



# Diamond Miniature Pressure Relief Valve

## INSTALLATION & OPERATING INSTRUCTIONS

**IMPORTANT INFORMATION - PLEASE READ CAREFULLY BEFORE INSTALLING YOUR VALVE**

With regard specifically to the Pressure Equipment Directive (2014/68/EU), DPL valves fall within the category of Sound Engineering Practice (Not to be CE marked) for hygienic use at pressures not exceeding 10 bar and non-group 1 use. This is in-line with the pressure/size constraints in the directive for valves as per the British Valve and Actuator Associations guidelines. Our Test Certificate will be issued with each valve order stating that the valve is within the PED requirements and giving the relevant group and category under Sound Engineering Practice.

A process system can generally be associated with many varying conditions such as water hammer, pressure shock, vibration and thermal expansion due to temperature change. Stress and strain within the pipeline will result, and unless such conditions are allowed for at the system design and installation stages, the valve and pipe assembly may be damaged.

When installing the valve into a pipe assembly system, careful consideration must be made to ensure adequate support by means of framework and pipe clip fasteners, for both the valve and the surrounding pipe assembly.

To allow for proper drainage this type of valve should be mounted vertically. If the valve is only operated infrequently, the valve should be operated under safe working conditions periodically to avoid the seat seal sticking to the seat.

The ports on this valve are normally fitted with couplings. If for any reason the valve is to be welded, the valve should be disassembled and all seal components removed from the valve body. (see instructions over the page). This will prevent heat damage to the valve seals and other internal components. Gas backed TIG welding should be used and a minimum weld bead should be produced to reduce the risk of heat distortion within the valve body. The relief pressure is set at the DPL factory and will have to be reset if the unit is dismantled for any reason, see page 2.

## VALVE SPARES KITS

The user should establish a maintenance programme for valves depending upon the type of product and frequency of use. Spares kits and maintenance instructions are available from DPL.

**0.5" & 0.75" Valves use spares kit part No. KPM05 \***

**Please Note:** To aid identification of your valve, the spares kit part number is marked on the valve body together with the date of supply.

**\* Denotes the seal material suffix:**

E - EPDM  
N - Nitrile  
V - Viton  
F - FEP  
S - Silicon



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Call us: 01799 58 2440 email us: [dairypipelines@dpluk.co.uk](mailto:dairypipelines@dpluk.co.uk)

Visit us at: [www.dpluk.co.uk](http://www.dpluk.co.uk) Unit 1 Dencora Park, Shire Hill, Saffron Walden. CB11 3GB



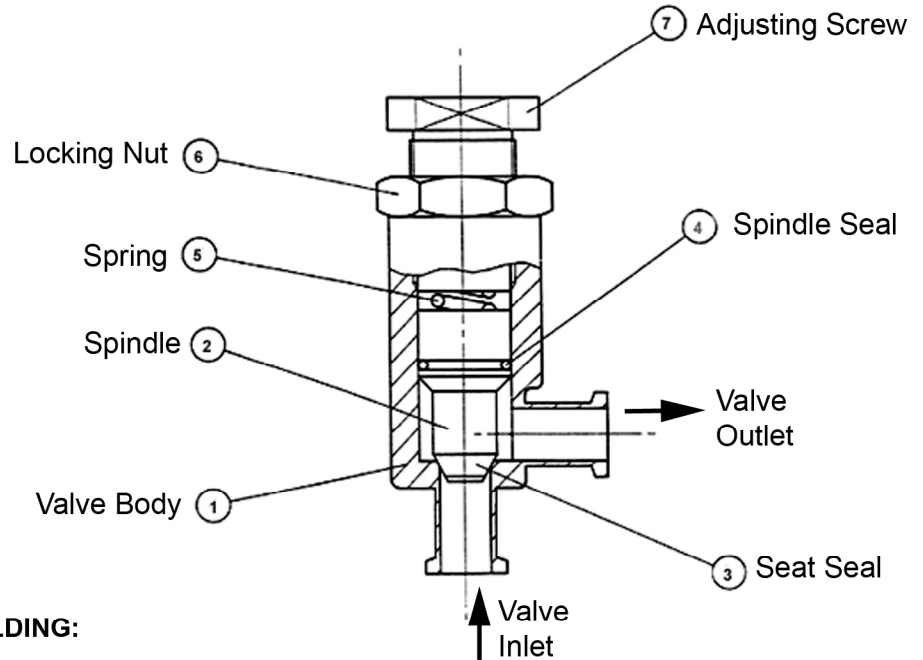
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Continued from page 1

### **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.



### **TO DISMANTLE THE VALVE FOR WELDING:**

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 through the inlet port at the base of the valve.

### **TO ASSEMBLE THE VALVE:**

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 below:

### **RELIEF PRESSURE ADJUSTMENT:**

1. Ensure that the line pressure is zero prior to commencing.
2. Hold the adjusting screw item 7 in place with a suitable spanner and loosen the lock-nut item 6 (with a second spanner). Unscrew the locknut clear of the valve body to allow room for adjustment.
3. Apply 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.
4. The adjusting screw item 7 can now be rotated clockwise to increase the relief pressure or anti-clockwise to decrease. Repeat step 3 until the required relief pressure is achieved.
5. 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.
6. Apply pressure to the valve inlet 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 on completion.