PRESSURE RELIEF VALVE INSTRUCTION MANUAL

## RV SERIES

## PRESSURE RELIEF VALVES



Standard Models:

## RV1000 <br> RV1000-LP <br> RV1000-HP

RV1001
RV2000
RV1001-LP
RV1001-HP

RV2000-LP
RV2001

Relief Valve Instructions: (Refer to diagrams on page 3.)
Your new Liquiflo Relief Valve is maintenance free.
The only adjustment on the valve is the resetting of the relieving point. This is done by loosening the lock nut (2) and rotating the large cap (1). (Turn cap COUNTERCLOCKWISE for lower relief setting; turn CLOCKWISE for higher relief setting.)

If, for any reason, the valve must be disassembled, this can easily be done by loosening the lock nut (2) and unscrewing the adjusting cap (1). Remove the safety pin (7) and pull out the internal spring cap (8) with Teflon O-ring (6). This exposes the spring (4) and valve pin (5) assembly.

For reassembly, simply reverse the above action. (Push in the internal spring cap with Oring, spring and valve pin, replace the safety pin, etc.)

## Caution!

ALWAYS MAKE SURE THERE IS NO PRESSURE IN THE SYSTEM BEFORE DISASSEMBLING THE VALVE. IT IS BEST TO REMOVE THE VALVE FROM THE SYSTEM.

Always flush the system before disassembling to eliminate the chance of getting harmful materials on the skin or in the eyes.

## Standard Available Models:

Liquiflo manufactures 2 sizes of relief valves in both 316 SS and Alloy-C. 9 standard Liquiflo Relief Valve models are available, based on the body material, the port size and the pressure setting range (see table below). The relief valves are factory preset to discharge at the inlet pressures shown in the table. Different pressure settings (within the Pressure Setting Range) can be specified when ordering. For any further information, please consult the factory.

LIQUIFLO Standard Relief Valves

| Model \# | Material | Port Size (NPT) | Pressure Setting Range (PSIG) |  | Factory Setting PSIG | Approx. Flow @ 25 PSI over Factory Setting* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Min | Max |  | USGPM | LPM |
| RV1000-LP | 316 SS | $1 / 2^{\prime \prime}$ | 25 | 65 | 50 | 5.8 | 22 |
| RV1000 | 316 SS | $1 / 2^{\prime \prime}$ | 50 | 135 | 100 | 7.5 | 28 |
| RV1000-HP | 316 SS | $1 / 2^{\prime \prime}$ | 75 | 200 | 150 | 8.9 | 34 |
| RV1001-LP | Alloy-C | 1/2" | 25 | 65 | 50 | 5.8 | 22 |
| RV1001 | Alloy-C | $1 / 2^{\prime \prime}$ | 50 | 135 | 100 | 7.5 | 28 |
| RV1001-HP | Alloy-C | 1/2" | 75 | 200 | 150 | 8.9 | 34 |
| RV2000-LP | 316 SS | 1" | 25 | 75 | 50 | 19 | 72 |
| RV2000 | 316 SS | $1 "$ | 50 | 175 | 100 | 25 | 95 |
| RV2001 | Alloy-C | 1" | 50 | 175 | 100 | 25 | 95 |

LP = Low Pressure $\quad \mathbf{H P}=$ High Pressure

* Test Conditions: Water @ 70 ; discharge to atmospheric pressure (0 PSIG).

Positive Displacement (PD) pumps should always be installed with a Relief Valve in the discharge line, to protect the pump and piping against any type of line blockage, including the inadvertent closing of an isolation valve.

Relief Valve Installation: Install the relief valve at the discharge side of the PD pump and before the discharge isolation valve, as shown in the diagram at right. The relief valve outlet should be piped back to the supply tank, as shown. This is to ensure that the pump will not overheat if left running in a relieved condition.

Relief Valve Setting: The relief valve discharge pressure should be set to 10-15 PSI above the
 discharge pressure of the PD pump.

## Liquiflo Relief Valve Cross-Sectional Diagram



