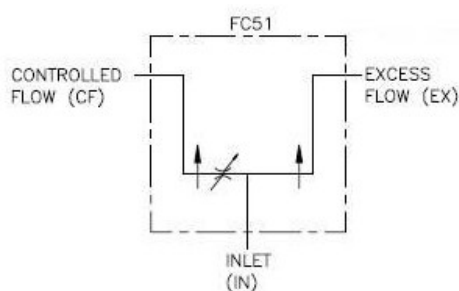


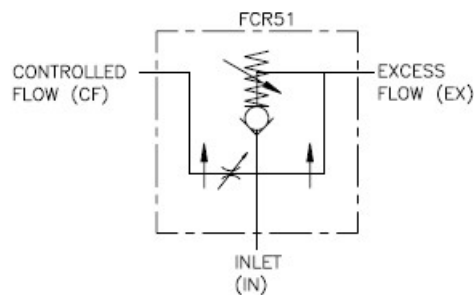
Adjustable flow control valves



FC51 symbol



FCR51 symbol

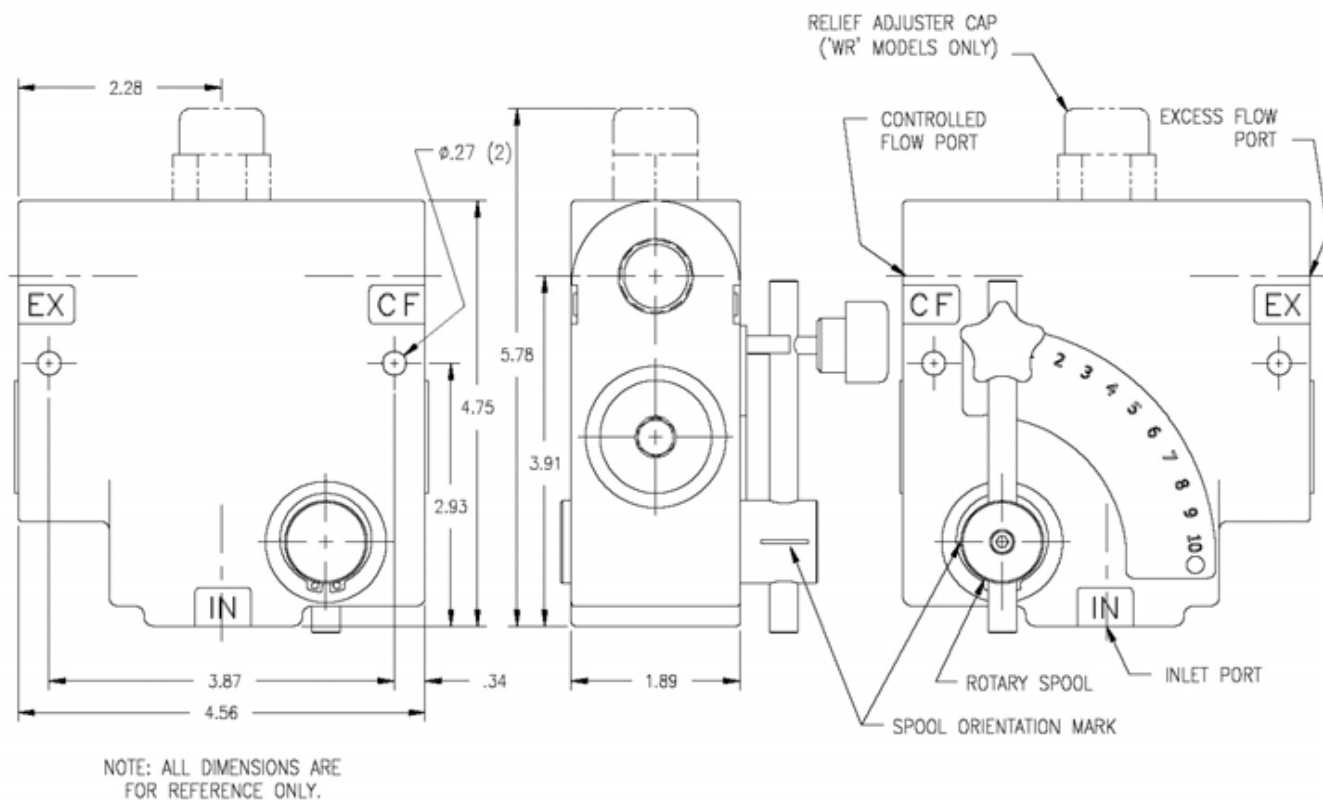


The valve model FC51 is a pressure compensated adjustable flow control valve.

