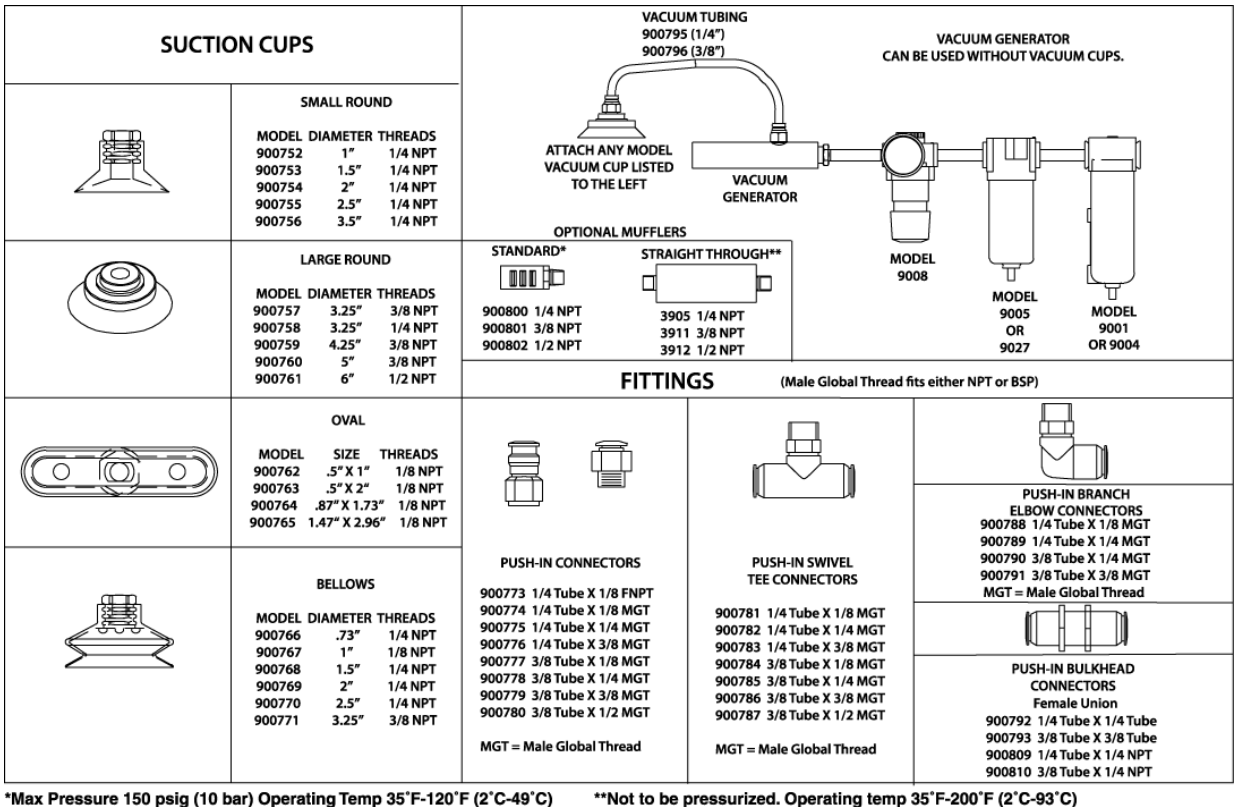
EXAIR® CE EXAIR TECHELP 1-800-903-9247

IN-LINE E-VAC INSTALLATION & MAINTENANCE



*Max Pressure 150 psig (10 bar) Operating Temp 35˚F-120˚F (2˚C-49˚C) **Not to be pressurized. Operating temp 35˚F-200˚F (2˚C-93˚C)

COMPRESSED AIR LINE SIZES

For E-Vac Models 800001- 800017 and 810002-810031, use 1/4" pipe or 3/8" hose for runs up to 25' (7.6m) long. For runs up to 50' (15.2m), use 3/8" pipe or 1/2" hose and for runs over 50' (15.2m), use 1/2" pipe or larger. Do not use restrictive fittings or undersized lines that can “starve” the E-Vac by causing excessive line pressure drop.

COMPRESSED AIR SUPPLY

With proper filtration and separation of dirt, moisture and oil from the compressed air supply, the E-Vac will operate for years with no maintenance required. Use a 10 micron or smaller filter separator on the compressed air supply (Model 9001 Automatic Drain Filter Separator for all models.).

To prevent problems associated with oil, use an oil removal filter (Model 9005 Oil Removal Filter is used with the Model 810031 E-Vac; Model 9027 Oil Removal Filter is used for all other models.). The oil removal filter should be used downstream from the automatic drain filter separator. Filters should be used close to each E-Vac, within 10 to 15' (3 to 4.6m) is best.

