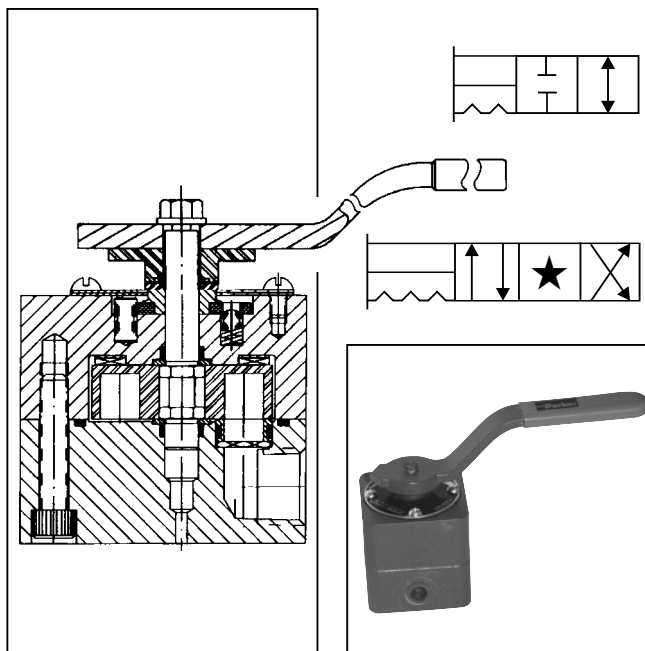


## General Description

Series 8500 valves are 2, 3 and 4-way manual selector valves with near zero leakage characteristics and are rated to 207 Bar (3000 PSI). The valve design requires low actuation torque and can be used in air, oil and water applications.

## Features

- Shear-type positive seal.
- Zero leakage (1 drop per min. per pressure port).
- High contamination tolerance.
- Long life due to wiping action of seals and disk.
- Low turning torque.
- Panel mounting is standard.



## Specifications

<b>Service Applications</b>	Lubricated air, hydraulic oil, and water. For case pressure or exhaust port pressure applications above 17.3 Bar (250 PSI), consult factory.	<b>Mounting</b>	Subplate - Sizes 10 & 16
<b>Maximum Operating Pressure</b>	Working: 207 Bar (3000 PSI) Proof: 310.5 Bar (4500 PSI) Burst: 517.5 Bar (7500 PSI)	<b>Material</b>	Body & Cap: Aluminum alloy anodized Disk: Stainless steel type 440 Shaft: Stainless steel type 416 Seals: Stainless steel type 440 O-rings: Synthetic rubber compatible with media Spring seals: Stainless steel Back-up rings: PTFE Handle: Steel, aluminum & plastic Finish: Paint
<b>Porting</b>	Bottom or side NPT: Pipe threads Sizes 1/8", 1/4", 3/8", 1/2", 3/4" & 1" IST: Internal straight threads per AND10050 Sizes 4, 6, 8 10, 12 & 16 SAE: Straight threads Sizes #4, #6, #8, #10, #12 & #16	<b>Operating Temperature</b>	-40°C to +121°C (-40°F to +250°F) Higher on special order

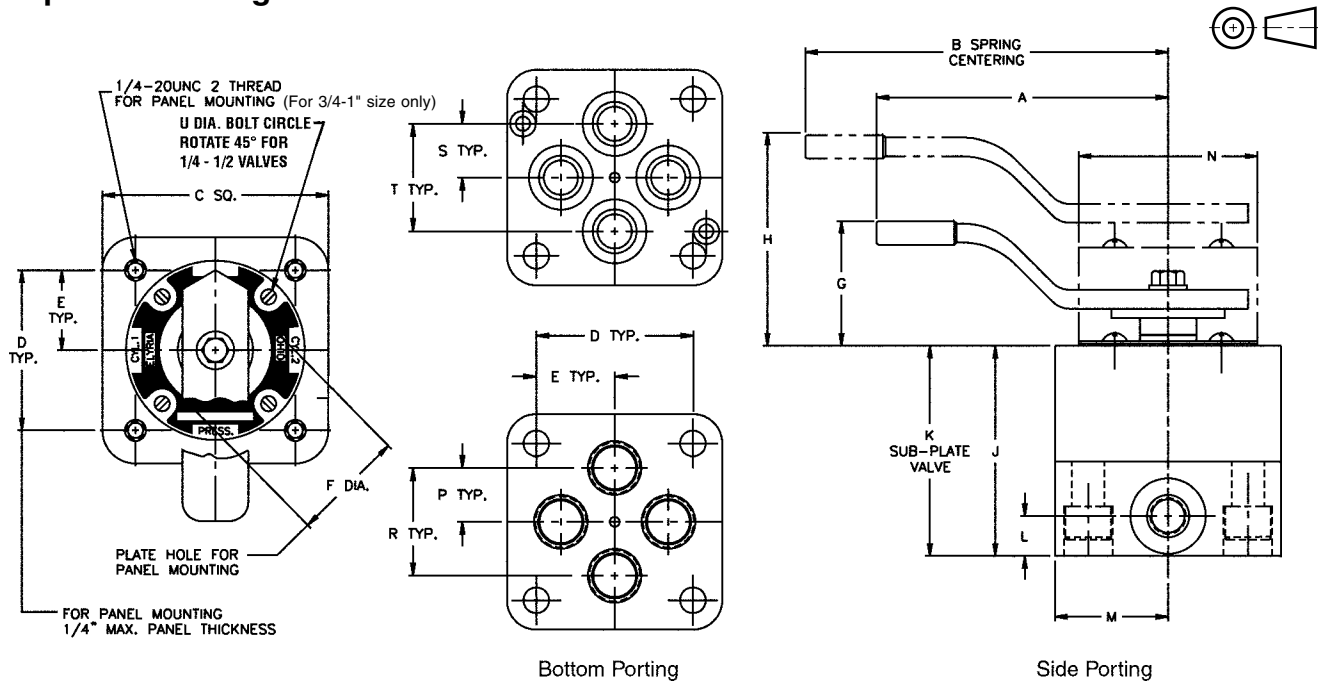
Valve Size				Weight Lbs.	CV Factor P. to A. or P. to B.	Flow Passage Diameter	Handle Pull – Lbs.			
Subplate	IST	Tube	Pipe				8500E		R8500E	
				Steel	8500E	8500E	Air	Oil	Air	Oil
—	#6	6	1/4	2.5	1.7	.437 In.	13	15	11	17
Size 10	#10	10	1/2	2.5	2.4	.437 In.	13	15	11	17
Size 16	#16	16	1	13	8.5	.750 In.	15	18	26	30

