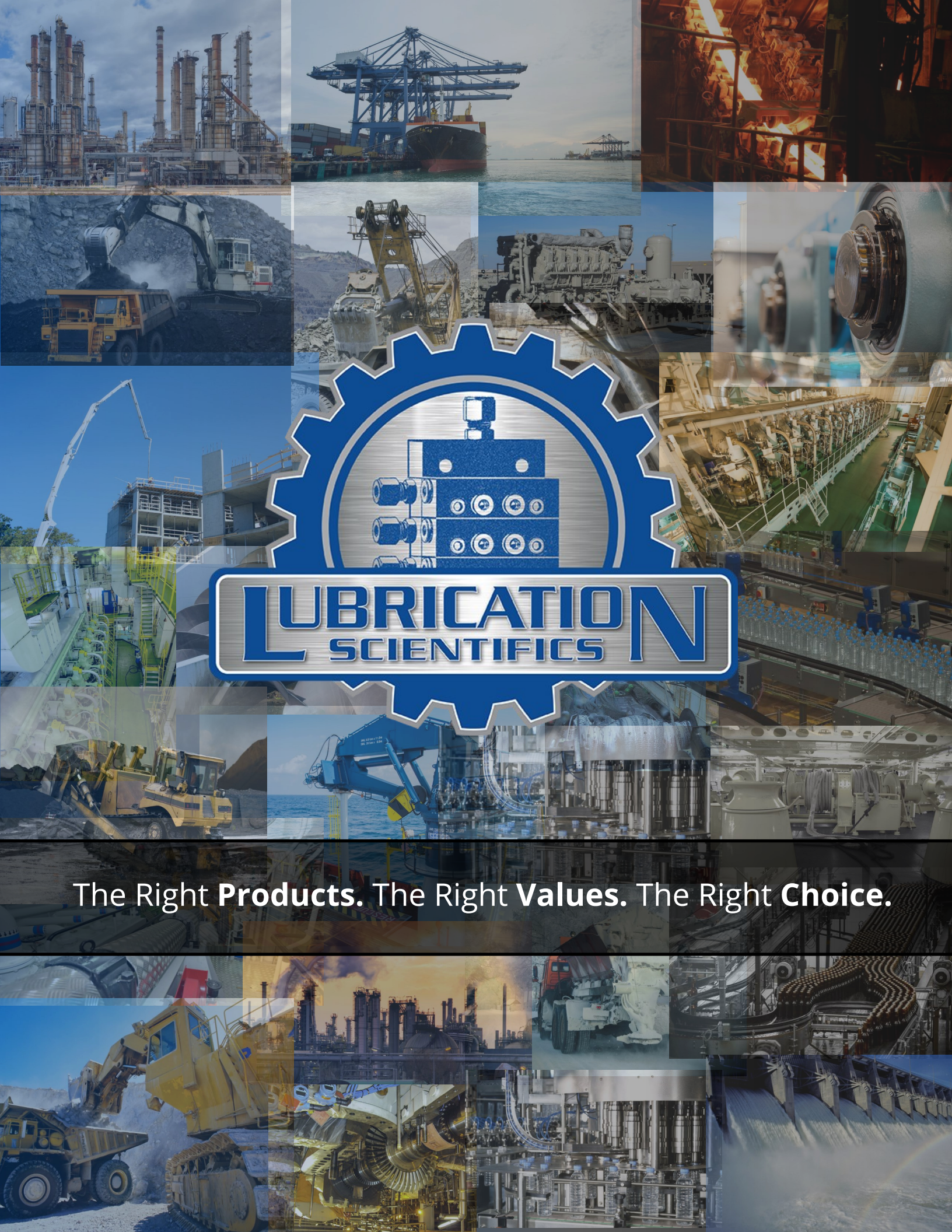


# LUBRICATION SCIENTIFICS, LLC - CENTRALIZED LUBRICATION SYSTEMS

PRODUCT CATEGORY	SPECIFIC PRODUCT	BULLETIN NUMBER
<b>ALL PRODUCTS</b>	ALL PRODUCTS OVERVIEW	LSM000
<b>SERIES PROGRESSIVE</b>		
	LCIV	LSM027
	LSP	LSM013
	LHP	LSM014
	LMX	LSM015
	LMXP	LSM016
	ORFL	LSM022
	LGO	LSM024
	LD SERIES	LSM041
<b>INJECTORS</b>	INJECTORS	LSM012
<b>DUAL SERIES</b>	DUAL LINE	LSM020
<b>PUMPS</b>		
	BOX PUMPS	LSM021
	LMPP	LSM017
	LPE	LSM018
	MANUAL PUMPS MAG	LSM034
	RAM PUMPS	LSM033
	LMAG	LSM038
	SINGLE LJP PUMP	LSM040
	LCPR PUMP PACKAGES	LSM037
<b>FILTRATION</b>		
	AIR TRAP	LSM023
	CANISTER FILTER	LSM007
	DIRT TRAP	LSM001
	SPIN ON FILTER	LSM026
<b>CONTROLLERS &amp; MONITORS</b>		
	COMPRESSOR MONITOR	LSM004
	SYSTEM CONTROLLER	LSM005
<b>ACCESSORIES</b>		
	ANCHOR BLOCKS	LSM008
	BALANCING VALVES	LSM006
	CHECK VALVES	LSM011
	RESET INDICATORS AND BLOWOUT FITTINGS	LSM002
	PRESSURE GAUGE	LSM028
	SWIVELS	LSM009
	PROXIMITY SWITCHES	LSM003
	LPRVM PRESSURE RELIEF VALVE	LSM031

ACCESSORIES (CONTINUED)

HOSES, FITTINGS AND ACCESSORIES FOR CENTRALIZED LUBRICATION SYSTEMS	LSM032
PURGE GUN/GREASE GUN	LSM035
SPRAY VALVE	LSM039
CASE® OFF ROAD KIT	LSM036
CAT® OFF ROAD KIT	LSM036
DEERE-HITACHI® OFF ROAD KIT	LSM036
KOBELCO® OFF ROAD KIT	LSM036
KOMATSU® OFF ROAD KIT	LSM036



The Right **Products**. The Right **Values**. The Right **Choice**.

## About Us

Lubrication Scientifics has invested in the improvement of automated lubrication equipment, developing innovative products that provide superior solutions for a variety of plant and mobile applications. With field representatives that have over 100 years of combined experience in automatic lubrication, our partnerships with various industries have led to superior *cost effective methods* that improve asset life and productivity with *measurable* returns on investment.



### THE RIGHT PRODUCTS

Various system designs, including single line parallel, dual line, series progressive, and hybrid systems, are offered to provide the best technical solution for your application. Lubrication Scientifics offers metering devices in plated carbon steel, and 303 or 316 stainless construction to perform under the most demanding environmental conditions. Our world class Irvine, CA manufacturing facility is ISO 9001:2008 ® certified producing high quality products with “off the shelf” delivery. We can assist you with selecting from a simple manual system to fully automated designs with condition monitoring.

Recognizing the needs of our customers we constantly strive to provide the latest, state-of-the-art features in our products. Our presence in the food and beverage, mining, construction, gas transmission, refining and heavy metals industries allow us to lead with new and innovative ideas. Product and application specialists with a passion for excellence are available to support your efforts and provide comprehensive solutions for lubrication issues.

### THE RIGHT VALUES

### THE RIGHT CHOICE

Choose Lubrication Scientifics products to improve asset life, increase reliability, improve uptime, save energy and lubricate 24/7 without shutdown. Start today to protect your investments and automate your maintenance operations by contacting Lubrication Scientifics for a meeting with one of our experienced design specialists.

MADE IN THE U.S.A.



# SERIES PROGRESSIVE

## BENEFITS & FEATURES

Carbon steel, 303 stainless steel, and 316 stainless steel valve construction.

Large footprint, high output, series progressive divider valve for heavy industry applications

Available in high output / standard pressure oil and grease applications

Designed with feedback for monitoring system performance

From 1-20 lube points per valve assembly delivers frequent and measured amounts of grease to each lubrication point



LMX SERIES BULLETIN No. - LSM015



LSP SERIES BULLETIN No. - LSM013



LGO SERIES BULLETIN No. - LSM024



LMXP SERIES BULLETIN No. - LSM016

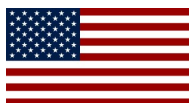


ORFL SERIES BULLETIN No. - LSM022



LHP SERIES BULLETIN No. - LSM014

MADE IN THE U.S.A.



# INJECTORS

## BENEFITS & FEATURES

Improved seal design and internal flow

Capable of pumping long distances and within a wide range of templates and the system remains operational if one point becomes blocked

Injectors can be stand alone or assembled in multiple injector manifolds in carbon steel, 303 stainless steel, and 316 stainless steel construction

Designed for use in food/beverage processing, packaging, pulp & paper mills, mining, steel, power generation, automotive, and many other industries with lubrication applications from oil to #2 grease.

External adjustable outputs from .001-.50 CU-IN with pressure ratings up to 6000 PSI



SINGLE LINE PARALLEL INJECTORS BULLETIN No. - LSM012

MADE IN THE U.S.A.



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

# DUAL LINE SERIES

## BENEFITS & FEATURES

The dual line series are designed for large machines/equipment with many lubrication points with long lines over great distances and are perfect for harsh environments

Specifically designed for heavy industry applications including: metal working plants, pulp and paper, mining, mineral processing, cement factories, power plants, deck cranes, and many more

Flexibility in adjusting metered quantity and parallel metering device setup guarantees simple system design and ease of use



MADE IN THE U.S.A.



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# PUMPS

## BENEFITS & FEATURES

LPE Series Electric motorized pumps available in 12 & 24 volt models

Box Pumps are designed with pump hardware & components that are perfect for high pressure applications and are sturdy and durable

LMPP Pump Packages available with low level & high pressure switch options

Interfaces with PLC or lube system controller

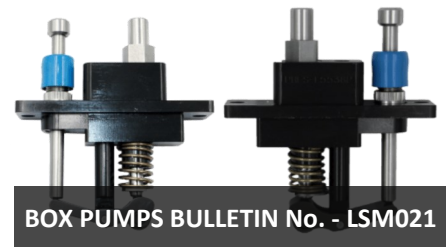
Electric Barrel Pump packages have a max pressure up to 7500 PSI



ELECTRIC BARREL PUMPS BULLETIN No. - LSM010



LPE ELECTRIC PUMP PACKAGE BULLETIN No. - LSM018



BOX PUMPS BULLETIN No. - LSM021



PNEUMATIC BARREL PUMPS BULLETIN No. - LSM033



ECONOMY PUMPS BULLETIN No. - LSM017

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# ACCESSORIES



CANISTER FILTERS BULLETIN No. - LSM007



DIRT TRAP FILTERS BULLETIN No. - LSM001



COMPRESSOR MONITORS BULLETIN No.- LSM004



AIR TRAPS BULLETIN No.—LSM023



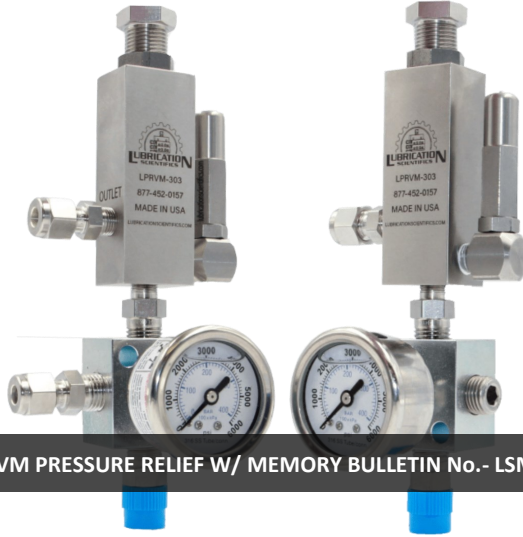
CHECK VALVES BULLETIN No. - LSM029



CONTROLLERS BULLETIN No. - LSM005



BALANCING VALVES BULLETIN No. - LSM006



LPRVM PRESSURE RELIEF W/ MEMORY BULLETIN No.- LSM031



INLINE FILTERS BULLETIN No. - LSM025



PERFORMANCE INDICATORS BULLETIN No.- LSM002



ANCHOR BLOCKS BULLETIN No. - LSM008

Please visit: <https://www.lubricationscientifics.com/products/accessories> for a complete list of all accessories.

MADE IN THE U.S.A.



WWW.LUBRICATIONSCIENTIFICS.COM

# **LUBRICATION SCIENTIFICS, LLC**

**THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.**



**LCIV CHEMICAL INJECTION DIVIDER VALVES**

**VALVE COMPONENTS—ACCESSORIES**



## CHEMICAL INJECTION DIVIDER VALVES

### PRODUCT DESCRIPTION

SPECIFICALLY DESIGNED VALVES FOR CHEMICAL INJECTION APPLICATIONS

ALL PRODUCTS THAT UTILIZE O-RING SEALS ARE OFFERED IN FLUOROSILICONE, AFLAS, & TEFLON MATERIALS

AVAILABLE IN CRS, 303, & 316 STAINLESS STEEL

PISTONS ARE MADE OUT OF A SELF-LUBRICATING PEEK PISTON

SYSTEM MONITORING AVAILABLE

SMALL AND LARGE FOOT PRINT VALVES AVAILABLE

PRODUCTS ARE SPECIFICALLY DESIGNED TO WITHSTAND THE HARSHNESS OF CHEMICAL APPLICATIONS

### BENEFITS & FEATURES

CHEMICAL RESISTANT VALVES USE SELF-LUBRICATING PEEK PISTONS

SUPPLIED WITH YOUR CHOICE OF FLUOROSILICONE, AFLAS, OR TEFLON O-RINGS DEPENDING ON CHEMICAL APPLICATION

AVAILABLE IN O-RING, NPTF, OR SAE (DEPENDENT ON CHEMICAL APPLICATION)

CARBON STEEL, 303, & 316 STAINLESS STEEL VALVES AVAILABLE

AVAILABLE IN SMALL & LARGE OUTPUT VOLUMES

SMALL VOLUME SYSTEMS AVAILABLE IN STANDARD & HIGH SYSTEM PRESSURES

THE ONLY PEEK PISTON VALVES THAT CAN BE MONITORED WITH OUR FIELD SENSITIVE PROXIMITY SWITCHES

## READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

**LOW TO MEDIUM VOLUME SYSTEMS**

VALVES AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LSP/LHP VALVES WITH PEEK PISTONS</b>	<b>VALVE WITH FLUOROSILICONE O-RINGS</b>	<b>VALVE WITH AFLAS O-RINGS</b>	<b>VALVE WITH TEFLON O-RINGS</b>
<b>VALVE, PLATED CRS, W/SS CAPS &amp; MTG BOLTS</b>	<b>CRS W/FL</b>	<b>CRS W/AF</b>	<b>CRS W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020S-PPS-000-FL	LCIV-020S-PPS-000-AF	LCIV-020S-PPS-000-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020T-PPS-000-FL	LCIV-020T-PPS-000-AF	LCIV-020T-PPS-000-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040S-PPS-000-FL	LCIV-040S-PPS-000-AF	LCIV-040S-PPS-000-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040T-PPS-000-FL	LCIV-040T-PPS-000-AF	LCIV-040T-PPS-000-TE
<b>VALVE, PLATED CRS, W/SS CAPS &amp; MTG BOLTS</b>	<b>CRS W/FL</b>	<b>CRS W/AF</b>	<b>CRS W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020S-PPH-000-FL	LCIV-020S-PPH-000-AF	LCIV-020S-PPH-000-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020T-PPH-000-FL	LCIV-020T-PPH-000-AF	LCIV-020T-PPH-000-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040S-PPH-000-FL	LCIV-040S-PPH-000-AF	LCIV-040S-PPH-000-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040T-PPH-000-FL	LCIV-040T-PPH-000-AF	LCIV-040T-PPH-000-TE
<b>VALVE, 303 STAINLESS, W/SS 303 CAPS &amp; MTG BOLTS</b>	<b>SS303 W/FL</b>	<b>SS303 W/AF</b>	<b>SS303 W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020S-PPS-303-FL	LCIV-020S-PPS-303-AF	LCIV-020S-PPS-303-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020T-PPS-303-FL	LCIV-020T-PPS-303-AF	LCIV-020T-PPS-303-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040S-PPS-303-FL	LCIV-040S-PPS-303-AF	LCIV-040S-PPS-303-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040T-PPS-303-FL	LCIV-040T-PPS-303-AF	LCIV-040T-PPS-303-TE
<b>VALVE, 303 STAINLESS, W/SS 303 CAPS &amp; MTG BOLTS</b>	<b>SS303 W/FL</b>	<b>SS303 W/AF</b>	<b>SS303 W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020S-PPH-303-FL	LCIV-020S-PPH-303-AF	LCIV-020S-PPH-303-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020T-PPH-303-FL	LCIV-020T-PPH-303-AF	LCIV-020T-PPH-303-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040S-PPH-303-FL	LCIV-040S-PPH-303-AF	LCIV-040S-PPH-303-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040T-PPH-303-FL	LCIV-040T-PPH-303-AF	LCIV-040T-PPH-303-TE
<b>VALVE, 316 STAINLESS, W/SS316 CAPS &amp; MTG BOLTS</b>	<b>SS316 W/FL</b>	<b>SS316 W/AF</b>	<b>SS316 W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020S-PPS-316-FL	LCIV-020S-PPS-316-AF	LCIV-020S-PPS-316-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-020T-PPS-316-FL	LCIV-020T-PPS-316-AF	LCIV-020T-PPS-316-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040S-PPS-316-FL	LCIV-040S-PPS-316-AF	LCIV-040S-PPS-316-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-040T-PPS-316-FL	LCIV-040T-PPS-316-AF	LCIV-040T-PPS-316-TE
<b>VALVE, 316 STAINLESS, W/SS 316 CAPS &amp; MTG BOLTS</b>	<b>SS316 W/FL</b>	<b>SS316 W/AF</b>	<b>SS316 W/TE</b>
SIZE 20, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020S-PPH-316-FL	LCIV-020S-PPH-316-AF	LCIV-020S-PPH-316-TE
SIZE 20, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-020T-PPH-316-FL	LCIV-020T-PPH-316-AF	LCIV-020T-PPH-316-TE
SIZE 40, SINGLE OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040S-PPH-316-FL	LCIV-040S-PPH-316-AF	LCIV-040S-PPH-316-TE
SIZE 40, TWIN OUTPUT, W/ PEEK PISTON, HIGH PRESSURE	LCIV-040T-PPH-316-FL	LCIV-040T-PPH-316-AF	LCIV-040T-PPH-316-TE

## BYPASS VALVES

BYPASS VALVES ARE PERFECT FOR LEAVING SPACE IN THE VALVE ASSEMBLY FOR ADDITIONAL VALVES & OUTPUTS TO BE ADDED LATER IN TIME.

BYPASS VALVES ALLOW FUTURE VALVE/OUTPUT ADDITIONS.

### LOW TO MEDIUM VOLUME SYSTEMS

BYPASS VALVES AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

CHEMICAL INJECTION SYSTEMS LSP/LHP BYPASS VALVE SECTIONS	VALVE WITH FLUOROSILICONE O-RINGS	VALVE WITH AFLAS O-RINGS	VALVE WITH TEFLON O-RINGS
<b>BYPASS VALVE, PLATED CRS, W/SS CAPS &amp; MTG BOLTS</b>	<b>CRS W/FL</b>	<b>CRS W/AF</b>	<b>CRS W/TE</b>
BYPASS VALVE PLATED CRS	LCIV-BYPASS-000-FL	LCIV-BYPASS-000-AF	LCIV-BYPASS-000-TE
<b>BYPASS VALVE, 303 SS, W/ 303 SS CAPS &amp; MTG BOLTS</b>	<b>303 W/FL</b>	<b>303 W/AF</b>	<b>303 W/TE</b>
BYPASS VALVE 303 STAINLESS STEEL	LCIV-BYPASS-303-FL	LCIV-BYPASS-303-AF	LCIV-BYPASS-303-TE
<b>BYPASS VALVE, 316 SS, W/ 316 SS CAPS &amp; MTG BOLTS</b>	<b>316 W/FL</b>	<b>316 W/AF</b>	<b>316 W/TE</b>
BYPASS VALVE 316 STAINLESS STEEL	LCIV-BYPASS-316-FL	LCIV-BYPASS-316-AF	LCIV-BYPASS-316-TE

### HIGH VOLUME SYSTEMS

BYPASS VALVES AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

CHEMICAL INJECTION SYSTEMS LMXP BYPASS VALVE SECTIONS	VALVE WITH FLUOROSILICONE O-RINGS	VALVE WITH AFLAS O-RINGS	VALVE WITH TEFLON O-RINGS
<b>BYPASS VALVE, PLATED CRS, W/SS CAPS &amp; MTG BOLTS</b>	<b>CRS W/FL</b>	<b>CRS W/AF</b>	<b>CRS W/TE</b>
BYPASS VALVE PLATED CRS	XLCIV-BYPASS-000-FL	XLCIV-BYPASS-000-AF	XLCIV-BYPASS-000-TE
<b>BYPASS VALVE, 303 SS, W/ 303 SS CAPS &amp; MTG BOLTS</b>	<b>303 W/FL</b>	<b>303 W/AF</b>	<b>303 W/TE</b>
BYPASS VALVE 303 STAINLESS STEEL	XLCIV-BYPASS-303-FL	XLCIV-BYPASS-303-AF	XLCIV-BYPASS-303-TE
<b>BYPASS VALVE, 316 SS, W/ 316 SS CAPS &amp; MTG BOLTS</b>	<b>316 W/FL</b>	<b>316 W/AF</b>	<b>316 W/TE</b>
BYPASS VALVE 316 STAINLESS STEEL	XLCIV-BYPASS-316-FL	XLCIV-BYPASS-316-AF	XLCIV-BYPASS-316-TE

**LOW TO MEDIUM VOLUME SYSTEMS**

**PLATED CARBON STEEL  
BASEPLATE ASSEMBLIES**

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LSP/LHP BASEPLATE ASSEMBLIES PLATED CRS W/ SS TIE RODS  NO INTERNAL CHECK VALVES, USE EXTERNAL CHECK VALVES ONLY.</b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>1/4-18 NPSF INLET - 1/8-27 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-03-NPSF-000-FL	BPA-03-NPSF-000-AF	BPA-03-NPSF-000-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-04-NPSF-000-FL	BPA-04-NPSF-000-AF	BPA-04-NPSF-000-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-05-NPSF-000-FL	BPA-05-NPSF-000-AF	BPA-05-NPSF-000-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-06-NPSF-000-FL	BPA-06-NPSF-000-AF	BPA-06-NPSF-000-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-07-NPSF-000-FL	BPA-07-NPSF-000-AF	BPA-07-NPSF-000-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-08-NPSF-000-FL	BPA-08-NPSF-000-AF	BPA-08-NPSF-000-TE
<b>1/4-18 NPSF INLET - 1/8-27 O RING OUTLETS</b>	<b>ORS</b>	<b>ORS</b>	<b>ORS</b>
3 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-03-ORS-000-FL	BPA-03-ORS-000-AF	BPA-03-ORS-000-TE
4 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-04-ORS-000-FL	BPA-04-ORS-000-AF	BPA-04-ORS-000-TE
5 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-05-ORS-000-FL	BPA-05-ORS-000-AF	BPA-05-ORS-000-TE
6 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-06-ORS-000-FL	BPA-06-ORS-000-AF	BPA-06-ORS-000-TE
7 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-07-ORS-000-FL	BPA-07-ORS-000-AF	BPA-07-ORS-000-TE
8 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-08-ORS-000-FL	BPA-08-ORS-000-AF	BPA-08-ORS-000-TE
<b>7/16-20 SAE INLET - 7/16-20 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-03-SAE-000-FL	BPA-03-SAE-000-AF	BPA-03-SAE-000-TE
4 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-04-SAE-000-FL	BPA-04-SAE-000-AF	BPA-04-SAE-000-TE
5 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-05-SAE-000-FL	BPA-05-SAE-000-AF	BPA-05-SAE-000-TE
6 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-06-SAE-000-FL	BPA-06-SAE-000-AF	BPA-06-SAE-000-TE
7 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-07-SAE-000-FL	BPA-07-SAE-000-AF	BPA-07-SAE-000-TE
8 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-08-SAE-000-FL	BPA-08-SAE-000-AF	BPA-08-SAE-000-TE

**LOW TO MEDIUM VOLUME SYSTEMS**

**303 STAINLESS STEEL  
BASEPLATE ASSEMBLIES**

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LSP/LHP BASEPLATE ASSEMBLIES 303 STAINLESS STEEL W/ 303SS TIE RODS  <u>NO INTERNAL CHECK VALVES, USE EXTERNAL CHECK VALVES ONLY.</u></b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>1/4-18 NPSF INLET - 1/8-27 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-03-NPSF-303-FL	BPA-03-NPSF-303-AF	BPA-03-NPSF-303-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-04-NPSF-303-FL	BPA-04-NPSF-303-AF	BPA-04-NPSF-303-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-05-NPSF-303-FL	BPA-05-NPSF-303-AF	BPA-05-NPSF-303-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-06-NPSF-303-FL	BPA-06-NPSF-303-AF	BPA-06-NPSF-303-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-07-NPSF-303-FL	BPA-07-NPSF-303-AF	BPA-07-NPSF-303-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-08-NPSF-303-FL	BPA-08-NPSF-303-AF	BPA-08-NPSF-303-TE
<b>1/4-18 NPSF INLET - 1/8-27 O RING OUTLETS</b>	<b>ORS</b>	<b>ORS</b>	<b>ORS</b>
3 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-03-ORS-303-FL	BPA-03-ORS-303-AF	BPA-03-ORS-303-TE
4 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-04-ORS-303-FL	BPA-04-ORS-303-AF	BPA-04-ORS-303-TE
5 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-05-ORS-303-FL	BPA-05-ORS-303-AF	BPA-05-ORS-303-TE
6 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-06-ORS-303-FL	BPA-06-ORS-303-AF	BPA-06-ORS-303-TE
7 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-07-ORS-303-FL	BPA-07-ORS-303-AF	BPA-07-ORS-303-TE
8 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-08-ORS-303-FL	BPA-08-ORS-303-AF	BPA-08-ORS-303-TE
<b>7/16-20 SAE INLET - 7/16-20 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-03-SAE-303-FL	BPA-03-SAE-303-AF	BPA-03-SAE-303-TE
4 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-04-SAE-303-FL	BPA-04-SAE-303-AF	BPA-04-SAE-303-TE
5 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-05-SAE-303-FL	BPA-05-SAE-303-AF	BPA-05-SAE-303-TE
6 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-06-SAE-303-FL	BPA-06-SAE-303-AF	BPA-06-SAE-303-TE
7 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-07-SAE-303-FL	BPA-07-SAE-303-AF	BPA-07-SAE-303-TE
8 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-08-SAE-303-FL	BPA-08-SAE-303-AF	BPA-08-SAE-303-TE

**LOW TO MEDIUM VOLUME SYSTEMS**

**316 STAINLESS STEEL  
BASEPLATE ASSEMBLIES**

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LSP/LHP BASEPLATE ASSEMBLIES 316 STAINLESS STEEL W/ 316SS TIE RODS  <u>NO INTERNAL CHECK VALVES, USE EXTERNAL CHECK VALVES ONLY.</u></b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>1/4-18 NPSF INLET - 1/8-27 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-03-NPSF-316-FL	BPA-03-NPSF-316-AF	BPA-03-NPSF-316-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-04-NPSF-316-FL	BPA-04-NPSF-316-AF	BPA-04-NPSF-316-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-05-NPSF-316-FL	BPA-05-NPSF-316-AF	BPA-05-NPSF-316-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-06-NPSF-316-FL	BPA-06-NPSF-316-AF	BPA-06-NPSF-316-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-07-NPSF-316-FL	BPA-07-NPSF-316-AF	BPA-07-NPSF-316-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	BPA-08-NPSF-316-FL	BPA-08-NPSF-316-AF	BPA-08-NPSF-316-TE
<b>1/4-18 NPSF INLET - 1/8-27 O RING OUTLETS</b>	<b>ORS</b>	<b>ORS</b>	<b>ORS</b>
3 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-03-ORS-316-FL	BPA-03-ORS-316-AF	BPA-03-ORS-316-TE
4 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-04-ORS-316-FL	BPA-04-ORS-316-AF	BPA-04-ORS-316-TE
5 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-05-ORS-316-FL	BPA-05-ORS-316-AF	BPA-05-ORS-316-TE
6 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-06-ORS-316-FL	BPA-06-ORS-316-AF	BPA-06-ORS-316-TE
7 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-07-ORS-316-FL	BPA-07-ORS-316-AF	BPA-07-ORS-316-TE
8 Section Assy, NPSF Inlet, 1/8 ORS Outlets, Std Mtg	BPA-08-ORS-316-FL	BPA-08-ORS-316-AF	BPA-08-ORS-316-TE
<b>7/16-20 SAE INLET - 7/16-20 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-03-SAE-316-FL	BPA-03-SAE-316-AF	BPA-03-SAE-316-TE
4 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-04-SAE-316-FL	BPA-04-SAE-316-AF	BPA-04-SAE-316-TE
5 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-05-SAE-316-FL	BPA-05-SAE-316-AF	BPA-05-SAE-316-TE
6 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-06-SAE-316-FL	BPA-06-SAE-316-AF	BPA-06-SAE-316-TE
7 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-07-SAE-316-FL	BPA-07-SAE-316-AF	BPA-07-SAE-316-TE
8 Section Assy, 7/16 SAE Inlet, 7/16 SAE Outlets, Std Mtg	BPA-08-SAE-316-FL	BPA-08-SAE-316-AF	BPA-08-SAE-316-TE



**ORDERING INFORMATION & PART NUMBERS**

**INTERMEDIATE VALVE SECTIONS**

**CARBON & STAINLESS STEEL DIVIDER VALVES**

STANDARD FOOTPRINT, STANDARD PRESSURE (3500 PSI)

ROHS COMPLIANT CLEAR ZINC PLATING (CRS ONLY)

SUPPLIED WITH ONLY STAINLESS STEEL CAPS AND MOUNTING BOLTS

ALL VALVES HAVE 1/8-27 NPSF FRONT FACE ALTERNATE OUTLETS. ALL VALVES MAY BE VERTICALLY CROSSPORTED ON THE FRONT OUTLETS. ALL VALVES CAN BE EQUIPPED WITH PERFORMANCE/RESET INDICATORS.

**STANDARD PACK: 5 EACH, 316 STAINLESS STEEL: 1 EACH**

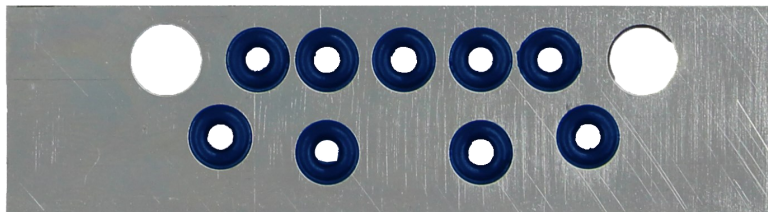
SINGLE OUTPUT	PART NUMBER		
	CRS	303 SS	316 SS
.040 CI   .656 CC	LCIV-020S-PPS-000	LCIV-020S-PPS-303	LCIV-020S-PPS-316
.080 CI   1.311 CC	LCIV-040S-PPS-000	LCIV-040S-PPS-303	LCIV-040S-PPS-316
TWIN OUTPUT	PART NUMBER		
	CRS	303 SS	316 SS
.020 CI   .328 CC	LCIV-020T-PPS-000	LCIV-020T-PPS-303	LCIV-020T-PPS-316
.040 CI   .656 CC	LCIV-040T-PPS-000	LCIV-040T-PPS-303	LCIV-040T-PPS-316

FOR CRS BYPASS VALVE USE PART NUMBER **LCIV-BYPASS-000**

FOR 303 SS BYPASS VALVE USE PART NUMBER **LCIV-BYPASS-303**

FOR 316 SS BYPASS VALVE USE PART NUMBER **LCIV-BYPASS-316**

**LOW TO MEDIUM VOLUME SYSTEMS  
CROSSPORT BARS KITS**



VALVES AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LSP/LHP CROSSPORT BAR KITS</b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>CROSSPORT BAR KITS CARBON STEEL</b>			
CROSSPORT BAR (RIGHT)	L527320-FL	L527320-AF	L527320-TE
CROSSPORT BAR (LEFT)	L527330-FL	L527330-AF	L527330-TE
CROSSPORT BAR (BOTH)	L527340-FL	L527340-AF	L527340-TE
<b>CROSSPORT BAR KITS 303 STAINLESS STEEL</b>			
CROSSPORT BAR (RIGHT)	L527320-303-FL	L527320-303-AF	L527320-303-TE
CROSSPORT BAR (LEFT)	L527330-303-FL	L527330-303-AF	L527330-303-TE
CROSSPORT BAR (BOTH)	L527340-303-FL	L527340-303-AF	L527340-303-TE
<b>CROSSPORT BAR KITS 316 STAINLESS STEEL</b>			
CROSSPORT BAR (RIGHT)	L527320-316-FL	L527320-316-AF	L527320-316-TE
CROSSPORT BAR (LEFT)	L527330-316-FL	L527330-316-AF	L527330-316-TE
CROSSPORT BAR (BOTH)	L527340-316-FL	L527340-316-AF	L527340-316-TE

## HIGH VOLUME SYSTEMS

VALVES AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LMXP VALVES WITH PEEK PISTONS</b>	<b>VALVE WITH FLUOROSILICONE O-RINGS</b>	<b>VALVE WITH AFLAS O-RINGS</b>	<b>VALVE WITH TEFLON O-RINGS</b>
<b>VALVE, PLATED CRS, W/SS CAPS &amp; MTG BOLTS</b>	<b>CRS W/FL</b>	<b>CRS W/AF</b>	<b>CRS W/TE</b>
SIZE 75, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075S-PPS-000-FL	LCIV-075S-PPS-000-AF	LCIV-075S-PPS-000-TE
SIZE 75, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075T-PPS-000-FL	LCIV-075T-PPS-000-AF	LCIV-075T-PPS-000-TE
SIZE 150, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150S-PPS-000-FL	LCIV-150S-PPS-000-AF	LCIV-150S-PPS-000-TE
SIZE 150, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150T-PPS-000-FL	LCIV-150T-PPS-000-AF	LCIV-150T-PPS-000-TE
<b>VALVE, 303 STAINLESS, W/SS 303 CAPS &amp; MTG BOLTS</b>	<b>SS303 W/FL</b>	<b>SS303 W/AF</b>	<b>SS303 W/TE</b>
SIZE 75, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075S-PPS-303-FL	LCIV-075S-PPS-303-AF	LCIV-075S-PPS-303-TE
SIZE 75, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075T-PPS-303-FL	LCIV-075T-PPS-303-AF	LCIV-075T-PPS-303-TE
SIZE 150, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150S-PPS-303-FL	LCIV-150S-PPS-303-AF	LCIV-150S-PPS-303-TE
SIZE 150, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150T-PPS-303-FL	LCIV-150T-PPS-303-AF	LCIV-150T-PPS-303-TE
<b>VALVE, 316 STAINLESS, W/SS316 CAPS &amp; MTG BOLTS</b>	<b>SS316 W/FL</b>	<b>SS316 W/AF</b>	<b>SS316 W/TE</b>
SIZE 75, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075S-PPS-316-FL	LCIV-075S-PPS-316-AF	LCIV-075S-PPS-316-TE
SIZE 75, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-075T-PPS-316-FL	LCIV-075T-PPS-316-AF	LCIV-075T-PPS-316-TE
SIZE 150, SINGLE OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150S-PPS-316-FL	LCIV-150S-PPS-316-AF	LCIV-150S-PPS-316-TE
SIZE 150, TWIN OUTPUT, W/ PEEK PISTON, STD PRESSURE	LCIV-150T-PPS-316-FL	LCIV-150T-PPS-316-AF	LCIV-150T-PPS-316-TE

**ORDERING INFORMATION & PART NUMBERS**

**LMXP HIGH OUTPUT MODULAR DIVIDER VALVES**

STANDARD PACK: 1 EACH			
VALVE OUTPUT	CARBON STEEL	303 STAINLESS	316 STAINLESS
75S   .150. CU. IN.   .2.459 CC	LCIV-075S-PPS-000	LCIV-075S-PPS-303	LCIV-075S-PPS-316
75T   .075 CU. IN.   1.230 CC	LCIV-075T-PPS-000	LCIV-075T-PPS-303	LCIV-075T-PPS-316
150S   .300 CU. IN.   4.917 CC	LCIV-150S-PPS-000	LCIV-150S-PPS-303	LCIV-150S-PPS-316
150T   .150 CU. IN.   2.459 CC	LCIV-150T-PPS-000	LCIV-150T-PPS-303	LCIV-150T-PPS-316

FOR VALVES WITH CYCLE INDICATOR PIN, ADD SUFFIX: -  
**RHCIP** TO ABOVE PART NUMBER. SEE EXAMPLE:

CARBON STEEL MODELS: **132-025S-RHCIP**

316 MODELS: **132-050S-RHCIP-316**

HIGH VOLUME SYSTEMS

**PLATED CARBON STEEL  
BASEPLATE ASSEMBLIES**

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LMXP BASEPLATE ASSEMBLIES PLATED CRS W/ SS TIE RODS</b>  <b><u>NO INTERNAL CHECK VALVES, USE EXTERNAL CHECK VALVES ONLY.</u></b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>3/8-18 NPSF INLET - 1/4-18 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-03-NPSF-000-FL	XBPA-03-NPSF-000-AF	XBPA-03-NPSF-000-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-04-NPSF-000-FL	XBPA-04-NPSF-000-AF	XBPA-04-NPSF-000-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-05-NPSF-000-FL	XBPA-05-NPSF-000-AF	XBPA-05-NPSF-000-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-06-NPSF-000-FL	XBPA-06-NPSF-000-AF	XBPA-06-NPSF-000-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-07-NPSF-000-FL	XBPA-07-NPSF-000-AF	XBPA-07-NPSF-000-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-08-NPSF-000-FL	XBPA-08-NPSF-000-AF	XBPA-08-NPSF-000-TE
<b>3/4-16 SAE INLET - 9/16-18 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-03-SAE-000-FL	XBPA-03-SAE-000-AF	XBPA-03-SAE-000-TE
4 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-04-SAE-000-FL	XBPA-04-SAE-000-AF	XBPA-04-SAE-000-TE
5 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-05-SAE-000-FL	XBPA-05-SAE-000-AF	XBPA-05-SAE-000-TE
6 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-06-SAE-000-FL	XBPA-06-SAE-000-AF	XBPA-06-SAE-000-TE
7 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-07-SAE-000-FL	XBPA-07-SAE-000-AF	XBPA-07-SAE-000-TE
8 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-08-SAE-000-FL	XBPA-08-SAE-000-AF	XBPA-08-SAE-000-TE

## HIGH VOLUME SYSTEMS

### 303 STAINLESS STEEL BASEPLATE ASSEMBLIES

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS</b> <b>LMXP BASEPLATE ASSEMBLIES</b> <b>303 STAINLESS STEEL W/ SS 303 TIE RODS</b>  <u><b>NO INTERNAL CHECK VALVES,</b></u> <u><b>USE EXTERNAL CHECK VALVES ONLY.</b></u>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>3/8-18 NPSF INLET - 1/4-18 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-03-NPSF-303-FL	XBPA-03-NPSF-303-AF	XBPA-03-NPSF-303-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-04-NPSF-303-FL	XBPA-04-NPSF-303-AF	XBPA-04-NPSF-303-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-05-NPSF-303-FL	XBPA-05-NPSF-303-AF	XBPA-05-NPSF-303-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-06-NPSF-303-FL	XBPA-06-NPSF-303-AF	XBPA-06-NPSF-303-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-07-NPSF-303-FL	XBPA-07-NPSF-303-AF	XBPA-07-NPSF-303-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-08-NPSF-303-FL	XBPA-08-NPSF-303-AF	XBPA-08-NPSF-303-TE
<b>3/4-16 SAE INLET - 9/16-18 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-03-SAE-303-FL	XBPA-03-SAE-303-AF	XBPA-03-SAE-303-TE
4 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-04-SAE-303-FL	XBPA-04-SAE-303-AF	XBPA-04-SAE-303-TE
5 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-05-SAE-303-FL	XBPA-05-SAE-303-AF	XBPA-05-SAE-303-TE
6 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-06-SAE-303-FL	XBPA-06-SAE-303-AF	XBPA-06-SAE-303-TE
7 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-07-SAE-303-FL	XBPA-07-SAE-303-AF	XBPA-07-SAE-303-TE
8 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-08-SAE-303-FL	XBPA-08-SAE-303-AF	XBPA-08-SAE-303-TE

**HIGH VOLUME SYSTEMS**

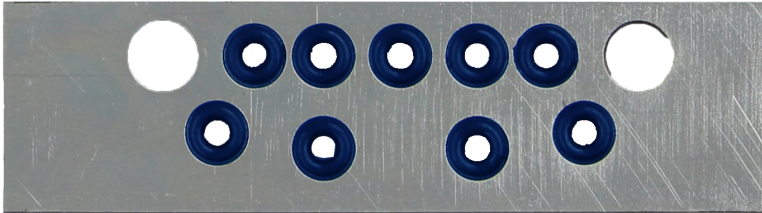
**316 STAINLESS STEEL  
BASEPLATE ASSEMBLIES**

AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LMXP BASEPLATE ASSEMBLIES 316 STAINLESS STEEL W/ SS 316 TIE RODS</b>  <b><u>NO INTERNAL CHECK VALVES, USE EXTERNAL CHECK VALVES ONLY.</u></b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>3/8-18 NPSF INLET - 1/4-18 NPSF OUTLETS</b>	<b>NPSF</b>	<b>NPSF</b>	<b>NPSF</b>
3 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-03-NPSF-316-FL	XBPA-03-NPSF-316-AF	XBPA-03-NPSF-316-TE
4 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-04-NPSF-316-FL	XBPA-04-NPSF-316-AF	XBPA-04-NPSF-316-TE
5 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-05-NPSF-316-FL	XBPA-05-NPSF-316-AF	XBPA-05-NPSF-316-TE
6 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-06-NPSF-316-FL	XBPA-06-NPSF-316-AF	XBPA-06-NPSF-316-TE
7 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-07-NPSF-316-FL	XBPA-07-NPSF-316-AF	XBPA-07-NPSF-316-TE
8 Section Assy, NPSF Inlet, NPSF Outlets, Std Mtg	XBPA-08-NPSF-316-FL	XBPA-08-NPSF-316-AF	XBPA-08-NPSF-316-TE
<b>3/4-16 SAE INLET - 9/16-18 SAE OUTLETS</b>	<b>SAE</b>	<b>SAE</b>	<b>SAE</b>
3 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-03-SAE-316-FL	XBPA-03-SAE-316-AF	XBPA-03-SAE-316-TE
4 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-04-SAE-316-FL	XBPA-04-SAE-316-AF	XBPA-04-SAE-316-TE
5 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-05-SAE-316-FL	XBPA-05-SAE-316-AF	XBPA-05-SAE-316-TE
6 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-06-SAE-316-FL	XBPA-06-SAE-316-AF	XBPA-06-SAE-316-TE
7 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-07-SAE-316-FL	XBPA-07-SAE-316-AF	XBPA-07-SAE-316-TE
8 Section Assy, SAE Inlet, SAE Outlets, Std Mtg	XBPA-08-SAE-316-FL	XBPA-08-SAE-316-AF	XBPA-08-SAE-316-TE

## HIGH VOLUME SYSTEMS CROSSPORT BAR KITS



AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

<b>CHEMICAL INJECTION SYSTEMS LMXP CROSS BAR KITS</b>	<b>ASSEMBLY WITH FLUOROSILICONE O-RINGS</b>	<b>ASSEMBLY WITH AFLAS O-RINGS</b>	<b>ASSEMBLY WITH TEFLON O-RINGS</b>
<b>CROSSPORT BAR KITS CARBON STEEL</b>			
CROSSPORT BAR (RIGHT)	L527980-FL	L527980-AF	L527980-TE
CROSSPORT BAR (LEFT)	L527970-FL	L527970-AF	L527970-TE
CROSSPORT BAR (BOTH)	L527990-FL	L527990-AF	L527990-TE
<b>VROSSPORT BAR KITS 303 STAINLESS STEEL</b>			
CROSSPORT BAR (RIGHT)	L527980-303-FL	L527980-303-AF	L527980-303-TE
CROSSPORT BAR (LEFT)	L527970-303-FL	L527970-303-AF	L527970-303-TE
CROSSPORT BAR (BOTH)	L527990-303-FL	L527990-303-AF	L527990-303-TE
<b>CROSSPORT BAR KITS 316 STAINLESS STEEL</b>			
CROSSPORT BAR (RIGHT)	L527980-316-FL	L527980-316-AF	L527980-316-TE
CROSSPORT BAR (LEFT)	L527970-316-FL	L527970-316-AF	L527970-316-TE
CROSSPORT BAR (BOTH)	L527990-316-FL	L527990-316-AF	L527990-316-TE



## LOW & MEDIUM VOLUME SYSTEMS

### OUTLET CHECK VALVES

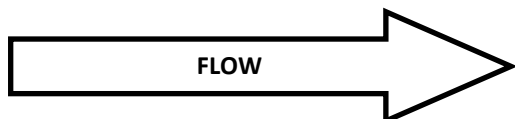
WHENEVER CHEMICAL INJECTION DIVIDER VALVES ARE REPLACED, ALWAYS REPLACE ALL CHECK VALVES IN ALL PLACES.

NPSF CHECK VALVES					
STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	FITTING REQUIREMENTS
1/8" NPSF (M)	1/8" NPTF (F)	35 / 2.41	OCV-303-125R-35	OCV-316-125R-35	TUBE FITTING
1/8" NPSF (M)	1/8" NPTF (F)	60 / 4.13	OCV-303-125R-60	OCV-316-125R-60	TUBE FITTING
1/8" NPSF (M)	1/8" NPTF (F)	250 / 17.23	OCV-303-125R-250	OCV-316-125R-250	TUBE FITTING
1/8" NPTF (M)	1/4" TUBE	35 / 2.41	OCV-303-125-NPTF	OCV-316-125-NPTF	INTEGRAL TUBE FITTING

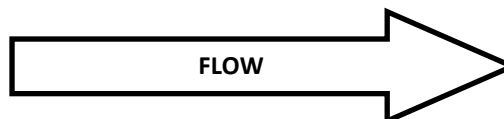
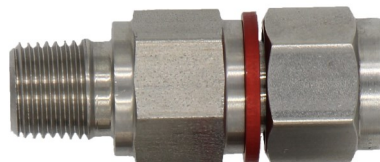
AVAILABLE IN ALL THREE O-RING TYPES. PLEASE SPECIFY O-RING MATERIAL

REFER TO THE PARKER O-RING HAND BOOK OR OTHER CREDIBLE SOURCES TO DETERMINE O-RING CHEMICAL COMPATIBILITY

1/8 NPSF MALE X 1/8 NPTF FEMALE  
CHECK VALVE



1/8 NPSF MALE X 1/4 TUBE  
CHECK VALVE



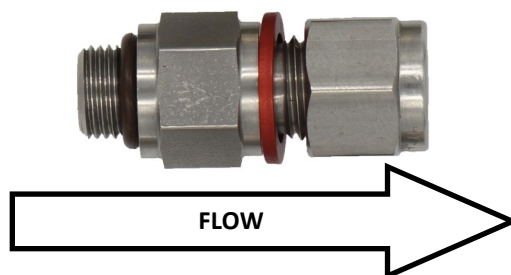
**LOW & MEDIUM VOLUME SYSTEMS**

**OUTLET CHECK VALVES**

**WHENEVER CHEMICAL INJECTION DIVIDER VALVES ARE REPLACED, ALWAYS REPLACE ALL CHECK VALVES IN ALL PLACES.**

<b>O-RING SEAL CHECK VALVES</b>					
<b>STANDARD PACK: 5 EACH</b>					
<b>CHECK VALVE DESCRIPTION</b>			<b>PART NUMBER</b>		
<b>INLET SIZE</b>	<b>OUTLET SIZE</b>	<b>BALL OPEN PSI / BAR</b>	<b>303 STAINLESS</b>	<b>316 STAINLESS</b>	<b>O-RING MATERIAL</b>
1/8" ORS (M)	1/4" TUBE	35 / 2.41	OCV-303-125-ORS-FL	OCV-316-125-ORS-FL	<b>FLUROSILICONE</b>
1/8" ORS (M)	1/4" TUBE	35 / 2.41	OCV-303-125-ORS-AF	OCV-316-125-ORS-AF	<b>AFLAS</b>
1/8" ORS (M)	1/4" TUBE	35 / 2.41	OCV-303-125-ORS-TE	OCV-316-125-ORS-TE	<b>TEFLON</b>

**O-RING SEAL TO 1/4" TUBE OUTLET  
CHECK VALVE**



<b>SAE O-RING SEAL CHECK VALVES</b>					
<b>STANDARD PACK: 5 EACH</b>					
<b>CHECK VALVE DESCRIPTION</b>			<b>PART NUMBER</b>		
<b>INLET SIZE</b>	<b>OUTLET SIZE</b>	<b>BALL OPEN PSI / BAR</b>	<b>303 STAINLESS</b>	<b>316 STAINLESS</b>	<b>O-RING MATERIAL</b>
7/16"-20 SAE (M)	1/4" TUBE	35 / 2.41	OCV-303-125-SAE-FL	OCV-316-125-SAE-FL	<b>FLUROSILICONE</b>
7/16"-20 SAE (M)	1/4" TUBE	35 / 2.41	OCV-303-125-SAE-AF	OCV-316-125-SAE-AF	<b>AFLAS</b>
7/16"-20 SAE (M)	1/4" TUBE	35 / 2.41	OCV-303-125-SAE-TE	OCV-316-125-SAE-TE	<b>TEFLON</b>

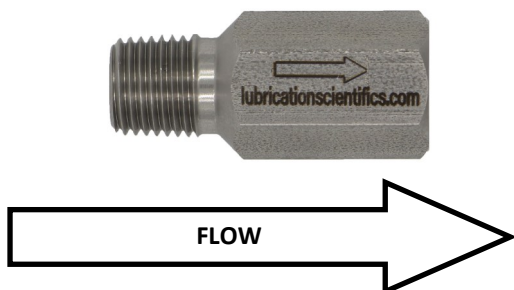
## HIGH VOLUME SYSTEMS

### OUTLET CHECK VALVES

WHENEVER CHEMICAL INJECTION DIVIDER VALVES ARE REPLACED, ALWAYS REPLACE ALL CHECK VALVES IN ALL PLACES.

NPSF CHECK VALVES					
STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	FITTING REQUIREMENTS
1/4"NPTF (M)	1/4" NPSF (F)	35 / 2.41	OCV-303-250R-35	OCV-316-250R-35	<b>TUBE FITTING</b>

MALE X FEMALE  
CHECK VALVE



SAE CHECK VALVES					
STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	FITTING REQUIREMENTS
9/16-18 SAE (M)	9/16-18 SAE (F)	45 / 3.10	OCV-303-562R-45	OCV-316-562R-45	<b>TUBE FITTING</b>
9/16-18 SAE (M)	9/16-18 SAE (F)	45 / 3.10	OCV-303-562R-45	OCV-316-562R-45	<b>TUBE FITTING</b>
9/16-18 SAE (M)	9/16-18 SAE (F)	45 / 3.10	OCV-303-562R-45	OCV-316-562R-45	<b>TUBE FITTING</b>

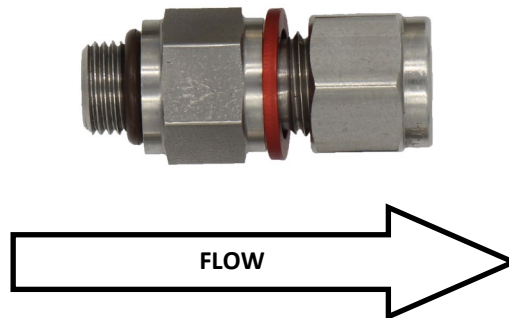
## HIGH VOLUME SYSTEMS

### OUTLET CHECK VALVES

WHENEVER CHEMICAL INJECTION DIVIDER VALVES ARE REPLACED, ALWAYS REPLACE ALL CHECK VALVES IN ALL PLACES.

SAE O-RING CHECK VALVES					
STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	O-RING MATERIAL
9/16-18 SAE (M)	3/8" TUBE	45 / 3.10	OCV-303-916SAE-6-FL	OCV-316-916SAE-6-FL	FLUOROSILICONE
9/16-18 SAE (M)	3/8" TUBE	45 / 3.10	OCV-303-916SAE-6-AF	OCV-316-916SAE-6-AF	AFLAS
9/16-18 SAE (M)	3/8" TUBE	45 / 3.10	OCV-303-916SAE-6-TE	OCV-316-916SAE-6-TE	TEFLON

O-RING SAE MALE X 3/8" TUBE  
CHECK VALVE



**CHEMICAL INJECTION SYSTEM—ADDITIONAL ACCESSORIES**

**FILTRATION**

**316 STAINLESS DIRT TRAP FILTER ASSEMBLY**

1/4 NPSF & 3/8 NPSF INLETS & OUTLETS

316 STAINLESS STEEL FILTER ELEMENTS

MUST SPECIFY O-RING MATERIAL

STANDARD PACK: 1 EACH			
FILTER RATING	316 STAINLESS STEEL ASSEMBLY W/ O-RING MATERIAL TYPE		
	FLUROSILICONE	AFLAS	TEFLON
5 MICRON	DTFA-005-O-316-FL	DTFA-005-O-316-AF	DTFA-005-O-316-TE
10 MICRON	DTFA-010-O-316-FL	DTFA-010-O-316-AF	DTFA-010-O-316-TE
25 MICRON	DTFA-025-O-316-FL	DTFA-025-O-316-AF	DTFA-025-O-316-TE
150 MICRON 100 MESH	DTFA-100-G-316-FL	DTFA-100-G-316-AF	DTFA-100-G-316-TE
420 MICRON 40 MESH	DTFA-040-G-316-FL	DTFA-040-G-316-AF	DTFA-040-G-316-TE



**DIRT TRAP REPLACEMENT ELEMENT**

STANDARD PACK: 1 EACH			
	PART NUMBER W/ O-RING MATERIAL TYPE		
FILTER RATING	FLUROSILICONE	AFLAS	TEFLON
5 MICRON	DT-EL-002-005MIC-FL	DT-EL-002-005MIC-AF	DT-EL-002-005MIC-TE
10 MICRON	DT-EL-002-010MIC-FL	DT-EL-002-010MIC-AF	DT-EL-002-010MIC-TE
25 MICRON	DT-EL-002-025MIC-FL	DT-EL-002-025MIC-AF	DT-EL-002-025MIC-TE
150 MICRON 100 MESH	DT-EL-002-100M-FL	DT-EL-002-100M-AF	DT-EL-002-100M-TE
420 MICRON 40 MESH	DT-EL-002-40M-FL	DT-EL-002-40M-AF	DT-EL-002-40M-TE



## CHEMICAL INJECTION SYSTEM—ADDITIONAL ACCESSORIES

### FILTRATION

#### INLINE OIL FILTER ASSEMBLY

STAINLESS STEEL CONSTRUCTION

HIGH PRESSURE RATING

REQUIRES TUBE FITTING

STANDARD PACK: 1	
FILTER ASSEMBLY DESCRIPTION	PART NUMBER
FILTER ASSEMBLY, 3 MICRON, 1/4 NPSFT INLET/OUTLET	HPFA-03M-250-XX
FILTER ASSEMBLY, 10 MICRON, 1/4 NPSFT INLET/OUTLET	HPFA-10M-250-XX
FILTER ASSEMBLY, 25 MICRON, 1/4 NPSFT INLET/OUTLET	HPFA-25M-250-XX



#### SPECIFY O-RING MATERIAL FOR FILTER ASSEMBLY

O-RING MATERIAL	-XX
FLUOROSILICONE	FL
AFLAS	AF
TEFLON	TE



STANDARD PACK: 1	STANDARD PACK: 1
REPLACEMENT FILTER ELEMENT DESCRIPTION	PART NUMBER
3 MICRON REPLACEMENT FILTER, RATED TO 8000 PSI	HPFE-03M
10 MICRON REPLACEMENT FILTER, RATED TO 8000 PSI	HPFE-10M
25 MICRON REPLACEMENT FILTER, RATED TO 8000 PSI	HPFE-25M

## CHEMICAL INJECTION SYSTEM—ADDITIONAL ACCESSORIES

### RESET INDICATORS

#### CHEMICAL RESISTANT PERFORMANCE RESET INDICATORS

STAINLESS STEEL CONSTRUCTION

VARIOUS PRESSURE RATINGS

AVAILABLE IN FLORALSILICONE, AFLAS, OR TEFLON O-RINGS

#### CHEMICAL RESISTANT PERFORMANCE RESET INDICATORS W/ MEMORY

303 STAINLESS STEEL RESET INDICATOR			
STANDARD PACK: 5 EACH		1/8 NPSF O-RING CONNECTION	
ITEM DESCRIPTION	FLUROSILICONE	AFLAS	TEFLON
1,000 PSI / 69 BAR	303-P1000-FL	303-P1000-AF	303-P1000-TE
1,500 PSI / 103 BAR	303-P1500-FL	303-P1500-AF	303-P1500-TE
2,000 PSI / 138 BAR	303-P2000-FL	303-P2000-AF	303-P2000-TE
2,500 PSI / 172 BAR	303-P2500-FL	303-P2500-AF	303-P2500-TE
3,000 PSI / 207 BAR	303-P3000-FL	303-P3000-AF	303-P3000-TE
3,500 PSI / 241 BAR	303-P3500-FL	303-P3500-AF	303-P3500-TE
5,000 PSI / 345 BAR	303-P5000-FL	303-P5000-AF	303-P5000-TE



316 STAINLESS STEEL RESET INDICATOR			
STANDARD PACK: 5 EACH		1/8 NPSF O-RING CONNECTION	
ITEM DESCRIPTION	FLUROSILICONE	AFLAS	TEFLON
1,000 PSI / 69 BAR	316-P1000-FL	316-P1000-AF	316-P1000-TE
1,500 PSI / 103 BAR	316-P1500-FL	316-P1500-AF	316-P1500-TE
2,000 PSI / 138 BAR	316-P2000-FL	316-P2000-AF	316-P2000-TE
2,500 PSI / 172 BAR	316-P2500-FL	316-P2500-AF	316-P2500-TE
3,000 PSI / 207 BAR	316-P3000-FL	316-P3000-AF	316-P3000-TE
3,500 PSI / 241 BAR	316-P3500-FL	316-P3500-AF	316-P3500-TE
5,000 PSI / 345 BAR	316-P5000-FL	316-P5000-AF	316-P5000-TE

## CHEMICAL INJECTION SYSTEM—ADDITIONAL ACCESSORIES

### PROXIMITY SWITCHES

STANDARD PACK: 1 EACH					
ITEM DESCRIPTION	FITS VALVE	PART NUMBER			HAZARD RATING
		FLUROSILICONE	AFLAS	TEFLON	
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LSP/LHP LMX/LMXP	L527251-FL L527251-1312-FL	L527251-AF L527251-1312-AF	L527251-AF L527251-1312-AF	NO RATING
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LSP/LHP LMX/LMXP	L527112-FL L527112-1312-FL	L527112-AF L527112-1312-AF	L527112-AF L527112-1312-AF	NO RATING
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LSP/LHP LMX/LMXP	L527111-FL L527111-1312-FL	L527111-AF L527111-1312-AF	L527111-AF L527111-1312-AF	NO RATING
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LSP/LHP LMX/LMXP	L527431-FL L527431-1312-FL	L527431-AF L527431-1312-AF	L527431-AF L527431-1312-AF	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III



**SPECIFY O-RING TYPE**

STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	12' CABLE PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12

### PROXIMITY SWITCH SPECIFICATIONS

#### Specification Description

All Proximity Switches are field sensitive, dry contact, with ceramic magnets. They have a max cycle rate of 200 cycles per minute. A max pressure rating of 7,500 psi. 316 stainless steel construction.

