

High-Pressure Air Dehydrator

General Description

The Model 6750 high-pressure air dehydrator is a self contained, manually operated unit originally designed for use aboard the DDG-51 class AEGIS destroyer. It is designed to remove water, oil, and solid contaminants from high pressure air aboard ship. The dehydrator is designed for continuous manual operation.

Moisture is removed by passing the incoming wet air through a chamber containing desiccant. The desiccant adsorbs water from the air stream. To allow continuous operation, the dehydrator has two desiccant chambers. While one chamber is drying the air stream, the other is being flushed with a small stream of hot dry air to reactivate the desiccant, then cooled with a small stream of cool dry air. The cycle of dehydrating, heating, and cooling is controlled manually by the operator.

The dehydrator also includes a bypass desiccant chamber which can temporarily provide dry air in case of emergency. Oil mist, liquid water, and other solid contaminants are removed from the incoming air by mechanical filtration.

The Model 6750 is easily installed as a replacement for HPADs of other manufacturers.

Specifications

Built to modified Military Specification MIL-D-17847D, the unit is fully qualified to Military Specification MIL-S-901C, High Impact Shock (Grade A), and Military Standard MIL-STD-167, Vibration (Environmental) Shipboard.

Air Capacity: 75 scfm saturated air at 115° F at 3000 psig. Normally operates at 2500 to 3000 psig; designed at 3000 psig and proofed at 4500 psig.

Outlet Air Conditions: Maximum moisture content -60° F dew point at 2500 psig. Pressure drop not more than 50 psi from inlet pressure.

Electrical Requirements: 440 VAC, 60 Hz, single-phase, 5 amperes.

Dimensions: 30" W x 45" H x 18 3/4" D

Weight: 715 pounds

Technical Manual: NAVSEA S9514-E5-MMA-010



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