Air Dehydrator

Low-Pressure Condenser-Filter Air Dehydrator

General Description

The Model 5295 Condenser-Filter Air Dehydrator provides clean, dry air with the maximum of reliability and minimum of maintenance expense. Originally designed for use aboard the DDG-51 class AEGIS destroyers, it has been installed on other classes, including the CVN-65, DD-963, LHA-1, LHD-1, LSD-49, LCC-19, AOE-6, AS-39, LPD-17, and T-AE-26 classes. Using only ship's chilled water to condense water vapor from the compressed air, the Model 5295 is ideal for replacing CFCbased refrigerated dehydrators from shipboard service. Many Model 5295s have been installed as retrofits on classes pursuant to formal SARs: AGF-3 5086D, LSD-36 551D, LSD-41 1241D, AOE-1 803D, and LPD-4 1183D. Operation of the Model 5295 is completely automatic. Simple, robust design and low maintenance requirements ensure minimum life cycle cost of ownership. Configurations providing different fittings and instrumentation suites are available to satisfy various class requirements.

APL Numbers:

Mark I:	440300055
Mark IA:	44A010001
Mark II:	440300059
Mark III:	440300050
Mark IV:	481570031A
Mark V:	440300060
Mark VI:	440300058B

Specifications

Built to Military Specification MIL-D-24693, dated 23 November 1987, "Dehydrator, Condenser-Filter, Low-Pressure Air," Class 2, 200 scfm. Fully qualified to Military Specification MIL-S-901C, High Impact Shock (Grade A), and Military Standard MIL-STD-167, Vibration (Environmental) Shipboard.

- Air Capacity: 200 scfm saturated air at 125° F, 80 psig.
- **Pressure:** Normally operates at 80 to 150 psig; designed at 150 psig and proofed at 225 psig.
- **Outlet Air Conditions:** Pressure not more than 5 psig below inlet. Dew point within 4° F of inlet water temperature.
- **Electrical Requirements:** 115 VAC, 60 Hz, singlephase, 5 amperes.

Chilled Water: 4 gpm, 10-155 psig, 45° F nominal.

Dimensions: 30"W x 24"D x 56"H

Weight: 526 pounds



- in action -

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"Mark" Distinctions

	Mark I, IA	Mark II	Mark III	Mark IV	Mark V	Mark VI	
Drawing No.	5295	6115	6438	6638	6656	6800	
Customer	BIW, Ingalls	Avondale	Ingalls	Ingalls	NASSCO	Norfolk	
Application	DDG 54 & up	LSD 49, AE 26, LPD 17	DD 969	LHD 5, LHD 8	AOE 10 Class	LHA 2, LCC 20, AGF 3, LHD 1	
Technical Manual	S9514-DJ- MMA-010	S9514-DJ- MMA-010	none	S9514-E7- MMM-010	S9551-CB- MMA-010	S9514-FD- MMD-010	

Features

	Mark I, IA	Mark II	Mark III	Mark IV	Mark V	Mark VI
MIL-F-1183 bronze nuts & tailpieces provided with unit to attach to ship's piping and mate with dehydrator air inlet and outlet		Х	Х	Х		
Stainless equivalent of MIL-F-1183 air inlet and outlet fittings					Х	
Socket-weldable stainless steel customer connec- tions in place of MIL-F-1183 fittings.						Х
Water inlet and outlet pressure gauges.	Х	Х	Х		Х	
High-outlet-air-temperature alarm time delay override switch.	Х	Х	Х		Х	
Remote alarm connection sense normally-open.		Х	Х	Х	Х	Х
Remote alarm connection sense normally-closed.	Х					
Built in accordance with MIL-D-24693 and Amend- ment A						Х