#### **Electrical rating are as follows for all models:**

4 Amps @ 120V AC, 2 Amps @ 240V DC, 3 Amps @ 24V DC, .5 Amps @ 125V DC

#### **CYCLE LIFE:**

**150,000,000 Cycles**





## MOUNTING INFORMATION & SPECIFICATIONS

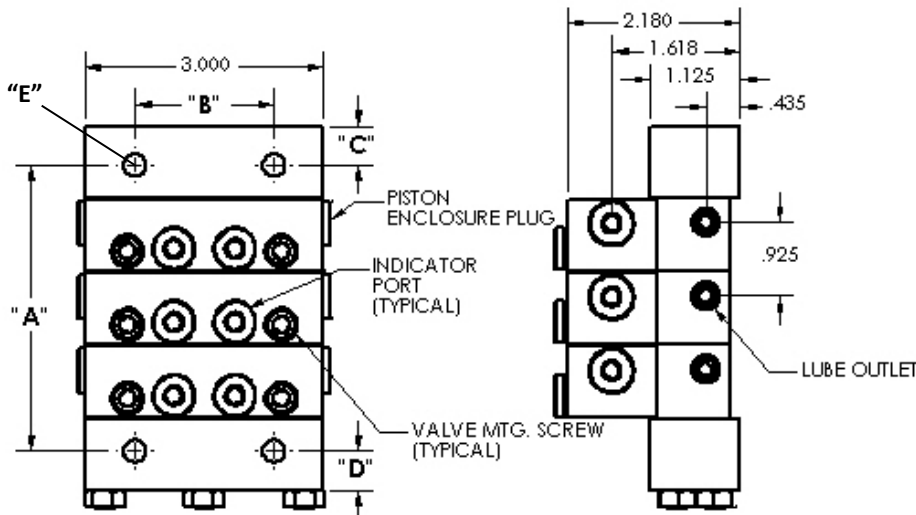
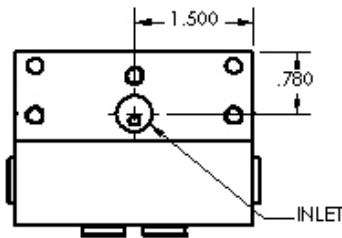
### WITH 1.75" STANDARD MOUNTING HOLES

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.585/3.605	91.31	1.75	0.490	0.490	0.281
4	4.510/4.530	114.80	1.75	0.490	0.490	0.281
5	5.435/5.455	138.30	1.75	0.490	0.490	0.281
6	6.360/6.380	161.79	1.75	0.490	0.490	0.281
7	7.285/7.305	185.29	1.75	0.490	0.490	0.281
8	8.210/8.230	208.78	1.75	0.490	0.490	0.281

VALVE SECTIONS	NET WEIGHT	
	LBS.	KG.
3	5.9	2.7
4	7.3	3.3
5	8.7	4.0
6	10.2	4.6
7	11.6	5.6
8	13.0	5.9

### WITH 1.875" MOUNTING HOLES

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.365/3.385	85.72	1.875	0.292	0.310	0.328
4	4.290/4.310	109.22	1.875	0.292	0.310	0.328
5	5.215/5.235	132.71	1.875	0.292	0.310	0.328
6	6.140/6.160	156.21	1.875	0.292	0.310	0.328
7	7.065/7.085	179.70	1.875	0.292	0.310	0.328
8	7.990/8.010	203.20	1.875	0.292	0.310	0.328



### SPECIFICATIONS

MATERIAL: ZINC PLATED STEEL, SS303, SS316

MAX CYCLE RATE (OIL) 200 CPM

MAX PRESSURE: 7500 PSI

### TORQUE SPECIFICATIONS

TIE ROD NUT: 5-8 FT/LBS

VALVE MOUNTING BOLTS: 12-13 FT/LBS

ALT. OUTLET PORTS: 8-9 FT/LBS

PISTON CLOSURE PORT: 12-15 FT/LBS

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**LSP SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**STANDARD PRESSURE VALVES—CRITICAL MONITORING—ACCESSORIES**



## LSP—STANDARD PRESSURE, SERIES PROGRESSIVE DIVIDER VALVE

### PRODUCT DESCRIPTION

STANDARD PRESSURE, SERIES PROGRESSIVE DIVIDER VALVES

IDEAL FOR INDUSTRIAL, MARINE, AND FOOD PROCESSING MACHINERY

AVAILABLE IN PLATED CARBON, 303, AND 316 STAINLESS STEEL

DESIGNED WITH FEEDBACK MONITORING SYSTEM PERFORMANCE

INTEGRAL CHECK VALVES STANDARD KEEPING LUBE LINES FULL

CAN ACCOMMODATE 1-22 LUBE POINTS PER VALVE ASSEMBLY

### BENEFITS & FEATURES

PRECISE LUBRICANT FLOW TO EACH LUBE POINT

STANDARD FOOTPRINT AND PRESSURE, 3500 PSI

INTERNAL CHECK VALVES

CARBON OR STAINLESS STEEL CONSTRUCTION

USED FOR LOW PRESSURE OIL OR GREASE APPLICATIONS

1-22 LUBE POINTS PER VALVE ASSEMBLY

ALL INTEGRAL CHECKS USE 316 STAINLESS STEEL BALLS AND SPRINGS

WIDE RANGE OF ACCESSORIES AVAILABLE FOR ANY SYSTEM REQUIREMENT

COMPLETE BASEPLATE ASSEMBLIES AVAILABLE

## READY FOR IMMEDIATE SHIPMENT

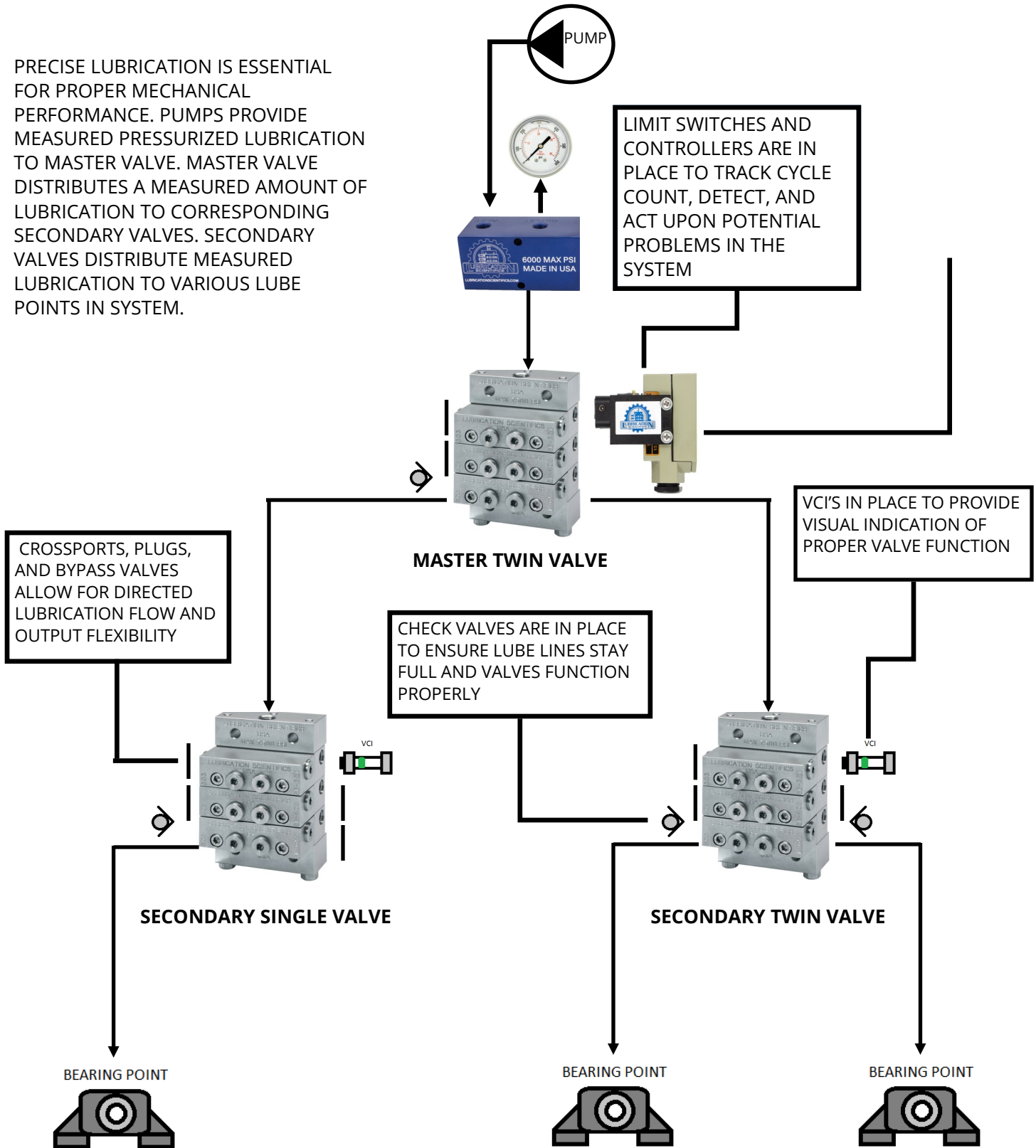
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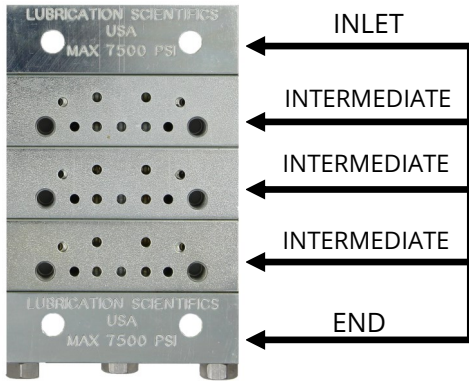
[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

FUNCTION ILLUSTRATION & SPECIFICATIONS

PRECISE LUBRICATION IS ESSENTIAL FOR PROPER MECHANICAL PERFORMANCE. PUMPS PROVIDE MEASURED PRESSURIZED LUBRICATION TO MASTER VALVE. MASTER VALVE DISTRIBUTES A MEASURED AMOUNT OF LUBRICATION TO CORRESPONDING SECONDARY VALVES. SECONDARY VALVES DISTRIBUTE MEASURED LUBRICATION TO VARIOUS LUBE POINTS IN SYSTEM.



**ORDERING INFORMATION & PART NUMBERS  
MANIFOLD COMPONENTS—INLETS, OUTLETS, & ENDS**



**MANIFOLD COMPONENTS**

ROHS COMPLIANT CLEAR ZINC PLATING (CRS ONLY)

SUPPLIED WITH ONLY VITON O-RINGS

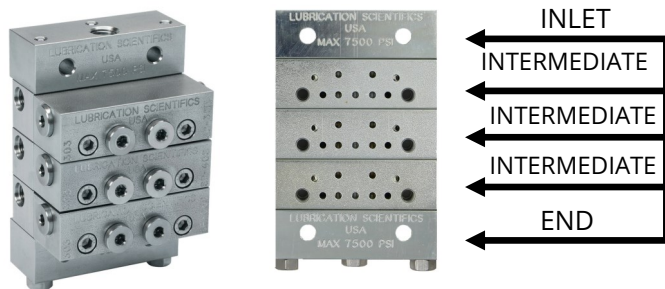
INTERMEDIATES INCLUDE INTEGRAL CHECKS

**ALL INTERNAL CHECKS USE 316 SS BALLS AND SPRINGS**

**LINCOLN® STYLE BASE PLATE ASSEMBLIES AVAILABLE**

STANDARD PACK: 5 EACH, 316 STAINLESS STEEL: 1 EACH			
PART DESCRIPTION	CRS	303 SS	316 SS
INLET WITH 1/4-18 NPSF INLET PORT	000-INL-US	303-INL-US	316-INL-US
INLET WITH 1/4-19 BSPP INLET PORT	000-INL-M	303-INL-M	316-INL-M
INLET WITH 7/16-20 SAE INLET PORT	000-INL-SAE	303-INL-SAE	316-INL-SAE
INLET WITH M10 X 1.0 ISO INLET PORT	000-INL-ISO	303-INL-ISO	316-INL-ISO
INTERMEDIATE WITH 1/8-27 NPSF OUTLETS	000-BP-NPSF	303-BP-NPSF	316-BP-NPSF
INTERMEDIATE WITH 1/8-27 SAE OUTLETS	000-BP-1/8ORS	303-BP-1/8ORS	316-BP-1/8ORS
INTERMEDIATE WITH 7/16-20 SAE OUTLETS	000-BP-SAE	303-BP-SAE	316-BP-SAE
INTERMEDIATE WITH 1/8-28 BSPP OUTLETS	000-BP-M	303-BP-M	316-BP-M
INTERMEDIATE WITH M10 X 1.0 ISO OUTLETS	000-BP-ISO	303-BP-ISO	316-BP-ISO
END (ALL)	000-END	303-END	316-END
LINCOLN® STYLE INLET	000-INL-US-L	303-INL-US-L	316-INL-US-L
LINCOLN® STYLE END	000-END-L	303-END-L	316-END-L

LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN®



## BASEPLATE ASSEMBLIES

PREBUILT & TESTED

BASEPLATE ASSEMBLIES MAKE IT EASY TO COMPLETE DIVIDER VALVE ORDER. CHOOSE DIVIDER VALVES FOR SPECIFIC NEEDS AND COMPLETE VALVE SET WITH MATCHING BASEPLATE SECTIONS. BASEPLATES ARE PREBUILT AND TESTED. BASEPLATE ASSEMBLY ORDERS COME WITH AN END, AN INLET, TIE RODS, AND BASEPLATE SECTIONS.

STANDARD PACK: 1 EACH			
SIZE & TYPE	CARBON STEEL	303 STAINLESS	316 STAINLESS
	PART #: NPSF PART #: ORS	PART #: NPSF PART #: ORS	PART #: NPSF PART #: ORS
3 SECTION WITH STANDARD INLET AND STANDARD END	BPA-03-NPSF-000 BPA-03-ORS-000	BPA-03-NPSF-303 BPA-03-ORS-303	BPA-03-NPSF-316 BPA-03-ORS-316
4 SECTION WITH STANDARD INLET AND STANDARD END	BPA-04-NPSF-000 BPA-04-ORS-000	BPA-04-NPSF-303 BPA-04-ORS-303	BPA-04-NPSF-316 BPA-04-ORS-316
5 SECTION WITH STANDARD INLET AND STANDARD END	BPA-05-NPSF-000 BPA-05-ORS-000	BPA-05-NPSF-303 BPA-05-ORS-303	BPA-05-NPSF-316 BPA-05-ORS-316
6 SECTION WITH STANDARD INLET AND STANDARD END	BPA-06-NPSF-000 BPA-06-ORS-000	BPA-06-NPSF-303 BPA-06-ORS-303	BPA-06-NPSF-316 BPA-06-ORS-316
7 SECTION WITH STANDARD INLET AND STANDARD END	BPA-07-NPSF-000 BPA-07-ORS-000	BPA-07-NPSF-303 BPA-07-ORS-303	BPA-07-NPSF-316 BPA-07-ORS-316
8 SECTION WITH STANDARD INLET AND STANDARD END	BPA-08-NPSF-000 BPA-08-ORS-000	BPA-08-NPSF-303 BPA-08-ORS-303	BPA-08-NPSF-316 BPA-08-ORS-316
9 SECTION WITH STANDARD INLET AND STANDARD END	BPA-09-NPSF-000 BPA-09-ORS-000	BPA-09-NPSF-303 BPA-09-ORS-303	BPA-09-NPSF-316 BPA-09-ORS-316
10 SECTION WITH STANDARD INLET AND STANDARD END	BPA-10-NPSF-000 BPA-10-ORS-000	BPA-10-NPSF-303 BPA-10-ORS-303	BPA-10-NPSF-316 BPA-10-ORS-316
11 SECTION WITH STANDARD INLET AND STANDARD END	BPA-11-NPSF-000 BPA-11-ORS-000	BPA-11-NPSF-303 BPA-11-ORS-303	BPA-11-NPSF-316 BPA-11-ORS-316
FOR INLET WITH BLEEDS	USE SUFFIX "-BL"		
FOR END WITH BOTTOM FEED	USE SUFFIX "-BF"		
FOR LINCOLN® STYLE INLET & END	USE SUFFIX "-L"		

ORDERING EXAMPLE WITH BLEEDS AND BOTTOM FEED: **BPA-03-NPSF-303-BL-BF**

**ORDERING INFORMATION & PART NUMBERS  
INTERMEDIATE VALVE SECTIONS**

**CARBON & STAINLESS STEEL DIVIDER VALVES**

- STANDARD FOOTPRINT, STANDARD PRESSURE (3500 PSI)
- ROHS COMPLIANT CLEAR ZINC PLATING (CRS ONLY)
- SUPPLIED WITH ONLY STAINLESS STEEL CAPS AND MOUNTING BOLTS
- SUPPLIED WITH ONLY VITON O-RINGS



ALL VALVES HAVE 1/8-27 NPSF FRONT FACE ALTERNATE OUTLETS. ALL VALVES MAY BE VERTICALLY CROSSPORTED ON THE FRONT OUTLETS. ALL VALVES CAN BE EQUIPPED WITH PERFORMANCE/RESET INDICATORS.

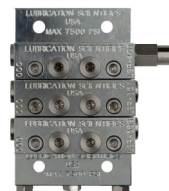
STANDARD PACK: 5 EACH, 316 STAINLESS STEEL: 1 EACH							
SINGLE OUTPUT	PART NUMBER			TWIN OUTPUT	PART NUMBER		
	CRS	303 SS	316 SS		CRS	303 SS	316 SS
.010 CI   .164 CC	000-05S	303-05S	316-05S	.005 CI   .082 CC	000-05T	303-05T	316-05T
.020 CI   .328 CC	000-10S	303-10S	316-10S	.010 CI   .164 CC	000-10T	303-10T	316-10T
.030 CI   .492 CC	000-15S	303-15S	316-15S	.015 CI   .246 CC	000-15T	303-15T	316-15T
.040 CI   .656 CC	000-20S	303-20S	316-20S	.020 CI   .328 CC	000-20T	303-20T	316-20T
.050 CI   .820 CC	000-25S	303-25S	316-25S	.025 CI   .410 CC	000-25T	303-25T	316-25T
.060 CI   .983 CC	000-30S	303-30S	316-30S	.030 CI   .492 CC	000-30T	303-30T	316-30T
.070 CI   1.148 CC	000-35S	303-35S	316-35S	.035 CI   .574 CC	000-35T	303-35T	316-35T
.080 CI   1.311 CC	000-40S	303-40S	316-40S	.040 CI   .656 CC	000-40T	303-40T	316-40T

- FOR CRS BYPASS VALVE USE PART NUMBER **000-BYPASS**
- FOR 303 SS BYPASS VALVE USE PART NUMBER **303-BYPASS**
- FOR 316 SS BYPASS VALVE USE PART NUMBER **316-BYPASS**

**RIGHT & LEFT HAND CYCLE INDICATORS AVAILABLE FOR SIZES 000-15 AND ABOVE**



- FOR VALVE WITH RIGHT HAND CYCLE INDICATOR, ADD SUFFIX **RHCIP**
- FOR VALVE WITH LEFT HAND CYCLE INDICATOR, ADD SUFFIX **LHCIP**



**EXAMPLE: 000-25S-RHCIP**

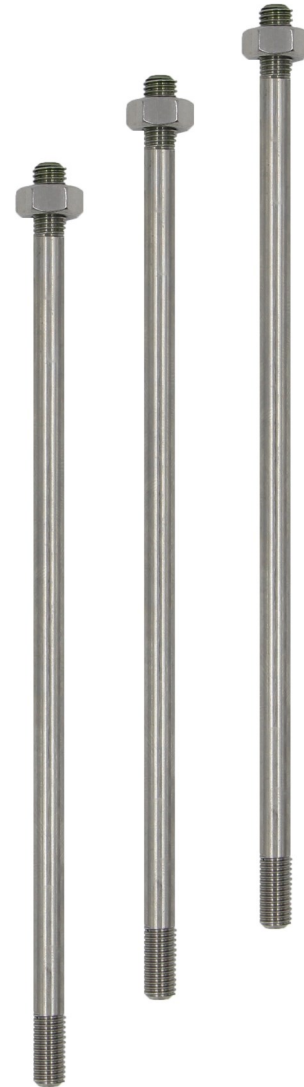
**ORDERING INFORMATION & PART NUMBERS**

**STAINLESS STEEL TIE RODS**

**STAINLESS STEEL TIE RODS**

3 TIE RODS REQUIRED PER VALVE ASSEMBLY

ALL TIE RODS INCLUDE ROD NUT  
STAINLESS STEEL TIE RODS & NUTS



<b>STANDARD PACK: 3 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
3 SECTION VALVE ASSEMBLY	303-TR3	316-TR3
4 SECTION VALVE ASSEMBLY	303-TR4	316-TR4
5 SECTION VALVE ASSEMBLY	303-TR5	316-TR5
6 SECTION VALVE ASSEMBLY	303-TR6	316-TR6
7 SECTION VALVE ASSEMBLY	303-TR7	316-TR7
8 SECTION VALVE ASSEMBLY	303-TR8	316-TR8
9 SECTION VALVE ASSEMBLY	303-TR9	316-TR9
10 SECTION VALVE ASSEMBLY	303-TR10	316-TR10
11 SECTION VALVE ASSEMBLY	303-TR11	316-TR11

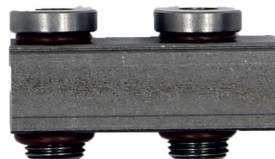


**ORDERING INFORMATION & PART NUMBERS**  
**SINGLING, CROSSPORTING, & REPLACEMENT PARTS**

**FRONT (A/O) CROSSPORT KITS**

ALL STAINLESS STEEL CONSTRUCTION WITH VITON O-RINGS

<b>STANDARD PACK: 1 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
2 VALVES, 1 OUTPUT	303-413	316-413
3 VALVES, 1 OUTPUT	303-414	316-414
4 VALVES, 1 OUTPUT	303-415	316-415



**CROSSPORT BAR KITS**

CRS & STAINLESS STEEL CONSTRUCTION WITH O-RINGS & MOUNTING BOLTS



<b>STANDARD PACK: 5 EACH</b>			
<b>PART DESCRIPTION</b>	<b>CRS</b>	<b>303 SS</b>	<b>316 SS</b>
CROSSPORT BAR (RIGHT)	L527320	L527320-303	L527320-316
CROSSPORT BAR (LEFT)	L527330	L527330-303	L527330-316
CROSSPORT BAR (BOTH)	L527340	L527340-303	L527340-316

**SINGLING BAR KIT**

CARBON & STAINLESS STEEL CONSTRUCTION  
 WITH VITON O-RINGS

<b>STANDARD PACK: 5 EACH</b>			
<b>DESCRIPTION</b>	<b>CRS</b>	<b>303 SS</b>	<b>316 SS</b>
SINGLING BAR	L527350	L527350-303	L527350-316

**REPLACEMENT CLOSURE PLUGS & O-RINGS**

STAINLESS STEEL CONSTRUCTION  
 O-RINGS INCLUDED



<b>STANDARD PACK: 10 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
ALTERNATE OUTLET (FRONT PORTS) PLUG	A-002-S	A-002-S316
PISTON BORE PLUG	A-001-S	A-001-S316
O-RING SEAL KIT—ALL VALVES/INTERMEDIATES/ENDS	LSP-ORSK	LSP-ORSK

## ORDERING INFORMATION & PART NUMBERS

### ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION

TECHNICAL BULLETINS AVAILABLE FOR ALL ACCESSORIES.

ADDITIONAL DETAILED ACCESSORY INFORMATION LISTED ON PAGE 17.

## PROXIMITY SWITCH AND CABLES

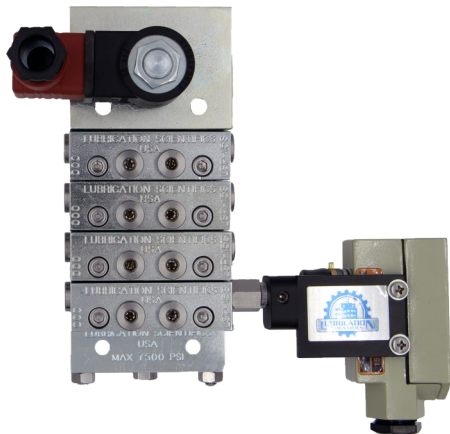
STANDARD PACK: 1 EACH				
ITEM DESCRIPTION	VALVE ADAPTER	PART NUMBER	MAX	HAZARD RATING
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527251	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527112	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527111	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LSP/LHP	L527431	7,500 PSI 517 BAR	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III



STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR CUSTOMIZING SYSTEM FUNCTION**



**SHUNT INLET VALVES**

3 FUNCTION ELECTRIC VALVE  
FUNCTION MODES INCLUDE:

- 1) ENTER VALVE
- 2) BYPASS VALVE
- 3) REVERT BACK TO TANK



STANDARD PACK: 1 EACH					
PART DESCRIPTION	POWER INPUT	OPEN/CLOSED	CARBON STEEL	303 STAINLESS	316 STAINLESS
LSP SHUNT INLET	115 VAC	NC	L527660-NC-000	L527660-NC-303	L527660-NC-316
LSP SHUNT INLET	115 VAC	NO	L527660-NO-000	L527660-NO-303	L527660-NO-316
LSP SHUNT INLET	24 VDC	NC	L527680-NC-000	L527680-NC-303	L527680-NC-316
LSP SHUNT INLET	24 VDC	NO	L527680-NO-000	L527680-NO-303	L527680-NO-316

**REPLACEMENT COILS**

DESCRIPTION	PART NUMBER
24 VDC NORMALLY OPEN WITH PLUG-IN CONNECTOR	L527-24-NO-4823
24 VDC NORMALLY CLOSED WITH PLUG-IN CONNECTOR	L527-24-NC-4823
115 VDC NORMALLY OPEN WITH PLUG-IN CONNECTOR	L527-115-NO-4823
115 VDC NORMALLY CLOSED WITH PLUG-IN CONNECTOR	L527-115-NC-4823

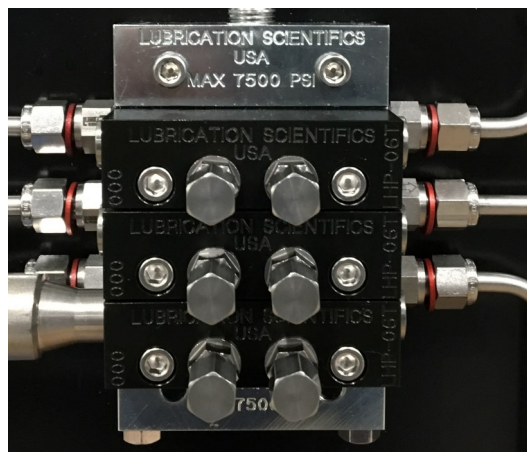


## ORDERING INFORMATION & PART NUMBERS

### ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION OUTLET CHECK VALVES

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/4" TUBE	35 / 2.41	OCV-303-125-NPTF	OCV-316-125-NPTF	INTEGRAL FITTING
1/8" ORS (M)	1/4" TUBE	35 / 2.41	OCV-303-125-ORS	OCV-316-125-ORS	INTEGRAL FITTING
1/8" BSPP (M)	6MM TUBE	35 / 2.41	OCV-303-125-BSPP	OCV-316-125-BSPP	INTEGRAL FITTING
M10 X 1.0 ISO (M)	6MM TUBE	35 / 2.41	OCV-303-125-ISO	OCV-316-125-ISO	INTEGRAL FITTING
7/16"-20 SAE (M)	1/4" TUBE	35 / 2.41	OCV-303-125-SAE	OCV-316-125-SAE	INTEGRAL FITTING

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/8" NPSF (F)	35 / 2.41	OCV-303-125R-35	OCV-316-125R-35	TUBE FITTING
1/8" NPTF (M)	1/8" NPSF (F)	60 / 4.13	OCV-303-125R-60	OCV-316-125R-60	TUBE FITTING
1/8" NPTF (M)	1/8" NPSF (F)	250 / 17.23	OCV-303-125R-250	OCV-316-125R-250	TUBE FITTING
1/4"NPTF (M)	1/4" NPSF (F)	35 / 2.41	OCV-303-250R-35	OCV-316-250R-35	TUBE FITTING



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**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**



**VISUAL CYCLE INDICATOR**



**LIMIT SWITCH**

STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437
STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437-L LINCOLN® STYLE

STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
LIMIT SWITCH ASSEMBLY, SPDT	LSW-001
LIMIT SWITCH ASSEMBLY, DPDT	LSW-002

**PERFORMANCE (RESET) INDICATORS**

STANDARD PACK: 5 EACH	1/8 NPSF O-RING CONNECTION	
	303 STAINLESS	316 STAINLESS
1,000 PSI 69 BAR	303-P1000	316-P1000
1,500 PSI 103 BAR	303-P1500	316-P1500
2,000 PSI	303-P2000	316-P2000
2,500 PSI 172 BAR	303-P2500	316-P2500
3,000 PSI 207 BAR	303-P3000	316-P3000
3,500 PSI 241 BAR	303-P3500	316-P3500
5,000 PSI 345 BAR	303-P5000	316-P5000
LINCOLN® STYLE INDICATOR ADAPTER	303-PI-ADP-L	316-PI-ADP-L



LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN®

## ORDERING INFORMATION & PART NUMBERS

### ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION

#### BLOWOUT FITTINGS

STANDARD PACK: 5 EACH	1/8" O-RING SEAL OR 1/8" NPTF THREADS	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-NPTF BOF-LP-303-ORS	BOF-LP-316-NPTF BOF-LP-316-ORS
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-NPTF BOF-LP-303R-ORS	BOF-LP-316R-NPTF BOF-LP-316R-ORS
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-NPTF BOF-HP-303-ORS	BOF-HP-316-NPTF BOF-HP-316-ORS
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-NPTF BOF-HP-303R-ORS	BOF-HP-316R-NPTF BOF-HP-316R-ORS



NOTE: RUPTURE DISK NOT INCLUDED

#### 3/8" DIAMETER RUPTURE DISKS

STANDARD PACK: 25 EACH			
DISC COLOR	LOW PRESSURE BURST (PSI / BAR) (1/4" APERTURE FITTING)	HIGH PRESSURE BURST (PSI / BAR) (1/8" APERTURE FITTING)	PART NUMBER
BLACK	900 / 62	N/R	A509-276-000
GREEN	1,175 / 81	N/R	A509-277-000
YELLOW	1,450 / 100	3,700 / 255	A509-292-000
RED	1,750 / 121	4,600 / 317	A509-279-000
ORANGE	2,050 / 141	5,500 / 379	A509-280-000
ALUMINUM	2,350 / 162	N/R	A509-281-000
PINK	2,650 / 183	6,400 / 441	A509-282-000
BLUE	2,950 / 203	7,300 / 503	A509-283-000
PURPLE	3,250 / 224	8,200 / 565	A509-284-000

NOTE: ALL DISKS HAVE A RUPTURE TOLERANCE OF +500 PSI

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**ATMOSPHERIC RESET INDICATORS**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
L5081000-NPTF	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPTF
L5081000-ORS	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-NPTF	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-ORS	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-NPTF	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-ORS	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 ORS
L5082500-NPTF	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-ORS	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 ORS
L5083000-NPTF	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-ORS	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 ORS
L5081000-316-NPTF	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPT
L5081000-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 ORS
L5082500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 ORS
L5083000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 ORS

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**CONTAMINATION IS THE ENEMY OF RELIABILITY**

**THE DIRT TRAP IS THE ANSWER**

**DIRT TRAP FILTER ASSEMBLY**



STANDARD PACK: 1 EACH		
FILTER RATING	PLATED CARBON STEEL 7,500 PSI / 517 BAR	AL2024 BLUE ANODIZED ALUMINUM 6,000 PSI / 414 BAR
5 MICRON	DTFA-005-O	MDFA-005-O
10 MICRON	DTFA-010-O	MDFA-010-O
25 MICRON	DTFA-025-O	MDFA-025-O
150 MICRON 100 MESH	DTFA-100-G	MDFA-100-G
420 MICRON 40 MESH	DTFA-040-G	MDFA-040-G

**DIRT TRAP REPLACEMENT ELEMENT**

STANDARD PACK: 1 EACH	
FILTER RATING	PART NUMBER
5 MICRON	DT-EL-002-005MIC
10 MICRON	DT-EL-002-010MIC
25 MICRON	DT-EL-002-025MIC
150 MICRON 100 MESH	DT-EL-002-100M
420 MICRON 40 MESH	DT-EL-002-40M



NOTE: REPLACEMENT ELEMENTS ARE COMPATIBLE WITH BOTH CARBON STEEL AND 2024 ALUMINUM MODELS.



**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316



**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**COMPLETE FILTER ASSEMBLY (NO GAUGE)**

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (SHORT) 10 MICRONS	CFIL-10-US
FILTER ASSEMBLY (SHORT) 20 MICRONS	CFIL-20-US
FILTER ASSEMBLY (SHORT) 50 MICRONS	CFIL-50-US

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (LONG) 10 MICRONS	CFIL-10-UL
FILTER ASSEMBLY (LONG) 20 MICRONS	CFIL-20-UL
FILTER ASSEMBLY (LONG) 50 MICRONS	CFIL-50-UL

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

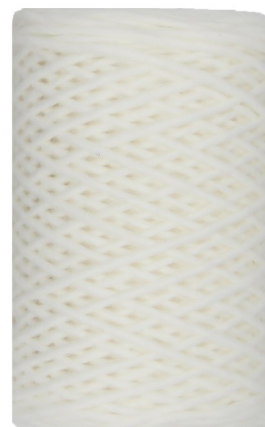


**REPLACEMENT FILTER ELEMENTS & GAUGE**

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (SHORT) 10 MICRONS	CFIL-10-ES
FILTER ELEMENT (SHORT) 20 MICRONS	CFIL-20-ES
FILTER ELEMENT (SHORT) 50 MICRONS	CFIL-50-ES

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (LONG) 10 MICRONS	CFIL-10-EL
FILTER ELEMENT (LONG) 20 MICRONS	CFIL-20-EL
FILTER ELEMENT (LONG) 50 MICRONS	CFIL-50-EL

STANDARD PACK: 1 EACH	
GAUGE DESCRIPTION	PART NUMBER
LOWER MOUNT, 1/4 NPTF, 5000 PSI	LM-25-5K-4



**ORDERING INFORMATION & PART NUMBERS**

**SPIN-ON FILTER ASSEMBLY**

ANODIZED ALUMINUM MANIFOLD  
 STAINLESS STEEL PRESSURE GAUGES  
 MOUNTING BRACKET  
 HIGH FLOW FILTER CANISTER  
 FOR OIL USE ONLY  
 MAX PRESSURE: 150 PSI

<b>STANDARD PACK: 1 EACH</b>	
<b>PART DESCRIPTION</b>	<b>PART NUMBER</b>
SPIN-ON FILTER COMPLETE ASSEMBLY	LPFA-118-AL
REPLACEMENT ELEMENT	LPFA-118-RFE



**SPIN-ON FILTER COMPLETE ASSEMBLY**



**REPLACEMENT ELEMENT**

**LSP FEEDER PART NUMBER ORDERING GUIDE**

LSP-XXX-XXX-XXX-XXX-XXXXX

LSP-XXX-XXX-XXX-XXX-XXXXX	
MATERIAL	P/N
CARBON STEEL	LEAVE BLANK
303 STAINLESS	303
316 STAINLESS	316

LSP-XXX-XXX-XXX-XXX-XXXXX	
PORT OPTIONS	P/N
NPSF PORTS	NPT
1/8 ORS	ORS
SAE PORTS	SAE
BSPP PORTS	BSP
METRIC PORTS	MET

LSP-XXX-XXX-XXX-XXX-XXXXX	
VALVE SIZE	P/N
BYPASS SECTION	BP
.005 CU. IN.	5
.010 CU. IN.	10
.015 CU. IN.	15
.020 CU. IN.	20
.025 CU. IN.	25
.030 CU. IN.	30
.035 CU. IN.	35
.040 CU. IN.	40

LSP-XXX-XXX-XXX-XXX-XXXXX	
INLET SECTION OPTION	P/N
STANDARD	MS
SHUNT 115 VAC, NC TO FEEDER	SHC
SHUNT 115 VAC, NO TO FEEDER	SHO
SHUNT 24 VDC, NC TO FEEDER	SDC
SHUNT 24 VDC, NO TO FEEDER	SDO
ZERO LEAK 115 VAC	ZL
ZERO LEAK 24 VDC	ZF

LSP-XXX-XXX-XXX-XXX-XXXXX	
TYPE OF SECTION	P/N
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, CIP RIGHT	B
SINGLE, CIP RIGHT, RH OUTLET	C
SINGLE, CIP RIGHT, LH OUTLET	D
TWIN, PROXIMITY SWITCH RIGHT	E
SINGLE, PROXIMITY SWITCH RIGHT, RH OUTLET	F
SINGLE, PROXIMITY SWITCH RIGHT, LH OUTLET	G
TWIN, CIP LEFT	H
SINGLE, CIP LEFT, RH OUTLET	J
SINGLE, CIP LEFT, LH OUTLET	K
TWIN, PROXIMITY SWITCH LEFT	M
SINGLE, PROXIMITY SWITCH LEFT, RH OUTLET	N
SINGLE, PROXIMITY SWITCH LEFT, LH OUTLET	P

LSP-XXX-XXX-XXX-XXX-XXXXX	
INSTALLED ACCESSORIES	P/N
NO INTERNAL CHECK VALVES	X
EXTERNAL CHECK VALVES	C
PERFORMANCE INDICATORS	P
PERFORMANCE INDICATORS & CHECK VALVES	B

LSP-XXX-XXX-XXX-XXX-XXXXX	
NUMBER OF SECTIONS	P/N
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10
ELEVEN	11

LSP-XXX-XXX-XXX-XXX-XXXXX	
CROSSPORT OPTION	P/N
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB

**MOUNTING INFORMATION & SPECIFICATIONS**

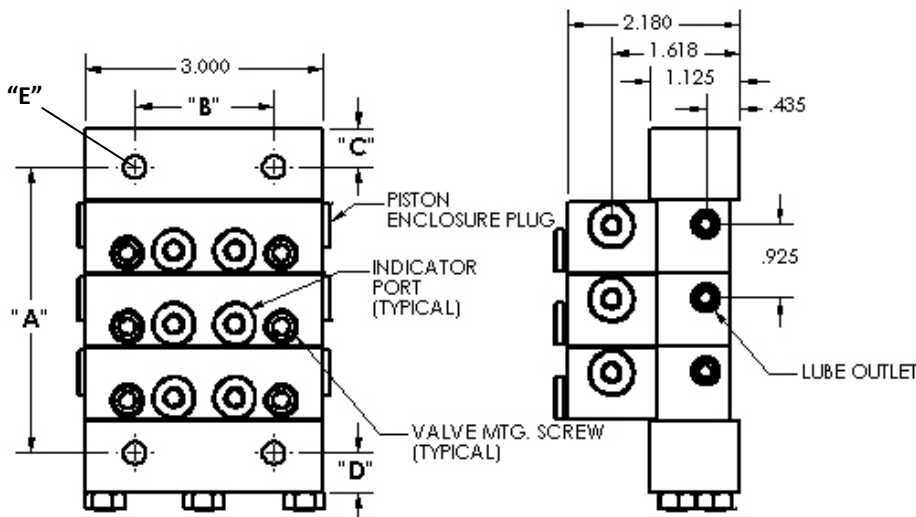
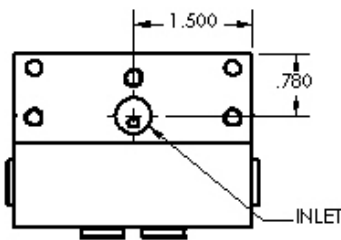
**WITH 1.75" STANDARD MOUNTING HOLES**

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.585/3.605	91.31	1.75	0.490	0.490	0.281
4	4.510/4.530	114.80	1.75	0.490	0.490	0.281
5	5.435/5.455	138.30	1.75	0.490	0.490	0.281
6	6.360/6.380	161.79	1.75	0.490	0.490	0.281
7	7.285/7.305	185.29	1.75	0.490	0.490	0.281
8	8.210/8.230	208.78	1.75	0.490	0.490	0.281

VALVE SECTIONS	NET WEIGHT	
	LBS.	KG.
3	5.9	2.7
4	7.3	3.3
5	8.7	4.0
6	10.2	4.6
7	11.6	5.6
8	13.0	5.9

**WITH 1.875" MOUNTING HOLES**

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.365/3.385	85.72	1.875	0.292	0.310	0.328
4	4.290/4.310	109.22	1.875	0.292	0.310	0.328
5	5.215/5.235	132.71	1.875	0.292	0.310	0.328
6	6.140/6.160	156.21	1.875	0.292	0.310	0.328
7	7.065/7.085	179.70	1.875	0.292	0.310	0.328
8	7.990/8.010	203.20	1.875	0.292	0.310	0.328



**SPECIFICATIONS**

MATERIAL: ZINC PLATED STEEL, SS303, SS316

MAX CYCLE RATE (OIL) 200 CPM

MAX PRESSURE: 7500 PSI

**TORQUE SPECIFICATIONS**

TIE ROD NUT: 5-8 FT/LBS

VALVE MOUNTING BOLTS: 12-13 FT/LBS

ALT. OUTLET PORTS: 8-9 FT/LBS

PISTON CLOSURE PORT: 12-15 FT/LBS

PRODUCT INTERCHANGE—LSP DIVIDER VALVES

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN	FARVAL	PRODUCT DESCRIPTION
000-05S	106-100-015	562711	882051	MCVA250105SG	LSP CRS 05 SINGLE
000-05T	106-100-175	562720	882052	MCVA250105TG	LSP CRS 05 TWIN
000-10S	106-100-025	562712	882101	MCVA250110SG	LSP CRS 10 SINGLE
000-10T	106-100-185	562721	882102	MCVA250110TG	LSP CRS 10 TWIN
000-15S	106-100-035	562713	882151	MCVA250115SG	LSP CRS 15 SINGLE
000-15T	106-100-195	562722	882152	MCVA250115TG	LSP CRS 15 TWIN
000-20S	106-100-045	562714	882201	MCVA250120SG	LSP CRS 20 SINGLE
000-20T	106-100-205	562723	882202	MCVA250120TG	LSP CRS 20 TWIN
000-25S	106-100-055	562715	882251	MCVA250125SG	LSP CRS 25 SINGLE
000-25T	106-100-215	562724	882252	MCVA250125TG	LSP CRS 25 TWIN
000-30S	106-100-065	562716	882301	MCVA250130SG	LSP CRS 30 SINGLE
000-30T	106-100-225	562725	882302	MCVA250130TG	LSP CRS 30 TWIN
000-35S	106-100-075	562717	882351	MCVA250135SG	LSP CRS 35 SINGLE
000-35T	106-100-235	562726	882352	MCVA250135TG	LSP CRS 35 TWIN
000-40S	106-100-085	562718	882401	MCVA250140SG	LSP CRS 40 SINGLE
000-40T	106-100-245	562727	882402	MCVA250140TG	LSP CRS 40 TWIN
000-15S-RHCIP	NA	N/A	N/A	N/A	LSP CRS 15 SGL RHCIP
000-15T-RHCIP	NA	N/A	N/A	N/A	LSP CRS 15 TW RHCIP
000-20S-RHCIP	106-100-735	562729	882203	MCVA250120SPG	LSP CRS 20 SGL RHCIP
000-20T-RHCIP	106-100-935	562739	882204	MCVA250120TPG	LSP CRS 20 TW RHCIP
000-25S-RHCIP	106-100-745	562730	882253	MCVA250125SPG	LSP CRS 25 SGL RHCIP
000-25T-RHCIP	106-100-945	562740	882254	MCVA250125TPG	LSP CRS 25 TW RHCIP
000-30S-RHCIP	106-100-755	562731	882303	MCVA250130SPG	LSP CRS 30 SGL RHCIP
000-30T-RHCIP	106-100-955	562741	882304	MCVA250130TPG	LSP CRS 30 TW RHCIP
000-35S-RHCIP	106-100-765	562732	882353	MCVA250135SPG	LSP CRS 35 SGL RHCIP
000-35T-RHCIP	106-100-965	562742	882354	MCVA250135TPG	LSP CRS 35 TW RHCIP
000-40S-RHCIP	106-100-775	562733	882403	MCVA250140SPG	LSP CRS 40 SGL RHCIP
000-40T-RHCIP	106-100-975	562743	882404	MCVA250140TPG	LSP CRS 40 TW RHCIP
000-15S-LHCIP	N/A	N/A	N/A	N/A	LSP CRS 15 SGL LHCIP
000-15T-LHCIP	N/A	N/A	N/A	N/A	LSP CRS 15 TW LHCIP
000-20S-LHCIP	N/A	562734	N/A	N/A	LSP CRS 20 SGL LHCIP
000-20T-LHCIP	N/A	562744	N/A	N/A	LSP CRS 20 TW LHCIP
000-25S-LHCIP	N/A	562735	N/A	N/A	LSP CRS 25 SGL LHCIP
000-25T-LHCIP	N/A	562745	N/A	N/A	LSP CRS 25 TW LHCIP
000-30S-LHCIP	N/A	562736	N/A	N/A	LSP CRS 30 SGL LHCIP
000-30T-LHCIP	N/A	562746	N/A	N/A	LSP CRS 30 TW LHCIP
000-35S-LHCIP	N/A	562737	N/A	N/A	LSP CRS 35 SGL LHCIP
000-35T-LHCIP	N/A	562747	N/A	N/A	LSP CRS 35 TW LHCIP
000-40S-LHCIP	N/A	562738	N/A	N/A	LSP CRS 40 SGL LHCIP
000-40T-LHCIP	N/A	562748	N/A	N/A	LSP CRS 40 TW LHCIP

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GRACO® IS A REGISTERED TRADEMARK OF GRACO®

TRABON® IS A REGISTERED TRADEMARK OF GRACO®

FARVAL® IS A REGISTERED TRADEMARK OF BIJUR DELIMON INTERNATIONAL

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PRODUCT INTERCHANGE—LSP DIVIDER VALVES

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN®	FARVAL	PRODUCT DESCRIPTION
000-INL-US	527-001-800	590919	87918	MCI2504BG	LSP CRS INLET 1/4" NPSF
000-INL-SAE	527003-540	560943	N/A	MCI2504AG	LSP CRS INLET 7/16-20 SAE
000-INL-M	527-003-130	560936	N/A	MCI2504CG	LSP CRS INLET 1/4" -19 BSPP
000-INL-ISO	N/A	560943	N/A	N/A	LSP CRS INLET M10 X 1.0 ISO
600-INL-B	527-000-322	563421	N/A	N/A	LSP CRS INLET 1/4" NPSF WITH BLEED SCREW
600-INL-B-SAE	527-001-900	563422	N/A	N/A	LSP CRS INLET 7/16-20 SAE WITH BLEED SCREW
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37499A	LSP CRS OIL INLET WITHOUT SOLENOID 7/16-20 SAE INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37499B	LSP CRS OIL INLET WITHOUT SOLENOID 1/4-18 NPSF INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37499C	LSP CRS OIL INLET WITHOUT SOLENOID 1/4-19 BSPP INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37500A	LSP CRS GREASE INLET WITHOUT SOLENOID 7/16-20 SAE INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37500B	LSP CRS GREASE INLET WITHOUT SOLENOID 1/4-18 NPSF INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	37500C	LSP CRS GREASE INLET WITHOUT SOLENOID 1/4-19 BSPP INLET
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	MCZ2501F	OIL SOLENOID VALVE BELOW 1500 PSI 120VAC
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	MCZ2501A	OIL SOLENOID VALVE 3000 PSI MAX 120 VAC
SEE LS SHUNT INLET FORM	N/A	N/A	N/A	MCZ2503B	GREASE SOLENOID VALVE 3000 PSI MAX 12 VAC
L527330	527-005-330	562470	N/A	37083	LSP CRS CROSSPORT LEFT HAND
L527320	527-005-320	563469	N/A	37083	LSP CRS CROSSPORT RIGHT HAND
L527340	527-005-340	563471	N/A	37083 (2 REQD)	LSP CRS CROSSPORT BOTH
000-BP	106-000-010	562660	882000	MCVA2501BPG	LSP CRS BY-PASS SECTION
L527350	527-005-350	563472	N/A	N/A	LSP CRS SINGLING BAR
000-BP-NPSF	527-000-311	563425	87919	MCBA2502BG	LSP CRS BASE PLATE 1/8-27 NPSF
000-BP-1/8ORS	N/A	N/A	N/A	N/A	LSP CRS BASE PLATE 1/8 WITH O-RING
000-BP-SAE	527-003-550	563451	N/A	MCBA2502AG	LSP CRS BASE PLATE 7/16-20 SAE
000-BP-M	527-003-140	563447	N/A	MCBA2502CG	LSP CRS BASE PLATE 1/8-28 BSPP
000-BP-ISO	N/A	N/A	N/A	N/A	LSP CRS BASE PLATE M10.0 X 1.0 ISO
000-END	527-001-900	563424	87920	MCEA2503G	LSP CRS END PLATE
N/A	510-770-332	563279	N/A	37484	LSP CRS END WITH ALT. INLET 1/8" NPSF
LSP-TRN-SS	410-440-010	556371	N/A	U251A	LSP CRS TIE ROD NUT 1/4"-28 HEX
LSP-ORSK	N/A	N/A	N/A	U1720005S	LSP VALVE AND BASE PLATE O-RINGS VITON
303-TR3	527-001-930	557731	250290	MCRK25053G	LSP CRS 3-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR4	527-001-940	557732	250291	MCRK25054G	LSP CRS 4-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR5	527-001-950	557733	250292	MCRK25055G	LSP CRS 5-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR6	527-001-960	557734	250293	MCRK25056G	LSP CRS 6-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR7	527-001-970	557735	250294	MCRK25057G	LSP CRS 7-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR8	527-001-980	557736	250295	MCRK25058G	LSP CRS 8-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR9	527-001-990	557738	N/A	MCRK25059G	LSP CRS 9-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR10	527-001-910	557739	N/A	MCRK250510G	LSP CRS 10-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR11	N/A	557740	N/A	N/A	LSP CRS 11-SECTION TIE ROD & NUT (PACK OF 3 EACH)
LSP-VMB-303	N/A	N/A	N/A	U212-A6	LSP CRS BASE ASSEMBLY SCREWS 1/4-28
N/A	N/A	N/A	N/A	N/A	CRS ELEMENT SCREWS 1/4-28
N/A	N/A	N/A	N/A	N/A	CRS 1/4-28 THREADED INSERT
A-001-S	527-001-9001-S0	557716	N/A	PLU14038A	LSP CRS PISTON CLOSURE PLUG WITH O-RING
A-002-S	527-001-9002-S0	567251	N/A	U119AC	LSP CRS ALTERNATE OUTLET PLUG WITH O-RING
131-1827PP	503-485-000	557349	68645	N/A	LSP CRS OUTLET PORT PLUG 1/8-20 NPSF
131-1828PP	412-700-404	558799	N/A	N/A	LSP CRS OUTLET PORT PLUG 1/8-28 BSPP
A-0001-S	412-120-206	567251	N/A	N/A	LSP CRS OUTLET PORT PLUG 2-SAE
131-M10PP	N/A	N/A	N/A	N/A	LSP CRS OUTLET PLUG M10 X 1.0 ISO
LSP-CIPMRK	560-002-055	563929	N/A	N/A	LSP CYCLE PIN REPAIR KIT
000-15S-RHCIP	N/A	N/A	N/A	N/A	LSP CRS 15 SGL RHCIP
000-15T-RHCIP	N/A	N/A	N/A	N/A	LSP CRS 15 TW RHCIP
000-20S-RHCIP	106-100-735	562729	882203	MCVA250120SPG	LSP CRS 20 SGL RHCIP
000-20T-RHCIP	106-100-935	562739	882204	MCVA250120TPG	LSP CRS 20 TW RHCIP
000-25S-RHCIP	106-100-745	562730	882253	MCVA250125SPG	LSP CRS 25 SGL RHCIP
000-25T-RHCIP	106-100-945	562740	882254	MCVA250125TPG	LSP CRS 25 TW RHCIP
000-30S-RHCIP	106-100-755	562731	882303	MCVA250130SPG	LSP CRS 30 SGL RHCIP
000-30T-RHCIP	106-100-955	562741	882304	MCVA250130TPG	LSP CRS 30 TW RHCIP
000-35S-RHCIP	106-100-765	562732	882353	MCVA250135SPG	LSP CRS 35 SGL RHCIP
000-35T-RHCIP	106-100-965	562742	882354	MCVA250135TPG	LSP CRS 35 TW RHCIP
000-40S-RHCIP	106-100-775	562733	882403	MCVA250140SPG	LSP CRS 40 SGL RHCIP
000-40T-RHCIP	106-100-975	562743	882404	MCVA250140TPG	LSP CRS 40 TW RHCIP
000-20S-LHCIP	106-100-785	562734	N/A	N/A	LSP CRS 20 SGL LHCIP
000-20T-LHCIP	106-100-985	562744	N/A	N/A	LSP CRS 20 TW LHCIP

PRODUCT INTERCHANGE—LSP DIVIDER VALVES

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN®	FARVAL	PRODUCT DESCRIPTION
000-25S-LHCIP	106-100-795	562735	N/A	N/A	LSP CRS 25 SGL LHCIP
000-25T-LHCIP	106-100-995	562745	N/A	N/A	LSP CRS 25 TW LHCIP
000-30S-LHCIP	106-100-805	562736	N/A	N/A	LSP CRS 30 SGL LHCIP
000-30T-LHCIP	106-101-005	562746	N/A	N/A	LSP CRS 30 TW LHCIP
000-35S-LHCIP	106-100-815	562737	N/A	N/A	LSP CRS 35 SGL LHCIP
000-35T-LHCIP	106-101-015	562747	N/A	N/A	LSP CRS 35 TW LHCIP
000-40S-LHCIP	106-100-825	562738	N/A	N/A	LSP CRS 40 SGL LHCIP
000-40T-LHCIP	106-101-025	562748	N/A	N/A	LSP CRS 40 TW LHCIP
LSW-001	510-599-000	563272	87070	N/A	LSP CYCLE SWITCH SPDT
LSW-002	510-577-000	564357	N/A	MC13974B	LSP CYCLE SWITCH DPDT
SEE PROX BULLETIN	527-001-231	563427	85651	N/A	LSP REED SWITCH SPST
SEE PROX BULLETIN	527-003-431	557745	249124	MCSA2503	LSP HALL EFFECT PROX SWITCH SPDT
SEE PROX BULLETIN	N/A	N/A	N/A	N/A	LSP 6' 3-PIN CABLE
SEE PROX BULLETIN	527-006-060	563485	N/A	N/A	LSP HALL EFFECT PROX SWITCH SPST EXPLOSION PROOF
VCI-437	N/A	N/A	N/A	37786	LSP VISUAL INDICATOR
000-INL-US	527-001-800	590919	87918	N/A	LSP CRS INLET 1/4" NPSF
LSW-001	510-599-000	563272	N/A	N/A	LSP CYCLE SWITCH SPDT
LSW-002	510-577-000	564357	N/A	N/A	LSP CYCLE SWITCH DPDT
SEE PROX BULLETIN	527-001-231	563427	N/A	N/A	LSP REED SWITCH SPST
SEE PROX BULLETIN	527-003-431	557745	N/A	N/A	LSP HALL EFFECT PROX SWITCH SDST
SEE PROX BULLETIN	?	?	N/A	N/A	LSP 6' 3-PIN CABLE
SEE PROX BULLETIN	527-006-060	563485	N/A	N/A	LSP HALL EFFECT PROX SWITCH SPST EXPLOSION PROOF
303-INL-US	N/A	15Y070	N/A	N/A	LSP 303 INLET 1/4" NPSF
303-INL-SAE	N/A	N/A	N/A	N/A	LSP 303 INLET 7/16-20 SAE
303-INL-M	N/A	16P368	N/A	N/A	LSP 303 INLET 1/4" -19 BSPP
303-INL-ISO	N/A	N/A	N/A	N/A	LSP 303 INLET M10 X 1.0 ISO
603-INL-B	N/A	N/A	N/A	N/A	LSP 303 INLET 1/4" NPSF WITH BLEED SCREW
603-INL-B-SAE	N/A	N/A	N/A	N/A	LSP 303 INLET 7/16-20 SAE WITH BLEED SCREW
L527330	N/A	N/A	N/A	N/A	LSP 303 CROSSPORT PLATE LEFT HAND
L527320	N/A	N/A	N/A	N/A	LSP 303 CROSSPORT PLATE RIGHT HAND
L527340	N/A	N/A	N/A	N/A	LSP 303 CROSSPORT PLATE BOTH
303-BP	N/A	N/A	N/A	N/A	LSP 303 BY-PASS SECTION
L527350-303	N/A	N/A	N/A	N/A	LSP 303 SINGLING PLATE
303-BP-NPSF	N/A	24B497	N/A	N/A	LSP 303 BASE PLATE 1/8-27 NPSF
303-BP-1/8ORS	N/A	N/A	N/A	N/A	LSP 303 BASE PLATE 1/8 WITH O-RING
303-BP-SAE	N/A	N/A	N/A	N/A	LSP 303 BASE PLATE 7/16-20 SAE
303-BP-M	N/A	24N369	N/A	N/A	LSP 303 BASE PLATE 1/8-28 BSPP
303-BP-ISO	N/A	N/A	N/A	N/A	LSP 303 BASE PLATE M10.0 X 1.0 ISO
303-END	N/A	24B498	N/A	N/A	LSP 303 END PLATE
603-END	N/A	N/A	N/A	N/A	LSP 303 END WITH ALT. INLET 1/8" NPSF
LSP-TRN-SS	N/A	558633	N/A	N/A	LSP 303 TIE ROD NUT 1/4"-28 HEX
303-TR3	N/A	126247	N/A	N/A	LSP 303 3-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR4	N/A	126248	N/A	N/A	LSP 303 4-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR5	N/A	126249	N/A	N/A	LSP 303 5-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR6	N/A	126250	N/A	N/A	LSP 303 6-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR7	N/A	126251	N/A	N/A	LSP 303 7-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR8	N/A	126252	N/A	N/A	LSP 303 8-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR9	N/A	15Y069	N/A	N/A	LSP 303 9-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR10	N/A	560956	N/A	N/A	LSP 303 10-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR11	N/A	N/A	N/A	N/A	LSP 303 11-SECTION TIE ROD & NUT (PACK OF 3 EACH)
A-001-S	N/A	560973	N/A	N/A	LSP 303 PISTON CLOSURE PLUG WITH O-RING
A-002-S	N/A	N/A	N/A	N/A	LSP 303 ALTERNATE OUTLET PLUG WITH O-RING
131-1827PP	N/A	560974	N/A	N/A	LSP 303 OUTLET PORT PLUG 1/8-20 NPSF
131-1828PP	N/A	N/A	N/A	N/A	LSP 303 OUTLET PORT PLUG 1/8-28 BSPP
A-0001-S	N/A	N/A	N/A	N/A	LSP 303 OUTLET PORT PLUG 2-SAE
131-M10PP	N/A	N/A	N/A	N/A	LSP 303 OUTLET PLUG M10 X 1.0 ISO
303-05S	N/A	24B474	N/A	N/A	LSP 303 05 SINGLE
303-05T	N/A	24B479	N/A	N/A	LSP 303 05 TWIN
303-10S	N/A	562755	N/A	N/A	LSP 303 10 SINGLE
303-10T	N/A	562758	N/A	N/A	LSP 303 10 TWIN
303-15S	N/A	24B475	N/A	N/A	LSP 303 15 SINGLE
303-15T	N/A	24B480	N/A	N/A	LSP 303 15 TWIN



