



Factory Mutual Approved DRY AIR PAC^Ô – “Air Drying Unit for Refrigerated Area and Dry Pipe Sprinkler Systems.” Design Description:

The *GENERAL* Dry Air PacTM is a turnkey system designed specifically for the sprinkler industry, to provide the sprinkler system with moisture-free air to a -40° F dewpoint.

- The air compressor is designed to fill the sprinkler system to 40 psig in accordance with NFPA 13, as well as provide the higher pressure needed to allow the twin tower regenerative air dryer to function properly.
- The package shall be designed with a special compressor inlet filter to allow easy connection to the freezer room air if required by AHJ. Package shall be FM approved without necessity of this connection.
- The single stage compressor allows for maximum efficiency. Standard equipment includes intercooler, oil fill/breather, oil sight glass and easily removable drain plug.
- The aftercooler, designed to reduce the compressed air temperature to a maximum of 120° F on an 85° F ambient day, discharges into a 30-gallon (minimum) receiver. When the compressor shuts of, the line between the receiver and compressor is unloaded to prolong compressor life. A check valve in the inlet line to the receiver prevents backflow from the receiver.
- A coalescing filter, with integral differential pressure gauge, removes oil and water droplets prior to entry to into the desiccant dryer.
- The output from the filter goes directly into the desiccant dryer where drying is accomplished in an upward direction to ensure that maximum desiccant efficiency occurs in the heatless design used. Downward drying in heatless method is prohibited. The oversized desiccant dryer is fully integrated into the package to ensure optimal performance and maximize space considerations. The purged air exits the dryer in a downward direction through special mufflers to reduce noise levels on depressurization and to prevent backpressure on the towers during regeneration. Each tower has its own purge muffler.
- The Dry Air PacTM includes a UL/FM approved Air Maintenance Device at the outlet of the desiccant dryer to provide a fully integrated package. In fill mode, the AMDTM is in bypass mode; in maintenance mode, the AMDTM is in main line mode.

- A combination particulate filter and regulator prevents downstream migration of desiccant dust while regulating final air pressure to the sprinkler system during fill mode. In the maintenance mode, the filter/regulator act as a filter with the AMD™ controlling the flow.
- A separate port is provided for attachment of a dewpoint-monitoring device.
- The Dry Air Pac™ is controlled by one integrated control panel complete with flow diagram display, 120 volt control circuit with indicating lights for tower drying, drain valve activation and compressor operation, along with panel mounted hour meter, separate drain valve duration and interval controls, drain valve on/off switch and panel control on/off switch. Four panel-mounted pressure gauges are provided for receiver, outlet and drying tower pressures. Purge set pressure gauge is separately mounted and conveniently located at the purge valve for ease of setting the purge flow.
- The Dry Air Pac™ is designed with shut off valves at the prefilter inlet and outlet, in addition to after the filter/regulator. The AMD™ valves provide additional shutoff capacity. All valves are strategically located to allow convenient equipment maintenance.
- The Dry Air Pac™ is designed with front access to all main components so that the unit can be placed in close proximity (within 18 inches) to all rear and side walls without requiring extra space for maintenance of any panels or maintenance components.
- The Dry Air Pac™ comes fully charged with desiccant so that no on-site desiccant installation is required at startup.
- Separate desiccant fill and drain ports are provided to allow re-charging of the dryer tanks without disassembly of the dryer component piping.
- No more than three systems should be connected to a single Dry Air Pac™.

GENERAL FM Approved Dry Air Pac^Ô - a fully integrated, compact and complete turnkey package, pre-piped, pre-wired and factory tested prior to shipment.