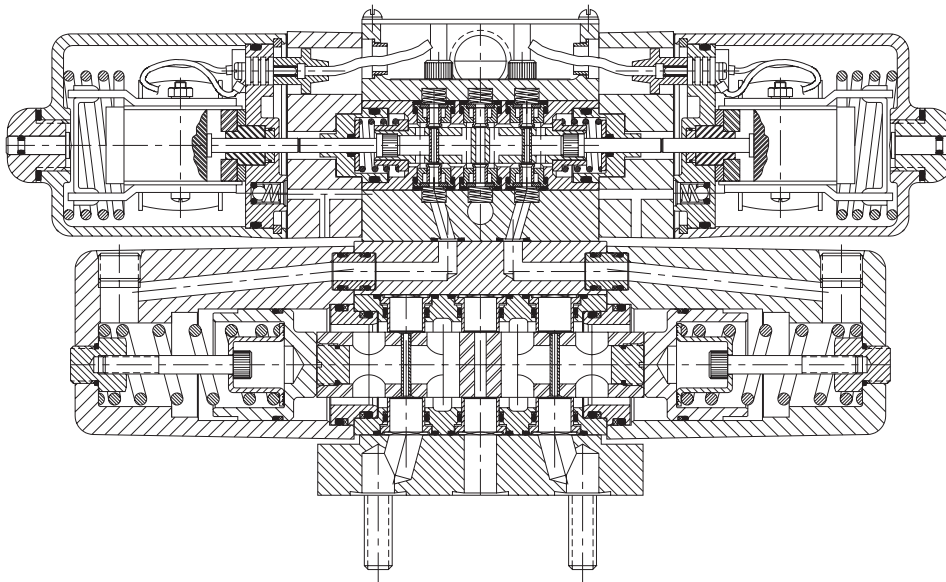


**Catalog Series**  
**25100 – 25 GPM**  
**25200 – 45 GPM**  
**27200 – 45 GPM**  
**27300 – 75 GPM**



**Features**

- Shear-type positive seal.
- Ideal for water soluble systems (95-5).
- Pressures up to 6000 PSI.
- Zero leakage (1 drop per min. per pressurized port).
- Mounts in any position.
- No packing to wear or cut.
- Standard valves are interflow.
- High tolerance to contamination.
- High tolerance to silting.
- Long life, easy maintenance.

Valve Series	Flow GPM	CV Factor	Pilot Valve Series	Weight Including Sequence Valve (Lbs.)
25100	25 Max.	2.5	21100 (3 GPM)	30 to 32
25200	45 Max.	4.3	21100 (3 GPM)	40 to 42.5
27200	45 Max.	4.3	21200 (10 GPM)	51.5 to 58.5
27300	75 Max.	7.4	21200 (10 GPM)	94 to 103

**Specifications**

**Service Applications:**

Hydraulic oil. Water containing minimum of 5% soluble oil. Suggest water soluble oil with a sodium sulphonate-based emulsifier. Oil should have a viscosity of 250-350 SSU at 100° F. Others available on special order.

**Pressure Range:**

**Pilot:** 150 to 6000 PSI  
**Working:** To 6000 PSI  
**Proof:** 9000 PSI  
**Burst:** 15,000 PSI

**Note:** Installation of this valve should ensure that exhaust port pressure does not exceed cylinder port pressures by more than 50 PSI. Pilot pressure must be at least 150 PSI greater than the exhaust port pressure in order to power shift the valve. For spring return valves, maximum exhaust port pressure allowed is 50 PSI.

**Temperature Range:**

-40° to 225° F. (with Code 02 O-rings)

**Internal Leakage:**

1 DPM maximum per pressurized port.

**Mounting:**

Sub-plate. Mounting bolts furnished.

**Materials:**

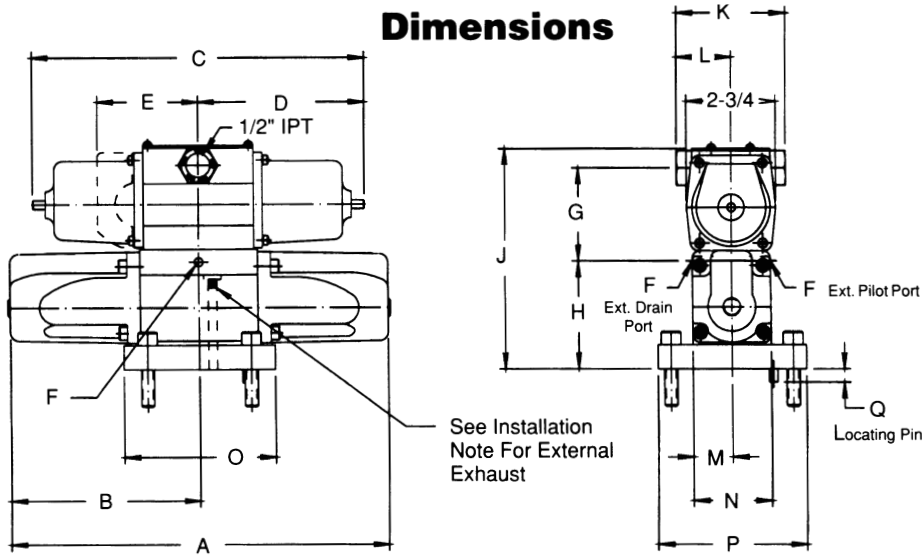
**Covers, Bodies, Bottom Plates, Inserts, Washers, Spring Retainer, Screws, Retainer Plate, Sealing Ring, Pistons, Main End Caps:** Steel.

