



**HIGH FLOW BY-PASS VALVE
INSTALLATION INSTRUCTIONS
FOR: ME840-6 AND ME840-8**

THE MEC ME840 VALVE

Your new ME840-6 or ME840-8 is a dual purpose automatic priming and differential bypass valve designed for high pressure volatile liquid service, but is also suitable as a bypass valve for handling stable liquids. The 3/4" & 1" bypass valve were developed for use with turbine regenerative pumps to keep the pump primed at all times and to act as a differential bypass when needed. They are also ideal for centrifugal and other pumps.

INSTALLATION OF MEC 3/4" OR 1" BYPASS VALVES

Proper installation of the MEC 3/4" OR 1" bypass valve will ensure optimum performance of the pump as well as the valve. Install the bypass valve on the discharge side of the pump, either vertically or horizontally. The discharge piping from the valve should go to the vapor or liquid section of the supply tank into an excess flow valve, **not a back check valve**. The recommended valve discharge pipe line sizes are given in the table below. For distances of 50 feet or more, the next larger pipe size should be used.

Recommended Valve Discharge Line Sizes

Flow Rate GPM	ME840 Valve Size	
	3/4"	1"
Up to 20	3/4"	3/4"
Up to 40	1"	1"

ADJUSTMENT OF 3/4" or 1" BYPASS VALVES

Standard ME840-6 and ME840-8 bypass valves are factory set at 100 psi differential pressure. Regardless, the proper setting of the valve is recommended at the time of installation. Start the pump and circulate liquid through the valve back to the tank. Remove the valve cap and loosen the locknut on the valve adjusting bolt. Turn the valve adjusting bolt out (counterclockwise) to decrease pressure and in (clockwise) to increase the pump discharge pressure.

Adjust the valve to open at the maximum pump pressure required to fill all containers.

Tighten the lock nut and permit the pump to circulate liquid through the valve. On stationary applications, if the motor overload protection device stops the motor, adjust the valve by turning the screw out another turn or two.

Once a satisfactory pressure adjustment has been made, replace the valve cap and tighten. On installations where the pump has an internal safety relief valve, the bypass valve should be set at a pressure slightly lower than the pump internal safety relief valve.

NOTE: On LP-gas installations, a maximum differential pressure of 125 PSI is allowed by Underwriters' Laboratories, Inc.

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Parts List			
Ref. #	Description	Qty.	Part #
1	Body, .75" NPT	1	ME840-6-101
	Body, 1" NPT	1	ME840-8-101
2	Poppet	1	ME840-8-104
3	Ball Spring	1	ME840-8-116
4	Ball	1	ME840-8-117
5	Ball Retainer	1	ME840-8-118
6	Spring, Blue	1	ME840-8-108-60
	Spring, Green	1	ME840-8-108-150
	Spring, Red	1	ME840-8-108-150 ME840-8-108-225
7	Bonnet O-Ring, Nitrile	1	ME870-24-06
	Bonnet O-Ring, Viton	1	ME840V-8-109
8	Bonnet	1	ME840-8-102
9	Spring Guide	1	ME840-8-106
10	Spring Guide O-Ring, Nitrile	1	ME867-10-04
	Spring Guide O-Ring, Viton	1	ME840V-8-110
11	Stem	1	ME840-16-103
12	Lock Nut	1	ME840-16-113
13	Cap	1	ME840-8-105
14	.25" NPT Plug	2	ME449S-07
15	Nameplate (Not Shown)	1	ME840-16-114
16	Nameplate Screw (Not Shown)	2	ME840-16-115

