



**PRISM<sup>®</sup> PE dryers**  
**membrane air dehydration . . .**  
**tell me more**

# PE Membrane dryer overview

Air Products' PRISM PE dryers are compact and efficient dehydrators for industrial air supplies. These robust dryers remove water vapor from compressed air streams by the selective permeation of water molecules through polymers. They are “molecular filters” in which water travels across the membrane faster than other gas molecules. Advantages include lower maintenance time and expense compared to desiccant or refrigerant dryers. Membrane dryers are superior for operation at remote sites and for point-of-use applications.

# PRISM PE dryer advantages

## Durable

Each module is manufactured from high-performance ABS with aluminum caps which will withstand some of the most grueling environments. Some models are available in 316L stainless steel for corrosive environments.

## Cost-effective

The simple design makes PRISM PE dryers less expensive to purchase and maintain than desiccant or refrigerant dryers. No moving parts or expensive media required.

## Proven technology

The selective permeation technology has been in use by Air Products for decades. This simple system is passive, with no moving parts, resulting in more reliable products that can be deployed in a wide range of environments, including mobile systems. PRISM PE dryer modules are found in critical applications, like the oil and gas industry and onboard aircraft carriers in the U.S. naval fleet.

## Flexible application

PRISM PE dryers can be mounted vertically or horizontally to meet your design requirements. The purge inlet port is designed with a swivel fitting to allow for various installation positioning. A user-installed orifice or adjustable valve optimizes the purge rates and dew points for each application.

## Simple start-up

PRISM PE dryers are easily commissioned. Simply apply clean compressed air, and production begins. No break-in period, expensive media, or complex equipment to manage and maintain.

## Industrial grade

PRISM PE dryers are designed to handle industrial production loads. The solid construction is perfect for remote and severe duty installations like oil and gas and mining operations.

## Quality assured

Every PRISM PE dryer has to pass our rigorous testing requirements before it will be released into service. You can be confident that every dryer will be a solid performer. The PRISM Membranes business unit is proud of its AS9100 certification for quality management systems, which meets the exacting requirements of the global aerospace industry.

## Efficient

PRISM PE membrane dryers are the most efficient units available. Compared to other brands, the PRISM PE dryers operate with lower purge rates.

# Alternative technology comparison

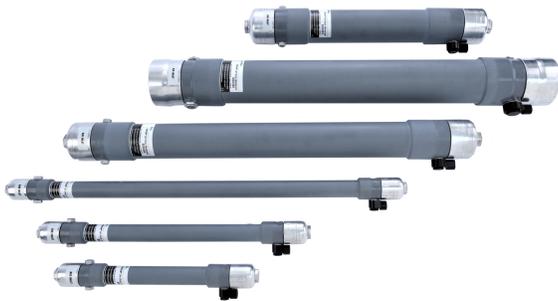
## 100 cfm dryers

	Desiccant <sup>1</sup>	Deliquescent <sup>2</sup>	PE4030 Membrane
Size inches (mm)	49 x 17 x 13 (1245 x 432 x 330)	13 x 51 (330 x 1295)	5.6 x 41 (141 x 1045)
Weight	172 lbs. (78 kg)	260 lbs. (118 kg)	14.9 lbs. (6.76 kg)
Maintenance	Intensive PM schedule	Recharging and monitoring	None
Consumable items	Desiccant and filters (\$1020 US), valves + solenoids (\$1039 US)	Deliquescent tablets (\$1.25/lb) 130 lbs (59kg)	None
Expandable	No	No	Yes
Power required	Yes	No	No
Management system	PLC controlled + sensors	Manual drain valve + visual ports	None
Dew point attainable	Variable -4°F to -100°F	20° below inlet dew point	Variable +40°F to -70°F

<sup>1</sup> Nano NDL-110-F Heatless Desiccant Air Dryer.

<sup>2</sup> Van Air D-12 Freedom Single Tower Deliquescent Air Dryer.

