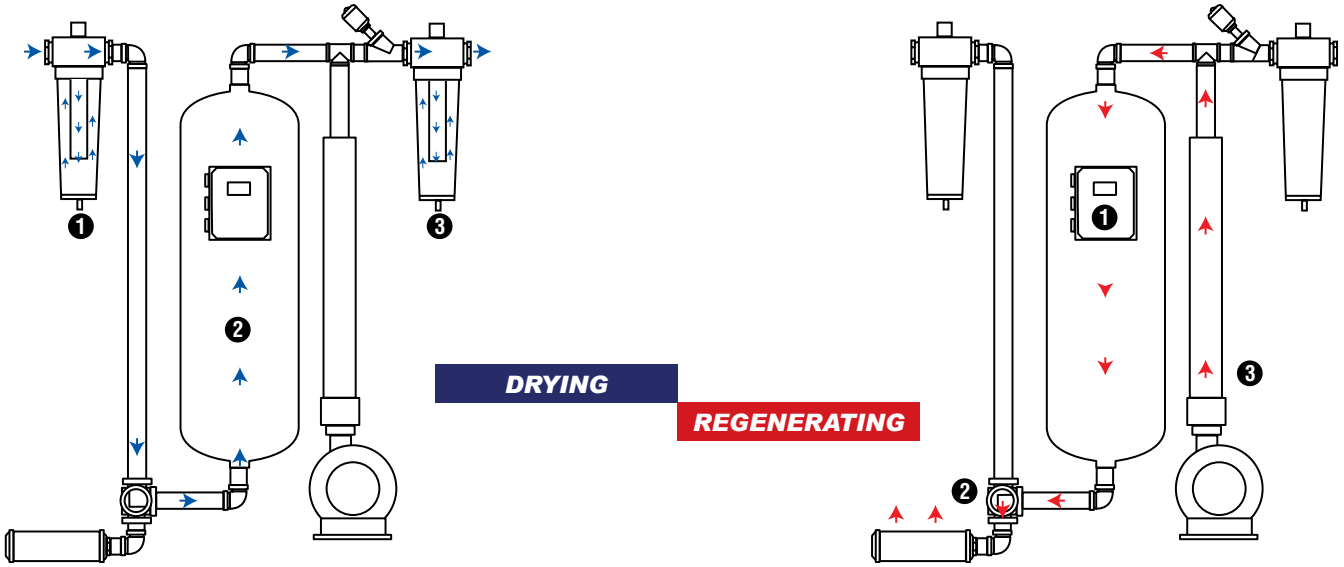
- **Rated for Up to 36,000 Operating Hours**
- **24 Year Cycle Life Expectancy**
- **3 Year Factory Warranty**

Industrial Duty Blower

- **Rated For Up to 50,000 Operating Hours**
- **27 Year Life Cycle Expectancy**

Simple Maintenance

- **Change Filter Elements Annually**
- **Change Diffusion Muffler Annually**
- **Change Desiccant Media Every 3-5 Years**



Compressed air enters the dryer through a pre-coalesing filter where 99.9% of liquid oil, moisture and particles are removed.

The compressed air flows over the desiccant bed where water vapor is separated resulting in dew points as low as -50°F/C.

A final filter polishes the air and removes any desiccant and particle fines before delivering clean, dry air.

1. The HS Turbo's exclusive digital controller will automatically start the regeneration cycle at the selected time.
2. The 3-way positioning valve slowly opens to depressurize the desiccant tank, allowing regeneration air to escape through the exhaust muffler.
3. The heater and blower provide a steady stream of heated, low pressure air that gently desorbs the accumulated moisture from the desiccant material. Upon completion, the system is cooled and re-pressurized, returning to the drying position.

Logic Pro Controller

All Turbo HS Dryers are equipped with Allen Bradley Digital Programmable Controls that provide simple, reliable, and intelligent capabilities. The easy to navigate four line touch screen display provides instant feedback of current operating status, system temperatures and programmed regeneration intervals. Interactive menus provide useful user feedback allowing the operator to review regeneration cycle durations, step cycles for testing, apply a manual on the spot regeneration and much more.

cETLus Listed Control Panel
UL Listed Components, CSA Compliant

Safety

The Turbo HS is provided with two independent temperature controls to optimize regeneration cycles. The system identifies any deviances from a normal regeneration and will provide text and a flashing alarm status int he event of a system upset. All Turbo HS Dryers have heater protection which will shut down the system and notify the operator of a system in need of attention.

Energy

Staying cost effective is vital to compete in todays business environment. With a built-in Purge Saver exhaust temperature monitoring system, The Turbo HS only regenerates the exact amount needed to provide a dry bed for process efforts. There is no wasted energy, lower demands will reduce kW consumption.

