

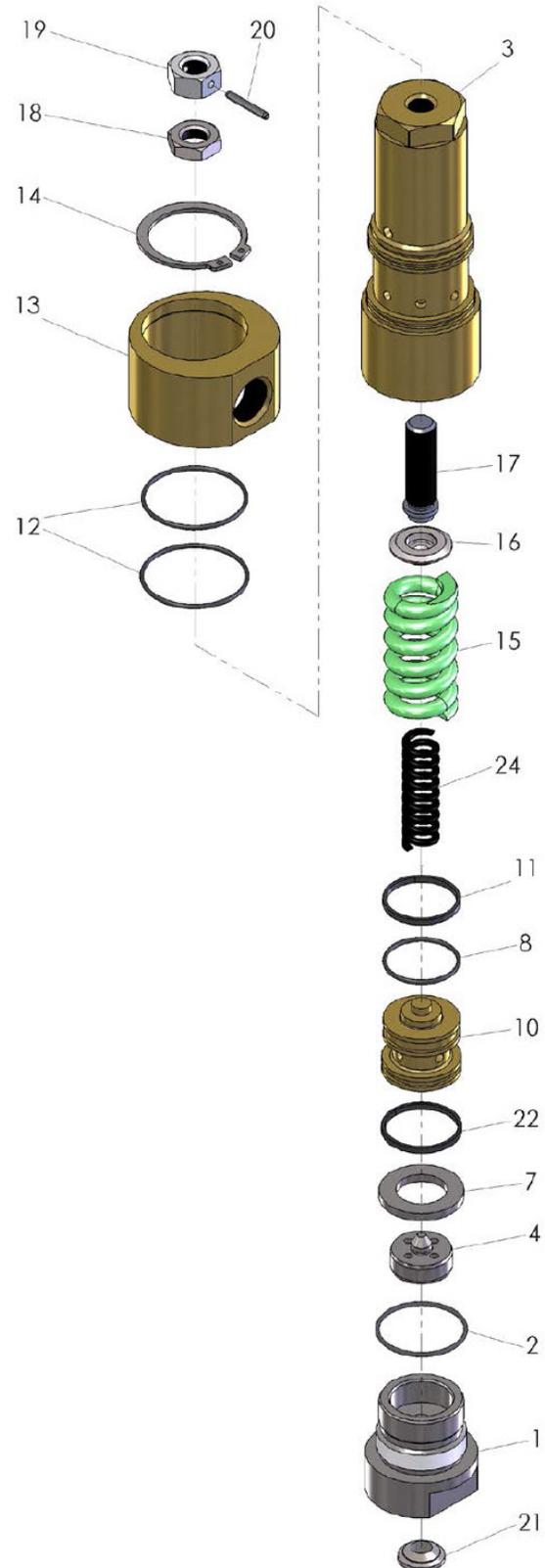
# Model 23140

## Pressure Relief Valve

### Operating Specifications:

<b>Maximum Pressure:</b>	0 - 17,400 PSI (0 - 1200 Bar)
<b>Maximum Temperature:</b>	104 ° F (40 ° C)
<b>Flow Range:</b>	1.3-13 GPM (5-50 l/min)
<b>Activation Pressure:</b>	16,000 PSI (1100 Bar)
<b>Nominal Pressure:</b>	17,400 PSI (1200 Bar)

Parts List			
Item	Part#	Description	Quantity
1	06866	Inlet Plug	1
2*	08059	O-Ring	1
3	06867	Spring Guide	1
4*	06868	Valve Cone	1
7	06869	Border Disc	1
8*	07234	O-Ring	1
10	06871	Piston	1
11*	06872	Support Ring	1
12*	07266	O-Ring	2
13	06873	Outlet Ring	1
14	08174	Clip Ring	1
15	05935	Pressure Spring	1
16	04341	Bearing Part	1
17	06786	Threaded Screw	1
18	22722	Hexagon Nut	1
19	07158	Hexagon Nut	1
20	06744	Tension Pin	1
21	05372	Seal Cone	1
22*	05931	Support Ring	1
24	04342	Pressure Spring	1
*09771 Repair Kit			



# OPERATING & ADJUSTMENT INSTRUCTIONS

## Operation

The pressure valve can be fitted either directly onto the pump or into the discharge line using a T-piece. Should the adjusted operating pressure be exceeded, the medium will be diverted through the outlet, with the valve functioning as a pop-off valve whereby the pressure in the system drops to minimal residual pressure. The residual pressure depends on the set working pressure and flow rate. The range of the residual pressure is between 145-1740 PSI (10-120 bar).

**If the pressure relief valve is activated, the problem must be found and rectified. Prolonged flow through the outlet will lead to wear of the valve.**

**The pressure relief valve protects the pump in case of overpressure. It is not a switch valve or an unloader valve.**

The outlet line running from the pressure relief valve must be free of all shut-off/lock devices. The pressure relief valve closes again if there is a complete pressure drop in the discharge line.

