

FAIRCHILD MODEL 1600A VACUUM REGULATOR

Installation, Operation and Maintenance Instructions

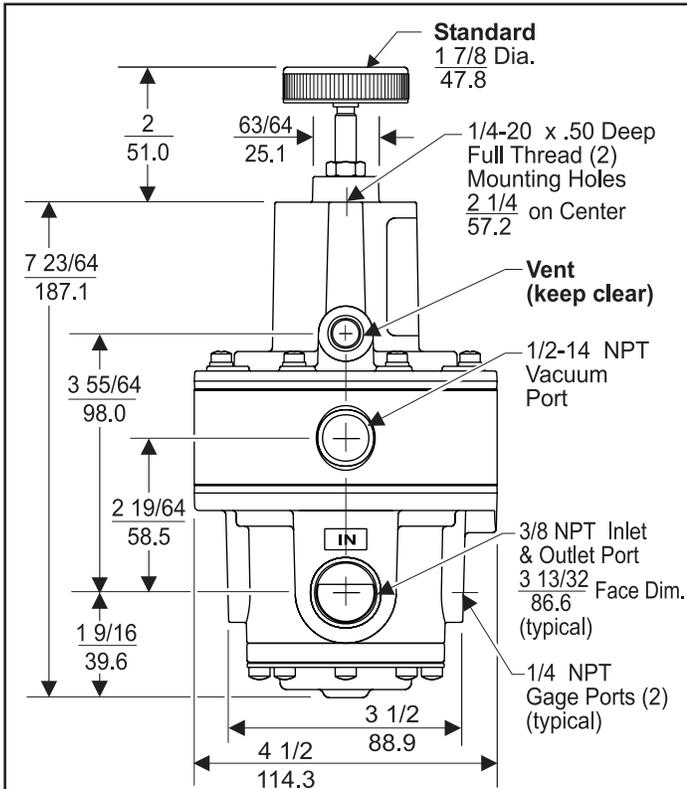


Figure 1. Model 1600A Outline Dimensions

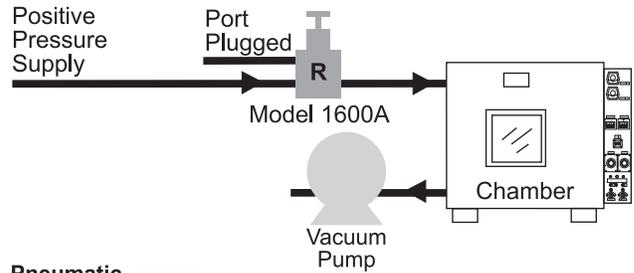


Figure 2. Chamber Evacuation below Atmosphere

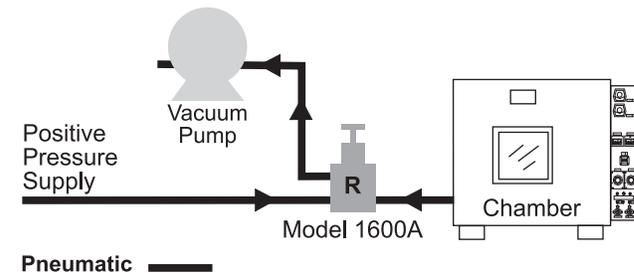


Figure 3. Chamber Purge with Positive Pressure

INSTALLATION

Use the two 1/4-20 tapped holes in the Bonnet to panel mount the Model 1600A. You can mount the regulator in any position without affecting its operation.

Clean all pipelines to remove dirt and scale before installation.

Apply a minimum amount of pipe compound to the male threads of the fitting only. **Do Not use teflon tape as a sealant.** Start with the third thread back and work away from the end of the fitting to avoid contaminating the regulator. Install the regulator in the air line.

The Inlet and Outlet ports are labeled "In" and "Out". Tighten all connections securely. Avoid undersized fittings that will limit the flow through the regulator. For more information, see Figure 1.

NOTES: Oil free air must be applied to the regulator. Use a filter to remove dirt and entrained liquid in the air line ahead of the regulator. If an air line lubricator is used, it **MUST** be located downstream of the regulator to avoid interference with performance.

OPERATION

The Model 1600A controls pressure in high flow systems above and below atmospheric pressure. To increase vacuum or decrease the positive pressure range, turn the Regulator Knob counterclockwise. To decrease vacuum or increase the positive pressure range, turn the knob clockwise. For more information, see Figure 1.

Applications can require a connection for fast evacuation of a Chamber. For more information, see Figure 2.