Ordering Information

	85	5	1	F	- 1/4	H	D	2	
Prefix for Special Feature	3000 PSI Series	Flow Pattern	Type of Porting	Design Series	Size	Service Media	Materials	O-Ring Code	Suffix Options
See Option Page for Complete List	1 2-Way Shut-off 4 4-Way Closed Center 5 4-Way Tandem Center 7 4-Way Manipulator Closed Center 8 4-Way Manipulator/Open Center		1 Side Ported 2 Bottom Ported 3 Subplate Mounted		1/4 NPT 1/2 NPT 1 NPT 6 IST 10 IST 16 IST 10 Subplate 16 Subplate	A Lubricated Air H Hydraulic Oil W Water	D Aluminum	2 Nitrile 28 Fluorocarbon	See Option Page for Complete List



Dimensions  
Subplate Mounting



Valve Size				All Dimensions are in Inches																	Subplate Mounted		
Sub-Plate	SAE	Tube	Pipe	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	M't'g. Bolt	Torq.
—	#6	6	1/4	6	6	2 <sup>3</sup> / <sub>4</sub>	2	1	1 <sup>21</sup> / <sub>32</sub>	1 <sup>31</sup> / <sub>32</sub>	2 <sup>25</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	<sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	<sup>23</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	<sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5/16 - 24NF x 2	250 In. – Lbs.
Size 10	#10	10	1/2	6	6	2 <sup>3</sup> / <sub>4</sub>	2	1	1 <sup>21</sup> / <sub>32</sub>	1 <sup>31</sup> / <sub>32</sub>	2 <sup>25</sup> / <sub>32</sub>	2 <sup>13</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>32</sub>	<sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>8</sub>	<sup>23</sup> / <sub>32</sub>	1 <sup>7</sup> / <sub>16</sub>	<sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	5/16 - 24NF x 2	250 In. – Lbs.
Size 16	#16	16	1	10	12	4 <sup>1</sup> / <sub>2</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>19</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>	4 <sup>23</sup> / <sub>32</sub>	3 <sup>45</sup> / <sub>64</sub>	1	2 <sup>1</sup> / <sub>4</sub>	3 <sup>11</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>64</sub>	2 <sup>11</sup> / <sub>32</sub>	3 <sup>3</sup> / <sub>16</sub>	1/2 - 20 x 4 Lg.	1,370 In. – Lbs.



Special Feature Letter		Location	8000 - 8100			8400	8500	
			$\frac{1}{8} - \frac{1}{2}$	$\frac{3}{4} - 1$	$\frac{1}{4} - \frac{1}{2}$	$\frac{1}{8} - \frac{1}{4}$	$\frac{1}{8} - \frac{1}{2}$	$\frac{3}{4} - 1$
F	-Fourth Seal	P	A	A	A	N/A	A	A
FR	-Fourth Seal & Spring Return	P	A	A	A	N/A	A	A
R	-Spring Return	P	A	A	A	A	A	A
CR	-Normally Closed Spring Return	P	A	A	A	N/A	A	A
H	-Less Handle	S	A	A	A	A	A	A
P	-Locking Kit	S	A	A	N/A	N/A	N/A	A
L	-No Left Handle Position	S	A	A	A	N/A	A	A
R	-No Right Handle Position	S	A	A	A	N/A	A	A
M	-No Center Detent	S	A	A	A	A	A	A

P=Prefix S=Suffix A=Available N/A=Not Available

**Combined Options Not Available**

- Options M, L & R available individually only.
- Options FR limits maximum pressure on valve to 1500 PSI.

**D**