PRODUCT INTERCHANGE—LSP DIVIDER VALVES

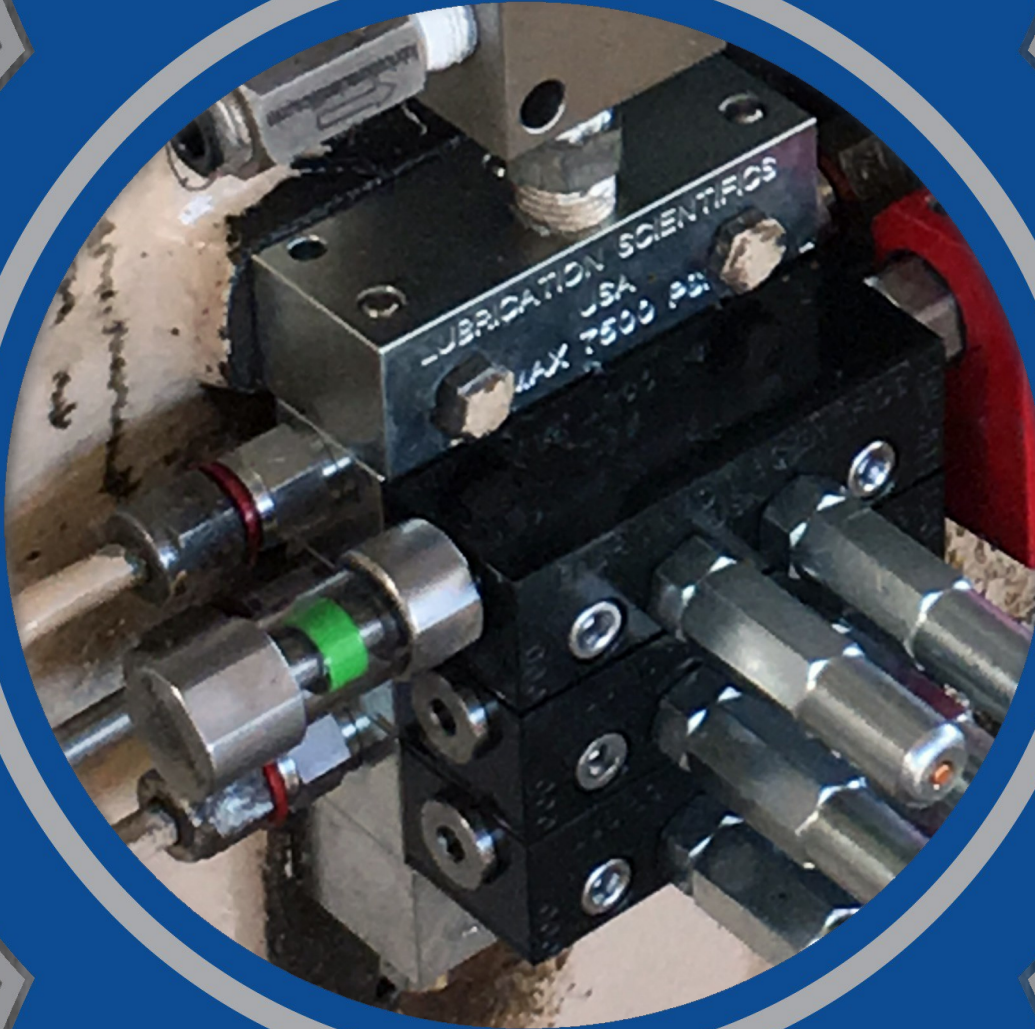
LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN®	FARVAL	PRODUCT DESCRIPTION
303-20S	N/A	562756	N/A	N/A	LSP 303 20 SINGLE
303-20T	N/A	562759	N/A	N/A	LSP 303 20 TWIN
303-25S	N/A	24B476	N/A	N/A	LSP 303 25 SINGLE
303-25T	N/A	24B481	N/A	N/A	LSP 303 25 TWIN
303-30S	N/A	24B477	N/A	N/A	LSP 303 30 SINGLE
303-30T	N/A	24B482	N/A	N/A	LSP 303 30 TWIN
303-35S	N/A	24B478	N/A	N/A	LSP 303 35 SINGLE
303-35T	N/A	24B483	N/A	N/A	LSP 303 35 TWIN
303-40S	N/A	562757	N/A	N/A	LSP 303 40 SINGLE
303-40T	N/A	562760	N/A	N/A	LSP 303 40 TWIN
303-15S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 15 SGL RHCIP
303-15T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 15 TW RHCIP
303-20S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 20 SGL RHCIP
303-20T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 20 TW RHCIP
303-25S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 25 SGL RHCIP
303-25T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 25 TW RHCIP
303-30S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 30 SGL RHCIP
303-30T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 30 TW RHCIP
303-35S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 35 SGL RHCIP
303-35T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 35 TW RHCIP
303-40S-RHCIP	N/A	N/A	N/A	N/A	LSP 303 40 SGL RHCIP
303-40T-RHCIP	N/A	N/A	N/A	N/A	LSP 303 40 TW RHCIP
303-15S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 15 SGL LHCIP
303-15T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 15 TW LHCIP
303-20S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 20 SGL LHCIP
303-20T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 20 TW LHCIP
303-25S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 25 SGL LHCIP
303-25T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 25 TW LHCIP
303-30S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 30 SGL LHCIP
303-30T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 30 TW LHCIP
303-35S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 35 SGL LHCIP
303-35T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 35 TW LHCIP
303-40S-LHCIP	N/A	N/A	N/A	N/A	LSP 303 40 SGL LHCIP
303-40T-LHCIP	N/A	N/A	N/A	N/A	LSP 303 40 TW LHCIP
SEE PROX BULLETIN	527-003-431	557745	N/A	N/A	LSP HALL EFFECT PROX SWITCH SPST
316-INL-US	N/A	N/A	N/A	N/A	LSP 316 INLET 1/4" NPSF
316-INL-SAE	N/A	N/A	N/A	N/A	LSP 316 INLET 7/16-20 SAE
316-INL-M	N/A	N/A	N/A	N/A	LSP 316 INLET 1/4" -19 BSPP
316-INL-ISO	N/A	N/A	N/A	N/A	LSP 316 INLET M10 X 1.0 ISO
616-INL-B	N/A	N/A	N/A	N/A	LSP 316 INLET 1/4" NPSF WITH BLEED SCREW
616-INL-B-SAE	N/A	N/A	N/A	N/A	LSP 316 INLET 7/16-20 SAE WITH BLEED SCREW
L527330	N/A	N/A	N/A	N/A	LSP 316 CROSSPORT PLATE LEFT HAND
L527320	N/A	N/A	N/A	N/A	LSP 316 CROSSPORT PLATE RIGHT HAND
L527340	N/A	N/A	N/A	N/A	LSP 316 CROSSPORT PLATE BOTH
316-BP	N/A	N/A	N/A	N/A	LSP 316 BY-PASS SECTION
L527350-316	N/A	N/A	N/A	N/A	LSP 316 SINGLING PLATE
316-BP-NPSF	N/A	N/A	N/A	N/A	LSP 316 BASE PLATE 1/8-27 NPSF
316-BP-1/8ORS	N/A	N/A	N/A	N/A	LSP 316 BASE PLATE 1/8 WITH O-RING
316-BP-SAE	N/A	N/A	N/A	N/A	LSP 316 BASE PLATE 7/16-20 SAE
316-BP-M	N/A	N/A	N/A	N/A	LSP 316 BASE PLATE 1/8-28 BSPP
316-BP-ISO	N/A	N/A	N/A	N/A	LSP 316 BASE PLATE M10.0 X 1.0 ISO
316-END	N/A	N/A	N/A	N/A	LSP 316 END PLATE
616-END	N/A	N/A	N/A	N/A	LSP 316 END WITH ALT. INLET 1/8" NPSF
LSP-TRN-316	N/A	N/A	N/A	N/A	LSP 316 TIE ROD NUT 1/4"-28 HEX
316-TR3	N/A	N/A	N/A	N/A	LSP 316 3-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR4	N/A	N/A	N/A	N/A	LSP 316 4-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR5	N/A	N/A	N/A	N/A	LSP 316 5-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR6	N/A	N/A	N/A	N/A	LSP 316 6-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR7	N/A	N/A	N/A	N/A	LSP 316 7-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR8	N/A	N/A	N/A	N/A	LSP 316 8-SECTION TIE ROD & NUT (PACK OF 3 EACH)

**PRODUCT INTERCHANGE—LSP DIVIDER VALVES**

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN®	FARVAL	PRODUCT DESCRIPTION
316-TR9	N/A	N/A	N/A	N/A	LSP 316 9-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR10	N/A	N/A	N/A	N/A	LSP 316 10-SECTION TIE ROD & NUT (PACK OF 3 EACH)
316-TR11	N/A	N/A	N/A	N/A	LSP 316 11-SECTION TIE ROD & NUT (PACK OF 3 EACH)
A-001-S	N/A	N/A	N/A	N/A	LSP 316 PISTON CLOSURE PLUG WITH O-RING
A-002-S	N/A	N/A	N/A	N/A	LSP 316 ALTERNATE OUTLET PLUG WITH O-RING
131-1827PP	N/A	N/A	N/A	N/A	LSP 316 OUTLET PORT PLUG 1/8-20 NPSF
131-1828PP	N/A	N/A	N/A	N/A	LSP 316 OUTLET PORT PLUG 1/8-28 BSPP
A-0001S	N/A	N/A	N/A	N/A	LSP 316 OUTLET PORT PLUG 2-SAE
131-M10PP	N/A	N/A	N/A	N/A	LSP 316 OUTLET PLUG M10 X 1.0 ISO
316-05S	N/A	N/A	N/A	N/A	LSP 316 05 SINGLE
316-05T	N/A	N/A	N/A	N/A	LSP 316 05 TWIN
316-10S	N/A	N/A	N/A	N/A	LSP 316 10 SINGLE
316-10T	N/A	N/A	N/A	N/A	LSP 316 10 TWIN
316-15S	N/A	N/A	N/A	N/A	LSP 316 15 SINGLE
316-15T	N/A	N/A	N/A	N/A	LSP 316 15 TWIN
316-20S	N/A	N/A	N/A	N/A	LSP 316 20 SINGLE
316-20T	N/A	N/A	N/A	N/A	LSP 316 20 TWIN
316-25S	N/A	N/A	N/A	N/A	LSP 316 25 SINGLE
316-25T	N/A	N/A	N/A	N/A	LSP 316 25 TWIN
316-30S	N/A	N/A	N/A	N/A	LSP 316 30 SINGLE
316-30T	N/A	N/A	N/A	N/A	LSP 316 30 TWIN
316-35S	N/A	N/A	N/A	N/A	LSP 316 35 SINGLE
316-35T	N/A	N/A	N/A	N/A	LSP 316 35 TWIN
316-40S	N/A	N/A	N/A	N/A	LSP 316 40 SINGLE
316-40T	N/A	N/A	N/A	N/A	LSP 316 40 TWIN
316-15S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 15 SGL RHCIP
316-15T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 15 TW RHCIP
316-20S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 20 SGL RHCIP
316-20T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 20 TW RHCIP
316-25S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 25 SGL RHCIP
316-25T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 25 TW RHCIP
316-30S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 30 SGL RHCIP
316-30T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 30 TW RHCIP
316-35S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 35 SGL RHCIP
316-35T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 35 TW RHCIP
316-40S-RHCIP	N/A	N/A	N/A	N/A	LSP 316 40 SGL RHCIP
316-40T-RHCIP	N/A	N/A	N/A	N/A	LSP 316 40 TW RHCIP
316-15S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 15 SGL LHCIP
316-15T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 15 TW LHCIP
316-20S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 20 SGL LHCIP
316-20T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 20 TW LHCIP
316-25S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 25 SGL LHCIP
316-25T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 25 TW LHCIP
316-30S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 30 SGL LHCIP
316-30T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 30 TW LHCIP
316-35S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 35 SGL LHCIP
316-35T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 35 TW LHCIP
316-40S-LHCIP	N/A	N/A	N/A	N/A	LSP 316 40 SGL LHCIP
316-40T-LHCIP	N/A	N/A	N/A	N/A	LSP 316 40 TW LHCIP

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**LHP SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**HIGH PRESSURE VALVES—CRITICAL MONITORING—ACCESSORIES**



## LHP—HIGH PRESSURE, SERIES PROGRESSIVE DIVIDER VALVE

### PRODUCT DESCRIPTION

HIGH PRESSURE, SERIES PROGRESSIVE DIVIDER VALVES

IDEAL FOR GAS ENGINES, COMPRESSORS, AND OTHER ROTATING EQUIPMENT

AVAILABLE IN PLATED CARBON, 303, AND 316 STAINLESS STEEL

DESIGNED WITH FEEDBACK MONITORING SYSTEM PERFORMANCE

INTERNAL CHECK VALVES COME STANDARD KEEPING LUBE LINES FULL

CAN ACCOMMODATE 1-22 LUBE POINTS PER VALVE ASSEMBLY

### BENEFITS & FEATURES

PRECISE LUBRICANT FLOW TO EACH LUBE POINT

STANDARD FOOTPRINT, HIGH PRESSURE 7500 PSI

INTERNAL CHECK VALVES (316 SS BALLS & SPRINGS)

CARBON OR STAINLESS STEEL CONSTRUCTION

USED FOR HIGH PRESSURE OIL APPLICATIONS

1-22 LUBE POINTS PER VALVE ASSEMBLY

WIDE RANGE OF ACCESSORIES AVAILABLE FOR ANY SYSTEM REQUIREMENT

## READY FOR IMMEDIATE SHIPMENT

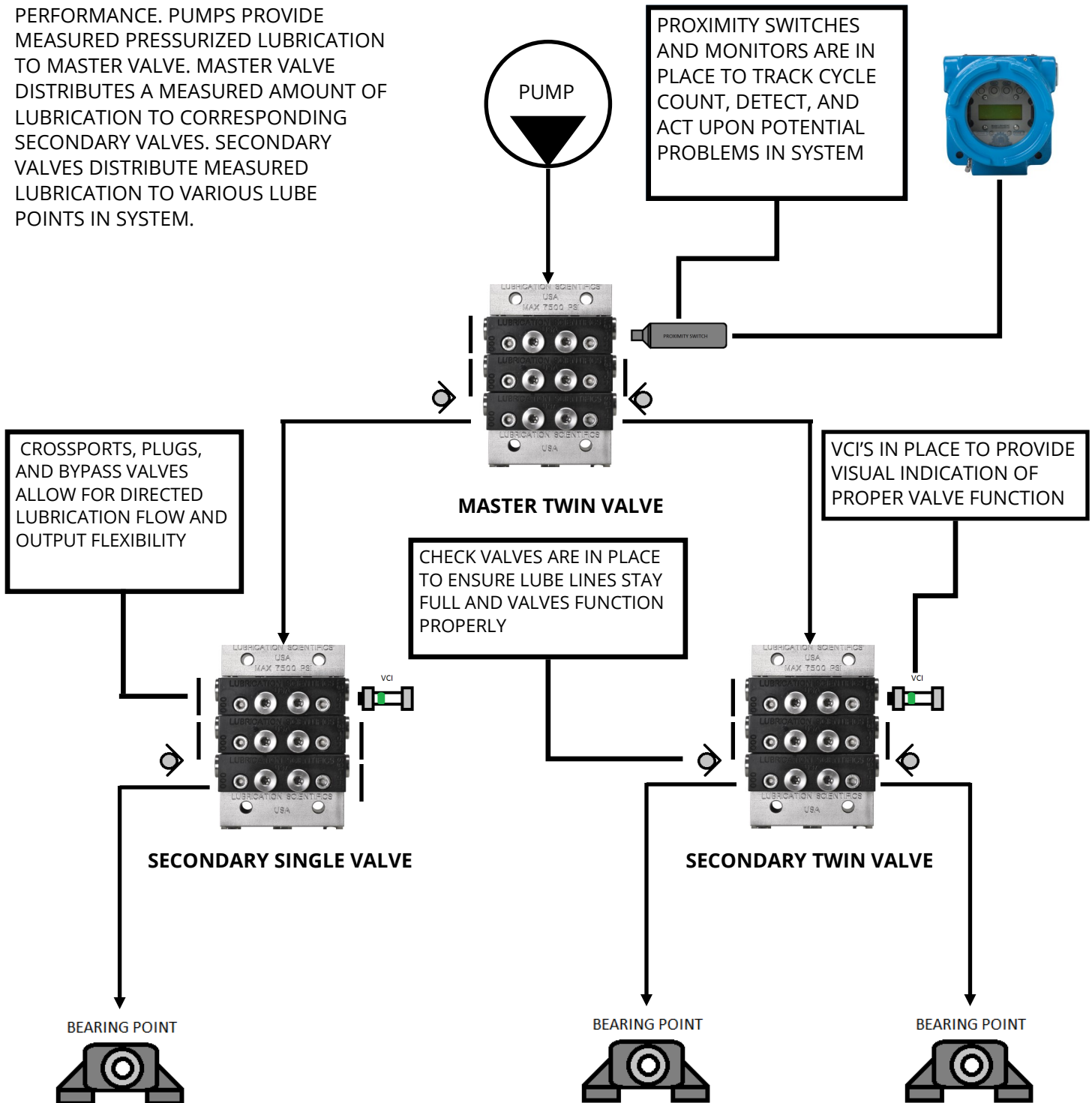
MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

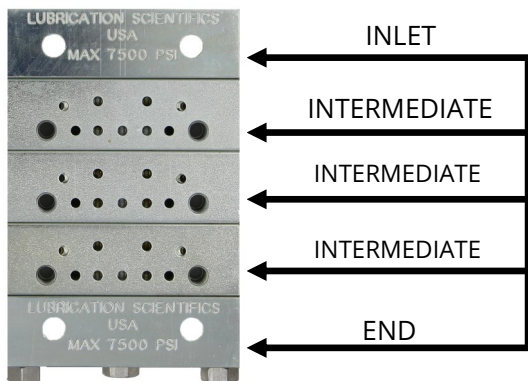
FUNCTION ILLUSTRATION & SPECIFICATIONS

PRECISE LUBRICATION IS ESSENTIAL FOR PROPER MECHANICAL PERFORMANCE. PUMPS PROVIDE MEASURED PRESSURIZED LUBRICATION TO MASTER VALVE. MASTER VALVE DISTRIBUTES A MEASURED AMOUNT OF LUBRICATION TO CORRESPONDING SECONDARY VALVES. SECONDARY VALVES DISTRIBUTE MEASURED LUBRICATION TO VARIOUS LUBE POINTS IN SYSTEM.



**ORDERING INFORMATION & PART NUMBERS  
INLETS, OUTLETS, & ENDS**

**MANIFOLD COMPONENTS**



ROHS COMPLIANT CLEAR ZINC PLATING (CRS ONLY)

SUPPLIED WITH ONLY VITON O-RINGS

INTERMEDIATES INCLUDE INTEGRAL CHECKS

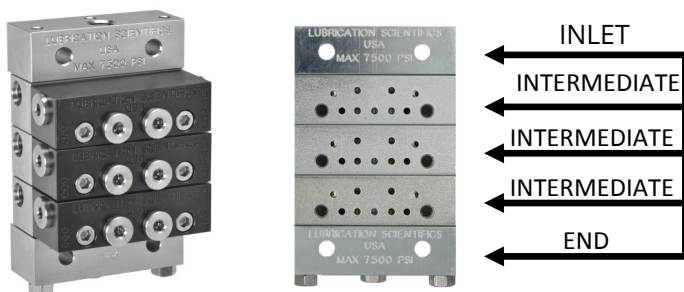
**ALL INTERNAL CHECKS USE 316 SS BALLS AND SPRINGS**

**LINCOLN® STYLE BASEPLATE ASSEMBLIES AVAILABLE**

**STANDARD PACK: 5 EACH, 316 STAINLESS STEEL: 1 EACH**

<b>PART DESCRIPTION</b>	<b>CRS</b>	<b>303 SS</b>	<b>316 SS</b>
INLET 1/4-18 NPSF	000-INL-US	303-INL-US	316-INL-US
INLET 1/4-18 NPSF LINCOLN® STYLE	000-INL-US-L	303-INL-US-L	316-INL-US-L
INLET 1/4-18 NPSF WITH BLEED PORTS	600-INL-B	603-INL-B	616-INL-B
INLET 1/4-18 NPSF LINCOLN® STYLE W/ BLEED PORTS	600-INL-B-L	603-INL-B-L	616-INL-B-L
INTERMEDIATE 1/8-27 NPSF OUTLETS	000-BP-NPSF	303-BP-NPSF	316-BP-NPSF
INTERMEDIATE 1/8-27 SAE OUTLETS	000-BP-1/8ORS	303-BP-1/8ORS	316-BP-1/8ORS
INTERMEDIATE 1/8-28 BSPP OUTLETS	000-BP-M	303-BP-M	316-BP-M
INTERMEDIATE M10 X 1.0 ISO OUTLETS	000-BP-ISO	303-BP-ISO	316-BP-ISO
INTERMEDIATE 7/16-20 SAE OUTLETS	000-BP-SAE	303-BP-SAE	316-BP-SAE
END STANDARD	000-END	303-END	316-END
END STANDARD LINCOLN® STYLE	000-END-L	303-END-L	316-END-L
END 1/8 NPSF BOTTOM INLET PORT	600-END	603-END	616-END

LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN®



**BASEPLATE ASSEMBLIES**

PREBUILT & TESTED

BASEPLATE ASSEMBLIES MAKE IT EASY TO COMPLETE DIVIDER VALVE ORDER. CHOOSE DIVIDER VALVES FOR SPECIFIC NEEDS AND COMPLETE VALVE SET WITH MATCHING BASEPLATE SECTIONS. BASEPLATES ARE PREBUILT AND TESTED. BASEPLATE ASSEMBLY ORDERS COME WITH AN END, AN INLET, TIE RODS, AND BASEPLATE SECTIONS.

STANDARD PACK: 1 EACH			
SIZE & TYPE	CARBON STEEL	303 STAINLESS	316 STAINLESS
	PART #: NPSF PART #: ORS	PART #: NPSF PART #: ORS	PART #: NPSF PART #: ORS
3 SECTION WITH STANDARD INLET AND STANDARD END	BPA-03-NPSF-000 BPA-03-ORS-000	BPA-03-NPSF-303 BPA-03-ORS-303	BPA-03-NPSF-316 BPA-03-ORS-316
4 SECTION WITH STANDARD INLET AND STANDARD END	BPA-04-NPSF-000 BPA-04-ORS-000	BPA-04-NPSF-303 BPA-04-ORS-303	BPA-04-NPSF-316 BPA-04-ORS-316
5 SECTION WITH STANDARD INLET AND STANDARD END	BPA-05-NPSF-000 BPA-05-ORS-000	BPA-05-NPSF-303 BPA-05-ORS-303	BPA-05-NPSF-316 BPA-05-ORS-316
6 SECTION WITH STANDARD INLET AND STANDARD END	BPA-06-NPSF-000 BPA-06-ORS-000	BPA-06-NPSF-303 BPA-06-ORS-303	BPA-06-NPSF-316 BPA-06-ORS-316
7 SECTION WITH STANDARD INLET AND STANDARD END	BPA-07-NPSF-000 BPA-07-ORS-000	BPA-07-NPSF-303 BPA-07-ORS-303	BPA-07-NPSF-316 BPA-07-ORS-316
8 SECTION WITH STANDARD INLET AND STANDARD END	BPA-08-NPSF-000 BPA-08-ORS-000	BPA-08-NPSF-303 BPA-08-ORS-303	BPA-08-NPSF-316 BPA-08-ORS-316
9 SECTION WITH STANDARD INLET AND STANDARD END	BPA-09-NPSF-000 BPA-09-ORS-000	BPA-09-NPSF-303 BPA-09-ORS-303	BPA-09-NPSF-316 BPA-09-ORS-316
10 SECTION WITH STANDARD INLET AND STANDARD END	BPA-10-NPSF-000 BPA-10-ORS-000	BPA-10-NPSF-303 BPA-10-ORS-303	BPA-10-NPSF-316 BPA-10-ORS-316
11 SECTION WITH STANDARD INLET AND STANDARD END	BPA-11-NPSF-000 BPA-11-ORS-000	BPA-11-NPSF-303 BPA-11-ORS-303	BPA-11-NPSF-316 BPA-11-ORS-316
FOR INLET WITH BLEEDS	USE SUFFIX "-BL"		
FOR END WITH BOTTOM FEED	USE SUFFIX "-BF"		
FOR LINCOLN® STYLE INLET & END	USE SUFFIX "-L"		

ORDERING EXAMPLE WITH BLEEDS AND BOTTOM FEED: **BPA-03-NPSF-303-BL-BF**

**ORDERING INFORMATION & PART NUMBERS  
INTERMEDIATE VALVE SECTIONS**

**CARBON & STAINLESS STEEL DIVIDER VALVES**

STANDARD FOOTPRINT, HIGH PRESSURE (7500 PSI)

ROHS COMPLIANT CLEAR ZINC PLATING (CRS ONLY)

SUPPLIED WITH ONLY STAINLESS STEEL CAPS AND MOUNTING BOLTS

SUPPLIED WITH ONLY VITON O-RINGS



ALL VALVES HAVE 1/8-27 NPSF FRONT FACE ALTERNATE OUTLETS. ALL VALVES MAY BE VERTICALLY CROSSPORTED ON THE FRONT OUTLETS. ALL VALVES CAN BE EQUIPPED WITH PERFORMANCE/RESET INDICATORS.

**STANDARD PACK: 5 EACH, 316 STAINLESS STEEL: 1 EACH**

SINGLE OUTPUT	PART NUMBER			TWIN OUTPUT	PART NUMBER		
	CRS	303 SS	316 SS		CRS	303 SS	316 SS
.012 CI   .197 CC	600-06S	603-06S	616-06S	.006 CI   .098 CC	600-06T	603-06T	616-06T
.018 CI   .295 CC	600-09S	603-09S	616-09S	.009 CI   .148 CC	600-09T	603-09T	616-09T
.024 CI   .393 CC	600-12S	603-12S	616-12S	.012 CI   .197 CC	600-12T	603-12T	616-12T
.030 CI   .492 CC	600-15S	603-15S	616-15S	.015 CI   .246 CC	600-15T	603-15T	616-15T
.036 CI   .590 CC	600-18S	603-18S	616-18S	.018 CI   .295 CC	600-18T	603-18T	616-18T
.042 CI   .688 CC	600-21S	603-21S	616-21S	.021 CI   .344 CC	600-21T	603-21T	616-21T
.048 CI   .787 CC	600-24S	603-24S	616-24S	.024 CI   .393 CC	600-24T	603-24T	616-24T
.060 CI   .983 CC	600-30S	603-30S	616-30S	.030 CI   .492 CC	600-30T	603-30T	616-30T

FOR CRS BYPASS VALVE USE PART NUMBER **000-BYPASS**

FOR 303 SS BYPASS VALVE USE PART NUMBER **203-BYPASS**

FOR 316 SS BYPASS VALVE USE PART NUMBER **216-BYPASS**



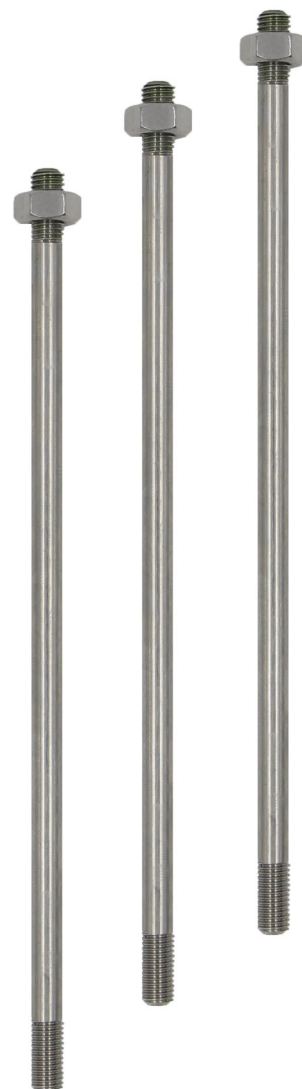
**ORDERING INFORMATION & PART NUMBERS  
STAINLESS STEEL TIE RODS**

**303 & 316 STAINLESS STEEL TIE RODS**

3 TIE RODS REQUIRED PER VALVE ASSEMBLY

ALL TIE RODS INCLUDE ROD NUT

ALL TIE RODS ARE STAINLESS STEEL



<b>STANDARD PACK: 3 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
3 SECTION VALVE ASSEMBLY	303-TR3	316-TR3
4 SECTION VALVE ASSEMBLY	303-TR4	316-TR4
5 SECTION VALVE ASSEMBLY	303-TR5	316-TR5
6 SECTION VALVE ASSEMBLY	303-TR6	316-TR6
7 SECTION VALVE ASSEMBLY	303-TR7	316-TR7
8 SECTION VALVE ASSEMBLY	303-TR8	316-TR8
9 SECTION VALVE ASSEMBLY	303-TR9	316-TR9
10 SECTION VALVE ASSEMBLY	303-TR10	316-TR10
11 SECTION VALVE ASSEMBLY	303-TR11	316-TR11

**ORDERING INFORMATION & PART NUMBERS  
SINGLING, CROSSPORTING, & REPLACEMENT PARTS**

**FRONT (A/O) CROSSPORT KITS**

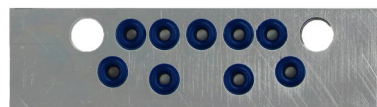
ALL STAINLESS STEEL CONSTRUCTION WITH VITON O-RINGS

<b>STANDARD PACK: 1 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
2 VALVES, 1 OUTPUT	303-413	316-413
3 VALVES, 1 OUTPUT	303-414	316-414
4 VALVES , 1 OUTPUT	303-415	316-415



**CROSSPORT BAR KITS**

CRS & STAINLESS STEEL  
CONSTRUCTION WITH O-RINGS &  
MOUNTING BOLTS



<b>STANDARD PACK: 5 EACH</b>			
<b>PART DESCRIPTION</b>	<b>CRS</b>	<b>303 SS</b>	<b>316 SS</b>
CROSSPORT BAR (RIGHT)	L527320	L527320-303	L527320-316
CROSSPORT BAR (LEFT)	L527330	L527330-303	L527330-316
CROSSPORT BAR (BOTH)	L527340	L527340-303	L527340-316

**SINGLING BAR KIT**

CARBON & STAINLESS STEEL CONSTRUCTION  
WITH VITON O-RINGS

<b>STANDARD PACK: 5 EACH</b>			
<b>PART DESCRIPTION</b>	<b>CRS</b>	<b>303 SS</b>	<b>316 SS</b>
SINGLING BAR	L527350	L527350-303	L527350-316

**REPLACEMENT CLOSURE PLUGS & O-RINGS**

STAINLESS STEEL CONSTRUCTION  
O-RINGS INCLUDED



<b>STANDARD PACK: 10 EACH</b>		
<b>PART DESCRIPTION</b>	<b>303 SS</b>	<b>316 SS</b>
ALTERNATE OUTLET (FRONT PORTS) PLUG	A-002-S	A-002-S316
PISTON BORE PLUG	A-001-S	A-001-S316
O-RING SEAL KIT—ALL VALVES/INTERMEDIATES/ENDS	LSP-ORSK	LSP-ORSK

**ORDERING INFORMATION & PART NUMBERS  
ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**NOTES REGARDING ADDITIONAL ACCESSORIES**

TECHNICAL BULLETINS AVAILABLE FOR ALL ACCESSORIES. REFER TO PAGE 17 IF ADDITIONAL INFORMATION IS DESIRED ON A SPECIFIC PRODUCT.

**PROXIMITY SWITCH AND CABLES**

STANDARD PACK: 1 EACH				
ITEM DESCRIPTION	VALVE ADAPTER	PART NUMBER	MAX PSI/BAR	HAZARD RATING
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527251	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527112	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527111	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LSP/LHP	L527431	7,500 PSI 517 BAR	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III

STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	12' CABLE PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12



**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**  
**OUTLET CHECK VALVES**

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/4" TUBE	35	OCV-303-125-NPTF	OCV-316-125-NPTF	INTEGRAL FITTING
1/8" ORS (M)	1/4" TUBE	35	OCV-303-125-ORS	OCV-316-125-ORS	INTEGRAL FITTING
1/8" BSPP (M)	6MM TUBE	35	OCV-303-125-BSPP	OCV-316-125-BSPP	INTEGRAL FITTING
M10 X 1.0 ISO (M)	6MM TUBE	35	OCV-303-125-ISO	OCV-316-125-ISO	INTEGRAL FITTING
7/16"-20 SAE (M)	1/4" TUBE	35	OCV-303-125-SAE	OCV-316-125-SAE	INTEGRAL FITTING

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/8" NPSF (F)	35 / 2.41	OCV-303-125R-35	OCV-316-125R-35	TUBE FITTING
1/8" NPTF (M)	1/8" NPSF (F)	60 / 4.13	OCV-303-125R-60	OCV-316-125R-60	TUBE FITTING
1/8" NPTF (M)	1/8" NPSF (F)	250 / 17.23	OCV-303-125R-250	OCV-316-125R-250	TUBE FITTING
1/4"NPTF (M)	1/4" NPSF (F)	35 / 2.41	OCV-303-250R-35	OCV-316-250R-35	TUBE FITTING



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**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**VISUAL CYCLE INDICATOR**

<b>STANDARD PACK: 1 EACH</b>	
<b>ITEM DESCRIPTION</b>	<b>PART NUMBER</b>
STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437-L LINCOLN® STYLE



**LIMIT SWITCH**

<b>STANDARD PACK: 1 EACH</b>	
<b>ITEM DESCRIPTION</b>	<b>PART NUMBER</b>
LIMIT SWITCH ASSEMBLY, SPDT	LSW-001
LIMIT SWITCH ASSEMBLY, DPDT	LSW-002

**PERFORMANCE (RESET) INDICATORS**

<b>STANDARD PACK: 5 EACH</b>	<b>1/8 NPSF O-RING CONNECTION</b>	
	<b>303 STAINLESS</b>	<b>316 STAINLESS</b>
1,000 PSI 69 BAR	303-P1000	316-P1000
1,500 PSI 103 BAR	303-P1500	316-P1500
2,000 PSI 138 BAR	303-P2000	316-P2000
2,500 PSI 172 BAR	303-P2500	316-P2500
3,000 PSI 207 BAR	303-P3000	316-P3000
3,500 PSI 241 BAR	303-P3500	316-P3500
5,000 PSI 345 BAR	303-P5000	316-P5000
LINCOLN® STYLE INDICATOR ADAPTER	303-PI-ADP-L	316-PI-ADP-L



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**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**BLOWOUT FITTINGS**

STANDARD PACK: 5 EACH	1/8" O-RING SEAL OR 1/8" NPTF THREADS	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-NPTF BOF-LP-303-ORS	BOF-LP-316-NPTF BOF-LP-316-ORS
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-NPTF BOF-LP-303R-ORS	BOF-LP-316R-NPTF BOF-LP-316R-ORS
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-NPTF BOF-HP-303-ORS	BOF-HP-316-NPTF BOF-HP-316-ORS
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-NPTF BOF-HP-303R-ORS	BOF-HP-316R-NPTF BOF-HP-316R-ORS



NOTE: RUPTURE DISK NOT INCLUDED

**3/8" DIAMETER RUPTURE DISKS**

STANDARD PACK: 25 EACH			
DISC COLOR	LOW PRESSURE BURST (PSI / BAR) (1/4" APERTURE FITTING)	HIGH PRESSURE BURST (PSI / BAR) (1/8" APERTURE FITTING)	PART NUMBER
BLACK	900 / 62	N/R	A509-276-000
GREEN	1,175 / 81	N/R	A509-277-000
YELLOW	1,450 / 100	3,700 / 255	A509-292-000
RED	1,750 / 121	4,600 / 317	A509-279-000
ORANGE	2,050 / 141	5,500 / 379	A509-280-000
ALUMINUM	2,350 / 162	N/R	A509-281-000
PINK	2,650 / 183	6,400 / 441	A509-282-000
BLUE	2,950 / 203	7,300 / 503	A509-283-000
PURPLE	3,250 / 224	8,200 / 565	A509-284-000

NOTE: ALL DISKS HAVE A RUPTURE TOLERANCE OF +500 PSI

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**ATMOSPHERIC RESET INDICATORS**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
L5081000-NPTF	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPTF
L5081000-ORS	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-NPTF	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-ORS	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-NPTF	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-ORS	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 ORS
L5082500-NPTF	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-ORS	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 ORS
L5083000-NPTF	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-ORS	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 ORS
L5081000-316-NPTF	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPT
L5081000-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 ORS
L5082500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 ORS
L5083000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 ORS

**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316





**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**CONTAMINATION IS THE ENEMY OF RELIABILITY**  
**THE DIRT TRAP IS THE ANSWER**

**DIRT TRAP FILTER ASSEMBLY**



STANDARD PACK: 1 EACH		
FILTER RATING	316 STAINLESS STEEL	AL2024 BLUE ANODIZED ALUMINUM 6,000 PSI / 414 BAR
5 MICRON	DTFA-005-O-316	MDFA-005-O
10 MICRON	DTFA-010-O-316	MDFA-010-O
25 MICRON	DTFA-025-O-316	MDFA-025-O
150 MICRON 100 MESH	DTFA-100-G-316	MDFA-100-G
420 MICRON 40 MESH	DTFA-040-G-316	MDFA-040-G

**DIRT TRAP REPLACEMENT ELEMENT - STANDARD PACK 1 EA.**

STANDARD PACK: 1 EACH	
FILTER RATING	PART NUMBER
5 MICRON	DT-EL-002-005MIC
10 MICRON	DT-EL-002-010MIC
25 MICRON	DT-EL-002-025MIC
150 MICRON 100 MESH	DT-EL-002-100M



NOTE: REPLACEMENT ELEMENTS ARE COMPATIBLE WITH BOTH THE CARBON STEEL AND 2024 ALUMINUM MODELS.

## ORDERING INFORMATION & PART NUMBERS

### SPIN-ON FILTER ASSEMBLY

ANODIZED ALUMINUM MANIFOLD  
 STAINLESS STEEL PRESSURE GAUGES  
 MOUNTING BRACKET  
 HIGH FLOW FILTER CANISTER  
 FOR OIL USE ONLY  
 MAX PRESSURE: 150 PSI

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
SPIN-ON FILTER COMPLETE ASSEMBLY	LPFA-118-AL
REPLACEMENT ELEMENT	LPFA-118-RFE



**SPIN-ON-FILTER COMPLETE ASSEMBLY**



**REPLACEMENT ELEMENT**

## LHP FEEDER PART NUMBER ORDERING GUIDE

LHP-XXX-XXX-XX-XX-XXX-XXXXX

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
MATERIAL	P/N
CARBON STEEL	LEAVE BLANK
303 STAINLESS	303
316 STAINLESS	316

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
PORT OPTIONS	P/N
NPSF PORTS	NPT
1/8 ORS	ORS
SAE PORTS	SAE
BSPP PORTS	BSP
METRIC PORTS	MET

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
VALVE SIZE	P/N
BYPASS SECTION	BP
.006 CU. IN.	6
.009 CU. IN.	9
.012 CU. IN.	12
.015 CU. IN.	15
.018 CU. IN.	18
.024 CU. IN.	24
.030 CU. IN.	30

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
INLET SECTION OPTION	P/N
STANDARD	MS
W/ BLEED SCREWS (NPT PORT OPTION ONLY)	MB

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
END SECTION OPTION	P/N
STANDARD	ES
WITH 1/8-27 NPSF PORT	EP

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
INSTALLED ACCESSORIES	P/N
NO INTERNAL CHECK VALVES	X
EXTERNAL CHECK VALVES	C
PERFORMANCE INDICATORS	P
PERFORMANCE INDICATORS & CHECK VALVES	B

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
NUMBER OF SECTIONS	P/N
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10
ELEVEN	11

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
TYPE OF SECTION	P/N
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, PROXIMITY SWITCH RIGHT	E
SINGLE, PROXIMITY SWITCH RIGHT, RH OUTLET	F
SINGLE, PROXIMITY SWITCH RIGHT, LH OUTLET	G
TWIN, PROXIMITY SWITCH LEFT	M
SINGLE, PROXIMITY SWITCH LEFT, RH OUTLET	N
SINGLE, PROXIMITY SWITCH LEFT, LH OUTLET	P

LHP-XXX-XXX-XX-XX-XXX-XXXXX	
CROSSPORT OPTION	P/N
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB

## MOUNTING INFORMATION & SPECIFICATIONS

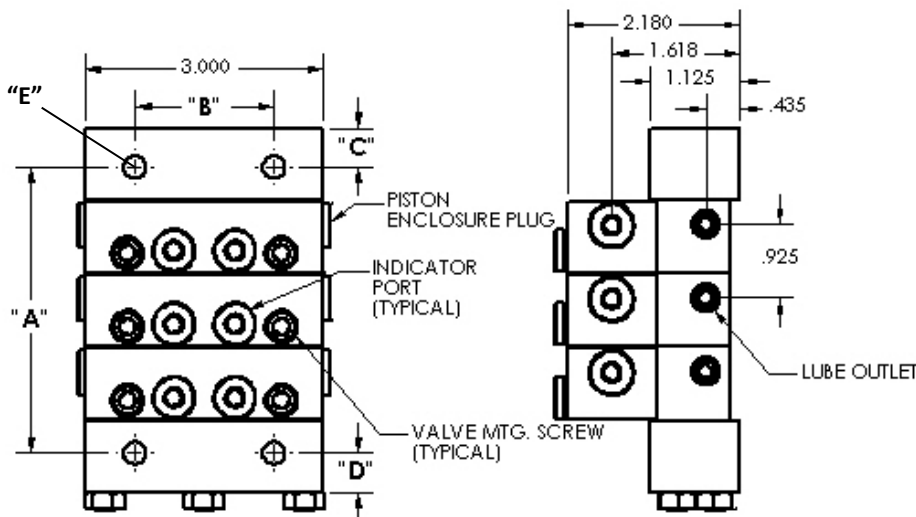
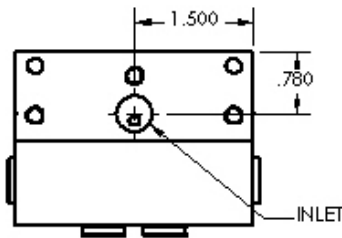
### WITH 1.75" STANDARD MOUNTING HOLES

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.585/3.605	91.31	1.75	0.490	0.490	0.281
4	4.510/4.530	114.80	1.75	0.490	0.490	0.281
5	5.435/5.455	138.30	1.75	0.490	0.490	0.281
6	6.360/6.380	161.79	1.75	0.490	0.490	0.281
7	7.285/7.305	185.29	1.75	0.490	0.490	0.281
8	8.210/8.230	208.78	1.75	0.490	0.490	0.281

VALVE SECTIONS	NET WEIGHT	
	LBS.	KG.
3	5.9	2.7
4	7.3	3.3
5	8.7	4.0
6	10.2	4.6
7	11.6	5.6
8	13.0	5.9

### WITH 1.875" MOUNTING HOLES

VALVE SECTIONS	A		B	C	D	E
	INCH	mm				
3	3.365/3.385	85.72	1.875	0.292	0.310	0.328
4	4.290/4.310	109.22	1.875	0.292	0.310	0.328
5	5.215/5.235	132.71	1.875	0.292	0.310	0.328
6	6.140/6.160	156.21	1.875	0.292	0.310	0.328
7	7.065/7.085	179.70	1.875	0.292	0.310	0.328
8	7.990/8.010	203.20	1.875	0.292	0.310	0.328



### SPECIFICATIONS

MATERIAL: ZINC PLATED STEEL, SS303, SS316

MAX CYCLE RATE (OIL) 200 CPM

MAX PRESSURE: 7500 PSI

### TORQUE SPECIFICATIONS

TIE ROD NUT: 5-8 FT/LBS

VALVE MOUNTING BOLTS: 12-13 FT/LBS

ALT. OUTLET PORTS: 8-9 FT/LBS

PISTON CLOSURE PORT: 12-15 FT/LBS

PRODUCT INTERCHANGE—LHP DIVIDER VALVES

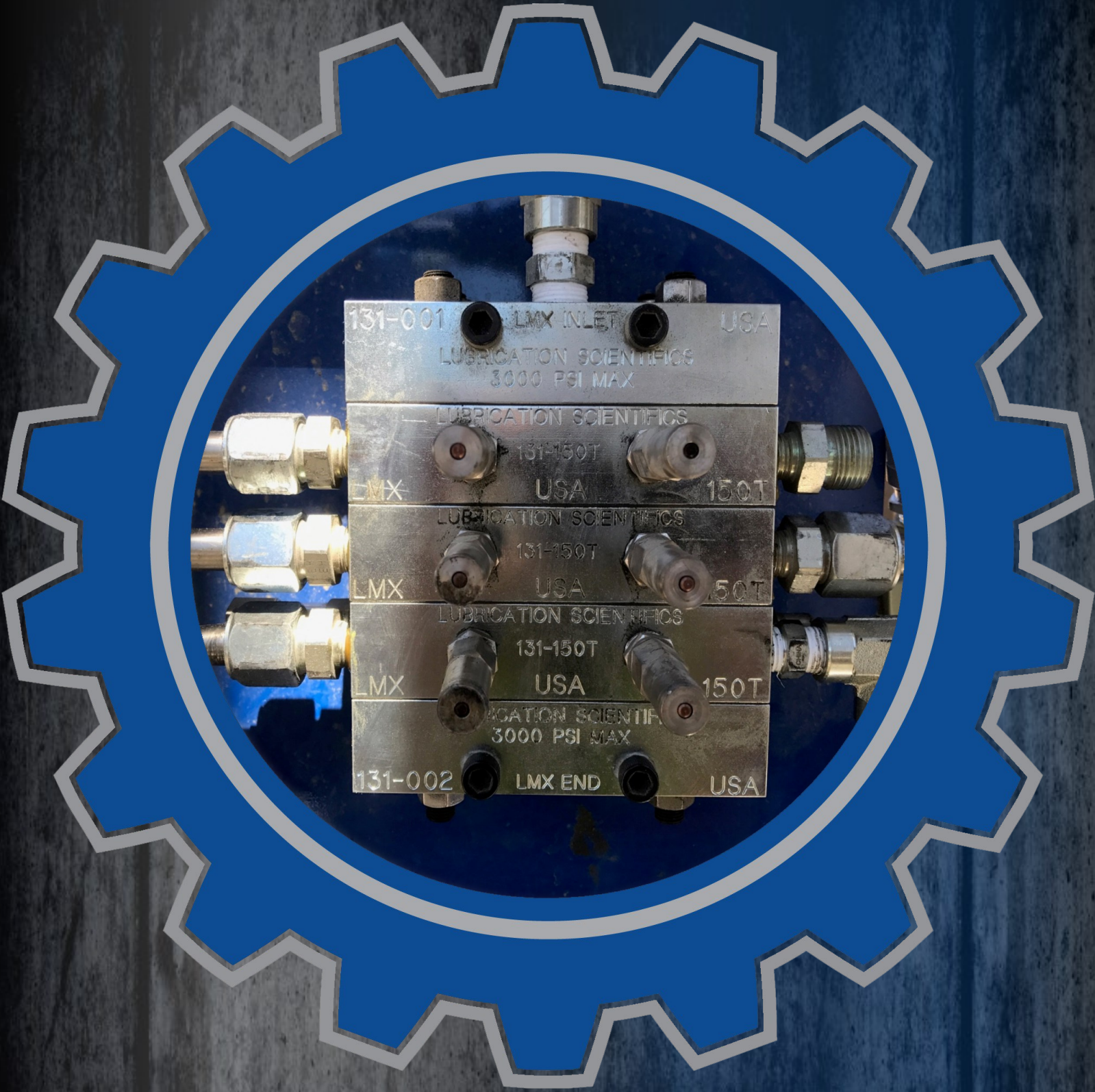
LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN®	FARVAL	PRODUCT DESCRIPTION
000-INL-SAE	N/A	N/A	N/A	N/A	LHP CRS INLET 7/16-20 SAE
000-INL-M	N/A	N/A	N/A	N/A	LHP CRS INLET 1/4" -19 BSPP
000-INL-ISO	N/A	N/A	N/A	N/A	LHP CRS INLET M10 X 1.0 ISO
600-INL-B	527-000-321	N/A	N/A	N/A	LHP CRS INLET 1/4" NPSF WITH BLEED SCREW
600-INL-B-SAE	527-000-325	563422	N/A	N/A	LHP CRS INLET 7/16-20 SAE WITH BLEED SCREW
L527330	527-005-330	563470	N/A	N/A	LHP CRS CROSSPORT PLATE LEFT HAND
L527320	527-005-320	563469	N/A	N/A	LHP CRS CROSSPORT PLATE RIGHT HAND
L527340	527-005-340	563471	N/A	N/A	LHP CRS CROSSPORT PLATE BOTH
600-BYPASS	106-000-010	562660	874000	N/A	LHP CRS BY-PASS SECTION
L527350	527-005-350	563472	N/A	N/A	LHP CRS SINGLING PLATE
600-BP-NPSF	527-000-311	563419	68645	N/A	LHP CRS BASE PLATE 1/8-27 NPSF
600-BP-1/8ORS	N/A	N/A	N/A	N/A	LHP CRS BASE PLATE 1/8 WITH O-RING
600-BP-SAE	527-003-550	563451	N/A	N/A	LHP CRS BASE PLATE 7/16-20 SAE
600-BP-M	N/A	N/A	N/A	N/A	LHP CRS BASE PLATE 1/8-28 BSPP
600-BP-ISO	N/A	N/A	N/A	N/A	LHP CRS BASE PLATE M10.0 X 1.0 ISO
000-END	527-001-900	563428	87956	N/A	LHP CRS END PLATE
600-END	N/A	N/A	N/A	N/A	LHP CRS END WITH ALT. INLET 1/8" NPSF
LSP-ORSK	N/A	N/A	N/A	N/A	LHP CRS VALVE AND BASE PLATE O-RINGS VITON
LSP-TRN-SS	410-440-010	556371	N/A	N/A	LHP CRS TIE ROD NUT 1/4"-28 HEX
303-TR3	527-001-930	557731	236640	N/A	LHP CRS 3-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR4	527-001-940	557732	236641	N/A	LHP CRS 4-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR5	527-001-950	557733	236642	N/A	LHP CRS 5-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR6	527-001-960	557734	236643	N/A	LHP CRS 6-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR7	527-001-970	557735	236644	N/A	LHP CRS 7-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR8	527-001-980	557736	236645	N/A	LHP CRS 8-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR9	N/A	N/A	N/A	N/A	LHP CRS 9-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR10	N/A	N/A	N/A	N/A	LHP CRS 10-SECTION TIE ROD & NUT (PACK OF 3 EACH)
303-TR11	N/A	N/A	N/A	N/A	LHP CRS 11-SECTION TIE ROD & NUT (PACK OF 3 EACH)
LSP-VMB-303	419-140-070	556513	N/A	N/A	LHP CRS BASE ASSEMBLY SCREWS 1/4-28
N/A	N/A	N/A	N/A	N/A	CRS ELEMENT SCREWS 1/4-28
N/A	N/A	N/A	N/A	N/A	CRS 1/4-28 THREADED INSERT
A-001-S	527-000-232	557716	N/A	N/A	LHP CRS PISTON CLOSURE PLUG WITH O-RING
A-002-S	527-300-840	557776	N/A	N/A	LHP CRS ALTERNATE OUTLET PLUG WITH O-RING
131-1827PP	N/A	N/A	N/A	N/A	LHP CRS OUTLET PORT PLUG 1/8-20 NPSF
131-1828PP	N/A	N/A	N/A	N/A	LHP CRS OUTLET PORT PLUG 1/8-28 BSPP
A-001-S	N/A	N/A	N/A	N/A	LHP CRS OUTLET PORT PLUG 2-SAE
131-M10PP	N/A	N/A	N/A	N/A	LHP CRS OUTLET PLUG M10 X 1.0 ISO
600-06S	106-000-025	562661	876061	N/A	LHP CRS 06SINGLE
600-06T	106-000-085	562667	876062	N/A	LHP CRS 06TWIN
600-09S	106-000-035	565662	876091	N/A	LHP CRS 09 SINGLE
600-09T	106-000-095	562668	876092	N/A	LHP CRS 09 TWIN
600-12S	106-000-045	562663	876121	N/A	LHP CRS 12 SINGLE
600-12T	106-000-105	562669	876122	N/A	LHP CRS 12 TWIN
600-18S	106-000-055	562664	876181	N/A	LHP CRS 18 SINGLE
600-18T	106-000-115	562670	876182	N/A	LHP CRS 18 TWIN
600-24S	106-000-065	562665	876241	N/A	LHP CRS 24 SINGLE
600-24T	106-000-125	562671	876242	N/A	LHP CRS 24 TWIN
600-30S	106-000-075	562666	N/A	N/A	LHP CRS 30 SINGLE
600-30T	106-000-135	562672	N/A	N/A	LHP CRS 30 TWIN
600-12S-RHCIP	N/A	N/A	876123	N/A	LHP CRS 12 SGL RHCIP
600-12T-RHCIP	N/A	N/A	876124	N/A	LHP CRS 12 TW RHCIP
600-18S-RHCIP	106-000-205	562674	876124	N/A	LHP CRS 18 SGL RHCIP
600-18T-RHCIP	106-000-235	562676	876184	N/A	LHP CRS 18 TW RHCIP
600-24S-RHCIP	106-000-215	564252	876243	N/A	LHP CRS 24 SGL RHCIP
600-24T-RHCIP	106-000-245	562677	876244	N/A	LHP CRS 24 TW RHCIP
600-30S-RHCIP	106-000-225	562675	N/A	N/A	LHP CRS 30 SGL RHCIP
600-30T-RHCIP	106-000-255	562678	N/A	N/A	LHP CRS 30 TW RHCIP
600-12S-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 15 SGL LHCIP
600-12T-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 15 TW LHCIP
600-18S-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 20 SGL LHCIP
600-18T-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 20 TW LHCIP
600-24S-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 25 SGL LHCIP
600-24T-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 25 TW LHCIP
600-30S-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 30 SGL LHCIP
600-30T-LHCIP	N/A	N/A	N/A	N/A	LHP CRS 30 TW LHCIP
LSP-CIPSK	N/A	N/A	N/A	N/A	LHP CYCLE PIN REPAIR KIT

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# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**LMX SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**MEDIUM OUTPUT VALVES—CRITICAL MONITORING—ACCESSORIES**



LMX SERIES—HIGH OUTPUT, SERIES PROGRESSIVE, TRADITIONAL DIVIDER VALVES

## PRODUCT DESCRIPTION

HEAVY DUTY, HIGH OUTPUT, SERIES PROGRESSIVE  
DIVIDER VALVE

CARBON STEEL CONSTRUCTION, STAINLESS STEEL  
AVAILABLE BY SPECIAL ORDER

LARGE FOOTPRINT, STANDARD PRESSURE, 3000 PSI

ROHS COMPLIANT CLEAR ZINC PLATING

STAINLESS STEEL CAPS AND MOUNTING BOLTS  
INCLUDED

GASKETS SUPPLIED WITH EACH VALVE AND END  
SECTION

## BENEFITS & FEATURES

TRADITIONAL HIGH OUTPUT DIVIDER VALVE

CARBON STEEL CONSTRUCTION  
(316 STAINLESS STEEL UPON SPECIAL ORDER)

CAN ACCOMMODATE PRESSURES UP TO 3000  
PSI

USE FOR HEAVY INDUSTRY APPLICATIONS

INTERNAL 316 STAINLESS STEEL OUTLET CHECK  
VALVES

DESIGNED FOR OIL AND GREASE

CAN LUBRICATE 1 TO 20 LUBE POINTS

PRECISE LUBRICANT FLOW TO LUBE POINTS

# READY FOR IMMEDIATE SHIPMENT

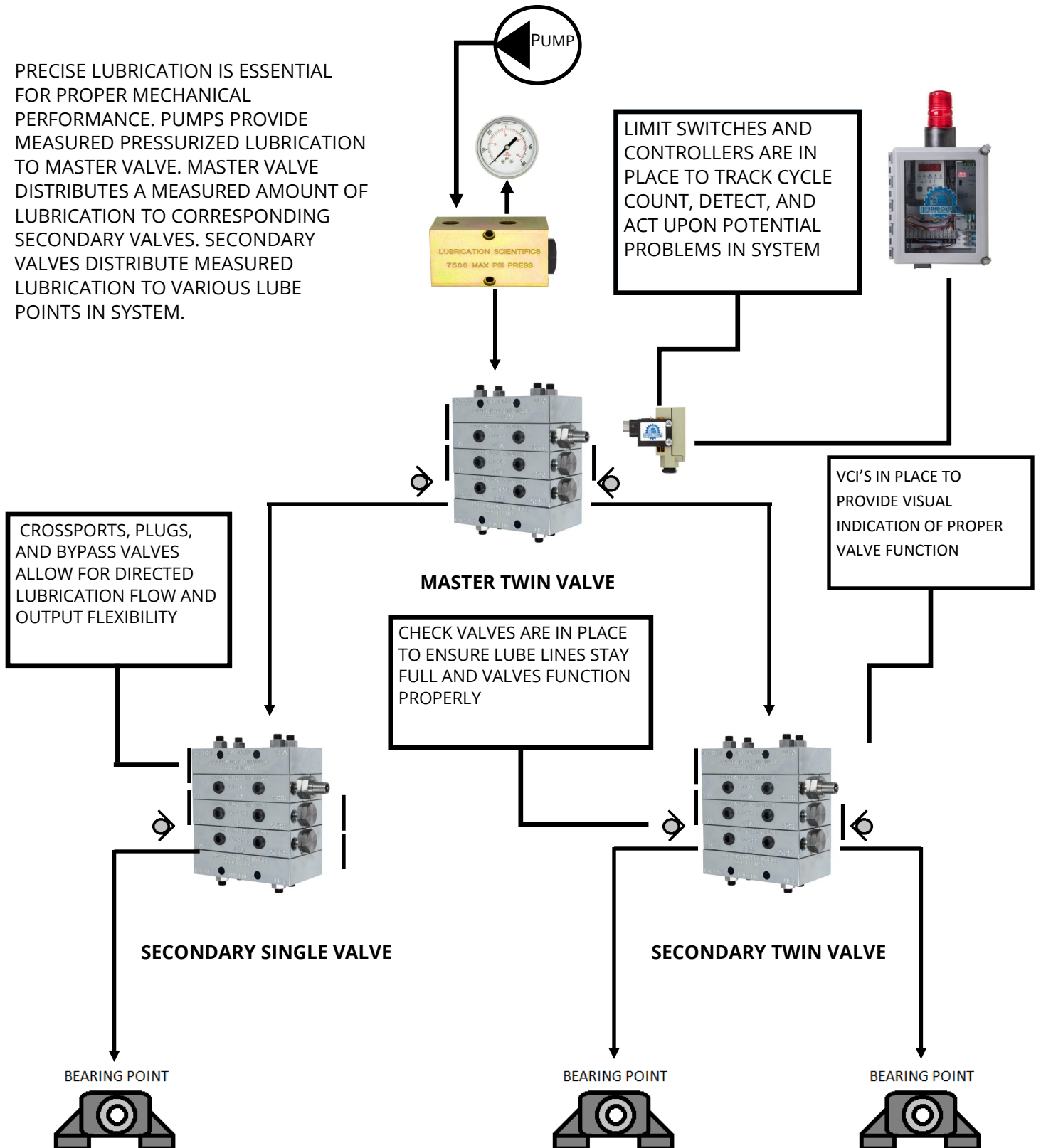
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FUNCTION ILLUSTRATION & SPECIFICATIONS

PRECISE LUBRICATION IS ESSENTIAL FOR PROPER MECHANICAL PERFORMANCE. PUMPS PROVIDE MEASURED PRESSURIZED LUBRICATION TO MASTER VALVE. MASTER VALVE DISTRIBUTES A MEASURED AMOUNT OF LUBRICATION TO CORRESPONDING SECONDARY VALVES. SECONDARY VALVES DISTRIBUTE MEASURED LUBRICATION TO VARIOUS LUBE POINTS IN SYSTEM.





