



Performance Indicators

DESCRIPTION

Trabon Performance Indicators are pressure-sensitive devices that pinpoint excessive pressure in Trabon series progressive divider valve systems. These devices, which are installed in the indicator ports (alternate outlets) of divider valves, signal a fault either by causing an indicator pin to protrude or by releasing lubricant to the atmosphere.

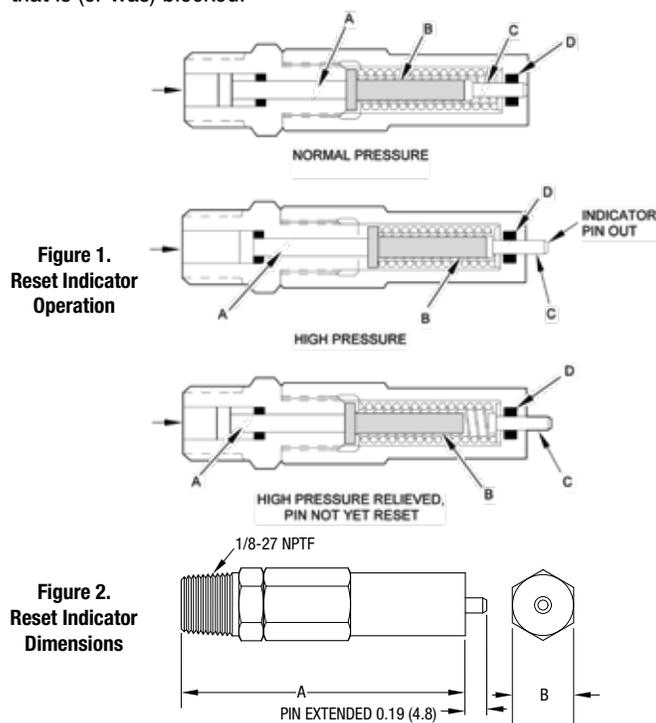
All Performance Indicators respond quickly to protect the lube system and locate lube line blockage. Two of these devices—the Reset Indicator with Memory and the Rupture Indicator—will stop lube system operation when a fault occurs. If, however, lube system operation must continue in spite of a single line being blocked, the Automatic Relief Indicator should be used. Rupture-to-Atmosphere Indicators for Trabon pumps are also included.

It is recommended that some type of Performance Indicator be used to monitor every working outlet of a Trabon Centralized Lubrication System.

Reset Indicator with Memory

Reset Indicators stop lube system operation when a fault occurs. These devices can be used in either master or secondary divider valves. When a lube line becomes blocked, the resultant high pressure moves pistons (A) and (B) (see Figure 1). This movement compresses the spring and pushes indicator pin (C) through the opening in the cap. The high pressure prevents the affected

divider valve piston from completing its cycle, causing a cycle fault. A pressure switch may also be installed upstream from the valve to indicate a fault. As high pressure is relieved, the spring expands, resetting the pistons. Indicator pin (C) is held in place by o-ring (D) until it is reset manually. This helps locate the lube line that is (or was) blocked.



Pressure (psi)	1/8 in NPTF MJ	1/8 in NPSF w/O-Ring for MHH, MSP, MXP		1/4 in NPTF MX only (not MXP)	7/8 in-14 SAE w/O-Ring MGO*
		Carbon Steel	303 Stainless Steel		
250	563231 (509-931-010)	563252 (509-932-590)	–	563239 (509-932-010)	– (509-932-018)
500	563232 (509-931-020)	563253 (509-932-600)	–	563240 (509-932-020)	– (509-932-028)
750	563233 (509-931-030)	563254 (509-932-610)	24B494 (509-932-770)	563241 (509-932-030)	– (509-932-038)
1,000	563234 (509-931-040)	563255 (509-932-620)	24B495 (509-932-780)	563242 (509-932-040)	– (509-932-048)
1,500	563235 (509-931-050)	563256 (509-932-630)	24B496 (509-932-790)	563243 (509-932-050)	564200 (509-932-058)*
2,000	563236 (509-931-060)	563257 (509-932-640)	24N373 (509-932-800)	563244 (509-932-060)	– (509-932-068)
2,500	563237 (509-931-070)	563258 (509-932-650)	–	563245 (509-932-070)	– (509-932-078)
3,000	–	563261 (509-932-831)	–	–	–
5,000	–	563262 (509-932-832)	–	–	–
Dimensions (See Figure 2)					
A	2.36 (59.9)	2.41 (61.1)	2.41 (61.1)	2.47 (62.7)	2.91 (73.8)
B	1/2 in (12.7)	1/2 in (12.7)	1/2 in (12.7)	9/16 in (14.3)	1 in (25.4)
O-Ring	No	Yes	Yes	No	Yes

