### Valves hydraulic pump mounted

3 Way/3 Position Manual

# 10,000 psi., <sup>3</sup>/<sub>8</sub>" ports, 5 gpm max flow rate.



### 3-WAY/3-POSITION (CLOSED CENTER) NON-INTERFLOW MANUAL VALVE WITH "POSI-CHECK<sup>°</sup>"

Application – Single-acting cylinders. Actuation – Lever operated, detent positioned.

**Functions –** Pos. 1 – Oil is directed from pump to cylinder and "holds" with pump shut off; line to reservoir is blocked. Pos. 2 – All oil is open to reservoir through tank line.

- **Center pos.** Cylinder pressure is held; pump should be shut off.
- **Used on these pumps** P460, PA17, PA46, PA55, PA60, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PE200, PE400, PQ60 and PQ120 series.
- **NOTE:** A pressure switch and/or gauge may be attached if desired (see pages 124-125, 117). Also, the 9502 can be remote mounted if a 9510 subplate is used (see page 117).
- **No. 9502** 3-way/3-position (closed center) manual valve. Wt., 4.2 lbs.



## 3-WAY/3-POSITION (TANDEM CENTER) MANUAL VALVE WITH "POSI-CHECK"

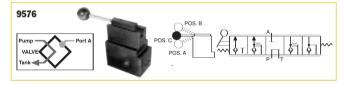
Application – Single-acting cylinders.

Actuation – Lever operated, detent positioned.

**Functions** – "Advance" "hold" and "return". When shifted to "return" position, pump and cylinder return oil through their own separate return lines, allowing faster retraction of piston. The "Posi-Check\*" feature guards against pressure loss when shifting from "advance" to "hold" position.

**Used on these pumps** – P460, PA17, PA46, PA55, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PQ60, PQ120, PE200, PE400, PG30, PG55, PG120 and PG400 series. **No. 9520** – 3-way/3-position (tandem center) manual valve. Wt., 5.1 lbs.

### **3-WAY/3-POSITION (TANDEM CENTER)**



### **METERING VALVE**

Application – Single-acting cylinders.
Actuation – Lever operated.
Functions – Cylinder piston metered "advance",

"hold" and metered "return".

**Used on these pumps** – PA17, PA46, PA55, PE17, PE21, PE30, PE46, PE55, PE84, PE90, PE120, PQ60, PQ120, PE200, PE400, PG30, PG55, PG120 and PG400 series. **NOTE:** A pressure switch and/or gauge may be attached if desired see pages 124-125, 117). Also, the 9576 can be remote mounted with a 9510 subplate (see page 117). **No. 9576** – 3-way/3-position (tandem center) metering valve. Wt., 8.5 lbs.

**CAUTION:** To prevent sudden, uncontrolled descent of a load as it is being lowered, use a No. 9596 Load Lowering Valve or No. 9720 Counter Balance Valve (see page 132) in conjunction with the directional valve used in your application. **NOTE:** Valves 9501, 9502, 9504 and 9507 can have a port blocked or have a closed center position. When a port is blocked and the valve is shifted to the blocked port, the pump will generate excessive heat. An electric or rotary air pump can either be turned off

manually or with a pressure switch. Reciprocating air pumps may be adjusted to stall out and stop. **NOTE:** Gauge ports monitor pump pressure only, not pressure to the hydraulic cylinder(s).

**IMPORTANT:** Conversion kit 251528 must be used when mounting any of the valves on this page on PA17 or PE17 pumps. **IMPORTANT:** When ordering any valve for a PE30 or PG30 series pump,  $\frac{1}{2}$ " longer mounting screws are required. For valves 9502 and 9520, order four 12001 cap screws. For valve 9576, order four 17428 cap screws.