By rotating the handle, the flow out the “CF” or controlled flow port can be varied within the range given in the chart below. Any remaining flow is bypassed to the “EF” or excess flow port. This flow can be used to power another circuit or can be returned to tank. Once the controlled flow is set, it will remain nearly constant with variations in pressure on either the controlled or excess flow ports. Please note, if during operation the controlled flow port is blocked, the valve will compensate in such a way as to shut off flow to the excess port.

This valve can also be used as a restrictive flow control by plugging the excess flow port.

The valve model FCR51 has built-in adjustable pressure relief. For this model, the excess flow port **must** be connected to tank. It should be noted that whenever these or any valve is used to bypass or restrict flow, heat will be generated. Steps may be required to keep oil temperature from becoming too high.



VALVE SPECIFICATIONS

- 30 GPM max flow • 3000 PSI max • 180° F max temp • Filtration 17/14/19 • For use with mineral based hydraulic fluid
- Side port configuration • 100% Tested before dispatch • External seals on rotary spool prevent contamination from locking up spool

Model No.

Flow Rate

Weight(kg)

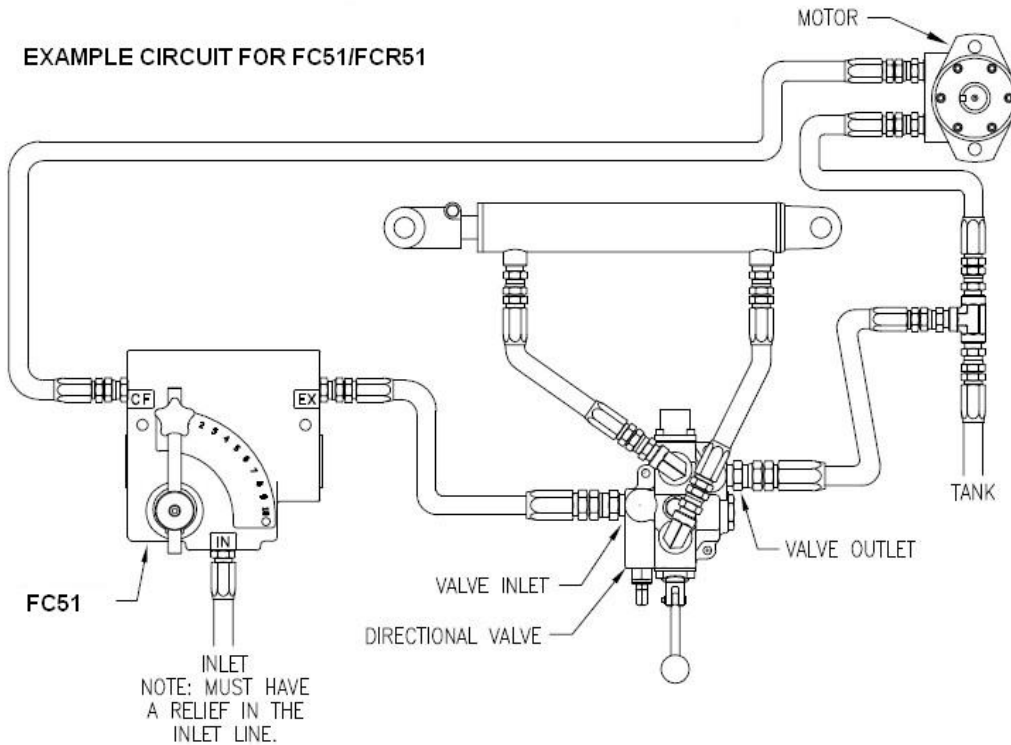
FC51-3/8	0~8gpm (standard)	3.9
FC51-1/2	0~16gpm (standard)	3.9
FC51-3/4	0~30gpm (standard)	3.9
FCR51-3/8	0~8gpm (standard)	4
FCR51-1/2	0~16gpm (standard)	4
FCR51-3/4	0~30gpm (standard)	4

Remark: Thread Port could be BSP, NPT SAE.

