Trabon® MSP Divider Valve

The Industry Standard for Quality and Reliability

The Trabon MSP Series sets the industry standard for quality, reliability and ease-of-use features. It was the original modular-style series progressive divider valve and is still the best!

Baseplate Assemblies

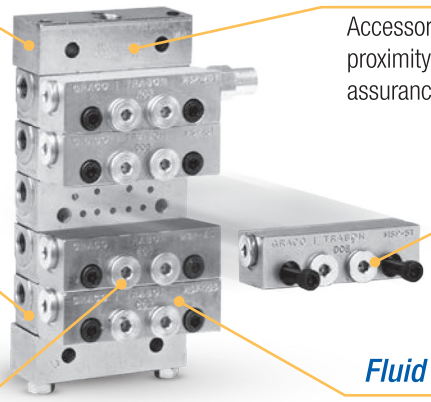
Pre-assembled and tested base plates now available! Make your parts list shorter and assembly quicker.

Built-In Outlet Check Valves

Ensure accurate lube delivery, every time.

Indicator Ports

Alternate outlets on face of each valve can be fitted with optional performance indicators, taking the guesswork out of troubleshooting.



Easily Accessorized

Accessories such as cycle indicating proximity switches provide positive assurance of a successful lube event.

Quick Change Valve Sections

Easily removed from the base assembly without disturbing any lube lines

Fluid Flexibility

Use the same MSP components for oil or grease applications, reducing the number of parts that need to be stocked.

Series Progressive

Typical Applications

- Mobile, industrial, food and beverage, wind, and many more

Typical Fluids

- Oil or Grease up to NLGI #2

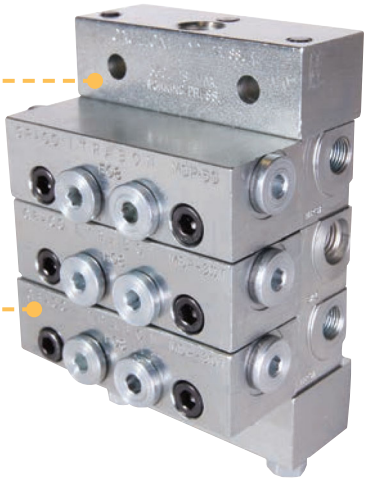
Technical Specifications

Material	Plated Steel
Maximum Pressure	3,500 psi (241 bar)
Max Operating Temperature	350ºF (176 ºC)
Max Cycle Rate with Cycle Pin	60 cycles/minute
Max Cycle Rate without Cycle Pin	200 cycles/minute
Instruction Manual	312497

Steps to Build Your MSP Divider Valve System:

A Select the Base Plate Assembly By the Number of Valve Sections Needed

B Select Valve Working Sections



Choose from Optional Accessories

- **C** Cross-port and Singling Bars
- **D** Performance Indicators
- **E** Cycle Indicators and Proximity Switches
- **F** Mounting Bars and Brackets
- **G** Modular Specialty Inlets

A Ordering Information

Factory-Tested MSP Base Plate Assemblies

How many valve sections are in the assembly? Count up the number of sections and order a base assembly that has the correct number of sections. Base plate assembly is delivered completely assembled and tested with inlet, intermediate base plate sections, end section, tie rods and nuts.

Item	Maximum Number of Outlets	Number of Valve Sections	Part Number	
			NPSF	BSPP
1/2/3/4/5	6	3	24G485	24N915
	8	4	24G486	24N916
	10	5	24G487	24N917
	12	6	24G488	24N918
	14	7	24G489	24N919
	16	8	24G490	24N920

A Ordering Information (continued)

