



MGO™ Series-Flo® Dividers

DESCRIPTION

Trabon MGO Series-Flo® Divider Valves are designed for heavy duty service where, wide temperature variations and high pumping volumes may be expected. Ideal for large circulating oil systems or hydraulic balancing systems which are found in paper and rubber mills.

A typical MGO Series-Flo® Divider Valve Assembly (to the right) consists of an inlet section, end section and three valve sections. This basic system will serve up to six points and, by adding valve sections, it is possible to increase the number of points which can be served up to a maximum of 22.

The MGO valve sections are available in various output per piston cycle (see specifications). Each twin (T) section has 2 outlets, one from each side of the section. Each single (S) section has 1 outlet on either side but one outlet must be plugged to operate properly.

FEATURES/BENEFITS

- Delivers metered amount of lubricant.
- High Pressure capability
- Lubricant outlets easily added or removed
- Can be installed on new or existing machines
- Valve bores match hone-fitted to metering pistons
- Viton O-ring seals standard

OPERATION

Operational sequence of an MGO Series-Flo® divider valve assembly is defined as “progressive”. The term progressive means that each valve section completes its piston stroke, discharging a measured amount of lubricant to the bearing it serves before the following valve section operates. As long as lubricant is supplied under pressure to the inlet section of the divider assembly, valve sections will continue to operate in a progressive manner. Divider assemblies always follow a constant discharge pattern. Whenever lubricant flow ceases, the valving pistons will stop. When flow resumes it will start again at the same point in the discharge cycle.

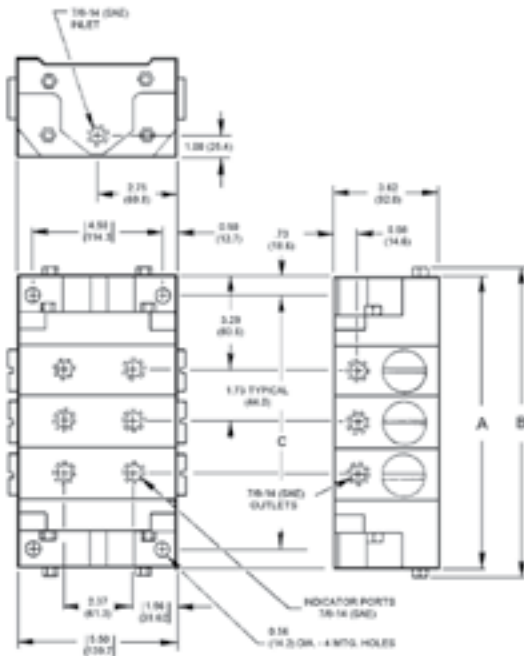
TORQUE SPECIFICATIONS	
Tie Rod Nut	12 ft lbs
Enclosure Plug	15 ft lbs
Outlet Port Plug	6-8 ft lbs

SPECIFICATIONS		
Material	Zinc Plated Steel and Phosphate Coated Cast Iron	
Seals	Viton and Buna-N	
Max Recommended Operating Pressures		
3-7 Section Divider	6,000 psi (414 bar)	
8 Section Divider	5,500 psi (380 bar)	
9 Section Divider	5,000 psi (345 bar)	
10 Section Divider	4,500 psi (311 bar)	
11 Section Divider	4,000 psi (276 bar)	
Lubricant	Oil or Grease	
Max Operating Temp	200°F	
Max Cycle Rate		
Cycle Pin & Switch	60 cycles/minute	
w/out Switch or w/FSM Type Switch	200 cycles/minute	
Net Weight	(Divider Valve Assembly Approx.)	
3 Section Divider	45 lbs (20.46 kg)	
4 Section Divider	53 lbs 5 oz (24.18 kg)	
5 Section Divider	61 lbs 10 oz (27.95 kg)	
6 Section Divider	70 lbs 15 oz (32.17 kg)	
7 Section Divider	80 lbs 4 oz (36.40 kg)	
8 Section Divider	89 lbs 9 oz (40.62 kg)	
9 Section Divider	98 lbs 14 oz (44.84 kg)	
10 Section Divider	108 lbs 3 oz (49.07 kg)	
11 Section Divider	117 lbs 8 oz (53.40 kg)	
+Section Sizes	Displacement	
	* (cu.in.)	(cm ³)
150T	0.150	2.048
150S	0.300	4.917
300T	0.300	4.917
300S	0.600	9.834
450T	0.450	7.375
450S	0.900	14.751
600T	0.600	9.834
600S	1.200	19.668

+This number is stamped on each valve section

*This is the discharge volume per outlet after one complete cycle

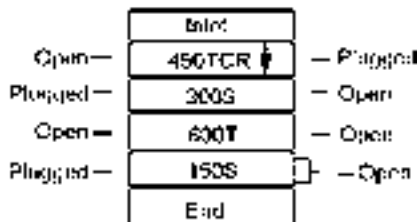
DIMENSIONS Inches/(mm)



Note: Millimeter dimensions appear in parentheses below decimal figure in inches.

