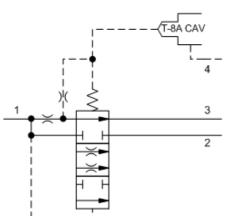




Ventable, fixed-orifice, bypass/restrictive, priority flow control valve with integral T-8A control cavity

SERIES 3 / CAPACITY: 95 L/min. / CAVITY: T-23A





# sunhydraulics.com/model/FVEA8 2.59 in (65,8 mm) LOCATING SHOULDER Port 1 Controlled Flow Inlet Port 4 Port 3 Vent Priority Bypass Flow Flow

### **CONFIGURATION**

Α	Setting Range	Replaceable Orifice .2 - 25 gpm (0,8 - 95 L/min.)
N	Seal Material	Buna-N

This valve is a ventable, bypass/restrictive, fixed-orifice, priority flow control with an integral pilot control cavity. The pilot control cavity will accept any T-8A pilot pressure or directional control cartridge. It takes an input flow at port 1 and uses it to satisfy the priority flow at port 3. If the input flow exceeds the priority flow requirement, the excess flow is bypassed out of port 2. Bypass flow may be used for a secondary circuit. Depending on which pilot control valve is installed in the T-8A cavity, priority flow can be selected electrically, manually, hydraulically or pneumatically.

### **TECHNICAL DATA**

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

Cavity	T-23A
Series	3
Capacity	95 L/min.
Maximum Operating Pressure	350 bar
Nominal Vent Flow	0,75 L/min.
Maximum Input Flow	240 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Valve Hex Size	31,8 mm
Valve Installation Torque	203 - 217 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006
Model Weight	0.60 kg.

**NOTES** 

**SETTING RANGE** 

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

### **CONFIGURATION OPTIONS**

Model Code Example: FVEA8AN

A Replaceable Orifice .2 - 25 gpm (0,8 - 95 L/min.)

(A) SEAL MATERIAL

N Buna-N

Viton

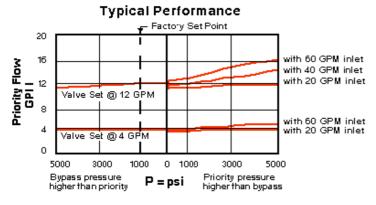
**B** Permanent Orifice .2 - 25 gpm (0,8 - 95 L/min.)

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### **TECHNICAL FEATURES**

- Customer must specify a flow rating. Factory set flow ratings are within +/- 10% of the requested setting.
- Using a pressure control in the T-8A pilot control cavity will limit the pressure at the priority port (port 3). If pressure on the bypass port (port 2) exceeds the setting
  of the pressure control, priority flow will be shut off and all the flow will go out the bypass port.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- NOTE: With the -8 control option, the main stage valve should first be installed to the correct torque value. The T-8A pilot control valve should then be installed into the main stage valve to its required torque value.
- Both priority and bypass flow are usable up to the system operating pressure.
- Priority remains relatively constant regardless of variation in input flow.
- Bypass flow is not available until priority flow requirements are satisfied, except when the valve is vented. When port 4 (vent) is open, all flow diverts to port 2 if
  pressure at port 1 (inlet) is 150 psi (10,5 bar) or higher.
- Pressure at the bypass port (port 2) may exceed pressure at the priority port (port 3).
- The sharp-edged orifice design minimizes flow variations due to viscosity changes.
- The -8 control option allows the pilot control valve to be incorporated directly into the end of the cartridge via the T-8A cavity. These pilot control cartridges are sold separately and include electro-proportional, solenoid, air pilot, and hydraulic pilot operation. See Pilot Control Cartridges.
- 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



# **RELATED MODELS**

<u>FVEA</u> Ventable, fixed-orifice, bypass/restrictive, priority flow control valve

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