AIRTAK
Compressed Air System Products

Heated Regenerative Compressed Air Dryers

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Made in America

AIR/TAK Heated Regenerative Air Dryers

Compressed Air System Products That Save Energy & Improve Operations.
Super Dry, Clean Air for Sensitive Equipment.

Super Dry Compressed Air with Maximum Operational Flexibility

AIR/TAK Heated Regenerative Air Dryers will optimize the performance and extend the life of all your sensitive pneumatically-operated equipment.

Instrumentation, air logic units, cylinders, valves and actuators, all function with greater accuracy with moisture-free air.

EHD-1350

Two types of Heated Regenerative Air Dryer Models:

EHD - Externally Heated Regenerative Air Dryers, utilizing less purge air than a heatless model.

BPD - Blower Purge Externally Heated Regenerative Air Dryers, utilizing even less purge air than an EHD model.

REDUCE MAINTENANCE AND LOWER OPERATING COSTS. OUR HEATED REGENERATIVE AIR DRYERS UTILIZE THE ADSORPTION PRINCIPLE OF DRYING.

- *Two twin towers are filled with an adsorbent drying medium that attracts and holds moisture on its surface. While air is being dried in one tower, the desiccant is being regenerated in the other.*
- *A pneumatically-actuated switching valve allows wet compressed air to enter the on-line tower and direct it downward through the desiccant for drying.*
- *EHD: At the same time, a small amount of dry purge air is directed over an external heater, upward into the off-line tower. This purges collected water vapor from the saturated desiccant.*
- *BPD: At the same time, a blower forces ambient air over an external heater, upward into the off-line tower. The last part of the regeneration cycle, the blower and heater will shut off and a very small amount of dry purge air will be directed upward into the off line tower cooling the desiccant as well as removing any remaining moisture.*
- *After the purge air removes water vapor from the saturated desiccant, it is exhausted to the atmosphere through the muffler.*
- *The outlet dew point is from -40°F to -100°F at line pressure, with purge rates from 0 to 7%.*

REDUCE MAINTENANCE COSTS

The actuated switching valves are either ball valves or high-performance butterfly valves. The butterfly valves feature a one-piece stem and double offset disc/stem design that minimizes wear points between the seat and disc. This in turn extends the life of the valve seats.

MINIMIZE TEMPERATURE SPIKES AND ENHANCE DEW POINT PERFORMANCE

The cooling cycle at the end of the regeneration cycle shuts down the heater. A small amount of cool, dry purge air is diverted to the regenerated tower. By cooling the tower without adding moisture from ambient air into the dried, regenerated desiccant, you avoid temperature spikes while enhancing dew point performance.

EXTRA SAFETY FEATURES TO PROTECT PLANT AND PERSONNEL

AIR/TAK Heated Regenerative Air Dryers feature Power Interruption Protection (PIP). In the event of a power outage, PIP shuts down the dryer while maintaining the position of the switching valves. This insures that no hot air is allowed to flow downstream, preventing a potential hazard to personnel and equipment. Airflow from the tower that was online prior to the power interruption will continue. Once power is restored, PIP will allow the dryer cycle to resume.

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HIGH-PERFORMANCE AND HIGH-EFFICIENCY FEATURES ARE STANDARD IN ALL AIR/TAK HEATED REGENERATIVE DRYERS

- *FLEXIBLE OPERATION: The fully programmable logic controller delivers a wide range of monitoring, operating and safety functions. The PLC regulates the dryer's operation and settings can be customized to support your particular application. The standard Touch Screen shows all relevant information in a neat and organized display. Additional screens show alarm conditions, dew point trending, and heater temperature trending. If an alarm condition exists, the alarm screen will also show some basic troubleshooting suggestions to help rectify an operational issue. Combine the PLC with our Flex Power Purge System (dew point demand) with other options to enhance monitoring functions while saving energy.*

STANDARD FEATURES:

- *On/Off Switch*
- *NEMA 4 Control panel*
- *PLC Controller with Touch-Screen Display*
- *Pilot Air Valve*
- *Pilot Air Filter*
- *Purge Control Valve*
- *Purge Control Pressure Gauge*
- *Tower Pressure Gauges*
- *Tower Pressure Relief Valves*
- *Electric Heater*
- *Heater High Temperature Control*
- *Pneumatically Actuated Switching Valves*
- *Purge Check Valves*
- *ASME Code Vessels*
- *Jacketed Insulation*
- *Activated Alumina*
- *Desiccant Fill and Drain Ports*
- *Pneumatically Actuated Purge Inlet Valve (BPD Models)*
- *Blower (BPD Models)*
- *Blower Intake Filter (BPD Models)*
- *Blower Check Valve (BPD Models)*

