



# PRV-71H Instructions

## Instruction Manual

*All HYDRO Chemical Feed systems are carefully designed and tested for years of safe, accurate field service. All HYDRO systems are tested prior to shipment. All HYDRO products are made of the finest materials. To insure best operation, read these instructions carefully and completely and store them where all maintenance personnel will have access to them.*

# I. INTRODUCTION

The PRV-71H is a normally open, self actuating pressure reducing valve. Its purpose is to reduce and control downstream pressure. The valve will close if downstream pressure exceeds the set pressure.

The upper valve body is provided with a vent connection. If the diaphragm fails, the pressurized gas can be directed to an appropriate location.

The PRV-71H design incorporates a removable trim capsule assembly, allowing for easy maintenance and cleaning.

# II. INSTALLATION

Because of its weight, the PRV-71H should always be supported. An optional wall-mounting bracket is available.

Inlet and outlet connections are  $\frac{3}{4}$ " female NPT. A label is provided to show the direction of flow and help identify the inlet and outlet. Note that the outlet connection and vent connection are on the same side of the valve.

The valve should be installed downstream of the chlorine filter and liquid traps (drip legs).

A pressure gage should always be installed in the downstream piping to indicate the reduced pressure.

It is recommended that a  $\frac{1}{2}$ " steel vent pipe be installed (without traps) in case of a diaphragm failure.

# III. OPERATION

The outlet pressure is adjustable by means of the Adjustment Screw (PRH-396G-8000). First, remove the Upper End Cap (PRH-378U-8000) to access the adjustment screw. By turning the Adjustment Screw, you can decrease or increase the compression of the Loading Spring (SPH-424A-8000). This adjustment allows manual setting of the outlet pressure. Turning the Upper End Cap clockwise will increase the outlet pressure and turning it counterclockwise will decrease the outlet pressure. Adjustments should be made slowly and carefully, while monitoring the outlet pressure gauge.

# IV. MAINTENANCE

The frequency of required cleaning or maintenance will depend on the quality of the gas supply and the gas flow rate. However, it is recommended that the valve be serviced at least once per year.

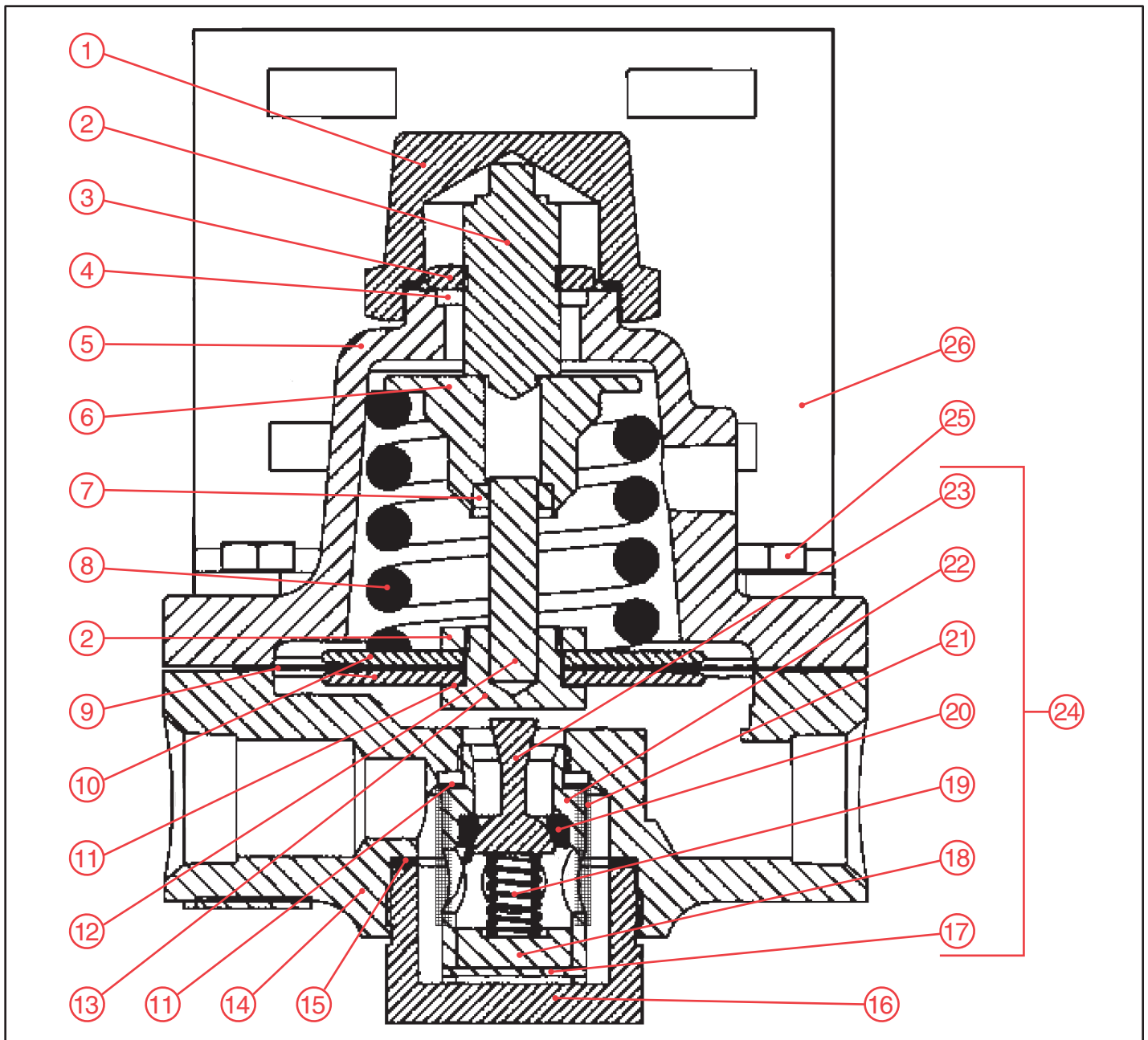
Parts/Maintenance Kits KTH- PRV-71H-(CL2 or SO2) are offered and contain the parts necessary to accomplish the recommended maintenance as well as a parts diagram.