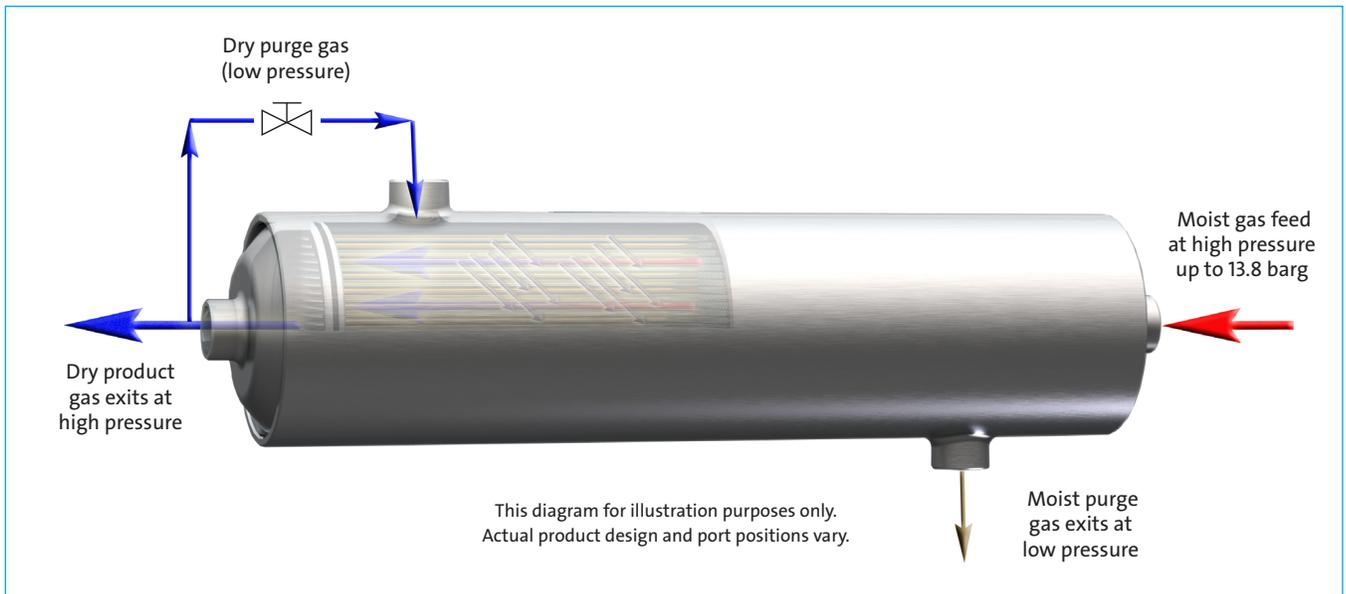
Membrane dryers are passive devices that have lower capital and operational costs. The small size and simple operation make them ideal for applications where bulky units will not fit. Membrane dryers are quiet, require no external power, and do not have expendable media that requires maintenance.



A typical membrane separator contains thousands of fibers that are bundled and encased at both ends in epoxy resin. The ends of the bundle are cut, which leaves the fiber bores open on both ends, allowing the gas to travel from one end to the other. The fiber bundle is enclosed in a suitable casing. The casing protects the fibers and routes the gas properly.

**Air Products' PRISM membranes: experience, performance, and value.**

## How PRISM PE membrane air dryers work



**Membrane dryers passively produce dry air with no moving parts or electrical components, consumable items, or desiccant dust carry-over. They provide silent and uninterrupted operation for a wide range of dew point specifications.**

Membrane dryers remove water vapor from gas streams by the selective permeation of water molecules through polymers. Membrane dryers can be described as “molecular filters” where water travels across the membrane faster than other gas molecules.

The permeation of gases is driven by the difference in partial pressure across a thin polymeric separating layer supported on a spongy porous substrate which makes up the core of the membrane. Gases permeate across the separating layer in either direction at a rate that is proportional to the driving force and the permeation coefficient. As wet feed gas flows along the high-pressure side (or “feed” side) of a membrane dryer, water permeates across the membrane to the low-pressure side (or “permeate” side). The water vapor content of the feed gas becomes

progressively lower as it flows along the length of the membrane dryer, which causes less driving force for permeation.

A dry stream of air is injected at low pressure on the permeate side to increase the driving force for water permeation at the dry end of the membrane dryer. This dry stream (fed to the permeate side through the inlet purge port) is called the external purge, dry sweep, or inlet purge. The gas that permeates across the membrane can be considered internal purge. The external and internal purge gas streams together make up the total purge that exits from the purge outlet port. Some of the dry air exiting the membrane dryer can be used as the external purge or a secondary source can be used.

The purge gas carrying the removed water vapor on the permeate side flows in the direction opposite to the feed stream. This “counter-current” flow enables the highest possible driving force to be created over the length of the membrane dryer. Performance is improved (increased dryer capacity or decreased purge) by operating the permeate side at the lowest feasible pressure.

The shell houses the membrane element and provides connection ports for the inlet feed air, outlet dry product air, inlet external purge, and outlet total purge. The membrane element consists of a bundle of hollow fibers with the ends potted in epoxy or other resin. The wet feed gas enters and flows through the bores of the hollow fibers, and dry gas exits the bores of the hollow fibers at the opposite end.