Applications can also require a connection to control system pressure above and below atmospheric pressure. In vacuum systems, you can leave the Supply Port open to atmosphere or pressurize with normal supply air for faster response. For more information, see Figure 3.

LEGAL NOTICE:

The information set forth in the foregoing Installation, Operation and Maintenance Instructions shall not be modified or amended in any respect without prior written consent of Fairchild Industrial Products Company. In addition, the information set forth herein shall be furnished with each product sold incorporating Fairchild's unit as a component thereof.

MAINTENANCE

To clean the Model 1600A, use the following steps:

1. Shut off system pressure to the regulator to prevent air from escaping. It is not necessary to remove the regulator from the air line.
2. Remove the four Screws and Washers (between ports) from the bottom of unit. For more information, see Figure 2.
3. Remove the Inner Valve Assembly. For more information, see Figure 2.
4. Wash the Inner Valve Assembly with a solvent. Exercise care to prevent damage to diaphragms and valve facings. **Avoid solvents such as acetone, carbon tetrachloride and trichloroethylene.**
5. Replace the assembly carefully. Ensure that the Vent in the exterior part of the Inner Valve Assembly and the Vent in the Bonnet are clear. For more information, see Figure 2.

Troubleshooting

Problem	Source	Solution
Leakage	Bonnet Screws	Tighten the Bonnet Screw.
High Bleed	<ul style="list-style-type: none"> • Relief Valve • Supply Valve • Supply Seat 	<ul style="list-style-type: none"> • If contaminated, clean the source and Body.
	<ul style="list-style-type: none"> • Diaphragm Assembly 	<ul style="list-style-type: none"> • If damaged, install the service kit.

NOTE: If the standard maintenance procedure does not correct the problem, install the appropriate service kit.

Standard
• 19552-1

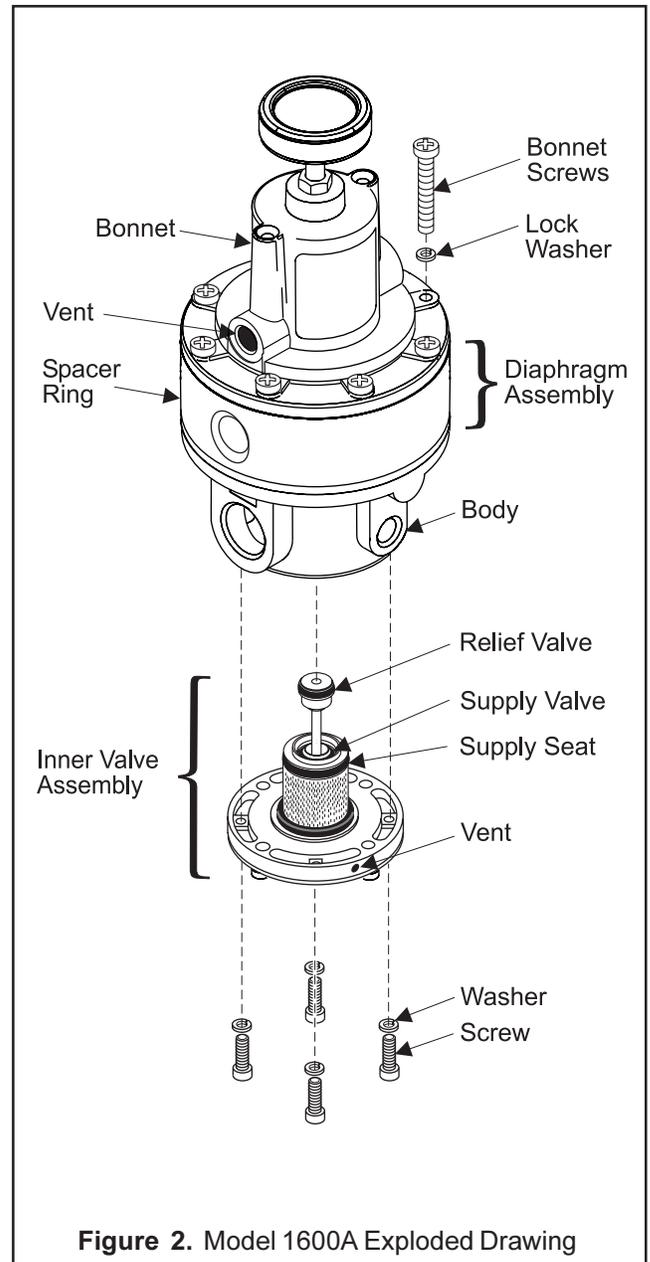


Figure 2. Model 1600A Exploded Drawing



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IS-1001600A
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