*Note: MGO indicator 564200 consists of 563256 plus an adapter and an o-ring. Graco part numbers are shown along with old part numbers in parentheses.

Table 1. Reset Indicator with Memory Ordering Data/Dimensions

Automatic Relief Indicator

These Performance Indicators pinpoint lube line blockage while allowing the lube system to continue to supply lubrication to points that are not blocked. They are used primarily in secondary divider valves. The excessive pressure created by line blockage moves a piston, enabling the lubricant to escape through a vent (see Figure 3). When the pressure is relieved, the spring resets the piston. Because these devices permit the lube system to keep operating when a lube point is blocked, a separate pressure switch connected to an audible or visual alarm should be used to warn of high pressure.

Pressure (psi)	1/8 in NPTF MJ	1/8 in NPSF w/O-Ring MHH, MSP and MXP		1/4 in NPTF MX only (not MXP)
		Carbon Steel	303 SST	
750 ± 20%	563163 (508-310-075)	563170 (508-310-415)	24N945	563156 (508-210-075)
1,000 ± 20%	563164 (508-310-100)	563171 (508-310-425)	-	563157 (508-210-100)
1,250 ± 20%	563165 (508-310-125)	563172 (508-310-435)	-	-
1,500 ± 20%	563166 (508-310-150)	563173 (508-310-445)	24N948	563158 (508-210-150)
2,000 ± 20%	563167 (508-310-200)	563174 (508-310-455)	24N949	563159 (508-210-200)
2,500 ± 20%	563168 (508-310-250)	563175 (508-310-465)	24N951	563160 (508-210-250)
3,000 ± 24%	563169 (508-310-300)	563176 (508-310-475)	24N952	563161 (508-210-300)

Table 2. Automatic Relief Indicators

Automatic Relief Indicators were formerly identified by the color of the spring retainer in the end of the indicator. Pressure ratings are now stamped on the body of the indicator. Table 3 is shown for reference and to aid in the selection of replacement indicators.

Retainer Color	Pressure Rating
Blue	750
Green	1,000
Yellow	1,400
Red	1,800
Orange	2,200
Aluminum	2,500
Purple	Consult the Factory

Table 3. Reference Table

Note: If you are replacing indicators that have a pressure rating that is no longer available, it is recommended that you select available indicators with the next higher pressure rating.