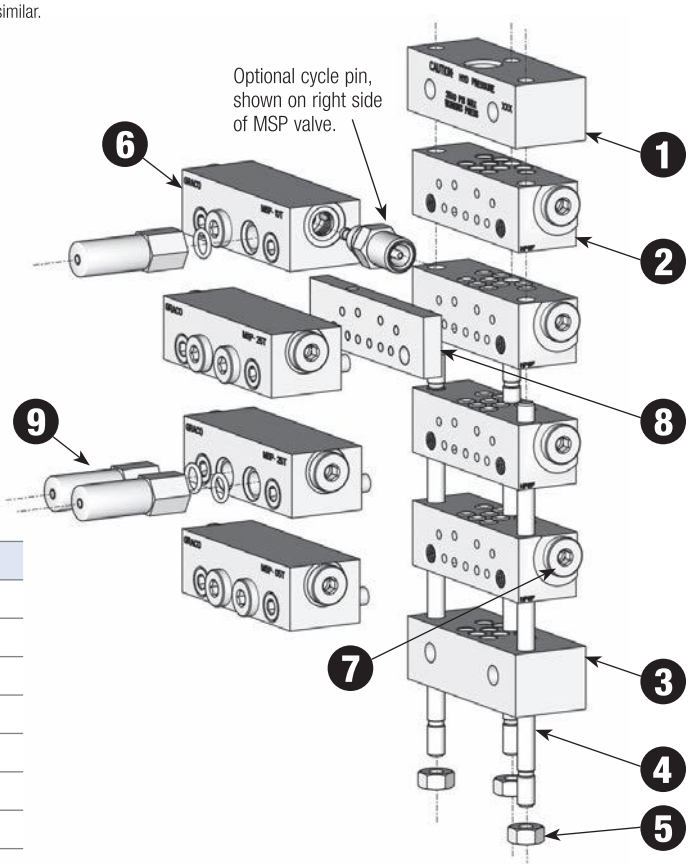
Build Your Own MSP Base Plate Assemblies

Item	Component	Description	Part Number			Note
			NPSF	BSPP	SAE-ORB	
1	Inlet section options See page 136 for Zero Leak and Shunt inlet section options	Standard "MS" inlet section	560919	560936	560943	Must be ordered in multiples of 5.
		"MH" inlet with bleed ports	563421	N/A	563422	
2	Intermediate base plate	Two outlet ports	563425	563447	563451	
3	End section options	Standard end	563424			
		With alternate inlet port*	563279			
4	Tie Rods (3 required)	3-section	557731			3 tie rods and tie rod nuts required for assembly.
		4-section	557732			
		5-section	557733			
		6-section	557734			
		7-section	557735			
		8-section	557736			
		9-section	557738			
		10-section	557739			
		11-section	557740			
5	Tie Rod Nuts (3 required)	Tie rod nuts	556371			

*Alternate inlet port requires Leak Proof Zerk fitting such as part number 555888, 556429 or similar.

Legend

1	Inlet Section
2	Intermediate Base Plate Section / Subplate
3	End Section
4	Tie Rod
5	Tie Rod Nut
6	MSP Valve Section
7	Outlet Port Plug
8	Cross-port or Singling Bar
9	Performance Indicator



MSP Section Spare Parts

Part Number	Description
122276*	Standard O-ring (90 DURO Fluoroelastomer), black
556540*	Alternate O-ring (70 DURO Buna-N), black
557721*	MSV O-ring (70 DURO Fluoroelastomer), brown
563929	Cycle Indicator Pin Repair Kit
556327	Outlet Check Ball
557508	Outlet Check Spring, NPSF and BSPP bases
556994	Outlet Check Spring, SAE-ORB bases

*Part numbers are for a single O-ring; each section requires nine O-rings.

B Ordering Information

MSP Valve Sections

Also called “Working” sections. Must be ordered in multiples of 5.

Outlet Configuration	Description	Output Per Outlet, in^3 (cm^3)	Part Number	
			Standard Section	With Cycle Pin
Single	MSP-5S*	0.010 (0.16)	562711	N/A
	MSP-10S*	0.020 (0.33)	562712	
	MSP-15S*	0.030 (0.49)	562713	
	MSP-20S*	0.040 (0.66)	562714	562729
	MSP-25S*	0.050 (0.82)	562715	562730
	MSP-30S*	0.060 (0.98)	562716	562731
	MSP-35S*	0.070 (1.15)	562717	562732
	MSP-40S*	0.080 (1.31)	562718	562733
Twin	MSP-5T	0.005 (0.08)	562720	N/A
	MSP-10T	0.010 (0.16)	562721	
	MSP-15T	0.015 (0.26)	562722	
	MSP-20T	0.020 (0.33)	562723	562739
	MSP-25T	0.025 (0.41)	562724	562740
	MSP-30T	0.030 (0.49)	562725	562741
	MSP-35T	0.035 (0.57)	562726	562742
	MSP-40T	0.040 (0.66)	562727	562743

*Each “S” section uses only one outlet, but each intermediate base has two outlets. For each “S” section in the assembly, order one Outlet Port Plug (below), to plug the unused outlet.