18 Month Bumper to Bumper Warranty
3 Year Warranty on Heater and 3 way Switching Valve

HS Turbo Specifications

Model	SCFM @ 100 PSIG	Line Size (Inches)	Electrics	Dimensions W x D x H (Inches)	Unit Shipping Weight (lbs)	Maximum Pressure (PSIG)
HS60	60	1	120V/1	32 x 32 x 76	270	200
HS100	100	1	120V/1	32 x 32 x 73	475	200
HS150	150	1	120V/1	32 x 32 x 76	560	200
HS200	200	1½	208-230V/1	46 x 30 x 78	590	200
HS250	250	1½	208-230V/1	46 x 30 x 78	640	200
HS300	300	1½	460V/3	46 x 30 x 78	940	150
HS400	400	2	460V/3	50 x 36 x 84	1,070	150
HS500	500	2	460V/3	50 x 36 x 84	1,190	150
HS650	650	2	460V/3	50 x 36 x 84	1,215	150
HS800	800	2	460V/3	56 x 40 x 87	1,270	150
HS1000	1,000	3 FLG	460V/3	56 x 40 x 87	1,385	150
HS1200	1,200	3 FLG	460V/3	56 x 40 x 87	1,510	150
HS1600	1,600	3 FLG	460V/3	62 x 46 x 94	1,715	150
HS2100	2,100	4 FLG	460V/3	68 x 52 x 94	2,255	150
HS2600	2,600	4 FLG	460V/3	68 x 52 x 95	2,575	150
HS3000	3,000	6/4 FLG	460V/3	72 x 60 x 95	3,433	150

Specifications are subject to change without notice.

All systems are provided with Engineered Air Tuned Regeneration along with the Purge Saver Energy Management System resulting in maximum KW savings based on air usage.

Capacity Correction Factors

50	60	70	80	90	100	110	120	130	140	150
0.56	0.65	0.74	0.83	0.91	1	1.04	1.08	1.12	1.16	1.2

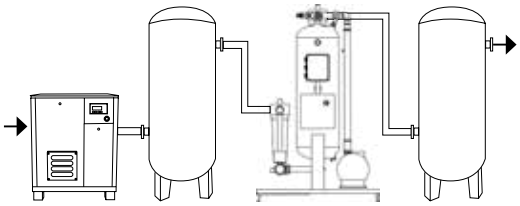
Correction factor for inlet air pressure (PSIG)

PSIG \ Inlet Temperature in °F	60	70	80	90	100	110	120
60	1.04	1.04	1.00	.86	.66	.49	.37
70	1.05	1.05	1.00	.97	.72	.55	.42
80	1.25	1.25	1.18	1.10	.82	.62	.47
90	1.30	1.30	1.30	1.20	.90	.68	.52
100	1.40	1.40	1.40	1.32	1.00	.75	.58
110	1.41	1.41	1.41	1.40	1.07	.80	.62
120	1.55	1.55	1.50	1.50	1.15	.87	.67
130	1.56	1.56	1.53	1.53	1.24	.93	.72
140	1.60	1.60	1.55	1.55	1.33	1.00	.76
150	1.70	1.70	1.67	1.67	1.40	1.06	.81

Correction factor for inlet temperature

ISO 8573.1:2010 Quality Class	DIRT Maximum Number of Particle Size per m³ in micron	WATER Pressure Dewpoint °C (ppm. Vol.) at 7 bar g	OIL (including vapour) mg/m³
0	As specified by equipment or supplier. More stringent than Class 1.		
1	<20,000 0.1-0.5	-70 (0.3)	0.01
2	<400,000 0.1-0.5	-40 16)	0.1
3	<90,000 0.5-1.0	-20 (128)	1.0
4	<10,000 1.0-5.0	+3 (940)	5
5	<100,000 1.0-5.0	+7 (1240)	25
6		+10 (1500)	-

Turbo meets ISO 8573-1 Air Quality of 1.3.1



Since the Turbo HS is provided with factory mounted filtration and drain systems, installation is a snap.

Standard Equipment

- Purge Saver Energy Management System
- EAP Exclusive Logic Pro Information Center
- cETLus isted Control Panel (CSA Compliant)
- System Inlet and Regeneration Temperature Readouts
- Mounted Pre and After Filters
- Filter Drains
- Filter Differential Pressure Indication
- Premium Electronic Switching Valve
- Tuned Regeneration System (Patented)
- Industrial Duty Blower
- Low-Watt Density Heater
- Heater Over-Temperature protection with Alarm
- Tower Moisture Indicator
- Tower Pressure Gauge
- ASME/CRN Pressure Vessel (HS100 and Larger)
- Purge exhaust Muffler
- Full Charge of Desiccant

Optional Equipment

- Three (3) Valve System Bypass
- Dual Filter Packages
- High Pressure (to 800 PSIG)
- Tower Insulation
- Heat Tracing and Panel Heaters
- Alternate Voltages

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