Divider Valve	A—DIM.	B—DIM.	C—DIM.
MGO - 3	10.04 (255.1)	11.00 (279.4)	8.58 (217.8)
MGO - 4	11.78 (299.1)	12.75 (323.8)	10.31 (261.9)
MGO - 5	13.51 (343.2)	14.50 (368.3)	12.05 (305.9)
MGO - 6	15.25 (387.3)	16.25 (412.7)	13.78 (350.4)
MGO - 7	16.98 (431.2)	18.00 (467.2)	15.51 (394.0)
MGO - 8	18.71 (467.8)	19.75 (501.6)	17.25 (438.0)
MGO - 9	20.45 (519.3)	21.50 (546.1)	18.98 (482.1)
MGO - 10	22.18 (563.4)	23.25 (590.5)	20.72 (526.1)
MGO - 11	23.91 (607.3)	25.00 (635.0)	22.4 (570.2)

Divider Assembly Sketch Example
MGO-4-450TCR-300S-600T-150C
Divider Valve With Indicator



ORDERING INFORMATION

MGO - **XX** - **XXX** - **X** - **XX**

NUMBER OF SECTIONS

03 – Three
 04 – Four
 05 – Five
 06 – Six
 07 – Seven
 08 – Eight
 09 – Nine
 10 – Ten
 11 – Eleven

SECTION CAPACITY

150 – 0.150 cu.in.
 300 – 0.300 cu.in.
 450 – 0.450 cu.in.
 600 – 0.600 cu.in.

TYPE OF SECTION

T – Twin
 S – Single - Right Hand Outlet
 L – Single - Left Hand Outlet
 B – Twin w/Cycle Pin Right Side
 C – Single w/Cycle Pin Right Side - Right Hand Outlet
 D – Single w/Cycle Pin Right Side - Left Hand Outlet
 E – Twin w/Proximity Switch Right Side
 F – Single w/Proximity Switch Right Side - Right Hand Outlet
 G – Single w/Proximity Switch Right Side - Left Hand Outlet
 H – Twin w/Cycle Pin Left Side
 J – Single w/Cycle Pin Left Side - Right Hand Outlet
 K – Single w/Cycle Pin Left Side - Left Hand Outlet
 M – Twin w/Proximity Switch Left Side
 N – Single w/Proximity Switch Left Side - Right Hand Side
 P – Single w/Proximity Switch Left Side - Left Hand Side

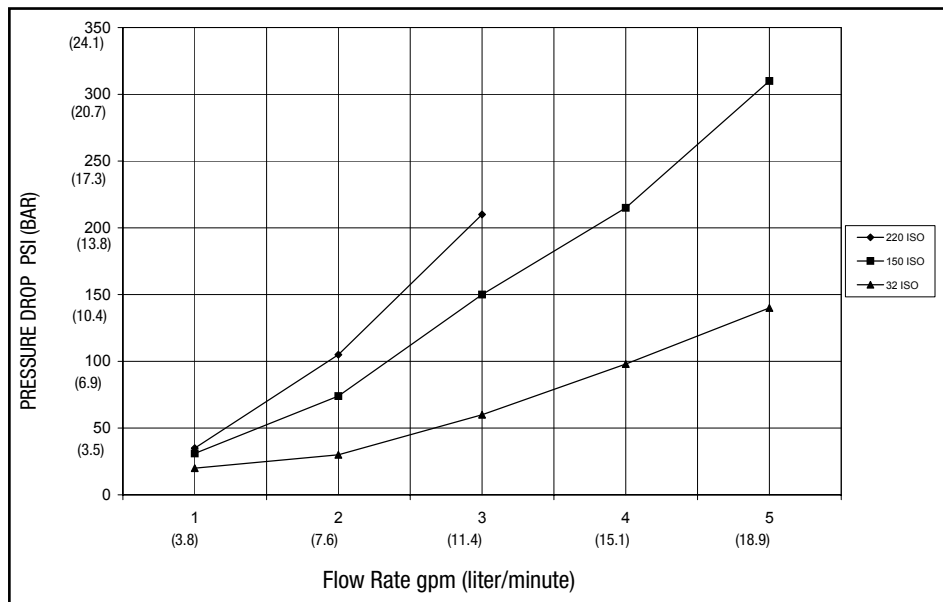
***CROSSPORTING OPTION**

CR – Right Hand Side
 CL – Left Hand Side
 CB – Both Sides
 *Omit when not required

NOTES:

- Maximum working pressures: See page 1 Specs
- Capacity sections are specified starting from inlet section
- When a section is crossported, its outlet is plugged and output is diverted to the next section, farthest from the inlet
- Single capacity sections can be crossported on one side only
- Internal crossporting can be supplied on a capacity section only when supplied on a manifolded assembly. If supplied as a loose unit, internal crossporting may be accomplished by field drilling
- Last section, farthest from inlet section, cannot be crossported
- Indicate crossport option after capacity section if required, omit if not required
- Preferred mounting is with pistons in horizontal position with inlet at top
- Use discharge check valves for intermittent operation
- Divider systems should be limited to first and second stages only. Third staging is not recommended. Refer to Trabon bulletins L20101, L20105 and L20115 for further information on system design