RELIEF PRESSURE INFORMATION:

Inlet relief protection available on “FCR” models. Relief pressure preset at 1500 PSI. To adjust, remove acorn nut, turn adjusting screw clockwise to increase pressure, counterclockwise to reduce pressure. Reinstall acorn nut after adjusting. Use a pressure gauge when making adjustments.

EXAMPLE CIRCUIT FOR FC51/FCR51



BYPASS CIRCUIT:

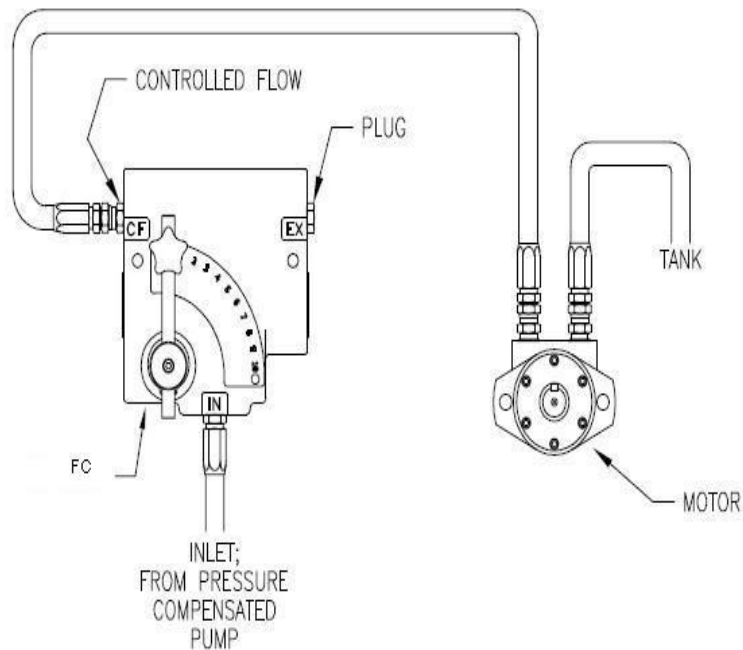
In this circuit oil from a source is directed into the inlet of the valve. By moving the handle the flow can be varied from zero when handle is vertical to maximum when handle is horizontal. Oil not going to the controlled flow port is bypassed to the excess flow port where it can be used to supply another circuit or returned to tank.

It should be noted that whenever these or any valve is used to bypass or restrict flow heat will be generated.

Restrictive Circuit:

Normally used in closed center system or a system with pressure compensated pump.

The FC valve can be used as a restrictive type flow control. In this circuit the excess flow port is blocked. This would normally be used with a pressure compensated pump or in a closed center system. It should be noted that whenever these or any valve is used to bypass or restrict flow heat will be generated.



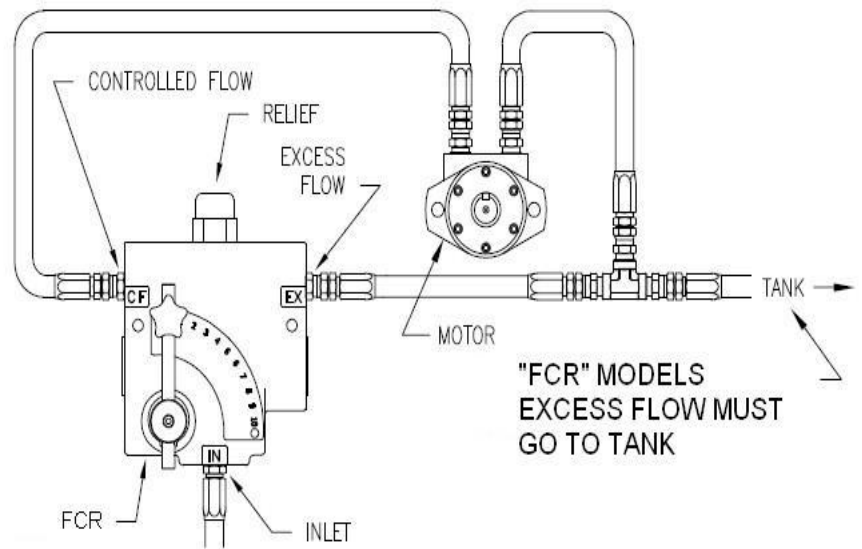
FCR Models (with Relief)

