Gas Purification Solutions

CMD TM SERIES

MEMBRANE AIR DRYERS WITH OPTIONAL PREFILTRATION AND OPTIONAL PURGE CONTROL

ENGINEERED FILTRATION

MEMBRANE AIR DRYERS WITH OPTIONAL PREFILTRATION AND OPTIONAL PURGE CONTROL

CLEAN & DRY AIR FOR COMPRESSED AIR APPLICATIONS

STATE-OF-THE-ART MEMBRANE TECHNOLOGY

The CMD TM Membrane Air Dryer technology is proven to make it easier and less expensive to provide pneumatic equipment and instrumentation with clean, dry compressed air. Building on this success, SR has developed a new line of membrane air dryers with optional prefiltration and optional purge control.

The coalescing submicron prefilter is an option that helps to enable the membrane air dryer to operate at peak efficiency.

For maximum control and maximum flexibility, the purge control feature enables customers to turn purge air on and off or even change purge flow rates. This helps to enable purge waste minimization, the utilization of a purge gas other than the gas that is being dehydrated, and more consistent performance in cycling applications.

FEATURES AND BENEFITS

- Proven air technology with consistent and predictable performance
- Compact and lightweight, easily integrate into existing compressed air systems
- Low purge air consumption
- Protection for high performance membrane dryer (with optional coalescing prefilter)
- Silent operation, no moving parts
- No electricity
- 24/7 Attendance free operation

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CLEAN & DRY AIR FOR COMPRESSED AIR APPLICATIONS

SPECIFICATIONS

COMPONENT	MATERIAL / VALUE
AIR DRYER	
Air Dryer Shell Material	Blue Aluminum
Air Dryer End Cap Material	See dimensions table
Air Dryer Mounting Orientation Standard Module	Any
Maximum Operating Temperature	80°C (176°F)
Maximum Operating Pressure	12.5 barg (180 psi)
Typical Pressure Drop	0.2 to 0.5 barg (3 to 7 psi)
Required Filtration (if mounted on an oil-free compressor)	0.1 micron coalescing filter
Required Filtration (if mounted on a lubricated compressor)	0.01 micron coalescing filter
OPTIONAL PREFILTER	
Prefilter Media Type	Borosilicate Glass
Prefilter Housing	Black Aluminum
Mounting Orientation of Prefilter	Vertical
Particle Removal	0.01 micron
Max Oil Carryover @ 20 °C	0.01 mg/m^3

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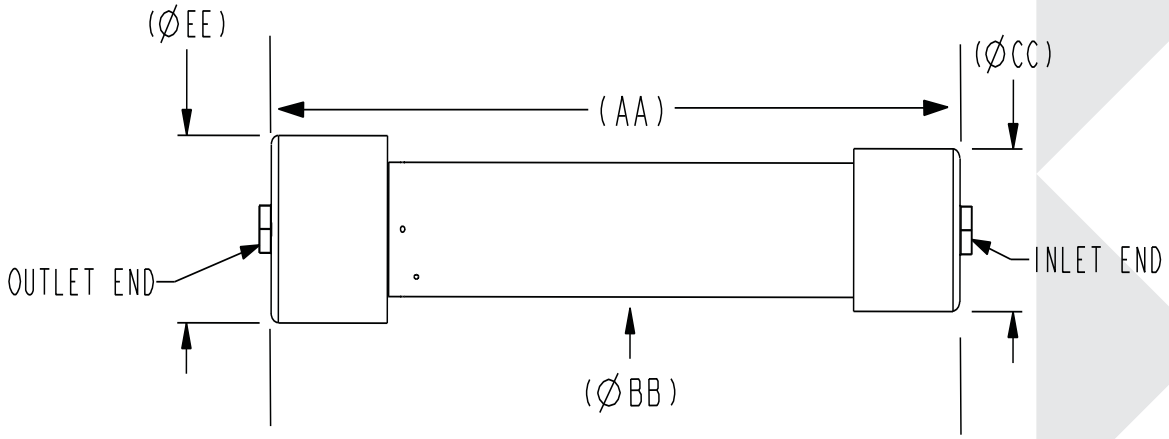
AIR DRYER DIMENSIONS, MM (IN)