## ORDERING INFORMATION & PART NUMBERS

### CARBON STEEL DIVIDER VALVES

STAINLESS STEEL VALVES AVAILABLE BY SPECIAL ORDER

STANDARD PACK: 1 EACH			
SINGLE OUTPUT		TWIN OUTPUT	
OUTPUT PER CYCLE	PART NUMBER	OUTPUT PER CYCLE	PART NUMBER
.050 CI   .820 CC	131-025S	.025 CI   .410 CC	131-025T
.100 CI   1.639 CC	131-050S	.050 CI   .820 CC	131-050T
.150 CI   2.459 CC	131-075S	.075 CI   1.230 CC	131-075T
.200 CI   3.278 CC	131-100S	.100 CI   1.639 CC	131-100T
.250 CI   4.098 CC	131-125S	.125 CI   2.049 CC	131-125T
.300 CI   4.917 CC	131-150S	.150 CI   2.459 CC	131-150T

SUPPLIED WITH GASKET

ADD SUFFIX -RHCIP TO VALVE PART NUMBER TO ADD RIGHT HAND CYCLE INDICATOR PIN

### CARBON STEEL MANIFOLD COMPONENTS

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
INLET—3/8-18 NPSF INLET PORT	131-INL-US
INLET—3/4-16 SAE INLET PORT	131-INL-SAE
END (ALL)	131-END

SUPPLIED WITH GASKET



## ORDERING INFORMATION & PART NUMBERS

### TIE RODS—REQUIRED FOR STEEL VALVES 4 TIE RODS REQUIRED PER VALVE ASSEMBLY



STANDARD PACK: 4 EACH	
PART DESCRIPTION	PART NUMBER
3 SECTION VALVE ASSEMBLY	131-TR3
4 SECTION VALVE ASSEMBLY	131-TR4
5 SECTION VALVE ASSEMBLY	131-TR5
6 SECTION VALVE ASSEMBLY	131-TR6
7 SECTION VALVE ASSEMBLY	131-TR7
8 SECTION VALVE ASSEMBLY	131-TR8
9 SECTION VALVE ASSEMBLY	131-TR9
10 SECTION VALVE ASSEMBLY	131-TR10

### FRONT CROSSPORT KITS

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
2 VALVES, 1 OUTPUT	131-303-413
3 VALVES, 1 OUTPUT	131-303-414
4 VALVES, 1 OUTPUT	131-303-415

### REPLACEMENT CLOSURE PLUGS & GASKETS

STANDARD PACK: 10 EACH	
PART DESCRIPTION	PART NUMBER
OUTLET PLUG, 1/4-18 NPTF	A-250-A
PISTON BORE CLOSURE PLUG WITH VITON O-RINGS	132-A-001-303
GASKET—ALL VALVES/INTERMEDIATES, ENDS	131-GSK

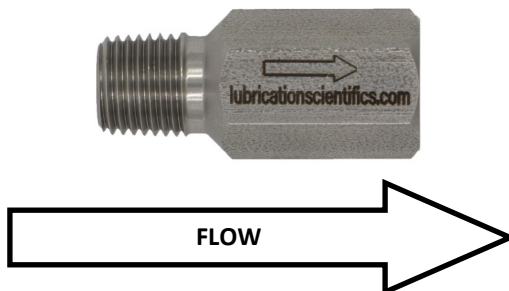
**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR LUBE SYSTEM INSTALLATIONS**

RESET INDICATORS COME STANDARD WITH 1/8" THREAD. LMX PORTS ARE 1/4" THREAD, ADAPTER IS REQUIRED FOR EACH RESET INDICATOR FOR THE SERIES VALVE.

**CHECK VALVES—OCV SERIES**

OUTLET TYPE WITH SINGLE BALL CHECK VALVES



STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/4"NPTF (M)	1/4" NPSF (F)	35 / 2.41	OCV-303-250R-35	OCV-316-250R-35	<b>TUBE FITTING</b>

**PERFORMANCE RESET INDICATORS W/ MEMORY**

STANDARD PACK: 5 EACH	1/8 NPSF O-RING CONNECTION	
	303 STAINLESS	316 STAINLESS
ITEM DESCRIPTION		
1,000 PSI 69 BAR	303-P1000	316-P1000
1,500 PSI 103 BAR	303-P1500	316-P1500
2,000 PSI 138 BAR	303-P2000	316-P2000
2,500 PSI 172 BAR	303-P2500	316-P2500
3,000 PSI 207 BAR	303-P3000	316-P3000
3,500 PSI 241 BAR	303-P3500	316-P3500
5,000 PSI 345 BAR	303-P5000	316-P5000
LINCOLN® STYLE INDICATOR ADAPTER	303-PI-ADP-L	316-PI-ADP-L



NOTE: PERFORMANCE INDICATORS ARE COMPATIBLE WITH TRABON® STYLE DIVIDER VALVES ONLY

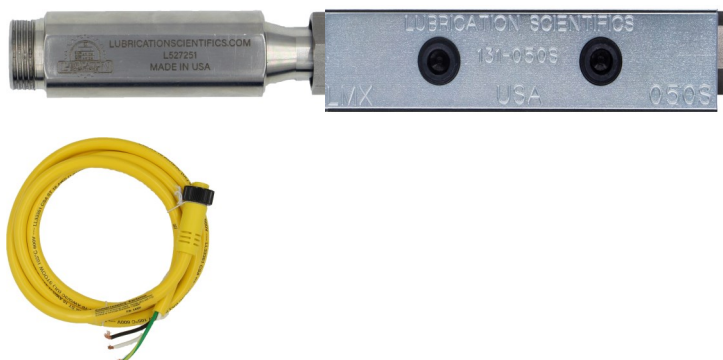
**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR LUBE SYSTEM INSTALLATIONS**

**PROXIMITY SWITCHES**

STANDARD PACK: 1 EACH				
ITEM DESCRIPTION	VALVE ADAPTER	PART NUMBER	MAX PSI	HAZARD RATING
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527251-1312	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527112-1312	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527111-1312	7,500 PSI 517 BAR	NOT RATED
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LMX/LMXP	L527431-1312	7,500 PSI 517 BAR	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III

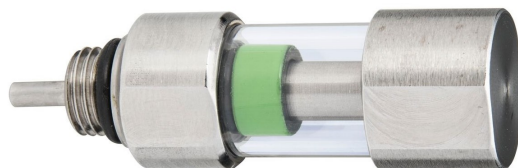
**PROXIMITY CABLES**

STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	12' CABLE PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12



**CYCLE VERIFICATION DEVICES**

STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437-1312



**LIMIT SWITCHES**

STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
LIMIT SWITCH ASSEMBLY, SPDT	LSW-001
LIMIT SWITCH ASSEMBLY, DPDT	LSW-002

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**CONTAMINATION IS THE ENEMY OF RELIABILITY**

**THE DIRT TRAP IS THE ANSWER**



**DIRT TRAP FILTER**

STANDARD PACK: 1 EACH	
FILTER RATING	PLATED CARBON STEEL 7,500 PSI / 517 BAR
5 MICRON	DTFA-005-O
10 MICRON	DTFA-010-O
25 MICRON	DTFA-025-O
150 MICRON 100 MESH	DTFA-100-G
420 MICRON 40 MESH	DTFA-040-G

**DIRT TRAP REPLACEMENT ELEMENT**

STANDARD PACK: 1 EACH	
FILTER RATING	PART NUMBER
5 MICRON	DT-EL-002-005MIC
10 MICRON	DT-EL-002-010MIC
25 MICRON	DT-EL-002-025MIC
150 MICRON 100 MESH	DT-EL-002-100M
420 MICRON 40 MESH	DT-EL-002-40M

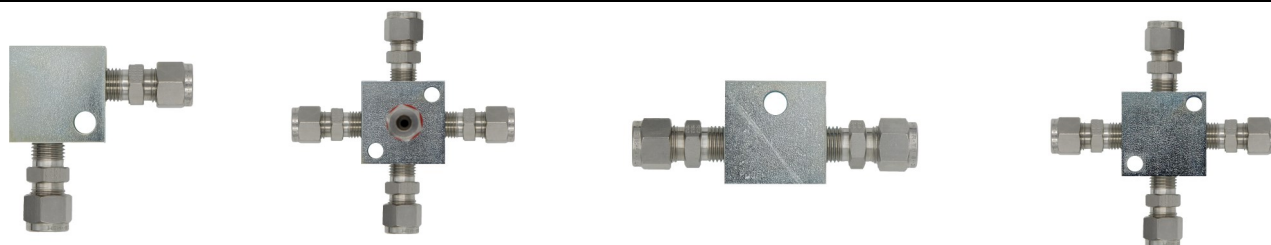
NOTE: REPLACEMENT ELEMENTS ARE COMPATIBLE WITH BOTH THE CARBON STEEL AND 2024 ALUMINUM MODELS.



**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR LUBE SYSTEM INSTALLATIONS**

**ANCHOR BLOCKS**

<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316



## LMX FEEDER PART NUMBER ORDERING GUIDE

LMX-XXX-XXXXXX

LMX- <del>XXX</del> -XXXXXX	
INSTALLED ACCESSORIES	P/N
NO INTERNAL CHECK VALVES	X
EXTERNAL CHECK VALVES	C
PERFORMANCE INDICATORS	P
PERFORMANCE INDICATORS & CHECK VALVES	B

LMX- <del>XXX</del> -XXXXXX	
NUMBER OF SECTIONS	P/N
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10

LMX-XXX- <del>XXXX</del> XX	
VALVE SIZE	P/N
BYPASS SECTION	BP
.025 CU. IN.	25
.050 CU. IN.	50
.075 CU. IN.	75
.100 CU. IN.	100
.125 CU. IN.	125
.150 CU. IN.	150

LMX-XXX-XXXX <del>XX</del>	
TYPE OF SECTION	P/N
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, CIP RIGHT	B
SINGLE, CIP RIGHT, RH OUTLET	C
SINGLE, CIP RIGHT, LH OUTLET	D
TWIN, PROXIMITY SWITCH RIGHT	E
SINGLE, PROXIMITY SWITCH RIGHT, RH OUTLET	F
SINGLE, PROXIMITY SWITCH RIGHT, LH OUTLET	G
TWIN, CIP LEFT	H
SINGLE, CIP LEFT, RH OUTLET	J
SINGLE, CIP LEFT, LH OUTLET	K
TWIN, PROXIMITY SWITCH LEFT	M
SINGLE, PROXIMITY SWITCH LEFT, RH OUTLET	N
SINGLE, PROXIMITY SWITCH LEFT, LH OUTLET	P

LMX-XXX-XXXX <del>XX</del>	
CROSSPORT OPTION	P/N
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB

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**MOUNTING INFORMATION & SPECIFICATIONS**

NUMBER OF SECTIONS	DIMENSION A		DIMENSION B		DIMENSION C	
	inch	mm	inch	mm	inch	mm
3	4.938	125.43	5.500	139.70	6.625	168.27
4	6.038	153.37	6.600	167.64	7.750	196.85
5	7.138	181.31	7.700	195.58	8.875	225.42
6	8.238	209.25	8.800	223.52	10.000	254.00
7	9.338	237.19	9.900	251.46	11.125	282.57
8	10.438	265.13	11.000	279.4	12.250	311.15
9	11.538	293.07	12.100	307.34	13.375	339.72
10	12.638	321.01	13.100	332.74	14.500	368.30

**SPECIFICATIONS**

MATERIAL: ZINC PLATED STEEL, SS316

MAX CYCLE RATE (OIL) 60 CPM

MAX PRESSURE: 3000 PSI

APPLICATION: OIL & GREASE

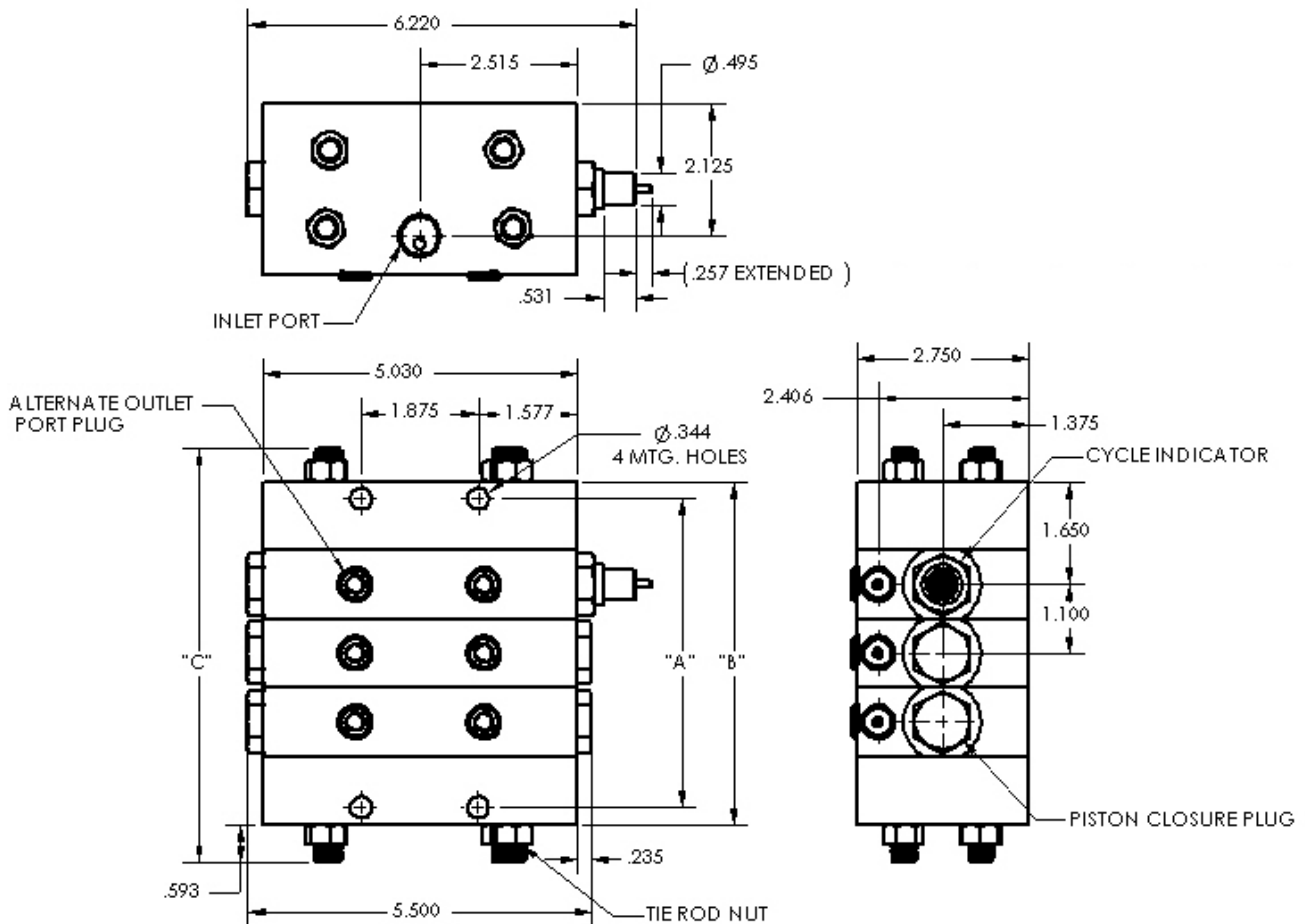
**TORQUE SPECIFICATIONS**

TIE ROD NUT: 30 FT/LBS

VALVE MOUNTING BOLTS: 12-13 FT/LBS

ALT. OUTLET PORTS: 8-9 FT/LBS

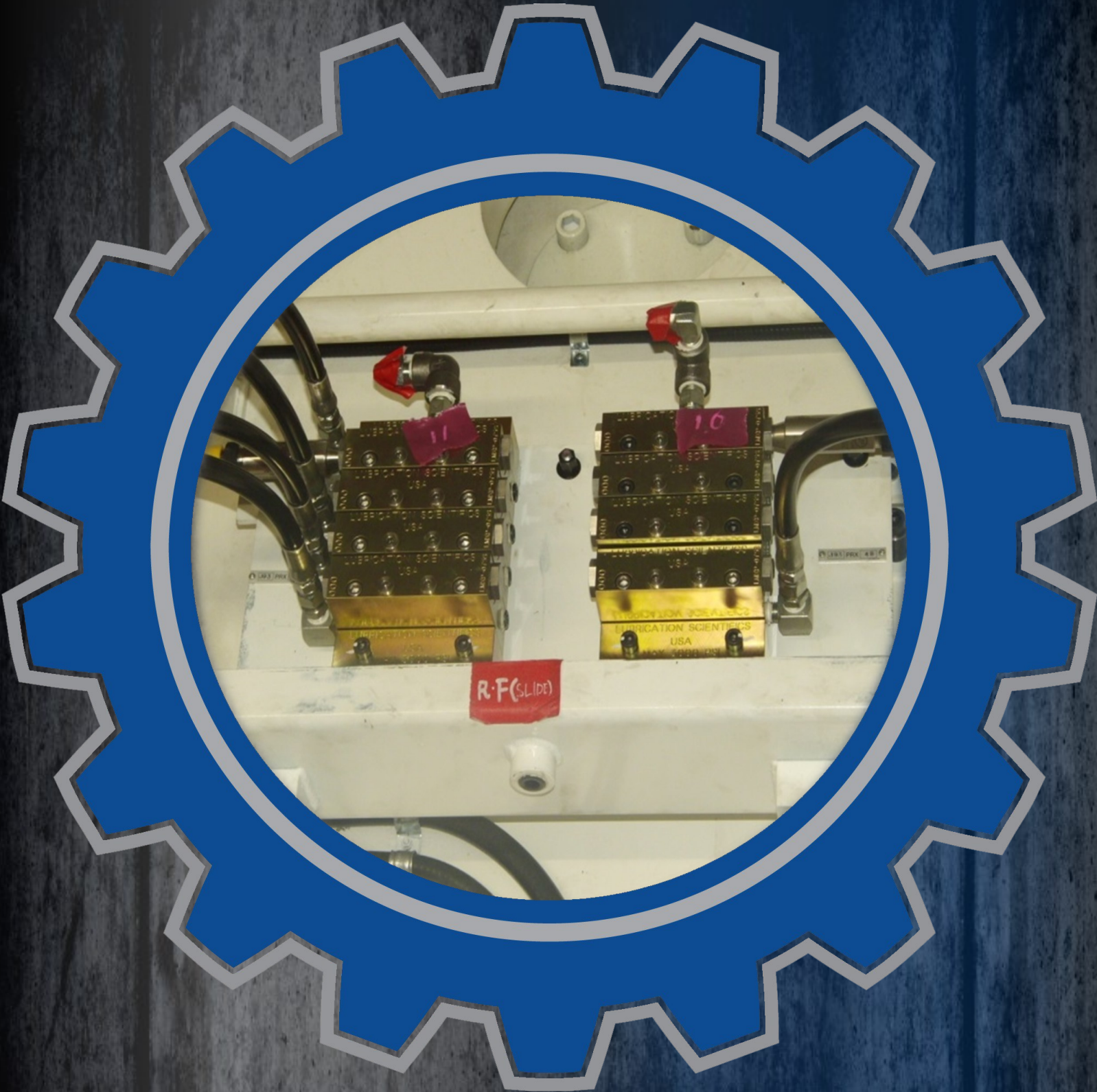
PISTON CLOSURE PORT: 22-24 FT/LBS





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**LMXP SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**MEDIUM OUTPUT MODULAR VALVES—CRITICAL MONITORING—ACCESSORIES**



LMXP SERIES—HIGH OUTPUT, SERIES PROGRESSIVE, MODULAR DIVIDER VALVES

## PRODUCT DESCRIPTION

STANDARD PRESSURE, HIGH OUTPUT, MODULAR  
SERIES PROGRESSIVE DIVIDER VALVES

IDEAL FOR HEAVY INDUSTRY APPLICATIONS

AVAILABLE IN CARBON STEEL & 316 STAINLESS STEEL

DESIGNED WITH FEEDBACK MONITORING SYSTEM  
PERFORMANCE

DESIGNED TO WORK WITH FULL LINE OF  
VERIFICATION DEVICES

INTEGRAL CHECK VALVES STANDARD

CAN ACCOMMODATE 1-20 LUBE POINTS PER VALVE  
ASSEMBLY

## BENEFITS & FEATURES

COMPLETELY MODULAR VERSION OF THE  
TRADITIONAL LMX SERIES DIVIDER VALVES

GREATLY REDUCES COST AND SYSTEM  
DOWNTIME DUE TO MAINTENANCE, REPAIRS,  
AND SECTION REPLACEMENTS COMPARED TO  
THE TRADITIONAL STYLE

OUTPUT RANGES FROM .025 CI TO .30 CI PER  
CYCLE AT 3000 PSI

INTERNAL CHECK VALVES (316 SS BALLS &  
SPRINGS)

USED FOR STANDARD PRESSURE OIL OR  
GREASE

WIDE RANGE OF ACCESSORIES AVAILABLE FOR  
ANY SYSTEM REQUIREMENT

## READY FOR IMMEDIATE SHIPMENT

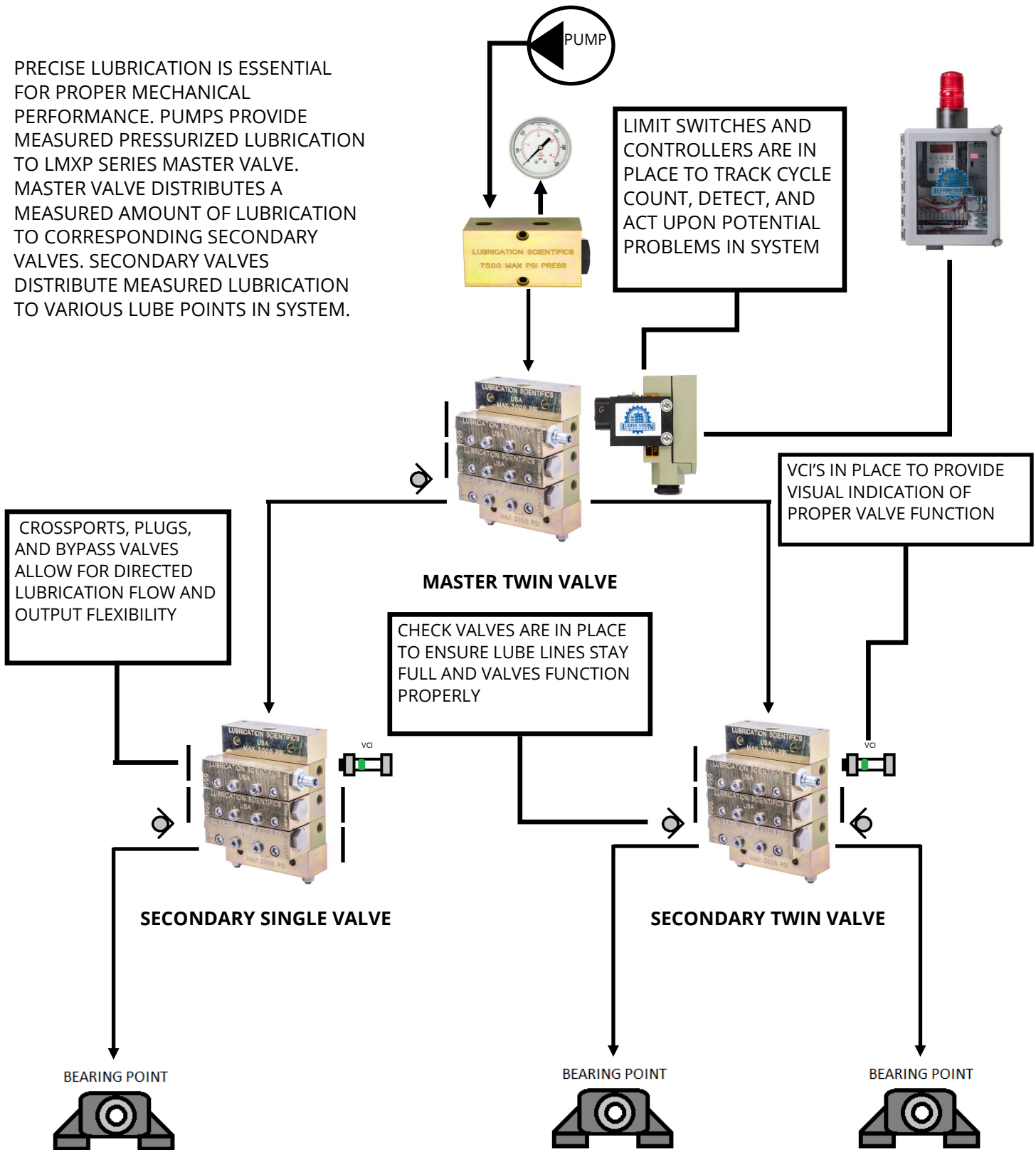
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**ORDERING INFORMATION & PART NUMBERS**

**LMXP HIGH OUTPUT MODULAR DIVIDER VALVES**

STANDARD PACK: 1 EACH			
VALVE OUTPUT	CARBON STEEL	303 STAINLESS	316 STAINLESS
25S   .050 CU. IN.   .820 CC 25T   .025 CU. IN.   .410 CC	132-025S 132-025T	132-025S-303 132-025T-303	132-025S-316 132-025T-316
50S   .100 CU. IN.   1.639 CC 50T   .050 CU. IN.   .820 CC	132-050S 132-050T	132-050S-303 132-050T-303	132-050S-316 132-050T-316
75S   .150. CU. IN.   .2.459 CC 75T   .075 CU. IN.   1.230 CC	132-075S 132-075T	132-075S-303 132-075T-303	132-075S-316 132-075T-316
100S   .200 CU. IN.   3.278 CC 100T   .100 CU. IN.   1.639 CC	132-100S 132-100T	132-100S-303 132-100T-303	132-100S-316 132-100T-316
125S   .250 CU. IN.   4.098 CC 125T   .125 CU. IN.   2.049 CC	132-125S 132-125T	132-125S-303 132-125T-303	132-125S-316 132-125T-316
150S   .300 CU. IN.   4.917 CC 150T   .150 CU. IN.   2.459 CC	132-150S 132-150T	132-150S-303 132-150T-303	132-150S-316 132-150T-316
BYPASS VALVE	132-BYP	132-BYP-303	132-BYP-316



**FOR VALVES WITH CYCLE INDICATOR PIN, ADD SUFFIX: -  
RHCIP TO ABOVE PART NUMBER. SEE EXAMPLE:**

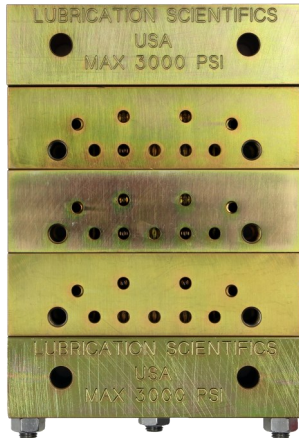
**CARBON STEEL MODELS: 132-025S-RHCIP**

**316 MODELS: 132-050S-RHCIP-316**

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**ORDERING INFORMATION & PART NUMBERS**

**LMXP HIGH OUTPUT MANIFOLD COMPONENTS**



<b>STANDARD PACK: 2 EACH</b>			
<b>PART DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS</b>	<b>316 STAINLESS</b>
INLET 3/8-18 NPSF	132-INL-US	132-INL-US-303	132-INL-US-316
INLET 3/4-16 SAE	132-INL-SAE	132-INL-SAE-303	132-INL-SAE-316
INLET 3/8-19 BSPP	132-INL-BSPP	132-INL-BSPP-303	132-INL-BSPP-316

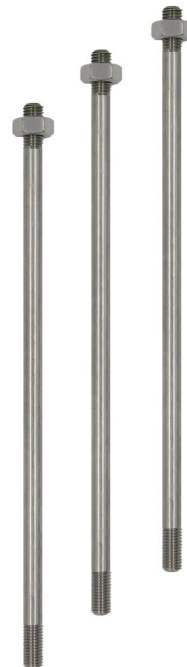
<b>STANDARD PACK: 3 EACH</b>			
INTERMEDIATE 1/4-18 NPSF OUTLET	132-BP-NPSF	132-BP-NPSF-303	132-BP-NPSF-316
INTERMEDIATE 9/16-18 SAE OUTLET	132-BP-SAE	132-BP-SAE-303	132-BP-SAE-316
INTERMEDIATE 1/4-19 BSPP OUTLET	132-BP-BSPP	132-BP-BSPP-303	132-BP-BSPP-316

<b>STANDARD PACK: 2 EACH</b>			
END STANDARD	132-END	132-END-303	132-END-316

**ORDERING INFORMATION & PART NUMBERS**

**TIE RODS WITH NUTS**

STANDARD PACK: 3 EACH		
NUMBER OF VALVE SECTIONS	303 STAINLESS	316 STAINLESS
3	132-TR3-303	132-TR3-316
4	132-TR4-303	132-TR4-316
5	132-TR5-303	132-TR5-316
6	132-TR6-303	132-TR6-316
7	132-TR7-303	132-TR7-316
8	132-TR8-303	132-TR8-316
9	132-TR9-303	132-TR9-316
10	132-TR10-303	132-TR10-316



3 TIE RODS REQUIRED TO BUILD EACH ASSEMBLY

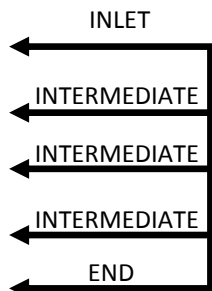
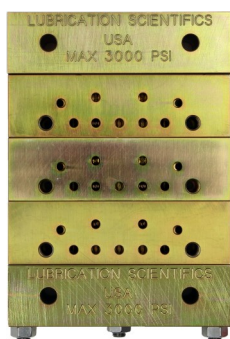
**CROSSPORT BAR KITS**

STANDARD PACK: 1 EACH			
CROSSPORT TYPE	CARBON STEEL	303 STAINLESS	316 STAINLESS
RIGHT SIDE ONLY	L527980	L527980-303	L527980-316
LEFT SIDE ONLY	L527970	L527970-303	L527970-316
BOTH SIDES	L527990	L527990-303	L527990-316

INCLUDES MOUNTING BOLTS

**O-RING & PLUG KITS**

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
VALVE O-RING KIT	132-ORSK
VALVE CLOSURE PLUG W/ O-RING	132-A-001-303
ALTERNATIVE OUTLET PLUG W/ O-RING	A-002-S



## BASEPLATE ASSEMBLIES

PREBUILT & TESTED

BASEPLATE ASSEMBLIES MAKE IT EASY TO COMPLETE DIVIDER VALVE ORDER. CHOOSE DIVIDER VALVES FOR YOUR SPECIFIC NEEDS AND COMPLETE VALVE SET WITH THE MATCHING BASEPLATE SECTIONS. BASEPLATES ARE PREBUILT AND TESTED. BASEPLATE ASSEMBLY ORDERS COME WITH AN END, AN INLET, TIE RODS, AND BASEPLATE SECTIONS.

STANDARD PACK: 1 EACH			
SIZE & TYPE	CARBON STEEL PART #: NPSF PART #: ORS (O-RING)	303 STAINLESS PART #: NPSF PART #: ORS (O-RING)	316 STAINLESS PART #: NPSF PART #: ORS (O-RING)
3 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-03-NPSF-000 XBPA-03-SAE-000	XBPA-03-NPSF-303 XBPA-03-SAE-303	XBPA-03-NPSF-316 XBPA-03-SAE-316
4 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-04-NPSF-000 XBPA-04-SAE-000	XBPA-04-NPSF-303 XBPA-04-SAE-303	XBPA-04-NPSF-316 XBPA-04-SAE-316
5 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-05-NPSF-000 XBPA-05-SAE-000	XBPA-05-NPSF-303 XBPA-05-SAE-303	XBPA-05-NPSF-316 XBPA-05-SAE-316
6 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-06-NPSF-000 XBPA-06-SAE-000	XBPA-06-NPSF-303 XBPA-06-SAE-303	XBPA-06-NPSF-316 XBPA-06-SAE-316
7 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-07-NPSF-000 XBPA-07-SAE-000	XBPA-07-NPSF-303 XBPA-07-SAE-303	XBPA-07-NPSF-316 XBPA-07-SAE-316
8 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-08-NPSF-000 XBPA-08-SAE-000	XBPA-08-NPSF-303 XBPA-08-SAE-303	XBPA-08-NPSF-316 XBPA-08-SAE-316
9 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-09-NPSF-000 XBPA-09-SAE-000	XBPA-09-NPSF-303 XBPA-09-SAE-303	XBPA-09-NPSF-316 XBPA-09-SAE-316
10 SECTION WITH STANDARD INLET AND STANDARD END	XBPA-10-NPSF-000 XBPA-10-SAE-000	XBPA-10-NPSF-303 XBPA-10-SAE-303	XBPA-10-NPSF-316 XBPA-10-SAE-316

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**ORDERING INFORMATION & PART NUMBERS**

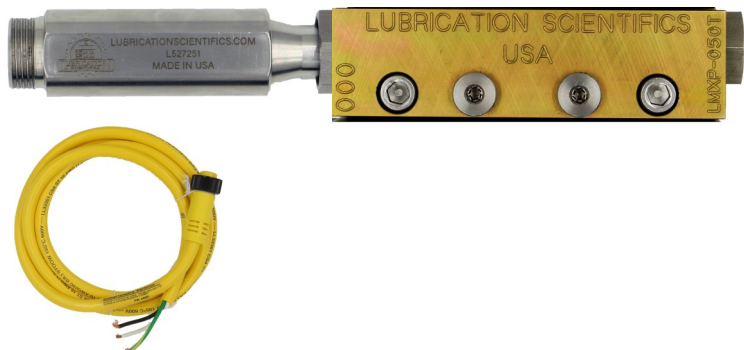
**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**NOTES REGARDING ADDITIONAL ACCESSORIES**

TECHNICAL BULLETINS AVAILABLE FOR ALL ACCESSORIES. REFER TO PAGE 18 IF ADDITIONAL INFORMATION IS DESIRED ON A SPECIFIC PRODUCT.

**PROXIMITY SWITCH AND CABLES**

STANDARD PACK: 1 EACH				
ITEM DESCRIPTION	VALVE ADAPTER	PART NUMBER	MAX PSI	HAZARD RATING
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527251-1312	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527112-1312	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LMX/LMXP	L527111-1312	7,500 PSI 517 BAR	NO RATING
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LMX/LMXP	L527431-1312	7,500 PSI 517 BAR	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III



STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	12' CABLE PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12

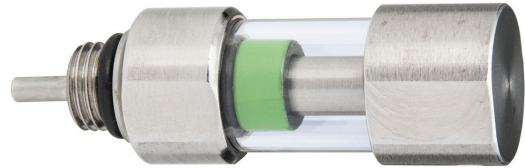


## ORDERING INFORMATION & PART NUMBERS

### ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION

#### VISUAL CYCLE INDICATOR

<b>STANDARD PACK: 1 EACH</b>	
ITEM DESCRIPTION	PART NUMBER
STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437-1312



#### LIMIT SWITCH

<b>STANDARD PACK: 1 EACH</b>	
ITEM DESCRIPTION	PART NUMBER
LIMIT SWITCH ASSEMBLY, SPDT	LSW-001
LIMIT SWITCH ASSEMBLY, DPDT	LSW-002

#### PERFORMANCE (RESET) INDICATORS

<b>STANDARD PACK: 5 EACH</b>	<b>1/8 NPSF O-RING CONNECTION</b>	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
1,000 PSI 69 BAR	303-P1000	316-P1000
1,500 PSI 103 BAR	303-P1500	316-P1500
2,000 PSI 138 BAR	303-P2000	316-P2000
2,500 PSI 172 BAR	303-P2500	316-P2500
3,000 PSI 207 BAR	303-P3000	316-P3000
3,500 PSI 241 BAR	303-P3500	316-P3500
5,000 PSI 345 BAR	303-P5000	316-P5000



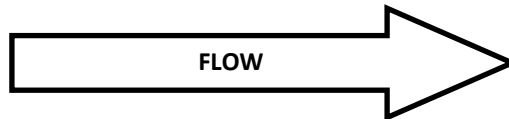
**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**OUTLET CHECK VALVE**

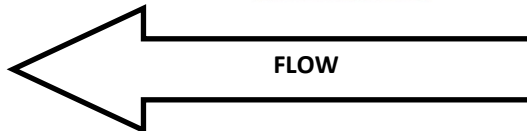
**STANDARD PACK: 5 EACH**

CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI / BAR	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/4" NPTF (M)	1/4" NPSF (F)	35 / 2.41	OCV-303-250R-35	OCV-316-250R-35	<b>TUBE FITTING</b>



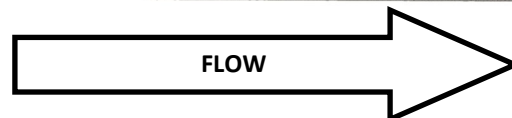
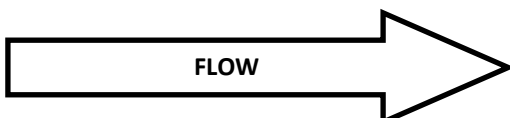
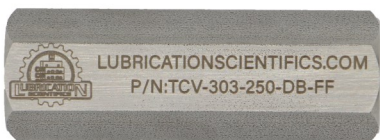
**TERMINATING CHECK VALVE—SINGLE BALL**

1/4" NPTF (F)	1/4" NPSF (M)	35 / 2.41	TCV-303-250-35	TCV-316-250-35	<b>TUBE FITTING REQUIRED</b>
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**TERMINATING CHECK VALVE—DOUBLE BALL, HIGH OUTPUT**

1/4" NPSF (F)	1/4" NPSF (F)	50 / 3.44	TCV-303-250-DB-FF	TCV-316-250-DB-FF	<b>INL/OUTL ADAPTER</b>
1/4" NPSF (F)	1/4" NPTF (M)	50 / 3.44	TCV-303-250-DB-FM4	TCV-316-250-DB-FM4	<b>INLET ADAPTER</b>



FOR MORE INFORMATION ON CHECK VALVES, SEE BULLETIN **LSM011**

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**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**CONTAMINATION IS THE ENEMY OF RELIABILITY**

**THE DIRT TRAP IS THE ANSWER**

**DIRT TRAP FILTER**



STANDARD PACK: 1 EACH	
FILTER RATING	PLATED CARBON STEEL 7,500 PSI / 517 BAR
5 MICRON	DTFA-005-O
10 MICRON	DTFA-010-O
25 MICRON	DTFA-025-O
150 MICRON 100 MESH	DTFA-100-G
420 MICRON 40 MESH	DTFA-040-G

**DIRT TRAP REPLACEMENT ELEMENT**

STANDARD PACK: 1 EACH	
FILTER RATING	PART NUMBER
5 MICRON	DT-EL-002-005MIC
10 MICRON	DT-EL-002-010MIC
25 MICRON	DT-EL-002-025MIC
150 MICRON 100 MESH	DT-EL-002-100M
420 MICRON 40 MESH	DT-EL-002-40M

NOTE: REPLACEMENT ELEMENTS ARE COMPATIBLE WITH BOTH THE CARBON STEEL AND 2024 ALUMINUM MODELS.



## ORDERING INFORMATION & PART NUMBERS

### COMPLETE FILTER ASSEMBLY (NO GAUGE)

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (SHORT) 10 MICRONS	CFIL-10-US
FILTER ASSEMBLY (SHORT) 20 MICRONS	CFIL-20-US
FILTER ASSEMBLY (SHORT) 50 MICRONS	CFIL-50-US

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (LONG) 10 MICRONS	CFIL-10-UL
FILTER ASSEMBLY (LONG) 20 MICRONS	CFIL-20-UL
FILTER ASSEMBLY (LONG) 50 MICRONS	CFIL-50-UL

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

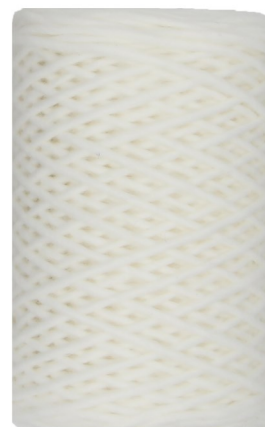


### REPLACEMENT FILTER ELEMENTS & GAUGE

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (SHORT) 10 MICRONS	CFIL-10-ES
FILTER ELEMENT (SHORT) 20 MICRONS	CFIL-20-ES
FILTER ELEMENT (SHORT) 50 MICRONS	CFIL-50-ES

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (LONG) 10 MICRONS	CFIL-10-EL
FILTER ELEMENT (LONG) 20 MICRONS	CFIL-20-EL
FILTER ELEMENT (LONG) 50 MICRONS	CFIL-50-EL

STANDARD PACK: 1 EACH	
GAUGE DESCRIPTION	PART NUMBER
LOWER MOUNT, 1/4 NPTF, 5000 PSI	LM-25-5K-4



**ORDERING INFORMATION & PART NUMBERS**

**SPIN-ON FILTER ASSEMBLY**

ANODIZED ALUMINUM MANIFOLD  
 STAINLESS STEEL PRESSURE GAUGES  
 MOUNTING BRACKET  
 HIGH FLOW FILTER CANISTER  
 FOR OIL USE ONLY  
 MAX PRESSURE: 150 PSI

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
SPIN-ON FILTER COMPLETE ASSEMBLY	LPFA-118-AL
REPLACEMENT ELEMENT	LPFA-118-RFE



**SPIN-ON-FILTER COMPLETE ASSEMBLY**

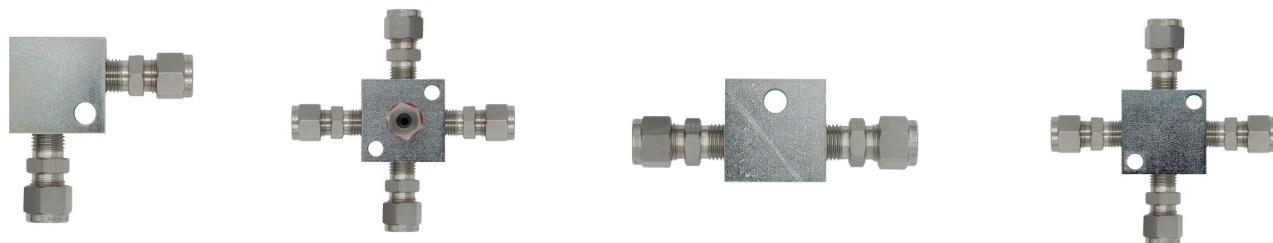


**REPLACEMENT ELEMENT**

**ORDERING INFORMATION & PART NUMBERS**  
**ADDITIONAL ACCESSORIES FOR LUBE SYSTEM INSTALLATIONS**

**ANCHOR BLOCKS**

STANDARD PACK: 5 EACH			
PRODUCT DESCRIPTION	CARBON STEEL	303 STAINLESS STEEL	316 STAINLESS STEEL
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316



**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**NOTES REGARDING ADDITIONAL ACCESSORIES:**

FOR MORE DETAILED INFORMATION AND ORDERING REGARDING **BLOWOUT FITTINGS** REFER TO LSM002

<b>STANDARD PACK: 5 EACH</b>	<b>1/8" O-RING SEAL OR 1/8" NPTF THREADS</b>	
<b>ITEM DESCRIPTION</b>	<b>303 STAINLESS</b>	<b>316 STAINLESS</b>
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-NPTF BOF-LP-303-ORS	BOF-LP-316-NPTF BOF-LP-316-ORS
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-NPTF BOF-LP-303R-ORS	BOF-LP-316R-NPTF BOF-LP-316R-ORS
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-NPTF BOF-HP-303-ORS	BOF-HP-316-NPTF BOF-HP-316-ORS
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-NPTF BOF-HP-303R-ORS	BOF-HP-316R-NPTF BOF-HP-316R-ORS

**BLOWOUT FITTINGS**



**NOTE: DOES NOT INCLUDE BLOWOUT DISCS**

<b>STANDARD PACK: 25 EACH</b>			
<b>DISC COLOR</b>	<b>LOW PRESSURE BURST (PSI / BAR) (1/4" APERTURE FITTING)</b>	<b>HIGH PRESSURE BURST (PSI / BAR) (1/8" APERTURE FITTING)</b>	<b>PART NUMBER</b>
BLACK	900 / 62	N/R	A509-276-000
GREEN	1,175 / 81	N/R	A509-277-000
RED	1,750 / 121	4,600 / 317	A509-279-000
ORANGE	2,050 / 141	5,500 / 380	A509-280-000
ALUMINUM	2,350 / 162	N/R	A509-281-000
PINK	2,650 / 183	6,400 / 441	A509-282-000
BLUE	2,950 / 203	7,300 / 503	A509-283-000
PURPLE	3,250 / 224	8,200 / 565	A509-284-000

NOTE: ALL DISKS HAVE A RUPTURE TOLERANCE OF +500 PSI

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**ATMOSPHERIC RESET INDICATORS**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
L5081000-NPTF	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPTF
L5081000-ORS	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-NPTF	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-ORS	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-NPTF	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-ORS	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 ORS
L5082500-NPTF	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-ORS	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 ORS
L5083000-NPTF	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-ORS	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 ORS
L5081000-316-NPTF	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPT
L5081000-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 ORS
L5082500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 ORS
L5083000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 ORS



# LMXP FEEDER PART NUMBER ORDERING GUIDE

LMXP-XXX-XXX-XXX-XXXXX

LMXP-XXX-XXX-XXX-XXXXX	
MATERIAL	P/N
CARBON STEEL	LEAVE BLANK
303 STAINLESS	303
316 STAINLESS	316

LMXP-XXX-XXX-XXX-XXXXX	
PORT OPTIONS	P/N
NPSF PORTS	NPT
SAE PORTS	SAE
BSPP PORTS	BSP
METRIC PORTS	MET

LMXP-XXX-XXX-XXX-XXXXX	
INSTALLED ACCESSORIES	P/N
NO INTERNAL CHECK VALVES	X
EXTERNAL CHECK VALVES	C
PERFORMANCE INDICATORS	P
PERFORMANCE INDICATORS & CHECK VALVES	B

LMXP-XXX-XXX-XXX-XXXXX	
NUMBER OF SECTIONS	P/N
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10

LMXP-XXX-XXX-XXX-XXXXX	
VALVE SIZE	P/N
BYPASS SECTION	BP
.025 CU. IN.	25
.050 CU. IN.	50
.075 CU. IN.	75
.100 CU. IN.	100
.125 CU. IN.	125
.150 CU. IN.	150

LMXP-XXX-XXX-XXX-XXXXX	
TYPE OF SECTION	P/N
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, CIP RIGHT	B
SINGLE, CIP RIGHT, RH OUTLET	C
SINGLE, CIP RIGHT, LH OUTLET	D
TWIN, PROXIMITY SWITCH RIGHT	E
SINGLE, PROXIMITY SWITCH RIGHT, RH OUTLET	F
SINGLE, PROXIMITY SWITCH RIGHT, LH OUTLET	G
TWIN, CIP LEFT	H
SINGLE, CIP LEFT, RH OUTLET	J
SINGLE, CIP LEFT, LH OUTLET	K
TWIN, PROXIMITY SWITCH LEFT	M
SINGLE, PROXIMITY SWITCH LEFT, RH OUTLET	N
SINGLE, PROXIMITY SWITCH LEFT, LH OUTLET	P

LMXP-XXX-XXX-XXX-XXXXX	
CROSSPORT OPTION	P/N
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB

## MOUNTING INFORMATION & SPECIFICATIONS

NUMBER OF SECTIONS	DIMENSION "A"		DIMENSION "B"		WEIGHT	
	inch	mm	inch	mm	pound	kg
3	6.650	168.91	5.350	135.89	18.2	8.3
4	8.000	203.20	6.700	170.18	22.6	10.2
5	9.350	237.49	8.050	204.47	26.9	12.2
6	10.700	271.78	9.400	238.76	31.3	14.2
7	12.050	306.07	10.750	273.05	35.6	16.2
8	13.400	340.36	12.100	307.34	39.9	18.1
9	14.750	374.65	13.450	341.63	44.3	20.1
10	16.100	408.94	14.800	375.92	48.6	22.1

### SPECIFICATIONS

MATERIAL: ZINC PLATED STEEL, SS316

MAX CYCLE RATE (OIL) 60 CPM

MAX PRESSURE: 3000 PSI

APPLICATION: OIL & GREASE

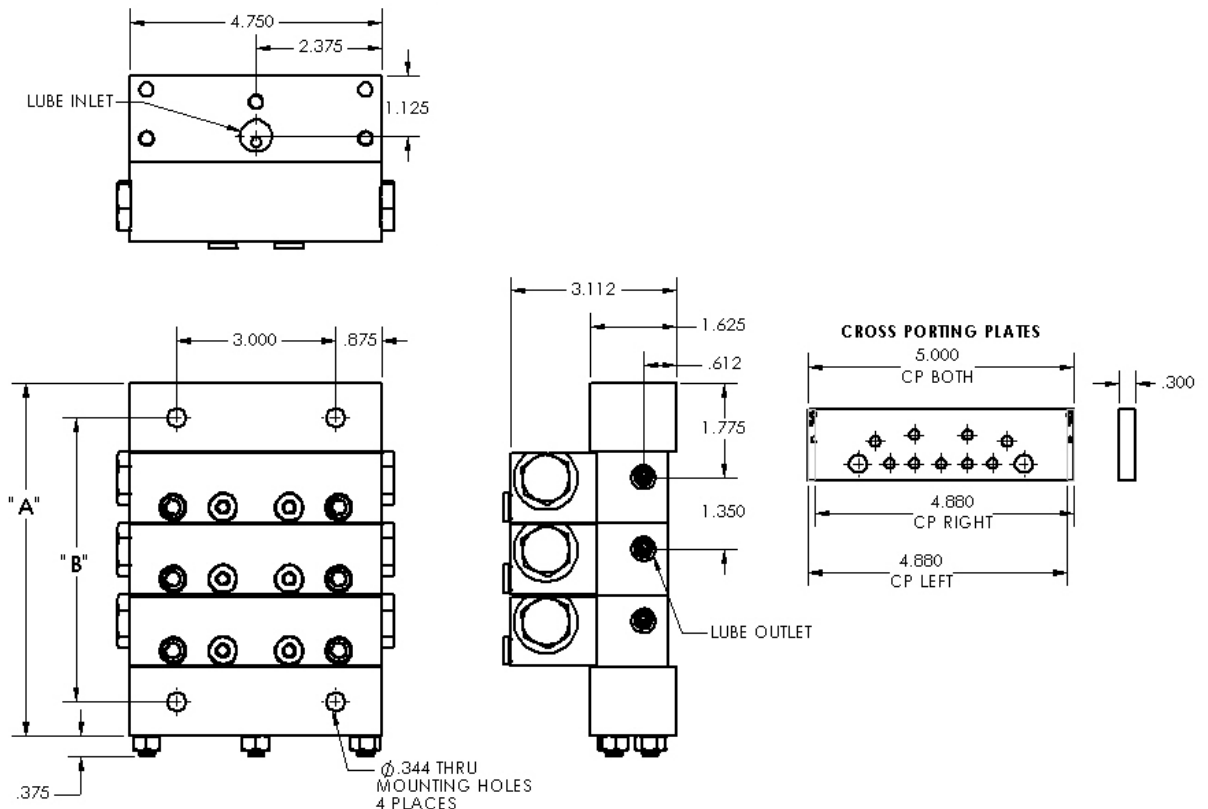
### TORQUE SPECIFICATIONS

TIE ROD NUT: 8-9 FT/LBS

VALVE MOUNTING BOLTS: 12-13 FT/LBS

ALT. OUTLET PORTS: 8-9 FT/LBS

PISTON CLOSURE PORT: 22-24 FT/LBS



PRODUCT INTERCHANGE—LMXP DIVIDER VALVES

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN	FARVAL	PRODUCT DESCRIPTION
132-INL-US	527-300-000	15R993	N/A	N/A	LMXP CS INLET 3/8-18 NPSF
132-INL SAE	527-300-001	15R994	N/A	N/A	LMXP CS INLET 3/4-16 SAE
132-BP-BSPP	527-300-760	561029	N/A	N/A	LMXP CS INLET 3/8 BSPP 3.00
132-BP-NPSF	527-300-100	563519	N/A	N/A	LMXP INTERMEDIATE 1/4" NPSF
132-BP-SAE	527-300-710	563521	N/A	N/A	LMXP INTERMEDIATE 9/16 SAE
132-BP-BSPP	527-300-740	563522	67359	N/A	LMXP INTERMEDIATE 1/4 BSPP
132-END	527-300-090	563518	N/A	N/A	LMXP CS END
132-VORK	N/A	N/A	N/A	N/A	LMXP CS VALVE O-RINGS
LMXP-VMB-SS	N/A	N/A	N/A	N/A	LMXP CS VALVE MOUNT BOLTS
N/A	N/A	N/A	87030-3	N/A	LINCOLN XL 3 VALVE INLET BASE AND END PLATE (ONE PIECE)
N/A	N/A	N/A	87030-4	N/A	LINCOLN XL 4 VALVE INLET BASE AND END PLATE (ONE PIECE)
N/A	N/A	N/A	87030-6	N/A	LINCOLN XL 6 VALVE INLET BASE AND END PLATE (ONE PIECE)
132-TR3	527-300-270	557766	N/A	N/A	LMXP 303 3-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR4	527-300-280	557767	N/A	N/A	LMXP 303 4-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR5	527-300-290	557768	N/A	N/A	LMXP 303 5-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR6	527-300-300	557769	N/A	N/A	LMXP 303 6-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR7	527-300-310	557770	N/A	N/A	LMXP 303 7-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR8	527-300-320	557771	N/A	N/A	LMXP 303 8-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR9	527-300-330	557772	N/A	N/A	LMXP 303 9-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR10	527-300-340	563520	N/A	N/A	LMXP 303 10-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
131-TRN-SS	410-440-020	555406	N/A	N/A	LMXP 3/8-24 TIE ROD HEX NUT
L527970	N/A	N/A	87823	N/A	LMXP SS CROSSPORT PLATE LEFT
L527980	N/A	N/A	87823	N/A	LMXP SS CROSSPORT PLATE RIGHT
L527990	N/A	N/A	87823 (2 EA.)	N/A	LMXP SS CROSSPORT PLATE BOTH
L527301	N/A	N/A	87824	N/A	LMXP SS SINGLING PLATE
132-A-001-S	N/A	N/A	N/A	N/A	LMXP SS VALVE CLOSURE PLUG WITH O-RING
A-002-S	N/A	N/A	67359	N/A	LMXP SS ALTERNATE OUTLET PLUG WITH O-RING
132-BYPASS	106-300-410	562835	87028	N/A	LMXP CS BYPASS SECTION
132-25S	106-300-070	562819	87026-03S	N/A	LMXP CS 25 SINGLE VALVE SECTION
132-25T	106-300-010	562813	87026-03T	N/A	LMXP CS 25 TWIN VALVE SECTION
132-50S	106-300-080	562820	87026-05S	N/A	LMXP CS 50 SINGLE VALVE SECTION
132-50T	106-300-020	562814	87026-05T	N/A	LMXP CS 50 TWIN VALVE SECTION
132-75S	106-300-090	562821	87026-08S	N/A	LMXP CS 75 SINGLE VALVE SECTION
132-75T	106-300-030	562815	87026-08T	N/A	LMXP CS 75 TWIN VALVE SECTION
132-100S	106-300-100	562822	87026-10S	N/A	LMXP CS 100 SINGLE VALVE SECTION
132-100T	106-300-040	562816	87026-10T	N/A	LMXP CS 100 TWIN VALVE SECTION
132-125S	106-300-110	562823	87026-12S	N/A	LMXP CS 125 SINGLE VALVE SECTION
132-125T	106-300-050	562817	87026-12T	N/A	LMXP CS 125 TWIN VALVE SECTION
132-150S	106-300-120	562824	87026-15S	N/A	LMXP CS 150 SINGLE VALVE SECTION
132-150T	106-300-060	562818	87026-15T	N/A	LMXP CS 150 TWIN VALVE SECTION
132-50S-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 50 SINGLE VALVE SECTION-RHCIP
132-50T-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 50 TWIN VALVE SECTION-RHCIP
132-75S-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 75 SINGLE VALVE SECTION-RHCIP
132-75T-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 75 TWIN VALVE SECTION-RHCIP
132-100S-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 100 SINGLE VALVE SECTION-RHCIP
132-100T-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 100 TWIN VALVE SECTION-RHCIP
132-125S-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 125 SINGLE VALVE SECTION-RHCIP
132-125T-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 125 TWIN VALVE SECTION-RHCIP
132-150S-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 150 SINGLE VALVE SECTION-RHCIP
132-150T-RHCIP	N/A	N/A	N/A	N/A	LMXP CS 150 TWIN VALVE SECTION
132-INL-US-303	N/A	N/A	N/A	N/A	LMXP 303 INLET 3/8-18 NPSF
132-INL SAE-303	N/A	N/A	N/A	N/A	LMXP 303 INLET 3/4-16 SAE
132-BP-BSPP-303	N/A	N/A	N/A	N/A	LMXP 303 INLET 3/8 BSPP 3.00
132-BP-NPSF-303	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 1/4" NPSF
132-BP-SAE-303	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 9/16 SAE
132-BP-BSPP-303	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 1/4 BSPP
132-END-303	N/A	N/A	N/A	N/A	LMXP 303 END
132-VORK	N/A	N/A	N/A	N/A	LMXP 303 VALVE O-RINGS
LMXP-VMB-SS	N/A	N/A	N/A	N/A	LMXP 303 VALVE MOUNT BOLTS
132-TR3	N/A	N/A	N/A	N/A	LMXP 303 3-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR4	N/A	N/A	N/A	N/A	LMXP 303 4-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR5	N/A	N/A	N/A	N/A	LMXP 303 5-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR6	N/A	N/A	N/A	N/A	LMXP 303 6-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR7	N/A	N/A	N/A	N/A	LMXP 303 7-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR8	N/A	N/A	N/A	N/A	LMXP 303 8-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR9	N/A	N/A	N/A	N/A	LMXP 303 9-SECTION TIE RODS & NUTS (PACK OF 3 EACH)

\*LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN® INDUSTRIAL  
 GRACO® IS A REGISTERED TRADEMARK OF GRACO®  
 TRABON® IS A REGISTERED TRADEMARK OF GRACO®  
 FARVAL® IS A REGISTERED TRADEMARK OF BIJUR DELIMON INTERNATIONAL

DISCLAIMER: Lubrication Scientifics, LLC assumes no responsibility for errors or omissions which may have occurred. While every effort is made to attain accurate information, it is ultimately the responsibility of the distributor and/or customer to verify the accuracy of the information.