OPTIONAL FEATURES:

- *Flex Power Purge System (Dew Point Demand)*
- *NEMA 4X Stainless Steel Control Panel*
- *Steam Reactivated Heat Exchanger*
- *Ethernet Module for Network Interface and Monitoring*
- *Pre-Assembly of Prefilter and Afterfilter (PAK's)*
- *Bypass Piping*
- *High Pressure Models (Greater than 150 PSIG)*

RECOMMENDED EQUIPMENT FOR OPTIMUM PERFORMANCE:

- *A Coalescing Prefilter is required to protect the desiccant, and a High temperature Afterfilter is required to remove desiccant dust from the outlet air.*

BPD-PAK Plus I-1000

HEATED REGENERATIVE AIR DRYER SIZING CHART

EHD MODEL NO.	BPD MODEL NO.	Capacity@ 100 psig	In/Out Connections
EHD-100	—	100	1"
EHD-175	—	175	1"
EHD-250	BPD-250	250	1"
EHD-350	BPD-350	350	1"
EHD-500	BPD-500	500	2"
EHD-700	BPD-700	700	2"
EHD-850	BPD -850	850	2"
EHD-1000	BPD-1000	1,000	3"
EHD-1350	BPD-1350	1,350	3"
EHD-1700	BPD-1700	1,700	3"
EHD-2100	BPD-2100	2,100	3"
EHD-2400	BPD-2400	2,400	4"
EHD-3100	BPD-3100	3,100	4"
EHD-3800	BPD-3800	3,800	4"
EHD-4300	BPD-4300	4,300	6"
EHD-5000	BPD-5000	5,000	6"
EHD-6250	BPD-6250	6,250	6"
EHD-7750	BPD-7750	7,750	6"
EHD-8750	BPD-8750	8,750	8"
EHD-10000	BPD-10000	10,000	8"

Consult factory for sizes above 10,000 SCFM & Pressures above 150 PSIG
Connections 2" or less are NPT, 3" and above are flanged

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Heated Regenerative Air Dryer Packages

EHD/BPD-PAK

Heated Regenerative Air Dryer Packages are the perfect solution for customers who need clean, dry compressed air in a convenient and easy-to-install package. These high-value EHD/BPD-PAK packages offer several advantages:

- **Complete and ready to install**
- **No costly separate filter installation or additional piping required**
- **Completely equipped with all the features you need to produce clean, dry air**
- **Choose from three different package options to get up and running quickly and efficiently**

EHD/BPD-PAK

Complete with:

- *Externally Heated or Blower Purge Regenerative Air Dryer*
- *Pre-Piping of Coalescing Prefilter with Differential Pressure Gauge and Automatic or Solenoid Drain Valve*
- *Pre-Piping of High Temperature Particulate Afterfilter with Differential Pressure Gauge*

EHD/BPD-PAK I

Same as EHD/BPD-PAK including:

- *Three-Valve-Bypass Piping*
- *Visual Moisture Indicator*

EHD/BPD-PAK II

Same as EHD/BPD-PAK including:

- *Three-Valve-Bypass Piping*
- *Flex Power Purge System (FPPS) with High Humidity Warning Light Circuitry (HHL)*
- *Fail-To-Switch Warning Light*

AIR/TAK has been designing and manufacturing quality Compressed Air System products since 1979. All of our products are American Made in the United States at our manufacturing facility in Pennsylvania. No products are outsourced. As a third generation family-owned business, AIR/TAK employees have proudly built a reputation for delivering quality products, value, and superior customer service to our valued customers.

FULL LINE OF COMPRESSED AIR PRODUCTS

- Heatless Regenerative Compressed Air Dryers
- Heated Desiccant Compressed Air Dryers
- Refrigerated Air Dryers
- Deliquescent Dryers
- Mist Eliminators
- Custom Engineered Products

From small point-of-use dryers, to large, custom engineered compressed air dryers for the most demanding industrial applications, let an AIR/TAK dryer specialist assist in meeting your air or gas drying requirements.

We have the capabilities to customize products for even the most unique applications.

Our engineering staff will assist in the custom design, engineering and build of your compressed air treatment equipment and compressed natural gas production equipment to fit your applications to exact specifications for superior performance and energy savings.

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