WALKER FILTRATION

The ultimate filtration & drying technology

PRODRY

Walker Filtrations range of lower flow Desiccant Dryers | PD004 to PD035

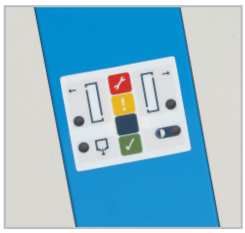
Flow rates 4 scfm (7 Nm³/hr) to 35 scfm (59 Nm³/hr)

With flow rates from 4 – 35 scfm, our range of lower flow PRODRY models provide a proven solution for compressed air drying and are ideal for smaller point of use applications.

Designed to deliver optimum performance in line with the highest standards of air purity, as specified in ISO 8573-1: 2010, PRODRY models PD004 to PD035 are supplied as standard with XA grade 0.01 micron coalescing filter.

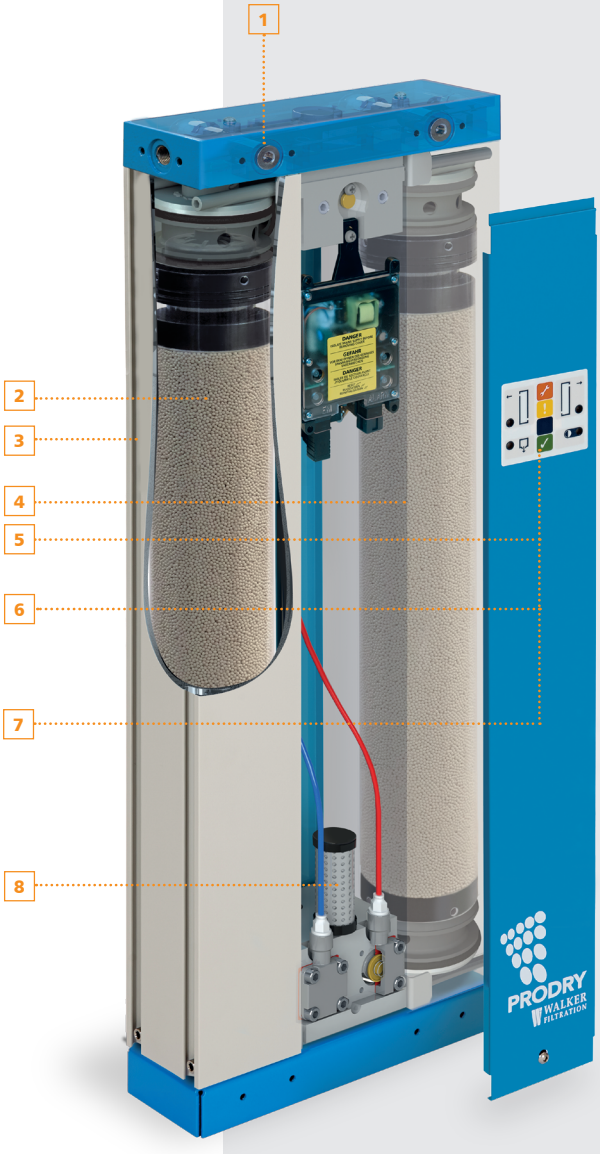
With a compact design and multi-ported manifold the dryer can be installed vertically and horizontally, providing a flexible solution to your compressed air drying needs. This highly reliable, high efficiency range of dryers features in-built energy management, allowing the purge flow to be isolated during periods of low demand for efficient use of compressed air. Whatever your application requirement, PRODRY delivers a compressed air drying solution you can trust.

0.01 Micron XA Pre-filter
Supplied as standard



LED Controller
Supplied as standard

1 Micron X1 Dust Filter
Integrated into Desiccant Cartridge



1	Multi-ported manifold and compact design allows for flexible installation	5	PD004 to PD035 feature 16 barg standard operating pressure
2	Controlled desiccant bed geometry ensures consistant and reliable dewpoint performance	6	Intelligent LED controller with built-in energy management (supplied as standard)
3	Anodised aluminium extrusions provides corrosion protection	7	Energy management feature isolates purge flow during periods of low demand
4	Desiccant columns can be removed for quick and efficient change out.	8	Internal Walker Filtration designed silencer reduces noise levels below 85dBA




