



Series RSR Technical Information

Surge Tank Accessory



A surge “Reservoir Tank” is available for Red Valve’s Series RSR Pressure Relief Valve. This surge “Reservoir Tank” is an oil reservoir which both stores the oil and absorbs the surges in the system. This prevents the valve from slamming open and shut or hunting up and down on the control point. It is sized to provide enough fluid to the actuator so that the relief valve can achieve a full port. An adjustable flow control valve is furnished and is utilized for metering the rate of flow of return oil to and from the reservoir. It allows free flow of fluid into the storage area below the actuator’s piston so that the relief valve opens quickly.

An adjustable flow control Check Valve controls backflow of the oil from the reservoir. This adjustable flow control Check Valve is unique in that it permits flow of oil into the reservoir at full flow and has a built-in Check Valve which prevents oil flow back into the cylinder chamber at a high flow rate. It controls backflow through a smaller inner bypass line so that it slowly returns the cylinder to its original position.

The speed of response can be adjusted by turning the dial on the flow control valve. The size of the Reservoir Tank is proportional to the size of the Red Valve Series RSR Relief Valve.

DIMENSIONS SERIES RSR SURGE TANK ACCESSORY

SIZE A	LENGTH F to F	WIDTH B	TYPICAL HEIGHT		WORKING PRESSURE psi	CYLINDER SIZE
			C	D		
1"	7-1/4"	6"	33"	2-7/16"	150	RSR-4
1-1/2"	8-3/4"	8"	33"	2-3/4"	150	RSR-6
2"	10"	8"	33"	3-1/2"	150	RSR-6
2-1/2"	10-7/8"	9"	52"	4"	150	RSR-8
3"	11-3/4"	11-1/2"	52"	4-1/4"	150	RSR-8
4"	13-7/8"	13-1/2"	52"	6-5/8"	150	RSR-10
5"	10"	12-1/2"	61"	6-1/2"	150	RSR-12
6"	17-3/4"	16-1/2"	61"	7-5/8"	150	RSR-12
8"	21-3/8"	19-1/2"	63"	9-1/8"	125	RSR-12
10"	26-1/2"	23-1/2"	65"	11"	100	RSR-12
12"	29"	28-1/4"	66"	12"	100	RSR-12

• For critical dimensions, consult factory.