**Name Plate, Pilot End Cap, Retainer Plate (Pilot):** Aluminum alloy.

**Slides, Seals, Springs, Pilot Choke Plug:** Stainless steel.

**O-Rings:** Synthetic rubber.

### Dimensions



Valve Series	Power Source	All Dimensions are in Inches																	Mounting Torque	S	T	
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q					
25100	A.C.			$12\frac{3}{4}$	$6\frac{3}{8}$			$2\frac{51}{64}$											1/4 Dia. X 3/8 Proj.	700 In. Lbs.	.812	$1\frac{5}{8}$
	D.C.	$10\frac{31}{32}$	$5\frac{31}{64}$	$14\frac{15}{16}$	$7\frac{15}{32}$	$2\frac{15}{16}$	$\frac{1}{4}$	—	$3\frac{1}{16}$	$6\frac{13}{32}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$1\frac{1}{8}$	$2\frac{1}{4}$	$4\frac{3}{8}$	$4\frac{1}{4}$						
	Air Oper.			$9\frac{9}{16}$	$4\frac{9}{32}$																	
25200	A.C.			$12\frac{3}{4}$	$6\frac{3}{8}$			$2\frac{51}{64}$											1/4 Dia. X 3/8 Proj.	700 In. Lbs.	1.000	$2\frac{1}{8}$
	D.C.	$13\frac{1}{4}$	$6\frac{5}{8}$	$14\frac{15}{16}$	$7\frac{15}{32}$	$2\frac{15}{16}$	$\frac{1}{4}$	—	$3\frac{17}{64}$	$6\frac{3}{4}$	$3\frac{1}{8}$	$1\frac{9}{16}$	$1\frac{3}{8}$	$2\frac{3}{4}$	$4\frac{3}{8}$	$4\frac{1}{4}$						
	Air Oper.			$9\frac{9}{16}$	$4\frac{9}{32}$																	
27200	A.C.			$15\frac{13}{16}$	$7\frac{29}{32}$			$4\frac{15}{64}$											1/4 Dia. X 3/8 Proj.	700 In. Lbs.	1.000	$2\frac{1}{8}$
	D.C.	$13\frac{1}{4}$	$6\frac{5}{8}$	$12\frac{1}{16}$	$6\frac{1}{32}$	$5\frac{1}{8}$	$\frac{1}{4}$	—	$3\frac{17}{64}$	$8\frac{3}{16}$	$3\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{3}{4}$	$4\frac{3}{8}$	$4\frac{1}{4}$						
	Air Oper.			$15\frac{13}{16}$	$7\frac{29}{32}$			$4\frac{15}{64}$														
27300	A.C.			$15\frac{13}{16}$	$7\frac{29}{32}$			$4\frac{11}{32}$											3/8 Dia. X 3/8 Proj.	1100 In. Lbs.	1.219	$2\frac{53}{64}$
	D.C.	$16\frac{1}{4}$	$8\frac{1}{8}$	$12\frac{1}{16}$	$6\frac{1}{32}$	$5\frac{1}{8}$	$\frac{3}{8}$	—	$4\frac{3}{16}$	$9\frac{3}{16}$	$3\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{2}$	$4\frac{1}{4}$	$5\frac{1}{2}$	$6\frac{1}{4}$						
	Air Oper.			$15\frac{13}{16}$	$7\frac{29}{32}$			$4\frac{11}{32}$														

### Installation Information

Minimum operating pilot pressure is 150 PSI.

**Internal Piloting:**

A sequence valve must be used to provide upstream minimum pilot pressure when using a single pressure source for both the slave and pilot valves.

