

## Low-Pressure Condenser-Filter Air Dehydrator to Replace NAXI® Refrigerant Dryer

### Features:

- **Drop-in Replacement for Existing NAXI® LPAC Refrigerated Dehydrator**
- **No Ozone-Depleting Substances**
- **No Leak-Prone Refrigerants**
- **No Refrigerator Plant Maintenance Hassles**
- **Backup Auto Drain**
- **Outlet Air Temperature (indicating outlet dew point) with remote alarm contacts**
- **Inlet and Outlet Chilled Water Temperatures**

### General Description:

The Model 7301 Condenser-Filter Dehydrator is a convenient, economical replacement for the R12-cooled refrigerant dehydrator originally furnished with the Dresser-Rand NAXI® LPAC on CG-47 and FFG-7 classes (The LPAC outputs on DDG-51 and DD-963 class ships are dried by stand-alone units such as the Howell Model 5295). Its foundation footprint is an exact duplicate of the refrigi-filter, for trouble-free retrofit. The Model 7301 uses the same rugged, maintenance-free chilled-water-to-air heat exchanger used in Howell's other condenser-filters. The standard unit is furnished with basic instrumentation. The Model 7301 requires no electrical power for its operation.

The Model 7301 is accepted under contract No. N65540-02-D-0091 with NAVSEA Philadelphia and will be a part of the Machalt program.

### Specifications:

- MIL-S-901D, Grade A high-impact shock
- MIL-STD-167-1 vibration
- EMI not applicable

**Inlet Air Conditions:** Flow Rate: to 100 scfm

Pressure: 80 to 150 psig

Temperature: to 125° F

Moisture: Saturated at 80 psig & 125° F maximum  
(0.015 lb water/lb air)

**Inlet Water Conditions:** Temperature: 50° F

Flow Rate: 2 gpm

**Outlet Air Conditions:** Dew point 55° F (5 F° above chilled water inlet temperature)

Maximum 5 psi pressure drop

**Mechanical:** Inlet and outlet air connections:

1-1/2" IPS MIL-F-1183 unions

Inlet and outlet water connections: 1/4" IPS MIL-F-1183 unions

Condensate drain: 37° male flare fitting for connecting to the condensate drain now mounted on the LPAC skid. Additional backup auto drain with 1/4" IPS MIL-F-1183 union for optional connection to an overboard drain line.



Mounting bolt pattern: Identical to the refrigi-filter installed on the NAXI® compressor

**Electrical Power:** None required.

**Instrumentation:** Outlet air temperature (indicating outlet dew point), with remote alarm contacts

Inlet and outlet water temperature

Other instrumentation at purchaser's option

**Dimensions:** 15" W x 18" D x 46" overall H

**Weight:** 235 lb dry; 242 lb wet

## Howell Laboratories, Inc.

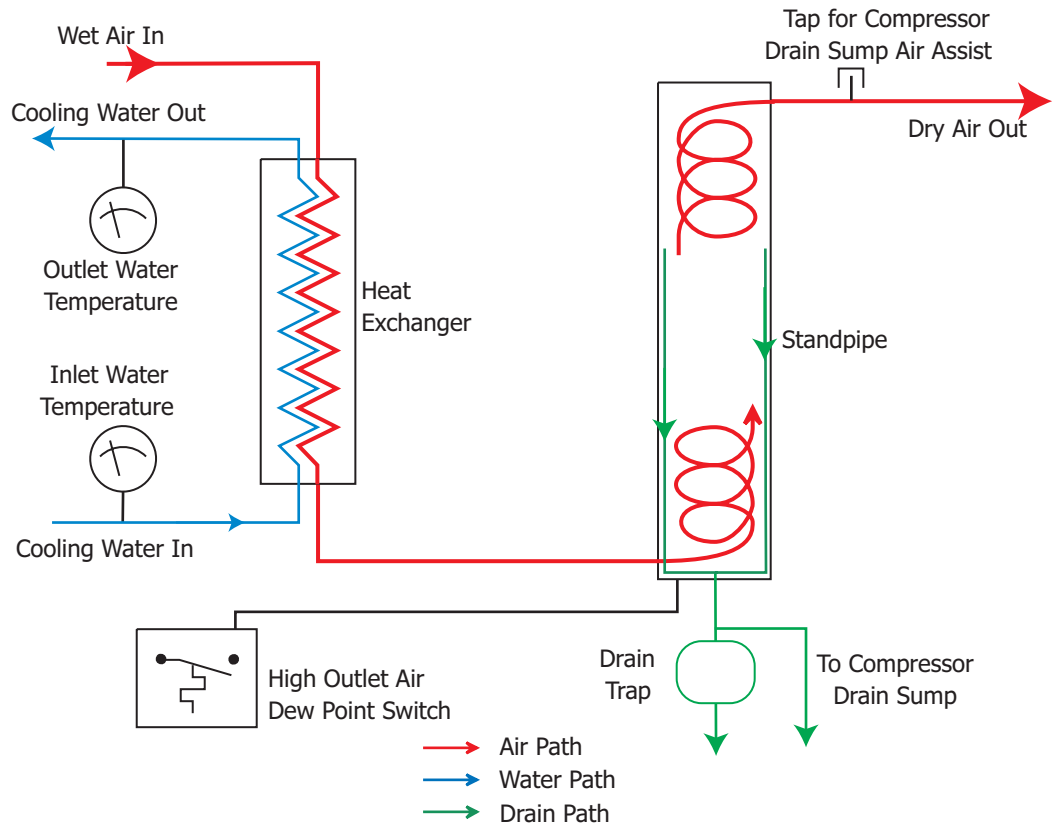
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**Flow Schematic, Model 7301 Dehydrator**