



Port 1
Not Used

Port 4
Outlet Port 3
Inlet Port 2
Outlet

Flow dividers are sliding-spool, pressure-compensated devices used to split oil flow to two different branches of a circuit in a designated ratio. These valves are suitable for applications that use the following: unidirectional hydraulic motors, hydraulic cylinders where flow division in one direction only is required, and multiple circuits that are serviced from one pump supply.

TECHNICAL DATA NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Cavity	T-33A
Series	3
Capacity	3 - 15 gpm
Pressure Drop at Maximum Rated Input Flow	250 psi
Pressure Drop at Minimum Rated Input Flow	30 psi
Valve Hex Size	1 1/4 in.
Valve Installation Torque	150 - 160 lbf ft
Model Weight	1.35 lb.
Seal kit - Cartridge	Buna: 990-033-007
Seal kit - Cartridge	Polyurethane: 990-033-002
Seal kit - Cartridge	Viton: 990-033-006

OPTION SELECTION EXAMPLE: FSECXAN

CONTROL	(X) FLOW SPLIT	(A) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	A 50/50	N Buna-N V Viton	Standard Material/Coating IAP Stainless Steel, Passivated

TECHNICAL FEATURES

- All flow divider and divider/combiner cartridges are physically interchangeable (i.e. same flow path, same cavity for a given frame size).
- Operating characteristics cause the leg of the circuit with the greatest load to receive the higher percentage of flow in dividing mode. If a rigid mechanism is used to tie actuators together, the lead actuator may pull the lagging actuator and cause it to cavitate.
- In applications involving rigid mechanisms between multiple actuators, operating inaccuracy will cause the eventual lock-up of the system. If the mechanical structure is not designed to allow for the operating inaccuracy inherent in the valve, damage may occur.
- In motor circuits, rigid frames or mechanisms that tie motors together, and/or complete mechanical synchronized motion of the output shaft of the motors, either by wheels to the pavement or sprockets to conveyors, will contribute to cavitation, lock-up and/or pressure intensification.
- Variations in speed and lock-up can be attributed to differences in motor displacement, motor leakage, wheel diameter variance and friction of wheels on the driving surface.
- This valve is a divider only; any attempt to flow backwards through the valve is not advised.
- Below the minimum flow rating there is not enough flow for the valve to modulate. It is effectively a tee. If flow starts at zero and rises, there will be no dividing control until the flow reaches the minimum rating.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

PERFORMANCE CURVES

Split	Input Flow		Rated Accuracy	Maximum Possible Flow Variation
	Max	Rated		
50:50	15 gpm	60 L/min	±2%	7.2 - 7.8 gpm
				28.8 - 31.2 L/min
	3 gpm	12 L/min	±3%	1.41 - 1.59 gpm
				5.6 - 6.4 L/min

The maximum possible variation is at 5000 psi (350 bar) differential between legs with the high pressure leg being the higher flow.