



WALKER FILTRATION

The ultimate filtration & drying technology

PROSFD

Compressed Air Desiccant Dryer Range
Innovative design. Exceptional engineering. Improved performance



Technical Specification PD004 - PD035

Dryer model	Pipe size inches	Inlet flow rate*		Dimensions mm						Weight Kg	No. of cartridges	Included filter model
		Nm ³ /hr	SCFM	A	B	C	D	E	F			
PD004	3/8	7	4	493	351	92	22	160	415	13	2	A3031XA
PD006	3/8	10	6	552	351	92	22	160	475	14	2	A3031XA
PD008	3/8	14	8	613	351	92	22	160	535	15	2	A3031XA
PD010	3/8	17	10	682	351	92	22	160	605	17	2	A3031XA
PD015	3/8	25	15	862	351	92	22	160	785	20	2	A3031XA
PD025	3/8	42	25	1253	351	92	22	160	1035	24	2	A3031XA
PD035	3/8	59	35	1644	351	92	22	160	1430	31	2	A3031XA

*Stated flows are for an inlet pressure of 7 barg (100 psig) with reference to 20°C, 1 barg (abs.), 0% relative water vapour pressure. For flow at other pressures apply the appropriate correction factors, terms and dewpoint.

Specification		
Standard pressure dewpoint	-40°C	-40°F
Optional pressure dewpoint	-70°C	-94°F
ISO Class (ISO 8573-1:2010)	(Class 1) -70 °C	(Class 2) -40 °C
Minimum working pressure	4 barg	58 psig
Maximum working pressure	16 barg	232 psig
Power supply	12 - 24VDC or 100 - 240VAC (50-60Hz)	
Minimum inlet temperature	1.5°C	35°F
Maximum inlet temperature	50°C	122°F

Dryer correction factors

Operating pressure (PCF)													
barg	4	5	6	7	8	9	10	11	12	13	14	15	16
psig	58	72	87	100	116	130	145	160	174	189	203	218	232
Correction factor	0.62	0.75	0.87	1	1.12	1.25	1.37	1.5	1.62	1.75	1.87	2.0	2.12

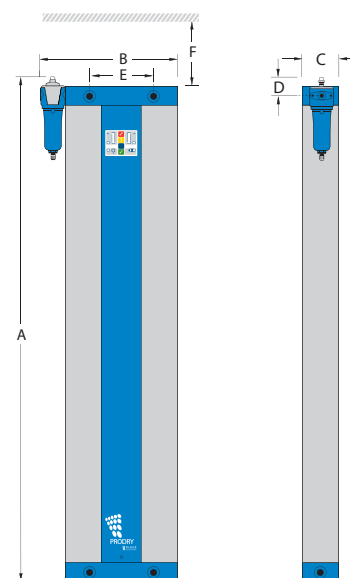
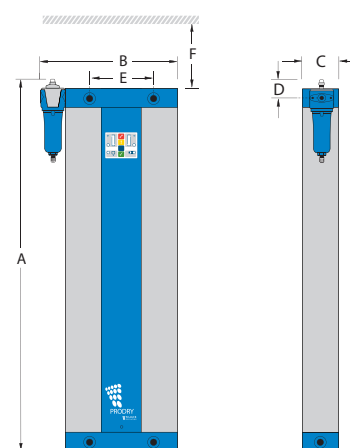
Temperature (TCF)							
Celsius (°C)	20	25	30	35	40	45	50
Fahrenheit (°F)	68	77	86	95	104	113	122
Correction factor	1.07	1.06	1.04	1	0.88	0.78	0.55

Pressure Dewpoint (DCF) ***		
Celsius (°C)	-40	-70
Fahrenheit (°F)	-40	-94
Correction factor	1	0.7

PROSFD Sizing Example

To correctly select the PRODRY model suitable for your application the following information is required:
Minimum Inlet Pressure, Maximum Inlet Temperature, Maximum Inlet Flow and Required Pressure Dewpoint (PDP).

Requirements	Correction Factor
Maximum compressor inlet flow	15 scfm
Actual minimum inlet pressure to the dryer	6 barg
Maximum inlet temperature	25°C (77 °F)
Pressure dewpoint (PDP)	-70°C (-94 °F)
Corrected dryer flow rate	$\frac{\text{Inlet flow rate}}{\text{PCF} \times \text{TCF} \times \text{DCF}} = \frac{15}{(0.87 \times 1.06 \times 0.7)} = 23.2 \text{ scfm}$ (39Nm ³ /hr)
Appropriate Dryer Size	Dryer model is selected based on the corrected flow rate, ie. PD0025.



