



Port 1  
Controlled Flow Inlet

Port 3  
Priority  
Flow

Port 2  
Bypass  
Flow

## CONFIGURATION

|                                |               |                                                   |
|--------------------------------|---------------|---------------------------------------------------|
| <b>X</b>                       | Control       | Not Adjustable                                    |
| <b>A</b>                       | Setting Range | Replaceable Orifice .2 - 25 gpm (0.8 - 95 L/min.) |
| <b>N</b>                       | Seal Material | Buna-N                                            |
| <b>(none)</b> Material/Coating |               |                                                   |

Bypass/restrictive, fixed-orifice, priority flow controls take an input flow at port 1 and use it to satisfy the priority flow at port 3. If the input flow exceeds the priority flow requirement, the excess is bypassed out port 2. The bypass flow may be used in a secondary circuit.

## TECHNICAL DATA

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

|                                    |                         |
|------------------------------------|-------------------------|
| Cavity                             | T-17A                   |
| Series                             | 3                       |
| Capacity                           | 25 gpm                  |
| Maximum Operating Pressure         | 5000 psi                |
| Maximum Input Flow                 | 60 gpm                  |
| Valve Hex Size                     | 1 1/4 in.               |
| Valve Installation Torque          | 150 - 160 lbf ft        |
| Adjustment Screw Internal Hex Size | 5/32 in.                |
| Locknut Hex Size                   | 9/16 in.                |
| Locknut Torque                     | 80 - 90 lbf in.         |
| Seal kit - Cartridge               | Buna: 990017007         |
| Seal kit - Cartridge               | Polyurethane: 990017002 |
| Seal kit - Cartridge               | Viton: 990017006        |
| Model Weight                       | 1.02 lb.                |

## CONFIGURATION OPTIONS

### Model Code Example: FREAXAN

| CONTROL                    | (X) SETTING RANGE                                          | (A) SEAL MATERIAL | (N) MATERIAL/COATING            |
|----------------------------|------------------------------------------------------------|-------------------|---------------------------------|
| <b>X</b> Not Adjustable    | <b>A</b> Replaceable Orifice .2 - 25 gpm (0.8 - 95 L/min.) | <b>N</b> Buna-N   | Standard Material/Coating       |
| <b>L</b> Tuning Adjustment |                                                            | <b>V</b> Viton    | /AP Stainless Steel, Passivated |
| <b>K</b> Handknob          |                                                            |                   | /LH Mild Steel, Zinc-Nickel     |

## TECHNICAL FEATURES

- Customer must specify a flow rating. Factory set flow ratings are within +/- 10% of the requested setting.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar).
- A tuneable adjustment control option provides up to +/- 22% variation from the nominal factory pre-set flow. Adjustment is done with +/- 3 turns of the adjust screw. Screw in (CW) to increase flow.
- 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.
- 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.
- 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

