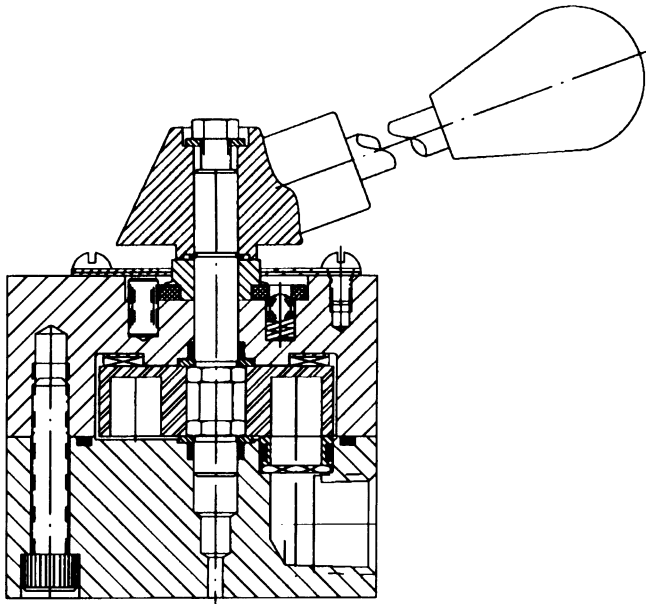


# Catalog Series 8500

# Specifications



**D**

## Features

- Shear-type positive seal.
- Zero leakage (1 drop per min. per pressurized port).
- High contamination tolerance.
- Standard valves are interflow; non-interflow valves are available through 1/2" size.
- Long life due to wiping action of seals and disk.
- Low turning torque.
- Panel mounting is standard.

## Service Applications:

Lubricated air, hydraulic oil, and other services on special order. For case pressure or exhaust port pressure applications above 250 PSI, consult factory.

## Pressure Range:

**Working:** 3,000 PSI, liquids      2,000 PSI, air  
**Proof:** 4,500 PSI, liquids      3,000 PSI, air  
**Burst:** 7,500 PSI

## Temperature Range:

-40° to +250° F.  
 Higher on special order.

## Materials:

**Body and Cap:** Aluminum alloy anodized.  
**Disk:** 440 stainless steel.  
**Shaft:** 416 stainless steel.  
**Seals:** 440 stainless steel.  
**Springs seals:** Stainless steel.  
**O-rings:** Synthetic rubber compatible with media.  
**Back-up rings:** PTFE.  
**Handle:** Steel, aluminum and plastic.  
**Finish:** Paint.

## Porting:

Bottom or side.

**NPT:** Pipe threads.

**Sizes:** 1/8, 1/4, 3/8, 1/2, 3/4, & 1".

**IST:** Internal straight threads, per AND 10050.

**Sizes:** 4, 6, 8, 10, 12, & 16.

**SAE:** Straight threads.

**Sizes:** #4, #6, #8, #10, #12, & #16.

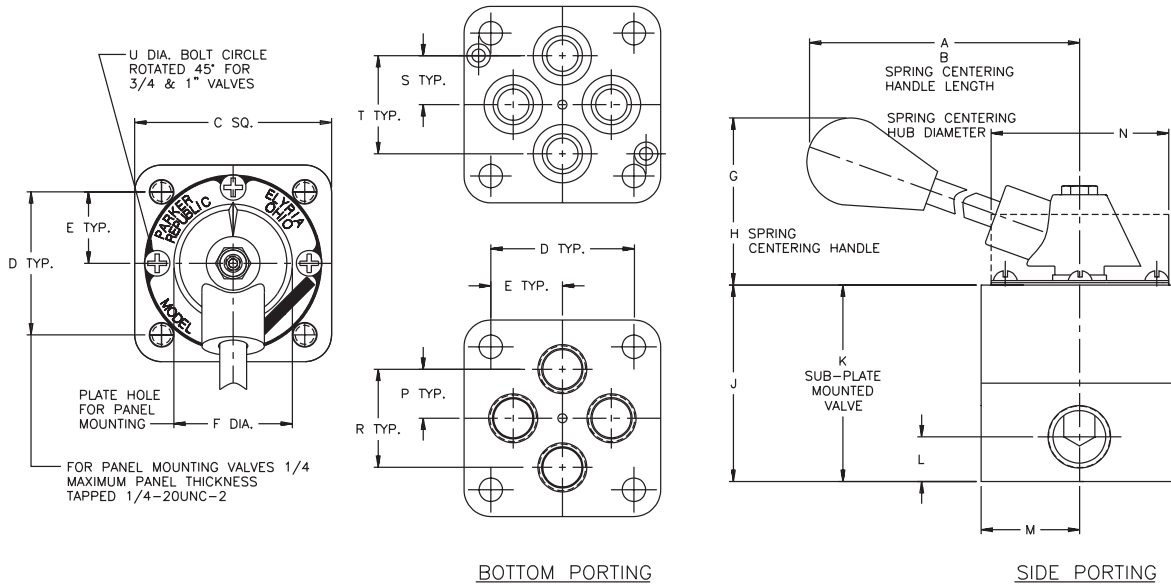
## Sub-Plate Mounting:

**Sizes:** 10 & 16.

Valve Size				Weight Lbs.	CV Factor P. to A. or P. to B.		Flow Passage Diameter		Handle Pull-Lbs.					
Sub-Plate	SAE	Tube	Pipe		8500E	N8500E	8500E	N8500E	8500E		N8500E		R8500E	
				Steel					Air	Oil	Air	Oil	Air	Oil
—	# 4	4	1/8	2.5	1.5	.39	.437 In.	.156 In.	13	15	13	18	11	17
	# 6	6	1/4		1.7	.40								
Size 10	# 8	8	3/8	2.5	2.2	1.0	.437 In.	.156 In.	13	15	13	18	11	17
	# 10	10	1/2		2.4	1.0								
Size 16	# 12	12	3/4	13	5.9	N/A	.750 In.	N/A	15	18	N/A	N/A	26	30
	# 16	16	1		8.5	N/A								

# Dimensions

## SUBPLATE MOUNTING



BOTTOM PORTING

SIDE PORTING



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

## Interpretation of Valve Number

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	85	5	1	E	- 1/8	H	D	2	See Option Page for Complete List						
										0 4-Way All Ports Open Center	104 SAE #4	1/8 NPT	A Lubricated Air	D Aluminum	2 Nitrile
										1 2-Way Shut-off	106 SAE #6	3/8 NPT	H Hydraulic Oil		28 Fluorocarbon
										4 4-Way Closed Center	108 SAE #8	1/2 NPT	W Water		52 EPR
										5 4-Way Tandem Center	110 SAE #10	3/4 NPT	A1 Lubricated Air 80T Only 1 Inlet		Others Available Per. Request
										7 4-Way Manipulator Closed Center	112 SAE #12	1 NPT	A3 Lubricated Air 80T Only 3 Inlets	NOTE: When ordering the "T" flow pattern for air applications, specify if valve is to be used as 1 Inlet, 3 Outlets or 3 Inlets, 1 Outlet.	
										8 4-Way Manipulator/Open Center	116 SAE #16	4 IST			
										9 3-Way		6 IST			
										T 3-Way 1 Inlet & 3 Outlets or 3 Inlets & 1 Outlet		8 IST			
												10 IST			
		10 Subplate													
		16 Subplate													
			Non-Interflow available only for flow patterns #4 and #5 and sizes up through 1/2 or 10 only.												
				Note: SAE # 8, #10 and IST 8 and 10 available only in side ports											