# LUBRICATION SCIENTIFICS, LLC - CENTRALIZED LUBRICATION SYSTEMS

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN	FARVAL	PRODUCT DESCRIPTION
132-TR10	N/A	N/A	N/A	N/A	LMXP 303 10-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
131-TRN-SS	N/A	N/A	N/A	N/A	LMXP 3/8-24 TIE ROD HEX NUT
L527970	N/A	N/A	N/A	N/A	LMXP 303 CRO303PORT PLATE LEFT
L527980	N/A	N/A	N/A	N/A	LMXP 303 CRO303PORT PLATE RIGHT
L527990	N/A	N/A	N/A	N/A	LMXP 303 CRO303PORT PLATE BOTH
132-A-001-S	N/A	N/A	N/A	N/A	LMXP 303 VALVE CLOSURE PLUG WITH O-RING
A-002-S	N/A	N/A	N/A	N/A	LMXP 303 ALTERNATE OUTLET PLUG WITH O-RING
132-25S-303	N/A	N/A	N/A	N/A	LMXP 303 25 SINGLE VALVE SECTION
132-25T-303	N/A	N/A	N/A	N/A	LMXP 303 25 TWINVALVE SECTION
132-50S-303	N/A	N/A	N/A	N/A	LMXP 303 50 SINGLE VALVE SECTION
132-50T-303	N/A	N/A	N/A	N/A	LMXP 303 50 TWIN VALVE SECTION
132-75S-303	N/A	N/A	N/A	N/A	LMXP 303 75 SINGLE VALVE SECTION
132-75T-303	N/A	N/A	N/A	N/A	LMXP 303 75 TWIN VALVE SECTION
132-100S-303	N/A	N/A	N/A	N/A	LMXP 303 100 SINGLE VALVE SECTION
132-100T-303	N/A	N/A	N/A	N/A	LMXP 303 100 TWIN VALVE SECTION
132-125S-303	N/A	N/A	N/A	N/A	LMXP 303 125 SINGLE VALVE SECTION
132-125T-303	N/A	N/A	N/A	N/A	LMXP 303 125 TWIN VALVE SECTION
132-150S-303	N/A	N/A	N/A	N/A	LMXP 303 150 SINGLE VALVE SECTION
132-150T-303	N/A	N/A	N/A	N/A	LMXP 303 150 TWIN VALVE SECTION
132-50S-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 50 SINGLE VALVE SECTION-RHCIP
132-50T-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 50 TWIN VALVE SECTION-RHCIP
132-75S-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 75 SINGLE VALVE SECTION-RHCIP
132-75T-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 75 TWIN VALVE SECTION-RHCIP
132-100S-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 100 SINGLE VALVE SECTION-RHCIP
132-100T-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 100 TWIN VALVE SECTION-RHCIP
132-125S-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 125 SINGLE VALVE SECTION-RHCIP
132-125T-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 125 TWIN VALVE SECTION-RHCIP
132-150S-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 150 SINGLE VALVE SECTION-RHCIP
132-150T-RHCIP-303	N/A	N/A	N/A	N/A	LMXP 303 150 TWIN VALVE SECTION
132-INL-US-316	N/A	N/A	N/A	N/A	LMXP 316 INLET 3/8-18 NPSF
132-INL SAE-316	N/A	N/A	N/A	N/A	LMXP 316 INLET 3/4-16 SAE
132-BP-BSPP-316	N/A	N/A	N/A	N/A	LMXP 316 INLET 3/8 BSPP 3.00
132-BP-NPSF-316	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 1/4" NPSF
132-BP-SAE-316	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 9/16 SAE
132-BP-BSPP-316	N/A	N/A	N/A	N/A	LMXP INTERMEDIATE 1/4 BSPP
132-END-316	N/A	N/A	N/A	N/A	LMXP 316 END
132-VORK	N/A	N/A	N/A	N/A	LMXP 316 VALVE O-RINGS
LMXP-VMB-316	N/A	N/A	N/A	N/A	LMXP 316 VALVE MOUNT BOLTS
132-TR3-316	N/A	N/A	N/A	N/A	LMXP 316 3-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR4-316	N/A	N/A	N/A	N/A	LMXP 316 4-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR5-316	N/A	N/A	N/A	N/A	LMXP 316 5-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR6-316	N/A	N/A	N/A	N/A	LMXP 316 6-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR7-316	N/A	N/A	N/A	N/A	LMXP 316 7-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR8-316	N/A	N/A	N/A	N/A	LMXP 316 8-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR9-316	N/A	N/A	N/A	N/A	LMXP 316 9-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TR10-316	N/A	N/A	N/A	N/A	LMXP 316 10-SECTION TIE RODS & NUTS (PACK OF 3 EACH)
132-TRN-316	N/A	N/A	N/A	N/A	LMXP 3/8-24 TIE ROD HEX NUT
L527970-316	N/A	N/A	N/A	N/A	LMXP SS CROSSPORT PLATE LEFT
L527980-316	N/A	N/A	N/A	N/A	LMXP SS CROSSPORT PLATE RIGHT
L527990-316	N/A	N/A	N/A	N/A	LMXP SS CROSSPORT PLATE BOTH
132-BYPASS-316	N/A	N/A	N/A	N/A	LMXP 316 BYPASS SECTION
132-A-001-S	N/A	N/A	N/A	N/A	LMXP 316 VALVE CLOSURE PLUG WITH O-RING
A-002-S	N/A	N/A	N/A	N/A	LMXP 316 ALTERNATE OUTLET PLUG WITH O-RING
132-25S-316	N/A	N/A	N/A	N/A	LMXP 316 25 SINGLE VALVE SECTION
132-25T-316	N/A	N/A	N/A	N/A	LMXP 316 25 TWINVALVE SECTION
132-50S-316	N/A	N/A	N/A	N/A	LMXP 316 50 SINGLE VALVE SECTION
132-50T-316	N/A	N/A	N/A	N/A	LMXP 316 50 TWIN VALVE SECTION
132-75S-316	N/A	N/A	N/A	N/A	LMXP 316 75 SINGLE VALVE SECTION
132-75T-316	N/A	N/A	N/A	N/A	LMXP 316 75 TWIN VALVE SECTION
132-100S-316	N/A	N/A	N/A	N/A	LMXP 316 100 SINGLE VALVE SECTION
132-100T-316	N/A	N/A	N/A	N/A	LMXP 316 100 TWIN VALVE SECTION
132-125S-316	N/A	N/A	N/A	N/A	LMXP 316 125 SINGLE VALVE SECTION
132-125T-316	N/A	N/A	N/A	N/A	LMXP 316 125 TWIN VALVE SECTION
132-150S-316	N/A	N/A	N/A	N/A	LMXP 316 150 SINGLE VALVE SECTION
132-150T-316	N/A	N/A	N/A	N/A	LMXP 316 150 TWIN VALVE SECTION
132-50S-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 50 SINGLE VALVE SECTION-RHCIP
132-50T-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 50 TWIN VALVE SECTION-RHCIP
132-75S-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 75 SINGLE VALVE SECTION-RHCIP
132-75T-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 75 TWIN VALVE SECTION-RHCIP
132-100S-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 100 SINGLE VALVE SECTION-RHCIP
132-100T-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 100 TWIN VALVE SECTION-RHCIP
132-125S-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 125 SINGLE VALVE SECTION-RHCIP
132-125T-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 125 TWIN VALVE SECTION-RHCIP
132-150S-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 150 SINGLE VALVE SECTION-RHCIP
132-150T-RHCIP-316	N/A	N/A	N/A	N/A	LMXP 316 150 TWIN VALVE SECTION

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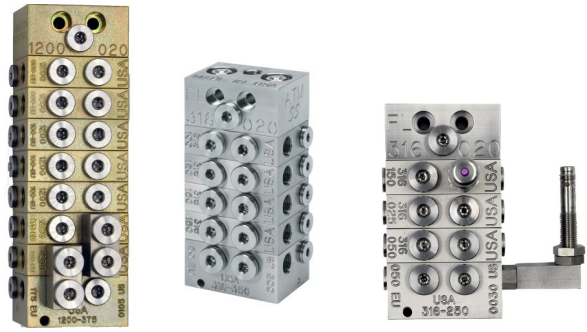
# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**ORFL SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**VERSATILE MINIATURE VALVES—CRITICAL MONITORING—ACCESSORIES**



## ORFL SERIES PROGRESSIVE DIVIDER VALVES

### PRODUCT DESCRIPTION

CARBON & 303, 316 STAINLESS STEEL DIVIDER VALVES

SMALL FOOT PRINT, STANDARD PRESSURE

SERIES PROGRESSIVE DESIGN WITH FEEDBACK FOR MONITORING SYSTEM PERFORMANCE

INTERNAL CHECK VALVES INCLUDED KEEPING LINES FULL OF LUBRICANT

DESIGNED FOR OIL AND GREASE SYSTEMS

ALTERNATE OUTPUTS ACCEPTS STANDARD PERFORMANCE INDICATORS AND FITTINGS

USE FOR OFFROAD, INDUSTRIAL, MARINE & FOOD PROCESSING MACHINERY

### BENEFITS & FEATURES

COMPACT, LIGHT WEIGHT DESIGN

INDUSTRY EXCLUSIVE SIDE & FRONT FACING ALTERNATE OUTPUT PORTS

INTERNAL CHECK VALVES (316 SS BALLS & SPRINGS)

CARBON STEEL, 303 & 316 STAINLESS STEEL CONSTRUCTION AVAILABLE

FOR STANDARD PRESSURE OIL OR GREASE APPLICATIONS

1-24 LUBE POINTS PER VALVE ASSEMBLY

WIDE RANGE OF PERFORMANCE ACCESSORIES AVAILABLE FOR ANY SYSTEM REQUIREMENT

## READY FOR IMMEDIATE SHIPMENT

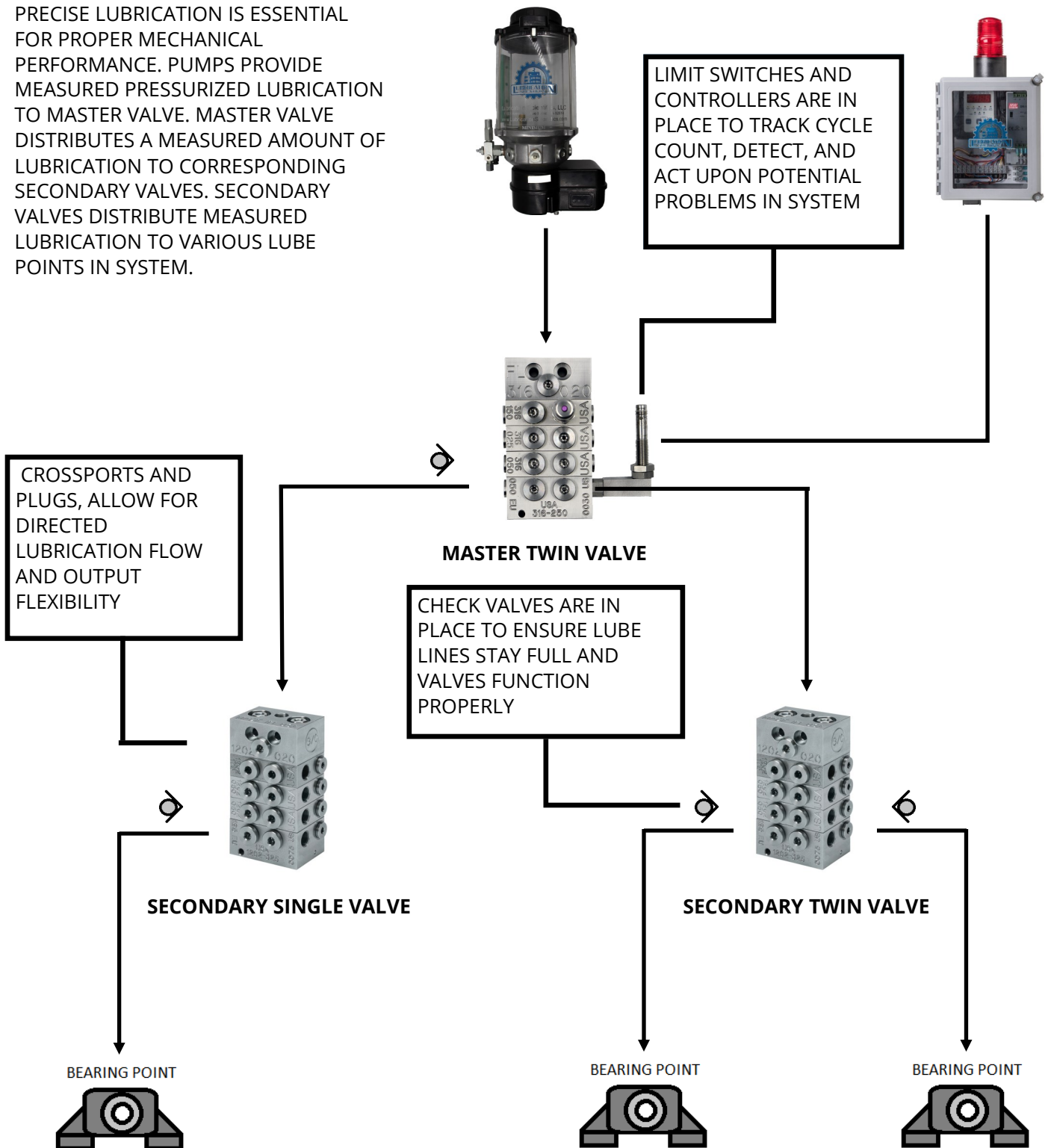
MADE IN



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FUNCTION ILLUSTRATION & SPECIFICATIONS

PRECISE LUBRICATION IS ESSENTIAL FOR PROPER MECHANICAL PERFORMANCE. PUMPS PROVIDE MEASURED PRESSURIZED LUBRICATION TO MASTER VALVE. MASTER VALVE DISTRIBUTES A MEASURED AMOUNT OF LUBRICATION TO CORRESPONDING SECONDARY VALVES. SECONDARY VALVES DISTRIBUTE MEASURED LUBRICATION TO VARIOUS LUBE POINTS IN SYSTEM.



## FUNCTION ILLUSTRATION & SPECIFICATIONS

### Major Benefits when utilizing ORFL Fill Fittings

#### Fill Fittings for use in ORFL valve Alternate Inlet & Outlet Port

- **FILL FITTINGS CONTAIN NO INTERNAL COMPONENTS**—No damage can be done to valve or downstream machinery from high pressure surge from a grease gun. High surges can blow the guts out of a normal ZERK Fitting
- **FILL FITTINGS ARE ZERO LEAK**—Uses 1/8-27 SAE type O-ring connection. This connection cannot damage port threads
- **ORFL VALVES HAVE INTERNAL CHECK VALVES**—Grease Gun Lubrication WILL NOT damage valve or lubrication system.

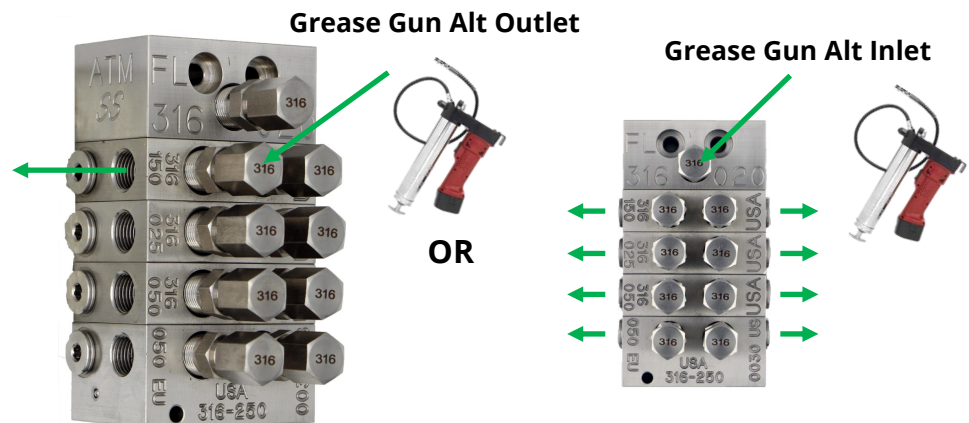
#### Adding fill fittings to any valve **ALTERNATE INLET** provides maximum design flexibility

- **MANUAL LUBRICATION SYSTEMS**—With fill fittings installed in ALTERNATE INLET, ENTIRE valve can be cycled with a grease gun. Add an inlet fill screen to prevent contamination during manual lubrication.
- **SYSTEM PUMP FAILURE**—If system pump fails, installing ORFL FILL FITTING in the master valve ALTERNATE INLET WILL ALLOW THE ENTIRE LUBE SYSTEM to be cycled from ONE point. Add an inlet fill screen to prevent contamination during manual lubrication.

#### **INSTALLING FILL FITTINGS IN ALTERNATE OUTLETS REDUCES SYSTEM START UP TIME, PROVIDES TROUBLE-SHOOTING OPTIONS, & OFFERS EFFECTIVE CONTINGENCY OPTIONS WHERE SYSTEM MAINTENANCE ISSUES EXIST**

- **PREFILLING LUBRICATION LINES**—All lubrication lines from valve to lube point can be rapidly pre-filled by installing ORFL FILL FITTING into ALTERNATE OUTLET PORT for the line being pre-filled.
- **PURGING LUBRICATION LINES**—In the event that there is a lubricant specification change or incompatible lubricants have been mixed in system, all lines can be easily purged by installing ORFL FILL FITTINGS in all ORFL VALVES, including both Master and secondary valves. Purge from master out to secondary valves and then to individual lube points.
- **SYSTEM TROUBLE SHOOTING**—Starting from lube point feed line and working back to master valve to secondary lines, use a grease gun with a gauge to find high pressure conditions in lubrication system.

**INLET FILL SCREENS SHOULD NOT BE USED IN ALTERNATIVE OUTLET PORTS**



Ordering information on Page 10



## ORDERING INFORMATION & PART NUMBERS

LUBRICATION SCIENTIFICS OFFERS THE MOST ADAPTABLE MINIATURE DIVIDER VALVE CURRENTLY IN EXISTENCE. THE ONLY DIVIDER VALVE TO PROVIDE SIDE AND FRONT FACING OUTLETS; IDEAL FOR ACCESSIBILITY IN COMPACT, LIMITED SPACE APPLICATIONS.

THE ORFL SERIES PROUDLY DISPLAYS VERSATILITY, AND SYSTEM DESIGN FLEXIBILITY BY OFFERING COMPATIBLE ACCESSORIES AND FEATURES SUCH AS RESET INDICATORS, BLOWOUT FITTINGS, SECONDARY INLETS, LIMIT SWITCHES, AND ALTERNATIVE FRONT OUTPUTS

### ORFL INLET SECTION

TOP & FRONT FACING INLET PORTS  
ONE INLET SECTION REQUIRED PER VALVE ASSEMBLY

STANDARD PACK: 5 EACH			
INLET CONNECTION	CARBON STEEL	303 STAINLESS STEEL	316 STAINLESS STEEL
M10 X 1.0	1200-020EU	1202-020EU	FL316-020EU
1/8-27 NPSF	1200-021US	1202-021US	FL316-021US



**ORDERING INFORMATION & PART NUMBERS**



**ORFL MIDDLE VALVE SECTION**

**SIDE & FRONT OUTLET PORTS**

**VITON O-RING SEALS**

**SHIPPED AS TWIN OUTLET**

**EASILY CONVERTED TO SINGLE OUTPUT (SEE PAGE 19)**

**INTERNALLY CHECKED—EITHER US OR METRIC OUTLETS**

**STANDARD PRESSURE—3000 PSI**

**MINIMUM OF TWO MIDDLE SECTIONS REQUIRED PER ASSEMBLY**

STANDARD PACK: 5 EACH					
OUTLET	SINGLE OUTPUT	TWIN OUTPUT	CARBON STEEL	303 STAINLESS STEEL	316 STAINLESS STEEL
M10 X 1.0	.050 CC   .003 CU	.025 CC   .0015 CU	1200-025EU	1202-025EU	FL316-025EU
1/8 NPSF	.050 CC   .003 CU	.025 CC   .0015 CU	1200-025US	1202-025US	FL316-025US
M10 X 1.0	.100 CC   .006 CU	.050 CC   .003 CU	1200-050EU	1202-050EU	FL316-050EU
1/8 NPSF	.100 CC   .006 CU	.050 CC   .003 CU	1200-050US	1202-050US	FL316-050US
M10 X 1.0	.150 CC   .009 CU	.075 CC   .0045 CU	1200-075EU	1202-075EU	FL316-075EU
1/8 NPSF	.150 CC   .009 CU	.075 CC   .0045 CU	1200-075US	1202-075US	FL316-075US
M10 X 1.0	.200 CC   .012 CU	.100 CC   .006 CU	1200-100EU	1202-100EU	FL316-100EU
1/8 NPSF	.200 CC   .012 CU	.100 CC   .006 CU	1200-100US	1202-100US	FL316-100US
M10 X 1.0	.250 CC   .015 CU	.125 CC   .0075 CU	1200-125EU	1202-125EU	FL316-125EU
1/8 NPSF	.250 CC   .015 CU	.125 CC   .0075 CU	1200-125US	1202-125US	FL316-125US
M10 X 1.0	.300 CC   .018 CU	.150 CC   .009 CU	1200-150EU	1202-150EU	FL316-150EU
1/8 NPSF	.300 CC   .018 CU	.150 CC   .009 CU	1200-150US	1202-150US	FL316-150US
M10 X 1.0	.350 CC   .021 CU	.175 CC   .0105 CU	1200-175EU	1202-175EU	FL316-175EU
1/8 NPSF	.350 CC   .021 CU	.175 CC   .0105 CU	1200-175US	1202-175US	FL316-175US

**ORDERING INFORMATION & PART NUMBERS**



**ORFL WORKING END SECTIONS**

**SIDE AND FRONT FACING OUTLET PORTS**

**VITON O-RING SEALS**

**SHIPPED AT TWIN OUTLET—EASILY CONVERTED TO SINGLE OUTPUT (SEE PAGE 15)**

**INTERNALLY CHECKED—316 STAINLESS STEEL BALLS AND SPRINGS**

**ONE END REQUIRED PER VALVE ASSEMBLY**

STANDARD PACK: 5 EACH WORKING END VALVES					
OUTLET	SINGLE OUTPUT	TWIN OUTPUT	CARBON STEEL	303 STAINLESS	316 STAINLESS STEEL
M10 X 1.0	.050 CC   .003 CU	.025 CC   .0015 CU	1200-225EU	1202-225EU	FL316-225EU
1/8 NPSF	.050 CC   .003 CU	.025 CC   .0015 CU	1200-225US	1202-225US	FL316-225US
M10 X 1.0	.100 CC   .006 CU	.050 CC   .003 CU	1200-250EU	1202-250EU	FL316-250EU
1/8 NPSF	.100 CC   .006 CU	.050 CC   .003 CU	1200-250US	1202-250US	FL316-250US
M10 X 1.0	.150 CC   .009 CU	.075 CC   .0045 CU	1200-275EU	1202-275EU	FL316-275EU
1/8 NPSF	.150 CC   .009 CU	.075 CC   .0045 CU	1200-275US	1202-275US	FL316-275US
M10 X 1.0	.200 CC   .012 CU	.100 CC   .006 CU	1200-300EU	1202-300EU	FL316-300EU
1/8 NPSF	.200 CC   .012 CU	.100 CC   .006 CU	1200-300US	1202-300US	FL316-300US
M10 X 1.0	.250 CC   .015 CU	.125 CC   .0075 CU	1200-325EU	1202-325EU	FL316-325EU
1/8 NPSF	.250 CC   .015 CU	.125 CC   .0075 CU	1200-325US	1202-325US	FL316-325US
M10 X 1.0	.300 CC   .018 CU	.150 CC   .009 CU	1200-350EU	1202-350EU	FL316-350EU
1/8 NPSF	.300 CC   .018 CU	.150 CC   .009 CU	1200-350US	1202-350US	FL316-350US
M10 X 1.0	.350 CC   .021 CU	.175 CC   .0105 CU	1200-375EU	1202-375EU	FL316-375EU
1/8 NPSF	.350 CC   .021 CU	.175 CC   .0105 CU	1200-375US	1202-375US	FL316-375US

**ORDERING INFORMATION & PART NUMBERS**

**ORFL WORKING END SECTIONS W/ CIP**

**FOR PLC/CONTROLLER FEEDBACK SIGNAL, USE WITH ORFL PROXIMITY KITS BELOW**



**SIDE AND FRONT FACING OUTLET PORTS  
VITON O-RING SEALS  
SHIPPED AT TWIN OUTLET—EASILY CONVERTED TO SINGLE OUTPUT  
INTERNALLY CHECKED -316 STAINLESS STEEL BALLS AND SPRINGS**

STANDARD PACK: 2 EACH WORKING END VALVES W/ RIGHT HAND CIP					
OUTLET	SINGLE OUTPUT	TWIN OUTPUT	CARBON STEEL	303 STAINLESS	316 STAINLESS STEEL
M10 X 1.0	.300 CC   .018 CU	.150 CC   .009 CU	1200-350EU-RHCIP	1202-350EU-RHCIP	FL316-350EU-RHCIP
1/8 NPSF	.300 CC   .018 CU	.150 CC   .009 CU	1200-350US-RHCIP	1202-350US-RHCIP	FL316-350US-RHCIP
M10 X 1.0	.350 CC   .021 CU	.175 CC   .0105 CU	1200-375EU-RHCIP	1202-375EU-RHCIP	FL316-375EU-RHCIP
1/8 NPSF	.350 CC   .021 CU	.175 CC   .0105 CU	1200-375US-RHCIP	1202-375US-RHCIP	FL316-375US-RHCIP

FOR **STANDARD SIZED** CYCLE INDICATOR PIN ADD SUFFIX: -LSW

EXAMPLE: FL316-350US-RHCIP-LSW



**ORDERING INFORMATION & PART NUMBERS**

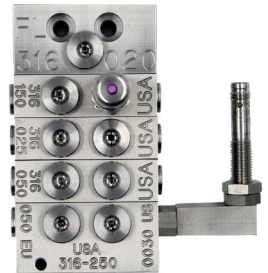
**ORFL WORKING END SECTIONS W/ CIP**

**FOR PLC/CONTROLLER FEEDBACK SIGNAL, USE WITH ORFL PROXIMITY KITS BELOW**

**ORFL PROXIMITY SWITCH KITS**

**KIT INCLUDES ADAPTER & PROXIMITY SWITCH  
CABLE MUST BE ORDERED SEPARATELY**

STANDARD PACK: 1 EACH		
DESCRIPTION	303 STAINLESS STEEL	316 STAINLESS STEEL
PROXIMITY KIT, PNP TYPE	1202-501	FL316-501
PROXIMITY KIT, NPN TYPE	1202-502	FL316-502



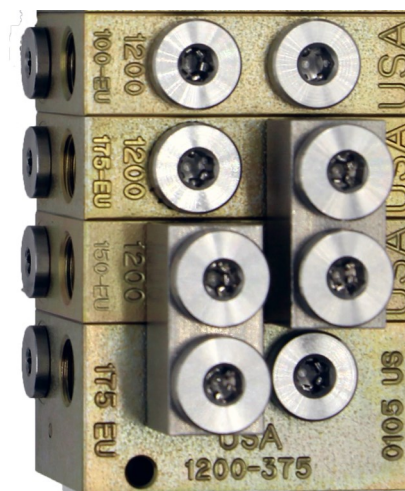
**PROXIMITY SWITCH CABLES**

STANDARD PACK: 1 EACH			
DESCRIPTION	LENGTH	CONNECTOR TYPE	PART NUMBER
3 WIRE PICO M8 CORDSET, 24 AWG, NICKEL PLATED BRASS COUPLING NUT	16.4 FEET   5 METERS	RIGHT ANGLE	PSC-16
3 WIRE PICO M8 CORDSET, 24 AWG, NICKEL PLATED BRASS COUPLING NUT	32.8 FEET   10 METERS	RIGHT ANGLE	PSC-32

## ORDERING INFORMATION & PART NUMBERS

### CROSSPORT KITS

STANDARD PACK: 2		
DESCRIPTION	303 STAINLESS STEEL	316 STAINLESS STEEL
FRONT CROSSPORT KIT (2 VALVES, 1 OUTPUT)	1202-413	FL316-413
FRONT CROSSPORT KIT (3 VALVES, 1 OUTPUT)	1202-414	FL316-414
FRONT CROSSPORT KIT (4 VALVES, 1 OUTPUT)	1202-415	FL316-415
SIDE CROSSPORT KIT FOR EU VALVES (M10) (2 VALVES, 1 OUTPUT)	1202-402EU	FL316-402EU
SIDE CROSSPORT KIT FOR US VALVES (1/8-27) (2 VALVES, 1 OUTPUT)	1202-402US	FL316-402US



### TIE ROD KITS—NUTS INCLUDED TWO TIE RODS PER KIT ONE KIT PER VALVE ASSEMBLY REQUIRED



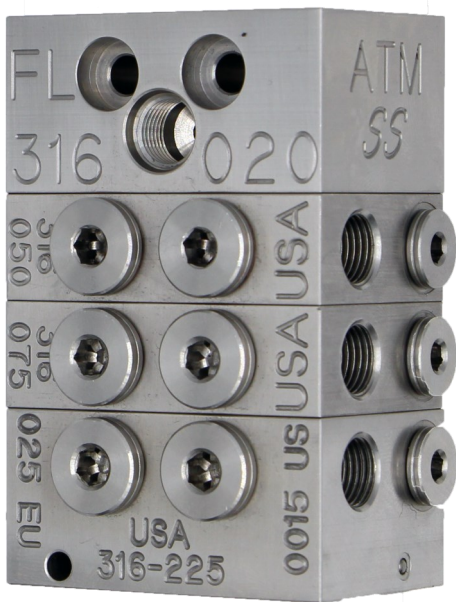
STANDARD PACK: 1 KIT		
VALVE ASSEMBLY SECTIONS	303 STAINLESS STEEL	316 STAINLESS STEEL
3 SECTIONS	1202-403	FL316-403
4 SECTIONS	1202-404	FL316-404
5 SECTIONS	1202-405	FL316-405
6 SECTIONS	1202-406	FL316-406
7 SECTIONS	1202-407	FL316-407
8 SECTIONS	1202-408	FL316-408
9 SECTIONS	1202-409	FL316-409
10 SECTIONS	1202-410	FL316-410
11 SECTIONS	1202-411	FL316-411
12 SECTIONS	1202-412	FL316-412

**ORDERING INFORMATION & PART NUMBERS**

**ORFL FILL FITTINGS**

FILL FITTING FOR ABILITY TO MANUALLY LUBRICATE  
 BLOCKS IN CASE OF A PUMP FAILURE  
 CONTAINS NO BALL OR SPRINGS  
 O-RINGS PROTECT THREADS  
 WILL NOT DAMAGE VALVE OR DOWNSTREAM SYSTEM

AVAILABLE IN 303 & 316 STAINLESS STEEL



STANDARD PACK: 1		
DESCRIPTION	303 STAINLESS STEEL	316 STAINLESS STEEL
FILL FITTING—O-RING SEAL	L90471-ORS-303	L90471-ORS-316

STANDARD PACK: 1		
DESCRIPTION	MESH	PART NUMBER
316 STAINLESS STEEL INLET FILL SCREEN	100	

**ORDERING INFORMATION & PART NUMBERS**

**OUTLET FITTINGS, CLOSURE PLUGS & O-RING KITS**

STANDARD PACK: 10 EACH					
PART DESCRIPTION	FITTING STYLE	303 STAINLESS STEEL	316 STAINLESS STEEL	BRASS	PICTURES
M10 X 1.0 CONNECTOR	FITTING/FERRULE KIT FOR 4MM TUBING	1202-401-4MK	FL316-401-4MK	N/A	
M10 X 1.0 CONNECTOR	FITTING/FERRULE FOR 6MM TUBING	1202-401-6MK	FL316-401-6MK		
M10 X 1.0 PLUG	OUTLET PLUG	1202-400	FL316-400	N/A	
ORFL A/O PLUG W/ O-RING	ALTERNATE OUTPUT PLUG	A-002-S	A-002-S316	N/A	
ORFL PISTON BORE PLUG	PISTON PLUG	1202-429	FL316-429	N/A	
INTERNAL CHECK KIT	CAP   O-RING   BALL   SPRING	1202-430	FL316-430	N/A	
SINGLED ALTERNATE OUTLET CLOSURE PLUG	PLUG WITH O-RING	SA-002-S	N/A	N/A	N/A
O-RING KIT	ALL INLET SECTIONS	1202-426	N/A	N/A	N/A
O-RING KIT	O-RING KIT - ALL VALVE SECTIONS	1202-427	N/A	N/A	N/A
TUBE FITTING	ALL US OUTLETS, 3/16 TUBE	1202-450	FL316-450	N/A	N/A
TUBE FITTING	ALL US OUTLETS, 1/4 TUBE	1202-451	FL316-451	N/A	N/A
MANUAL FILL FITTING	ALL INLET/VALVE FRONT PORTS	L90471-ORS-303	L90471-ORS-316	N/A	N/A
TUBE NUT	SS 6MM	1202-401	N/A	N/A	N/A
TUBE OUTLET FITTING KIT	1/4"OD TUBE NUT & FERRULE INCLUDED	1202-401-USK	FL316-401-USK	N/A	N/A
TUBE FITTING 1/4" TUBE X 1/8" NPT BRASS	1/4" TUBE X 1/8" NPT	LTF-4-2N	N/A	LTF-4-2N-BRASS	N/A



## ORDERING INFORMATION & PART NUMBERS

**THE ONLY MINIATURE DIVIDER VALVE IN EXISTENCE THAT ACCEPTS PERFORMANCE INDICATORS**

### PERFORMANCE RESET INDICATORS W/ MEMORY

STANDARD PACK: 5 EACH	1/8" NPSF O-RING CONNECTION	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
1,000 PSI 69 BAR	303-P1000	316-P1000
1,500 PSI 103 BAR	303-P1500	316-P1500
2,000 PSI 138 BAR	303-P2000	316-P2000
2,500 PSI 172 BAR	303-P2500	316-P2500
3,000 PSI 207 BAR	303-P3000	316-P3000
3,500 PSI 241 BAR	303-P3500	316-P3500
5,000 PSI 345 BAR	303-P5000	316-P5000



**NOTE:** FOR MORE INFORMATION REGARDING PERFORMANCE INDICATORS, REFER TO BULLETIN LSM002

### BLOWOUT FITTINGS



STANDARD PACK: 5 EACH	1/8" O-RING SEAL OR 1/8" NPTF THREADS	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-NPTF BOF-LP-303-ORS	BOF-LP-316-NPTF BOF-LP-316-ORS
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-NPTF BOF-LP-303R-ORS	BOF-LP-316R-NPTF BOF-LP-316R-ORS
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-NPTF BOF-HP-303-ORS	BOF-HP-316-NPTF BOF-HP-316-ORS
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-NPTF BOF-HP-303R-ORS	BOF-HP-316R-NPTF BOF-HP-316R-ORS

**NOTE:** RUPTURE DISK NOT INCLUDED—SEE PAGE 11

**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

**ATMOSPHERIC RESET INDICATORS**

<b>PART NUMBER</b>	<b>DESCRIPTION</b>
L5081000-NPTF	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPTF
L5081000-ORS	ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-NPTF	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-ORS	ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-NPTF	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-ORS	ATMOSPHERIC RESET INDICATOR, 2000 PSI, 1/8 ORS
L5082500-NPTF	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-ORS	ATMOSPHERIC RESET INDICATOR, 2500 PSI, 1/8 ORS
L5083000-NPTF	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-ORS	ATMOSPHERIC RESET INDICATOR, 3000 PSI, 1/8 ORS
L5081000-316-NPTF	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 NPT
L5081000-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1000 PSI, 1/8 ORS
L5081500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 1500 PSI, 1/8 NPTF
L5081500-316-ORS	316 ATMOSPHERIC RESET INDICATOR, 1500 PSI, 1/8 ORS
L5082000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 NPTF
L5082000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2000 PSI, 1/8 ORS
L5082500-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 NPTF
L5082500-316-ORS	316 ATMOSPHERIC RST INDICATOR, 2500 PSI, 1/8 ORS
L5083000-316-NPTF	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 NPTF
L5083000-316-ORS	316 ATMOSPHERIC RST INDICATOR, 3000 PSI, 1/8 ORS

## ORDERING INFORMATION & PART NUMBERS

ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION

### OUTLET CHECK VALVES

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
M10 X 1.0	M10 X 1.0	35	1202-425EU	FL316-425EU	<b>TUBE FITTING</b>
1/8" NPTF (M)	1/8" NPSF (F)	35	1202-425US	FL316-425US	<b>TUBE FITTING</b>



### 3/8" DIAMETER RUPTURE DISKS

STANDARD PACK: 25 EACH			
DISC COLOR	LOW PRESSURE BURST (PSI) (1/4" APERTURE FITTING)	HIGH PRESSURE BURST (PSI) (1/8" APERTURE FITTING)	PART NUMBER
BLACK	900	N/R	A509-276-000
GREEN	1,175	N/R	A509-277-000
YELLOW	1,450	3,700	A509-292-000
RED	1,750	4,600	A509-279-000
ORANGE	2,050	5,500	A509-280-000
ALUMINUM	2,350	N/R	A509-281-000
PINK	2,650	6,400	A509-282-000
BLUE	2,950	7,300	A509-283-000
PURPLE	3,250	8,200	A509-284-000

NOTE: ALL DISKS HAVE A RUPTURE TOLERANCE OF +500 PSI

FOR MORE INFORMATION REGARDING RESET INDICATORS, REFER TO BULLETIN LSM002

## ORDERING INFORMATION & PART NUMBERS

ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION

**CONTAMINATION IS THE ENEMY OF RELIABILITY**

**THE DIRT TRAP IS THE ANSWER**



### DIRT TRAP FILTER ASSEMBLY

STANDARD PACK: 1 EACH			
FILTER RATING	PLATED CARBON STEEL 7,500 PSI	316 STAINLESS STEEL	AL2024 BLUE ANODIZED ALUMINUM 6,000 PSI / 414 BAR
5 MICRON	DTFA-005-O	DTFA-005-O-316	MDFA-005-O
10 MICRON	DTFA-010-O	DTFA-010-O-316	MDFA-010-O
25 MICRON	DTFA-025-O	DTFA-025-O-316	MDFA-025-O
150 MICRON 100 MESH	DTFA-100-G	DTFA-100-G-316	MDFA-100-G
420 MICRON 40 MESH	DTFA-040-G	DTFA-040-G-316	MDFA-040-G

### DIRT TRAP REPLACEMENT ELEMENT

STANDARD PACK: 1 EACH	
FILTER RATING	PART NUMBER
5 MICRON	DT-EL-002-005MIC
10 MICRON	DT-EL-002-010MIC
25 MICRON	DT-EL-002-025MIC
150 MICRON 100 MESH	DT-EL-002-100M
420 MICRON 40 MESH	DT-EL-002-40M

NOTE: REPLACEMENT ELEMENTS ARE COMPATIBLE WITH BOTH THE CARBON STEEL AND 2024 ALUMINUM MODELS.



**ORDERING INFORMATION & PART NUMBERS**

**ANCHOR BLOCKS**

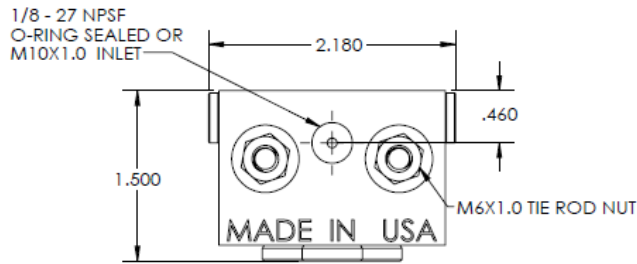
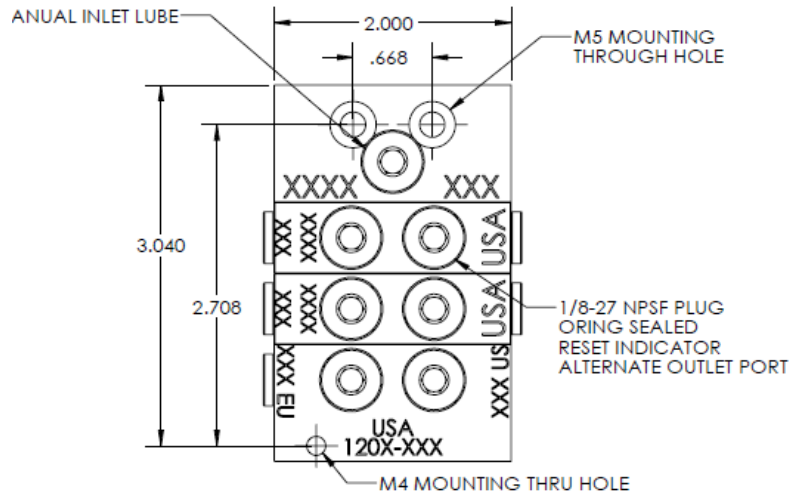
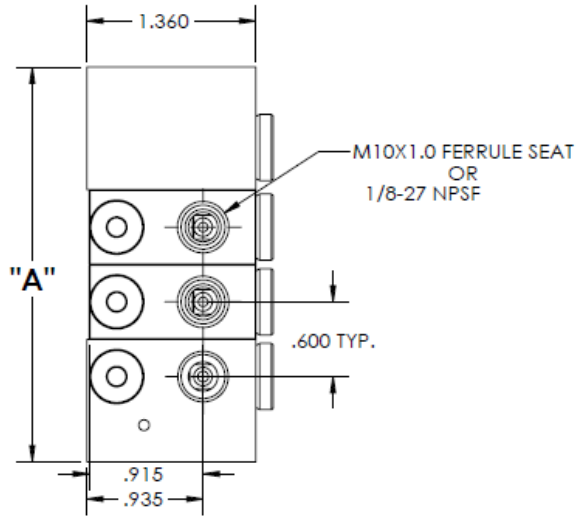
<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316

**NOTE:** FOR MORE INFORMATION REGARDING ANCHOR BLOCKS, REFER TO BULLETIN LSM008



## DIMENSIONS & MOUNTING INFORMATION

DIMENSIONS ARE IN INCHES



TORQUE	
TIE ROD	5-8 FT. LBS
INDICATOR PORT	8-9 FT. LBS
PISTON ENCLOSURE PLUG	10-12 FT. LBS

DIMENSIONAL FOOTPRINT		
NUMBER OF SEC.	"A" OAL LENGTH - IN.	"A" OAL LENGTH - MM
3	3.160"	80.264mm
4	3.760"	95.504mm
5	4.360"	110.744mm
6	4.960"	125.984mm
7	5.560"	141.224mm
8	6.160"	156.464mm
9	6.760"	171.704mm
10	7.360"	186.944mm
11	7.960"	202.184mm
12	8.560"	217.424mm

### SPECIFICATIONS

CARBON STEEL, 303, 316 STAINLESS  
 STANDARD PRESSURE: MAX 3000 PSI  
 UP TO 11 VALVES + 1 WORKING END  
 316 SS INTERNAL CHECK HARDWARE  
 USE WITH OIL OR GREASE APPLICATIONS

## ORFL SINGLING INSTRUCTIONS

THE ORFL DIVIDER VALVES COME FACTORY SET AS TWIN VALVES. IF SINGLING A VALVE IS REQUIRED, REFER TO THE FOLLOWING INSTRUCTIONS...

BEFORE STARTING, THE FOLLOWING TOOLS ARE REQUIRED: 5/64" & 3/16" ALLEN WRENCH AND NEEDLE-NOSE PLIERS.

**TO SINGLE A VALVE BLOCK, SET SCREW MUST BE REMOVED WITHIN VALVE BLOCK BODY.**

**STEP 1:** REMOVE LEFT **ALTERNATE OUTLET PLUG** TO ACCESS INTERNAL CHECK HARDWARE. USE 3/16" ALLEN. **FIG. 1**

**STEP 2:** USING NEEDLE-NOSE PLIERS, REMOVE SPRING AND CHECK BALL. **FIG. 1**

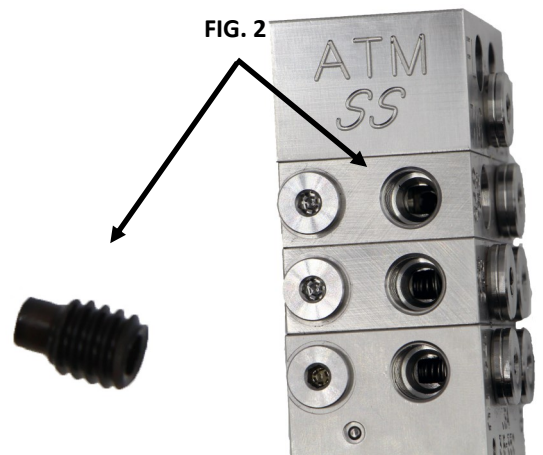
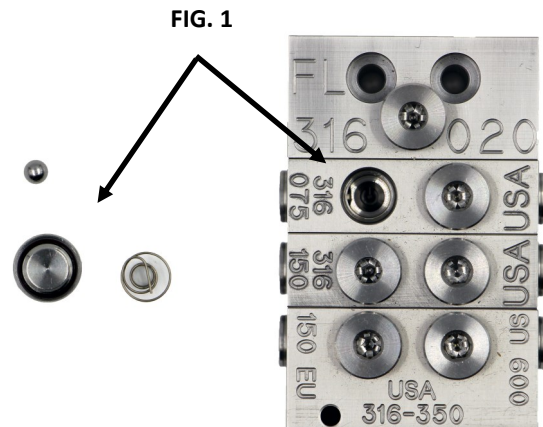
**STEP 3:** TURN VALVE ON ITS SIDE, LOOK THROUGH OUTLET PORT TO NOTICE A BLACK SET SCREW IN CENTER OF PORT. REMOVE SET SCREW USING 5/64" ALLEN. **FIG. 2**

**REMOVING THIS SET SCREW SINGLES THE VALVE BLOCK**

**STEP 4:** REASSEMBLE CHECK HARDWARE BY FIRST DROPPING CHECK BALL BACK INTO ALTERNATE OUTLET PORT, FOLLOWED BY SPRING. USING NEEDLE-NOSE PLIERS INSERT SPRING BELOW THREAD LEVEL.

**STEP 5:** REPLACE ALTERNATE OUTPUT PLUG USING A 3/16" ALLEN WRENCH.

**STEP 6:** BE SURE APPROPRIATE OUTLET PLUGS ARE INSTALLED FOR DESIRED OUTPUT



## ORFL FEEDER PART NUMBER ORDERING GUIDE

ORFL-XXX-XXX-XXX-XXXXX

ORFL-XXX-XXX-XXX-XXXXX	
MATERIAL	P/N
CARBON STEEL	LEAVE BLANK
303 STAINLESS	303
316 STAINLESS	316

ORFL-XXX-XXX-XXX-XXXXX	
PORT OPTIONS	P/N
NPSF PORTS 1/8-27	NPT
METRIC PORTS M10 X 1.0	MET

ORFL-XXX-XXX-XXX-XXXXX	
VALVE SIZE	P/N
.0015 CU. IN.   .025 CC	1
.003 CU. IN.   .050 CC	3
.0045 CU. IN.   .075 CC	4
.006 CU. IN.   .100 CC	6
.0075 CU. IN.   0.125 CC	7
.009 CU. IN.   .150 CC	9
.015 CU. IN.   .175 CC	10

ORFL-XXX-XXX-XXX-XXXXX	
INSTALLED ACCESSORIES (OMIT IF NOT REQUIRED)	P/N
NO INTERNAL CHECK VALVES	X
EXTERNAL CHECK VALVES	C
PERFORMANCE INDICATORS	P
PERFORMANCE INDICATORS & CHECK VALVES	B

ORFL-XXX-XXX-XXX-XXXXX	
NUMBER OF SECTIONS	P/N
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10
ELEVEN	11
TWELVE	12

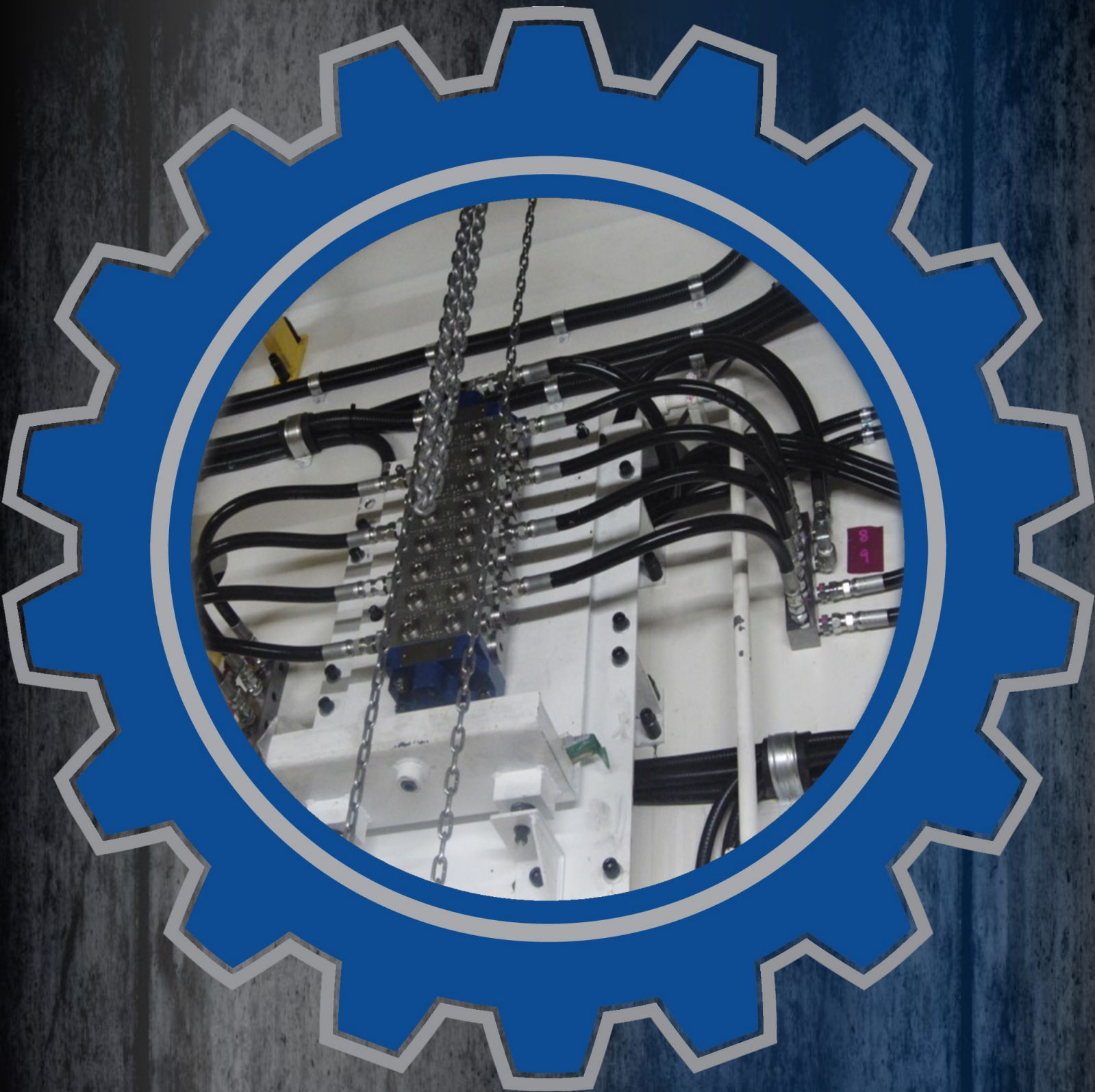
ORFL-XXX-XXX-XXX-XXXXX	
TYPE OF SECTION	P/N
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, CIP RIGHT	B
SINGLE, CIP RIGHT, RH OUTLET	C
SINGLE, CIP RIGHT, LH OUTLET	D
TWIN, CIP LEFT	H
SINGLE, CIP LEFT, RH OUTLET	J
SINGLE, CIP LEFT, LH OUTLET	K

ORFL-XXX-XXX-XXX-XXXXX	
CROSSPORT OPTION	P/N
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB



# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**LGO SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS**

**HIGH OUTPUT VALVES—CRITICAL MONITORING—ACCESSORIES**



## LGO SERIES PROGRESSIVE DIVIDER VALVES

### PRODUCT DESCRIPTION

LARGE FOOTPRINT, HIGH OUTPUT, SERIES PROGRESSIVE DIVIDER VALVE FOR HEAVY INDUSTRY APPLICATIONS.

