

Membrane Air Dryers for Bead and Shot Blasting

MAP Application Solutions

Background

When considering the air supply to their equipment, smart engineers know that they cannot rely on the compressed air of their customers to meet the requirements of their systems. In

some cases the air supply comes in contact with product as is the case in shot or bead blasting.

Application

In bead blasting, air is used to propel the bead material at the substrate through a fine nozzle to clean or prepare the surface for a finish. If this air is laden with moisture and oil, the bead material will clump together leading to clogged

nozzles. Typically the bead material must be replaced. Down time of bead blast equipment is costly, both to repair the nozzle and the lost production time. Warranty and service calls can add up.

Case Study

Two OE manufacturers of bead and shot blasting equipment (one in California and one in Georgia) had service issues with clogged nozzles and ruined bead material. Moisture and oil from their customer's compressed air lines mixed with the bead material and lead to clogged nozzles. The clogged nozzles lead to service calls, warranty claims and dissatisfied customers. Parker Balston sales personnel recommended the Balston Membrane air dryer

to completely remove oil and water contamination. Since using the Balston dryer, the problem of oil and moisture has disappeared. Customers are more satisfied with their equipment. By adding the dryer, their product's perceived value is much greater in the eyes of their customers. Parker Balston offers a complete line of membrane air dryers that can supply clean dry air from as low as 1 scfm up to several hundred scfm.



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Flow Rates at 35°F (2°C) Pressure Dewpoint (1)

Model Number	IT0010-35	IT0030-35	IT0080-35	IT0150-35	IT0250-3560	IT0250-3500	IT0500-3560	IT0500-3500	IT1000-3560	IT1000-3500
Flow @ 100 psig Inlet Pressure (scfm)	1	3	8	15	25	N/A	50	N/A	100	N/A
Flow @ 101-150 psig Inlet Pressure (scfm)	1	3	8	15	N/A	25	N/A	50	N/A	100
Regeneration Flow @ 100 psig (scfm)	0.25	0.5	1.5	2.7	4.5	4.5	9.0	9.0	14	14

Notes: 1 Dewpoint specified for saturated inlet air at 100°F (38°C) and 100 psig

Principal Specifications

Model Number	IT0010-35	IT0030-35	IT0080-35	IT0150-35	IT0250-3560	IT0250-3500	IT0500-3560	IT0500-3500	IT1000-3560	IT1000-3500
Min/Mas Inlet Air Temp.	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C
Min/Max Ambient Air Temp.	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C	40°F/120°F 4°C/49°C
Min/Max Inlet Pressure	60/150 psig 4.1/10 barg	60/150 psig 4.1/10 barg	60/150 psig 4.1/10 barg	60/150 psig 4.1/10 barg	60/100 psig 4.1/6.9 barg	10/150 psig 6.9/10 barg	60/100 psig 4.1/16.9 barg	10/150 psig 6.9/10 barg	60/100 psig 4.1/16.9 barg	10/150 psig 6.9/10 barg
Compressed Air Requirements	Total Air Consumption: Regeneration Flow + Outlet Flow Requirements									
Max. Pressure Drop	3 psid	3 psid	3 psid	3 psid	5 psid	5 psid	5 psid	5 psid	5 psid	5 psid
Wall Mountable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mechanical Separator Included	F14F17B	F06F18B	F06F18B	F07F38B	F07F38B	F07F38B	F07F38B	F07F38B	F07F38B	F07F38B
Coalescing Prefilters	8A02N-OB2-BX (2)	2002N-OB1-BX (2)	2002N-OB1-BX (2)	B2004N-1B1-DX 2104N-OB1-BX	2104N-1B1-DX 2104N-OB1-BX	2104N-1B1-DX 2208N-OB1-BX	2208N-1B1-DX 2208N-OB1-BX	2208N-1B1-DX 2208N-OB1-BX	2208N-1B1-DX 2208N-OB1-BX	2208N-1B1-DX 2208N-OB1-BX
inlet Port Size	1/4" NPT	1/4" NPT	1/4" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1" NPT	1" NPT	1" NPT	1" NPT
Outlet Port Size	1/4" NPT	1/4" NPT	1/4" NPT	1/2" NPT	1" NPT	1" NPT	1" NPT	1" NPT	1" NPT	1" NPT
Electrical Requirements	None	None	None	None	None	None	None	None	None	None
Dimensions (cm)	17.5"Lx8"Wx2.5"D (44.5x20.3x6.3)	18.1"Lx5.4"Wx4"D (45.2x10.5x6.3)	24"Lx11.1"Wx4"D (61x28.2x6.3)	25"Lx16"Wx4.5"D (63.5x40.6x1.4)	26"Lx18"Wx6"D (66x45.7x15.2)	26"Lx18"Wx6"D (66x45.7x15.2)	39"Lx21"Wx6"D (99x53.3x15.2)	39"Lx21"Wx6"D (99x53.3x15.2)	47"Lx28"Wx7"D (119x71x18)	47"Lx28"Wx7"D (119x71x18)
Shipping Weight	1.6 lbs(.7 kg)	6.68 lbs(3 kg)	6.6 lbs(3 kg)	14.8 lbs(6.7 kg)	24.5 lbs(11.1 kg)	24.5 lbs(11.1 kg)	35.5 lbs(16.5 kg)	36.5 lbs(16.5 kg)	52 lbs(24 kg)	52 lbs(24 kg)

Notes: 2 If compressed air is extremely contaminated, a Grade DX prefilter should be installed directly upstream from the membrane dryer.

Ordering Information

For assistance call toll free at 800-343-4048, 8AM to 5PM EST

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Replacement Filter Elements										
1st Stage	050-05-BX	100-12-BX	100-12-BX	100-12-DX	100-18-DX	100-18-DX	150-19-DX	150-19-DX	150-19-DX	150-19-DX
2nd Stage	---	---	---	100-12-BX	100-18-BX	100-18-BX	150-19-BX	150-19-BX	150-19-BX	150-19-BX



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