For further information please visit www.walkerfiltration.com

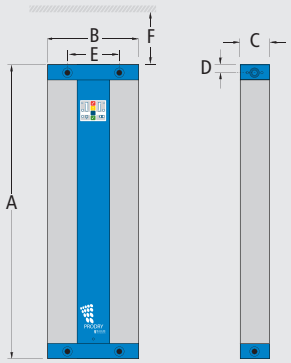
Technical Specification PD004 - PD035

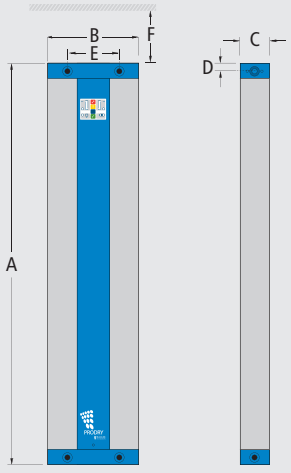
Dryer model	Pipe size inches	Inlet flow rate*		Dimensions mm						Weight Kg	No. of cartridges	Included filter model
		Nm³/hr	SCFM	A	B	C	D	E	F			
PD004	3/8	7	4	445	280	92	22	160	415	13	2	A3031XA
PD006	3/8	10	6	504	280	92	22	160	475	14	2	A3031XA
PD008	3/8	14	8	564	280	92	22	160	535	15	2	A3031XA
PD010	3/8	17	10	634	280	92	22	160	605	17	2	A3031XA
PD015	3/8	25	15	814	280	92	22	160	785	20	2	A3031XA
PD025	3/8	42	25	1204	280	92	22	160	1035	24	2	A3031XA
PD035	3/8	59	35	1569	280	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 ISO Class (ISO 8573-1:2010)	-70°C**	-94°F**
Electronic control	12VDC - 24VDC or 100 - 240 VAC at 50 - 60Hz	
Minimum inlet temperature	1.5°C	34°F
Maximum inlet temperature	50°C	122°F
Minimum working pressure	4 barg	58 psig
Maximum working pressure	16 barg	232 psig

* ISO Class 2 (ISO 8573-1:2010)
** ISO Class 1 (ISO 8573-1:2010)





Models PD004-PD035

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	1.00	1.12	1.25	1.37	1.50	1.62	1.75	1.87	2.00	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	1.00	0.88	0.78	0.55

Pressure Dewpoint (DCF)		
Celsius (°C)	-40	-70
Fahrenheit (°F)	-40	-94
Correction factor	1.00	0.70

PRODRY 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	PCF = 0.87
Maximum inlet temperature	25°C (77°F)	TCF = 1.06
Pressure dewpoint (PDP)	-70°C (-94°F)	DCF = 0.7
Corrected dryer flow rate	$\frac{\text{Inlet flow rate}}{\text{PCF x TCF x DCF}} = \frac{15}{(0.87 \times 1.06 \times 0.7)} = \frac{23.2 \text{ scfm}}{(39 \text{Nm}^3/\text{hr})}$	
Appropriate Dryer Size	Dryer model is selected based on the corrected flow rate, i.e. PD0025.	

Technical notes

1. Models PD004 – PD035 supplied complete with XA (0.01 micron) pre-filter.
2. An appropriate Water Separator must be installed. If bulk water enters the adsorption dryer it can cause heat expansion to the desiccant, substantial rise in the dryer differential pressure, lead to poor outlet dewpoint and cause potential dryer failure. Dryer warranty will be deemed invalid if a high efficiency water separator with an efficient condensate drain is not used.
3. All dryer applications and sizing should be confirmed by Walker Filtration. Please contact nearest sales team for information on recommended sizing and air quality for your application need.
4. Models PD004 – PD035 feature easy removable desiccant cartridges with integral 1 micron Dust Filter.
5. For additional security, Walker Filtration recommends fitting an RX1 (1 micron) Dust Filter to the outlet.

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MEMBER OF CAGI Compressed Air & Gas Institute

CERTIFIED ISO 9001 UKAS MANAGEMENT SYSTEMS 001

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WALKER FILTRATION

The ultimate filtration & drying technology

PRODRY

Introducing a New Generation of Desiccant Dryers | PD0046 to PD0360

Flow rates 45 scfm (77 Nm³/hr) to 360 scfm (612 Nm³/hr)

Optional Dewpoint Management Control delivering up to 81% increase in operating efficiency and annual energy savings of up to £5921*

The all new Walker Filtration PRODRY models feature major design changes that deliver significant energy savings, dramatically reduced service times and optimum performance across the range.

Tested and validated to international standards, PRODRY's multi-voltage capabilities allow for worldwide installation.

Now with the option to upgrade to advanced dewpoint management for even greater operating efficiency - whatever your application requirement, PRODRY's optimum performance delivers a compressed air drying solution you can trust.

* Operating efficiency and energy savings based upon installing a DMC controller and running with a flow of 360 scfm (612Nm³/hr) at 7 barg (100 psig) inlet pressure and 35°C (95°F) inlet temperature, operating at 10% load for 6000 hours.