Note: Please refer to the parts diagram for those items included in the kits mentioned above.

## Maximum Discharge Pressure Settings to Prevent Liquifaction

Cl<sub>2</sub> Service: 40 psig (275 kPa guage)

SO<sub>2</sub> Service: 15 psig (103 kPa guage)

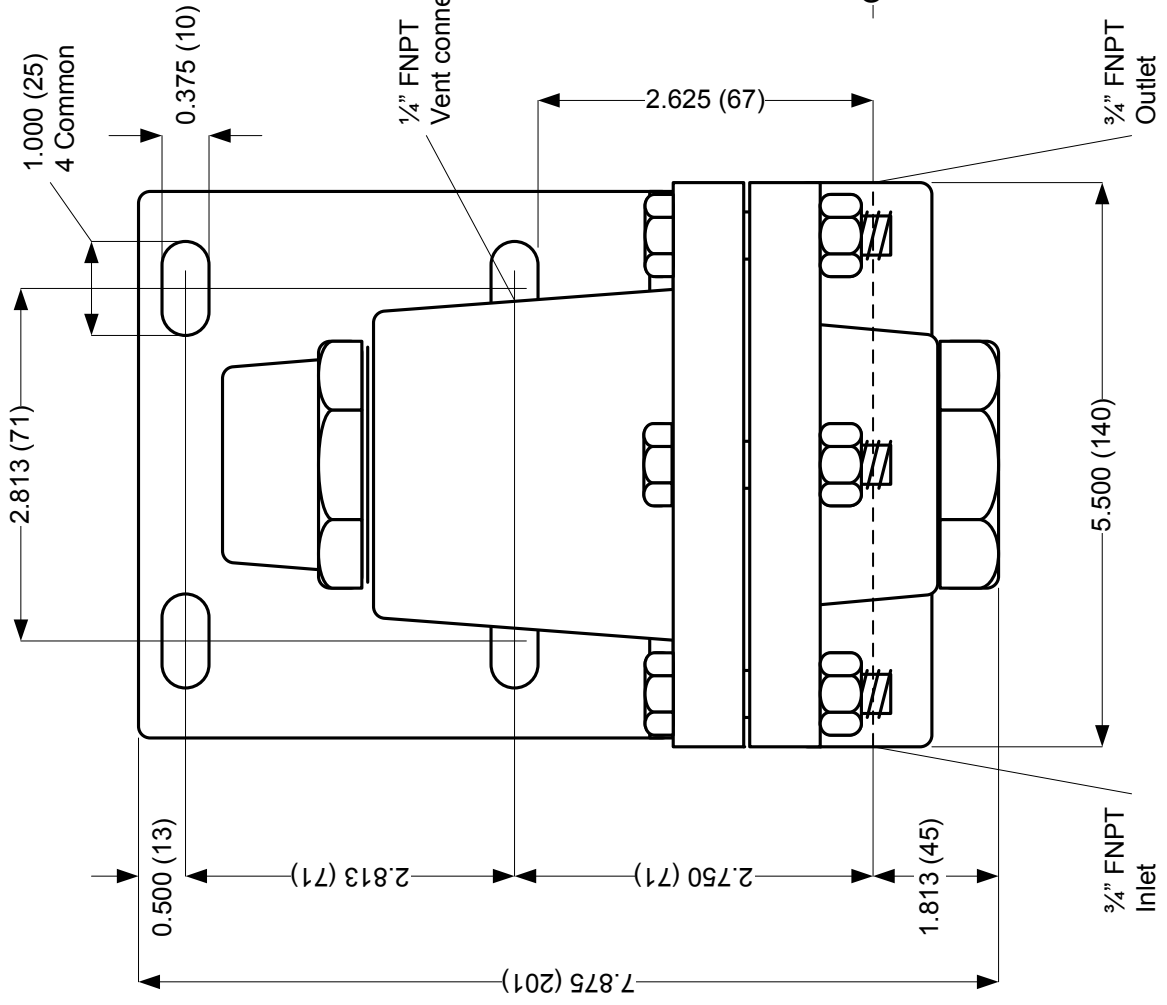


Item No.	Description	Quantity	Part No.	Item No.	Description	Quantity	Part No.
1	Upper End Cap	1	PRH-378U-8000	18	Spring Seat Cap	1	PRH-378D-8000
2	Adjustment Screw	1	PRH-396G-8000	19	Trim Spring	1	SPH-424B-8000
3	3/4-16 Brass Hex Nut	2	PRH-397A-8000	20	Valve Seat	1	PRH-433F-8000
4	* Upper End Cap Lead Gasket	1	GAH-LED-333	21	* Valve Screen	1	PRH-433S-8000
5	Upper Valve Body	1	PRH-23076-8000	22	Valve Body Capsule	1	PRH-433A-8000
6	Seat Cap	1	PRH-640A-8000	23	Valve Plug	1	PRH-433C-8000
7	Seat Cap Bushing	1	PRH-640B-8000	24	* Trim Capsule Assembly (1/2")	1	PRH-668
