

Prodigy® HDLV® Pump Pinch Valve Replacement



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.



CAUTION: Before placing the pinch valve body in a vise, pad the jaws. Tighten the vise only enough to hold the valve body firmly. Failure to observe may result in damage to the pinch valve body.

Preparation

1. Label and disconnect the powder and air tubing from the pump.
2. Remove the two socket-head screws from the front of the pump to remove the pump from the control panel.
3. Remove the seven socket-head screws, lock washers, and flat washers from the upper and lower manifold.
4. Separate the pinch valve body from the manifolds.

Refer to the pump manual for more information. Figure 1 shows the top of a pinch valve body.

The top flanges of the pinch valves have the word UP molded into them. The top side of the valve body has four air passages sealed with O-rings.

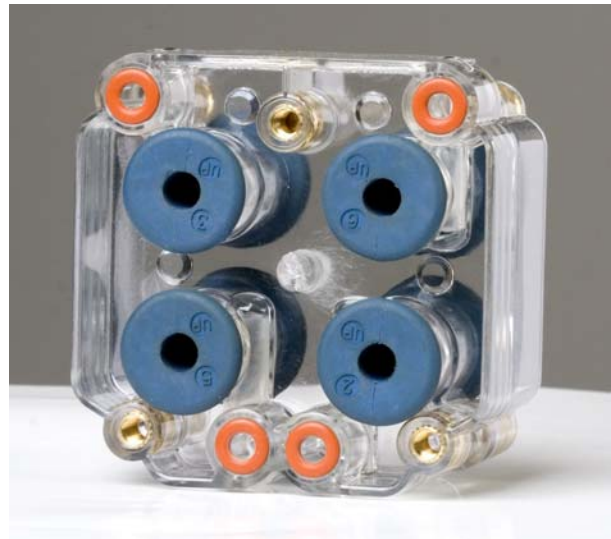


Figure 1 Top of Pinch Valve Body

Pinch Valve Removal

1. Place the pinch valve body in a padded vise.
2. Grasp the bottom flange of a pinch valve with one hand and pull it away from the valve body.
3. Cut the flange off with scissors, then grasp the UP flange of the valve and pull it out of the top of the valve body.

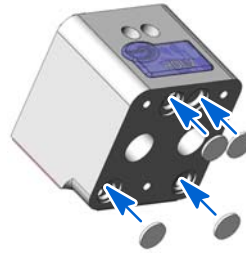


Figure 2 Pinch Valve Removal

Filter Disc Replacement

The pinch valve kit comes with replacement filter discs. Replace the filters when you replace the pinch valves.

NOTE: The old-style filter discs were made of porous plastic. New-style filter discs are sintered metal and may require more force to install.



Pinch Valve Installation

NOTE: Pinch valves intended for repeated use in contact with food must be thoroughly cleansed prior to their first use.

1. Insert the insertion tool through one of the valve chambers, then insert the UP flange of the pinch valve into the bottom end of the insertion tool.

Align the pinch valve ribs with the square grooves in the valve chamber.



Figure 3 Inserting Pinch Valve into Insertion Tool

2. Pinch flat the UP flange of the pinch valve, then feed one end of the flange into the valve chamber.



Figure 4 Pinching Flat Pinch Valve UP Flange

3. Pull on the insertion tool until the end of the pinch valve is inside the valve body.



Figure 5 Pulling Pinch Valve into Valve Body

4. Continue pulling on the insertion tool until the pinch valve pops through the valve body and the tool comes loose.

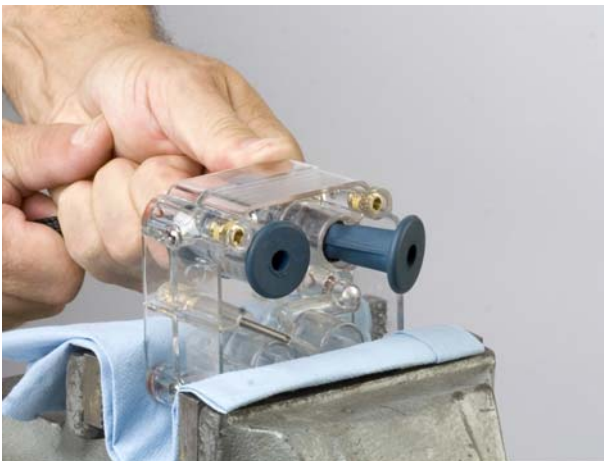


Figure 6 Pulling Pinch Valve through Valve Body

5. Pull the pinch valve bottom flange away to check the alignment of the valve ribs with the square grooves in the valve body. Pull and twist the pinch valve to align the ribs with the grooves as necessary.



Figure 7 Pinch Valve Removal

6. Install the remaining pinch valves in the valve body, install new filter discs if not done already, then reassemble the pump.



CAUTION: When assembling the pump, tighten the upper and lower manifold screws two turns at a time in an alternating pattern. Stop tightening when the pinch valve body contacts the lower manifold body. Refer to the pump manual for assembly instructions.

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Issued 08/09

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