

# Series 3000 Divider Valve Manifold

## Progressive Systems



### General

The Series 3000 progressive divider valve manifold distributes and proportions incoming oil or grease to bearing points. A typical divider valve manifold consists of an inlet section, three to ten valves and an end section. One assembly can serve up to a maximum of 20 lubrication points. Location of valve blocks within the manifold is not critical – however, it is recommended that the largest block be located next to the inlet block.

Individual divider valve blocks have a sliding discharge piston and built-in outlet check valves. Blocks are offered in six output sizes. The discharge capacity of a block is determined by varying the piston diameter in the valve block. Valve blocks have two outlets located at each end of the assembly (double outlet blocks) and supply rated discharge outputs from each of the two outlets during one complete valve cycle.

Single outlet blocks have one end outlet plugged (right side, inlet at top) and supply twice the rated output to the open outlet (left side, inlet at top). For a right sided open outlet, simply remove plug and insert in the left outlet. External cross porting of adjacent valves can be achieved with a kit to combine outputs.



### Operation

Individual valve blocks operate in a pre-arranged “progressive” sequence. During operation, the piston within the block must complete a full discharge cycle before another piston begins operation. As long as lubricant is supplied under pressure to the inlet section of the divider, manifold valve blocks will continue to operate in a progressive manner.

When lubricant flow is interrupted to the inlet block, piston movement stops. When flow resumes, piston movement commences at the same point in the discharge cycle. Feed lines deliver lubricant from the valve block to individual lube points. Should a discharge line become blocked, it will stop all the valves operating. Indicators are available to alert a blockage.

### Technical Data

Material	Steel (zinc plated)
Seals	Plated steel with bounded Viton® seals
Maximum Operating Pressure	207 bar (3,000 psi)
Minimum Operating Pressure	20 bar (300 psi)
Discharge Per Cycle	0.025 cu. in. (0.41cc) - 0.300 cu.in. (4.92cc)
Maximum Temperature	350°F (163°C)
Lubricant	Oil, Grease up to NLGI No. 2
Maximum Temperature	350°F (163°C)

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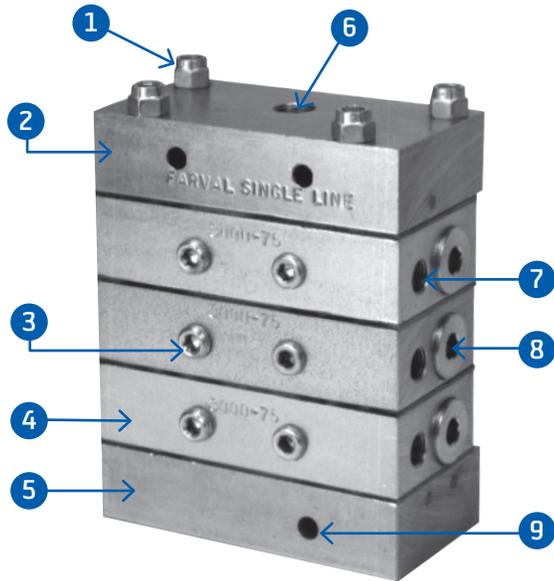
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## Components

### 3000 Valve



Item	Description
1	Tie Rods
2	Inlet Section
3	1/4 NPT Alternate Outlet Ports
4	Valve Sections
5	End Section
6	3/8 NPT Lube Inlet
7	1/4 NPT Lube Outlet
8	Piston Enclosure Plugs
9	0.406 MTG Hole X 2 (Inlet) 0.406 MTG Hole X 1 (End)

### Torque Specifications

Tie Rod Nuts	72-78 inch pounds
Outlet Port Fitting	72-96 inch pounds
Piston Enclosure Plugs	48 foot pounds