Outlet Port Plugs

Part Number			Note
NPSF	BSPP	SAE-ORB	
557349 (NPT)	558799 (with seal ring)	567251 (with O-ring)	1 outlet port plug is required for each “S” valve section.

Bypass Section

Part Number	Description
562660	MSP-BP Bypass Block takes the place of a valve, but has no output. Not a true working section. Requires two outlet port plugs for the unused outlets.

C Ordering Information

Cross-port and Singling Bars

Part Number	Component	Note
563469	Right Cross-port Bar	1 outlet port plug is required for each cross-port bar, to plug the unused outlet.
563470	Left Cross-port Bar	
563471	Right and Left Cross-port Bar	2 outlet port plugs are required for each double cross-port bar.
563472	Singling Bar	Converts a "T" valve to an "S" valve.

D Ordering Information

Performance Indicators

These vital safeguards react to excess lube pressure when points or lines become blocked. Installed in indicator ports on the working piston sections, they quickly identify the affected lines.

Reset Indicators with Memory

Features and Benefits

- Provides quick troubleshooting tool with visual indication
- No tools for reset or parts to replace after indication
- Easy information on blocked lines, high system pressure or blocked bearings
- 1/8 in NPSF thread with O-ring seal

	Part Number	Cracking Pressure
Image Coming Soon	563252	250 psi (17 bar)
	563253	500 psi (35 bar)
	563254	750 psi (52 bar)
	563255	1,000 psi (69 bar)
	563256	1,500 psi (103 bar)
	563257	2,000 psi (138 bar)
	563258	2,500 psi (172 bar)
	563261	3,000 psi (207 bar)
	563263	3,500 psi (241 bar)

Automatic Relief Indicators

Features and Benefits

These performance indicators pinpoint lube line blockages but allow the lube system to continue to supply lubrication to points that are not blocked.

- Allows machine to continue to run when non-critical bearings are blocked
- No time or effort required for reset after blockage is cleared
- Easy information on blocked lines, high system pressure or blocked bearings
- 1/8 in NPSF thread with O-ring seal

	Part Number	Cracking Pressure
	563170	750 psi (52 bar)
	563171	1,000 psi (69 bar)
	563172	1,250 psi (86 bar)
	563173	1,500 psi (103 bar)
	563174	2,000 psi (138 bar)
	563175	2,500 psi (172 bar)
	563176	3,000 psi (207 bar)

Performance Indicator Spare Parts

Part Number	Description
556569	Standard O-ring (90 DURO Fluoroelastomer), black
556567	Alternate O-ring (90 DURO Buna-N), black
16U217	Indicator Port Plug, with O-ring 556569

E Ordering Information

Cycle Indicators and Proximity Switches

A wide variety of safeguards to monitor and verify lube cycles. These mechanical and electrical units sense the divider valve piston's action for accurate control and monitoring of lube cycles.

	Part Number	Component	Description
	563251	Magnetic Visual Cycle Indicator	The highly visible cycle indicator has a snap-action movement which allows the user to visually determine the timing of each divider valve cycle.
	563272	SPDT Cycle Switch, provides electrical signal to controller or PLC	Used in conjunction with the cycle indicator pin at cycle rates not exceeding 60 cpm, it provides an electrical signal to the system controller which counts cycles to monitor and verify completion of the lube cycle.
	564357	Double Pole, Double Throw (DPDT) Cycle Switch and bracket assembly	
Image Coming Soon	563273	SPDT Cycle Switch, provides electrical signal to controller or PLC, moisture resistant	
	17L983	Solid State Proximity Switch (see page 161 for mating cables)	This rugged switch has no moving parts, making it ideal for applications such as metal stamping presses and yellow iron equipment. 10-32 VDC PNP switching, M12 electrical connector, 200 cpm, 7,500 PSI (518 bar) maximum pressure. 50,000,000 cycle life, IP65, IP68, IP69 rated.
Image Coming Soon	557741	Field-Sensitive Proximity Switch, 3-Pin BH, with O-ring	A ceramic-magnet switch for grease or oil systems up to 200 cpm at pressure up to 3,500 psi (241 bar), accurately signals piston cycles, and is ideal for high-cycle applications. Bradley-Harrison (BH) electrical connectors, 115 VAC. 7/16-20 thread with O-ring seal mates to MSP valves with date codes L94 and newer.
	557746	Field-Sensitive Proximity Switch, 5-Pin BH, with O-ring	

