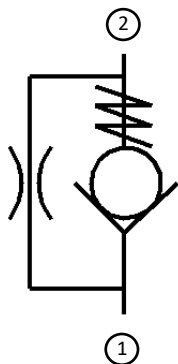


Inline Restrictor Valve (Throttle) Hydraulic

Functional Symbol:



Description:

Hydraulic Inline Restrictor Valve (Throttle Valve)

FR - Inline Restrictor Valve, male/female design



FRF- Inline Restrictor Valve, female/female design.



Operation:

The FR-FRF Inline Restrictor (throttle) Valves, is a hydraulic flow control valve that allows free flow in one direction and restricted flow in the opposite direction.

Features:

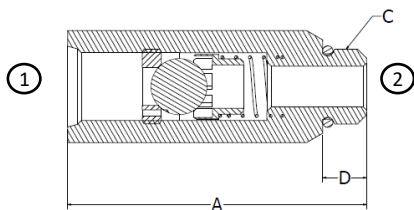
- Inline restrictor valve helps with more accurate control of a double-acting cylinder by pressuring both sides of the piston, reducing cavitation of cylinders and motors or speed control of cylinders and motors.
- This inline valve will operate satisfactorily when mounted in any position in your hydraulic system.
- One piece zinc plated steel and body for extra strength and reliability in rugged application.
- All in line valves are made in the U.S.A and available for fast delivery.

Ratings:

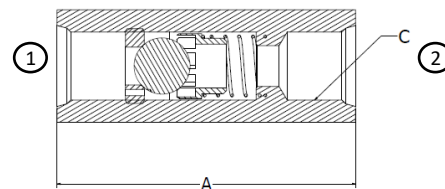
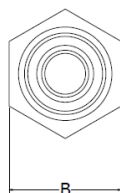
Operating Pressure: 3000 psi (207 bar)

Operating Temperature: -40 to 100° C (-40 to 212° F) with Buna N seals, only applicable to SAE sizes.

Technical:



FR- Inline Restrictor Valve

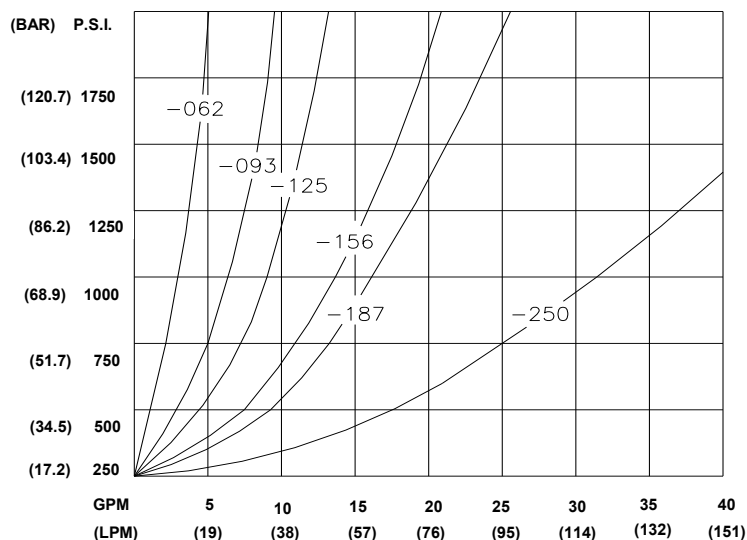


FRF Inline Restrictor Valve

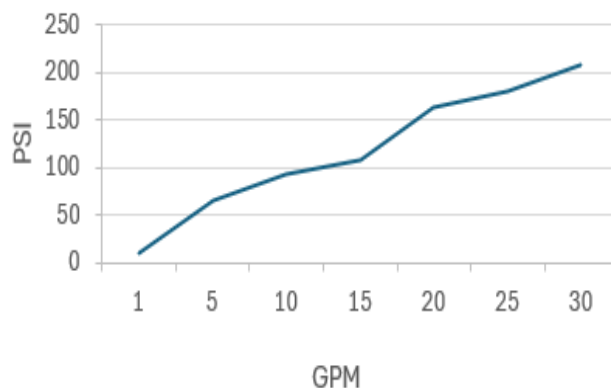
FR "A" Length Inch, (MM)	FRF "A" Length Inch, (MM)	"B" Hex Size Inch, (MM)	"C" Threads	"D" Length Inch, (MM)	"E" Weight Ounces, (kg)
3.0, (76.2)	3.0, (76.2)	1.12 (28.5)	08- SAE #8	.44 (11.2)	8 (.23)
3.0, (76.2)	3.38, (85.9)	1.00 (25.4)	10- SAE #10	.75 (19.1)	8 (.23)
3.38, (85.9)	3.68, (93.5)	1.38 (35.1)	12- SAE #12	.81 (20.6)	16 (.45)
3.0, (76.2)	3.0, (76.2)	1.06 (26.9)	38- 3/8-18 NPT	.75 (19.1)	9 (.23)
3.0, (76.2)	3.0, (76.2)	1.06 (26.9)	40- 3/8 -18 NPT male to 1/2 -14 NPT female	.75 (19.1)	9 (.23)
3.0, (76.2)	3.0, (76.2)	1.06 (26.9)	50- 1/2 -14 NPT	.81 (20.6)	9 (.23)
3.38, (85.9)	3.68, (93.5)	1.38 (35.1)	60-3/4 -14 NPT	.81 (20.6)	16 (.45)

Inline Restrictor Valve (Throttle) Hydraulic

FLOW THRU RESTRICTED ORIFICE



FR-FRF Reverse Free Flow



Ordering Information:

FR - 50 - 078 -

Model Number	"C" Threads	Orifice Size inch, (mm)	Crack Pressure
FR-Throttle Valve (Male to Female)	08- SAE #8	046 .046, (1.17)	Blank- 1 psi (.07 bar)
	10- SAE #10	062 .062, (1.58)	05 -05 psi (.35 bar)
	12- SAE #12	078 .078, (1.98)	15 -15 psi (1.03 bar)
	38- 3/8-18 NPT	093 .093, (2.36)	30 -30 psi (2.07 bar)
	40- 3/8 -18 NPT male to 1/2 -14 NPT female	109 .109, (2.77)	50 -50 psi (3.45 bar)
	50- 1/2 -14 NPT	125 .125, (3.18)	
FRF- Throttle Valve (Female to Female)	60-3/4 -14 NPT	140 .141, (3.58)	
		156 .156, (3.96)	
		187 .188, (4.75)	
		250 .250, (6.35)	