



## 2546-2547-2548 Series Automatic Flow Control Valves

### ANSI B 16.5 CLASS 150# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS

#### GENERAL INFORMATION

1. Clean the lines of all foreign material, (welding slag, pipe scale, dirt, thread chips etc.). Upstream installation of a strainer may be necessary in dirty systems.
2. Air should be eliminated from the system prior to startup to assure quiet operation and freedom from water hammer.
3. Hays Automatic Flow Control Valves may be installed in the pipe line horizontally, vertically or any angle in between. Straight sections of pipe downstream of the Hays valve are unnecessary for proper operation. Standard reducing bushings or flanges may be directly connected to the Hays valve outlet if required. The installation point in the system should permit deflection of the entering and exiting piping by one diameter, so that the valve can be serviced in the advent a flow change is desired.
4. All Hays Automatic Flow Control Valves are marked with direction of flow and rate of flow. **THE FLOW ARROW MUST POINT IN THE DIRECTION OF FLOW FOR PROPER OPERATION. THE VALVE NAMEPLATE, MUST BE ATTACHED TO THE INLET P/T PORT.**
5. Hays Flow Control Valves are factory assembled, individually calibrated and are tamperproof once installed in the pipe. The valves are warranted to be accurate within 10% of rated flow when properly installed.

#### OPERATION

1. For optimum operation, air entrainment in the system must be eliminated. The flow control valve must remain filled with fluid. The system must be clean and free of foreign materials.
2. The Hays Mesurflo Valve must only be used with fluids that are compatible with, Iron, Brass, and EPDM materials. The temperature during operation must be limited to the range of 32 ° F to 225 ° F.
3. The use of fluids having a specific gravity different from that of water will require adjustment. Valves specified for fluids other than water will be so marked and the factory calibration will take the specific fluids' properties into consideration. Operation at a temperature other than the rated temperature may require a correction.

#### INSTALLATION

1. Flanged valves are intended for use in Building Services Piping meeting the requirements of ASME B 31.9 and are supplied with ANSI B16.5, 2003, 150 lb. Raised face steel flanges. These flanges are to be connected into the piping system utilizing new ASTM A194, GR 2H, nuts, new ASTM A193 GR B7 bolts, size 3/4" inch, for 6 & 8 inch, size 7/8" inch for 10 & 12 inch and two hardened steel washers under each nut. Appropriate gasket material must be used when installing flange mounted flow control valves. The thinnest practical gasket should be used whenever possible so as to optimize the joint performance.
2. A non-metallic based lubricant such as oil or graphite is to be applied to the nuts and bolts, and the assembly uniformly torqued to, 200 foot lbs for 6" & 8" flanges, 320 foot lbs for 10" & 12" flanges. Bolts should be torqued in at least three even steps using a star or crossing pattern until the final torque is reached.
3. Welded valves are to have their plastic inlet and outlet covers removed, and the valve placed in the pipe line so as to minimize the entrance of weld slag into the plumbing. Welding is to be performed in

accordance with the applicable requirements required for the system.

4. Grooved End valves are to have the grooves checked for indentations, projections or other imperfections which could prevent proper sealing. The gasket is to be checked, and lubricated with a thin coating of the proper lubricant to the outside and sealing surfaces. Keep the lubricated surfaces clean. Slip the gasket over the two ends of the valve, making sure they do not over hang. Place the valve in position with one of the connecting pipes. Pull the gasket in a centered position between the groove in the pipe and the groove in the valve. The gasket should not protrude into either groove. Remove one nut and bolt from the coupling, and loosen the other. Place one half of the coupling over the gasket making sure the coupling keys fit into the housing grooves. Swing the other coupling half over the gasket and into the grooves on both housings, making sure the tongue and recess of each coupling is properly mated. Re-insert the bolt and run-up both nuts finger tight. Securely tighten the nuts alternately and equally until completely tightened, keeping the gaps at the bolt pads evenly spaced.

## **MAINTENANCE**

General maintenance is not required for Hays Flow Control Valves, however if the system experiences large amounts of pipe scale due to poor water conditions, as sometimes is found in older or retrofit systems, some maintenance may be required. Provision should be made to keep the system clean. Proper water treatment is also recommended.

## **LIMITED WARRANTY**

See Hays Fluid Controls current Terms & Conditions for warranty information.