

# Balancing Valve

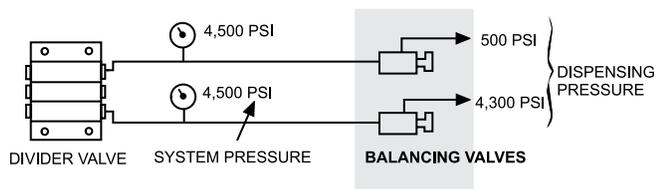
## DESCRIPTION

The Graco® Balancing Valve assists divider valves to accurately proportion lubricant at high differential pressures. It is recommended for use when a pressure difference greater than 1,000 PSI exists between two or more of the points in a Graco divider valve system.

The balancing valve is not affected by downstream pressure variations. The preset pressure setting will maintain a uniform pressure throughout the system that assures accurate and efficient system operation.

Figure 1

### Balancing valve set at 4,500 PSI



## FEATURES

- Balancing valve is not affected by downstream pressure, assures accurate flow to all lubrication points.
- Balancing valve is field adjustable. Reduces on-site inventory costs as one model meets all your system needs.
- Balancing valve is in-line mounted, so it lowers installation costs.
- Balancing valve uses a wear-resistant tungsten-carbide ball to reduce maintenance costs.

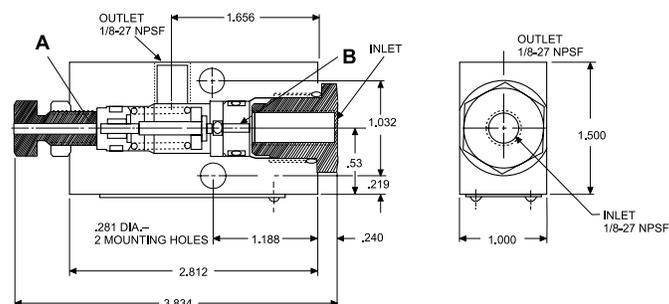


## OPERATION

Figure 2

The area (A) behind the check ball piston is sealed from downstream pressure. Because this area and the seat area (B) of the check ball are equal, the valve is balanced and is not affected by downstream pressure. As pressure upstream of the valve rises above the spring setting, the check ball unseats, allowing fluid to pass through the valve. As pressure drops, the spring closes the check ball until pressure again exceeds the spring setting.

Figure 2



SPECIFICATIONS	
<b>Material</b>	Steel
<b>Max Operating Pressure</b>	6500 psi
<b>Adjustable</b>	From 1000 to 6500 psi (Factory set at 3000 psi)
<b>Operating Temperature</b>	-10°F to 250°F (-23°C to 121°C)
<b>Lubricant</b>	Oil
<b>Seals</b>	Viton
<b>Net Weight</b>	1.19 lb (0.54 kg)

## TYPICAL APPLICATION

Figure 3

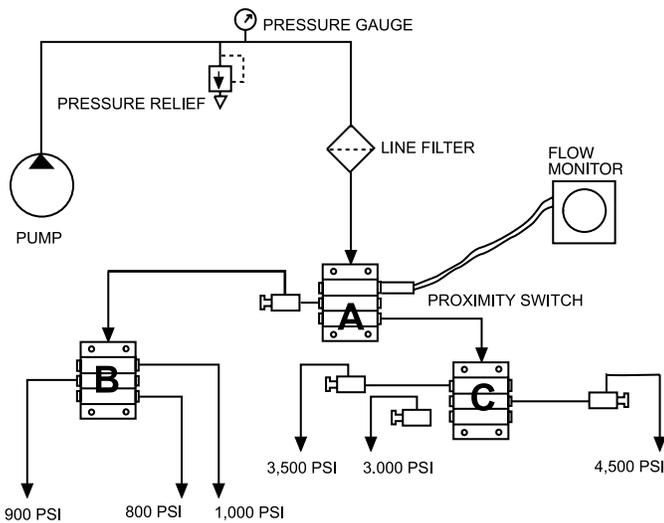
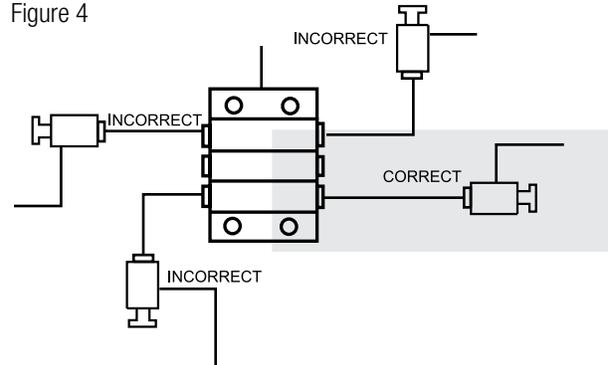


Figure 3 shows a typical compressor lubrication system using MH divider valves and balancing valves. In the system, a 3,700 PSI dispensing pressure difference exists. One balancing valve is installed in the line between the master divider (A) and the secondary divider valve (B). Also two balancing valves are installed downstream from the secondary divider valve (C), where a pressure difference of 1,500 PSI exists. Each valve is set to equal the highest pressure point in the system which, in this case, is 4,500 PSI. A fourth balancing valve is installed to serve the lubrication point at 4,500 PSI, downstream from the divider valve (C). It balances the divider valve system at startup, should the compressor begin operating at low pressure.

## INSTALLATION

A balancing valve must be mounted with the outlet up to permit removal of trapped air and improve the operation of the valve. See Figure 4.

Figure 4



The Graco balancing valve is factory set at 3,000 PSI. When changing pressure setting, it is recommended that a pressure gauge be installed at the inlet of the balancing valve to determine the pressure required to open the valve. To change the pressure setting, loosen the locknut on the adjustment screw and turn the screw clockwise to increase the pressure setting or counterclockwise to reduce the pressure setting. When the desired setting is attained, retighten the locknut.

After installation and pressure adjustment, check the system pressure upstream of the balancing valve. The pressure setting of the balancing valve must be equal to the highest pressure in the system.

## ORDERING INFORMATION

Description	Part No.	Old Part No.
Balancing Valve	563230	509-510-000
Valve Seal Kit	563911	560-001-470

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**PUMPS:** Fixed and variable displacement. Manual and air, hydraulic, electric motor, or mechanically driven.

**TIMERS/AUTOMATIC CONTROLS:** From simple on/off to complete flow and pressure monitoring, either time- or machine-actuated.

**ACCESSORY VALVES:** Balancing, check, and flow.

**INDICATORS:** Performance and broken line.

**ACCESSORIES:** Fittings, brackets, clamps, filters, and strainers.

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