## Ordering information

Catalog Number	Product Number	Shell Materials	Connection Thread Type	Connection Size	Cap Materials
107059	PE1015-E1-3A-00	High performance ABS	NPT	3/8-inch	6061 Aluminum
107060	PE1015-E1-3B-00	High performance ABS	BSPP	3/8-inch	6061 Aluminum
194204	PE1015-E1-3D-00	High performance ABS	NPT	3/8-inch	Clear anodized cap
107062	PE1020-E1-3A-00	High performance ABS	NPT	3/8-inch	6061 Aluminum
107063	PE1020-E1-3B-00	High performance ABS	BSPP	3/8-inch	6061 Aluminum
107064	PE1020-E1-3B-23	High performance ABS	BSPP	3/8-inch	6061 Aluminum
107065	PE1020-E1-3B-31	High performance ABS	BSPP	3/8-inch	6061 Aluminum
150174	PE1020-E1-3D-00	High performance ABS	NPT	3/8-inch	Clear anodized cap
107067	PE1030-E1-3A-00	High performance ABS	NPT	3/8-inch	6061 Aluminum
107068	PE1030-E1-3B-00	High performance ABS	BSPP	3/8-inch	6061 Aluminum
413880	PE2020-E1-4A-00	High performance ABS	NPT	1/2-inch	6061 Aluminum
413881	PE2020-E1-4B-00	High performance ABS	BSPP	1/2-inch	6061 Aluminum
413882	PE2030-E1-4A-00	High performance ABS	NPT	1/2-inch	6061 Aluminum
413883	PE2030-E1-4B-00	High performance ABS	BSPP	1/2-inch	6061 Aluminum
107072	PE3020-E1-4A-00	High performance ABS	NPT	1/2-inch	6061 Aluminum
107073	PE3020-E1-4B-00	High performance ABS	BSPP	1/2-inch	6061 Aluminum
137430	PE3020-E1-4F-00	316L Stainless Steel Shell	BSPP	1/2-inch	6061 Aluminum
107076	PE3030-E1-4A-00	High performance ABS	NPT	1/2-inch	6061 Aluminum
107077	PE3030-E1-4B-00	High performance ABS	BSPP	1/2-inch	6061 Aluminum
107081	PE4020-E1-6A-00	High performance ABS	NPT	3/4-inch	6061 Aluminum
107082	PE4020-E1-6B-00	High performance ABS	BSPP	3/4-inch	6061 Aluminum
107085	PE4030-E1-6A-00	High performance ABS	NPT	3/4-inch	6061 Aluminum
107086	PE4030-E1-6B-00	High performance ABS	BSPP	3/4-inch	6061 Aluminum
410565	PE4030-E1-6E-00	316L Stainless Steel	NPT	3/4-inch	316L Stainless Steel
410566	PE4030-E1-6F-00	316L Stainless Steel	BSPP	3/4-inch	316L Stainless Steel
411103	PE4030-E1-6P-00	Replaceable cartridge	NPT	3/4-inch	316L Stainless Steel
411104	PE4030-E1-6R-00	Replaceable cartridge	BSPP	3/4-inch	316L Stainless Steel