"FCR" Models have a built in relief valve that bypasses oil from inlet to the excess flow port when the relief setting is reached. The factory setting is 1500 PSI. The excess flow port **MUST** be connect to tank.

All Models:

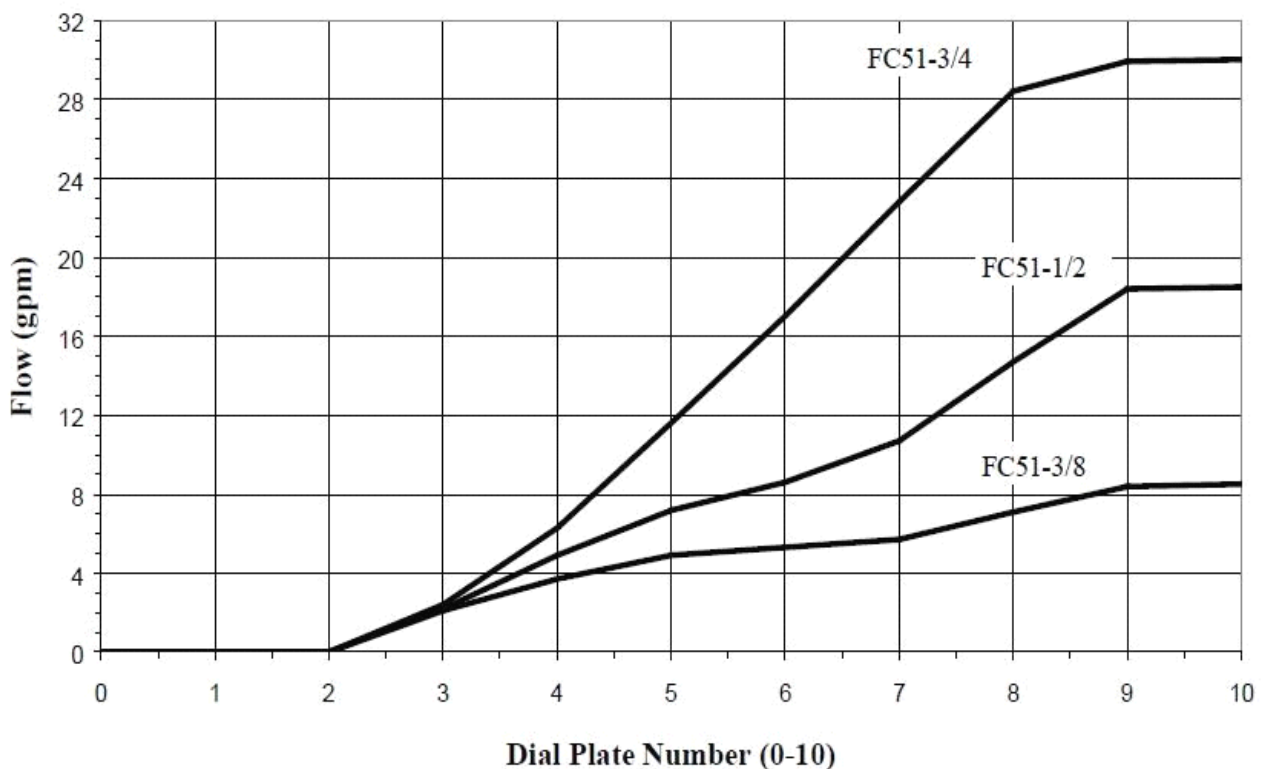
Note: Thread sealant-use of a quality non-teflon thread sealant is recommended for tapered pipe threads.