### Approximate Weight of Complete Divider Valve Grease Assembly

3 Section Divider	9.98 kg (22 lbs)	7 Section Divider	19.05 kg (42 lbs)
4 Section Divider	12.24 kg (27 lbs)	8 Section Divider	21.32 kg (47 lbs)
5 Section Divider	14.52 kg (32 lbs)	9 Section Divider	23.57 kg (52 lbs)
6 Section Divider	16.78 kg (37 lbs)	10 Section Divider	25.86 kg (57 lbs)

### Output Displacement

Valve Sizes	Cu. in. (cc) per Outlet	
	Twin	Single
25	.025 (.41)	.050 (.82)
50	.050 (.82)	.100 (1.64)
75	.075 (1.23)	.150 (2.46)
100	.100 (1.64)	.200 (3.28)
125	.125 (2.05)	.250 (4.10)
150	.150 (2.46)	.300 (4.92)

Note: Single outlet blocks discharge double their rated capacity during one complete valve cycle.

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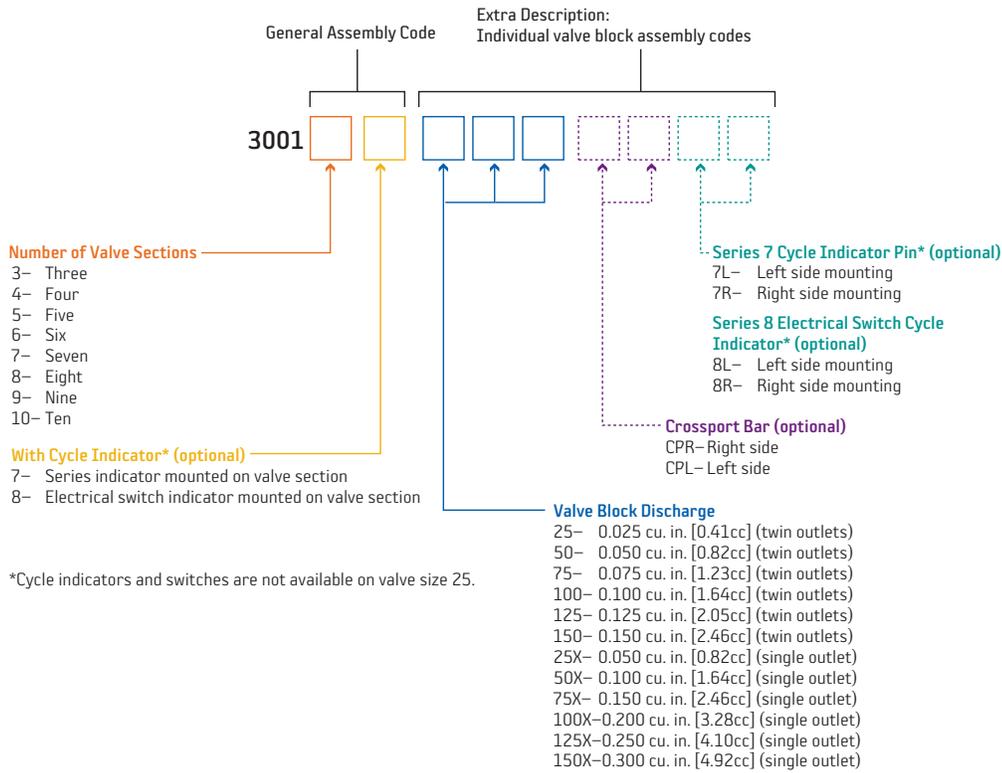
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## How to Order