Unique Purge Plug

Select orifice size to suit changing pressure requirements (Patent Pending)

Tower Pressure Gauges

Clearly visible diagnostics for accurate pressure readings

Optional DMC Controller

Advanced dewpoint management & energy savings

1. Dewpoint management sensor (hygrometer) increases operating efficiency up to **81%** (fitted with DMC controller)
2. Top loading cartridge design and lifting handle for fast and efficient servicing
3. Compact modular design with built-in lifting hook
4. Multi-ported manifold for flexible installation
5. Advanced desiccant blend delivers optimised dewpoint and improved performance
6. Intelligent LED controller with built-in energy management (supplied as standard)
7. Anodised aluminum extrusions provides corrosion protection
8. Externally fitted silencers for dramatically reduced service time

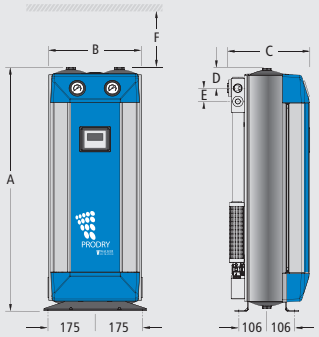



For further information please visit www.walkerfiltration.com

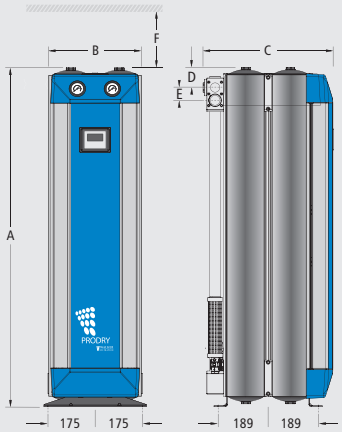
Technical Specification PD0046 - PD0360

Dryer model	Pipe size inches	Inlet flow rate*		Dimensions mm						Weight Kg	No. of cartridges	Recommended filter model	Model with Dewpoint Management Control**
		Nm³/hr	SCFM	A	B	C	D	E	F				
PD0046	1	77	45	655	380	310	76	50	600	46	2	A30050	PD0046DMC
PD0056	1	94	55	735	380	310	76	50	700	51	2	A30070	PD0056DMC
PD0075	1	128	75	905	380	310	76	50	850	62	2	A30085	PD0075DMC
PD0090	1	153	90	1030	380	310	76	50	1000	70	2	A30105	PD0090DMC
PD0110	1	187	110	1260	380	310	76	50	700	85	4	A30105	PD0110DMC
PD0150	1	255	150	1595	380	310	76	50	850	105	4	A30175	PD0150DMC
PD0180	1	306	180	1845	380	310	76	50	1000	122	4	A30175	PD0180DMC
PD0220	1½	374	220	1260	380	490	76	62	700	154	8	A30280	PD0220DMC
PD0300	1½	510	300	1596	380	490	76	62	850	195	8	A30400	PD0300DMC
PD0360	1½	612	360	1845	380	490	76	62	1000	225	8	A30400	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 full dewpoint management control state 'DMC' with dewpoint Sensor (hygrometer) when asked what controller type you require upon placing your order.



Models PD0046-PD0180



Models PD0220-PD0360

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	-30	-40
Fahrenheit (°F)	-4	-22	-40
Correction factor	1.23	1.2	1

Pressure dewpoint (DCF) (7)		
Celsius (°C)	-70	-74
Fahrenheit (°F)	-94	-100
Correction factor	0.8	0.77

Technical notes

1. On Models PD0046 – PD0360 Walker Filtration recommends that an XA (0.01 micron) pre-filter, is installed upstream of the dryer and an RXA (0.01 micron) dust filter is installed downstream of the dryer.
2. Walker Filtration Water Separator supplied as standard. Walker Filtration Water Seperator must be installed. If bulk water enters the adsorption dryer, it can cause heat expansion to the desiccant, substantial rise in the dryer differential pressure, lead to poor outlet dewpoint, and cause potential dryer failure.
3. All dryer applications and sizing should be confirmed by Walker Filtration. Please contact nearest sales team for information on recommended sizing and air quality for your application need.
4. Full Dewpoint Management Control (DMC) option includes digital dewpoint display and dewpoint sensor (hygrometer), providing advanced dryer control based on outlet dewpoint.
5. Floor fixing dimensions are given in the above illustrations.
6. For PRODRY sizing and further information on service kits and accessories, please refer to the PRODRY price guide or brochure.
7. High Performance Cartridges are required for applications where -70° and -74°C dewpoints are required

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WFL1066 Rev-A-UK 0220