Hamilton Manual Valves

Congratulations! You have purchased the highest quality precision valve from Hamilton. We combine the highest quality materials with skilled craftsmanship, ensuring the highest possible performance level of every precision fluid device we manufacture. With proper care and handling, Hamilton Manual Valves will provide unsurpassed performance in liquid handling year after year. These valves provide a turnkey solution to compliment manual fluid direction and redirection applications.

Intended Use

These valves are designed for use in manual applications where the valve will be positioned by hand. The valves are designed with a highly inert PTFE/CTFE fluid path and are designed to seal and operate with liquids only. The valves may be successful in sealing certain gases or vapors but is not explicitly specified or verified.

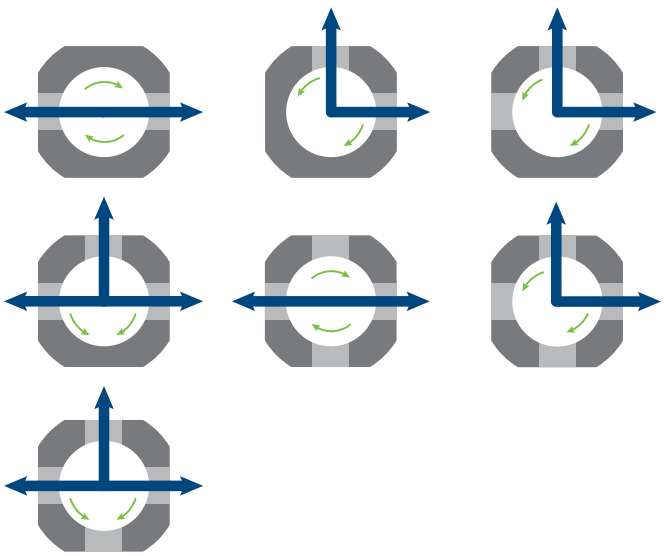
Valve Nomenclature

Designation	Description
HV	Hamilton Valve, Small Body
HVP	Hamilton Valve, Panel Mount, Small Body
HVX	Hamilton Valve, Panel Mount, Large Body

Flow Valves

Flow valves are used to direct or redirect fluids. 2-, 3- and 4-port valves are available with straight through 180°, 90° or "T" type plugs for seven different valves. A variety of flow configurations are available as HV, HVP and HVX valves. The flow configuration drawings in Figure 1 show the possible fluid flow paths.

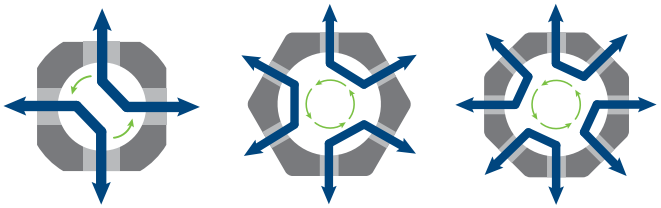
Figure 1. Flow Valves



Loop Valves

Loop valves are used to direct and redirect fluids. The 4-, 6- or 8-port valves are available with a loop type valve plug. The 4-port valve is available in HV, HVP and HVX body styles. The 6- and 8-port valves are only available in the HVX body style. The flow configuration drawings in Figure 2 show the possible fluid flow paths for loop valve plugs.

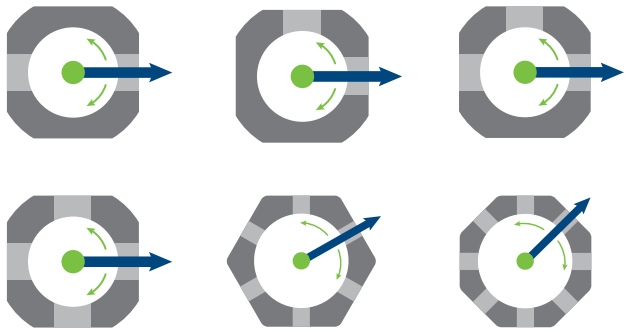
Figure 2. Loop Valves



Distribution Valves

Distribution valves are used to direct fluid to a number of locations. 2-, 3-, 4-, 6- and 8-port valves are available with a distribution type valve plug. The 2-, 3- and 4-port distribution valves are available in HV, HVP and HVX body styles. The 6- and 8-port valves are available only in the HVX body style. The flow configuration drawings in Figure 3 show the possible fluid flow paths for the distribution type valve plugs.