## ABS product dimensions and weights

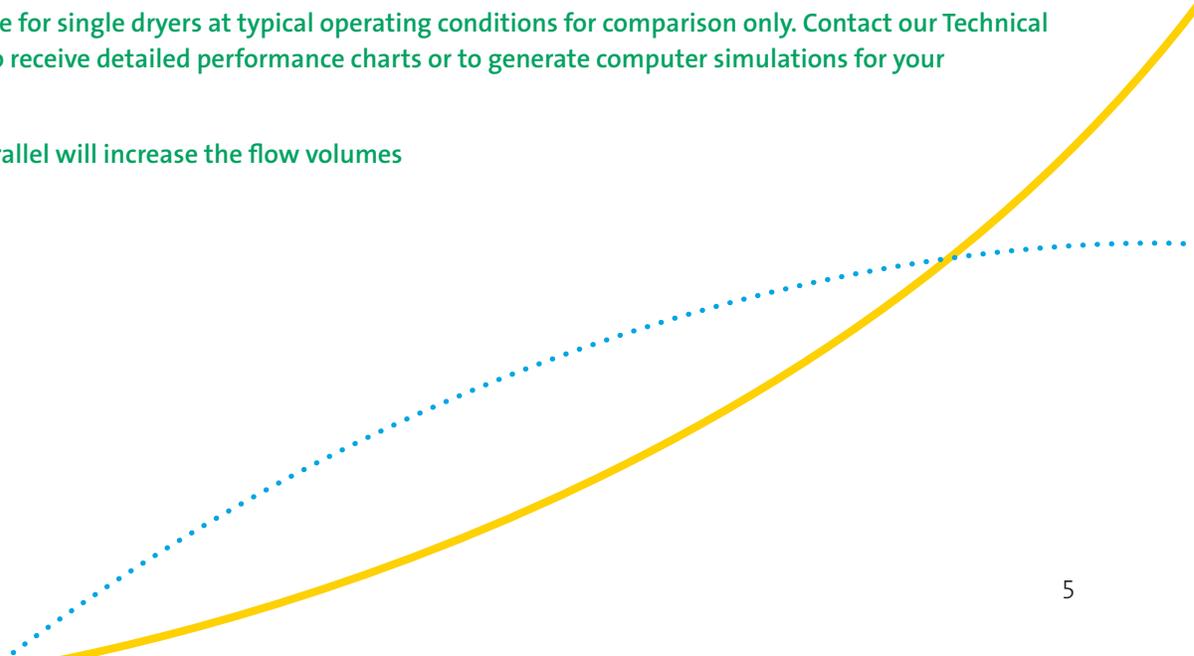
# Dryer performance – quick reference

Flow capacity in scfm – inlet air @ 100 psig, 100°F, 100% RH

Model	Flow @ +40°F PDP		Flow @ +20°F PDP		Flow @ 0°F PDP		Flow @ -20°F PDP	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
PE1015-E1	5.8	5.0	3.9	3.2	–	–	–	–
PE1020-E1	8.8	7.6	6.8	5.7	4.3	3.5	2.8	2.3
PE1030-E1	12.4	10.6	10.3	8.6	7.6	6.2	6.1	4.8
PE2020-E1	19.1	16.4	14.7	12.2	9.2	7.5	6.1	4.9
PE2030-E1	27.5	23.7	23.0	19.1	16.9	13.7	13.5	10.7
PE3020-E1	38.8	33.4	30.2	25.1	19.0	15.4	12.8	10.1
PE3030-E1	50.7	43.6	42.7	35.5	31.4	25.5	25.3	20.1
PE4020-E1	56.4	48.5	44.3	36.8	27.5	22.4	18.5	14.6
PE4030-E1	88.1	75.8	74.4	61.8	54.7	44.5	44.5	35.3
Purge rate (% of inlet flow)	14.0%		16.9%		18.7%		20.7%	

Performance ratings are for single dryers at typical operating conditions for comparison only. Contact our Technical Services department to receive detailed performance charts or to generate computer simulations for your applications.

Operating dryers in parallel will increase the flow volumes





**CACTUS® PC dryers**  
**membrane air dehydration . . .**  
**tell me more**

# Cactus dryer overview



Air Products' CACTUS PC dryers are compact and efficient dehydrators for industrial air supplies. These robust dryers remove water vapor from gas streams by the selective permeation of water molecules through polymers. They are “molecular filters” in which water travels across the membrane faster than other gas molecules.

Advantages include lower maintenance time and expense compared to desiccant or refrigerant dryers. Membrane dryers are superior for operation at remote sites and for point-of-use applications.

Every Cactus PC dryer is hand assembled and tested in our AS9100 certified facility.

# CACTUS PC dryer advantages

## Durable

Each CACTUS PC dryer is manufactured from high-performance ABS with aluminum caps which withstand some of the most grueling environments. Special order versions of the PC3020, PC3030, and PC4030 are available in 316L stainless steel for corrosive environments.

## Cost-effective

The simple design makes CACTUS PC dryers less expensive to purchase and maintain than desiccant or refrigerant dryers. The CACTUS PC dryer modules have no moving parts and require no expendable media.

## Proven technology

The selective permeation technology has been employed by Air Products for decades. This simple system is a passive device with no moving parts that can be deployed in a wide range of environments, including mobile systems. CACTUS PC dryers are found in critical applications where bulky desiccants and refrigerated dryers are not practical.

## Flexible application

CACTUS PC dryers can be mounted vertically or horizontally to meet your design requirements. Deploy at point-of-use or after the storage tank.

## Simple start-up

CACTUS PC dryers are easily commissioned. Simply apply clean compressed air, and production begins. No break-in period, expensive media, or complex equipment to manage and maintain. The fixed purge eliminates the need for adjustments.

