Plastic Injection Molding

Market Application Publication

Background:

In today's Plastics Industry, manufacturers are required to produce high-quality products at a cost that is competitive to that of its global competition. To meet these strict quality, delivery and price demands, plastic injection molders require extremely efficient processes that work at a variety of speeds and volume throughputs. When producing components, a molder makes every effort to maximize the utilization of their molding machines with as little lost product or facility downtime as possible.

Contact Information:

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Features and benefits:

- Offers a reliable, efficient and economical alternative to pressure swing and refreigerated dryer technologies
- Requires no electricity, thus lowering operating costs
- Produce +35°F (2°C) dewpoint, ideal for critical points of use
- No moving parts
- Silent operation
- No desiccants to change
- Ships complete with all required prefiltration, ready for simple installation

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Application:

For injection molders, a critical measurement of the manufacturing process is to minimize the cycle times or maximize product throughput. With compressed air used to operate pickers, hoppers and automation associated with the molding process, downtime caused from lower quality compressed air can quickly amount to lost productivity and product loss. A Parker Balston Membrane Air Dryer will produce compressed air free of moisture and particulate with a dewpoint of +35°F. (2°C). Placed at the point of use, the system ensures smooth operation of numerous air valves, cylinders and other sensitive pneumatic components critical to the timing of equipment.

Case Study:

Webster Plastics, located in Fairport, NY, produces a variety of molded components that serve the automotive and consumer medical markets. According to John Beswick, Business Unit Manager, the quality of compressed air plays a key role in the production process. "Compressed air is used everywhere in our process, from the equipment used to drying of resin, to distribution of material, and finally at the automation used in conjunction with our molding equipment. Any pneumatic failures can greatly affect the cycle times of our equipment, which can add up to thousands of dollars in a short period of time. The use of a Parker Balston Membrane Air Dryer will ensure a reliable source of compressed air right at the molding equipment and helps keep our equipment operating at maximum capacities."

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
Flow @ 100 psig Inlet Pressure (scfm)	1	3	8	15	25	N/A	50	N/A
Flow @ 101-150 psig Inlet Pressure (scfm)	1	3	8	15	N/A	25	N/A	50
Regeneration Flow @ 100 psig (scfm)	0.25	0.5	1.5	2.7	4.5	4.5	9.0	9.0

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

Ordering Information

For assistance, call 1-800-343-4048, 8AM to 5PM EST

Model Number	IT0010-35	IT0030-35	IT0080-35	IT0150-35	IT0250-3560	IT0250-3500	IT0500-3560	IT0500-3500
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
2nd Stage	---	---	---	100-12-BX	100-18-BX	100-18-BX	150-19-BX	150-19-BX

Principal Specifications

Model Number	IT0010-35	IT0030-35	IT0080-35	IT0150-35	IT0250-3560	IT0250-3500	IT0500-3560	IT0500-3500
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
Min/Max Ambient	40°F/120°F	40°F/120°F	40°F/120°F	40°F/120°F	40°F/120°F	40°F/120°F	40°F/120°F	40°F/120°F
Air Temp.	4°C/49°C	4°C/49°C	4°C/49°C	4°C/49°C	4°C/49°C	4°C/49°C	4°C/49°C	4°C/49°C
Min/Max Inlet	60/150 psig	60/150 psig	60/150 psig	60/150 psig	60/100 psig	10/150 psig	60/100 psig	10/150 psig
Pressure	4.1/10 barg	4.1/10 barg	4.1/10 barg	4.1/10 barg	4.1/6.9 barg	6.9/10 barg	4.1/16.9 barg	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
Wall Mountable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mechanical Separator Included	F14F17B	F06F18B	F06F18B	F07F38B	F07F38B	F07F38B	F07F38B	F07F38B
Coalescing Prefilters	8A02N-OB2-BX	2002N-0B1-BX	2002N-0B1-BX B2004N-0B1-BX	B2004N-1B1-DX 2104N-0B1-BX	2104N-1B1-DX 2104N-0B1-BX	2104N-1B1-DX 2208N-0B1-BX	2208N-1B1-DX 2208N-0B1-BX	2208N-1B1-DX
Inlet Port Size	1/4" NPT	1/4" NPT	1/4" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT	1/2" NPT
Outlet Port Size	1/4" NPT	1/4" NPT	1/4" NPT	1/2" NPT	1" NPT	1" NPT	1" NPT	1" NPT
Electrical Requirements	None	None	None	None	None	None	None	None
Dimensions (cm)	17.5"Lx8"Wx2.5"D 44.5 x 20.3 x 6.3	18.1"Lx5.4"Wx4"D 45.2 x 10.5 x 6.3	24"Lx11.1"Wx4"D 61 x 28.2 x 6.3	25"Lx16"Wx4.5"D 63.5 x 40.6 x 11.4	26"Lx18"Wx6"D 66 x 45.7 x 15.2	26"Lx18"Wx6"D 66 x 45.7 x 15.2	39"Lx21"Wx6"D 99 x 53.3 x 15.2	39"Dx21"Wx6"D 99 x 53.3 x 15.2
Shipping Weight	1.62 lbs (.73 kg)	6.68 lbs (3 kg)	6.68 lbs (3 kg)	14.88 lbs (6.75 kg)	24.5 lbs (11.11 kg)	24.5 lbs (11.11 kg)	35.5 lbs (16.55 kg)	36.5 lbs (16.55 kg)

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