# EH HEATED DESICCANT AIR DRYER

## EH150 –EH8000

**Compression Technologies and Services**
**Davidson, NC 28036**

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**Cancels: All Previous**

## GENERAL INFORMATION

Many compressed air applications can be served appropriately by desiccant dryers. Desiccant dryers are usually, but not always, chosen because of their low dewpoint capability (-40°F to -100°F).

There are two basic types of desiccant dryers:
1) Heatless
2) Heat Regenerated

Both types require two vessels filled with desiccant material. While one vessel is drying the air stream, the other is being regenerated. Automatic cycling shall be controlled by an electronic controller.

Regeneration of desiccant for externally heat regenerated dryers is accomplished by removing the water from the desiccant bed by using heated air. In the operating mode, water vapor is adsorbed on the desiccant. In the regeneration mode, dried air is passed through an external heater then through the regenerating vessel. The heated dry outlet air desorbs the moisture and then discharges to atmosphere.

Ingersoll Rand offers a full line of heatless desiccant dryers as well as heat regenerated dryers.

The Ingersoll Rand EH dryers are available from 150 to 8000 SCFM.

Heat regenerative air dryers are chosen over the heatless types for many reasons. Heat regenerated air dryers are often chosen due to the reduced compressed air loss through purge as well as for large and/or consistent air flows.

Heat regenerated dryers have several advantages over other methods of drying:

1) Significantly reduced purge consumption.
2) A wide operating range of inlet air temperatures.
3) Reduced purge requirements allows more of the compressed air to be used for the process.
4) External heater nearly eliminates internal fire risk and desiccant destruction.
5) Pneumatically actuated valves assure positive closure and reliable dryer operation.

Points to remember when choosing a heat regenerated dryer:

1) Vessels are heated during regeneration.
2) Required purge air is 50% of that required for regeneration on heatless dryers.
3) The EH externally heated dryers are designed to produce a dew point of –40 F. Optional -100 F dew point is available.

Consider all of these points when selecting the type and style of dryer for your application.

The EH dryers are ideal for large flow and process applications. By design, the EH dryers require small purge air flow, 7-8% of dryer size, making these the dryers of choice for applications with little excess air capacity.

EH dryer capacity is based on 100F inlet air temperature and 100 PSIG inlet air pressure. Maximum pressure drop (dryer only – not including filters) at standard rated conditions is 3.5 psid.

Operating parameters are as follows:

- Maximum Inlet Air Temp 120F
- Maximum Inlet Air Pressure 150 PSIG
- Minimum Inlet Air Pressure 80 PSIG

NOTE: The capacity of the dryer is affected by changes in operating conditions and must be sized accordingly.

Heated dryers are designed for indoor operation. Consult factory for low ambient or outdoor applications.