(Use of teflon tape is not recommended.)

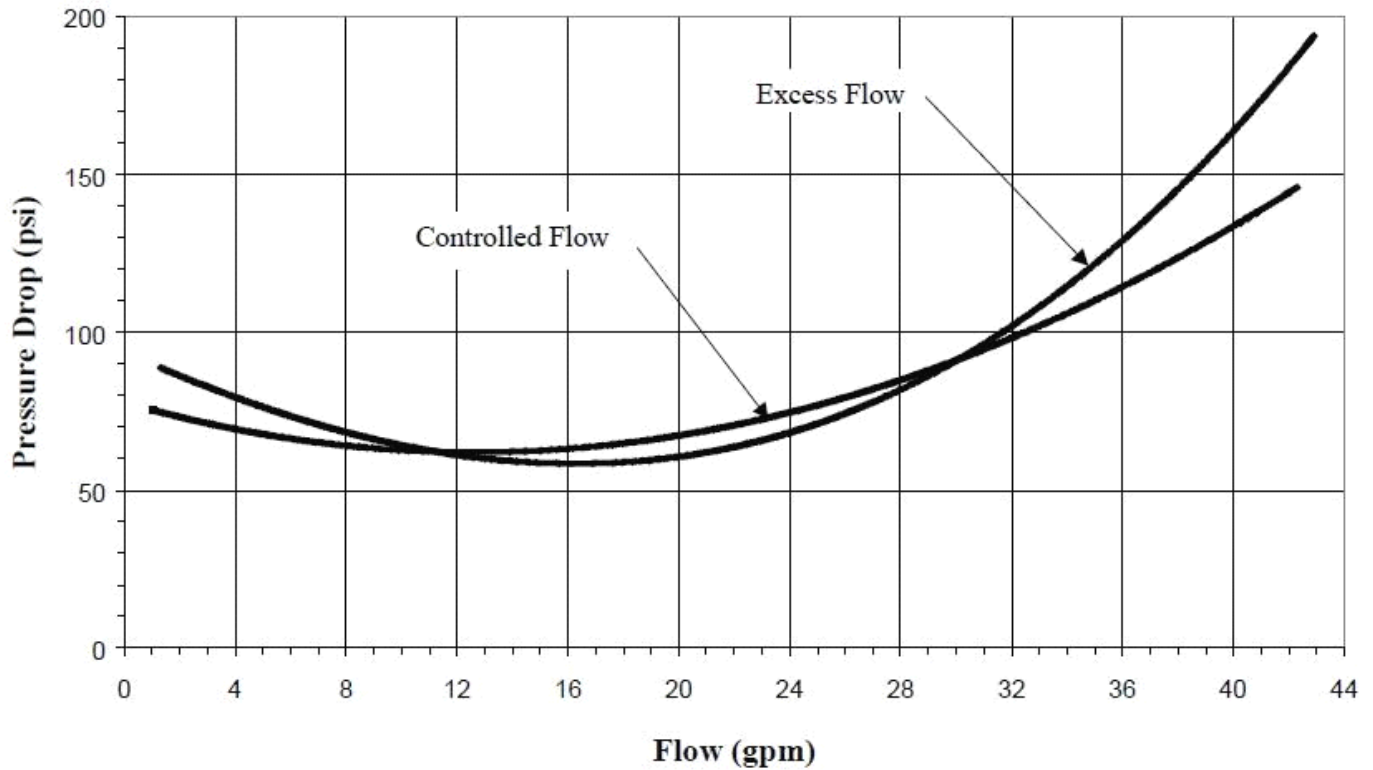


FC FLOW&PRESSURE INFO:

Controlled Flow vs Dial Plate for FC Series



Pressure Drop vs Flow for FC Series



Pressure vs Flow for FCR Series