8	Loading Spring	1	SPH-424A-8000	25	Hex Head Screw, 3/8-16 x 1 3/4"	6	BTH-STA-040F
9	* Diaphragm	2	DIH-425C-8000	26	Mounting Bracket	1	PRH-353A-8000
10	Diaphragm Backing Plate	2	PRH-391G-8000	-	Hex Nut, 3/8-16 (Not shown)	6	BTH-STA-145M
11	* Kynar Gasket	2	GAH-333C-8000	*Included in parts/maintenance kit KTH-PRV-71H-___ (CL <sub>2</sub> /SO <sub>2</sub> )			
12	Diaphragm Bolt	1	PRH-639B-8000				
13	Diaphragm Bolt Base	1	PRH-639A-8000	 <b>hydro</b> INSTRUMENTS, INC.			
14	Lower Valve Body	1	PRH-23077-8000				
15	* Lower End Cap Lead Gasket	1	GAH-LED-334	<b>PRESSURE REDUCING AND SHUTOFF VALVE</b>			
16	Lower End Cap	1	PRH-378L-8000	Date: June 2010 Scale: 83% Dwg. No. PRV-71H			
17	Pin	1	PRH-398A-8000				



TITLE		DATE
Model PRV-71H Pressure Reducing Valve		Dec. 14, 2009
MEASUREMENT		DWG. NO.
Inches (Millimeters)		PRV_DIM

FRONT



TOP

