Compressed Air
Hollow Fiber
Membrane Dryers

Bulletin 1300 - 800/USA

Finite®
Finite®, the world leader in coalescing media development, has combined its proven coalescing filtration with a modern alternative to pressure swing and refrigerant dryer technologies.

Finite®’s membrane dryers are available in 10 models which can supply clean, dry compressed air with dewpoints as low as -40°F (@10 SCFM) and +35° F (@40 SCFM).

These membrane dryers are engineered for easy installation, minimal maintenance, and long term reliability.

How It Works:
The water vapor in the compressed air is removed by the principle of selective permeation through a membrane. The membrane module consists of bundles of hollow membrane fibers, each permeable to water vapor. As the compressed air passes through the center of these fibers, water vapor permeates through the walls of the fiber. A small portion of the dry air (purge flow) is redirected along the outside of each hollow fiber, carrying away the moisture-laden air which is then Exhausted to room atmosphere. The remainder of the dry air is piped to the application.

NOTE: In all cases a Grade 10 prefilter and a Grade 6 coalescer are installed upstream of the dryer module for 99.9985% removal of oil aerosols and mists.

Applications

- Air bearings
- Analytical instrumentation
- Coordinate measurement machines (CMM)
- Dental air
- Dry air for hazardous areas
- Electrostatic painting
- General laboratory air supply
- Laboratory grade air
- Laser and optical purge
- Low dewpoint instrument air
- OEM machine builders
- Pneumatic equipment
- Prevention of air line freeze ups
- Purge air for electronic cabinets
- Purge air for moisture sensitive coatings and adhesives
**Part Number FMD35-006**

**Specifications:**
- **Width:** 5.5” (14.00 cm)
- **Height:** 14.5” (36.83 cm)
- **Port Size:** 1/4” NPT
- **Min./Max. Inlet Pressure:** 60/150 PSIG (4.1-10.3 bar)
- **Ambient/Inlet Temp. Range:** 40°-100° F (4.4°-37.8° C)
- **Purge Flow @ 100 PSI:** 0.25 SCFM (0.43 NM³/H)
- **Pre-coalescer Part #:** Q1S-10HM06-013
- **Coalescer Part #:** Q1S-6HM06-013
- **Weight:** 0.7 lbs. (.38 kg)

**Features**
- No moving parts
- Quiet
- Designed for point of use
- Continuous operation
- Differential pressure indicator (on selected models)
- Hollow fiber technology
- Non oxygen depleting membrane fibers

**Advantages**
- Nothing to wear out
- Quiet
- Designed for point of use
- Continuous operation
- Differential pressure indicator (on selected models)
- Hollow fiber technology
- Non oxygen depleting membrane fibers

**Benefits**
- Less downtime
- Lightweight
- No waiting for media changeouts
- Indicates when filter element should be changed
- No electricity
- No U.L. approval required
- No refrigerants
- Low dewpoints
- Only water vapor molecules are allowed to pass through fiber walls

**Part Number FMD35-015**

**Specifications:**
- **Width:** 6.5” (16.51 cm)
- **Height:** 15” (38.10 cm)
- **Port Size:** 1/4” NPT
- **Min./Max. Inlet Pressure:** 60/150 PSIG (4.1-10.3 bar)
- **Ambient/Inlet Temp. Range:** 40°-100° F (4.4°-37.8° C)
- **Purge Flow @ 100 PSI:** 0.5 SCFM (0.85 NM³/H)
- **Pre-coalescer Part #:** Q1S-10HM06-013
- **Coalescer Part #:** Q1S-6HM06-013
- **Weight:** 1.9 lbs. (.86 kg)

**Features**
- No moving parts
- Quiet
- Designed for point of use
- Continuous operation
- Differential pressure indicator (on selected models)
- Hollow fiber technology
- Non oxygen depleting membrane fibers

**Advantages**
- Nothing to wear out
- Quiet
- Designed for point of use
- Continuous operation
- Differential pressure indicator (on selected models)
- Hollow fiber technology
- Non oxygen depleting membrane fibers

**Benefits**
- Less downtime
- Lightweight
- No waiting for media changeouts
- Indicates when filter element should be changed
- No electricity
- No U.L. approval required
- No refrigerants
- Low dewpoints
- Only water vapor molecules are allowed to pass through fiber walls

**Total Air Consumption = Purge Flow + Product Flow**
**Part Number FMD35-060**

**Specifications:**
- **Width:** 10" (25.4 cm)
- **Height:** 22" (55.88 cm)
- **Port Size:** 1/4" NPT
- **Min./Max. Inlet Pressure:** 60/150 PSIG (4.1-10.3 bar)
- **Ambient/Inlet Temp. Range:** 40°-100° F (4.4°-37.8° C)
- **Purge Flow:** 1.5 SCFM @ 100 PSI (2.55 NM3/H)
- **Pre-coalescer Part #:** HN1S-10CW
- **Replacement element:** 10C10-025
- **Coalescer Part #:** HN1S-6CW
- **Replacement element:** 6C10-025
- **Weight:** 5.2 lbs. (2.36 kg)

