

# Desiccant Regenerative Air Dryers

Designed to Meet Your Needs



## Why Dry Air?

A compressor takes in atmospheric air loaded with contaminants and moisture. At 23.9°C / 75°F and 75% relative humidity, a 500 SCFM/850 NM<sup>3</sup>/HR air compressor takes in about 340.6 litres of water in vapour form during a 24-hour period. An after cooler condenses about half. As the air flows from the compressor into the distribution lines, it cools. The vapour condenses causing rust, scale, and ultimately leaks in pipes, valves, instruments, and air-operated tools and equipment. Moreover, when exposed to freezing temperatures, the moisture in airlines will freeze and restrict airflow. A typical OXAIR dryer pays for itself in less than a year by reducing and eliminating maintenance costs and downtime.

## Clean, dry air makes your operation more productive

As long as compressed air is not exposed to temperatures below the temperature the air was cooled to in the dryer (the dew point temperature), no troublesome liquid will form in downstream air lines and equipment. Dry air keeps pneumatic equipment running at peak efficiency and extends the service life of air tools, motors, and cylinders. Dry air allows pneumatic instruments, valves, and controls to operate reliably, and helps ensure product and process quality.

## Regenerative Desiccant Compressed Air Dryers

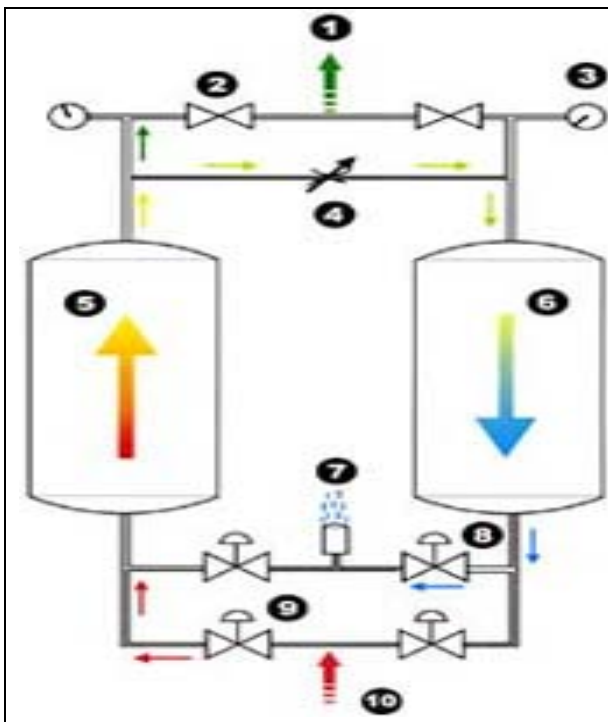
- Designed for consistent-pressure dew points
- Eliminate water and freeze-up in low ambient temperatures
- Come completely assembled, piped and wired, with a full charge of activated alumina desiccant
- Only hook-up of utilities is needed for operation
- Include structural steel frame, complete with floor stand
- With SUPER QUIET MUFFLER

Desiccant dryers lower the dew point of compressed air by adsorbing the water vapour in the compressed air onto the surface of the desiccant. Twin towers allow the inlet air to be dried in one tower while the desiccant in the other tower is being regenerated (dried).

These dual-tower regenerative desiccant dryers are an economical and reliable way to dry compressed air to dew points below the freezing point of water or to reduce the moisture content of compressed air for use in critical process applications.

Compressed air is continuously dried through the use of two identical towers, each with a desiccant bed. While one tower is on-stream drying the compressed air, the other tower is off-stream being regenerated (dried out). The inlet air is fed via Pneumatic Actuated Valves controlled by a PLC. The towers are alternated in this manner so that dry desiccant is always in contact with the wet compressed air, resulting in a continuous supply of dry air downstream. All dryers should be installed with a pre-filter and an after-filter.

# Desiccant Regenerative Air Dryers



1. Outlet
2. Outlet valve
3. Pressure gauge
4. Purge flow orifice
5. Dry tower
6. Regenerating tower
7. Muffler
8. Purge valve
9. Inlet control valve
10. Inlet