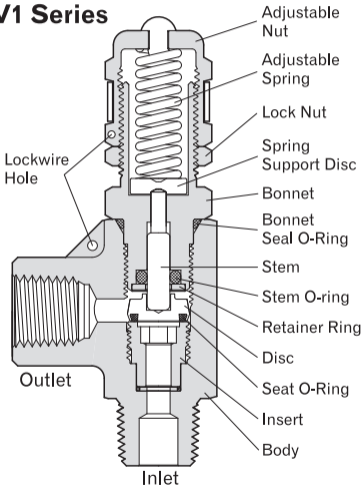


RV Series Relief Valve Instruction Card

IM-CARD-RV100
May 2011

RV1 Series



HY-LOK CORPORATION

Seal Replacement Instruction

Contents

- 1 Stem O-Ring
- 1 Retainer Ring
- 1 Bonnet Seal O-Ring
- 1 Bonnet
- 1 Disc (Only RV1 Series)
- 1 Seat O-Ring

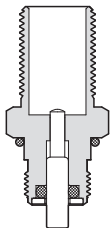
CAUTION

Relieve system pressure before replacing spring

Disassembly and Seal Removal

1. Relieve system pressure.
2. Remove the Valve from system.
3. Loosen the Lock Nut and remove an Adjustment Nut, Spring and Spring Support Disc from the Bonnet.
4. Remove a Bonnet from Body.

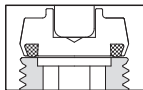
Stem O-Ring Replacement



5. Pull a Stem down out.
6. Make sure all parts are clean before replacing.
7. Install a new Stem O-Ring.
(Lubricate O-Ring with system compatible lubricant)
8. Insert a Stem into New Bonnet through Stem O-Ring unit it bottoms.

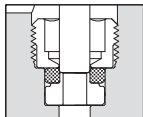
Disc and Seat O-Ring Replacement

• For RV1 Series



5. Turn the valve upside down to allow the Disc to fall out.
6. Remove a Disc from Stem.
7. Make sure all parts are clean before replacing.
8. Place a new Disc on Stem.

• For RV2 Series



5. Remove the Insert with 8mm hex key wrench.
6. Remove Seat O-Ring and Seat by pushing a suitably tool up through inlet port.
7. Make sure all parts are clean before replacing.

8. Install new Seat O-Ring onto Seat.

(Lubricate O-Ring with system compatible lubricant)

9. Place Seat O-Ring and Seat assembly into Body.

(Seat O-Ring facing up) until Seat bottoms on shoulder of inlet port.

10. Thread Insert into Body and tighten to 280 kgf-cm (27.4N-m) of torque.

Reassembly and Installation

1. Remove and replace Bonnet Seal O-Ring.

(Lubricate O-Ring with system compatible lubricant)

2. Install new Bonnet into Body and tighten to 690 kgf-cm (67.6N-m) of torque.

3. Install valve in system.

4. Set desired cracking pressure and tighten Lock Nut.

5. Lockwire Adjustment Nut and Body together to maintain pressure relief setting.

Order Number Reference:

For Viton Seal Kit : KIT-RV*SL-VI

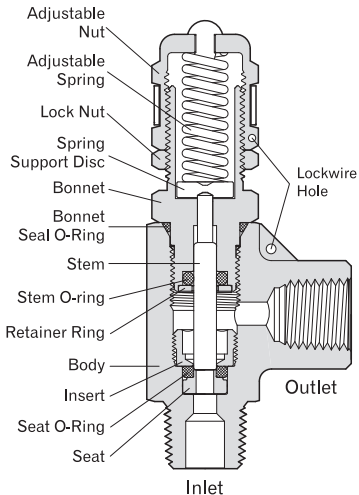
For Buna Seal Kit : KIT-RV*SL-BU

For Ethylene Propylene Seal Kit : KIT-RV*SL-EP

For Neoprene Seal Kit : KIT-RV*SL-NE

* : RV Series number

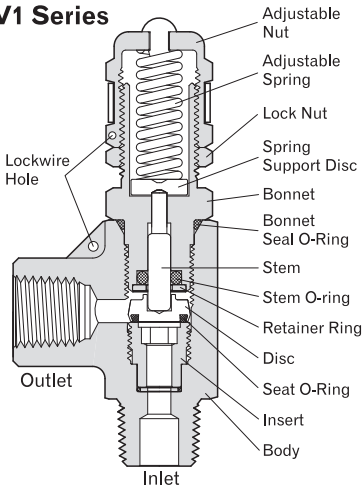
RV2 Series



RV Series Relief Valve Instruction Card

IM-CARD-RV100
May 2011

RV1 Series



HY-LOK CORPORATION

Spring Installation

CAUTION

Relieve system pressure before replacing spring

1. Loosen Lock Nut and remove Adjustment Nut from Bonnet.
2. Remove existing Spring and Spring Support Disc.
3. Make sure all components are clean.
4. Install the Spring Support Disc onto Bonnet.

For RV1 Series

5. Install the Spring onto Bonnet.
6. Screw Adjustment Nut onto Bonnet.

For RV2 Series

5. Install the proper Spring for desired cracking pressure range.
6. If applicable replace existing cracking pressured range label with new label. Check this label cracking pressure range against Spring identification table for proper.
7. Screw Adjustment Nut onto Bonnet.

Adjusting the Set Pressure

Adjust the desired set pressure before installing the valve in a system.

1. Rotate the Adjustment Nut to the desired set pressure.
2. Tighten the Lock Nut against the Adjustment Nut.
3. Test the valve. Repeat adjusting procedure as necessary to obtain desired set pressure.
4. Lock wire the Adjustment Nut and Body together to maintain relief setting.

RV2 Series Spring and Cracking Pressure

Spring Designation	Cracking Pressure			Color
	psig	barg	kPa	
A	225 - 750	15,5 - 51,5	1550 - 5150	Yellow
B	750 - 1500	51,5 - 103,0	5150 - 10300	Purple
C	1500 - 2250	103,0 - 155,0	10300 - 15500	Orange
D	2250 - 3000	155,0 - 206,0	15500 - 20600	Brown
E	3000 - 4000	206,0 - 275,0	20600 - 27500	White
F	4000 - 5000	275,0 - 344,0	27500 - 34400	Red
G	5000 - 6000	344,0 - 414,0	34400 - 41400	Green

WARNING

This Relief Valve has not been pre-set for cracking pressure. Spring Kits are available for valves provided without springs.

Set Pressure VS Resealing Pressure

CAUTION

Cracking pressure must be set considering min. Reseal pressure

After first relief, the Cracking Pressure range is within $\pm 10\%$ of Set Pressure.

Resealing pressure is the pressure at the inlet side when the lift becomes zero.

RV1 Series Minimum Resealing Pressure

Cracking Pressure psig(barg)	Min. Reseal pressure as a percentage of Cracking pressure,%
10 to 20 (0,68 to 1,3)	50
20 to 175 (1,3 to 12,0)	70
175 to 250 (12,0 to 17,2)	90

RV2 Series Minimum Resealing Pressure

Cracking Pressure psig(barg)	Min. Reseal pressure as a percentage of Cracking pressure,%
225 to 400 (15,5 to 27,6)	50
400 to 850 (27,6 to 58,5)	70
850 to 6000 (58,5 to 414)	85

Safety in Fitting Selection

For proper, safe, trouble-free installation, operation and maintenance of fluid systems, material compatibility, pressure/temperature ratings, and application details must be considered in the selection of employment of products described in this catalogue can cause personal injury or property losses. It is the responsibility of system designer and user to select and use the products for their specific applications.

Material Selection & More Informations

See our catalogue H-RV100 (RV Series Relief Valve) for more information (working pressure, ordering information, dimensions, size, etc.)

Refer to our catalogue H-FCG100 (Fluid compatibility guide) when you select suitable material for each fluid.

RV2 Series