DESIGNED FOR LARGE CIRCULATING OIL SYSTEMS FOUND IN PAPER AND RUBBER MILLS

AVAILABLE IN 316 STAINLESS STEEL

HIGH OUTPUT RANGES FROM .15 CUBIC INCHES TO 1.2 CUBIC INCHES

STANDARD PRESSURE 3000 PSI

ALL OUTLETS ARE 7/8-14 SAE AND SUPPLIED WITH STAINLESS STEEL CAPS

### BENEFITS & FEATURES

CARBON STEEL AND CORROSIVE RESISTANT 316 STAINLESS STEEL VALVE CONSTRUCTION

HIGH OUTPUT/ STANDARD PRESSURE OIL AND GREASE APPLICATIONS

DESIGNED WITH FEEDBACK FOR MONITORING SYSTEM PERFORMANCE

FROM 1-22 LUBE POINTS PER VALVE ASSEMBLY

PRECISE LUBRICANT FLOW TO EACH LUBE POINT

## READY FOR IMMEDIATE SHIPMENT

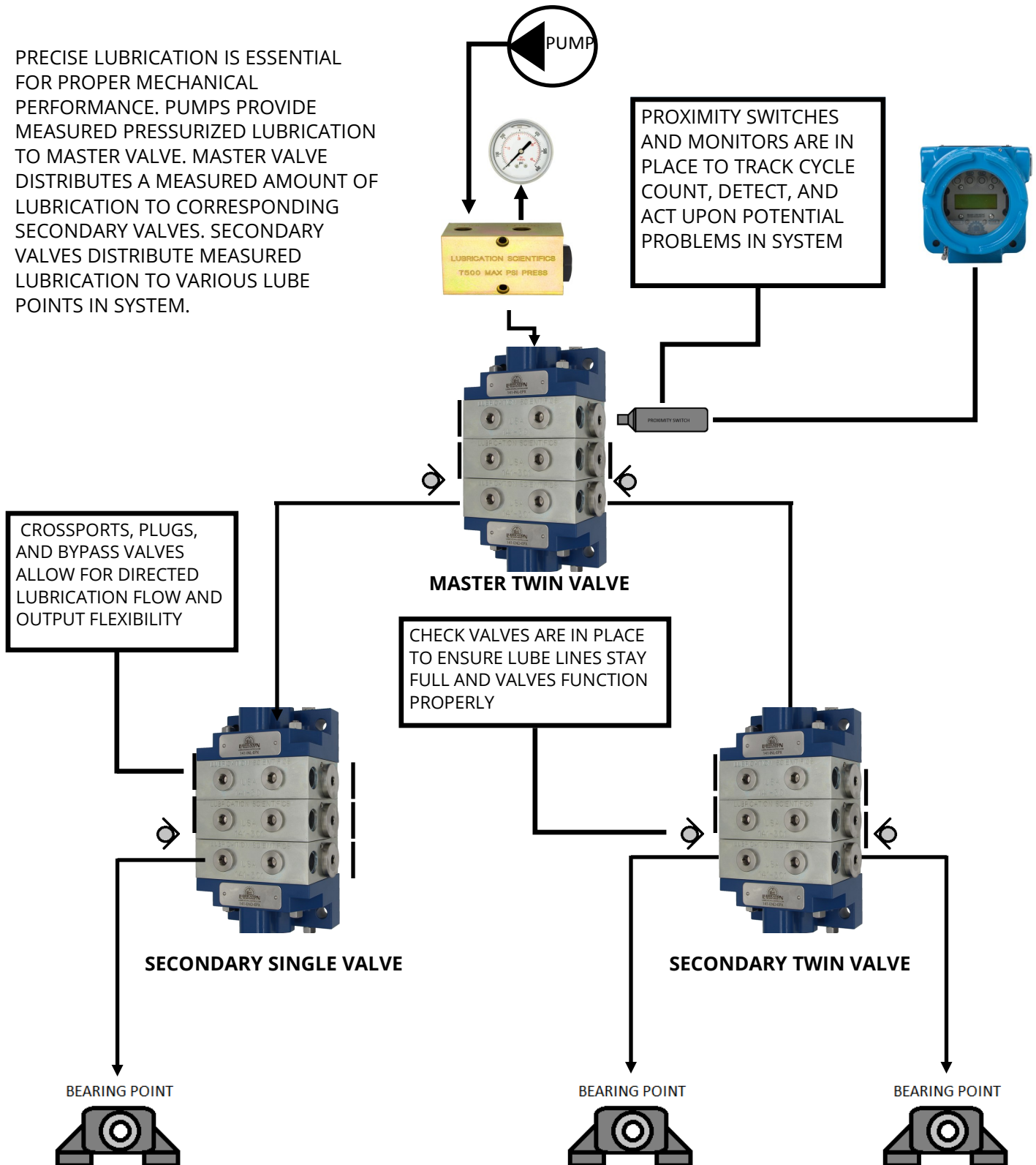
MADE IN



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FUNCTION ILLUSTRATION & SPECIFICATIONS

PRECISE LUBRICATION IS ESSENTIAL FOR PROPER MECHANICAL PERFORMANCE. PUMPS PROVIDE MEASURED PRESSURIZED LUBRICATION TO MASTER VALVE. MASTER VALVE DISTRIBUTES A MEASURED AMOUNT OF LUBRICATION TO CORRESPONDING SECONDARY VALVES. SECONDARY VALVES DISTRIBUTE MEASURED LUBRICATION TO VARIOUS LUBE POINTS IN SYSTEM.



## ORDERING INFORMATION & PART NUMBERS

### LGO SERIES DIVIDER VALVES—VALVE SECTIONS

STANDARD PACK: 1 EACH			
VALVE OUTPUT	VALVE DESCRIPTION	CARBON STEEL	316 STAINLESS STEEL
.300 CU IN   4.917 CC	150 SINGLE SAE	000-141151	316-141151
.150 CU IN   2.459 CC	150 TWIN SAE	000-141152	316-141152
.600 CU IN   9.834 CC	300 SINGLE SAE	000-141301	316-141301
.300 CU IN   4.917 CC	300 TWIN SAE	000-141302	316-141302
.900 CU IN   14.72 CC	450 SINGLE SAE	000-141451	316-141451
.450 CU IN   7.345 CC	450 TWIN SAE	000-141452	316-141452
1.20 CU IN   19.67 CC	600 SINGLE SAE	000-141601	316-141601
.600 CU IN   9.834 CC	600 TWIN SAE	000-141602	316-141602



### LGO SERIES TIE RODS

2 UPPER & 2 LOWER TIE RODS REQUIRED PER VALVE ASSEMBLY

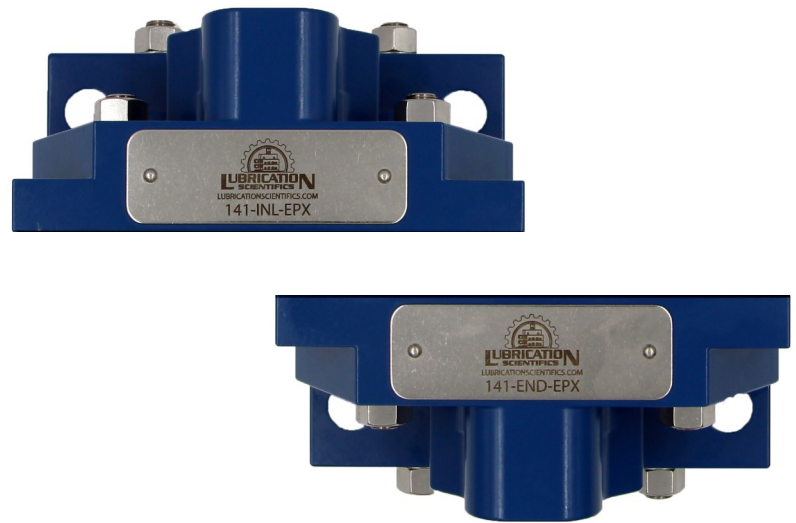
STANDARD PACK: 2 UPPER & 2 LOWER TIE RODS EACH		
TIE ROD DESCRIPTION	303 STAINLESS STEEL	316 STAINLESS STEEL
TIE ROD KIT, 3 SECTION	141-TR3-303	141-TR3-316
TIE ROD KIT, 4 SECTION	141-TR4-303	141-TR4-316
TIE ROD KIT, 5 SECTION	141-TR5-303	141-TR5-316
TIE ROD KIT, 6 SECTION	141-TR6-303	141-TR6-316
TIE ROD KIT, 7 SECTION	141-TR7-303	141-TR7-316
TIE ROD KIT, 8 SECTION	141-TR8-303	141-TR8-316
TIE ROD KIT, 9 SECTION	141-TR9-303	141-TR9-316
TIE ROD KIT, 10 SECTION	141-TR10-303	141-TR10-316
TIE ROD KIT, 11 SECTION	141-TR11-303	141-TR11-316

**ORDERING INFORMATION & PART NUMBERS**

**LGO SERIES INLET/END SECTION**

LGO SERIES REQUIRE AN INLET & OUTLET PER ASSEMBLY SECTION

**INLETS & OUTLETS ARE CORROSIVE RESISTANT, EPOXY COATED DUCTILE IRON**



STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
INLET, EPX, SAE	141-INL-EPX
END, EPX, SAE	141-END-EPX

**LGO SERIES PLUGS, SEAL KITS, AND CROSSPORT KITS**

PART DESCRIPTION	PART NUMBER	QTY IN PACK
LGO SEAL KIT—1 PER SECTION	L560950	1
LGO SERIES OUTLET PLUG, 303 SS, SAE	141-15018-303	3
LGO SERIES OUTLET PLUG, 316 SS, SAE	141-15018-316	3
LGO SERIES CROSSPORT KIT, 303 SS, SAE	141-52314-303	1
LGO SERIES CROSSPORT KIT, 316 SS, SAE	141-52314-316	1

## LGO RELATED ACCESSORIES

### PROXIMITY SWITCHES & CABLING

PART DESCRIPTION	303 STAINLESS	316 STAINLESS	STANDARD PACK	BULLETIN REFERENCE
PROXIMITY SWITCH, 3 PIN	N/A	L527251-1410	1	LSM003
PROXIMITY SWITCH, 4 PIN	N/A	L527112-1410	1	LSM003
PROXIMITY SWITCH, 5 PIN	N/A	L527111-1410	1	LSM003
3 PIN CABLE, 12' LENGTH	N/A	L527251-CBL12	1	LSM003
4 PIN CABLE, 12' LENGTH	N/A	L527112-CBL12	1	LSM003
5 PIN CABLE, 12' LENGTH	N/A	L527111-CBL12	1	LSM003

### PERFORMANCE RESET INDICATORS

1,000 PSI RESET INDICATOR	303-P1000	316-P1000	5	LSM002
1,500 PSI RESET INDICATOR	303-P1500	316-P1500	5	LSM002
2,000 PSI RESET INDICATOR	303-P2000	316-P2000	5	LSM002
2,500 PSI RESET INDICATOR	303-P2500	316-P2500	5	LSM002
3,000 PSI RESET INDICATOR	303-P3000	316-P3000	5	LSM002
3,500 PSI RESET INDICATOR	303-P3500	316-P3500	5	LSM002
<b>REQUIRED ADAPTER—RESET INDICATOR</b>	141-PI-ADP-303	141-PI-ADP-316	5	LSM002



## ORDERING INFORMATION & PART NUMBERS

### COMPLETE FILTER ASSEMBLY (NO GAUGE)

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (SHORT) 10 MICRONS	CFIL-10-US
FILTER ASSEMBLY (SHORT) 20 MICRONS	CFIL-20-US
FILTER ASSEMBLY (SHORT) 50 MICRONS	CFIL-50-US

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY (LONG) 10 MICRONS	CFIL-10-UL
FILTER ASSEMBLY (LONG) 20 MICRONS	CFIL-20-UL
FILTER ASSEMBLY (LONG) 50 MICRONS	CFIL-50-UL

**NOTE:** PRESSURE GAUGES SOLD SEPARATELY

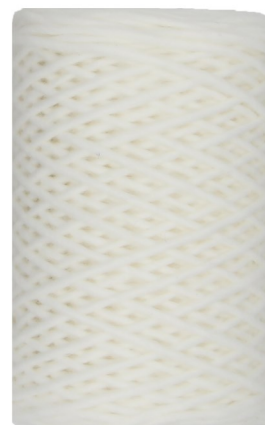


### REPLACEMENT FILTER ELEMENTS & GAUGE

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (SHORT) 10 MICRONS	CFIL-10-ES
FILTER ELEMENT (SHORT) 20 MICRONS	CFIL-20-ES
FILTER ELEMENT (SHORT) 50 MICRONS	CFIL-50-ES

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT (LONG) 10 MICRONS	CFIL-10-EL
FILTER ELEMENT (LONG) 20 MICRONS	CFIL-20-EL
FILTER ELEMENT (LONG) 50 MICRONS	CFIL-50-EL

STANDARD PACK: 1 EACH	
GAUGE DESCRIPTION	PART NUMBER
LOWER MOUNT, 1/4 NPTF, 5000 PSI	LM-25-5K-4



**ORDERING INFORMATION & PART NUMBERS**

**ADDITIONAL ACCESSORIES FOR VERIFYING LUBRICATION SYSTEM FUNCTION**

<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316





**LGO FEEDER PART NUMBER ORDERING GUIDE**

LMX-XXX-XX-XXXXXX

<b>LGO-XXX-XXX-XXXXXX</b>	
<b>MATERIAL</b>	<b>P/N</b>
CARBON STEEL	CRS
316 STAINLESS STEEL	316

<b>LGO-XX-XXXXXX</b>	
<b>NUMBER OF SECTIONS</b>	<b>P/N</b>
THREE	3
FOUR	4
FIVE	5
SIX	6
SEVEN	7
EIGHT	8
NINE	9
TEN	10
ELEVEN	11

<b>LGO-XXX-XXXXXX</b>	
<b>VALVE SIZE</b>	<b>P/N</b>
.150 CU. IN.	150
.300 CU. IN.	300
.450 CU. IN.	450
.600 CU. IN.	600

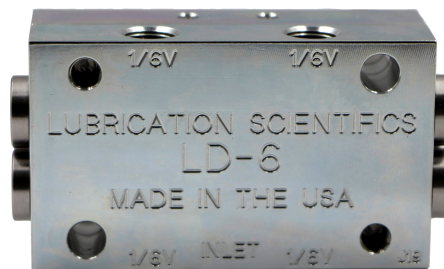
<b>LGO-XXX-XXXXXX</b>	
<b>TYPE OF SECTION</b>	<b>P/N</b>
TWIN	T
SINGLE, RH OUTLET	S
SINGLE, LH OUTLET	L
TWIN, PROXIMITY SWITCH RIGHT	E
SINGLE, PROXIMITY SWITCH RIGHT, RH OUTLET	F
SINGLE, PROXIMITY SWITCH RIGHT, LH OUTLET	G
TWIN, PROXIMITY SWITCH LEFT	M
SINGLE, PROXIMITY SWITCH LEFT, RH OUTLET	N
SINGLE, PROXIMITY SWITCH LEFT, LH OUTLET	P

<b>LGO-XXX-XXXXXX</b>	
<b>CROSSPORT OPTION</b>	<b>P/N</b>
RIGHT SIDE	CR
LEFT SIDE	CL
BOTH SIDES	CB

PRODUCT INTERCHANGE—LGO DIVIDER VALVES

LUBRICATION SCIENTIFICS	LUBRIQUIP	GRACO	LINCOLN	FARVAL	PRODUCT DESCRIPTION
141-INL	N/A	563277	N/A	N/A	LGO CS INLET SECTION 7/8-14 SAE
141-END	N/A	563278	N/A	N/A	LGO CS END SECTION
141-TR3	N/A	N/A	N/A	N/A	LGO 303 3 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560600	N/A	N/A	GRACO MGO-3 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560591	N/A	N/A	GRACO MGO-3 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR4	N/A	N/A	N/A	N/A	LGO 303 4 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560601	N/A	N/A	GRACO MGO-4 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560592	N/A	N/A	GRACO MGO-4SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR5	N/A	N/A	N/A	N/A	LGO 303 5 SECTION LIE ROD AND NUTS KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560602	N/A	N/A	GRACO MGO-5SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560593	N/A	N/A	GRACO MGO-5 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR6	N/A	N/A	N/A	N/A	LGO 303 6 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560603	N/A	N/A	GRACO MGO-6 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560594	N/A	N/A	GRACO MGO-6 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
141-TR7	N/A	N/A	N/A	N/A	LGO 303 7 SECTION LIE ROD AND NUTS KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	15U857	N/A	N/A	GRACO MGO-7 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560595	N/A	N/A	GRACO MGO-7 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR8	N/A	N/A	N/A	N/A	LGO 303 8 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560604	N/A	N/A	GRACO MGO-8 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560596	N/A	N/A	GRACO MGO-8 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR9	N/A	N/A	N/A	N/A	LGO 303 9 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560605	N/A	N/A	GRACO MGO-9 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560597	N/A	N/A	GRACO MGO-9 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
141-TR10	N/A	N/A	N/A	N/A	LGO 303 10 SECTION LIE ROD AND NUT KIT ( 2 LONG 2 SHORT RODS & 4 NUTS)
N/A	N/A	560606	N/A	N/A	GRACO MGO-10 SECTION TIE ROD LONG LESS NUT (2 EACH REQ'D)
N/A	N/A	560598	N/A	N/A	GRACO MGO-10 SECTION TIE ROD SHORT LESS NUT (2 EACH REQ'D)
LGO-TRN-SS	N/A	557494	N/A	N/A	LGO 303 TIE ROD NUT
141-150S	N/A	562570	N/A	N/A	LGO CS 150S VALVE SECTION 0.300 CU. IN PER OUTLET 7/8-14 SAE PORT
141-150T	N/A	562574	N/A	N/A	LGO CS 150T VALVE SECTION 0.150 CU. IN PER OUTLET 7/8-14 SAE PORT
141-300S	N/A	562571	N/A	N/A	LGO CS 300S VALVE SECTION 0.600 CU. IN PER OUTLET 7/8-14 SAE PORT
141-300T	N/A	562575	N/A	N/A	LGO CS 300T VALVE SECTION 0.300 CU. IN PER OUTLET 7/8-14 SAE PORT
141-450S	N/A	562572	N/A	N/A	LGO CS 450S VALVE SECTION 0.900 CU. IN PER OUTLET 7/8-14 SAE PORT
141-450T	N/A	562576	N/A	N/A	LGO CS 450T VALVE SECTION 0.450 CU. IN PER OUTLET 7/8-14 SAE PORT
141-600S	N/A	562573	N/A	N/A	LGO CS 600S VALVE SECTION 1.200 CU. IN PER OUTLET 7/8-14 SAE PORT
141-600T	N/A	562577	N/A	N/A	LGO CS 600S VALVE SECTION 0.600 CU. IN PER OUTLET 7/8-14 SAE PORT
141-ORSK	N/A	563926	N/A	N/A	LGO CS 1-SECTION O-RING KIT
141-15018-303	N/A	556424	N/A	N/A	LGO CS OUTLET PORT PLUG 7/8-14 SAE

**DISCLAIMER:** Lubrication Scientifics, LLC assumes no responsibility for errors or omissions which may have occurred. While every effort is made to attain accurate information, it is ultimately the responsibility of the distributor and/or customer to verify the accuracy of the information.



## LD SERIES PROGRESSIVE DIVIDER VALVE SYSTEMS

### ECONOMICAL AND COMPACT-STANDARD PRESSURE VALVES

#### PRODUCT DESCRIPTION

STANDARD PRESSURE, TWO PIECE O-RING SEALED, SERIES PROGRESSIVE DIVIDER VALVES. IDEAL FOR AUTOMOTIVE AND OTHER COMPACT MACHINERY. DESIGNED FOR OIL AND GREASE LUBRICATION SYSTEMS. LD DIVIDER VALVES WILL ACCOMMODATE 2-6 LUBE POINTS PER VALVE ASSEMBLY.

#### BENEFITS & FEATURES

- PRECISE METERED LUBRICANT FLOW TO EACH LUBE POINT
- SIMPLE TO INSTALL ON NEW OR EXISTING MACHINES
- USED FOR LOW PRESSURE OIL OR GREASE APPLICATIONS UP TO 3,000 PSI
- 2-6 LUBE POINTS PER VALVE ASSEMBLY
- WIDE RANGE OF ACCESSORIES AVAILABLE FOR ANY SYSTEM REQUIREMENT
- COMPACT DESIGN FOR TIGHT SPACES AND/OR LIMITED SPACE
- MATCH HONED STEEL PISTONS
- AVAILABLE IN PLATED CARBON STEEL AND 316 STAINLESS STEEL, BOTH WITH STAINLESS STEEL ENCLOSURE PLUGS

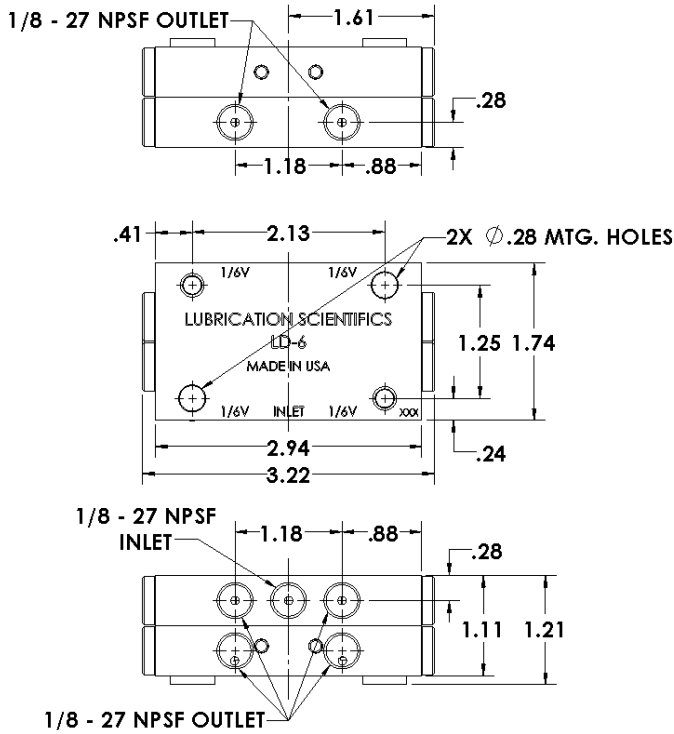
## READY FOR IMMEDIATE SHIPMENT

MADE IN



# LD SERIES DIVIDER VALVES

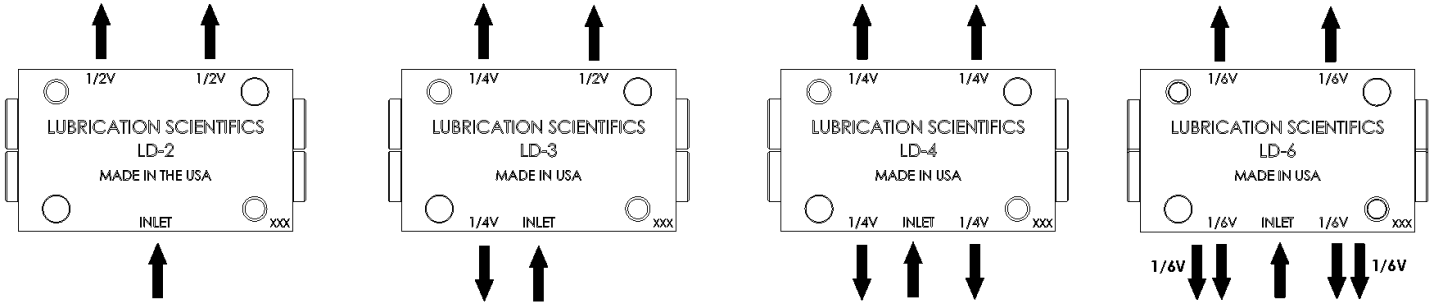
## DIMENSIONS



## TECHNICAL SPECIFICATIONS

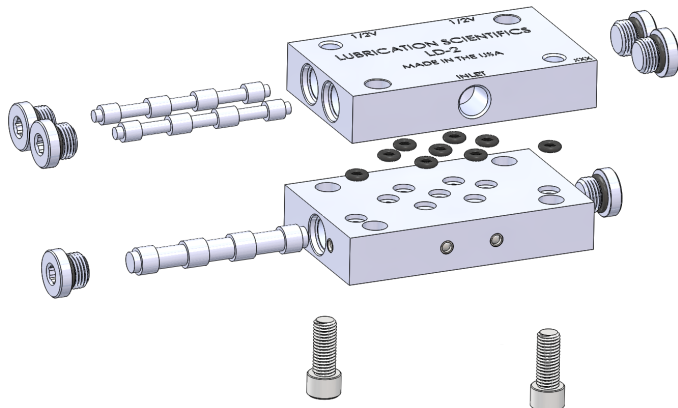
MATERIAL	ZINC PLATED STEEL or 316 STAINLESS
PRESSURE MAX	3,000 psi (207bar)
LUBRICANT	OIL OR GREASE
NET WEIGHT (approx.)	1lb 8oz (0.68kg)
LUBRICANT VOLUMETO CYCLE DIVIDER VALVE ONE COMPLETE CYCLE:	LD-2, LD-3, LD-4 : 0.080 in <sup>3</sup> (1.31ccm) LD-6 : 0.060 in <sup>3</sup> (0.98 ccm)
TORQUE RATINGS	ASSEMBLY BOLT: 8-9ft lbs ENCLOSURE PLUGS: 11-13 ft lbs INDICATOR ASSEMBLY: 15 ft lbs OUTLET PLUGS: 6-7 ft lbs

## LUBRICANT VOLUME DIVISION

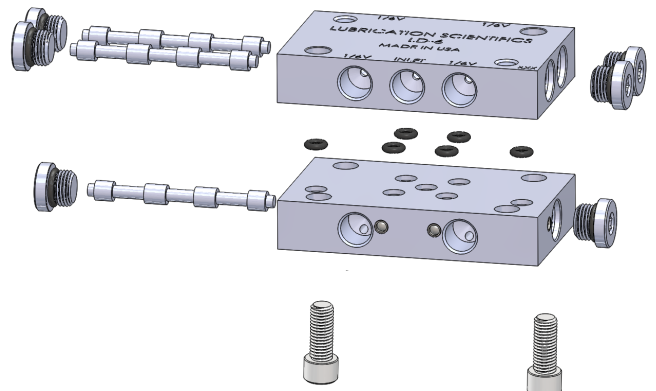


## PARTS BREAKDOWN

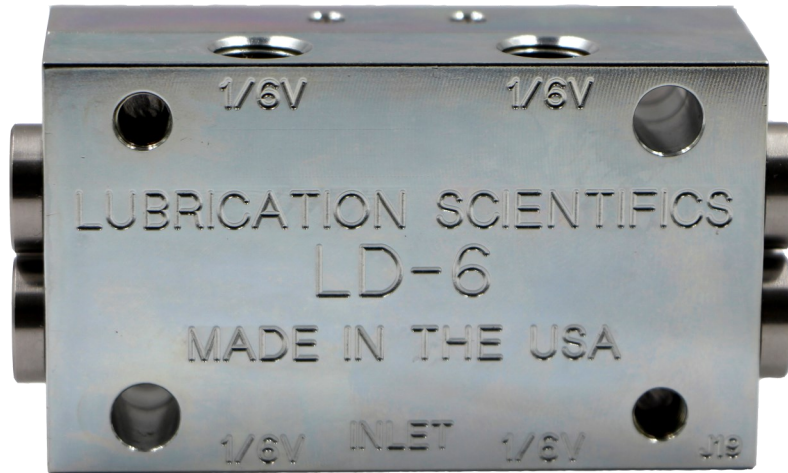
### LD-2, LD-3, LD-4



### LD-6



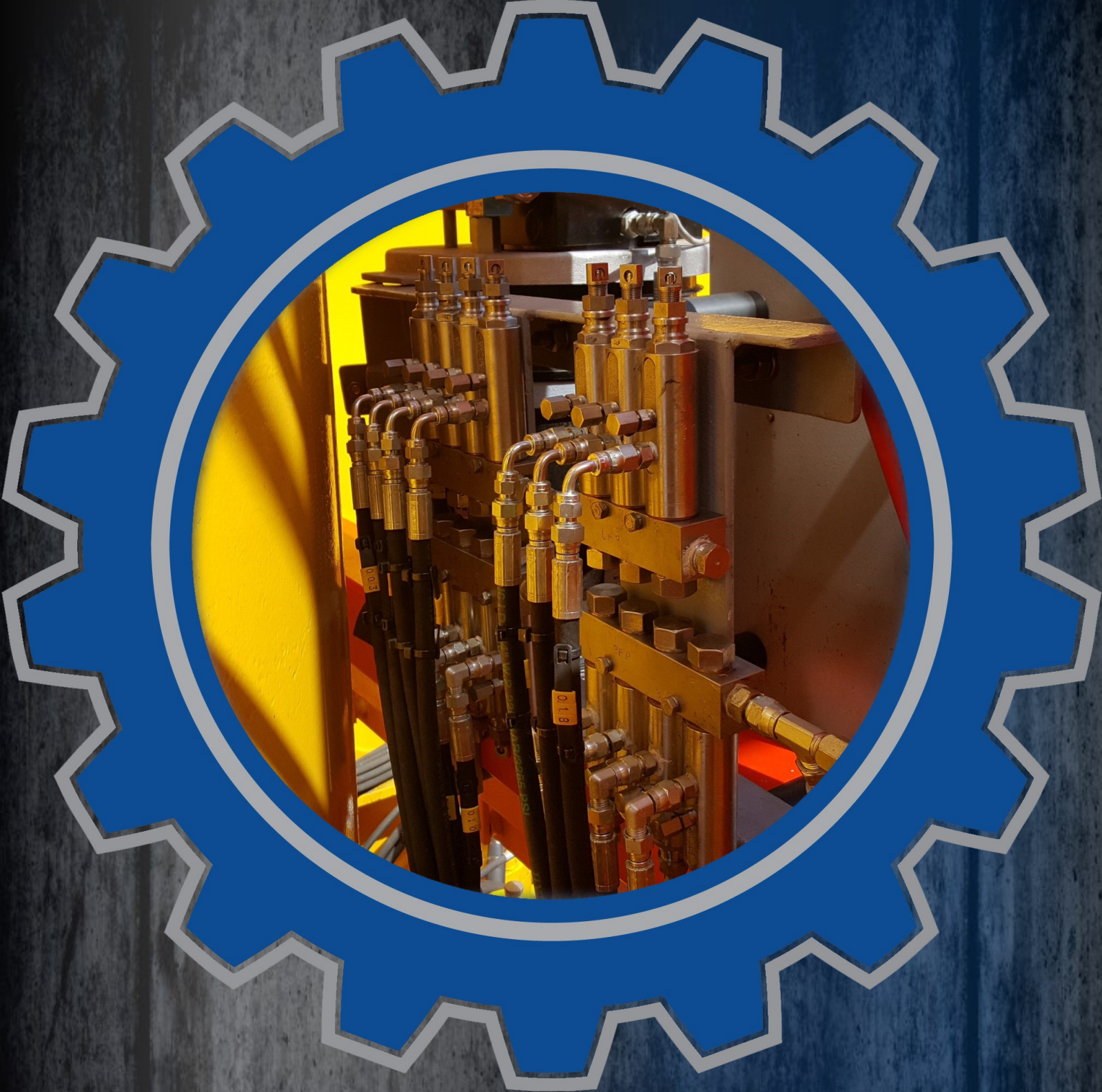
**ORDERING INFORMATION & PART NUMBERS**



STANDARD PACK: 1 EACH			
NUMBER OF OUTLETS	PART DESCRIPTION	CRS	316 STAINLESS STEEL
<b>2 OUTLETS</b> .080 in <sup>3</sup> TO COMPLETE FULL CYCLE. VOLUME DIVISION: .040in <sup>3</sup> OUTPUT PER OUTLET	LD-2, TWO OUTLET DIVIDER VALVE	LD2-000	LD2-316
	LD-2, TWO OUTLET DIVIDER VALVE W/ RIGHT HAND CYCLE INDICATOR PIN	LD2-000-RHCIP	LD2-316-RHCIP
<b>3 OUTLETS</b> .080 in <sup>3</sup> TO COMPLETE FULL CYCLE. VOLUME DIVISION: ONE OUTLET .040in <sup>3</sup> OUTPUT TWO OUTLETS .020in <sup>3</sup> OUTPUT	LD-3, THREE OUTLET DIVIDER VALVE	LD3-000	LD3-316
	LD-3, THREE OUTLET DIVIDER VALVE W/ RIGHT HAND CYCLE INDICATOR PIN	LD3-000-RHCIP	LD3-316-RHCIP
<b>4 OUTLETS</b> .080 in <sup>3</sup> TO COMPLETE FULL CYCLE. VOLUME DIVISION: .020in <sup>3</sup> OUTPUT PER OUTLET	LD-4, FOUR OUTLET DIVIDER VALVE	LD4-000	LD4-316
	LD-4, FOUR OUTLET DIVIDER VALVE W/ RIGHT HAND CYCLE INDICATOR PIN	LD4-000-RHCIP	LD4-316-RHCIP
<b>6 OUTLETS</b> .060 in <sup>3</sup> TO COMPLETE FULL CYCLE. VOLUME DIVISION: .010in <sup>3</sup> OUTPUT PER OUTLET	LD-6, SIX OUTLET DIVIDER VALVE	LD6-000	LD6-316

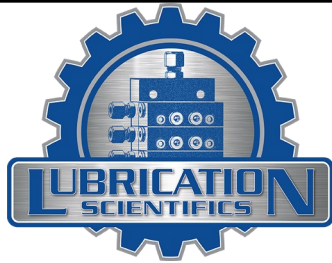
# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**SINGLE LINE PARALLEL INJECTOR SYSTEMS**

**INJECTORS—PUMPS—ACCESSORIES**



## SINGLE LINE PARALLEL INJECTORS



### PRODUCT DESCRIPTION

CARBON OR STAINLESS STEEL CONSTRUCTION

POSITIVE DISPLACEMENT INJECTORS ARE SINGLE LINE

CAN BE USED AS STAND ALONE OR IN PARALLEL, 100% COMPATIBLE WITH EXISTING MANIFOLDS

FULLY ADJUSTABLE, LOW TO HIGH OUTPUT RANGING FROM .001 CU-IN UP TO .50 CU-IN PER CYCLE

REPAIR KITS AVAILABLE

U.S. & METRIC MODELS AVAILABLE

DESIGNED FOR USE IN FOOD/BEVERAGE PROCESSING, PACKAGING, PULP & PAPER MILLS, MINING, STEEL, POWER GENERATION, AUTOMOTIVE, AND MANY OTHER INDUSTRIES

### BENEFITS & FEATURES

INJECTORS CAN BE STAND ALONE OR ASSEMBLED IN MULTIPLE INJECTOR MANIFOLDS

QUICK AND EASY TO REPAIR AND SERVICE WITH LITTLE TO NO DOWNTIME AND LUBRICANT LOSS

LUBRICATION APPLICATIONS FROM OIL TO #2 GREASE

EXTERNAL ADJUSTABLE OUTPUTS FROM .001-.50 CU-IN

PRESSURE RATING UP TO 6000 PSI

VISUAL INDICATOR PIN STANDARD ON ALL INJECTORS

VINYL CAPS STANDARD

SINGLE LUBE LINE, FLEXIBLE, COST EFFECTIVE LUBRICATION SOLUTION

IMPROVED SEAL DESIGN AND INTERNAL FLOW FOR QUICKER RESET

SELF ALIGNING PISTON FOR UNSTABLE ENVIRONMENTS

**CARBON STEEL, 303, & 316 STAINLESS STEEL INJECTORS IN STOCK**

READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

**LSL-32 MAG**

**STANDARD VENTING PRESSURE—GREASE**

**100% COMPATIBLE WITH**  
**EXISTING COMPETITORS**  
**MANIFOLDS**

**OUTPUTS UP TO 50% MORE**  
**LUBRICATION**

**ADJUSTABLE OUTPUT FROM .001 CU-IN**  
**TO .012 CU-IN | .016cc TO .196cc**  
**AVAILABLE IN 316 STAINLESS STEEL**  
**MANUAL FILL PORT STANDARD, FILL**  
**STUDS AVAILABLE (PAGE 6)**



**LSL-32 MAG STANDARD VENTING PRESSURE—(US & METRIC CONNECTORS AVAILABLE)**

INJECTORS IN ASSEMBLY	INLET (FEMALE)	OUTLET* (MALE)	OUTPUT RANGE (CU-IN / CC)	PRESSURE (PSI / BAR) MIN/MAX/VENT	303 STAINLESS	316 STAINLESS
1	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M1-A2-303 LSL-32M-M1-MA6-303	LSL-32M-M1-A2-316 LSL-32M-M1-MA6-316
2	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 016-197	1200/3500/200 83/241/14	LSL-32M-M2-A2-303 LSL-32M-M2-MA6-303	LSL-32M-M2-A2-316 LSL-32M-M2-MA6-316
3	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M3-A2-303 LSL-32M-M3-MA6-303	LSL-32M-M3-A2-316 LSL-32M-M3-MA6-316
4	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M4-A2-303 LSL-32M-M4-MA6-303	LSL-32M-M4-A2-316 LSL-32M-M4-MA6-316
5	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M5-A2-303 LSL-32M-M5-MA6-303	LSL-32M-M5-A2-316 LSL-32M-M5-MA6-316
6	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M6-A2-303 LSL-32M-M6-MA6-303	LSL-32M-M6-A2-316 LSL-32M-M6-MA6-316
7	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M7-A2-303 LSL-32M-M7-MA6-303	LSL-32M-M7-A2-316 LSL-32M-M7-MA6-316
8	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M8-A2-303 LSL-32M-M8-MA6-303	LSL-32M-M8-A2-316 LSL-32M-M8-MA6-316
9	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M9-A2-303 LSL-32M-M9-MA6-303	LSL-32M-M9-A2-316 LSL-32M-M9-MA6-316
10	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-M10-A2-303 LSL-32M-M10-MA6-303	LSL-32M-M10-A2-316 LSL-32M-M10-MA6-316
STAND ALONE INJECTOR	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-SA2-303 LSL-32M-SMA6-303	LSL-32M-SA2-316 LSL-32M-SMA6-316
REPLACEMENT INJECTOR	1/4" NPSF 1/4" -19 BSPP	1/8" TUBE 6MM TUBE	.001-.012 .016-197	1200/3500/200 83/241/14	LSL-32M-A2-303 LSL-32M-MA6-303	LSL-32M-A2-316 LSL-32M-MA6-316

\*ALTERNATIVE OUTLET OPTIONS AVAILABLE, SEE PAGE 6



**LSL-32 MAG**

**HIGH VENTING PRESSURE—GREASE**

**100% COMPATIBLE WITH EXISTING COMPETITORS MANIFOLDS**

THE LSL-32 MAGNUM OUTPUTS UP TO 50% MORE LUBRICATION  
ADJUSTABLE OUTPUT FROM .001 CU-IN TO .012 CU-IN | .016cc TO .196cc

AVAILABLE IN 316 STAINLESS STEEL

MANUAL FILL PORT STANDARD, FILL STUDS AVAILABLE (PAGE 6)

VINYL PROTECTIVE CAPS INCLUDED

AVAILABLE IN METRIC INLETS & OUTLETS

TEMPERATURE RATED TO 350° STD



**LSL-32 MAG HIGH VENTING PRESSURE**

INJECTORS IN ASSEMBLY	INLET	OUTLET* (MALE)	OUTPUT RANGE (CU-IN / CC)	PRESSURE (PSI / BAR) MIN/MAX/VENT	303 STAINLESS	316 STAINLESS
1	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M1-A2-303	LSL-32MH-M1-A2-316
2	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M2-A2-303	LSL-32MH-M2-A2-316
3	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M3-A2-303	LSL-32MH-M3-A2-316
4	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M4-A2-303	LSL-32MH-M4-A2-316
5	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M5-A2-303	LSL-32MH-M5-A2-316
6	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M6-A2-303	LSL-32MH-M6-A2-316
7	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M7-A2-303	LSL-32MH-M7-A2-316
8	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M8-A2-303	LSL-32MH-M8-A2-316
9	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M9A2-303	LSL-32MH-M9-A2-316
10	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-M10-A2-303	LSL-32MH-M10-A2-316
STAND ALONE INJECTOR	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-SA2-303	LSL-32MH-SA2-316
REPLACEMENT INJECTOR	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	1200/3500/600 83/241/41	LSL-32MH-A2-303	LSL-32MH-A2-316

\*ALTERNATIVE OUTLET OPTIONS AVAILABLE, SEE PAGE 6

**LSL-43 MAG**

**HIGH VENTING PRESSURE—OIL INJECTORS**

**100% COMPATIBLE WITH EXISTING COMPETITORS MANIFOLDS**

THE LSL-43 MAGNUM OUTPUTS UP TO 50% MORE LUBRICATION  
ADJUSTABLE OUTPUT FROM .001 CU-IN TO .012 CU-IN | .016cc TO .196cc

AVAILABLE IN 316 STAINLESS STEEL

MANUAL FILL PORT STANDARD, FILL STUDS AVAILABLE (PAGE 6)

VINYL PROTECTIVE CAPS INCLUDED

AVAILABLE IN METRIC INLETS & OUTLETS

TEMPERATURE RATED TO 350° STD



LSL-43 MAG OIL INJECTORS						
INJECTORS IN ASSEMBLY	INLET	OUTLET* (MALE)	OUTPUT RANGE (CU-IN / CC)	PRESSURE (PSI / BAR) MIN/MAX/VENT	303 STAINLESS	316 STAINLESS
1	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M1-A2-303	LSL-43M-M1-A2-316
2	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M2-A2-303	LSL-43M-M2-A2-316
3	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M3-A2-303	LSL-43M-M3-A2-316
4	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M4-A2-303	LSL-43M-M4-A2-316
5	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M5-A2-303	LSL-43M-M5-A2-316
6	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M6-A2-303	LSL-43M-M6-A2-316
7	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M7-A2-303	LSL-43M-M7-A2-316
8	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M8-A2-303	LSL-43M-M8-A2-316
9	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M9-A2-303	LSL-43M-M9-A2-316
10	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-M10-A2-303	LSL-43M-M10-A2-316
STAND ALONE INJECTOR	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-SA2-303	LSL-43M-SA2-316
REPLACEMENT INJECTOR	1/4" NPSF (F)	1/8" TUBE	.001-.012 .016-197	750/1000/300 52/69/21	LSL-43M-A2-303	LSL-43M-A2-316

\*ALTERNATIVE OUTLET OPTIONS AVAILABLE, SEE PAGE 6

## LSL-32 MAG & LSL-43 MAG ADDITIONAL OUTLET FITTINGS

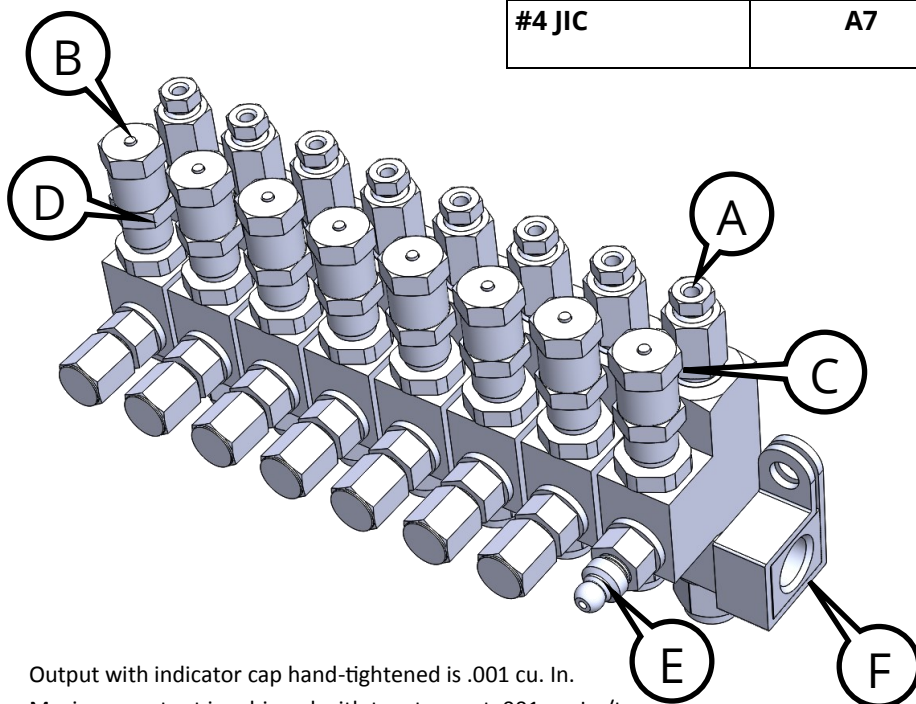
FOR OTHER OUTLET OPTIONS WHEN ORDERING THE LSL-32 OR LSL-43 INJECTOR SERIES, CHANGE THE A# IN THE PART NUMBER WITH ONE OF THE FOLLOWING OPTIONS BELOW.

EXAMPLE

LSL-32M-M4-A2-303 (STANDARD)

LSL-32M-M4-MA6-303 (METRIC)

OUTLET TYPE	PART NUMBER
1/8" NPSF (F)	A1
1/8" TUBE (STD)	A2
1/4" TUBE	A3
1/8" NPTF (M)	A4
4MM TUBE	A5
6MM TUBE	A6
#4 JIC	A7



<b>A</b>	LUBRICATION OUTLET
<b>B</b>	CYCLE INDICATOR PIN
<b>C</b>	OUTPUT ADJUSTMENT
<b>D</b>	ADJUSTMENT LOCK NUT
<b>E*</b>	MANUAL FILL STUD (OPTIONAL)
<b>F</b>	LUBRICANT FROM SUPPLY LINE

\* MANUAL FILL STUD PART NO.  
**L90471-ORS-303.**

Output with indicator cap hand-tightened is .001 cu. In.  
Maximum output is achieved with two turns at .001 cu. In./turn

## LSL-1 SERIES ORDERING INFORMATION & PART NUMBERS

### STANDARD INJECTOR & MANIFOLD ASSEMBLIES

ADJUSTABLE OUTPUT FROM .008 CU-IN TO .080 CU-IN  
 MAXIMUM/MINIMUM OPERATING PRESSURE 5000 PSI/1850 PSI  
 COMES STANDARD WITH 1/8 NPTF STAINLESS STEEL FILL FITTING  
 VINYL PROTECTIVE CAPS INCLUDED  
 VENT PRESSURE = 600 PSI  
 TEMPERATURE RATED TO 350° STD



INJECTOR ASSEMBLIES						
INJECTORS IN ASSEMBLY	INLET	OUTLET	OUTPUT RANGE (CU-IN / CC)	CARBON STEEL	303 STAINLESS	316 STAINLESS
1	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M1A-000	LSL-M1A-303	LSL-M1A-316
2	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M2A-000	LSL-M2A-303	LSL-M2A-316
3	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M3A-000	LSL-M3A-303	LSL-M3A-316
4	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M4A-000	LSL-M4A-303	LSL-M4A-316
5	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M5A-000	LSL-M5A-303	LSL-M5A-316
6	3/8 NPTF (F)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-M6A-000	LSL-M6A-303	LSL-M6A-316

**LSL-1-R5 SERIES  
ORDERING INFORMATION & PART NUMBERS**

**OUTPUT INJECTOR & MANIFOLD ASSEMBLIES**



ADJUSTABLE OUTPUT FROM .008 CU-IN TO .080 CU-IN  
 MAXIMUM/MINIMUM OPERATING PRESSURE 6000 PSI/1850 PSI  
 COMES STANDARD WITH 1/8 NPTF STAINLESS STEEL FILL FITTING  
 VINYL PROTECTIVE CAPS INCLUDED  
 VENT PRESSURE = 600 PSI  
 TEMPERATURE RATED TO 350° STD



**MID-RANGE OUTPUT INJECTOR ASSEMBLIES**

INJECTORS IN ASSEMBLY	INLET	OUTLET	OUTPUT RANGE (CU-IN / CC)	CARBON STEEL	303 STAINLESS	316 STAINLESS
1	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M1A-000-R5	LSL-M1A-303-R5	LSL-M1A-316-R5
2	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M2A-000-R5	LSL-M2A-303-R5	LSL-M2A-316-R5
3	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M3A-000-R5	LSL-M3A-303-R5	LSL-M3A-316-R5
4	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M4A-000-R5	LSL-M4A-303-R5	LSL-M4A-316-R5
5	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M5A-000-R5	LSL-M5A-303-R5	LSL-M5A-316-R5
6	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-M6A-000-R5	LSL-M6A-303-R5	LSL-M6A-316-R5
REPLACEMENT INJECTOR	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-1A-000-R5	LSL-1A-303-R5	LSL-1A-316-R5
STANDALONE INJECTOR	3/8 NPTF (F)	1/8 NPSF (F)	.008—.080 .13-1.31	LSL-1-000-R5	LSL-1-303-R5	LSL-1-316-R5

**LSL-1 HIGH OUTPUT SERIES  
ORDERING INFORMATION & PART NUMBERS**

**INJECTOR & MANIFOLD ASSEMBLIES**

ADJUSTABLE OUTPUT FROM .035 CU-IN TO .305 CU-IN  
 MAXIMUM/MINIMUM OPERATING PRESSURE 6000 PSI/1850 PSI  
 COMES STANDARD WITH 1/8 NPTF STAINLESS STEEL FILL FITTING  
 4—6 TIMES GREATER FLOW PATH ALLOWS FOR FASTER VENTING  
 ENHANCED ENGINEERING TO OUTPERFORM CURRENT INJECTOR TECHNOLOGY  
 HEAVY DUTY SPRINGS FOR IMPROVED LIFE CYCLE  
 VINYL PROTECTIVE CAPS INCLUDED  
 VENT PRESSURE = 1000 PSI  
 TEMPERATURE RATED TO 350° STD



HIGH OUTPUT INJECTOR ASSEMBLIES						
INJECTORS IN ASSEMBLY	INLET	OUTLET	OUTPUT RANGE (CU-IN / CC)	CARBON STEEL	303 STAINLESS	316 STAINLESS
1	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M1A-000-HO	LSL-M1A-303-HO	LSL-M1A-316-HO
2	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M2A-000-HO	LSL-M2A-303-HO	LSL-M2A-316-HO
3	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M3A-000-HO	LSL-M3A-303-HO	LSL-M3A-316-HO
4	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M4A-000-HO	LSL-M4A-303-HO	LSL-M4A-316-HO
5	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M5A-000-HO	LSL-M5A-303-HO	LSL-M5A-316-HO
6	3/8 NPTF (F)	1/8 NPSF (F)	.015-.31 .24-5.07	LSL-M6A-000-HO	LSL-M6A-303-HO	LSL-M6A-316-HO

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**LSL-1 / R5 / HIGH OUTPUT SERIES OVERVIEW  
ORDERING INFORMATION & PART NUMBERS**

**LSL-1 INJECTORS: STANDALONE &  
MANIFOLD REPLACEMENT TYPES**

ADJUSTABLE OUTPUT FROM .008 CU-IN-IN TO .080 CU-IN-IN STD & R5 OUTPUT  
ADJUSTABLE OUTPUT FROM .035 CU-IN-IN TO .305 CU-IN-IN HIGH OUTPUT  
MAXIMUM/MINIMUM OPERATING PRESSURE 5000 PSI/1850 PSI  
COMES STANDARD WITH 1/8 NPTF STAINLESS STEEL FILL FITTING  
VINYL PROTECTIVE CAPS INCLUDED  
VENT PRESSURE = 600 PSI - TO 1000 PSI



STANDARD PACK: 1 EACH						
PRODUCT DESCRIPTION	SUPPLY	OUTLET	OUTPUT (CU-IN)	CARBON STEEL	303 STAINLESS	316 STAINLESS
SINGLE STANDALONE INJECTOR (STD)	3/8 NPTF (M)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-1-000	LSL-1-303	LSL-1-316
SINGLE STANDALONE INJECTOR (HIGH OUTPUT)	3/8 NPTF (M)	1/8 NPSF (F)	.035 - .305 .57-4.99	LSL-1-000-HO	LSL-1-303-HO	LSL-1-316-HO
SINGLE STANDALONE INJECTOR (R5 MODEL)	3/8 NPTF (M)	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-1-000-R5	LSL-1-303-R5	LSL-1-316-R5
MANIFOLD REPLACEMENT INJECTOR (STD & R5)	MANIFOLD	1/8 NPSF (F)	.008-.080 .13-1.31	LSL-1A-000	LSL-1A-303	LSL-1A-316
MANIFOLD REPLACEMENT INJECTOR (HIGH OUTPUT)	MANIFOLD	1/8 NPSF (F)	.035 - .305 .57-4.99	LSL-1A-000-HO	LSL-1A-303-HO	LSL-1A-316-HO
INJECTOR SEAL REBUILD KIT (STD)	N/A	N/A	N/A	LSL-1RK		
INJECTOR MAJOR REBUILD KIT (STD & R5)	N/A	N/A	N/A	LSL-1MRK		
INJECTOR SEAL REBUILD KIT (HIGH OUTPUT)	N/A	N/A	N/A	LSL-1RK-HO		
INJECTOR MAJOR REBUILD KIT (HIGH OUTPUT)	N/A	N/A	N/A	LSL-1MRK-HO		

**REBUILD KIT NOTES:**

MAJOR REBUILD KIT INCLUDES ALL NECESSARY PARTS TO DO A COMPLETE REBUILD OF THE INJECTOR'S INTERNALS.