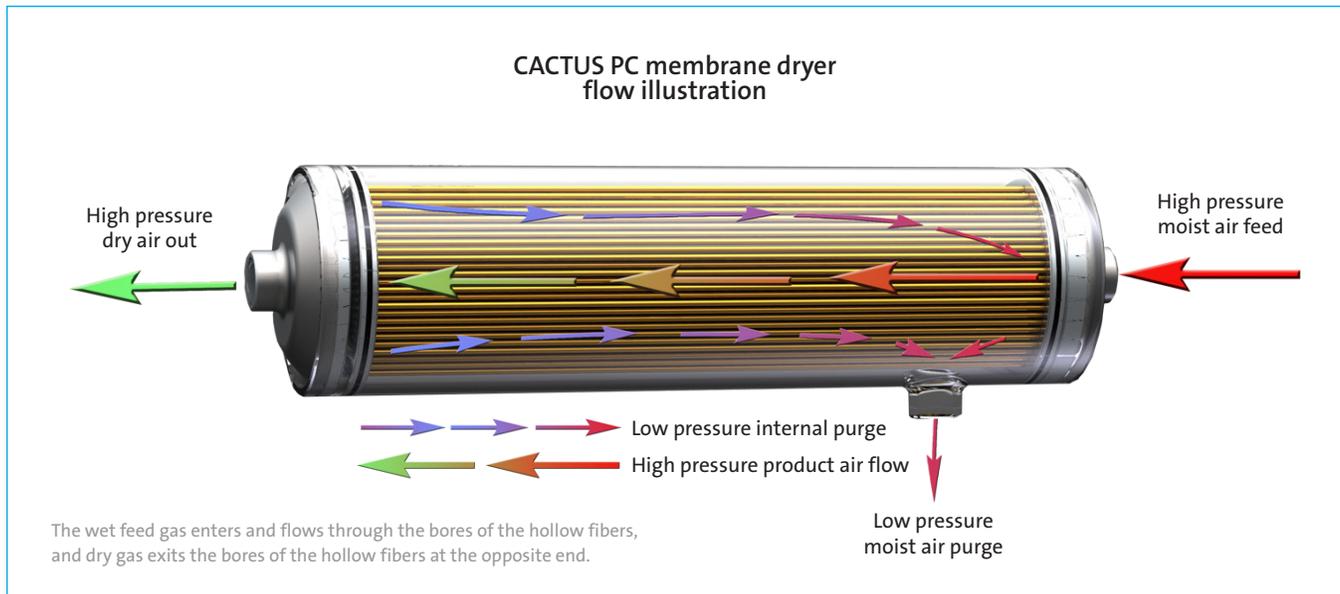
## Industrial grade

CACTUS PC dryers are designed to handle industrial production loads. The solid construction is perfect for remote and severe-duty installations like oil platforms and mining operations. Operating pressure up to 300 PSIG meets industrial loads with ease.

## Quality assured

Every membrane separator is hand assembled and has to pass our rigorous testing requirements before it will be released into service. You can be confident that every separator will be a solid performer. The PRISM Membranes business unit is proud of its AS9100 certification for quality management systems, which meets the exacting requirements of the global aerospace industry.

# How CACTUS membrane dryers work



The CACTUS PC air dryer is a membrane dryer. Membrane dryers passively produce dry air with no moving parts or electrical components, consumable media, or desiccant dust carry-over. They provide silent and uninterrupted operation for a wide range of dew point specifications.

Membrane dryers remove water vapor from gas streams by the selective permeation of water molecules through polymers. Membrane dryers can be described as “molecular filters” where water travels across the membrane faster than other gas molecules.

The permeation of gases is driven by the difference in partial pressure across a thin polymeric separating layer supported on a spongy porous substrate which makes up the core of the membrane. Gases permeate across the separating layer in either direction at a rate that is proportional to the driving force and the permea-

tion coefficient. As wet feed gas flows along the high-pressure side (the “feed” side) of a membrane dryer, water permeates across the membrane to the low-pressure side (the “permeate” side). The water vapor content of the feed gas becomes progressively lower as it flows along the length of the membrane dryer, which causes less driving force for permeation.

A dry stream of air flows in a counter-current direction at low pressure on the permeate side to increase the driving force for water permeation at the dry end of the membrane dryer. This dry stream is called the dry sweep or inlet purge. Cactus dryers utilize an internal purge which eliminates the need for a secondary stream of dry air to be fed into the membrane separator.

The purge gas carrying the removed water vapor on the permeate side flows in the direction opposite to the feed stream. This “counter-current” flow enables the highest possible driving force to be created over the length of the membrane dryer. Performance is improved (increased dryer capacity or decreased purge) by operating the permeate side at the lowest feasible pressure.

The module houses the membrane element and provides connection ports for the inlet feed air and outlet dry product air. The membrane element consists of a bundle of hollow fibers with the ends potted in epoxy or other resin. The wet feed gas enters and flows through the bores of the hollow fibers, and dry gas exits the bores of the hollow fibers at the opposite end.

# Dryer performance – quick reference

Flow capacity in scfm @ 100 psig, 100°F, 100% RH

Model	Flow @ +40°F PDP		Flow @ +20°F PDP		Flow @ 0°F PDP		Flow @ -20°F PDP		Flow @ -40°F PDP	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
PC3010-D2	7.8	6.7	6.5	5.4	5.5	4.3	4.7	3.5	3.9	2.7
PC3020-D2	17.2	14.9	14.7	12.3	12.6	10.2	10.7	8.2	8.9	6.4
PC3030-D2	29.0	25.1	24.8	20.8	21.2	17.1	18.0	13.8	15.0	10.8
PC4030-D2	56.0	48.4	47.5	39.7	40.5	32.5	34.5	26.3	29.0	20.8
Avg. purge %	13.6%		16.5%		19.9%		23.8%		28.6%	