Proximity Switch Spare Parts

Part Number	Component
556570	Standard O-ring (90 DURO Fluoroelastomer), black
556568	Alternate O-ring (90 DURO Buna-N), black
567251	Enclosure Port Plug, with O-ring 556570

F Ordering Information

Mounting Bars

Part Number	Component	Description
560920	MSP/MHH Weld Bar	1/2 in (12.7 mm) thick steel bars are designed for welding to uneven metal surfaces. Mounting holes are threaded 1/4-20 to attach MSP or MHH valve assembly.
17J423	MSP/MHH Weld Stud Fixture	Attach studs to the jig before welding to ensure perfect alignment. For 3-valve to 8-valve assemblies
563465	Divider Valve Weld Bar Kit	Includes 2 mounting bars (560920), 4 screws, washers and lockwashers.

G Ordering Information

MSP Modular Specialty Inlets

Shunt Inlets

NEW – Graco has updated the Shunt Valve power connection to a DIN Connector. Previous versions used a 3-Pin Brad Harrison Connector. Adapter kit 25T585 (see below) is available to convert from 3-Pin BH to DIN.

Features and Benefits

- For use with oil and FLUID grease only – 3,500 psi maximum fluid pressure
- A three-way valve, incorporated into the MSP inlet section – can replace standard inlet or mount in-line with remote manifold kit.
- Options for 115 VAC, 24 VDC or pneumatic
- "Normal" state allows lubricant to enter divider valve
- Energized state sends fluid out the bypass port – to another divider valve, to a large bearing or back to tank.

	Power	Connection	Normal State	Shunt Inlet Part Number			Replacement Solenoids**
				Connection Thread			
				NPSF	BSPP	SAE-ORB	
Image Coming Soon	115 VAC	DIN	NO	25B534	–	25U054	20A339
	115 VAC	DIN	NC	25B535	–	25U053	
	24 VDC	DIN	NO	25B515	25U041	25U052	20A081
	24 VDC	DIN	NC	25B514	25U040	25U051	
	Pneumatic	1/8 NPSF*	NC*	563456	–	–	–

*Pneumatic Shunt 563456 ships in Normally Closed configuration, can be converted to Normally Open in the field. Air pressure range 40 to 150 psi, 1/8 in NPSF female air inlet port.
**Replacement Solenoids will NOT work in the old-style Shunt Inlets. If the coil or solenoid in an old style Inlet section has failed, replace the entire Inlet section.

Zero-Leak Shut-Off Inlets

NEW – Graco has updated the Zero-Leak Shut-Off Valve power connection to a DIN Connector. Previous versions used a 3-Pin Brad Harrison Connector. Adapter kit 25T585 (see below) is available to convert from 3-Pin BH to DIN.

Features and Benefits

- For use with oil only – 1,500 psi maximum oil pressure
- A two-way valve that can be used with either continuous or intermittent pressurized header systems.
- Replaces a standard inlet section or mounts in-line with a remote manifold kit.
- All models are Normally Closed

	Power	Connection	Normal State	Zero Leak Inlet Part Number			Replacement Solenoids**
				Connection Thread			
				NPSF	BSPP	SAE-ORB	
Image Coming Soon	115 VAC	DIN	NC	20A900	–	20A901	20A586
	24 VDC	DIN	NC	20A903	20A902	20A904	20A585
	Inlet restrictor with 90 micron last chance filter			563074	–	–	–

*Replacement Solenoids will NOT work in the old-style Zero-Leak Shut-Off Inlets. If the coil or solenoid in an old style Inlet section has failed, replace the entire Inlet section.

