



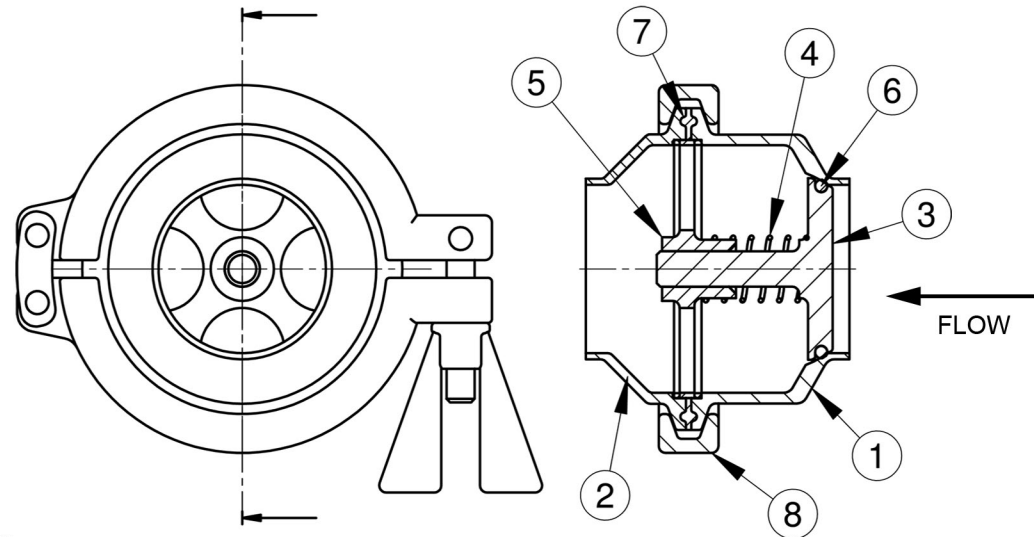
Diamond Non Return Valve Maintenance Instructions

Spares Kits:

SIZE	Part Number	This Kit	
0.5" - 1.0"	KNR100__3A		Seal material denoted as follows:
1.5"	KNR150__3A		
2.0"	KNR200__3A		E - EPDM F - FEP V - Viton N - Nitrile S - Silicone
2.5"	KNR250__3A		
3.0"	KNR300__3A		
3.0"	KNR300__3A		
4.0"	KNR400__3A		

IMPORTANT Please read carefully before commencing any work on this valve:

1. Ensure that the line pressure is zero and fully drained before commencing.
2. Ensure that the valve operates correctly before installing. Check that the spindle item 3 moves freely back and forth. Check your desired flow direction prior to installation as depicted here and marked on the valve.
3. Ensure that pipes and connections are properly aligned before mounting the valve in position to avoid undue stress and leakage.
4. The user should adopt a maintenance programme for valves depending on frequency of use and application particulars. DPL recommends seal replacement at least annually.
5. Gaskets & seals should be stored away from UV light to increase shelf life. To ease fitting of FEP seat seals they should be heated in hot water prior to fitting.
6. If the valve is ATEX / equivalent UK regulations certified all connecting process pipework must be earthed before use.
7. The DPL Non Return Valve is designed for fluid use and is not designed for dry, gas or air applications.



Valve Maintenance:

1. Ensure that the process line and valve is drained and pressure is zero then remove the valve from the line.
2. Place the valve on the bench with the spindle face item 3 facing down.
3. Carefully remove the clamp item 8 whilst holding the valve body & liner (items 1&2) together to avoid the two parts springing apart unexpectedly.
4. Separate the body and liner (parts 1&2) and remove all of the internal parts from the valve body.
5. Check the guide item 5 and spindle item 3 for excessive wear. These two parts should fit closely together and move freely. If excessive wear is apparent then these parts should be replaced accordingly. Spare parts are available from DPL. The seals will all now be accessible and should be replaced together with the spring. The seat O ring should be replaced without creating a twist in the rubber whilst fitting. This will ensure proper sealing of the seat on reassembly.
6. Reassemble the valve using the drawing above to ensure correct orientation. Make sure that the guide item 5 is correctly oriented as the valve will only function correctly when assembled as shown. Tighten the clamp on completion.
7. If the valve is ATEX (CE & Ex marked) and / or equivalent UK regulations certified (UKCA & Ex marked) then the conductivity test should be conducted as described in the separate installation and operating instructions. Conductivity must exist between the valve body item 1 & liner item 2, check using a multimeter.
8. Operation: The valve is designed to fully close with the aid of a small amount of back-pressure. To test correct operation, the valve should be filled with water from the liner end (item 2). A small amount of water may drip past the seat, this is normal. Push the spindle item 3 down gently with one finger to simulate back-pressure and the valve will seal correctly.