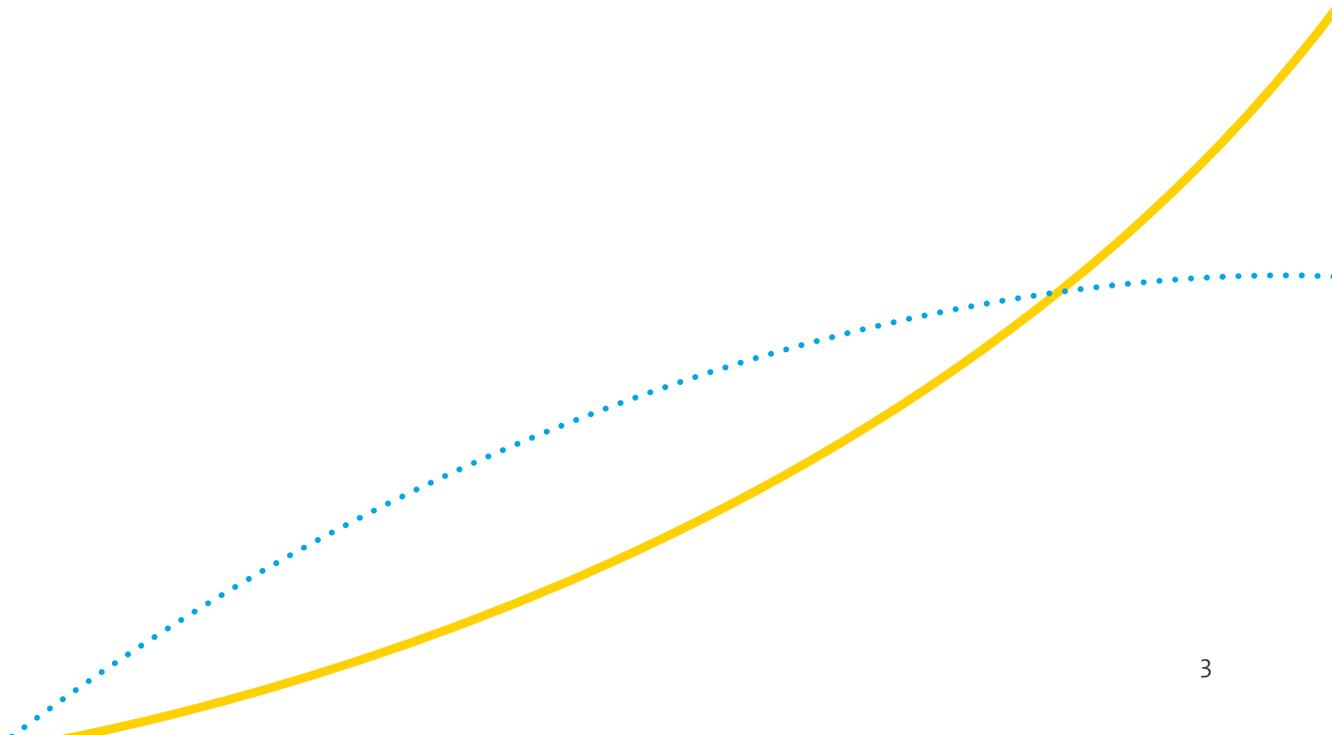
Flow capacity in slpm @ 7 barg, 35°C, 100% RH

Model	Flow @ +3°C PDP		Flow @ -10°C PDP		Flow @ -20°C PDP		Flow @ -30°C PDP		Flow @ -40°C PDP	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
PC3010-D2	217	186	179	146	153	120	131	97	112	78
PC3020-D2	480	413	403	335	350	280	301	230	256	184
PC3030-D2	809	697	681	565	591	473	508	388	431	311
PC4030-D2	1560	1341	1305	1079	1128	898	973	740	830	596
Avg. purge %	14.0%		17.4%		20.5%		24.3%		28.6%	

PDP = Pressure Dew Point

Performance ratings are for single separators at standard conditions. Actual performance will vary with incoming pressure and temperature. Contact our Technical Services department to obtain detailed performance estimates for your specific application.

Operating dryers in parallel will increase the flow volumes



## Ordering information

Catalog Number	Descriptor Code	Connector	Thread	Materials
107025	PC3010-D2-3A-20	3/8-inch	NPT	ABS shell with aluminum cap
107027	PC3010-D2-3B-20	3/8-inch	BSPP	ABS shell with aluminum cap
107034	PC3020-D2-00-2E	1/2-inch	NPT	316 Stainless shell & cap
107035	PC3020-D2-00-2F	1/2-inch	BSPP	316 Stainless shell & cap
107036	PC3020-D2-4A-20	1/2-inch	NPT	ABS shell with aluminum cap
107038	PC3020-D2-4B-20	1/2-inch	BSPP	ABS shell with aluminum cap
124086	PC3020-D2-4D-20	1/2-inch	NPT	ABS w/Clear anodized cap
107043	PC3030-D2-00-2E	1/2-inch	NPT	316 Stainless shell & cap
107044	PC3030-D2-00-2F	1/2-inch	BSPP	316 Stainless shell & cap
107045	PC3030-D2-4A-20	1/2-inch	NPT	ABS shell with aluminum cap
107047	PC3030-D2-4B-20	1/2-inch	BSPP	ABS shell with aluminum cap
107053	PC4030-D2-00-2G	3/4-inch	NPT	316 Stainless shell & cap
107054	PC4030-D2-00-2H	3/4-inch	BSPP	316 Stainless shell & cap
107055	PC4030-D2-6A-20	3/4-inch	NPT	ABS shell with aluminum cap
107057	PC4030-D2-6B-20	3/4-inch	BSPP	ABS shell with aluminum cap
130205	PC4030-D2-6D-20	3/4-inch	NPT	ABS w/Clear anodized cap