### Assembly Ordering Codes

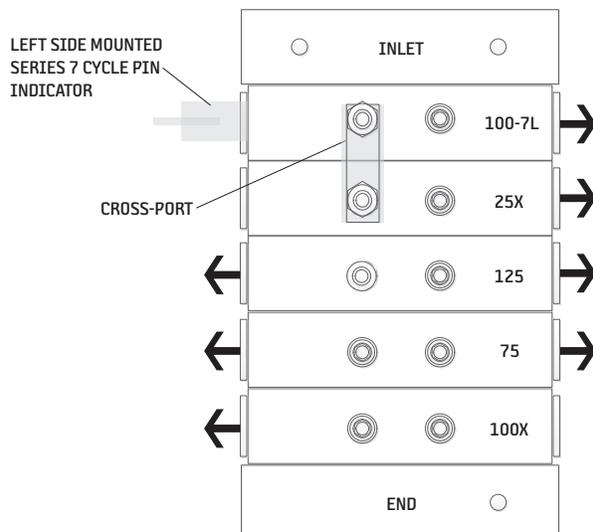


#### Example:

Ordering Code for 5 Section Assembly, P.N.# 300157 (Extra Description 100-CPL-7L, 25X, 125, 75, 100X).

#### Sketch

When ordering, a sketched example is also recommended. See example below:



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## How to Order

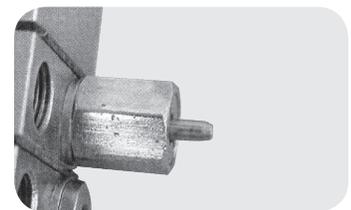
### Individual Valve Block Sections

Valve Size	Cu. in. (cc) per Outlet		Valve Section					
	Twin Outlet	Single Outlet	Twin Outlet			Single Outlet		
			Standard	With Cycle Pin	With Cycle Switch	Standard	With Cycle Pin	With Cycle Switch
25	.025 (.41)	.050 (.82)	300025	N/A	N/A	300025X	N/A	N/A
50	.050 (.82)	.100 (1.64)	300050	3000507	3000508	300050X	3000507X	3000508X
75	.075 (1.23)	.150 (2.46)	300075	3000757	3000758	300075X	3000757X	3000758X
100	.100 (1.64)	.200 (3.28)	3000100	30001007	30001008	3000100X	30001007X	30001008X
125	.125 (2.05)	.250 (4.10)	3000125	30001257	30001258	3000125X	30001257X	30001258X
150	.150 (2.46)	.300 (4.92)	3000150	30001507	30001508	3000150X	30001507X	30001508X

### Divider Block Components

Description	Part #
Inlet Section 3/8" NPT	3006
End Block	3007
Valve Gaskets	FT25091
Tie Rod, 3 Valves	FT25171A
Tie Rod, 4 Valves	FT25171B
Tie Rod, 5 Valves	FT25171C
Tie Rod, 6 Valves	FT25171D
Tie Rod, 7 Valves	FT25171E
Tie Rod, 8 Valves	FT25171F
Tie Rod, 9 Valves	FT25171G
Tie Rod, 10 Valves	FT25171H
Nut for Tie Rods	U251C

*Note: Sold individually each assembly requires 4 tie rods & 4 nuts*



Cycle Indicator



"C" Porting on face of valve section

### Accessories

Description	Part #			
Crossport Kit	32763			
Non-Relieving Over Pressure Indicators <i>Note: Order pressure indicator and adapter U104B1 separate.</i>	600 psi	20356 + U104B1		
	1200 psi	203512 + U104B1		
	1600 psi	203516 + U104B1		
	2200 psi	203522 + U104B1		
Rupture Disk Indicators <i>Note: Discs are sold in packs of 10 pieces</i>	Burst Pressure	Disc Color	Part #	Replacement Disc Kit**
	900 psi	Black	FT25413B	FT15423BKK
	1450 psi	Yellow	FT25413Y	FT15423YWK
Electric Cycle Switch (Couples to any 3000 metering valve having a cycle indicator pin and provides an electrical signal each time the divider valve operates. SPDT witch is rated 15 amps @ 125/250 VAC, 0.5 amps @ 125 VDC)	Standard Switch		FT15801C8	
	Nema 4 Switch		LB11398	



