



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

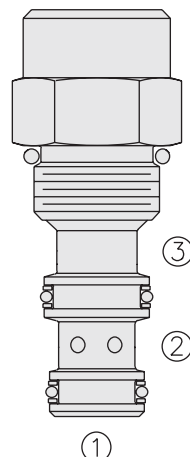
NEW Logic Element and Flow Regulator in One Cartridge

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The EPFRXX-series of valves are 5000 psi/350 bar rated bleed-off style compensators for use in dynamic load-sense systems. They are considered dual-function valves because they include integral pressure-compensated flow control that limits the exhaust flow from the dynamic load-sense line. The fixed-flow regulator limits the exhaust flow to 0.17 gpm/0.064 lpm which serves to limit the parasitic loss. This unique feature can reduce cost in many circuits, because it eliminates the cavity space and machining cost required for the flow regulator function. Compensating this vent orifice often adds enhanced stability to the circuit, mitigating the effects of viscosity change and pressure excursions.

In several applications with fixed displacement pumps, a modulating logic valve is used as a bleed-off compensator to create a load-sense system. The HydraForce EP08-35 or EPxx-S35 is one way to do this. This set-up requires a bleed orifice in the load-sense line. But with working pressure up to 5000 psi/345 bar, flow losses across a bleed orifice could be significant. Using an FR08-20 set at 0.1 gpm/0.38 lpm limits this flow loss at high load pressures. HydraForce has now combined these two functions into one valve and released it for the compact VC08-3 cavity first.

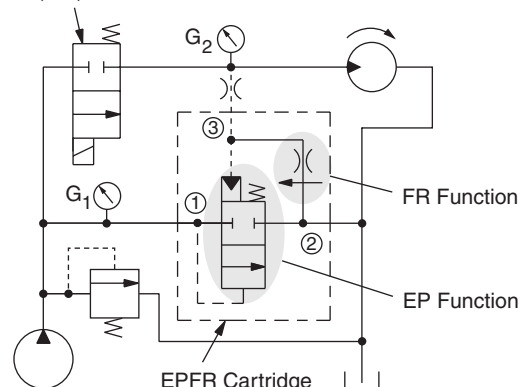
Because we have created this dual-function valve first in the VC08-3 cavity size, we know we will be able to build it in other standard cavity sizes as well. These other sizes will be released in the near future. The by-pass flow capacity for a given cavity will



be the same as the equivalent EPxx-S35 valve. All the EPFRs will be rated to 5000 psi/345 bar and will have a variety of standard spring ranges and all the standard seal options: Buna N, Fluorocarbon and Polyurethane.

The EPFRxx series of cartridge valves is another example of the HydraForce commitment to developing innovative new products that offer better features and improved system performance. HydraForce continues to be the leader in design, manufacturing and applications of hydraulic cartridge valves and electro-hydraulic systems in the mobile equipment OEM markets.

SV, SP, NV or PV Valve



Features	Benefits
Uploading flow rates of 10 gpm/7.8 lpm for the EPFR58-35.	Small VC08-3 cavity allows for sizing of components to many applications
Soon to release for VC10-S3, VC12-S3, VC16-S3 and VC20-S3 cavities; Unloading flows up to 100 gpm/379 lpm when fully shifted open.	Able to convert high-flow fixed displacement pump applications into bypass load compensation systems at reasonable cost.
Three compensator spring ranges available: 20 psi/1.4 bar, 80 psi/5.52 bar and 160 psi/11 bar.	Versatility in compensating and sizing components for optimum performance and cost.
Built-in pressure compensated flow control to bleed load-sense line.	No need for external bleed orifice or FR08-20 cartridge, thus reducing component costs and machining costs.
Minimum flow loss from port 3 to 2 is 0.17 gpm/0.64 lpm at 5000 psi/345 bar.	No flow loss as load pressure increases, as would be the case with a standard bleed orifice.
HydraForce will soon release 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.
Standard VC08-3 Cavity.	Standard, stocked housings can be used. No new tooling.
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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