# The Tsunami Regenerative Dryer

## Product Description

The Tsunami Regenerative Dryer System uses the latest technology to provide your facility with the cleanest, driest compressed air available. Our systems, unlike some of our competitors, are complete systems. This includes the Tsunami water separators and Tsunami oil coalescing filters. We use Moisture Minder® automatic piston drains to assure proper draining of water and oils before the dryer.

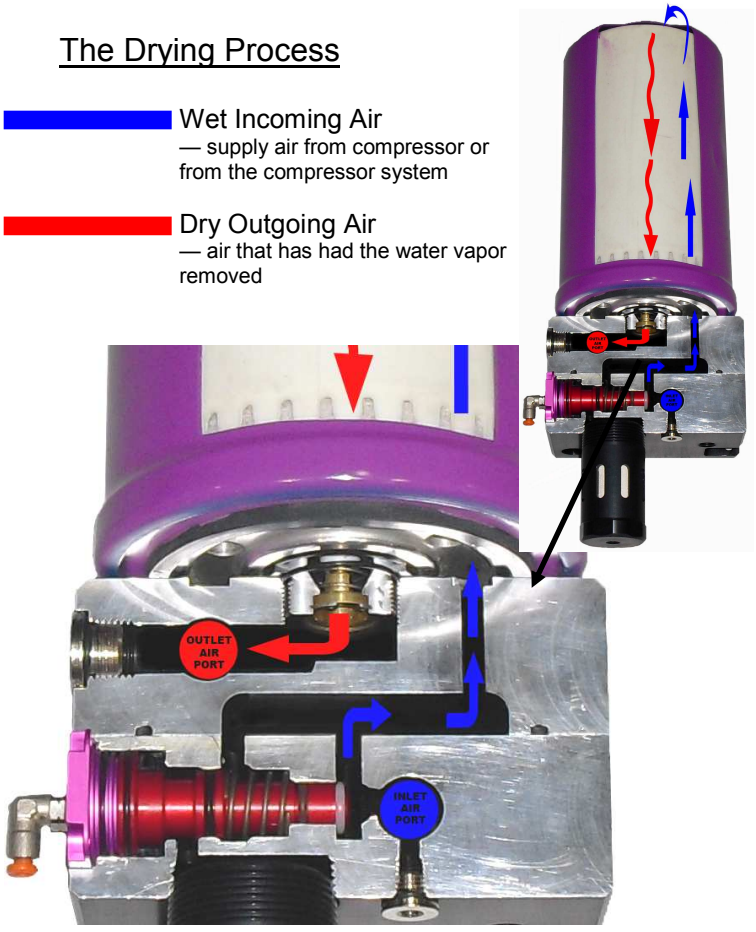
We can configure systems to provide very low dew points (down to -80° F) or very low relative humidity (down to .01%) with very low sweep rates. Flow rate and sweep rate determine the quality of your compressed air.

- This technology functions by passing wet, dirty compressed air through the Tsunami water separator which removes bulk water and oil down to 10 microns, then the air passes through the Tsunami oil coalescing filter which further removes oil and particulates down to .01 micron.
- This pretreated air enters the dryer and passes through one or more desiccant canisters.
- These canisters are filled with a molecular sieve bed which is under tight compression, so there is virtually no movement or banging together of the beads to cause material break down. Our desiccant media is also encapsulated in a 10 micron filter bag which eliminates the possibility of desiccant carryover downstream.
- As the wet air passes through the towers, the molecular sieve draws the water vapor in while under pressure. At the same time, one or more towers are depressurized. These towers discharge water vapor through the mufflers below those towers with the use of sweep air.
- The PLC controller sends out a pilot signal for an internal spool to shift, which switches the flow of air through the towers.
- This switching of tower operation now allows wet, incoming air to flow through a new or previously dried tower. We take a little air from the dry, outlet flow and direct this air backward through the wet towers via a very small orifice in the regeneration valve. (This is referred to as sweep air or the regeneration process). This dry flow of air through the wet beads will dry them out so they are ready for a new cycle. It's like changing your desiccant every few minutes. Our system assures a continuous flow of clean, dry compressed air for your needs.

### The Drying Process

**Wet Incoming Air**
— supply air from compressor or from the compressor system

**Dry Outgoing Air**
— air that has had the water vapor removed




### The Regeneration Process

**Dry Outgoing Air**
— small amount of dry air used to "sweep" or regenerate the towers

**Wet Discharge Air**
— water vapor which was removed during the drying cycle