Cycle Switch FT15801C8

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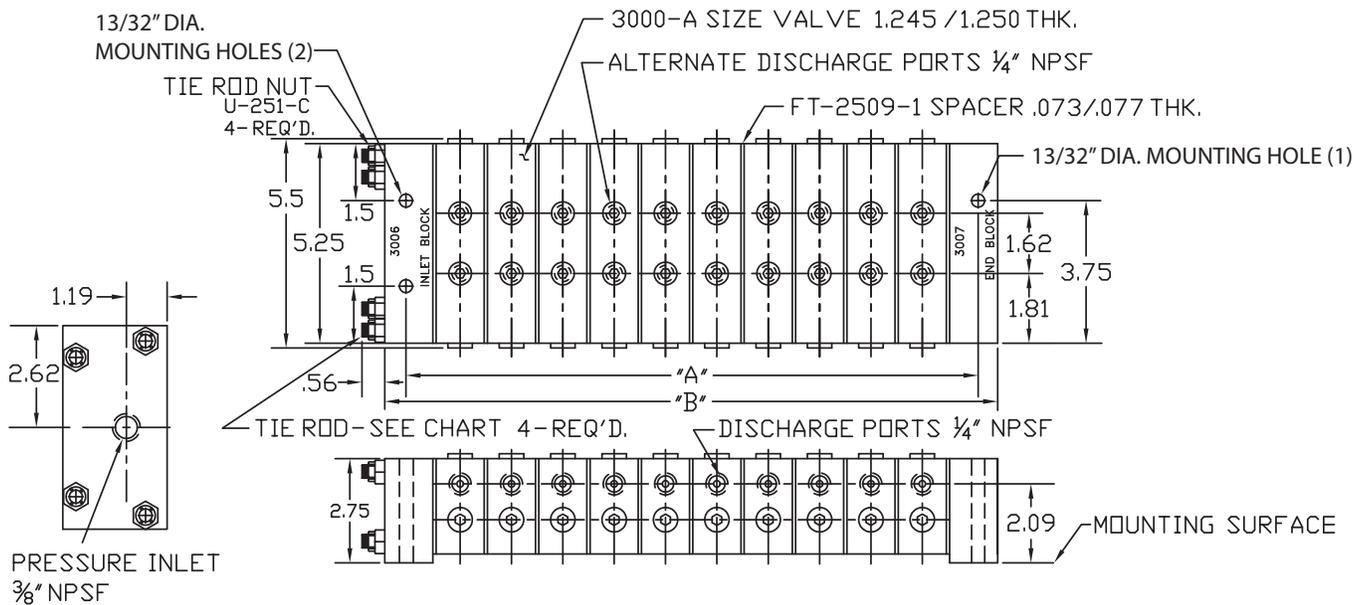
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## Dimensional Schematic

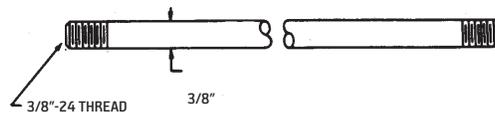
Measurements shown in inches.

### Valve Manifolds Assemblies



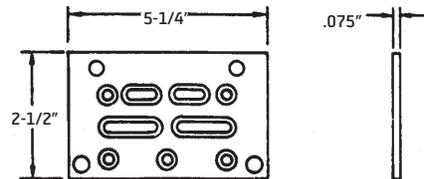
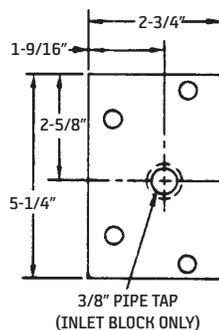
Valve Blocks (#)	A (approximate)	B (approximate)
3	5-7/16	6-9/16
4	6-3/4	7-7/8
5	8-1/16	9-3/16
6	9-7/16	10-9/16
7	10-3/4	11-7/8
8	12-1/16	13-3/16
9	13-3/8	14-1/2
10	14-11/16	15/13-16

### Manifold Tie Rod (Part #FT2517)



Note:  
Specify one locknut U251C with each tie rod.

### Inlet (3006) and End (3007) Block Dimensions Gasket (Part #FT25091) Dimensions - Order Separately



PLATED STEEL WITH BONDED VITON® SEALS

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