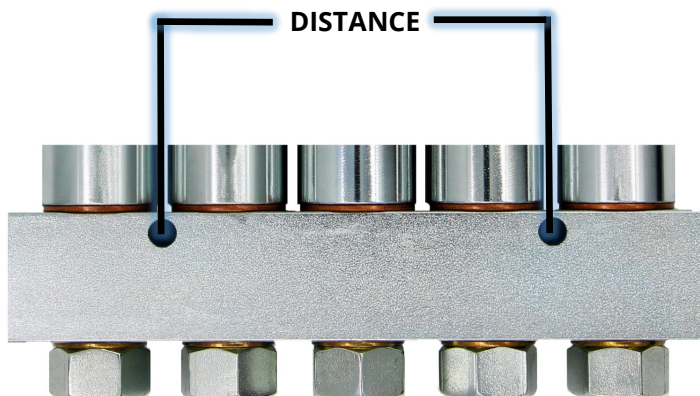
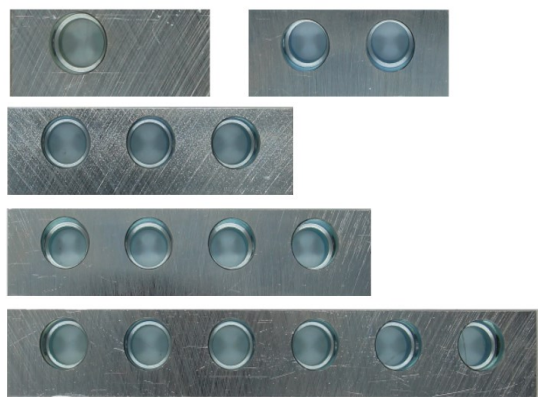
SEAL REBUILD KIT INCLUDES THE NECESSARY O-RINGS & PACKING TO REBUILD THE INJECTOR USING EXISTING INTERNAL HARDWARE

**SINGLE LINE INJECTOR SYSTEM ACCESSORIES**  
**LSL-1 INJECTOR BARE MANIFOLDS**

FOR USE WITH LSL-1A, LSL-1A-R5, & LSL-1A-HO INJECTORS

STANDARD PACK: 1 EACH

INJECTORS IN ASSEMBLY	OUTPUT	CARBON STEEL	303 STAINLESS	316 STAINLESS	MOUNTING HOLE DISTANCE
1	3/8 NPSF (F)	LSL-M1-000	LSL-M1-303	LSL-M1-316	2"/2.54cm
2	3/8 NPSF (F)	LSL-M2-000	LSL-M2-303	LSL-M2-316	2.5"/6.35cm
3	3/8 NPSF (F)	LSL-M3-000	LSL-M3-303	LSL-M3-316	1.25"/3.175cm
4	3/8 NPSF (F)	LSL-M4-000	LSL-M4-303	LSL-M4-316	2.5"/6.35cm
5	3/8 NPSF (F)	LSL-M5-000	LSL-M5-303	LSL-M5-316	3.75"/9.525cm
6	3/8 NPSF (F)	LSL-M6-000	LSL-M6-303	LSL-M6-316	5"/12.7cm



**LS MANIFOLD THREADED INSERTS**

CONVERTS LINCOLN® 3/8-16" MANIFOLD MOUNTS TO 1/4-28" LS MOUNTS



LINCOLN® OUTER THREAD (MALE): 3/8"-16

LS INNER THREAD (FEMALE): 1/4"-28

MANIFOLD THREADED INSERTS	
DESCRIPTION	PART NUMBER
3/8-16" TO 1/4-28" THREADED INSERTS, 303 STAINLESS STEEL	LSL-MADP-303

\* LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN® INDUSTRIAL







**SINGLE LINE INJECTOR SYSTEM ACCESSORIES**





STANDARD PACK: 1 EACH					
PRODUCT DESCRIPTION	NOTES	CARBON STEEL	303 STAINLESS	316 STAINLESS	PICTURE
MANIFOLD PLUG KIT	PLUGS LSL-1A MANIFOLD INJECTOR PORT	LSL-1A-PLUG	LSL-1A-PLUGSS3	LSL-1A-PLUGSS6	N/A
INJECTOR CROSS PORTING KIT	PRE-BENT TUBE W/ CONNECTION FITTING <b>STAINLESS STEEL CONSTRUCTION ONLY</b>	N/A	LSL-1A-CPK	N/A	N/A
INJECTOR COVER (VINYL ONLY)	COVERS INDICATOR STEM ASSEMBLY	LSL-1A-CAPV			N/A
INJECTOR COVER (STEEL)	COVERS INDICATOR STEM ASSEMBLY	LSL-1A-CAPSS			N/A
THREAD INSERT ADAPTERS	10EA. ADAPTS TO AN EXISTING LINCOLN® MOUNTING HOLE	N/A	LSL-MADP-303	LSL-MADP-316	N/A
THREADED GREASE FILL FITTINGS	<b>GREASE FILL FITTINGS W/ CAPS: USE WITH:</b> LSL-11, LSL-1A, LSL-1A-HO, & LSL-1A-M5 INJECTORS	N/A	L90471-NPTF-303	L90471-NPTF-316	N/A
THREADED GREASE FILL FITTINGS	<b>GREASE FILL FITTINGS W/ CAPS: USE WITH:</b> LSL-32 & LSL-43 INJECTORS	N/A	L90471-ORS-303	L90471-ORS-316	N/A
INJECTOR CONNECTOR TUBE 1/8" NPTF MALE, LSL-1A & UP	USE WITH: LSL1A, LSL-1A-M5, LSL-1A-HO, LSL-11	N/A	LSL-1A-CPK-303	LSL-1A-CPK-316	N/A
LSL 32M STYLE OUTLET CONNECTOR 1/8" NPSF FEMALE	USE WITH: LSL-32 & LSL-43	N/A	AC32M-A1-303	AC32M-A1-316	N/A
LSL 32M STYLE OUTLET CONNECTOR 1/4" O.D. TUBE	USE WITH: LSL-32 & LSL-43	N/A	AC32M-A3-303	AC32M-A3-316	N/A
LSL 32M STYLE OUTLET CONNECTOR 1/8" NPTF MALE	USE WITH: LSL-32 & LSL-43	N/A	AC32M-A4-303	AC32M-A4-316	N/A
LSL 32M STYLE OUTLET CONNECTOR 4MM TUBE	USE WITH: LSL-32 & LSL-43	N/A	AC32M-A5-303	AC32M-A5-316	N/A
LSL 32M STYLE OUTLET CONNECTOR 6MM TUBE	USE WITH: LSL-32 & LSL-43	N/A	AC32M-A6-303	AC32M-A6-316	N/A
COMPRESSION NUT, 5/16-24, ONE PIECE, BRASS		N/A	AC32M-CN1-313-BR	N/A	N/A
COMPRESSION NUT, 5/16-24, ONE PIECE, 316 SS		N/A	AC32M-CN1-313-303	AC32M-CN1-313-316	N/A
COMPRESSION NUT, 5/16-24, TWO PIECE, BRASS		N/A	AC32M-CN2-313-BR	N/A	N/A
COMPRESSION NUT, 5/16-24, TWO PIECE, 316 SS		N/A	AC32M-CN2-313-303	AC32M-CN2-313-316	N/A
COMPRESSION NUT, 7/16-24, ONE PIECE, BRASS		N/A	AC32M-CN1-437-BR	N/A	N/A
INJECTOR OPERATED AIR VALVE, LSL-1A HO SERIES	USE WITH: LSL-1A HO	N/A	AC1AHO-AV-125-303	AC1AHO-AV-125-316	N/A
INJECTOR OPERATED AIR VALVE, LINCOLN® INJECTORS	FOR USE ONLY WITH LINCOLN® INJECTORS	N/A	AC1AHO-AV-125-303-L	AC1AHO-AV-125-316-L	N/A
FEEDLINE BRUSH, 1/8-27 INLET	BRUSH APPLICATOR	N/A	ACL SL-BR-125I	ACL SL-BR-125I	N/A
LSL-32M STYLE CLOSURE PLUG, 5/16"-24, 303 SS	USE WITH: LSL-32 & LSL-43	N/A	AC32M-CP-303	AC32M-CP-316	N/A
CLOSURE PLUG, 1/8" NPTF, 303 SS	PLUG	N/A	AC32M-CP-125-303	AC32M-CP-125-316	N/A
CLOSURE PLUG, 3/8" NPTF, 303 SS	PLUG	N/A	AC1AHO-CP-375-303	AC1AHO-CP-375-316	N/A
CLOSURE PLUG 1/4", 303 SS	PLUG	N/A	AC32M-CP-250-303 SS	AC32M-CP-125-316 SS	N/A

\* LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN® INDUSTRIAL

**SINGLE LINE INJECTOR SYSTEM ACCESSORIES (CONTINUED)**





**SPECTRUM ADJUSTMENT SLEEVES**

STANDARD PACK: 5 EACH			
MODEL NUMBER (5 PACK)	OUTPUT in3 (cc)	RATIO FROM MAXIMUM OUTPUT	SLEEVE COLOR
N/A	0.015 (0.25)	10%	N/A
LSL-1A-ADJ1	0.030 (0.50)	25%	
LSL-1A-ADJ2	0.045 (0.75)	50%	
LSL-1A-ADJ3	0.060 (1.00)	75%	
LSL-1A-ADJ4	0.075 (1.25)	100%	

STANDARD PACK: 5 EACH			
MODEL NUMBER (5 PACK)	OUTPUT in3 (cc)	RATIO FROM MAXIMUM OUTPUT	SLEEVE COLOR
N/A	0.001 (.016)	10%	N/A
LSL-32-ADJ1	0.003 (.049)	25%	
LSL-32-ADJ2	0.006 (.098)	50%	
LSL-32-ADJ3	0.009 (.14)	75%	
LSL-32-ADJ4	0.012 (.19)	100%	

**SINGLE LINE INJECTOR SYSTEM ACCESSORIES (CONTINUED)**

**HIGH OUTPUT SPECTRUM ADJUSTMENT SLEEVES**

STANDARD PACK: 5 EACH			
MODEL NUMBER (5 PACK)	OUTPUT in3 (cc)	RATIO FROM MAXIMUM OUTPUT	SLEEVE COLOR
N/A	0.040 (.655)	10%	N/A
LSL-HO-ADJ1	0.075 (1.22)	25%	
LSL-HO-ADJ2	0.150 (2.45)	50%	
LSL-HO-ADJ3	0.225 (3.68)	75%	
LSL-HO-ADJ4	0.300 (4.91)	100%	

## LSL-11 SERIES INJECTORS (HIGH OUTPUT) ORDERING INFORMATION & PART NUMBERS

ADJUSTABLE OUTPUT FROM .05 CU-IN TO .50 CU-IN  
 MAXIMUM/MINIMUM OPERATING PRESSURE 5000 PSI/1000 PSI  
 COMES STANDARD WITH 1/8 NPTF STAINLESS STEEL FILL FITTING  
 VINYL PROTECTIVE CAPS INCLUDED  
 RECHARGE PRESSURE = 800 PSI  
 TEMPERATURE RATED TO 350° STD

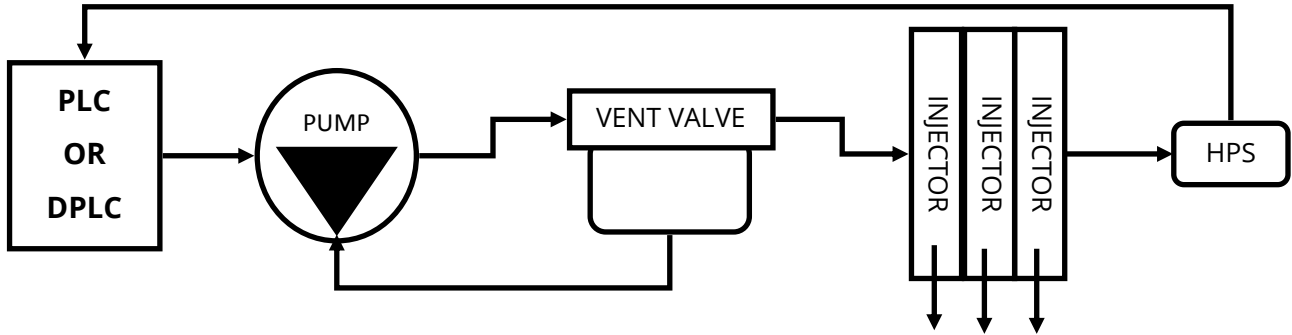
STANDARD PACK: 1 EACH					
PART DESCRIPTION	INLET	OUTLET	CARBON STEEL	303 STAINLESS	316 STAINLESS
SINGLE STANDALONE INJECTOR	1/2 NPTF (F)	1/4 NPSF (F)	LSL-11-000	LSL-11-303	LSL-11-316
LSL-11 SEAL KIT	N/A	N/A	LSL-11RK		
LSL-11 REBUILD KIT	N/A	N/A	LSL-11MRK		



### PUMP PACKAGE OPTIONS

DESIGNED TO SUPPORT INJECTOR APPLICATIONS

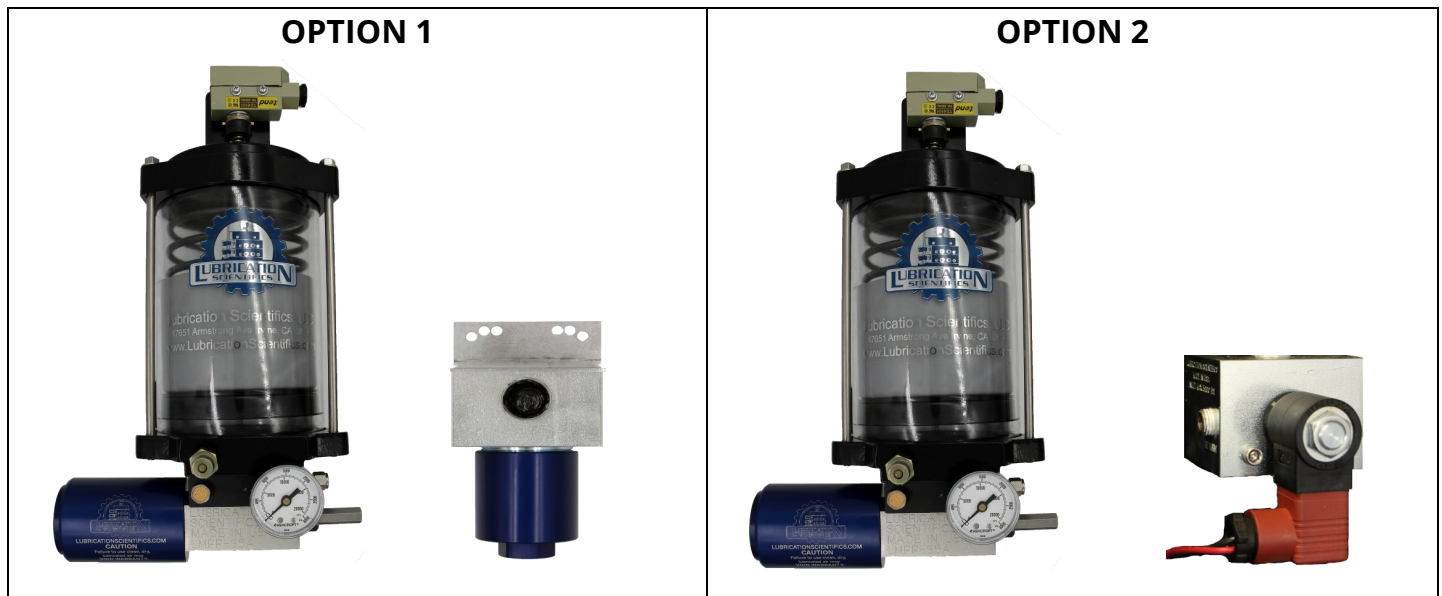
PUMPING UNIT—VENT VALVE—SOLENOID



### PNEUMATIC PUMPING PACKAGES

**OPTION 1:** PNEUMATIC PUMP + PNEUMATIC VENT VALVE

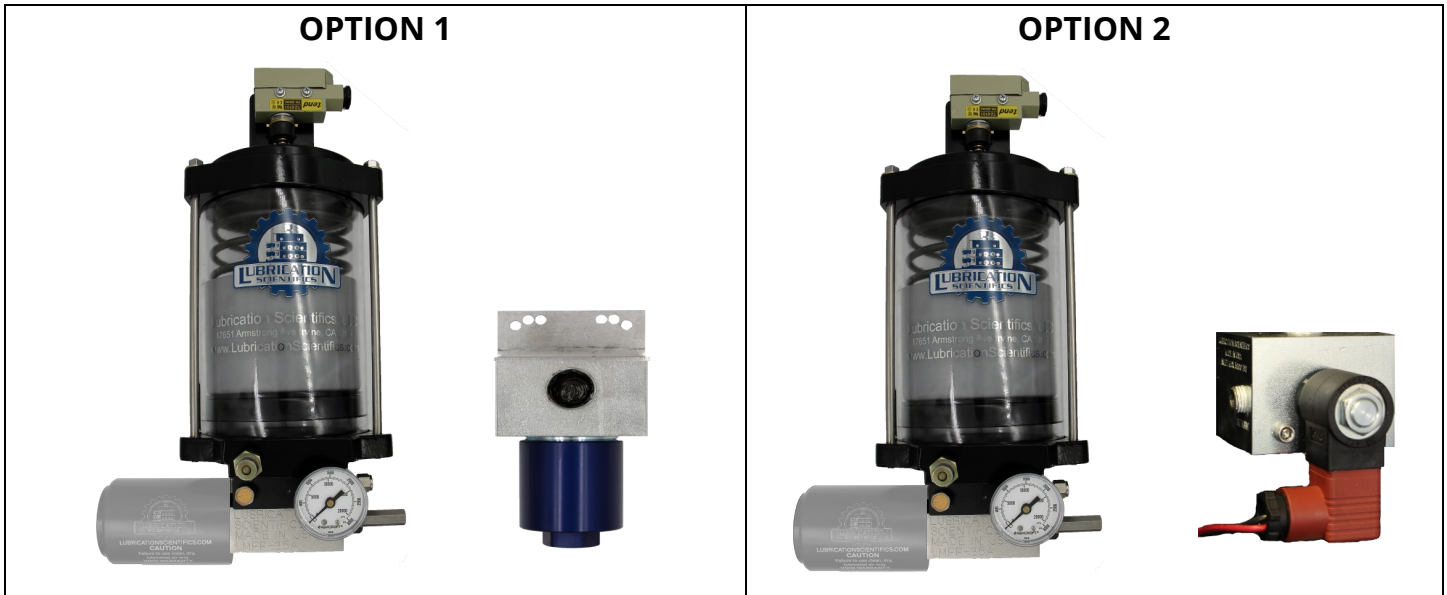
**OPTION 2:** PNEUMATIC PUMP + ELECTRIC VENT VALVE



HYDRAULIC PUMPING PACKAGES

**OPTION 1:** HYDRAULIC PUMP + HYDRAULIC VENT VALVE

**OPTION 2:** HYDRAULIC PUMP + ELECTRIC VENT VALVE



**BARREL PUMP PACKAGES** (AVAILABLE IN 35LB PAIL, 120LB (PICTURED), & 400LB DRUM)

**OPTION 1:** BARREL PUMP W/ BUILT-IN VENT VALVE

**OPTION 2:** BARREL PUMP W/O INTERNAL VENT VALVE + ELECTRIC VENT VALVE (USE FOR PANEL MOUNT)

**OPTION 3:** BARREL PUMP W/O INTERNAL VENT VALVE + SOLENOID + PNEUMATIC VENT VALVE (USE FOR PANEL MOUNT)



**FILTERS & REPLACEMENT ELEMENTS**



STANDARD PACK: 1 EACH			
FILTER RATING	PLATED CARBON STEEL 7,500 PSI	AL2024 BLUE ANODIZED ALUMINUM 6,000 PSI	316 STAINLESS STEEL
5 MICRON	DTFA-005-O	MDFA-005-O	DTFA-005-O-316
10 MICRON	DTFA-010-O	MDFA-010-O	DTFA-010-O-316
25 MICRON	DTFA-025-O	MDFA-025-O	DTFA-025-O-316
150 MICRON 100 MESH	DTFA-100-G	MDFA-100-G	DTFA-100-G-316
420 MICRON 40 MESH	DTFA-040-G	MDFA-040-G	DTFA-040-G-316

STANDARD PACK: 1 EACH		
FILTER RATING	PART NUMBER ALUMINUM ELEMENT BACK	PART NUMBER 316 SS ELEMENT BACK
5 MICRON	DT-EL-002-005MIC	DT-EL-002-005MIC-SS
10 MICRON	DT-EL-002-010MIC	DT-EL-002-010MIC-SS
25 MICRON	DT-EL-002-025MIC	DT-EL-002-025MIC-SS
150 MICRON 100 MESH	DT-EL-002-100M	DT-EL-002-100M-SS
420 MICRON 40 MESH	DT-EL-002-40M	DT-EL-002-40M-SS



**VENT VALVES & ACCESSORIES**

STANDARD PACK: 1 EACH				
PRODUCT DESCRIPTION	NOTES	CARBON STEEL	303 STAINLESS	316 STAINLESS
PNEUMATIC VENT VALVE MIN AIR/MAX AIR PSI: 40/120PSI	INLET 3/4" NPSF (F) OUTLET 3/4" NPSF (F) VENT PORT 1/4-18" NPSF (F)  MAX LUBE PRESSURE 4000 PSI  INCLUDES MOUNTING BRACKET	LSL-VV-000P	LSL-VV-303P	LSL-VV-316P
PNEUMATIC VENT VALVE KIT MIN AIR/MAX AIR PSI: 40/120PSI (WITH 4000 PSI PRESSURE RELIEF VALVE)		LSL-VV-000P-SRV	LSL-VV-303P-SRV	LSL-VV-316P-SRV
HYDRAULIC VENT VALVE HYDRAULIC MIN/MAX PSI: 300/450PSI (NO SAFETY RELIEF VALVE INCLUDED)		LSL-VV000H	LSL-VV303H	LSL-VV316H
HYDRAULIC VENT VALVE KIT HYDRAULIC MIN/MAX PSI: 300/450PSI (WITH 4000 PSI PRESSURE RELIEF VALVE)		LSL-VV-000H-SRV	LSL-VV-303H-SRV	LSL-VV-316H-SRV
SAFETY RELIEF VALVE	4000 PSI, 1/8 NPTF INLET	N/A	SRV-303-125-4000	SRV-316-125-4000
SAFETY RELIEF VALVE	4000 PSI, 1/4 NPTF INLET	N/A	SRV-303-250-4000	SRV-316-250-4000
VENT VALVE SEAL KIT—PNEUMATIC	REBUILD KIT	LSL-VVRK-P		
VENT VALVE SEAL KIT—HYDRAULIC	REBUILD KIT	LSL-VVRK-H		
VENT VALVE MOUNTING BRACKET	REPLACEMENT BRACKET	LSL-BRKT-KIT		
ELECTRIC VENT VALVE (ZONE VALVE)	24 VDC NORMALLY OPEN	LZV527680-NO-000	LZV527680-NO-303	LZV527680-NO-316
ELECTRIC VENT VALVE (ZONE VALVE)	24 VDC NORMALLY CLOSED	LZV527680-NC-000	LZV527680-NC-303	LZV527680-NC-316
ELECTRIC VENT VALVE (ZONE VALVE)	115 VAC NORMALLY OPEN	LZV527660-NO-000	LZV527660-NO-303	LZV527660-NO-316
ELECTRIC VENT VALVE (ZONE VALVE)	115 VAC NORMALLY CLOSED	LZV527660-NC-000	LZV527660-NC-303	LZV527660-NC-316
PRESSURE SENSOR, DC, 2, PNP	N/A	N/A	N/A	LP-HPS

**PNEUMATIC/HYDRAULIC VENT VALVE**  
**MAX SYSTEM PRESSURE: 4000 PSI**



**PRESSURE SENSOR**

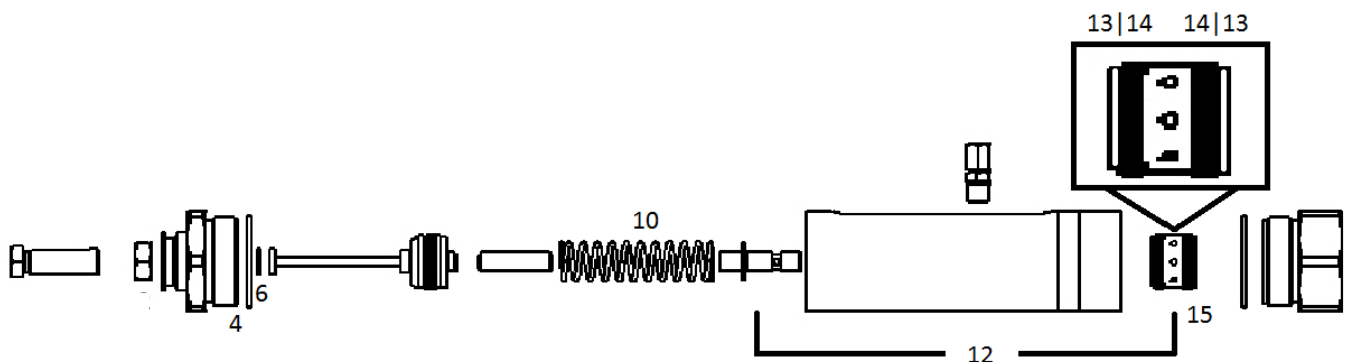
**ELECTRIC VENT VALVE**  
**(24 VDC OR 115 VAC)**  
**MAX SYSTEM PRESSURE 3000 PSI**





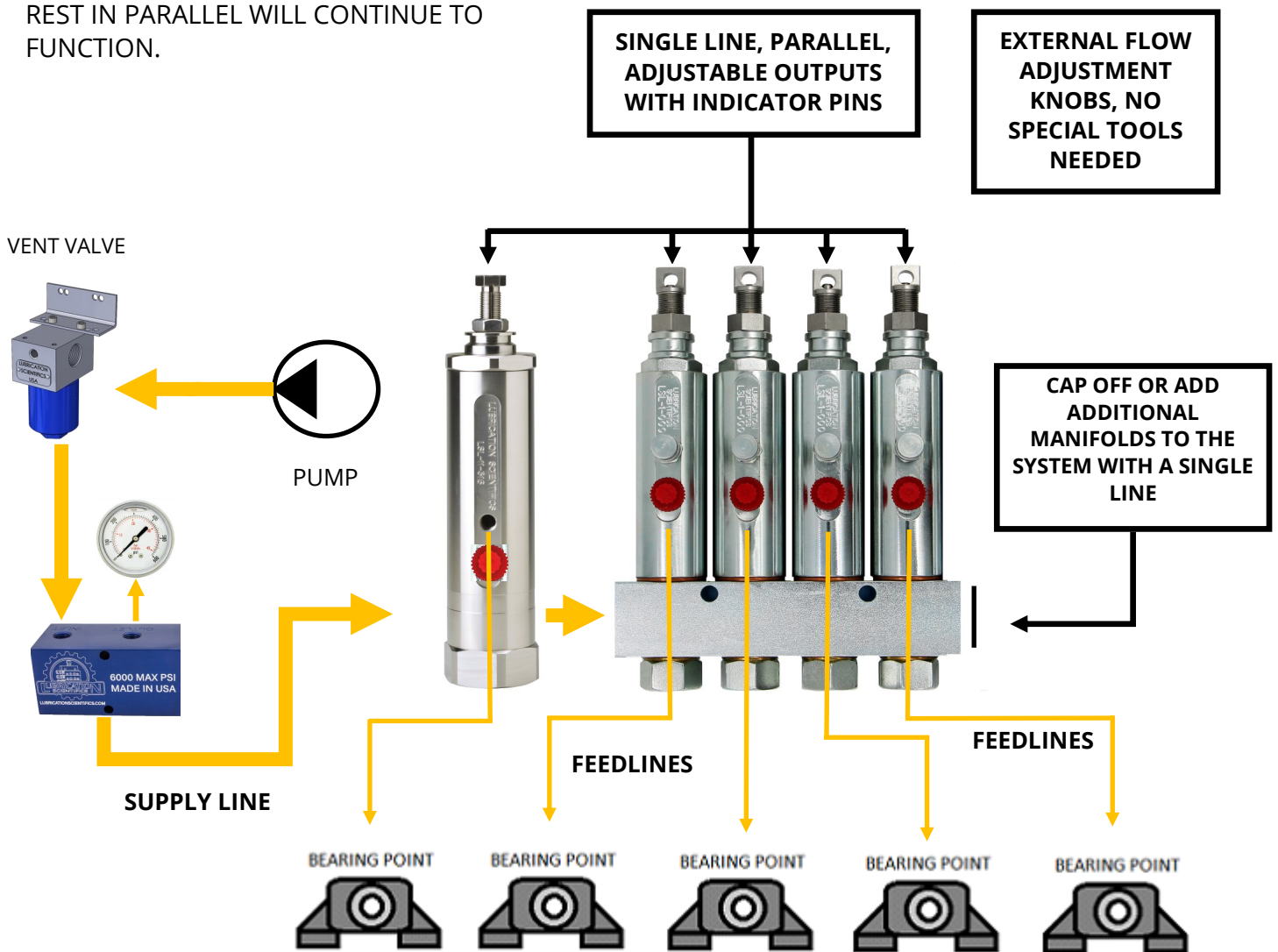
## GENERAL INJECTOR TROUBLESHOOTING INSTRUCTIONS

TROUBLESHOOTING GUIDE		
PROBLEM	AREA AFFECTED	REMEDY
INSUFFICIENT LUBRICANT FLOW TO BEARING	OUTPUT SET LOW	ADJUST TO PROPER SETTING AND LOCK WITH NUT
	WORN OR DAMAGED SLIDE VALVE BODY O-RINGS	REPLACE O-RING AND BACKUP RINGS (14, 15)
	PLUNGER SPRING BROKEN OR WORN	REPLACE SPRING (10)
TOO MUCH LUBRICANT FLOW TO BEARING	OUTPUT SET HIGH	ADJUST TO PROPER SETTING AND LOCK WITH NUT
	WORN OR DAMAGED UPPER SLIDE VALVE BODY O-RING	REPLACE O-RINGS AND BACKUP RINGS (14,15)
	PLUNGER SPRING BROKEN	REPLACE SPRING (10)
	WORN OR DAMAGED SLIDE VALVE ASSEMBLY	REPLACE SLIDE VALVE ASSEMBLY
EXTERNAL LEAKAGE INJECTOR BODY	DAMAGED O-RINGS	REPLACE O-RINGS (4)
LEAKAGE AT FITTING ASSEMBLY	LOOSE CAP	TIGHTEN CAP
EXTERNAL LEAKAGE AT INDICATOR ROD	WORN OR DAMAGED INDICATOR PACKING	REPLACE PACKING (6)

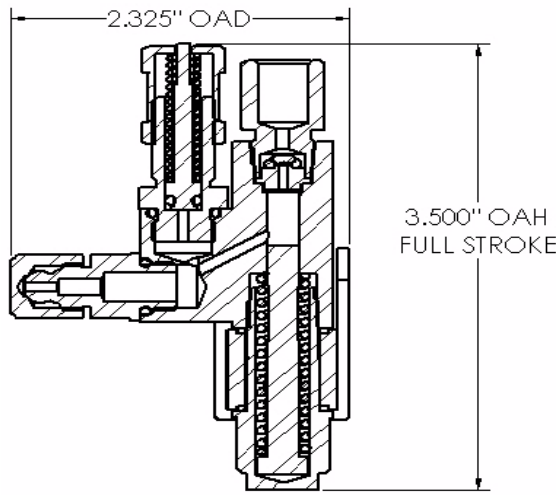


FUNCTION ILLUSTRATION & SPECIFICATIONS

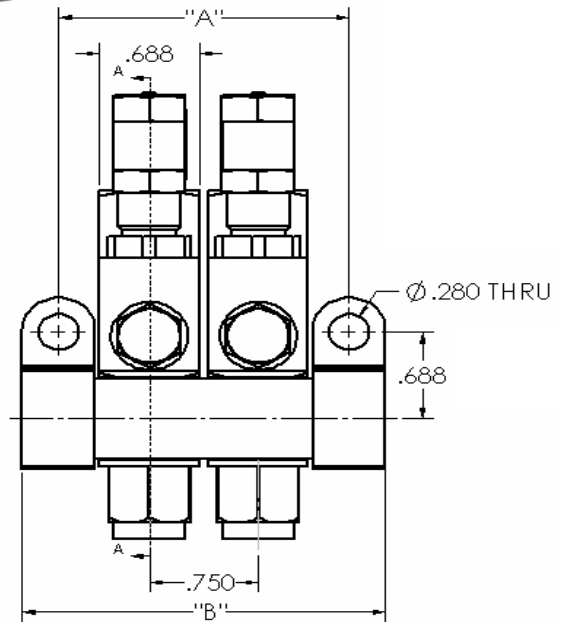
INJECTORS OFFER A FLEXIBLE, COST EFFECTIVE SOLUTION FOR DELIVERING MODERATE TO HIGH FLOWS OF LUBRICATION TO A LUBE POINT. EASY TO MAINTAIN, REPAIR, AND INSTALL AS WELL AS ADDING EXISTING SYSTEMS. INJECTORS ARE EXTERNALLY ADJUSTABLE AND WORK INDEPENDENTLY. CAN BE USED IN PARALLEL; IF ONE FAILS, THE REST IN PARALLEL WILL CONTINUE TO FUNCTION.



**DIMENSIONS & MOUNTING INFORMATION**  
**LSL-32 MAG STANDARD VENTING PRESSURE**



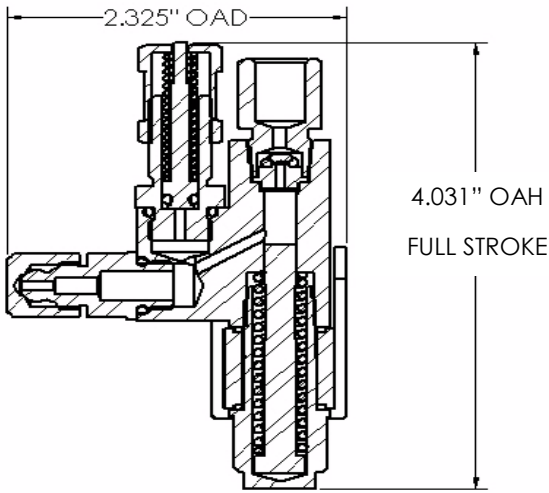
SECTION A-A  
 SCALE 1.5 : 1



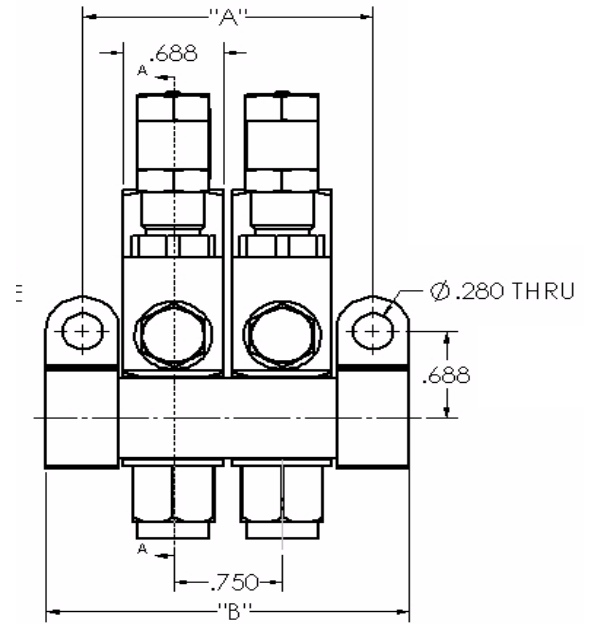
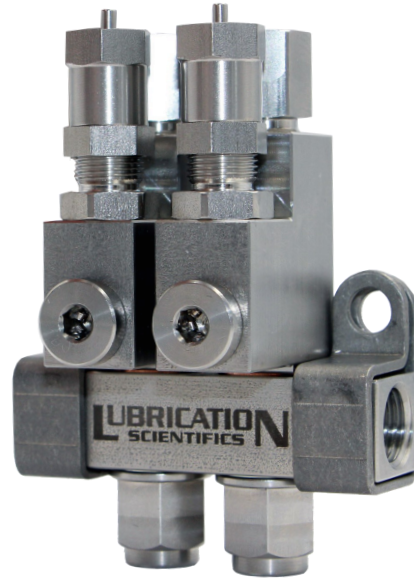
MANIFOLD CHART		
DESCRIPTION	DIMENSIONS	
	A	B
1 BANK	1.250"	1.750"
2 BANK	2.000"	2.500"
3 BANK	2.750"	3.250"
4 BANK	3.500"	4.000"
5 BANK	4.250"	4.750"
6 BANK	5.000"	5.500"
7 BANK	5.750"	6.250"
8 BANK	6.500"	7.000"
9 BANK	7.250"	7.750"
10 BANK	8.000"	8.500"

MIN. OUTPUT	MAX. OUTPUT
0.001CI/0.016CC	0.012CI/0.196CC

**DIMENSIONS & MOUNTING INFORMATION**  
**LSL-32 MAG HIGH VENTING PRESSURE**



SECTION A-A  
 SCALE 1.5 : 1

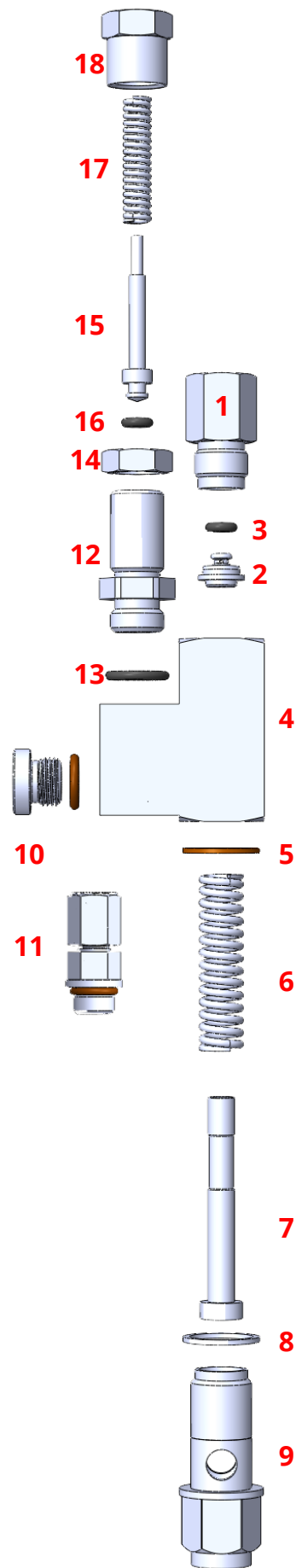


MANIFOLD CHART		
DESCRIPTION	DIMENSIONS	
	A	B
1 BANK	1.250"	1.750"
2 BANK	2.000"	2.500"
3 BANK	2.750"	3.250"
4 BANK	3.500"	4.000"
5 BANK	4.250"	4.750"
6 BANK	5.000"	5.500"
7 BANK	5.750"	6.250"
8 BANK	6.500"	7.000"
9 BANK	7.250"	7.750"
10 BANK	8.000"	8.500"

MIN. OUTPUT	MAX. OUTPUT
0.001CI/0.016CC	0.012CI/0.196CC

**LSL-32 MAG PARTS BREAKDOWN**

#	DESCRIPTION	PART NUMBER
<b>1</b>	OUTLET BODY (OPTIONS AVAILABLE) 1/8" NPSF (F) CRS 1/8" NPSF (F) SS 1/8" TUBE (STD) CRS 1/8" TUBE (STD) SS 1/8" NPTF (M) CRS 1/8" NPTF (M) SS 4MM TUBE CRS 4MM TUBE SS 6MM TUBE CRS 6MM TUBE SS #4 JIC CRS #4JIC SS	LSL32-010-1-303 LSL32-010-1-316 LSL32-010-2-303 LSL32-010-2-316 LSL32-010-4-303 LSL32-010-4-316 LSL32-010-6-303 LSL32-010-6-316 LSL32-010-6-303 LSL32-010-6-316 LSL32-010-7-303 LSL32-010-7-316
<b>2</b>	OUTLET CHECK	LSL32-007
<b>3</b>	O-RING FOR OUTLET CHECK	12261-0007
<b>4</b>	INJECTOR BODY	LSL32-001-303 (CRS) LSL32-001-316 (SS)
<b>5</b>	COPPER WASHER	LSL32-009-CPR
<b>6</b>	PRESSURE SPRING	LSL32-004
<b>7</b>	INJECTION PISTON	LSL32-002
<b>8</b>	CRS WASHER	LSL32-009-000
<b>9</b>	INLET BOLT	LSL32-008
<b>10</b>	A/O PLUG (STANDARD)	A-002-S
<b>11</b>	FILL FITTING (OPTIONAL)	L90471-ORS-XXX
<b>12</b>	ADJUSTMENT BODY	LSL32-013
<b>13</b>	ADJUSTMENT BODY O-RING	12661-0008
<b>14</b>	ADJUSTMENT LOCK NUT	LSL32-012
<b>15</b>	MEASURE CHAMBER PISTON	LSL32-006
<b>16</b>	MEASURE CHAMBER PISTON O-RING	12661-0007
<b>17</b>	MEASURE CHAMBER SPRING	LSL32-005
<b>18</b>	ADJUSTMENT CAP	LSL32-011



## LSL-1 SERVICE INSTRUCTIONS

### PRODUCT DESCRIPTION

THE LSL-1A INJECTOR IS DESIGNED FOR STANDARD OR HIGH OUTPUT APPLICATIONS UTILIZING OIL OR GREASE LUBRICANT. THIS INJECTOR CAN BE STANDALONE OR IN A MANIFOLD CONFIGURATION WITH AN 3/8 NPTF INLET CONNECTION AND A 1/8 NPSF OUTLET. THE LSL-1A IS AVAILABLE IN ZINC PLATED CARBON STEEL, 303 STAINLESS STEEL, AND 316 STAINLESS STEEL.

### SPECIFICATIONS

**FOR:** OIL AND GREASE

**OUTPUT:** STANDARD ADJUSTABLE OUTPUT FROM .008 CU-IN TO .080 CU-IN / .13 CC TO 1.31 CC | HIGH OUTPUT FROM .035 CU-IN TO .305 CU-IN / .57 CC TO 5 CC

**PRESSURE:** MAXIMUM/MINIMUM OPERATING PRESSURE 5000 PSI/1850 PSI - 344 BAR/128 BAR

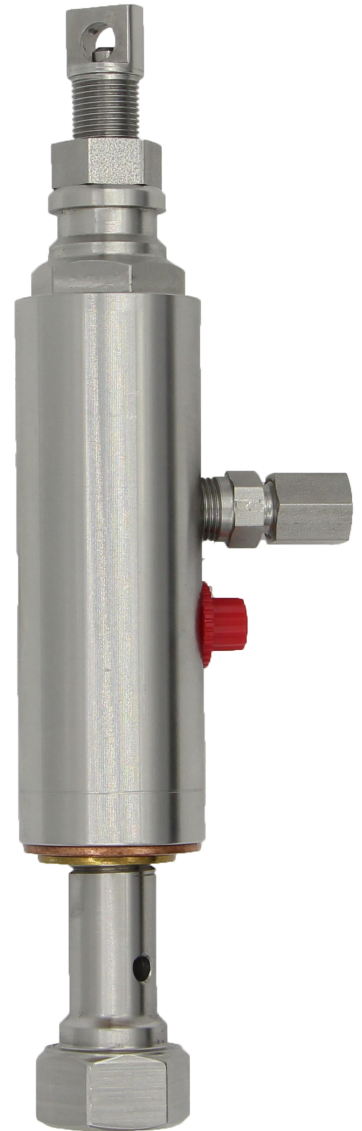
### OUTPUT ADJUSTMENT

FACTORY OUTPUT IS SET AT, MAX OUTPUT. FOR MINIMUM OUTPUT, TURN THE HEX NUT CLOCKWISE INTO THE INJECTOR UNTIL IT BOTTOMS OUT (HAND TIGHT ONLY). FOR ACCURATE OUTPUT ADJUSTMENT, ROTATE THE HEX SCREW CLOCKWISE UNTIL IT BOTTOMS OUT, THEN ROTATE UNTIL THE DESIRED OUTPUT IS REACHED.

.008 CU-IN TO .080 CU-IN / .13 CC TO 1.31 CC = 10 FULL TURNS

.035 CU-IN TO .305 CU-IN / .57 CC TO 5 CC = **12.75 FULL TURNS**

**1 FULL TURN** = .009 CU-IN / .15 CC (STANDARD OUTPUT) | .49 CU-IN / 8.02 CC (HIGH OUTPUT)

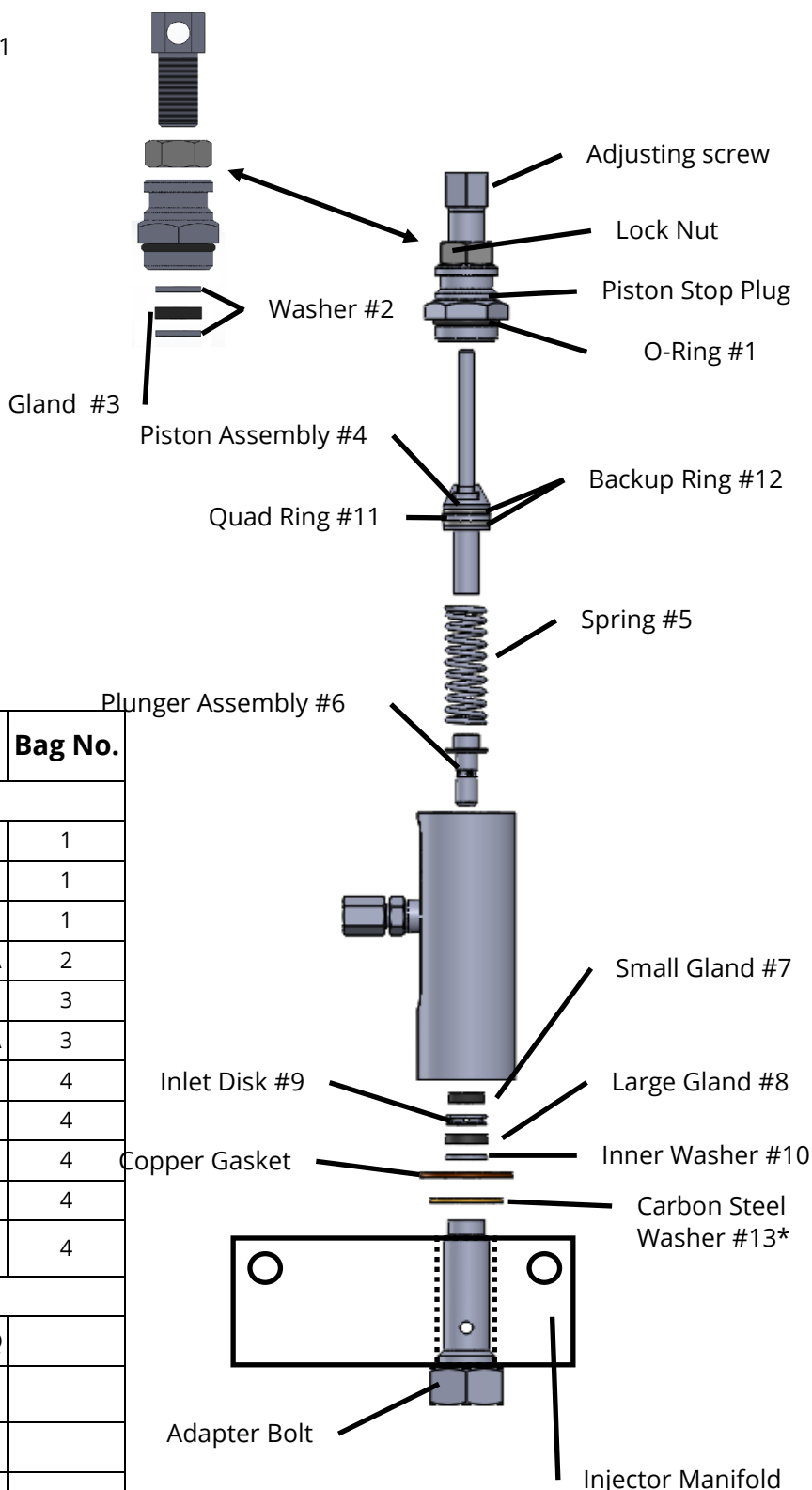


### LSL-1 DISASSEMBLY INSTRUCTIONS

**STEP 1:** Remove piston stop plug from top of injector body. Remove its contents (two washers & 1 gland), piston assembly, spring, and plunger assembly.

**STEP 2:** Remove adapter bolt from manifold and injector body. Remove injector internal, by first turning injector upside down. Push out Plunger assembly with a long, thin object from inlet side of injector. It should fall out towards adjustment adapter.

**STEP 3:** Remove inlet disk, small and large glands, and inner washer from injector body.



\* Carbon Steel Gasket is installed above the adapter bolt and below injector manifold

ORDERING SERVICE KITS	
LSL-1RK	SEAL KIT
LSL-1MRK	MAJOR REBUILD KIT

Item No.	Description	Qty.	Part No.	Bag No.
<b>LSL-1MRK</b>				
1	O-RING	1	12661-0022	1
2	WASHER	2	LSL85497-009	1
3	GLAND	1	LSL85497-006	1
4	PISTON ASSEMBLY	1	LSL81713-011A	2
5	SPRING	1	LSL81713-013	3
6	PLUNGER ASSEMBLY	1	LSL81713-004A	3
7	SMALL GLAND	1	LSL81713-010	4
8	LARGE GLAND	1	LSL81713-014	4
9	INLET DISK	1	LSL81713-009	4
10	INNER WASHER	1	LSL81713-007	4
13	CARBON STEEL WASHER	1	LSL81713-019	4
<b>LSL-1RK</b>				
11	QUAD RING	1	LSL81713-012Q	
12	BACKUP RING	2	LSL81713-012BR	
7	SMALL GLAND	1	LSL81713-010	
8	LARGE GLAND	1	LSL81713-014	
3	GLAND	1	LSL85497-006	
1	O-RING	1	12661-0022	

## LSL-1A SERVICE INSTRUCTIONS

### REASSEMBLY INSTRUCTIONS

**STEP 1:** Clean all injector components and inspect for wear. Replace parts and lube O-rings as necessary.

**STEP 2:** Install plunger assembly and spring into injector body. Install backup rings and quad ring onto piston assembly and guide piston assembly into the spring, as shown below.

**STEP 3:** Install O-Ring, gland, & two washers as shown to piston stop plug and install to injector body as shown. Install lock nut and adjustment screw.

**STEP 4:** Lube and insert small gland, inlet disk, large gland, and washer into bottom of injector body as shown.

**STEP 5:** Place carbon steel gasket over adapter bolt and insert into manifold followed by copper gasket and install into injector body as shown.

### ADJUSTMENT INSTRUCTIONS

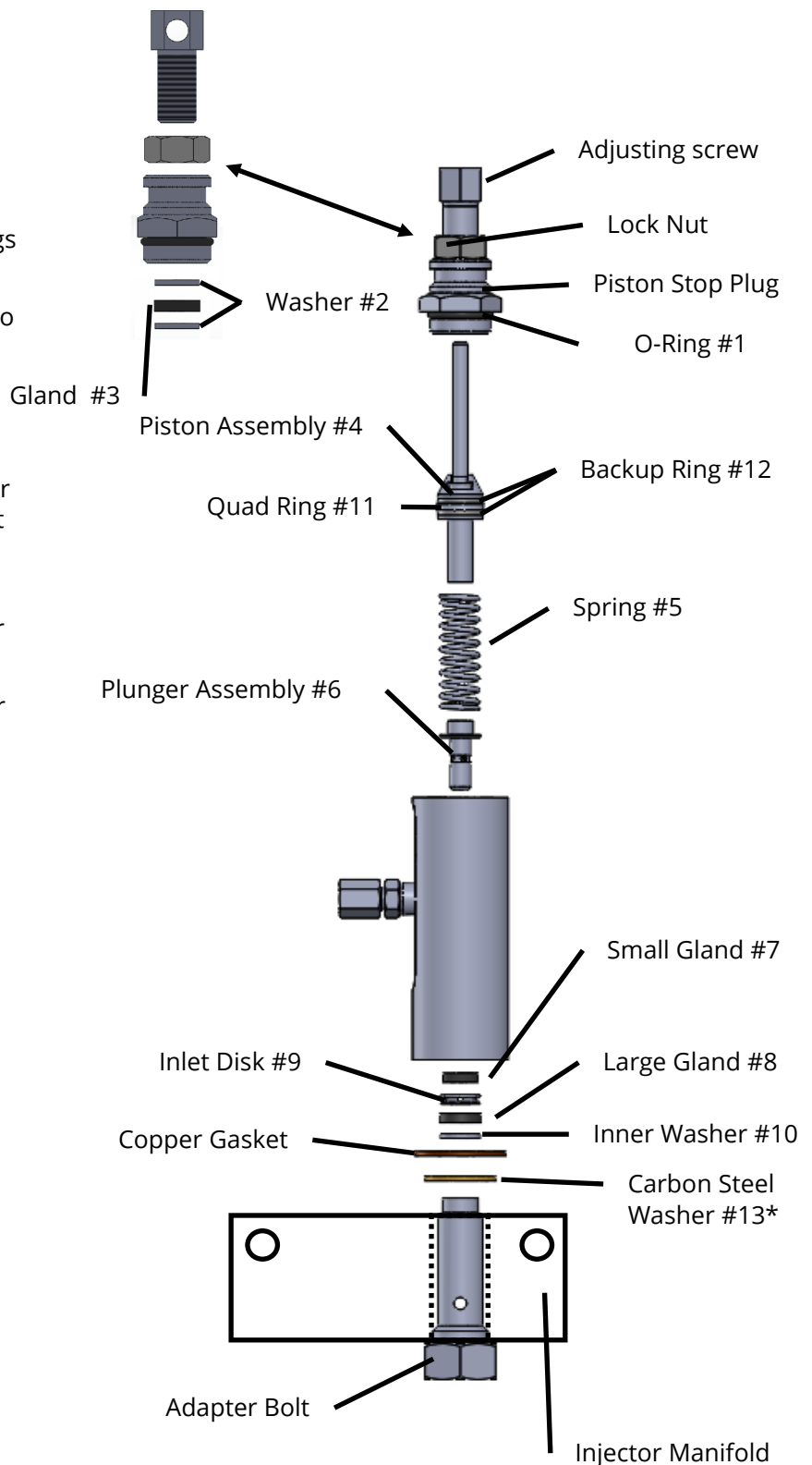
Loosen lock nut

Turn adjustment screw clockwise until it bottoms out. This will output 0.01 cubic inches of lubricant. One full turn will output an additional .01 cubic inches of lubricant maxing out at 0.1 cubic inches.

Standard Output Range = .01 CU-IN—.1 CU-IN

High Output Range = .015 CU-IN—.31 CU-IN

When desired output is achieved, secure the



\* Carbon Steel Gasket is installed above adapter bolt and below injector manifold



## LSL-11 SERVICE INSTRUCTIONS

### PRODUCT DESCRIPTION

THE LSL-11 INJECTOR IS DESIGNED FOR HIGH OUTPUT APPLICATIONS UTILIZING OIL OR GREASE LUBRICANT. THIS IS A STANDALONE INJECTOR WITH AN 1/2 NPTF INLET CONNECTION AND A 1/4 NPSF OUTLET. THE LSL-11 IS AVAILABLE IN ZINC PLATED CARBON STEEL, 303 STAINLESS STEEL, AND 316 STAINLESS STEEL.

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### SPECIFICATIONS

**FOR:** OIL AND GREASE

**OUTPUT:** ADJUSTABLE OUTPUT FROM .05 CU-IN TO .50 CU-IN / .82 CC TO 8.20 CC

**PRESSURE:** MAXIMUM/MINIMUM OPERATING PRESSURE 5000 PSI/1000 PSI / 345 BAR/69 BAR

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### OUTPUT ADJUSTMENT

FACTORY OUTPUT IS SET AT .50 CU-IN, MAX OUTPUT. FOR MINIMUM OUTPUT OF .05 CU-IN, TURN THE HEX NUT CLOCKWISE INTO THE INJECTOR UNTIL IT BOTTOMS OUT (HAND TIGHT ONLY). FOR ACCURATE OUTPUT ADJUSTMENT, ROTATE THE HEX SCREW CLOCKWISE UNTIL IT BOTTOMS OUT, THEN ROTATE UNTIL THE DESIRED OUTPUT IS REACHED.

.05 CU-IN TO .50 CU-IN / .82 CC TO 8.20 CC = **12.75 FULL TURNS**

**1 FULL TURN** = APPROXIMATELY **0.035 CU-IN / .57 CC**



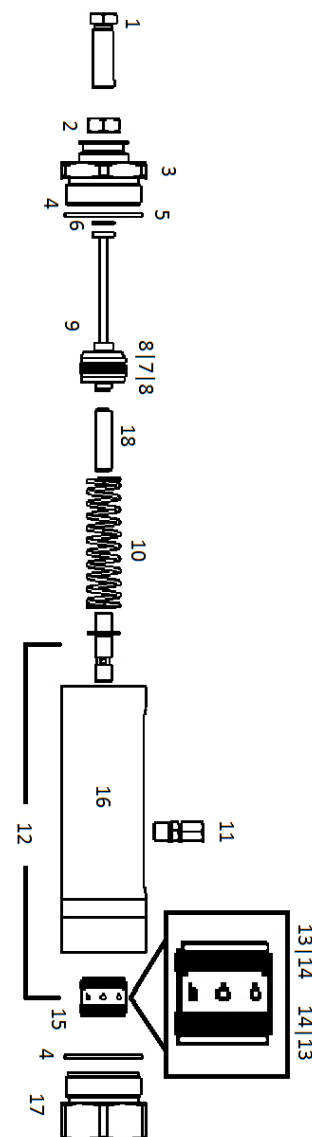
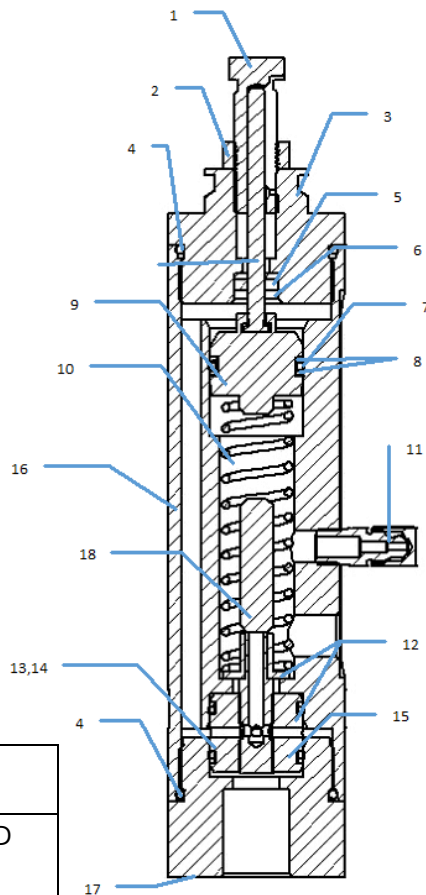
## LSL-11 DISASSEMBLY INSTRUCTIONS

**STEP 1:** Remove adjustment adapter from top of injector body (3). Remove its contents; piston assembly, spring, and spacer.

**STEP 2:** Remove inlet adapter from bottom of injector body (17). Remove slide valve (12), by first turning the injector upside down. Push out upper portion of assembly with a long, thin object from inlet side of injector. It should fall out towards adjustment adapter.

**STEP 3:** Remove valve body by lightly tapping a wooded dowel through top of injector body making contact with valve body. Dowel must be no bigger than 1/2" in diameter.

**STEP 4:** To remove indicator stem packing from adjustment adapter, remove adjustment screw from adjustment adapter. Use a hard object to gently push through screw hole and out through bottom of adapter.



ORDERING SERVICE KITS	
LSL-11RK	SEAL KIT—INCLUDES HIGHLIGHTED ITEMS <b>EXCEPT</b> ITEM #12
LSL-11MRK	REBUILD KIT—INCLUDES <b>ALL</b> HIGHLIGHTED ITEMS

Item No.	Description	Qty.	Part No.
1	Adjusting Screw	1	LSL85497-001-XXX
2	Lock Nut	1	LSL85497-010
3	Adjustment Adapter	1	LSL85497-003-XXX
4	O-ring (viton)	2	LSL85497-004
5	Washer	1	LSL85497-009
6	Packing (SKF)	1	LSL85497-006
7	Quad Ring (Quniton)	1	LSL85497-007Q
8	Back-up ring (teflon)	2	LSL85497-007BR
9	Piston Assembly	1	LSL85497-008-QA
10	Plunger Spring	1	LDL85497-013
11	Fitting Assembly	1	L90471-XXX
12	Slide Valve Ass'y	1	LSL85497-025A
13	Back-up ring (teflon)	2	LSL85497-005BR
14	Quad Ring (Quniton)	2	LSL85497-005Q
15	Valve Body	1	LSL85497-014
16	Injector Body	1	LSL85497-015
17	Inlet Adapter	1	LSL85497-016
18	Spacer	1	LSL85497-017

**NOTE: "XXX" SPECIFIES MATERIAL OF THE INJECTOR FOR:**

CRS USE: -000

303 SS USE: -303

316 SS USE: -316

**EXAMPLE:**

FOR 303 SS ADJUSTMENT SCREW

**USE:** LSL85497-001-303

## LSL-11 SERVICE INSTRUCTIONS

### REASSEMBLY INSTRUCTIONS

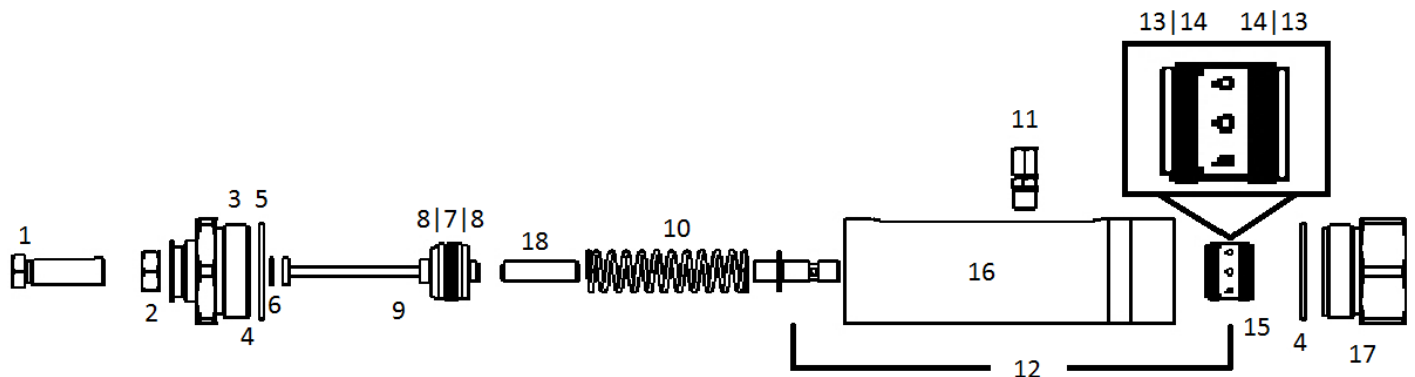
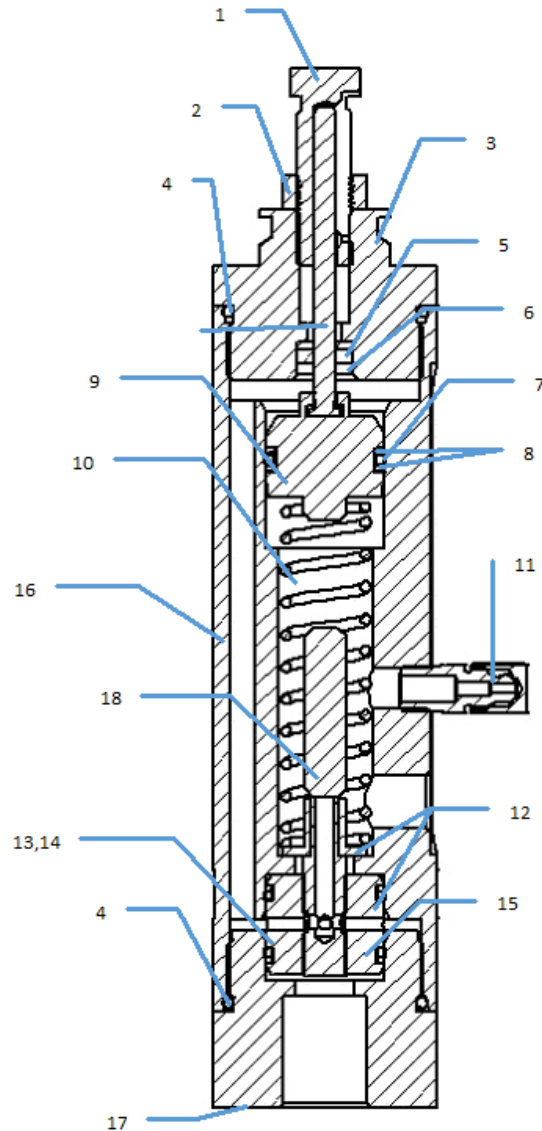
**STEP 1:** Clean all injector components and inspect for wear. Replace parts and O-rings as necessary.

