



••••• INNOVATION AT WORK FOR YOU •••••

NEW High-Pressure and High-Flow Solenoid-Operated Poppet Valves Models SF20-22(M) and SF20-23(P)

We are now introducing our new high-flow, high-pressure 2-way, solenoid-operated, poppet valves. The following valves are released and ready for your applications: SF20-22(M) normally-closed and the SF20-23(P) normally-open bi-directional valves. As with our smaller SF series valves, the new high-flow SF20s are rated for 5000 psi/344 bar. They can handle flows up to 80 gpm/300 lpm with a pressure drop of only 80 psi/5.5 bar when using the new standard HydraForce VC20-2 cavity. Because these are pilot-operated-type valves, there is a minimum pressure of 20 psi/1.4 bar required to lift the second-stage poppet.

The internal pilot valve is similar to our standard SF08-22 and SF08-23 valves, therefore these new high-flow high-pressure valves use the standard 08 size "D" or "E" coils, with any of our standard terminations.

The new HydraForce VC20-2 cavity for these valves has an undercut of 1.813" diameter.

The undercut is a secondary machining operation which helps to compensate for the thicker cage needed to accommodate high pressures. If the valve is used in a cavity without this undercut, the pressure drop created at 80 gpm/300 lpm is still only 160 psi/11 bar.

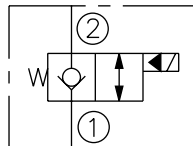


Since the SF08 tube is used on the pilot valve, any manual override currently available on the SF08-2x series is also available for this 20-size poppet solenoid valve. On the normally-closed SF20-22 valve, the "M" style override is available, and for the normally-open SF20-23 valve, the "P", "K" and "HP" type of overrides are available. The "P" option is a push button; the "K" option adds a knob; and the "HP" option adds a protective coil nut that acts as a cap over the "P" option. This New "HP" cap will prevent tampering as well as accidental activation.

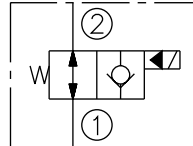
Because they are poppet-type valves, these new cartridges are well suited for load-holding applications that require low internal leakage. Traditionally, high-flow applications required a poppet logic element and a pilot solenoid valve. Now, if your application requires up to 80 gpm/300 lpm and load-holding, only one cartridge is needed. This is another HydraForce innovation in

cartridge valve technology. We hope our engineering advancements help our customers continue to improve equipment performance and reduce costs.

SF20-22; N.C.



SF20-23; N.O.



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Features	Benefits
Flow rates of 80 gpm/300 lpm with pressure drop of 80 psi/5.5 bar when using the HF VC20-2 cavity.	High flow applications can now be done with one cartridge, reducing cost and manifold size
Low-leakage poppet-style construction.	Can be used for load-holding, eliminating the need for additional cartridges, thus reducing system cost.
Manual override option available.	If there is an electrical failure, valve can be operated manually.
New "HP" coil nut is available for the push-style manual override.	Cap over the push actuator prevents accidental activation (similar to the "C" option on the relief adjustments).
Universal 08 size solenoid tube.	Any HydraForce 08-size coil can be used. Both "D" standard and "E" environmental coils can field-replaced and interchanged.
HydraForce releases a full range of standard models with three standard seal options.	Standard models can be used in a variety of applications and medias, eliminating the need for special products.
New standard VC20-2 Cavity released with undercut.	Undercut cavity cuts pressure drop in half.
Operating pressure to 5000 psi/344 bar.	Opens the door to new high-pressure applications.
Tested to 1 million cycles at full rated pressure.	Long life without wear or decreased performance over time.
Designed, inspected and tested to HydraForce Quality standards with 5-year warranty. (See full warranty statement in the catalog.)	Reduce warranty and return costs as well as peace of mind that the product will perform right from the start and will last.

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