Other Components for Shunt and Zero-Leak Shut-Off Inlets

Connector and Cable Options

Part Number	Description
16U790	Power cable with DIN connector, 15 ft (4.5 m).
132924	Field-installable DIN connector, no wire provided.
25T585	Adapter Cable Kit, 3-Pin BH to DIN. To be used on retrofits. Some assembly required. Instruction Manual number 3A8068.

Remote Mount Manifold Kit

Part Number	Description
563461	Includes manifold with 1/4 NPSF outlet, O-ring 556540 and two mounting screws.

Setting the Industry Standard for Quality, Reliability and Ease-of-Use Features

More durability with the same high-quality performance and precision machining as the carbon steel version. The stainless steel MSP valves and accessories overcome harsh conditions, such as salty air or areas needing repetitive cleaning, with durable 303 materials and a design with proven success.

Baseplate Assemblies

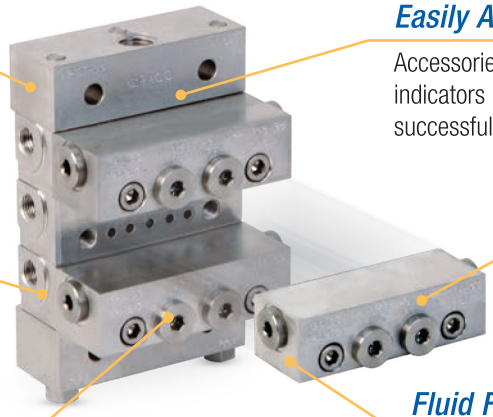
Pre-assembled and tested base plates now available! Make your parts list shorter and assembly quicker.

Built-In Outlet Check Valves

Ensure accurate lube delivery, every time.

Indicator Ports

Alternate outlets on face of each valve can be fitted with optional performance indicators, taking the guesswork out of troubleshooting.



Easily Accessorized

Accessories such as proximity switch cycle indicators provide positive assurance of a successful lube event.

Quick Change Valve Sections

Easily removed from the base assembly without disturbing any lube lines

Fluid Flexibility

Use the same MSP components for oil or grease applications, reducing the number of parts that need to be stocked.

Typical Applications

- Food and beverage, machine tools, textile, glass and can machinery, mobile equipment

Typical Fluids

- Oil or Grease up to NLGI #2

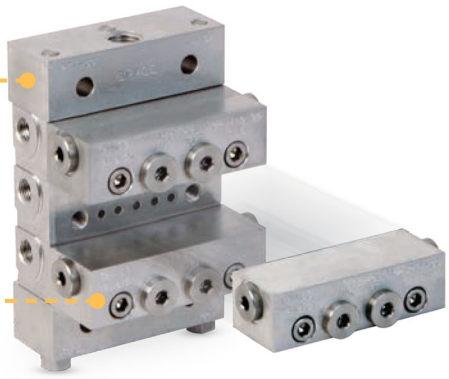
Technical Specifications

External Material	Stainless Steel
Internal Material	Carbon Steel
Maximum Pressure	3,500 psi (241 bar)
Max Operating Temperature	140ºF (60ºC)
Max Cycle Rate without Cycle Pin	200 cycles/minute
Instruction Manual	312497

Steps to Build Your MSP Stainless Steel Divider Valve System:

A Select the Base Plate Assembly By the Number of Valve Sections Needed

B Select Valve Working Sections



Choose from Optional Accessories

C Cross-port and Singling Bars

D Performance Indicators

E Cycle Indicators and Proximity Switches

A Ordering Information

Factory-Tested MSP Base Plate Assemblies

How many valve sections are in the assembly? Count up the number of sections and order a base assembly that has the correct number of sections. Base plate assembly is delivered completely assembled and tested with inlets, intermediate base plate sections, end section, tie rods and nuts.