Air Dryer	AA	BB	CC	EE	Inlet/Outlet Connections BSPT/ NPT	Air Dryer End Cap Material
CMD TM 50	224 (8.8)	43 (1.7)	58 (2.3)	58 (2.3)	1/4	Nylon
CMD TM 100	325 (12.8)	43 (1.7)	58 (2.3)	58 (2.3)	1/4	Nylon
CMD TM 150	427 (16.8)	43 (1.7)	58 (2.3)	58 (2.3)	1/4	Nylon
CMD TM 200	503 (19.8)	43 (1.7)	58 (2.3)	58 (2.3)	1/4	Nylon
CMD TM 300	312 (12.3)	61 (2.4)	81 (3.2)	81 (3.2)	1/2	Nylon
CMD TM 400	376 (14.8)	61 (2.4)	81 (3.2)	81 (3.2)	1/2	Nylon
CMD TM 600	465 (18.3)	61 (2.4)	81 (3.2)	81 (3.2)	1/2	Nylon
CMD TM 800	592 (23.3)	61 (2.4)	81 (3.2)	81 (3.2)	1/2	Nylon
CMD TM 1050	411 (16.2)	89 (3.5)	109 (4.3)	109 (4.3)	1/2	Nylon
CMD TM 1500	551 (21.7)	89 (3.5)	109 (4.3)	124 (4.9)	1/2	Nylon
CMD TM 2050	627 (24.7)	89 (3.5)	109 (4.3)	124 (4.9)	1/2	Nylon
CMD TM 3000	607 (23.9)	114 (4.5)	132 (5.2)	150 (5.9)	1	Aluminum



MEMBRANE AIR DRYERS WITH OPTIONAL PREFILTRATION AND OPTIONAL PURGE CONTROL

CLEAN & DRY AIR FOR COMPRESSED AIR APPLICATIONS

PERFORMANCE DATA

Inlet Conditions:		@ 7 barg (100 psig) 35°C (95°F) to:			
Outlet Pressure Dew Point		15°C (59°F)	3°C (37°F)	-20°C (-4°F)	-40°C (-40°F)
% Purge		10%	14%	21%	29%
% Water Removal		69.70%	86.53%	98.20%	99.77%
Air Dryer	Purge Air slpm (scfm)	Inlet Air Flow slpm (scfm)	Inlet Air Flow slpm (scfm)	Inlet Air Flow slpm (scfm)	Inlet Air Flow slpm (scfm)
CMD TM 50	5 (0.2)	50 (1.8)	36 (1.3)	24 (0.8)	17 (0.6)
CMD TM 100	10 (0.4)	100 (3.5)	71 (2.5)	47 (1.7)	34 (1.2)
CMD TM 150	16 (0.6)	150 (5.3)	107 (3.8)	71 (2.5)	51 (1.8)
CMD TM 200	19 (0.7)	200 (7.1)	142 (5.0)	95 (3.4)	69 (2.4)
CMD TM 300	29 (1.0)	300 (10.6)	213 (7.5)	142 (5.0)	103 (3.6)
CMD TM 400	38 (1.3)	400 (14.1)	284 (10.0)	189 (6.7)	137 (4.8)
CMD TM 600	57 (2.0)	600 (21.2)	427 (15.1)	284 (10.0)	206 (7.3)
CMD TM 800	76 (2.7)	800 (28.3)	569 (20.1)	379 (13.4)	274 (9.7)
CMD TM 1050	103 (3.6)	1050 (37.1)	747 (26.4)	497 (17.6)	360 (12.7)
CMD TM 1500	150 (5.3)	1500 (53.0)	1120 (39.6)	730 (25.8)	518 (18.3)
CMD TM 2050	208 (7.3)	2050 (72.4)	1530 (54.0)	980 (34.6)	710 (25.1)
CMD TM 3000	300 (10.6)	3000 (106.0)	2135 (75.4)	1425 (50.3)	1025 (36.2)

Purge tolerance +3% of maximum inlet flow range.

CORRECTION FACTORS FOR ALTERNATE PRESSURES

Performance Correction Factors for Alternate Pressures									
For maximum flow rate, multiply flow rate shown in above table by the correction factor corresponding to the working pressure									
Operating Pressure barg (psig)	4 (58)	5 (73)	6 (87)	7 (100)	8 (116)	9 (131)	10 (145)	11 (160)	12 (174)
Correction Factor	0.4	0.6	0.8	1.0	1.2	1.5	1.7	1.9	2.2
Equation for determining inlet flow at designated pressure: Inlet flow @ 7 barg (101.5 psig.) x Correction Factor at Different Operating Pressure = Inlet Flow at Different Operating pressure									

* Performance Correction Factors for Alternate Pressures are available upon request.

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