**Part Number FMD35-100**

**Specifications:**
- **Width:** 11.5" (29.21 cm)
- **Height:** 22" (55.88 cm)
- **Port Size:** 1/2" NPT
- **Min./Max. Inlet Pressure:** 60/150 PSIG (4.1-10.3 bar)
- **Ambient/Inlet Temp. Range:** 40°-100° F (4.4°-37.8° C)
- **Purge Flow:** 3.5 SCFM @ 100 PSI (5.95 NM3/H)
- **Pre-coalescer Part #:** HN2S-10CW
- **Replacement element:** 10C10-025
- **Coalescer Part #:** HN2S-6CW
- **Replacement element:** 6C10-025
- **Weight:** 7.1 lbs. (3.22 kg)

**Part Number FMD35-400**

**Specifications:**
- **Width:** 14" (35.56 cm)
- **Height:** 38" (96.52 cm)
- **Port Size:** 1/2" NPT
- **Min./Max. Inlet Pressure:** 60/150 PSIG (4.1-10.3 bar)
- **Ambient/Inlet Temp. Range:** 40°-100° F (4.4°-37.8° C)
- **Purge Flow:** 6 SCFM @ 100 PSI (4.2 NM3/H)
- **Pre-coalescer Part #:** HN2L-10CW
- **Replacement element:** 10C10-050
- **Coalescer Part #:** HN2L-6CW
- **Replacement element:** 6C10-050
- **Weight:** 18.9 lbs. (8.57 kg)
Part Number FMD40-001

Specifications:
- Width: 5.5" (14.00 cm)
- Height: 14.5" (36.83 cm)
- Port Size: 1/4" NPT
- Min./Max. Inlet Pressure: 60/150 PSIG (4.1-10.3 bar)
- Ambient/Inlet Temp. Range: 40°-100° F (4.4°-37.8° C)
- Purge Flow: 0.25 SCFM @ 100 PSI (0.43 NM³/H)
- Pre-coalescer Part #: Q1S-10HM06-013
  Replacement element: 10HM06-013
- Coalescer Part #: Q1S-6HM06-013
  Replacement element: 6HM06-013
- Weight: 0.7 lbs. (.38 kg)

Total Air Consumption = Purge Flow + Product Flow

Part Number FMD40-002

Specifications:
- Width: 6.5" (16.51 cm)
- Height: 15" (38.10 cm)
- Port Size: 1/4" NPT
- Min./Max. Inlet Pressure: 60/150 PSIG (4.1-10.3 bar)
- Ambient/Inlet Temp. Range: 40°-100° F (4.4°-37.8° C)
- Purge Flow: 0.2 SCFM @ 100 PSI (0.34 NM³/H)
- Pre-coalescer Part #: Q1S-10HM06-013
  Replacement element: 10HM06-013
- Coalescer Part #: Q1S-6HM06-013
  Replacement element: 6HM06-013
- Weight: 1.9 lbs. (.86 kg)

Total Air Consumption = Purge Flow + Product Flow

Part Number FMD40-002 @ 75° F

Product Flow (scfm) vs. Dewpoint Suppression (F)

Part Number FMD40-002 @ 100° F

Product Flow (Nm³/h) vs. Dewpoint Suppression (C)

Part Number FMD40-020

Specifications:
- Width: 10" (25.4 cm)
- Height: 22" (55.88 cm)
- Port Size: 1/4" NPT
- Min./Max. Inlet Pressure: 60/150 PSIG (4.1-10.3 bar)
- Ambient/Inlet Temp. Range: 40°-100° F (4.4°-37.8° C)
- Purge Flow: 0.5 SCFM @ 100 PSI (.85 NM³/H)
- Pre-coalescer Part #: HN1S-10CW
  Replacement element: 10C10-025
- Coalescer Part #: HN1S-6CW
  Replacement element: 6C10-025
- Weight: 5.2 lbs. (2.36 kg)

Total Air Consumption = Purge Flow + Product Flow

Part Number FMD40-020 @ 100° F

Product Flow (Nm³/h) vs. Dewpoint Suppression (C)
Part Number FMD40-050

Specifications:
- Width: 14” (35.56 cm)
- Height: 26” (66.04 cm)
- Port Size: 1/2” NPT
- Min./Max. Inlet Pressure: 60/150 PSIG (4.1-10.3 bar)
- Ambient/Inlet Temp. Range: 40°-100° F (4.4°-37.8° C)
- Purge Flow: 2 SCFM @ 100 PSI (3.4 NM³/H)
- Pre-coalescer Part #: HN2S-10CW
  Replacement element: 10C10-025
- Coalescer Part #: HN2S-6CW
  Replacement element: 6C10-025
- Weight: 13.3 lbs. (3.22 kg)

Total Air Consumption = Purge Flow + Product Flow

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Part Number FMD40-100

Specifications:
- Width: 14” (35.56 cm)
- Height: 38” (96.52 cm)
- Port Size: 1/2” NPT
- Min./Max. Inlet Pressure: 60/150 PSIG (4.1-10.3 bar)
- Ambient/Inlet Temp. Range: 40°-100° F (4.4°-37.8° C)
- Purge Flow: 2.5 SCFM @ 100 PSI (4.25 NM³/H)
- Pre-coalescer Part #: HN2L-10CW
  Replacement element: 10C10-050
- Coalescer Part #: HN2L-6CW
  Replacement element: 6C10-050
- Weight: 18.9 lbs. (8.57 kg)

Total Air Consumption = Purge Flow + Product Flow