



**High Pressure
Equipment
Company**

**HIP-20RV Field Adjustable Relief Valve
Maintenance Instructions**

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HIP-20RV Field Adjustable Relief Valve

Description:

The purpose of the HiP-20RV field adjustable relief valve is to allow the operator to adjust system pressures between 1,000 and 20,000 PSI for various test applications.

The standard materials include a stainless steel body and seat glands, EPDM o-rings, Teflon packing and nylon seats.

Inlet and outlet connections are ¼” female NPT. Reference assembly drawing number 403179 for a detailed parts list and dimensional information.

HIP-20RV Field Adjustable Relief Valve Operating Instructions:

Operating Instructions:

1. Install HIP-20RV in system. Inlet ports are located on the side of the body. Outlet port is located at the end of the body opposite of the handle.
2. Loosen the lock nut and back off handle until little or no spring tension is felt.
3. As system is pressurized, turn handle clockwise to set spring tension to desired pressure. Set lock nut to keep handle from rotating.
4. If system requires an increase or decrease in pressure, loosen the lock nut and adjust handle to required setting.

Adjustment of the Opening Setting Instructions:

1. Make sure there is no pressure in the valve.
2. Loosen the jam nut.
3. Adjust the set screw clockwise to increase the set pressure and counterclockwise to decrease the set pressure. Recommended adjustment is one full turn maximum at a time.
4. Test the valve by pressurizing through the inlet port.
5. Depressurize the valve before making further required adjustments.
6. Retighten the jam nut after adjustment is completed.
7. It is recommended that the set pressure be recorded on a wired tag and attached to the relief valve for reference.

HIP-20RV Field Adjustable Relief Valve Maintenance Instructions:

Disassembly Instructions:

1. Secure the assembly vertically in a soft –jawed vise with the adjusting set screw at the top.
2. Loosen the nut.
3. Loosen the set screw to relieve the spring compression. Loosen seat gland.
4. Carefully remove gland.
5. Remove the assembly from the vise and carefully invert to remove the internal parts: spring seat, outer spring, gland, 1/2-13 hex nut, SOC set screw, and the inner spring.
6. Remove set gland.
7. From the top (spring housing area). Push the stem out of the assembly.
8. Remove the nylon seat, cage, spring, washer, o-ring, packing, and washer.

Assembly Instructions:

1. Replace worn or damaged items as required.
2. Reassemble the nylon seat, cage, spring, washer, o-ring, packing, and washer in reverse order of removal.
3. Loosely assemble seat gland to finger tight.
4. Assemble stem into the packing area from the top.
5. Tighten seat gland.
6. Assemble the spring seat, outer spring, and inner spring.
7. Assemble the gland.
8. Assemble the set screw.
9. Adjust the set screw to set the relief pressure. Counterclockwise to decrease the set pressure. Recommended adjustment is one full turn maximum at a time. Depressurize the valve before making adjustments.
10. Tighten the nut.