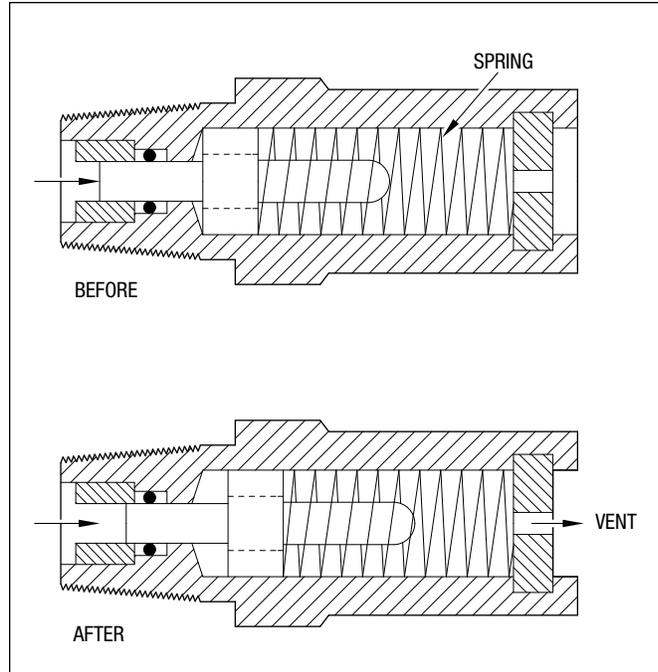


Figure 3. Automatic Relief Indicator Operation

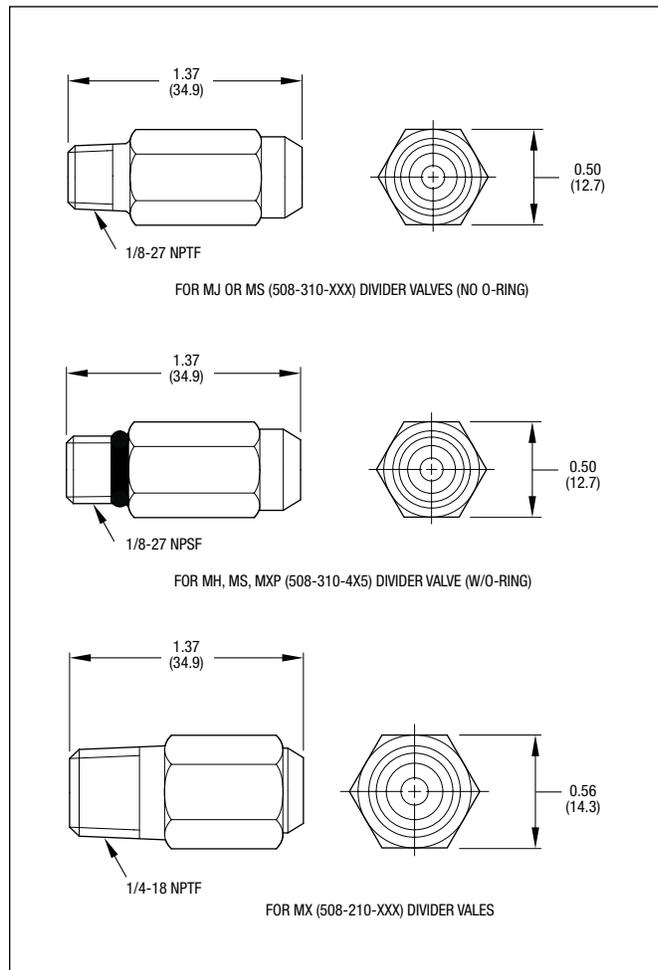


Figure 4. Automatic Relief Indicator Dimensions

Rupture Indicator

Rupture indicators are used on MH divider valve applications where lube system pressures exceed 2,500 psi. The high pressure from lube line blockage causes a disc to rupture. The lubricant then forces an indicator pin to protrude, locating the blockage (see Figure 5). The high pressure backs up through the system and trips a switch to shut the system off. When the fault is corrected, the disc must be replaced and the pin reset manually. See Table 4 for ordering data and Figure 6 for dimensions.

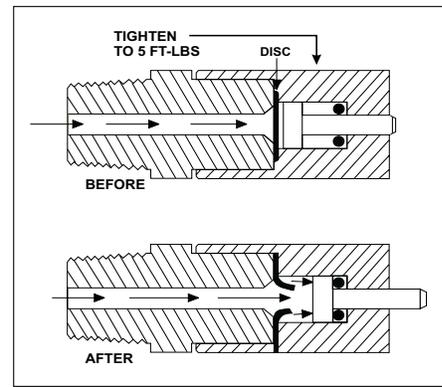


Figure 5. Rupture Indicator Operation

Pressure (psi)	1/8-27 NPTF	1/8-27 NPSF w/O-Ring	Replacement Disc (3/8 in Dia.)	Disc Color
2,800 ± 20%	563228 (509-499-620)	563229 (509-499-625)	557422 (509-277-000)	Green
3,700 ± 20%	563220 (509-499-100)	563221 (509-499-105)	557423 (509-278-000)	Yellow
4,600 ± 20%	564355 (509-499-120)	563222 (509-499-125)	557424 (509-279-000)	Red
5,500 ± 20%	563223 (509-499-140)	563224 (509-499-145)	557425 (509-280-000)	Orange
6,400 ± 20%	563225 (509-499-160)	563226 (509-499-165)	557427 (509-282-000)	Pink
7,300 ± 20%	563227 (509-499-200)	- (509-499-205)	557428 (509-283-000)	Blue
8,200 ± 20%	- (509-499-220)	-	557429 (509-284-000)	Purple