DIVIDER VALVE COMPONENTS (SAE PORTS) ORDERING INFORMATION									
SIZE	DESCRIPTION	DISPLACEMENT PER VALVE CYCLE		VALVE SECTION		W/CYCLE PIN RIGHT SIDE		W/PROX SWITCH RIGHT SIDE	
		cu.in.	cm ³	Part No.	Old Part No.	Part No.	Old Part No.	Part No.	Old Part No.
150T	0.150 Twin Outlet	0.150	2.048	562574	007-150-032	562582	007-150-642	-	007-150-532
150S	0.150 Single Outlet	0.300	4.917	562570	007-150-031	562578	007-150-641	-	007-150-531
300T	0.300 Twin Outlet	0.300	4.917	562575	007-300-032	562583	007-300-642	-	007-300-532
300S	0.300 Single Outlet	0.600	9.834	562571	007-300-031	562579	007-300-641	-	007-300-531
450T	0.450 Twin Outlet	0.450	7.375	562576	007-450-032	562584	007-450-642	-	007-450-532
450S	0.450 Single Outlet	0.900	14.715	562572	007-450-031	562580	007-450-641	-	007-450-531
600T	0.600 Twin Outlet	0.600	9.834	562577	007-600-032	562585	007-600-642	-	007-600-532
600S	0.600 Single Outlet	1.200	19.668	562573	007-600-031	562581	007-600-641	-	007-600-531
	Inlet			563277	510-670-200				
	End			563278	510-670-210				
	Tie Rod 3 Section Short			560591	510-665-030				
	Tie Rod 3 Section Long			560600	510-666-030				
	Tie Rod 4 Section Short			560592	510-665-040				
	Tie Rod 4 Section Long			560601	510-666-040				
	Tie Rod 5 Section Short			560593	510-665-050				
	Tie Rod 5 Section Long			560602	510-666-050				
	Tie Rod 6 Section Short			560594	510-665-060				
	Tie Rod 6 Section Long			560603	510-666-060				
	Tie Rod 7 Section Short			560595	510-665-070				
	Tie Rod 7 Section Long			-	510-666-070				
	Tie Rod 8 Section Short			560596	510-665-080				
	Tie Rod 8 Section Long			560604	510-666-080				
	Tie Rod 9 Section Short			560597	510-665-090				
	Tie Rod 9 Section Long			560605	510-666-090				
	Tie Rod 10 Section Short			560598	510-665-100				
	Tie Rod 10 Section Long			560606	510-666-100				
	Tie Rod 11 Section Short			560599	510-665-110				
	Tie Rod 11 Section Long			560607	510-666-110				
	Tie Rod Nut			557494	510-506-001				
	Outlet Plug & Indicator Port Plug (7/8-14 SAE)			556424	412-700-390				



MGO PRESSURE DROP VS. FLOW RATE

CONNECTING CABLE ASSEMBLIES						
Description	3 ft (0.9 m)		6 ft (1.8 m)		12 ft (3.7 m)	
	Part No.	Old Part No.	Part No.	Old Part No.	Part No.	Old Part No.
3-Pin, Straight, AC	–	570-999-070	558021	570-999-080	558022	570-999-090
5-Pin, Straight, AC	–	510-999-180	558023	570-999-160	558024	570-999-170
5-Pin, 90°, AC	–	–	558965	570-999-390	–	–
4-Pin, 90°, DC w/LED (NPN)	–	–	–	–	558968	570-999-937
4-Pin, 90°, DC w/LED (PNP)	–	–	–	–	–	570-999-938

ORDERING INFORMATION – ACCESSORIES		
Description	Part No.	Old Part No.
MGO Seal Kit - 1 Per Section	563926	560-001-950
*Cycle Switch (SPDT) and Bracket	563269	510-250-000
*Cycle Switch (DPDT) and Bracket	–	510-269-001
Proximity Switches:		
*FSM - 115 VAC, 3-Pin, Brad Harrison	563970	570-999-060
*FSM - 115 VAC, 5-Pin, Brad Harrison	–	570-999-220
**FSM - 20-28 VDC, 4-Pin	563495	527-007-120
**FSM - 115 VAC, 5-Pin, Brad Harrison	564402	527-007-160

*For use in systems not having pressure spikes and with working pressures less than 3,500 psi (241 bar)

**10,000 psi (689 bar) switch designed for stamp in press applications and systems where pressure spikes may be encountered

ADDITIONAL ACCESSORIES	
L15600	Cycle Indicator Proximity Switches
L15401	Performance Indicators
L10161	Accessories and Parts
L15825	Check Valves
L15600	Wiring Instructions

All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

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