Item	Maximum Number of Outlets	Number of Valve Sections	Part Number	
			NPSF	BSPP
1/2/3/4/5	6	3	24N382	24N388
	8	4	24N383	24N389
	10	5	24N384	24N390
	12	6	24N385	24N391
	14	7	24N386	24N392

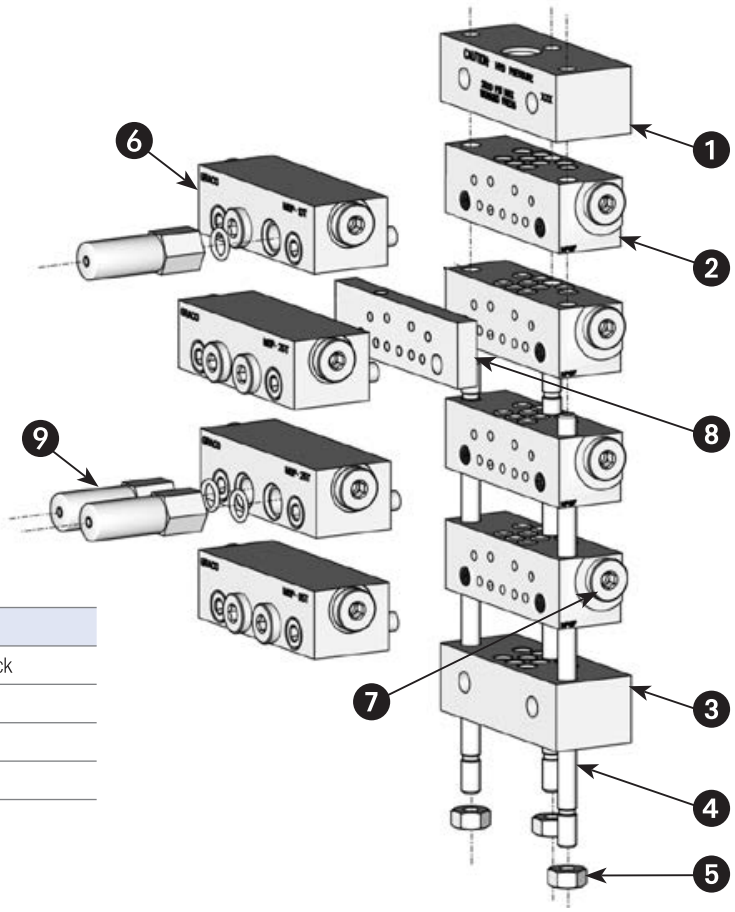
A Ordering Information (continued)

Build Your Own MSP Base Plate Assemblies

Item	Component	Description	Part Number		Note
			NPSF	BSPP	
1	303 stainless steel inlet section		15Y070	16P368	Must be ordered in multiples of 5
2	303 stainless steel intermediate base plate – with two outlet ports		24B497	24N369	
3	303 stainless steel end section		24B498		
4	416 stainless steel tie rods (3 required)	3-section	126247		3 tie rods and tie rod nuts required for assembly
		4-section	126248		
		5-section	126249		
		6-section	126250		
		7-section	126251		
5	Tie rod nuts (3 required)	Tie rod nuts	558633		

Legend

1	Inlet Section
2	Intermediate Base Section / Subplate
3	End Section
4	Tie Rod
5	Tie Rod Nut
6	MSP Valve Section
7	Outlet Port Plug
8	Cross-port or Singling Bar
9	Performance Indicator



MSP Section Spare Parts

Part Number	Description
122276*	Standard O-ring (90 DURO Fluoroelastomer), black
556540*	Alternate O-ring (70 DURO Buna-N), black
556327	Outlet Check Ball
557508	Outlet Check Spring

*Part numbers are for a single O-ring; each section requires nine O-rings.

B Ordering Information

MSP Valve Sections – 303 Stainless Steel

Also called "Working" sections. Must be ordered in multiples of 5.