Models PD004-PD035

Technical notes

- Models PD004 – PD035 supplied complete with XA (0.01 micron) pre-filter.
- On Models PD0046 – PD0360 are supplied with an XA (0.01 micron) pre-filter as standard. This should be installed upstream of the dryer. AnRXA (0.01 micron) dust filter is recommended downstream of the dryer.
- A Water Separator is included as standard on models PD0046-PD0360.
- All dryer applications and sizing should be confirmed by CAG Purification. Please contact CAG's sales team for information on recommended sizing and air quality for your application need.
- Floor fixing dimensions for dryer models PD0046 - PD0360 are given in the illustrations on the page opposite.

Technical Specification PD0046 - PD0360



Dryer model	Pipe size inches	Inlet flow rate*		Dimensions mm						Weight Kg	No. of cartridges	Recommended Filter model	Model With Dewpoint Management Control**
		Nm ³ /hr	SCFM	A	B	C	D	E	F				
PD0046	1	77	45	655	380	310	76	50	600	46	2	A3051XA	PD0046DMC
PD0056	1	94	55	735	380	310	76	50	700	51	2	A3052XA	PD0056DMC
PD0075	1	128	75	905	380	310	76	50	850	62	2	A3071XA	PD0075DMC
PD0090	1	153	90	1030	380	310	76	50	1000	70	2	A3101XA	PD0090DMC
PD0110	1	187	110	1260	380	310	76	50	700	85	4	A3101XA	PD0110DMC
PD0150	1	255	150	1595	380	310	76	50	850	105	4	A3102XA	PD0150DMC
PD0180	1	306	180	1845	380	310	76	50	1000	122	4	A3102XA	PD0180DMC
PD0220	1½	374	220	1260	380	490	76	62	700	154	8	A3122XA	PD0220DMC
PD0300	1½	510	300	1596	380	490	76	62	850	195	8	A3151XA	PD0300DMC
PD0360	1½	612	360	1845	380	490	76	62	1000	225	8	A3151XA	PD0360DMC

* Stated flows are for an inlet pressure of 7 barg (100 psig) with reference to 20°C, 1 barg (abs), 0% relative water vapour pressure. For flow at other pressures apply the appropriate correction factors, terms and dewpoint.

** For dewpoint management control state 'DMC' when asked what controller type you require upon placing your order.

Specification		
Standard pressure dewpoint	-40°C	-40°F
Optional pressure dewpoint	-20°C	-4°F
	-74°C	-100°F
Minimum working pressure	4 barg	58 psig
Maximum working pressure	13 barg	188.5 psig
Electronic control (LED)	115 or 230 VAC at 50-60Hz	
Dewpoint control (DMC)	24 VDC	
Minimum inlet temperature	1.5°C	35°F
Maximum inlet temperature	50°C	122°F

Dryer correction factors

Operating pressure (PCF)												
barg	4	5	6	7	8	9	10	11	12	13		
psig	58	72	87	100	115	130	145	160	174	189		
Correction factor	0.62	0.75	0.87	1	1.12	1.25	1.37	1.5	1.62	1.75		

Temperature (TCF)							
Celsius (°C)	20	25	30	35	40	45	50
Fahrenheit (°F)	68	77	86	95	104	113	122
Correction factor	1.3	1.2	1.1	1	0.75	0.65	0.45

Pressure dewpoint (DCF)			
Celsius (°C)	-20	-40	-74
Fahrenheit (°F)	-4	-40	-100
Correction factor	1.23	1	0.7

To correctly select the PROSFD model suitable for your application the following information is required: Minimum Inlet Pressure, Maximum Inlet Temperature, Maximum Inlet Flow and Required Pressure Dewpoint (PDP).

Requirements	Correction Factor
Maximum compressor inlet flow	56 scfm
Actual minimum inlet pressure to the dryer	6 barg
Maximum inlet temperature	25°C (77 °F)
Pressure dewpoint (PDP)	-74°C (-100 °F)
Corrected dryer flow rate	$\frac{\text{Inlet flow rate}}{\text{PCF} \times \text{TCF} \times \text{DCF}} = \frac{56}{(0.87 \times 1.2 \times 0.77)} = 69.7 \text{ scfm} \text{ (118 Nm}^3\text{/hr)}$
Appropriate Dryer Size	Dryer model is selected based on the corrected flow rate, i.e. PD0075.

*** High Performance Cartridges are required for applications where -70 °C and -74°C dewpoints are required.



Models PD0046-PD0180



Models PD0220-PD0360

New DMC control available.
To receive the benefits of dewpoint management, quote PD(model)DMC when ordering your dryer



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