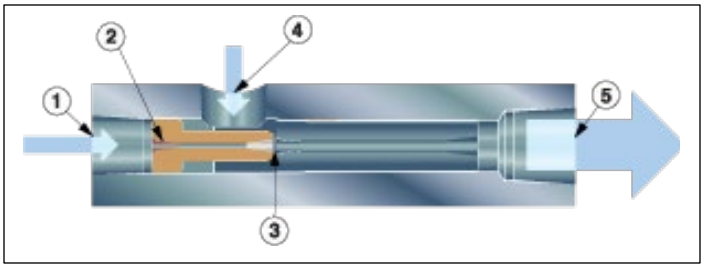
E-Vac is designed to use normal shop air supplies up to 80 PSIG (5.5 BAR). For infinite control of flow and vacuum, pressure may be regulated (Model 9008 Pressure Regulator for all models). Maximum pressure is 250 PSIG (17.2 BAR, 1.72 MPa).

If air preparation units other than EXAIR models are being used, please note the following:

- PRESSURE REGULATORS – Must be pressure relieving and rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa). Suggested operating pressure is 5-125 PSIG (0.3-8.6 BAR, 34-862 kPa). For models 800017, 810013 and under, flow should be minimum 24 SCFM (680 SLPM). For models over 800017 and 810013, flow should be a minimum of 50 SCFM (1416 SLPM).
- AUTO DRAIN FILTER SEPARATORS – Must be rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa) and have 5 micron filtration. For models 800017, 810013 and under, flow should be minimum 24 SCFM (680 SLPM). For models over 800017 and 810013, flow should be a minimum of 50 SCFM (1416 SLPM).
- OIL REMOVAL FILTERS – Must be rated for a supply pressure of 250 PSIG (17.2 BAR, 1.72 MPa) and have 0.03 micron filtration. For models 800017, 810013 and under, flow should be minimum 24 SCFM (680 SLPM). For models over 800017 and 810013, flow should be a minimum of 50 SCFM (1416 SLPM).

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HOW IT WORKS
Compressed air flows through the inlet (1), then through a single directed nozzle (2). As the airstream exhausts, it expands and increases in velocity prior to passing through the venturi (3). A vacuum inlet tangential to the primary airflow (4) is located at the suction point between the orifice and the venturi. The airflow that is drawn through the vacuum inlet mixes with the primary airstream, then exhausts on the opposite end (5).



CHECK VALVE

A vacuum check valve is available to hold the vacuum in case of compressed air loss. It is designed for high flow so it doesn't restrict airflow or slow the vacuum operation. Maximum vacuum can still be achieved without affecting the performance. E-Vac vacuum generators that are used without a check valve will release the load if there is a significant drop in compressed air pressure or the supply of compressed air is lost.

TROUBLESHOOTING & MAINTENANCE

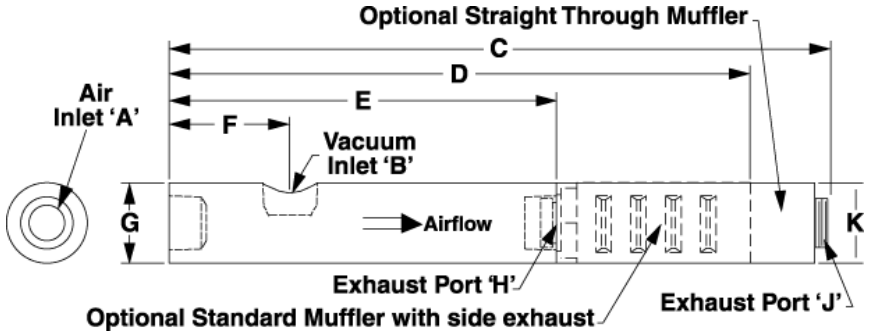
If There Is A Reduction In Flow Or Vacuum From The E-Vac, check the pressure by installing a gauge at the compressed air inlet of the E-Vac. Large pressure drops are possible due to undersized lines, restrictive fittings and clogged filter elements.

For replacement or repair filter and regulator parts, contact EXAIR at 1-800-903-9247 or techelp@exair.com.
Call (513) 671-3322 for outside the US and Canada.

CLEANING

If contaminants have clogged the E-Vac, inspect it for dirt contamination and a possible oil film inside the unit. Clean it with a mild detergent and reassemble. Occasionally, there is a build-up which occurs in the unit that is a result of vapors in the atmosphere that have been pulled through the E-Vac. Clean all surfaces with a solvent and a clean rag.