Outlet Configuration	Description	Output Per Outlet, in^3 (cm^3)	Part Number
			Standard Section
Single	MSP-5S*	0.010 (0.16)	24B474
	MSP-10S*	0.020 (0.33)	562755
	MSP-15S*	0.030 (0.49)	24B475
	MSP-20S*	0.040 (0.66)	562756
	MSP-25S*	0.050 (0.82)	24B476
	MSP-30S*	0.060 (0.98)	24B477
	MSP-35S*	0.070 (1.15)	24B478
	MSP-40S*	0.080 (1.31)	562757
Twin	MSP-5T	0.005 (0.08)	24B479
	MSP-10T	0.010 (0.16)	562758
	MSP-15T	0.015 (0.26)	24B480
	MSP-20T	0.020 (0.33)	562759
	MSP-25T	0.025 (0.41)	24B481
	MSP-30T	0.030 (0.49)	24B482
	MSP-35T	0.035 (0.57)	24B483
	MSP-40T	0.040 (0.66)	562760

316 Stainless Steel Outlet Port Plugs

Part Number		Note
NPSF	BSPP	
555457 (NPT)	114172 (BSPT)	1 outlet port plug is required for each "S" valve section

C Ordering Information

Cross-port and Singling Bars – 303 Stainless Steel

Part Number	Component	Note
24R632	Right Cross-port Bar	1 outlet port plug is required for each cross-port bar
24R633	Left Cross-port Bar	
24R631	Right and Left Cross-port Bar	2 outlet port plugs are required for each double cross-port bar

D Ordering Information

Performance Indicators

These vital safeguards react to excess lube pressure when points or lines become blocked.
Installed in indicator ports on the working piston sections, they quickly identify the affected lines.

Reset Indicators with Memory

Features and Benefits

- Provides quick troubleshooting tool with visual indication
- No tools for reset or parts to replace after indication
- Easy information on blocked lines, high system pressure or blocked bearings
- 1/8 NPSF thread with O-ring seal
- 303 Stainless Steel

	Part Number	Cracking Pressure
Image Coming Soon	24B495	1,000 psi (69 bar)
	24B496	1,500 psi (103 bar)
	24N373	2,000 psi (138 bar)

Automatic Relief Indicators

Features and Benefits

These performance indicators pinpoint lube line blockages but allow the lube system to continue to supply lubrication to points that are not blocked.

- Allows machine to continue to run when non-critical bearings are blocked
- No time or effort required for reset after blockage is cleared
- Easy information on blocked lines, high system pressure or blocked bearings
- 1/8 NPSF thread with O-ring seal
- 303 Stainless Steel

	Part Number	Cracking Pressure
	24N945	1,000 psi (69 bar)
	24N948	1,500 psi (103 bar)
	24N949	2,000 psi (138 bar)
	24N951	2,500 psi (172 bar)
	24N952	3,000 psi (207 bar)

Performance Indicator Spare Parts

Part Number	Description
556569	Standard O-ring (90 DURO Fluoroelastomer), black
556567	Alternate O-ring (90 DURO Buna-N), black
19B227	Indicator Port Plug, 303 stainless steel with O-ring 556569

E Ordering Information

Cycle Indicators and Proximity Switches

A wide variety of safeguards to monitor and verify lube cycles. These mechanical and electrical units sense the divider valve piston's action for accurate control and monitoring of lube cycles.

Part Number	Component	Description
563251	Magnetic Visual Cycle Indicator	The highly visible cycle indicator has a snap-action movement which allows the user to visually determine the timing of each divider valve cycle.
17L983	Solid State Proximity Switch (see page 161 for mating cables)	This rugged switch has no moving parts, making it ideal for applications such as metal stamping presses and yellow iron equipment. 10-32 VDC PNP switching, M12 electrical connector, 200 cpm, 7,500 PSI (518 bar) maximum pressure. 50,000,000 cycle life, IP65, IP68, IP69 rated.
557741	Field-Sensitive Proximity Switch, 3-Pin BH, with O-ring	A ceramic-magnet switch for grease or oil systems up to 200 cpm at pressure up to 3,500 psi (241 bar), accurately signals piston cycles, and is ideal for high-cycle applications. Bradley-Harrison (BH) electrical connectors, 115 VAC.
557746	Field-Sensitive Proximity Switch, 5-Pin BH, with O-ring	

Proximity Switch Spare Parts

Part Number	Component
556570	Standard O-ring (90 DURO Fluoroelastomer), black
556568	Alternate O-ring (90 DURO Buna-N), black
19A574	Enclosure Port Plug, 303 stainless steel with O-ring 556570