**External Piloting:**

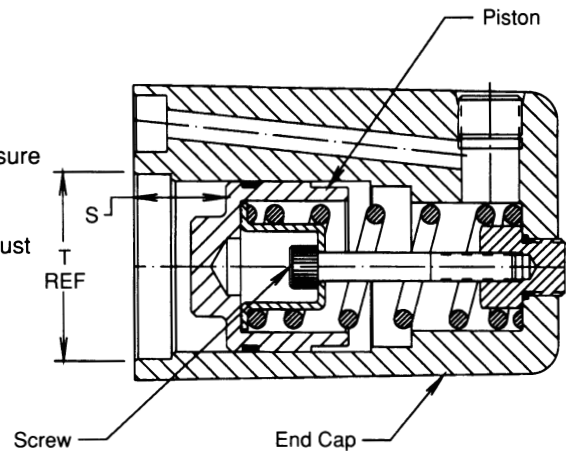
(No sequence valve used.) Minimum pilot pressure (150 PSI above exhaust pressure) must be supplied to the external pilot port of the pilot valve.

External exhaust for the pilot valve requires the use of part number 02050-2700-0000 installed as follows (see page 6-9 valve drawing):

1. Remove pilot valve.
2. Remove slave valve pilot cover.
3. Insert plug assembly into internal drain orifice.
4. Re-assemble valve and connect external drain at "F".

**Note:**

External drain should be used when pilot media is different from primary media.



When reassembling spring centering end cap, maintain "S" dimension.



## Interpretation of Valve Number

251	04	-73	02	-02	01
Catalog Number	Flow Pattern	Power Source	Operating Type	O-Ring Code	Optional Features
<b>251</b> 25 GPM Main Valve 3 GPM Pilot Valve	<b>01</b> 	<b>Series 25100, 25200</b>	 * <b>01</b> = 3-Position, Spring Centered, Flow Patterns 1-8, Double Solenoid or Air-Oil Operated	<b>02</b> Commercial Nitrile	<b>00</b> No Options
<b>252</b> 45 GPM Main Valve 3 GPM Pilot Valve	<b>02</b> 	<b>54</b> 12V/D.C.	 <b>02</b> = 2-Position, Spring Offset, Flow Pattern 10, Solenoid A Operated	<b>03</b> Nitrile (MIL-P-5516)	<b>10</b> Single Tel-Lite
<b>272</b> 45 GPM Main Valve 10 GPM Pilot Valve	<b>03</b> 	<b>56</b> 24V/D.C.	 <b>03</b> = 2-Position, Spring Offset, Flow Pattern 10, Solenoid B Operated	<b>27</b> Nitrile (MIL-P-25732)	<b>20</b> Double Tel-Lite
<b>273</b> 75 GPM Main Valve 10 GPM Pilot Valve	<b>04</b> 	<b>58</b> 48V/D.C.	 <b>04</b> = 2-Position, Detented, Flow Pattern 10, Double Solenoid or Air-Oil Operated	<b>28</b> Fluorocarbon A	<b>01</b> Sequence Valve
	<b>05</b> 	<b>70</b> Air - Oil Operated	 <b>05</b> = 3-Position Pressure Centered Flow Patterns 1-8, Double Solenoid or Air-oil Operated	<b>52</b> EPR	<b>11</b> Single Tel-Lite Sequence Valve
	<b>06</b> 	<b>73</b> 115V/60C A.C.	 * <b>11</b> = 2-Position, Centered Offset, Left & Center Positions of Flow Patterns 1-8, Solenoid A Operated		<b>21</b> Double Tel-Lite Sequence Valve
	<b>07</b> 	<b>75</b> 110V/50C A.C.	 * <b>21</b> = 2-Position, Centered Offset, Right & Center Positions of Flow Patterns 1-8, Solenoid B Operated		<b>22</b> Double Tel-Lite Pilot Speed Control Valve
	<b>08</b> 	<b>77</b> 230V/60C A.C.	 <b>31</b> = 2-Position, Pressure Centered, Right & Center Positions of Flow Patterns 1-8, B Operated		<b>23</b> Double Tel-Lite External Drain
	<b>10</b> 	<b>79</b> 220V/50C A.C.	 <b>41</b> = 2-Position, Pressure Centered, Left & Center Positions of Flow Patterns 1-8, A Operated		<b>24</b> Double Tel-Lite Sequence Valve Pilot Speed Control Valve
		<b>81</b> 460V/60C A.C.			<b>25</b> Double Tel-Lite Sequence Valve External Drain
		<b>83</b> 440V/50C A.C.			<b>26</b> Double Tel-Lite Pilot Speed Control Valve External Drain
					<b>27</b> Double Tel-Lite Sequence Valve Pilot Speed Control Valve External Drain

**Note:**

1. See Pilot Valve data sheet for electrical data (page 6-1 thru 6-4).
- \*2. Operating type 01, 11 and 21 are not available for valve series 27400.
3. D.C. solenoids are not available on valve series 27200 and 27300.