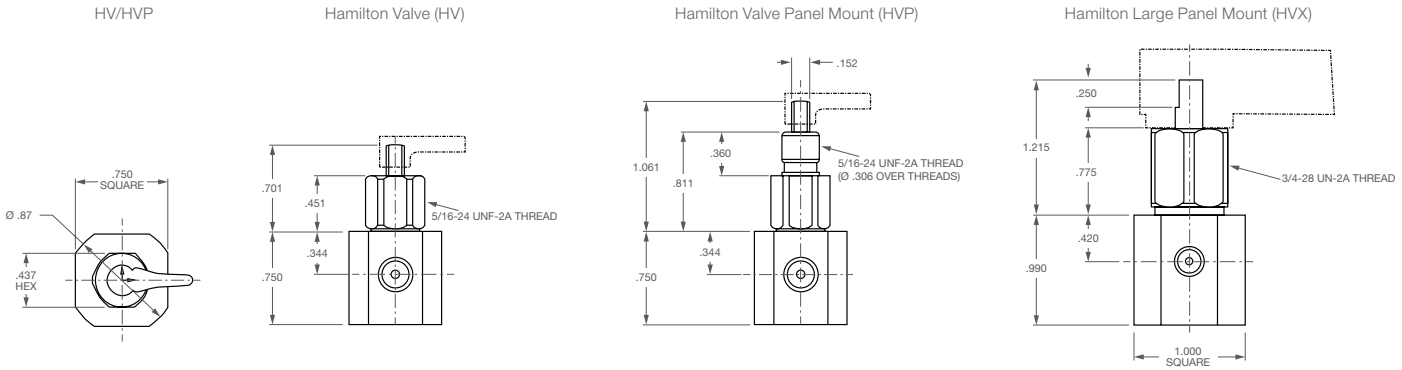
Figure 3. Distribution Valves



Note: A complete list of flow diagrams and valve part numbers are available at www.hamiltoncompany.com/valves.

Valve Dimensions

Figure 4. Valve Dimensions



	HV	HVP	HVX
Outer Body Dimension	3/4 inch (19 mm)	3/4 inch (19 mm)	1 inch (25 mm)
Port Orifice	0.059 inch (1.5 mm)	0.059 inch (1.5 mm)	0.118 inch (3.0 mm)*
Panel Mounting	No	Yes	Yes
Panel Thickness	N/A	0.150 inch (3.8 mm)	0.625 inch (16 mm)

* The port orifice for 6- and 8- way distribution HVX valves is 0.059 inch (1.5 mm). The port orifice for 6- and 8- way loop HVX valves is 0.040 inch (1.0 mm).

Note: HVX valves require the separate purchase of locking nut (p/n 32121), for panel mount applications.

Technical Specifications

Hamilton Plug Valves (HV, HVP, HVX)	
Operating Pressure	Up to 100 psi (6.9 bar)
Operating Temperature Range	10–100 °F (-12–38 °C)
Storage Temperature Range	0–100 °F (-18–38 °C)
Initial Break Away Torque	100 in oz.
Break Away Torque	15 in oz.
Valve Housing	Aluminum
Fluid Path	PTFE and CTFE
Valve Positioning	Controlled Manually
Valve Connections	¼-28 UNF-28 (Unified Fine)

Recommended Fittings

The Hamilton Valves will accept ¼-28 UNF flanged tube fittings and connectors. Caution should be used when using flangeless fittings as the higher torque required to seal the tubing may damage the valve.

Hamilton Valve Cleaning

Flush the valve with non-alkaline, non-phosphate detergent, preferably one that would be effective in solvating the sample or material flowing through the valve. Rinse the valve thoroughly and allow to air dry.

Do not autoclave as damage may occur. Take care when using caustic cleaning solvents on the aluminum housing as this may damage or discolor the valve housing. Do not immerse the valve. Do not attempt to disassemble the valve components from the housing as this will result in a valve failure.

WARRANTY STATEMENT

Hamilton Company unconditionally guarantees its products to be free of defects in materials and workmanship. Any product that fails due to such a defect will be repaired or replaced at our discretion without cost, provided the device is returned on a Return Materials Authorization (RMA). It is the responsibility of the purchaser to determine the suitability of application and material compatibility of the product based on the published specifications of the product.

RETURN OF GOODS

Hamilton Company's return and repair policy is written to protect its employees from potentially hazardous materials (e.g., serum, radioactive materials, carcinogenic chemicals, etc.) or any substance that may cause them partial or permanent disability during the inspection or repair process. In returning a product, the customer acknowledges that the product is free from any hazardous materials. Furthermore, the customer assumes responsibility should the returned product prove to be hazardous.

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