## Dimensions and weights

Model	Length		Diameter		Weight	
	inches	mm	inches	mm	pounds	kg
PC3010-D2	15.3	387	3.9	99.3	4.6	2.1
PC3020-D2	26.9	683	3.9	99.3	6.3	2.2
PC3020-D2 [SS]	26.9	683	3.9	99.3	15.4	7.0
PC3030-D2	41.2	1048	3.9	99	8.3	3.8
PC3030-D2 [SS]	41.2	1048	3.9	99	20.5	9.3
PC4030-D2	41.1	1045	4.9	125	14.6	6.6
PC 4030-D2 [SS]	40.5	1029	5.6	141	39.7	18.0

# Alternative technology comparison

## 100 cfm dryers

	Desiccant <sup>1</sup>	Deliquescent <sup>2</sup>	PC4030 Membrane
Size inches (mm)	49 x 17 x 13 (1245 x 432 x 330)	13 x 51 (330 x 1295)	4 x 40 (102 x 1016)
Weight	172 lbs. (78 kg)	260 lbs. (118 kg)	14.6 lbs. (6.6 kg)
Maintenance	Intensive PM schedule	Recharging and monitoring	None
Consumable items	Desiccant and filters (\$1020 US), valves + solenoids (\$1039 US)	Deliquescent tablets (\$1.25/lb) 130 lbs (59 kg) per charge	None
Expandable	No	No	Yes
Power required	Yes	No	No
Management system	PLC controlled + sensors	Manual drain valve + visual ports	None
Dew point attainable	Variable -4°F to -100°F	20° below inlet dew point	Variable +40°F to -40°F
Noise	Yes. May require abatement.	No	No

<sup>1</sup> Nano NDL-110-F Heatless Desiccant Air Dryer.

<sup>2</sup> Van Air D-12 Freedom Single Tower Deliquescent Air Dryer.

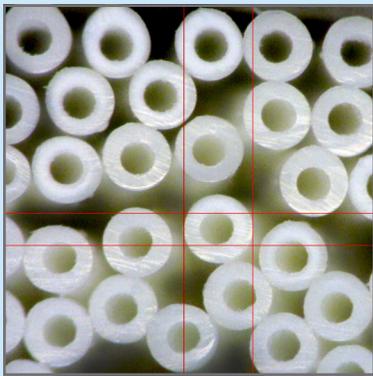


A typical membrane separator contains thousands of fibers that are bundled and encased at both ends in epoxy resin. The bundle ends are cut, which leaves the fiber bores open on both ends, allowing the gas to travel from one end to the other. The fiber bundle is enclosed in a suitable casing. The casing protects the fibers and routes the gas properly.

**Air Products' PRISM membranes: experience, performance, and value.**

# PRISM<sup>®</sup> Membranes

## High-pressure dryers



A typical membrane separator contains thousands of hollow fibers bundled together. One or both ends of the bundle are cut, which allows a gas to travel either inside or alongside the hollow fibers depending on the application. The fiber bundle is enclosed in an inner ABS shell and outer stainless steel shell that structurally protects the fibers under high pressure, and properly routes the gas.

**Air Products' PRISM membranes: experience, performance, and value.**

One of the most cost-effective ways to generate a continuous stream of dry air on-site is with Air Products PRISM Membranes high-pressure dryers, which can be used as stand-alone equipment or between compressor stages to separate water vapor from an air stream.

Our high-pressure dryers dehydrate air at pressures from 300 to 1,200 psig and ambient temperatures ranging from 30° to 130° Fahrenheit.

The principle is simple, but very effective. As air at high-pressure flows along the outside of the membrane fibers, water is removed by selective permeation. Dry air exits at the opposite end. For optimum performance, a user-adjustable portion of the dried air is injected as a purge stream.

### Features/benefits

#### Durability

PRISM Membrane dryers are manufactured with durability and performance in mind. They use no electricity, making them ideal for use in remote applications, compressor stations, or shipboard installations. Built from high-performance stainless steel, Air Products' high-pressure dryers withstand the most grueling environments.

#### Highest quality

Every PRISM Membrane dryer must pass our rigorous testing requirements before it can be sold. Our quality management systems are certified ISO 9001 or AS9100C to meet the stringent requirements of the global aerospace industry.

## Industrial grade

Our high-pressure dryers are designed to handle industrial production loads at pressures of up to 1200 psig. Their solid construction is a perfect fit for remote and severe-duty installations, including shipboard systems and power plants.

## Passive technology

The selective permeation technology has no moving parts; it is maintenance free.