In-Line E-Vac Dimensions



Dimensions

In-Line Vacuum Generator Dimensions											
Model	Air Inlet A	Vacuum Inlet B		C	D	E	F	G	H	J	K
800001, 800002, 800003, 810002, 810003, 810006	1/8 NPT	1/8 NPT	in	N/A	N/A	3.00	0.88	0.75	1/4 NPT	N/A	N/A
			mm	N/A	N/A	76	22	19		N/A	N/A
800001H, 800002H, 800003H, 810002H, 810003H, 810006H	1/8 NPT	1/8 NPT	in	N/A	5.00	3.00	0.88	0.75	1/4 NPT	N/A	0.81
			mm	N/A	127	76	22	19		N/A	21
800001M, 800002M, 800003M, 810002M, 810003M, 810006M	1/8 NPT	1/8 NPT	in	5.25	N/A	3.00	0.88	0.75	1/4 NPT	1/4 NPS	0.75
			mm	133	N/A	76	22	19		1/4 NPS	19
800005, 800008, 810008, 810013	1/4 NPT	3/8 NPT	in	N/A	N/A	4.50	1.50	1.00	3/8 NPT	N/A	N/A
			mm	N/A	N/A	114	38	25		N/A	N/A
800005H, 800008H, 810008H, 810013H	1/4 NPT	3/8 NPT	in	N/A	7.50	4.50	1.50	1.00	3/8 NPT	N/A	1.25
			mm	N/A	191	114	38	25		N/A	32
800005M, 800008M, 810008M, 810013M	1/4 NPT	3/8 NPT	in	7.75	N/A	4.50	1.50	1.00	3/8 NPT	3/8 NPS	1.00
			mm	197	N/A	114	38	25		3/8 NPS	25
800013, 800017, 810023, 810031	1/2 NPT	1/2 NPT	in	N/A	N/A	6.00	1.88	1.25	1/2 NPT	N/A	N/A
			mm	N/A	N/A	152	48	32		N/A	N/A
800013H, 800017H, 810023H, 810031H	1/2 NPT	1/2 NPT	in	N/A	9.00	6.00	1.88	1.25	1/2 NPT	N/A	1.25
			mm	N/A	229	152	48	32		N/A	32
800013M, 800017M, 810023M, 810031M	1/2 NPT	1/2 NPT	in	10.25	N/A	6.00	1.88	1.25	1/2 NPT	1/2 NPS	1.25
			mm	260	N/A	152	48	32		1/2 NPS	32

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FITTINGS AND TUBING

The vacuum port of the E-Vac has an NPT thread (a vacuum cup can be threaded directly into it). For vacuum cups that are remotely located, push-in connector fittings (most have global threads for use with NPT and BSP) can be installed on the E-Vac and the vacuum cup. Polyurethane vacuum tubing is available (10', 20', 30', 40' and 50' lengths) to connect them. For best performance, the length of the tubing should be minimized to achieve the best attach and release times.

Model	Air Inlet	Vacuum Inlet	Exhaust Port
800001, 800002, 800003, 810002, 810003, 810006	1/8 NPT	1/8 NPT	1/4 NPT
800001H, 800002H, 800003H, 810002H, 810003H, 810006H	1/8 NPT	1/8 NPT	1/4 NPT
800001M, 800002M, 800003M, 810002M, 810003M, 810006M	1/8 NPT	1/8 NPT	1/4 NPT
800005, 800008, 810008, 810013	1/4 NPT	3/8 NPT	3/8 NPT
800005H, 800008H, 810008H, 810013H	1/4 NPT	3/8 NPT	3/8 NPT
800005M, 800008M, 810008M, 810013M	1/4 NPT	3/8 NPT	3/8 NPT
800013, 800017, 810023, 810031	1/2 NPT	1/2 NPT	1/2 NPT
800013H, 800017H, 810023H, 810031H	1/2 NPT	1/2 NPT	1/2 NPT
800013M, 800017M, 810023M, 810031M	1/2 NPT	1/2 NPT	1/2 NPT

E-Vac Models (Silencing Mufflers may be installed to reduce noise levels.)	Standard Muffler	Straight-Through Muffler
800001, 800002, 800003, 810002, 810003, 810006	900800	3905
800005, 800008, 810008, 810013	900801	3911
800013, 800017, 810023, 810031	900802	3912

If you have any questions or problems, please contact an EXAIR Application Engineer at:

Toll Free: 1-800-903-9247 (U.S. & Canada)
Telephone: 513 671-3322 outside of U.S. & Canada
Toll Free Fax: 866-329-3924 (U.S. & Canada)
FAX: 513 671-3363 outside of U.S. & Canada
E-mail: techelp@exair.com
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