Fabflex® Valve Manifolds

For applications in:
- Chemical
- Food & Beverage
- Pharmaceutical
- Cosmetics, Fragrances & Nutritionals
What is a Fabflex® Valve Manifold?

A PBM Fabflex Valve Manifold consists of:

- A prefabricated section of tubing or piping
- Valves (either manual or actuated)
- End fittings made to a customer’s specifications
Why Use a PBM Fabflex Valve Manifold?

The following list identifies the advantages of using valve manifolds:

<table>
<thead>
<tr>
<th>ADVANTAGES</th>
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<tr>
<td>♦ Single, prefabricated assembly reduces field welds and installation time</td>
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<tr>
<td>♦ Custom built to suit each individual application; can be shipped in lengths up to 12’</td>
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<td>♦ Minimizes dead legs or pocket areas for contamination using cylindrical radius (saddle cut) weld pads</td>
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<td>♦ 100% factory testing of entire assembly reduces the need to test individual valves and components at the job site</td>
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<td>♦ Allows multiple manual or automated valves to be installed in a smaller overall envelope dimension, as opposed to traditional piping methods of tees and elbows</td>
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<td>♦ Shipped as an entire unit to minimize onsite installation and provide greater cost savings over having a contractor complete assembly onsite</td>
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<td>♦ PBM provides layout drawings in digital formats that can be e-mailed directly to the customer for review</td>
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<td>♦ Can be provided with blank valve pads welded in place to accommodate future hookups</td>
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<td>♦ Enables inline valve adjustment when equipped with PBM’s exclusive Adjust-O-Seal® design, which compensates for normal seat wear</td>
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<td>♦ Facilitates easy maintenance and inline replacement of seats and seals when supplied with PBM Series 5 ball valves</td>
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Techniques for Selling a PBM Fabflex Valve Manifold

1) Introduce the concept of valve manifolds to your customer through the use of the Brochure (LT-15), Creative Solution (LT-15B), drawings, and photos in this manual.

2) Encourage the customer to compare the advantages of using a Fabflex manifold to the traditional methods.

3) Forward customer specifications and requirements to your PBM Inside Sales Contact, indicating:
   - Space constraints
   - Quantity and size of valves required
   - Automation requirements
   - Valve placement/position on the manifold

4) Review the CAD layout provided by PBM’s Engineering Department with the customer (drawings can be provided in paper or digital formats).

5) Assist the customer in working with PBM to tweak the layout, if necessary, and to meet the specific application requirements.

6) Point out the advantages and disadvantages of the PBM Adjust-O-Seal® feature and determine what would be best for the application (see page 4).
Adjust-O-Seal® vs. Non-Adjust-O-Seal
Because valve manifolds consist of many valves installed close together, the alignment of the mating piping or tubing can be very critical.

Forcing mating connections to the valve end fittings can create stress on the body gasket area used to maintain PBM’s Adjust-O-Seal feature. Without proper alignment, this stress can create side load on the valve and cause leakage.

For this reason, PBM recommends that you make your customers aware of the importance of proper piping and tubing alignment.

Please note: PBM can provide valves without the Adjust-O-Seal feature, if dictated by project requirements.
Sample Drawings

9' Fabflex manifold with 23 actuated 1" and 2" Flush Tank ball valves

Fabflex manifold with 12 manual 3" 2-way ball valves

2' Fabflex manifold with 2 actuated 3" 2-way ball valves
Sample Specification for a PBM Fabflex® Valve Manifold

To assist you in getting PBM’s Fabflex valve manifold specified with customers, use the following key phrases and concepts:

- Elimination of "dead space" off header with radius pad valves
- Ability to mount multiple valves in a small area to reduce overall envelope
- Ability to position valves in almost any position on header

How to Order a PBM Fabflex Valve Manifold

Due to the complexity of each manifold assembly, pricing and part numbers vary greatly. Please consult your PBM Regional Manager and Inside Sales Representative for proper pricing, part number, and delivery information.

Manifolds sold to Ferro Corporation for a polymer additives application.
PBM Manifold Customer List

The following customers are already using PBM’s Fabflex manifold assemblies.
Which new customers will you add to the list?

<table>
<thead>
<tr>
<th>CUSTOMER</th>
<th>APPLICATION</th>
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<tbody>
<tr>
<td>Avery Dennison</td>
<td>Adhesives</td>
</tr>
<tr>
<td>Blue Coral/Slick 50 (div. Of Quaker State)</td>
<td>Auto wax, tire dressing (see application info on page 8)</td>
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<tr>
<td>Cargill</td>
<td>Lysine; Sweeteners</td>
</tr>
<tr>
<td>Dial Corporation</td>
<td>Soap; Detergent</td>
</tr>
<tr>
<td>Ferro Corporation</td>
<td>Polymer additives</td>
</tr>
<tr>
<td>Monsanto</td>
<td>Clean steam for animal food additives</td>
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<tr>
<td>Tektronix/Xerox</td>
<td>Solid color printing ink</td>
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Manifold Application Summary: Blue Coral/Slick 50

APPLICATION DESCRIPTION
♦ Media: Car care products
♦ System needed to deliver products to different locations using one common header
♦ System needed to be compact and minimize potential for contamination between valve seat and header wall
♦ Design needed to allow contractor to bolt system in place with minimal work and labor expense while achieving proper results/performance
♦ System needed to allow customer flexibility during the design phase to change valve quantities and sizes
♦ System needed to handle 50-100 psi max service and temperatures under 100º F

REASONS FOR SUCCESS
♦ Design; Ability to give customer total flexibility in designing the application solution
♦ Delivery
♦ Solid relationship between PBM Representative and Customer; PBM Rep worked directly with Plant Engineer
♦ Single source
♦ Price (Customer compared price with what field contractor would charge to build/assemble a standard flange/T configuration
♦ Cycle Testing
♦ Follow-up Service guarantee by PBM Representative