Table 4. Rupture Indicator Ordering Data

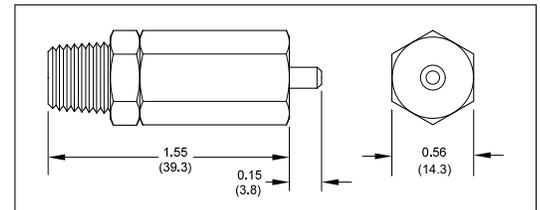


Figure 6. Rupture Indicator Dimensions

Rupture-to-Atmosphere Indicator

These indicators provide pump protection and give visual indication of excessive system pressure. The pressure disc ruptures at a predetermined pressure setting, venting lubricant to the atmosphere and relieving the high pressure (see Figure 7). See Table 5 for ordering data.

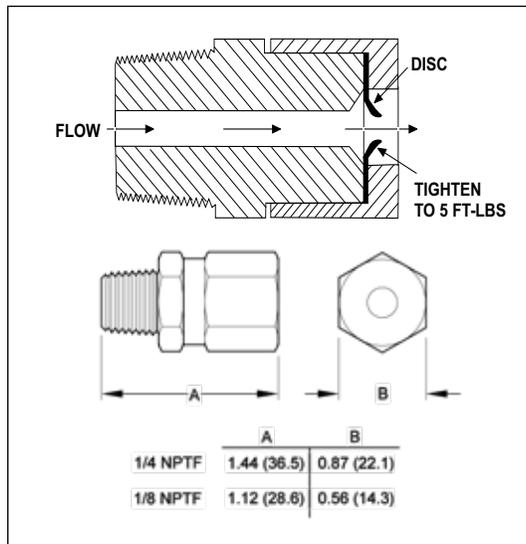


Figure 7. Rupture-to-Atmosphere Operation/Dimensions

Pressure (psi*)	Complete Assembly	Replacement Disc	Disc Color	Blowout Disc Packages
1/4 in NPTF Fittings		11/16 in Diameter		(QTY = 6)
900	Disc. (509-206-060)	557431 (509-290-000)	Black	Disc. (560-900-250)
1,450	563179 (509-206-100)	557433 (509-292-000)	Yellow	563962 (560-900-270)
1,750	563182 (509-206-120)	557434 (509-293-000)	Red	563963 (560-900-280)
2,050	563183 (509-206-140)	557435 (509-294-000)	Orange	563964 (560-900-290)
2,350	563184 (509-206-160)	557436 (509-295-000)	Aluminum	563965 (560-900-300)
2,650	- (509-206-180)	557437 (509-296-000)	Pink	Disc. (560-900-310)
2,950	563185 (509-206-200)	557438 (509-297-000)	Blue	563966 (560-900-320)
3,250	- (509-206-220)	557439 (509-298-000)	Purple	Disc. (560-900-330)
1/8 in NPTF Fittings		3/8 in Diameter		(QTY = 25)
900	- (509-230-060)	555788 (509-276-000)	Black	563952 (560-900-050)
1,450	24E614 (509-230-100)	557423 (509-278-000)	Yellow	563954 (560-900-070)
1,750	564059 (509-230-120)	557424 (509-279-000)	Red	563955 (560-900-080)
2,050	Disc. (509-230-140)	557425 (509-280-000)	Orange	563956 (560-900-090)
2,350	563191 (509-230-160)	557426 (509-281-000)	Aluminum	563957 (560-900-100)
2,650	Disc. (509-230-180)	557427 (509-282-000)	Pink	563958 (560-900-110)
2,950	563192 (509-230-200)	557428 (509-283-000)	Blue	563959 (560-900-120)
3,250	563193 (509-230-220)	557429 (509-284-000)	Purple	563960 (560-900-130)
5,000	563194 (509-230-350)	557430 (509-285-000)	Brown	563961 (560-900-140)
High Pressure 1/8 in NPTF Fittings		3/8 in Diameter		(QTY = 25)
3,700	564479 (509-494-100)	557423 (509-278-000)	Yellow	563954 (560-900-070)
4,600	563216 (509-494-120)	557424 (509-279-000)	Red	563955 (560-900-080)
5,500	563217 (509-494-140)	557425 (509-280-000)	Orange	563956 (560-900-090)
6,400	563218 (509-494-160)	557427 (509-282-000)	Pink	563958 (560-900-110)
7,300	563219 (509-494-200)	557428 (509-283-000)	Blue	563959 (560-900-120)
8,200	- (509-494-220)	557429 (509-284-000)	Purple	563960 (560-900-130)
9,500	- (509-230-500)	- (509-285-000)	Gray	-

*Disc up to 2,350 psi have a tolerance of ± 500 psi. Discs greater than 2,350 psi have a tolerance of ± 20%.

