



Diamond Miniature Pressure Relief Valve Maintenance Instructions

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Mini PRV Spares Kit:

Valve Size **Spares Kit Pt No.**
0.5" & 0.75" KPM05 _____

IMPORTANT

Please read carefully before commencing any work on this valve:

1. Ensure that the line pressure is zero and fully drained and that all pneumatic and power supplies are turned off and isolated before commencing work on the valve.
2. When operating the valve ensure that fingers are clear of moving parts to avoid injury.
3. Gaskets and seals should be stored away from UV light to increase shelf life.
4. Ensure that pipes and connections are properly aligned before mounting the valve in position to avoid undue stress and leakage.
5. Operate the valve open and closed several times following maintenance, and before use to ensure correct function.
6. The user should adopt a maintenance programme for valves depending on frequency of use and application particulars. DPL recommends seal replacement at least every two years.

IMPORTANT:

Dismantling, pressure adjustment or maintenance should not be performed while the valve is in use or where there may be product / process pressure in the valve body. The valve relief pressure is factory set by DPL. The relief pressure setting will be lost when dismantling the valve. Please see page 2 for relief pressure adjustment instructions and requirements prior to dismantling your valve.

Dismantling Procedure

Use the valve image on page 2 for reference.

1. Slacken off Locking Nut item 6
2. Undo Adjusting Screw item 7, and remove from valve body
3. Remove Spring item 5
4. Spindle item 2 can now be removed by pushing it up and out of the valve body item 1. This can be achieved by gently pushing a pencil up through the inlet port at the base of the valve.
5. The spindle seal item 4 and seat seal item 3 can now be removed and replaced, as required.

Assembly Procedure:

Note. A small amount of food grade, process / seal compatible grease can be used on the spindle seal to aid assembly.

1. Carefully push spindle item 2 back into the valve body, taking care to avoid damaging the seals.
2. Locate spring item 5 into the hole in the top of spindle Item 2.
3. Replace adjusting screw / locking nut assembly into the top of the valve, rotating in a clockwise direction until resistance is felt and the spring starts to compress.
- 4) To re-set the pressure setting follow the procedure shown on page 2.



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Please Note: It is recommended that a calibrated pressure gauge and hydrostatic test rig / hand pump are used to carry out this procedure. Alternatively contact DPL to arrange our factory re-setting service.

Relief Pressure Adjustment:

1. Ensure that the important safety precautions have been followed from page 1 of this document prior to removing the valve from the process line.

2. Fit the lower valve connection (inlet) to your pressure test rig.

3. Hold the adjusting screw item 7 in place with a suitable spanner and loosen the lock-nut item 6 (with a second spanner).

4. Apply water pressure to the valve inlet, slowly increasing the pressure until the valve seat lifts. Note the relief pressure at this point. Release the pressure to zero.

5. The adjusting screw item 7 can now be rotated clockwise to increase the relief pressure or anti-clockwise to decrease.

6. Once the desired relief pressure is reached, the adjusting screw should be held in place with the spanner and locknut item 6

re-tightened to ensure that the adjuster screw is locked in place.

7. Apply water pressure once more to ensure that the relief pressure is correct. If adjustment is required, follow the procedure once more to make the adjustment. Ensure that the pressure is at zero prior to removing the valve from the test rig.

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