## Feed Temperature 110°F

### HD4020

Pressure	Atmospheric Dew Point –40°F			Atmospheric Dew Point –76°F		
	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)
300 psig	67.3	53.8	20	43.3	32.5	25
700 psig	166.6	154.1	7.5	99.6	89.6	10
1100 psig	162.5	156.8	3.5	119.6	113.0	5.5

### HD4030

Pressure	Atmospheric Dew Point –40°F			Atmospheric Dew Point –76°F		
	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)
300 psig	77.6	62.1	20	51.0	38.3	25
700 psig	187.5	173.4	7.5	114.6	103.2	10
1100 psig	194.3	187.1	3.7	125.1	118.1	5.6

### HD4050

Pressure	Atmospheric Dew Point –40°F			Atmospheric Dew Point –76°F		
	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)	Feed Flow (scfm)	Outlet Flow (scfm)	Outlet Purge (%)
300 psig	97.3	77.8	20	68.4	51.3	25
700 psig	212.8	196.8	7.5	137.1	123.4	10
1100 psig	280.5	268.3	4.3	182.4	170.5	6.5

*Performance specifications: dry, outlet flow air may not be breathed. Performance listed is for single dryer only. Contact PRISM Membranes for performance charts or simulations.*

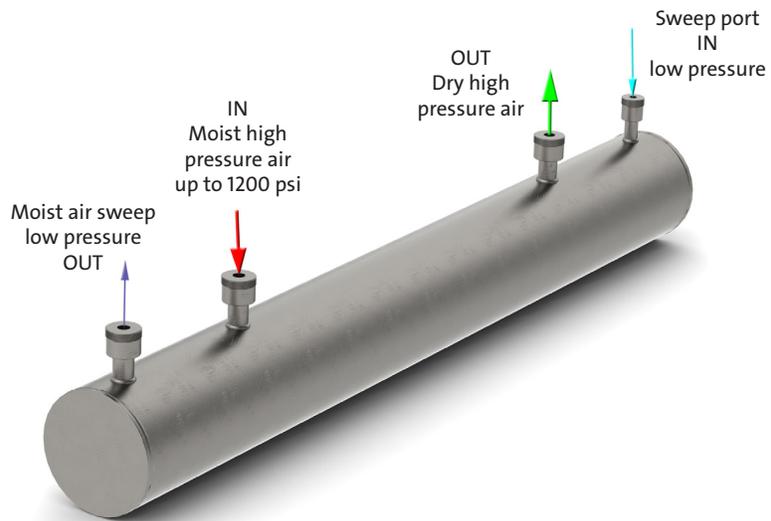
## Ordering Information

Catalog Number	Model Number	Product Description
106991	HD4020-I2-A0-OE	High Pressure PRISM membrane dryer with three 1" JIC Flare connections, European Certified 3/4" fixed internal JIC Flare Connection Purge, 316L stainless steel shell
106992	HD4030-I2-A0-OE	High Pressure PRISM membrane dryer with three 1" JIC Flare connections, European Certified 3/4" fixed internal JIC Flare Connection Purge, 316L stainless steel shell
106995	HD4030-I2-A0-OP	High Pressure PRISM membrane dryer with three 1" JIC Flare connections, industrial stainless steel 3/4" fixed internal JIC Flare Connection Purge, 316L stainless steel shell
106996	HD4050-I2-A0-OE	High Pressure PRISM membrane dryer with three 1" JIC Flare connections, European Certified 3/4" fixed internal JIC Flare Connection Purge, 316L stainless steel shell
106998	HD4050-I2-A0-OP	High Pressure PRISM membrane dryer with three 1" JIC Flare connections, industrial stainless steel 3/4" fixed internal JIC Flare Connection Purge, 316L stainless steel shell

## Feed air requirements

PRISM membrane dryers are specifically designed to remove water vapor. Dryer performance will be reduced if liquid water or liquid compressor oil enters the membrane dryer.

Also, pre-heating the feed gas may be required depending on the application. Coalescing filters must be installed before the membrane dryer to remove bulk and aerosol liquid water and liquid compressor oil. Certain applications may require removal of oil vapor using activated carbon adsorption installed after the coalescing filters.



### Operating Limits

Feed pressure maximum	1200 psig
Purge inlet pressure maximum	1000 psig
Ambient temperature range	30°F – 130°F

### Material

316 stainless steel

### Weight | Dimensions

#### HD4020

Length	42 inches
Diameter	6.06 inches
Height (w/purge fitting)	8.53 inches
Weight	108 lbs

#### HD4030

Length	49 inches
Diameter	6.06 inches
Height (w/purge fitting)	8.53 inches
Weight	120 lbs

#### HD4050

Length	78.5 inches
Diameter	6.06 inches
Height (w/purge fitting)	8.53 inches
Weight	172 lbs

#### WARNINGS:

Operating a PRISM Membranes high-pressure dryer above the rated design pressure may be hazardous. Do not connect the dryer to compressed air sources that can exceed the maximum rated pressure of 1200 psig without installing appropriate pressure controls and safety relief devices in the compressed air supply line.

Compressed air can be dangerous. Know and follow all safety rules, especially when breaking into and blowing down compressed air lines when installing or modifying equipment.

For more information regarding membrane dryers, please contact us.

#### Air Products Membrane Solutions

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The information contained in this document is believed to be true and accurate at time of publication. Air Products PRISM Membranes reserves the right to change product specifications without notification. Please consult current *Product Design and Reference* manual for detailed information associated with these products.

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