Table 5. Rupture-to-Atmosphere Ordering Data

Rupture-to-Atmosphere Indicator with Spud Assembly

A spud assembly with female thread (see Figure 8) is available to return vented lubricant to the reservoir by way of a tube. See Table 6 for ordering data. A high pressure switch and/or cycle switch is recommended to provide an audible or visual warning alarm that high system pressure has occurred.

Pressure (psi)*	Complete Assembly	Replacement Disc (1 1/16 in Diameter)	Disc Color
1450	563186 (509-220-101)	557433 (509-292-000)	Yellow
1750	563187 (509-220-121)	557434 (509-293-000)	Red
2350	563188 (509-220-161)	557436 (509-295-000)	Aluminum

*All pressures have a tolerance of ± 500

Table 6. Rupture-to-Atmosphere w/Spud Ordering Data

Rupture Discs (1 1/16" Diameter)

Replacement discs (see Table 5) are available individually (shipped loose) or in packaged quantity. They can be used in either type of Rupture-to-Atmosphere Indicator.

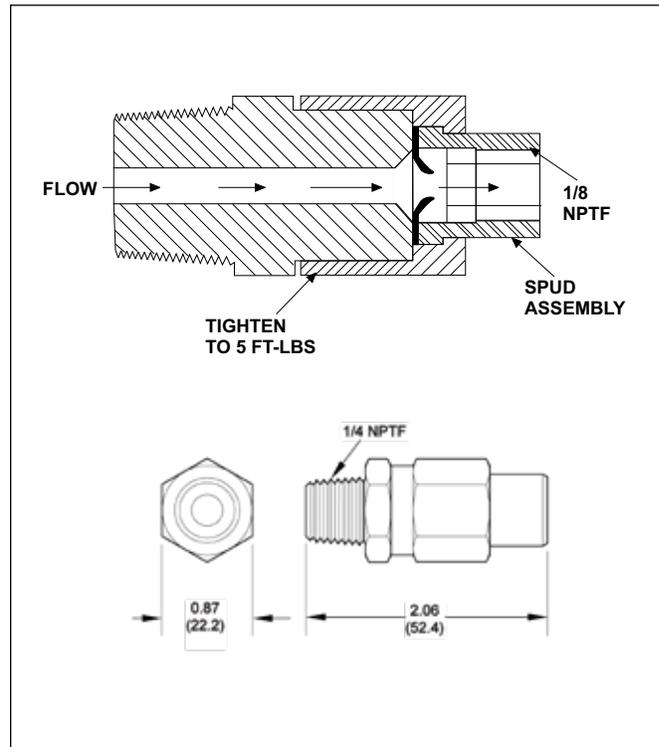


Figure 8. Rupture-to-Atmosphere w/Spud Assembly

Look to GRACO Inc. for all of your Centralized Lubrication System needs.

Products include:

DIVIDER VALVES: for oil and grease (to 7500 PSI) – 1 to 20 points from a single valve assembly, up to 400 points from a Master/Secondaries circuit or systems that handle an entire plant.

PUMPS: fixed and variable displacement – manual and air, hydraulic, electric motor or mechanically driven.

TIMERS/AUTOMATIC CONTROLS: from simple on/off to complete flow and pressure monitoring, either time- or machine-actuated.

ACCESSORY VALVES: balancing, check and flow.

INDICATORS: performance and broken line.

ACCESSORIES: fittings, brackets, clamps, filters and strainers.

Contact us today!

To receive product information or talk with a Graco representative, call 800-533-9655 or visit us online at www.graco.com.

©2018 Graco Inc. Form No. L15401 Rev. C 8/18 Printed in U.S.A. All other brand names or marks are used for identification purposes and are trademarks of their respective owners. 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.