## Adjustment

**Adjustment work to be carried out by qualified personnel only!**

By inserting a pin through nut (19), the valve is adjusted and required pressure at the factory. The valves are de-tensioned for transport and storage purposes.

The valve is to be adjusted to the desired activation pressure step by step. This is done by fitting a needle valve into the discharge line after 23140. Using nut (19), turn threaded stud (17) approximately two full turns to the right. Start the pump with the needle valve open. Then increase the pressure on the needle valve until the 23140 is activated. Open the needle valve to relieve pressure to zero. Continue to turn threaded stud (17) to the right and check the activation pressure step by step until the desired setting is reached. Lock nut (18) against the spring guide (3).

Frequent switching or impurities can damage the cone sealing surfaces. As a result, this will cause the valve to drip lightly and no longer seal completely.

## Installation

**We offer the double nipple 1/2" BSP fitting (part number 05362) to mount the 23140 pressure relief valve on our LP800, LP900, LP1000, GP5116 and GP5117 pumps.**

The pressure relief valve comes with a special sealing cone (21) which must be inserted into the inlet plug (1) of the pressure relief valve.

The double nipple has a corresponding conical contour for the sealing cone on its valve side. On its pump side the double nipple has an appropriate contour to ensure that the copper seal ring (63) sits properly.

If another double nipple is used, it must be manufactured as per the drawing shown on back to guarantee perfect sealing when put together with seal cone (21).

# OPERATING & ADJUSTMENT INSTRUCTIONS



Photo 1

Fix the 23140 in the bench vice to open the spring guide (3). Carefully pull the spring guide (3) up.



Photo 2

Carefully pull the spring guide (3) up.



Photo 3

Take the valve cone (4) out of the inlet plug (1). Check the surface of the boring of the inlet plug (1) and the surface of the valve cone (4).



Photo 4



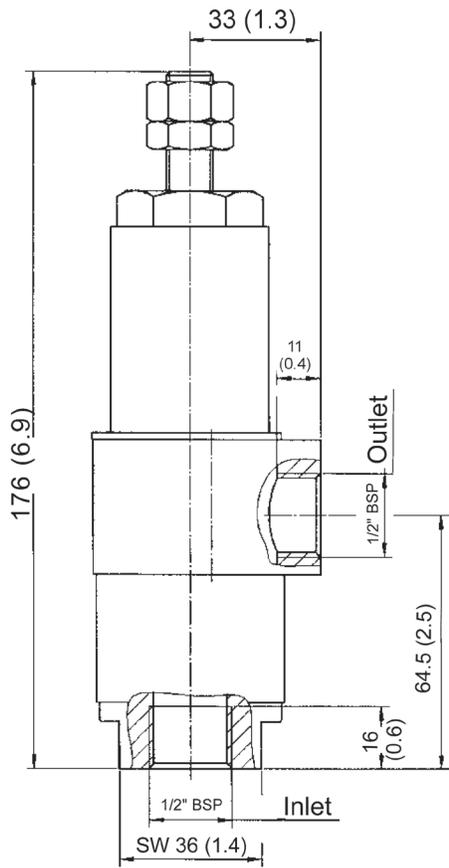
Photo 5



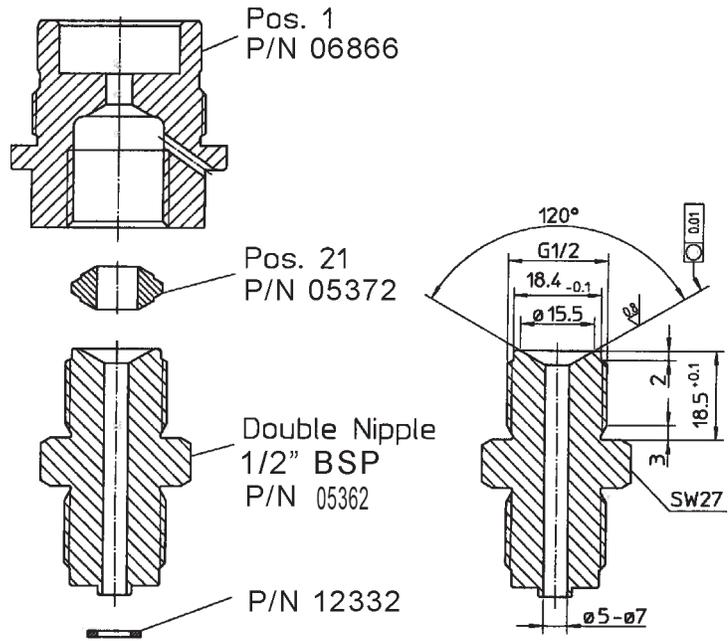
Photo 6

Put the new valve cone (4) in the inlet plug. Note installation arrangement. Put on the border disc (7) and the piston. Then carefully put on the spring guide (3) and tighten to 107 ft.-lbs. (145 Nm).

**23140 Pressure Relief Valve  
Dimensions - millimeters (inches)**



**23140 Pressure Relief Valve  
Inlet Connection Adapter**



**WARNING:** This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.  
For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**GIANT**  
Performance Under Pressure

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