

Basic Hydraulic Valve R-20 Series 1½" - 4"

General Description

The A.R.I. R-20 Series Control Valve is a pressure-operated, diaphragm-actuated elliptic shaped valve.

Main Parts List

Part No.	1½" - 2"N (See Fig 1)	2"S - 4" (See Fig 2)
1	Valve body	Valve body
2	Command ports (Plugged)	Command ports (Plugged)
3	Bolt & Washer	Bolt & Washer
4	Bonnet	Bonnet
5	Spring	Diaphragm
6	Spring seat	Insert
7	Diaphragm	Flange
8	Flat Seal	Flange Seal
9		Flange Ring

Please Note:

As standard, valves in Fig. 2 are supplied without the spring and spring seating, the valves do not require these parts in order to perform in accordance with the required specification.

Installation and Start-up Instructions

1. It is recommended to flush the pipeline before installing the hydraulic control valve in order to remove impurities that may damage the mechanism.
2. It is recommended to install an isolating valve before and after the hydraulic control valve.
3. The hydraulic control valve must be installed in compliance with the approved pressure rating, indicated on the valve cover.
4. The maximum working pressure should be less than or equal to the maximum allowable pressure.
5. After installing the hydraulic control valve, allow water to flow through the valve. Close the hydraulic control valve and check for leaks. Tighten bolts and fasteners, if needed.
6. The first hydraulic closure for sealing the hydraulic control valve may take more time than normal.

Maintenance

1. There is no need for scheduled maintenance of the hydraulic control valve.
2. In regulating valves, an occasional inspection is recommended in order to assure the accuracy of pilot.
3. For the 3-way Selector, it is recommended to turn the switch a full circle from time to time in order to prevent sticking due to sedimentation.
4. In freezing conditions, remove the hydraulic control valve from pipeline and drain it.
5. Replace parts only according to the authorized parts list.

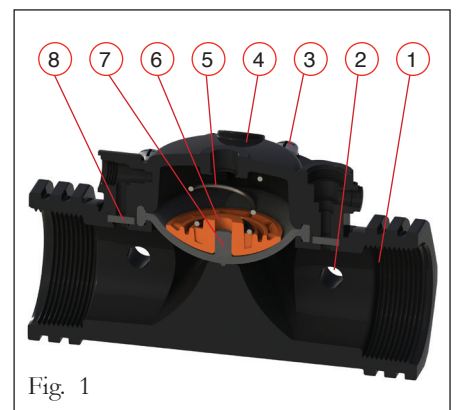


Fig. 1

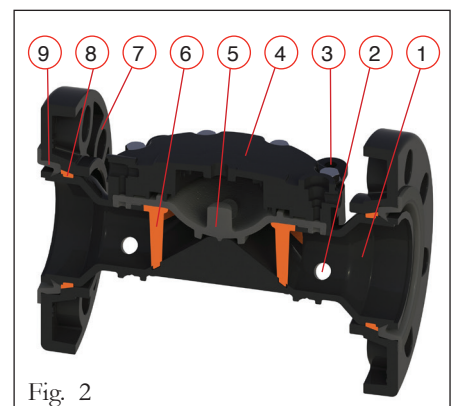
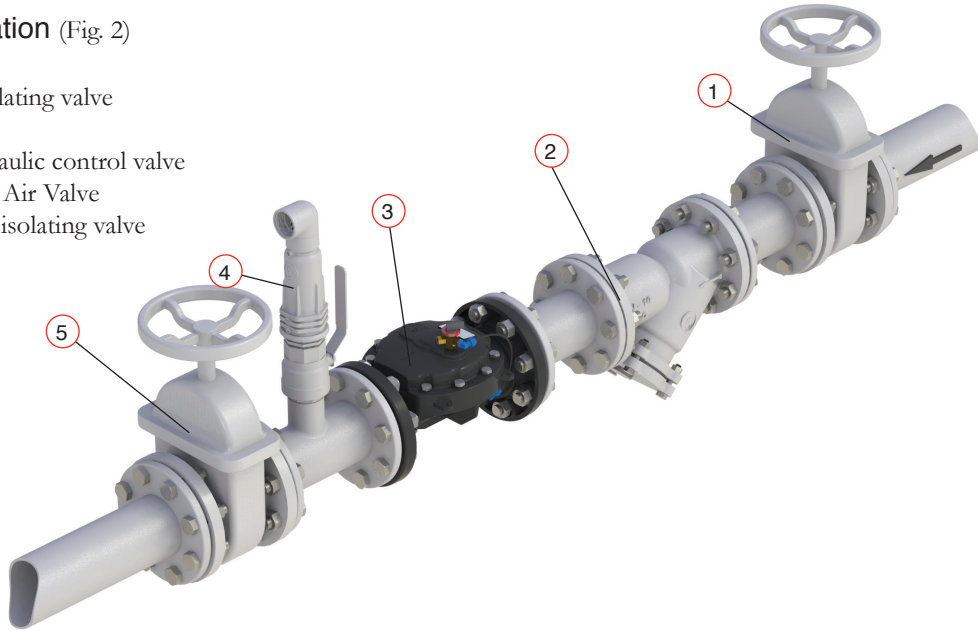


Fig. 2

Typical installation (Fig. 2)

1. Upstream isolating valve
2. Strainer
3. Eliptix- Hydraulic control valve
4. Combination Air Valve
5. Downstream isolating valve



Troubleshooting Guide - for Common Applications

PROBLEM	REASON	SOLUTION
Valve doesn't open	3-way selector is set to "Close"	Turn 3-way selector to "Open" or "Auto"
	Inlet pressure is too low	Make sure water supply and/or pump is on
	Valve pressure set point is too high or too low	Re-adjust valve pressure set point
Valve does not close	3-way selector is set to "Open"	Turn the 3-way selector to "Close" or "Auto"
	Foreign object on sealing surface	Open the valve to the fully open state for 5 seconds, then close. If problem persists, shut off water supply to the valve, remove bonnet and diaphragm, and remove foreign object
	Diaphragm is damaged	Shut off water supply to the valve, remove bonnet and diaphragm and replace diaphragm
Valve does not regulate pressure	3-way selector is set to "Close" or "Open"	Set 3-way selector to "Auto"
	Finger filter is clogged	Shut off water supply to the valve, remove finger filter, clean or replace it
	Pilot is clogged or damaged	Shut off water supply to the valve, open and clean the pilot, check integrity of parts, replace if necessary.
Valve does not respond to remote command	3-way selector is set to "Close" or "Open"	Set 3-way selector to "Auto"