**STEP 2:** Install O-rings and backup rings on outside of valve body (13 & 14). Apply grease to seals and valve body and insert valve body into inlet adapter.

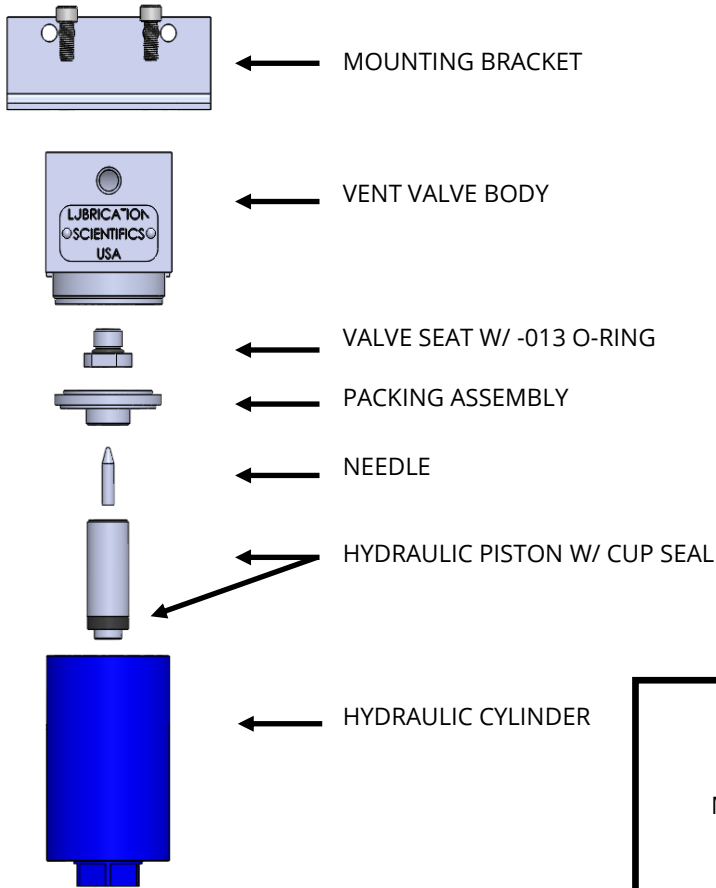
**STEP 3:** Install O-ring onto inlet adapter (item #4) and install inlet adapter into injector body. Hand tight to ensure everything seats properly and tighten.

**STEP 4:** Apply grease to slide valve assembly once reassembled (12) and insert through top of injector body into valve body. Apply grease to piston bore in injector body. Drop in the spring and spacer inside the spring.

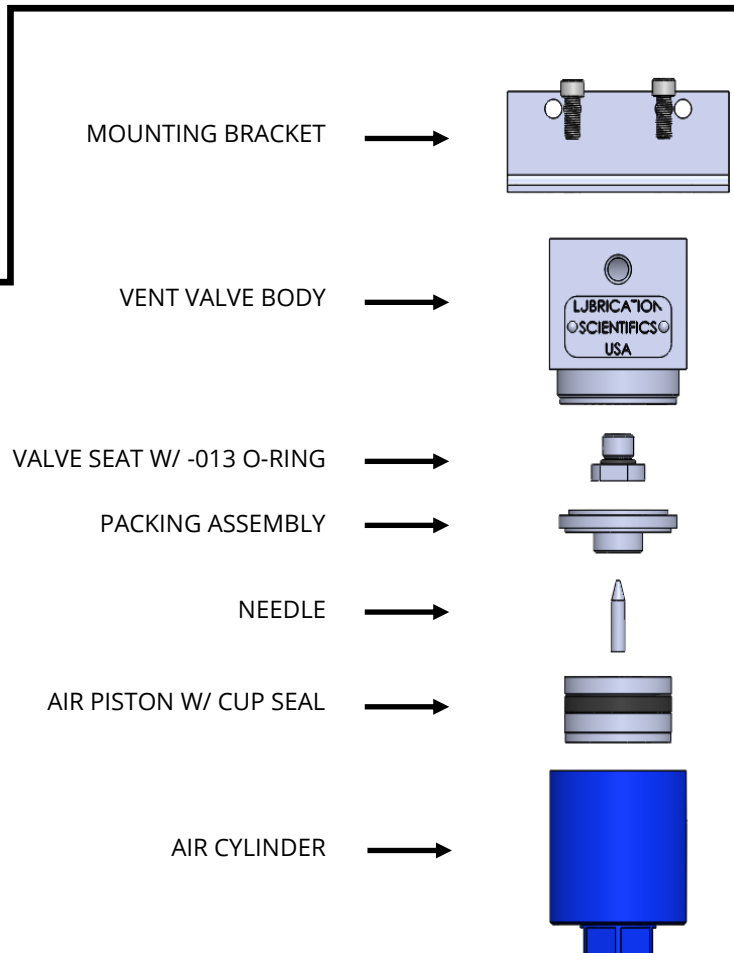
**STEP 5:** Install the O-ring on piston assembly and apply grease to piston, O-Ring, and indicator rod. Insert into injector body. Install O-ring on adjustment adapter (3), install washer, and packing. Apply grease to the O-ring on adjustment adapter and slide over pre-assembled adapter into injector body. Hand tight to make sure everything is properly seated. Tighten with a wrench.



**VENT VALVES REBUILD DIAGRAM & KIT**



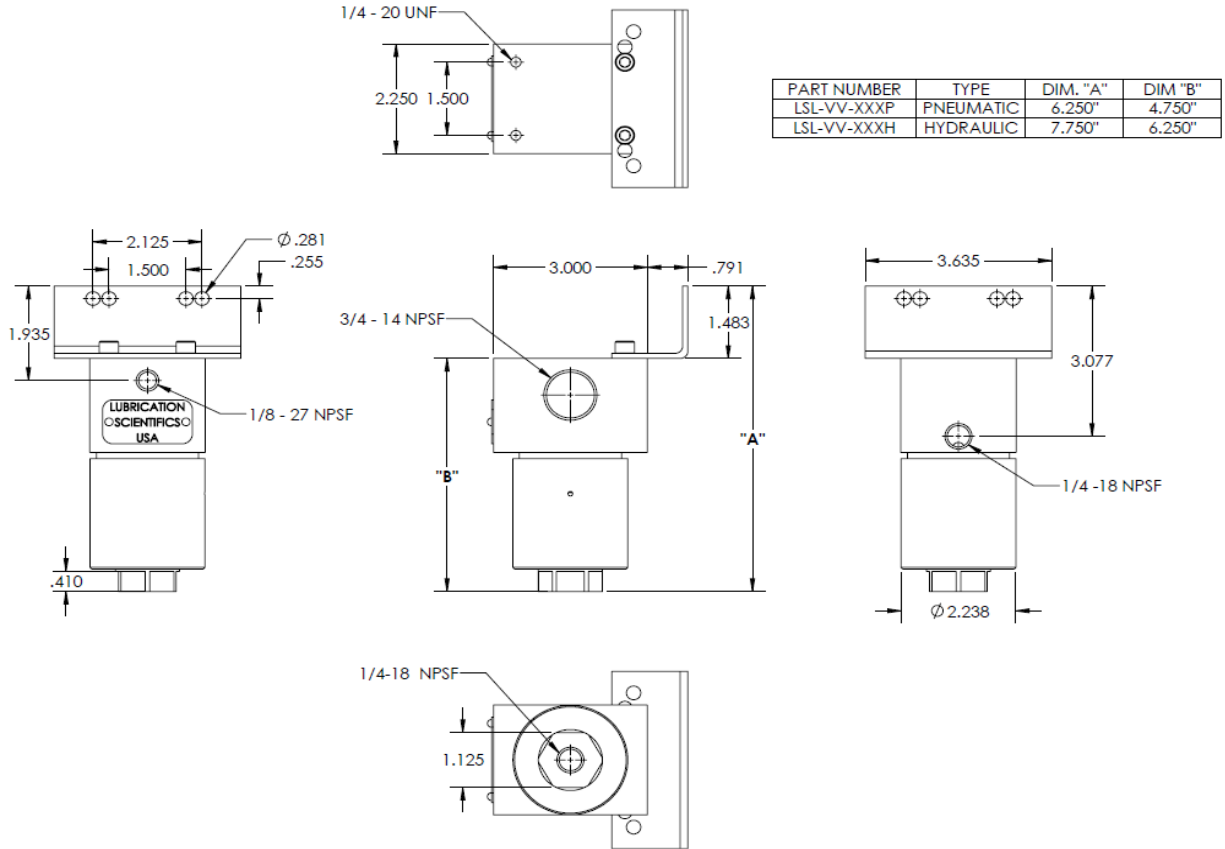
<b>VENT VALVE SEAL KIT—HYDRAULIC</b>	
LSL-VVRK-H	
<b>PART DESCRIPTION</b>	<b>PART NUMBER</b>
VENT VALVE SEAT SEAL	12661-0038
-013 O-RING	
PACKING ASSEMBLY	LSLVV-006A
HYDRAULIC PISTON CUP SEAL	12661-0072
VV NEEDLE & SEAT KIT	LSL-VV-NSK-PH



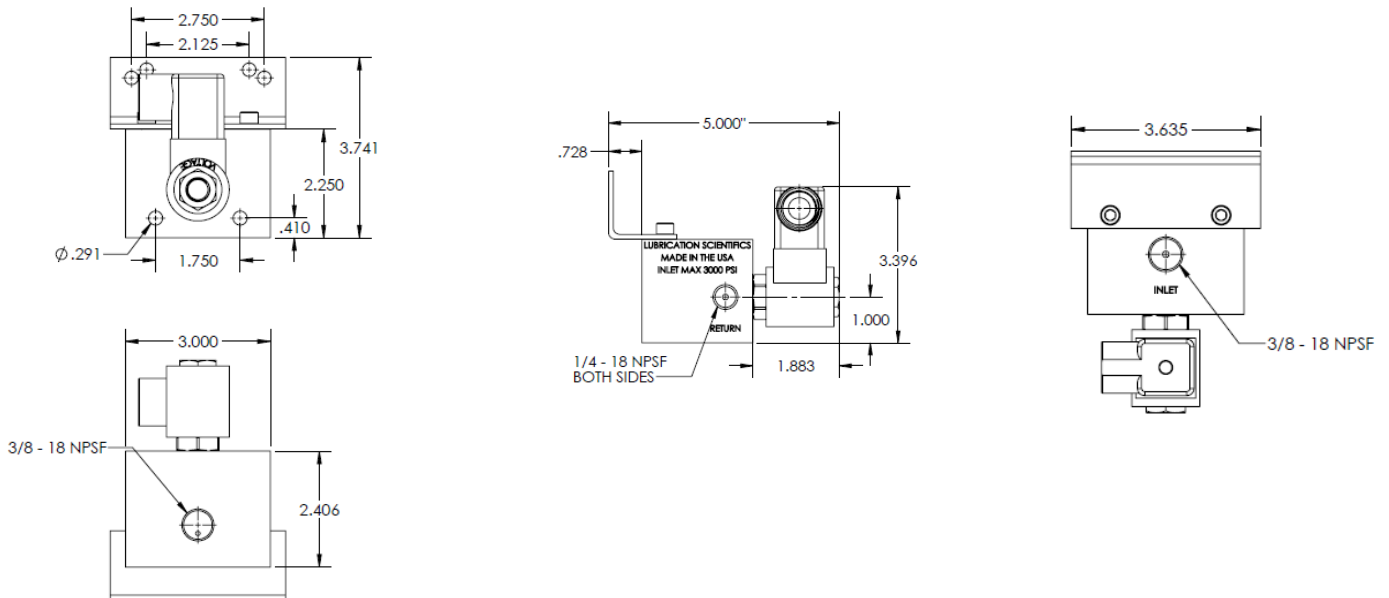
<b>VENT VALVE SEAL KIT—PNEUMATIC</b>	
LSL-VVRK-P	
<b>PART DESCRIPTION</b>	<b>PART NUMBER</b>
VENT VALVE SEAT SEAL	12661-0038
-013 O-RING	
PACKING ASSEMBLY	LSLVV-006A
AIR PISTON CUP SEAL	12661-0070
VV NEEDLE & SEAT REPAIR KIT	LSV-VV-NSK-PH

## VENT VALVE DIMENSIONS

### PNEUMATIC & HYDRAULIC VENT VALVE DIMENSIONS

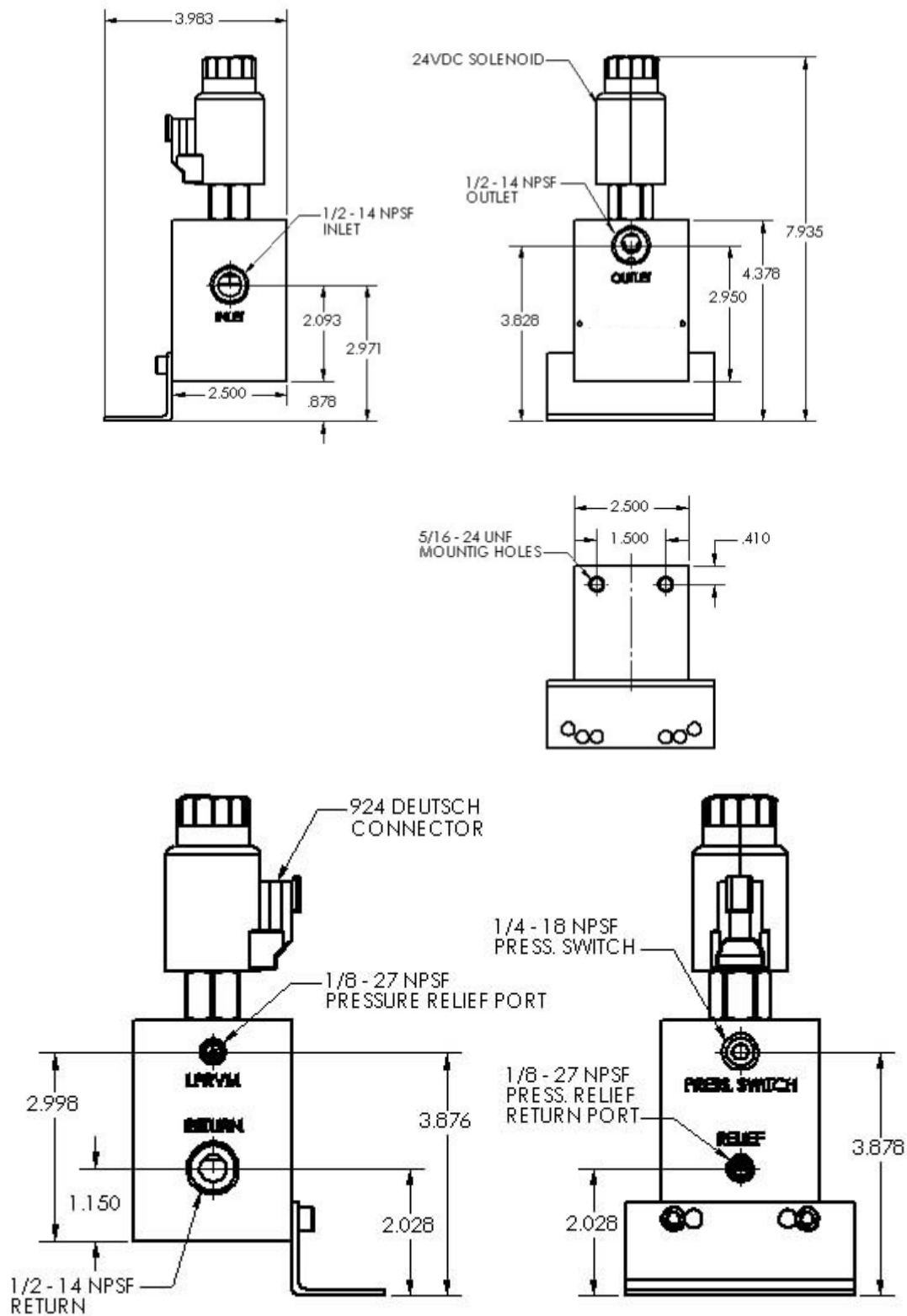


### 3,500 PSI ELECTRIC VENT VALVE DIMENSIONS

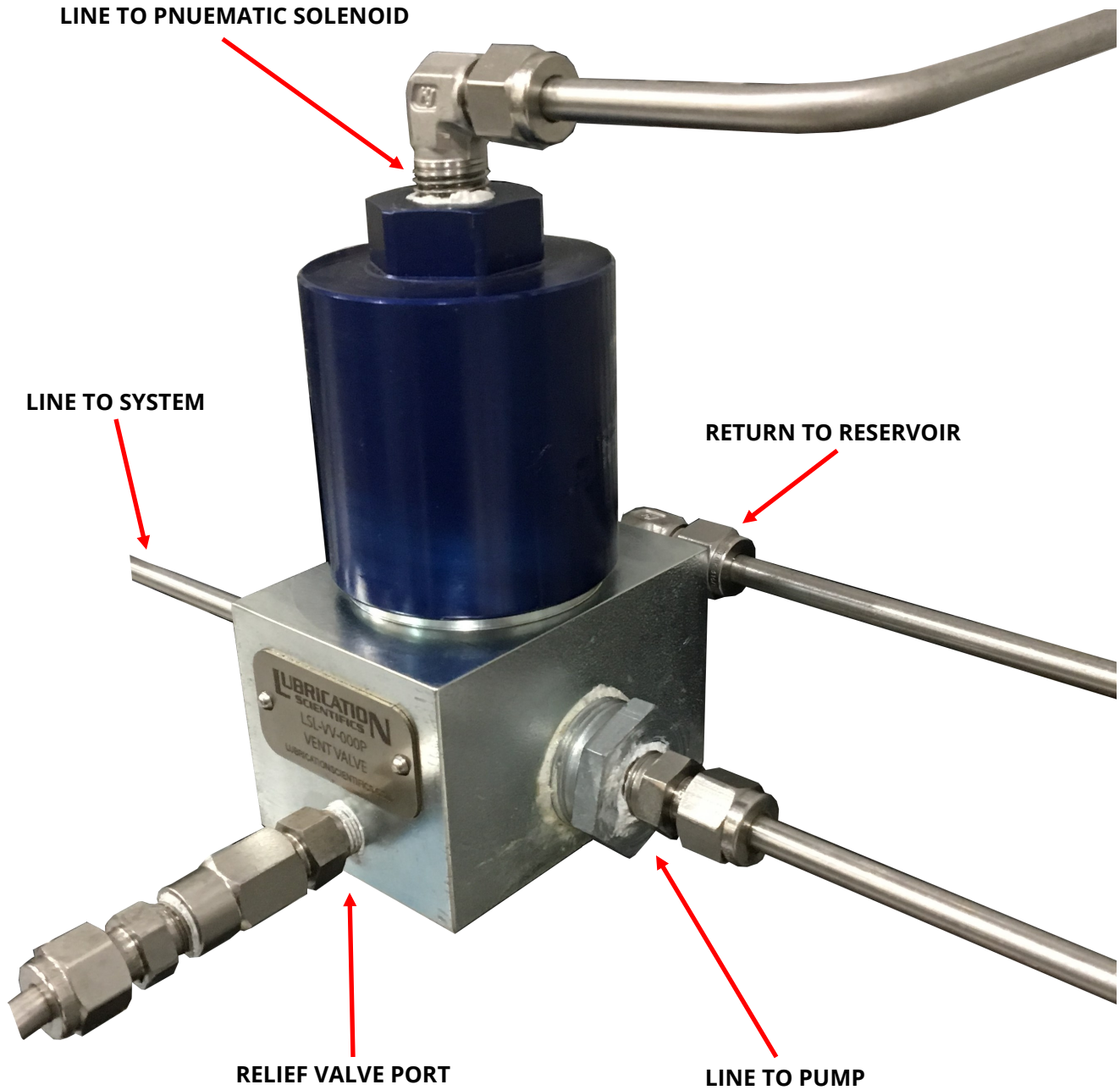


## VENT VALVE DIMENSIONS

### 5,000 PSI ELECTRIC VENT VALVE DIMENSIONS



## PNEUMATIC VENT VALVE INSTALLATION LAYOUT



**COMPETITOR'S PART NUMBER INTERCHANGE LINCOLN®**

LINCOLN® PART NUM-	LUBRICATION SCIENTIFICS	PRODUCT DESCRIPTION
83336-1	LSL-32M-M1-A2-303	LSL-32M SERIES, 1 INJECTOR ASSY(W/MFLD) 303 SS
12511	AC32M-CP-125-303	CLOSURE PLUG, 1/8" NPTF, 303 SS
12698	AC32M-CP-303	LSL-32M STYLE CLOSURE PLUG, 5/16"-24, 303 SS
14988	AC32M-A1	LSL 32M STYLE OUTLET CONNECTOR 1/8" NPSF FEMALE
14991	AC32M-A4	LSL 32M STYLE OUTLET CONNECTOR 1/8" NPTF MALE
66260	AC32M-CN1-313-BR	COMPRESSION NUT, 5/16-24, ONE PIECE, BRASS
66713	AC32M-CN1-437-BR	COMPRESSION NUT, 7/16-24, ONE PIECE, BRASS
67007	AC32M-CP-250-303 SS	CLOSURE PLUG 1/4", 303 SS
67044	AC1AHO-CP-375-303	CLOSURE PLUG, 3/8" NPTF, 303 SS
68483	LSL32M-CAPV	LSL 32M STYLE VINYL CAP
68874	ACLSL-BR-125I	FEEDLINE BRUSH, 1/8-27 INLET
81646	LSL-1A-CPK	INJECTOR CONNECTOR TUBE 1/8" NPTF MALE, LSL-1A & UP
81713	LSL-1A-000	LSL-1A, 1 REPLACEMENT INJECTOR CRS
82272	AC1AHO-AV-125-303	INJECTOR OPERATED AIR VALVE, LSL-1A HO SERIES
83337	LSL-32M-A2-303	LSL-32M SERIES, 1 REPLACEMENT INJECTOR 303 SS
83338	LSL-32M-SA2-303	LSL-32M SERIES, 1 INJECTOR ASSY(STAND ALONE) 303 SS
83660	LSL-43M-A6-303	LSL-43M SERIES, 1 REPLACEMENT INJECTOR 303 SS
83730	LSL-11-CAPV	LSL-11 VINYL CAP
83748	LSL-1A-O-000	LSL-44, 1 REPLACEMENT INJECTOR CRS, OIL
83924	AC32M-CN2-313-BR	COMPRESSION NUT, 5/16-24, TWO PIECE, BRASS
83948	LSL-VV-000P	PNEUMATIC VENT VALVE, NO PRESSURE RELIEF VALVE INCLUDED
83948	LSL-VV-000P-SRV	PNEUMATIC VENT VALVE, 4000 PSI PRESSURE RELIEF VALVE INCLUDED
84200	AC32M-A3	LSL 32M STYLE OUTLET CONNECTOR 1/4" O.D. TUBE
84776	LSL-1A-316	LSL-1A, 1 INJECTOR, REPLACEMENT,316 SS
84980	LSL-VV000H	HYDRAULIC VENT VALVE, NO PRESSURE RELIEF VALVE INCLUDED
84980	LSL-VV-000H-SRV	HYDRAULIC VENT VALVE, 4000 PSI PRESSURE RELIEF VALVE INCLUDED
85497	LSL-11-000	LSL-11 STANDALONE INJECTOR CRS
85771	LSL-1A-000-R5	LSL-1 MED OUTPUT SQ, 1 REPLACEMENT INJECTOR
85772	LSL-1-000-M5	LSL-1 MED OUTPUT SQ, 1 INJECTOR, STAND ALONE
85781	LSL-1A-000-HO	LSL-A1-HO, 1 REPLACEMENT INJECTOR
85782	LSL-1-000-HO	LSL-A1-HO, 1 INJECTOR, STAND ALONE
239351	LSL-M1A-316	LSL-1A, 1 INJECTOR ASSY (W/MFLD) 316 SS
239352	LSL-M2A-316	LSL-1A, 2 INJECTOR ASSY (W/MFLD) 316 SS
239353	LSL-M3A-316	LSL-1A, 3 INJECTOR ASSY (W/MFLD) 316 SS
239354	LSL-M4A-316	LSL-1A, 4 INJECTOR ASSY (W/MFLD) 316 SS
239355	LSL-M5A-316	LSL-1A, 5 INJECTOR ASSY (W/MFLD) 316 SS
249281	AC32M-A5	LSL 32M STYLE OUTLET CONNECTOR 4MM TUBE
249282	AC32M-A6	LSL 32M STYLE OUTLET CONNECTOR 6MM TUBE
273089	LSL-1A-CAPV	LSL-1A VINYL CAP
12511-9	AC32M-CP-125-316	CLOSURE PLUG, 1/8" NPTF, 316 SS
12698-9	AC32M-CP-316	LSL-32M STYLE CLOSURE PLUG, 5/16"-24, 316 SS
66260-9	AC32M-CN1-313-SS	COMPRESSION NUT, 5/16-24, ONE PIECE, 316 SS
67007-9	AC32M-CP-125-316 SS	CLOSURE PLUG 1/4", 316 SS
81713A	LSL-1-000	LSL-1A, 1 INJECTOR NO MFLD CRS
81770-1	LSL-M1A-000	LSL-1A, 1 INJECTOR ASSY (W/MFLD) CRS
81770-2	LSL-M2A-000	LSL-1A, 2 INJECTOR ASSY (W/MFLD) CRS
81770-3	LSL-M3A-000	LSL-1A, 3 INJECTOR ASSY (W/MFLD) CRS
81770-4	LSL-M4A-000	LSL-1A, 4 INJECTOR ASSY (W/MFLD) CRS
81770-5	LSL-M5A-000	LSL-1A, 5 INJECTOR ASSY (W/MFLD) CRS
81770-6	LSL-M6A-000	LSL-1A, 6 INJECTOR ASSY (W/MFLD) CRS
83336-2	LSL-32M-M2-A2-303	LSL-32M SERIES, 2 INJECTOR ASSY(W/MFLD) 303 SS
83336-3	LSL-32M-M3-A2-303	LSL-32M SERIES, 3 INJECTOR ASSY(W/MFLD) 303 SS
83336-4	LSL-32M-M4-A2-303	LSL-32M SERIES, 4 INJECTOR ASSY(W/MFLD) 303 SS
83336HV	LSL-32MH-A2-303	LSL-32M HP VENTING, 1 INJECTOR ASSY (STAND ALONE) 303 SS
83336HV-1	LSL-32MH-M1-A2-303	LSL-32M HP VENTING, 1 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-10	LSL-32MH-M10-A2-303	LSL-32M HP VENTING, 10 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-2	LSL-32MH-M2-A2-303	LSL-32M HP VENTING, 2 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-3	LSL-32MH-M3-A2-303	LSL-32M HP VENTING, 3 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-4	LSL-32MH-M4-A2-303	LSL-32M HP VENTING, 4 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-5	LSL-32MH-M5-A2-303	LSL-32M HP VENTING, 5 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-6	LSL-32MH-M6-A2-303	LSL-32M HP VENTING, 6 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-7	LSL-32MH-M7-A2-303	LSL-32M HP VENTING, 7 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-8	LSL-32MH-M8-A2-303	LSL-32M HP VENTING, 8 INJECTOR ASSY (W/MFLD) 303 SS
83336HV-9	LSL-32MH-M9-A2-303	LSL-32M HP VENTING, 9 INJECTOR ASSY (W/MFLD) 303 SS

\* LINCOLN® IS A REGISTERED TRADEMARK OF LINCOLN® INDUSTRIAL



COMPETITOR'S PART NUMBER INTERCHANGE (CONTINUED)

LINCOLN®

LINCOLN® PART NUMBER	LUBRICATION SCIENTIFICS PART	PRODUCT DESCRIPTION
83337HV	LSL-32MH-SA2-303	LSL-32M HP VENTING, 1 REPLACEMENT INJECTOR 303 SS
83661-1	LSL-43M-M1-A6-303	LSL-43M SERIES, 1 INJECTOR ASSY(W/MFLD) 303 SS
83661-2	LSL-43M-M2-A6-303	LSL-43M SERIES, 2 INJECTOR ASSY(W/MFLD) 303 SS
83661-3	LSL-43M-M3-A6-303	LSL-43M SERIES, 3 INJECTOR ASSY(W/MFLD) 303 SS
83661-4	LSL-43M-M4-A6-303	LSL-43M SERIES, 4 INJECTOR ASSY(W/MFLD) 303 SS
83724-1	LSL-32M-M1-A2-316	LSL-32M SERIES, 1 INJECTOR ASSY(W/MFLD) 316 SS
83724-2	LSL-32M-M2-A2-316	LSL-32M SERIES, 2 INJECTOR ASSY(W/MFLD) 316 SS
83724-3	LSL-32M-M3-A2-316	LSL-32M SERIES, 3 INJECTOR ASSY(W/MFLD) 316 SS
83724-4	LSL-32M-M4-A2-316	LSL-32M SERIES, 4 INJECTOR ASSY(W/MFLD) 316 SS
83724-9	LSL-32M-A2-316	LSL-32M SERIES, 1 REPLACEMENT INJECTOR 316 SS
83749-1	LSL-M1A-O-000	LSL-44, 1 INJECTOR ASSY (W/MFLD) CRS, OIL
83749-2	LSL-M2A-O-000	LSL-44, 2 INJECTOR ASSY (W/MFLD) CRS, OIL
83749-3	LSL-M3A-O-000	LSL-44, 3 INJECTOR ASSY (W/MFLD) CRS, OIL
83749-4	LSL-M4A-O-000	LSL-44, 4 INJECTOR ASSY (W/MFLD) CRS, OIL
83749-5	LSL-M5A-O-000	LSL-44, 5 INJECTOR ASSY (W/MFLD) CRS, OIL
83924-9	AC32M-CN2-313-SS	COMPRESSION NUT, 5/16-24, TWO PIECE, 316 SS
85353-1	LSL-32M-M1-MA6-303	LSL-32M, 1 INJECTOR ASSY (W/MFLD), GREASE, IN 1/8BSPP/OUT 6MM, 303
85353-2	LSL-32M-M2-MA6-303	LSL-32M, 2 INJECTOR ASSY (W/MFLD), GREASE, IN 1/8BSPP/OUT 6MM, 303
85353-3	LSL-32M-M3-MA6-303	LSL-32M, 3 INJECTOR ASSY (W/MFLD), GREASE, IN 1/8BSPP/OUT 6MM, 303
85353-4	LSL-32M-M4-MA6-303	LSL-32M, 4 INJECTOR ASSY (W/MFLD), GREASE, IN 1/8BSPP/OUT 6MM, 303
85770-1	LSL-M1A-000-R5	LSL-1 MED OUTPUT SQ, 1 INJECTOR ASSY (W/MFLD) CRS
85770-2	LSL-M2A-000-R5	LSL-1 MED OUTPUT SQ, 2 INJECTOR ASSY (W/MFLD) CRS
85770-3	LSL-M3A-000-R5	LSL-1 MED OUTPUT SQ, 3 INJECTOR ASSY (W/MFLD) CRS
85770-4	LSL-M4A-000-R5	LSL-1 MED OUTPUT SQ, 4 INJECTOR ASSY (W/MFLD) CRS
85770-5	LSL-M5A-000-R5	LSL-1 MED OUTPUT SQ, 5 INJECTOR ASSY (W/MFLD) CRS
85770-6	LSL-M6A-000-R5	LSL-1 MED OUTPUT SQ, 6 INJECTOR ASSY (W/MFLD) CRS
85780-1	LSL-M1A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
85780-2	LSL-M2A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
85780-3	LSL-M3A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
85780-4	LSL-M4A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
85780-5	LSL-M5A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
85780-6	LSL-M6A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
N/A	LSL-32M-MA6-303	LSL-32M SERIES, 1 REPLACEMENT INJECTOR 303 SS, 6MM OUTLET

COMPETITOR'S PART NUMBER INTERCHANGE

GRACO

GRACO PART NUMBER	LUBRICATION SCIENTIFICS PART NUMBER	PRODUCT DESCRIPTION
114901	LSL-M1A-000	LSL-1A, 1 INJECTOR ASSY (W/MFLD) CRS
114902	LSL-M2A-000	LSL-1A, 2 INJECTOR ASSY (W/MFLD) CRS
114903	LSL-M3A-000	LSL-1A, 3 INJECTOR ASSY (W/MFLD) CRS
114905	LSL-M4A-000	LSL-1A, 4 INJECTOR ASSY (W/MFLD) CRS
114905	LSL-M5A-000	LSL-1A, 5 INJECTOR ASSY (W/MFLD) CRS
114906	LSL-M6A-000	LSL-1A, 6 INJECTOR ASSY (W/MFLD) CRS
114909	LSL-1-000	LSL-1A, 1 INJECTOR NO MFLD CRS
114911	LSL-M1-000	LSL-1A, 1 BANK, BARE INJECTOR MANIFOLDS CRS
114912	LSL-M2-000	LSL-1A, 2 BANK, BARE INJECTOR MANIFOLDS CRS
114913	LSL-M3-000	LSL-1A, 3 BANK, BARE INJECTOR MANIFOLDS CRS
114914	LSL-M4-000	LSL-1A, 4 BANK, BARE INJECTOR MANIFOLDS CRS
114915	LSL-M5-000	LSL-1A, 5 BANK, BARE INJECTOR MANIFOLDS CRS
114916	LSL-11RK	LSL-11 SEAL KIT
118206	LSL-M6-000	LSL-1A, 6 BANK, BARE INJECTOR MANIFOLDS CRS
24E241	LSL-43M-M1-A6-303	LSL-43M SERIES, 1 INJECTOR ASSY(W/MFLD) 303 SS
24E242	LSL-43M-M2-A6-303	LSL-43M SERIES, 2 INJECTOR ASSY(W/MFLD) 303 SS
24E243	LSL-43M-M3-A6-303	LSL-43M SERIES, 3 INJECTOR ASSY(W/MFLD) 303 SS
24E244	LSL-43M-M4-A6-303	LSL-43M SERIES, 4 INJECTOR ASSY(W/MFLD) 303 SS
24E245	LSL-43M-A6-303	LSL-43M SERIES, 1 REPLACEMENT INJECTOR 303 SS
241572	LSL-VV-000P	PNEUMATIC VENT VALVE, NO PRESSURE RELIEF VALVE INCLUDED
241572	LSL-VV-000P-SRV	PNEUMATIC VENT VALVE, 4000 PSI PRESSURE RELIEF VALVE INCLUDED
243170	LSL-VV000H	HYDRAULIC VENT VALVE, NO PRESSURE RELIEF VALVE INCLUDED
243170	LSL-VV-000H-SRV	HYDRAULIC VENT VALVE, 4000 PSI PRESSURE RELIEF VALVE INCLUDED

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\* GRACO® IS A REGISTERED TRADEMARK OF GRACO®

COMPETITOR'S PART NUMBER INTERCHANGE (CONTINUED)

GRACO

GRACO PART NUMBER	LUBRICATION SCIENTIFICS PART NUMBER	PRODUCT DESCRIPTION
N/A	ACLSL-BR-125I	FEEDLINE BRUSH, 1/8-27 INLET
17B169	AC32M-A4	LSL 32 STYLE OUTLET CONNECTOR 1/8" NPTF MALE 303 SS
17B781	AC32M-A1	LSL 32 STYLE OUTLET CONNECTOR 1/8" NPSF FEMALE 303 SS
17B783	AC32M-CP-250-303 SS	CLOSURE PLUG 1/4", 303 SS
17B785	LSL32M-CAPV	LSL 32 STYLE VINYL CAP
17B880	AC32M-A3	LSL 32 STYLE OUTLET CONNECTOR 1/4" O.D. TUBE 303 SS
17D401	LSL-M1-303	LSL-1A, 1 BANK, BARE INJECTOR MANIFOLDS 303 SS
17D402	LSL-M2-303	LSL-1A, 2 BANK, BARE INJECTOR MANIFOLDS 303 SS
17D403	LSL-M3-303	LSL-1A, 3 BANK, BARE INJECTOR MANIFOLDS 303 SS
17D404	LSL-M4-303	LSL-1A, 4 BANK, BARE INJECTOR MANIFOLDS 303 SS
17D405	LSL-M5-303	LSL-1A, 5 BANK, BARE INJECTOR MANIFOLDS 303 SS
17D906	LSL-M6-303	LSL-1A, 6 BANK, BARE INJECTOR MANIFOLDS 303 SS
24A918	LSL-11-000	LSL-11 INJECTOR
24A919	LSL-32M-SA2-303	LSL-32M SERIES, 1 INJECTOR ASSY(STAND ALONE) 303 SS
24A920	LSL-32M-A2-303	LSL-32M SERIES, 1 REPLACEMENT INJECTOR 303 SS
24A921	LSL-32M-M1-A2-303	LSL-32M SERIES, 1 INJECTOR ASSY(W/MFLD) 303 SS
24A922	LSL-32M-M2-A2-303	LSL-32M SERIES, 2 INJECTOR ASSY(W/MFLD) 303 SS
24A923	LSL-32M-M3-A2-303	LSL-32M SERIES, 3 INJECTOR ASSY(W/MFLD) 303 SS
24A924	LSL-32M-M4-A2-303	LSL-32M SERIES, 4 INJECTOR ASSY(W/MFLD) 303 SS
24B395	LSL-11MRK	LSL-11 REBUILD KIT
24E390	LSL-32M-A2-316	LSL-32M SERIES, 1 REPLACEMENT INJECTOR 316 SS
24E391	LSL-32M-M1-A2-316	LSL-32M SERIES, 1 INJECTOR ASSY(W/MFLD) 316 SS
24E392	LSL-32M-M2-A2-316	LSL-32M SERIES, 2 INJECTOR ASSY(W/MFLD) 316 SS
24E393	LSL-32M-M3-A2-316	LSL-32M SERIES, 3 INJECTOR ASSY(W/MFLD) 316 SS
24E394	LSL-32M-M4-A2-316	LSL-32M SERIES, 4 INJECTOR ASSY(W/MFLD) 316 SS
24F507	LSL-32M-MA6-303	LSL-32, STANDALONE INJECTOR, GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F508	LSL-32M-MA6-303	LSL-32, REPLACEMENT INJECTOR, GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F509	LSL-32M-M1-MA6-303	LSL-32, 1 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F510	LSL-32M-M2-MA6-303	LSL-32, 2 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F511	LSL-32M-M3-MA6-303	LSL-32, 3 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F512	LSL-32M-M4-MA6-303	LSL-32, 4 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F543	LSL-43M-A6-303	LSL-43M SERIES, 1 REPLACEMENT INJECTOR , 6MM METRIC, 303 SS
24F544	LSL-43M-M1-MA6-303	LSL-43M SERIES, 1 INJECTOR ASSY(W/MFLD), 6MM METRIC, 303 SS
24F545	LSL-43M-M2-MA6-303	LSL-43M SERIES, 2 INJECTOR ASSY(W/MFLD), 6MM METRIC, 303 SS
24F546	LSL-43M-M3-MA6-303	LSL-43M SERIES, 3 INJECTOR ASSY(W/MFLD) , 6MM METRIC, 303 SS
24F547	LSL-43M-M4-MA6-303	LSL-43M SERIES, 4 INJECTOR ASSY(W/MFLD), 6MM METRIC, 303 SS
24F550	LSL-32M-M1-MA6-303	LSL-32, STANDALONE INJECTOR, GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F551	LSL-32M-M1-MA6-303	LSL-32, 1 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F551	LSL-32M-MA6-303	LSL-32, REPLACEMENT INJECTOR, GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F552	LSL-32M-M2-MA6-303	LSL-32, 2 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F553	LSL-32M-M3-MA6-303	LSL-32, 3 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F554	LSL-32M-M4-MA6-303	LSL-32, 4 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC OUTLET, BSPP INLET, 303 SS
24F555	AC32M-A5	LSL 32 STYLE OUTLET CONNECTOR 4MM TUBE 303 SS
24F556	AC32M-A6	LSL 32 STYLE OUTLET CONNECTOR 6MM TUBE 303 SS
24F943		LSL 32 STYLE OUTLET CONNECTOR 1/8" O.D. TUBE 303 SS
24W302	LSL-32M-M5-A2-303	LSL-33, 5 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W303	LSL-32M-M5-MA6-303	LSL-33, 5 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W304	LSL-32M-M5-A2-303	LSL-33, 5 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W305	LSL-32M-M5-MA6-303	LSL-33, 5 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24W401	LSL-32M-M1-A2-303	LSL-33, 1 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W402	LSL-32M-M2-A2-303	LSL-33, 2 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W403	LSL-32M-M3-A2-303	LSL-33, 3 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W404	LSL-32M-M4-A2-303	LSL-33, 4 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W405	LSL-32M-M6-A2-303	LSL-33, 6 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W483	LSL-32M-A2-303	LSL-33, REPLACEMENT INJECTOR, GREASE, 1/8 NPSF, 303 SS
24W485	LSL-32M-A2-303	LSL-33, REPLACEMENT INJECTOR, GREASE, 1/8 NPSF, 303 SS
24W486	LSL-32M-MA6-303	LSL-33, REPLACEMENT INJECTOR, GREASE, 6MM METRIC PORTS, 303 SS
24W487	LSL-32M-SA2-303	LSL-33, STANDALONE INJECTOR, GREASE, 1/8 NPSF, 303 SS
24W489	LSL-32M-SA2-303	LSL-33, STANDALONE INJECTOR, GREASE, 1/8 NPSF, 303 SS
24W490	LSL-32M-MA6-303	LSL-33, STANDALONE INJECTOR, GREASE, 6MM METRIC PORTS, 303 SS
24W501	LSL-32M-M1-MA6-303	LSL-33, 1 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W502	LSL-32M-M2-MA6-303	LSL-33, 2 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W503	LSL-32M-M3-MA6-303	LSL-33, 3 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W504	LSL-32M-M4-MA6-303	LSL-33, 4 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W505	LSL-32M-M6-MA6-303	LSL-33, 6 INJECTOR ASSY (W/MFLD), GREASE, METRIC PORTS 303 SS
24W601	LSL-32M-M1-A1-303	LSL-33, 1 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS

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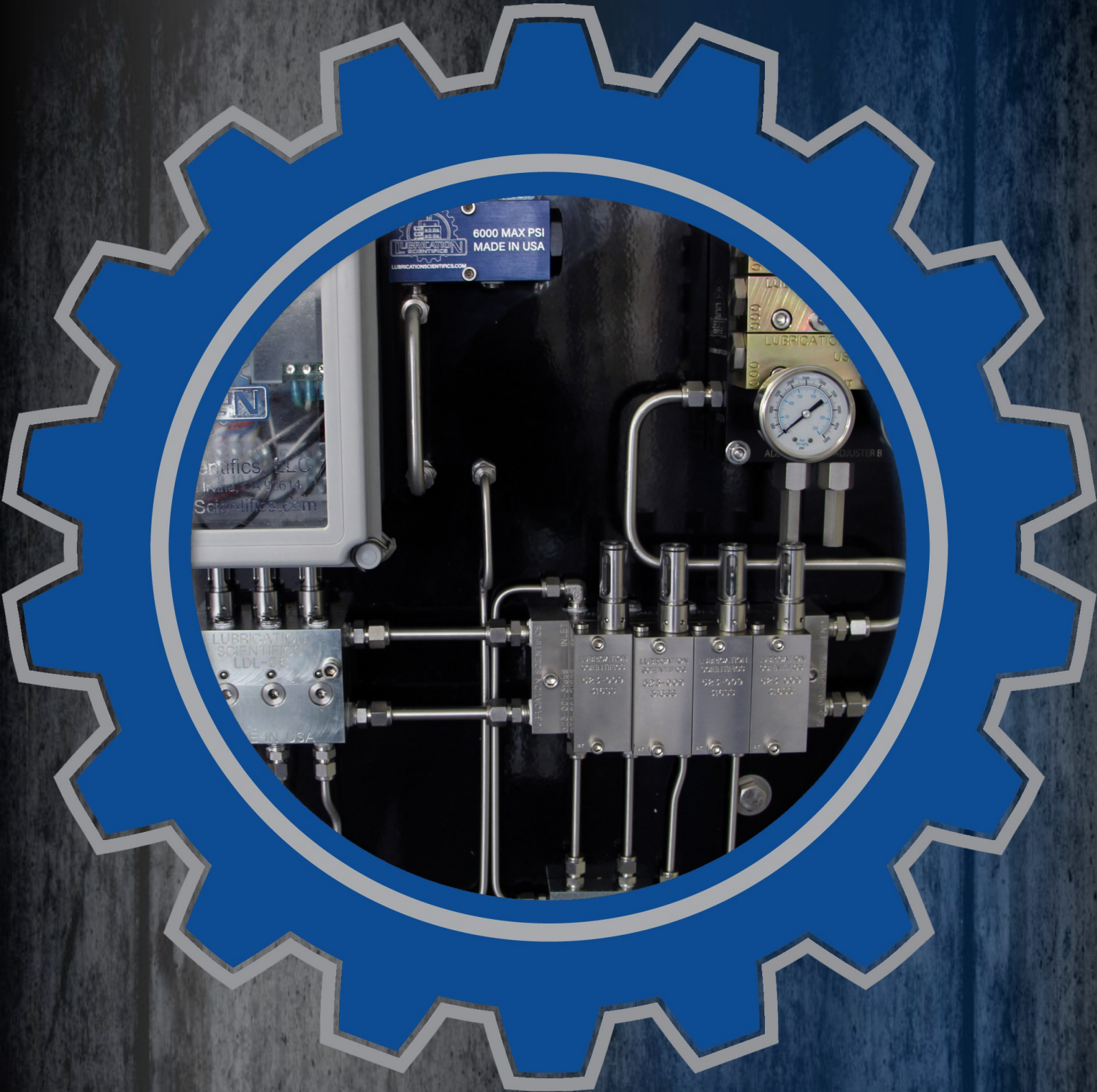
COMPETITOR'S PART NUMBER INTERCHANGE (CONTINUED)

GRACO

GRACO PART NUMBER	LUBRICATION SCIENTIFICS PART NUMBER	PRODUCT DESCRIPTION
24W602	LSL-32M-M2-A2-303	LSL-33, 2 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W603	LSL-32M-M3-A2-303	LSL-33, 3 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W604	LSL-32M-M4-A2-303	LSL-33, 4 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W605	LSL-32M-M6-A2-303	LSL-33, 6 INJECTOR ASSY (W/MFLD), GREASE, 1/8 NPSF, 303 SS
24W701	LSL-32M-M1-MA6-303	LSL-33, 1 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24W702	LSL-32M-M2-MA6-303	LSL-33, 2 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24W703	LSL-32M-M3-MA6-303	LSL-33, 3 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24W704	LSL-32M-M4-MA6-303	LSL-33, 4 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24W705	LSL-32M-M6-MA6-303	LSL-33, 6 INJECTOR ASSY (W/MFLD), GREASE, 6MM METRIC PORTS 303 SS
24X153	LSL-1-303	LSL-1A, 1 INJECTOR NO MFLD 303 SS
24X401	LSL-M1A-303	LSL-1A, 1 INJECTOR ASSY (W/MFLD) 303 SS
24X402	LSL-M2A-303	LSL-1A, 2 INJECTOR ASSY (W/MFLD) 303 SS
24X403	LSL-M3A-303	LSL-1A, 3 INJECTOR ASSY (W/MFLD) 303 SS
24X404	LSL-M4A-303	LSL-1A, 4 INJECTOR ASSY (W/MFLD) 303 SS
24X405	LSL-M5A-303	LSL-1A, 5 INJECTOR ASSY (W/MFLD) 303 SS
24X406	LSL-M6A-303	LSL-1A, 6 INJECTOR ASSY (W/MFLD) 303 SS
24X801	LSL-M1A-000-R5	LSL-1 MED OUTPUT SQ, 1 INJECTOR ASSY (W/MFLD) CRS
24X802	LSL-M2A-000-R5	LSL-1 MED OUTPUT SQ, 2 INJECTOR ASSY (W/MFLD) CRS
24X803	LSL-M3A-000-R5	LSL-1 MED OUTPUT SQ, 3 INJECTOR ASSY (W/MFLD) CRS
24X804	LSL-M4A-000-R5	LSL-1 MED OUTPUT SQ, 4 INJECTOR ASSY (W/MFLD) CRS
24X805	LSL-M5A-000-R5	LSL-1 MED OUTPUT SQ, 5 INJECTOR ASSY (W/MFLD) CRS
24X806	LSL-M6A-000-R5	LSL-1 MED OUTPUT SQ, 6 INJECTOR ASSY (W/MFLD) CRS
24X807	LSL-1-000-R5	LSL-1 MED OUTPUT SQ, 1 INJECTOR, STAND ALONE
24X811	LSL-M1A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X812	LSL-M2A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X813	LSL-M3A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X814	LSL-M4A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X815	LSL-M5A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X816	LSL-M6A-000-HO	LSL-A1-HO, 1 INJECTOR ASSY (W/MFLD) CRS
24X817	LSL-1-000-HO	LSL-A1-HO, 1 INJECTOR, STAND ALONE
25A087	LSL-1A-CAPV	LSL-1A VINYL CAP
77X540	L527680-NO-000	24VDC VENT VALVE
	LSL-11-CAPV	LSL-11 VINYL CAP

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



## DUAL LINE SERIES VALVE SYSTEMS

MODULAR—DUAL SERIES HYBRID TECHNOLOGY—ACCESSORIES



## DUAL LINE SERIES VALVE PRODUCT LINE—MDL, LDL, LDLR

### PRODUCT DESCRIPTION

DESIGNED FOR HEAVY DUTY GREASE OR OIL APPLICATIONS

CORROSIVE RESISTANT CARBON STEEL AND 316 STAINLESS STEEL PRODUCTS AVAILABLE

NPTF AND BSPP SUPPLY AND OUTLET CONNECTIONS AVAILABLE

TRADITIONAL AND MODULAR DUAL LINES HAVE ADJUSTABLE OUTPUTS

IDEAL CHOICE FOR USE ON AUTOMATIC LUBRICATION SYSTEMS WITH LARGE NUMBER OF LUBE POINTS REQUIRING VARYING LUBE QUANTITIES AT VARIOUS POINTS

AIR-OIL CONFIGURATION READY

ALL UNITS ARE TESTED FOR ZERO LEAK OPERATION

### BENEFITS & FEATURES

IDEAL FOR THOUSANDS OF POINTS OVER LONG DISTANCES

EASE OF DESIGN, POINTS CAN EASILY BE ADDED OR REMOVED

ALL LUBRICANT CAN BE INDIVIDUALLY ADJUSTED

WORKS WITH LIGHT OIL TO NLGI 2  
A SINGLE BLOCKAGE DOES NOT SHUT DOWN ENTIRE SYSTEM

SUITABLE FOR HEAVY INDUSTRIES SUCH AS STEEL, PAPER & PULP, CEMENT MANUFACTURING, MINING, MINERAL PROCESSING, POWER GENERATION, & METAL WORKING PLANTS

REVERSING VALVE IS EASILY ADJUSTABLE WITH A SETTING RANGE OF 500-3500 PSI

REVERSING VALVE & MDL IS FULLY FIELD SERVICEABLE

## READY FOR IMMEDIATE SHIPMENT

MADE IN



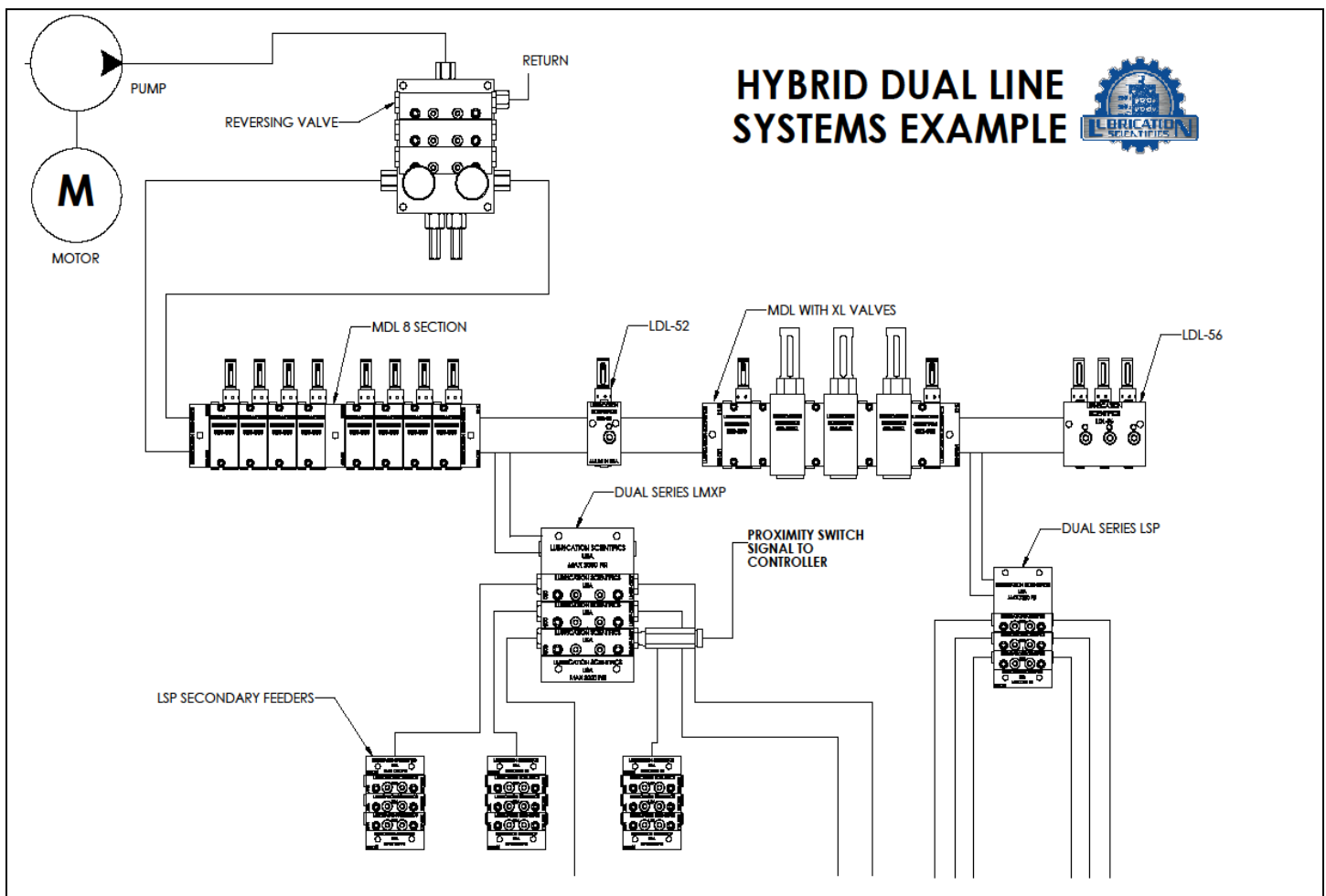
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## THE LUBRICATION SCIENTIFICS HYBRID FLEXIBILITY ADVANTAGE

INNOVATIVE LUBRICATION SYSTEMS FOR HEAVY INDUSTRY

THE LUBRICATION SCIENTIFICS, LLC DUAL LINE PRODUCT LINE ENABLES LUBRICATION SYSTEM DESIGNERS TO CHOOSE THE PERFECT DELIVERY/MONITORING SOLUTION FOR EACH BEARING POINT.

BY MIXING TRADITIONAL, MODULAR, AND DUAL SERIES COMPONENTS IN THE SAME LARGE SYSTEM, SYSTEM ENGINEERS CAN DELIVER SUPERIOR PERFORMANCE, MONITORED RELIABILITY, LOWER LIFETIME MAINTENANCE COST, AND FUTURE SYSTEM FLEXIBILITY, ALL AT THE LOWEST INSTALLED SYSTEM COST.



## THE LUBRICATION SCIENTIFICS *AIR-OIL* ADVANTAGE

INNOVATIVE LUBRICATION SYSTEMS FOR HEAVY INDUSTRY

THE USE OF A DUAL LINE AIR-OIL LUBRICATION SYSTEM CAN PROVIDE A NUMBER OF BENEFITS THAT POSITIVELY IMPACTS SUSTAINABILITY AND COST SUCH AS:

- ◆ INCREASED BEARING LIFE
- ◆ UP TO 90% REDUCTION IN LUBRICANT USAGE VERSES GREASE
- ◆ CONSTANT SUPPLY OF CLEAN OIL TO THE BEARING POINTS
- ◆ CONSTANT POSITIVE PRESSURE PREVENTS CONTAMINATION FROM ENTERING BEARING
- ◆ ELIMINATES GREASE RELATED HOUSING KEEPING COSTS
- ◆ ELIMINATES ENVIRONMENTAL COSTS FOR USED GREASE DISPOSAL

THE MODULAR SERIES DUAL LINE PRODUCT IS ENGINEERED TO BE **CONVERTED FROM GREASE TO AIR-OIL WITHOUT ABANDONING THE ORIGINAL INVESTMENT** IN THE MDL COMPONENTS.

TO CONVERT TO AIR-OIL, SIMPLY PURGE ALL THE GREASE FROM THE SYSTEM. INSTALL THE AIR INDUCTION MANIFOLDS BETWEEN THE MDL VALVE AND THE MDL SUB-PLATE AND ADJUST THE VALVE OUTPUTS TO THE REQUIRED AIR-OIL LUBRICATION AMOUNTS.

## TRADITIONAL STYLE DUAL LINE SERIES VALVES



THE *TRADITIONAL DUAL LINE* MODEL IS A REDESIGNED, RE-ENGINEERED TAKE ON THE EXISTING TRADITIONAL DUAL LINE THAT THE INDUSTRY IS ACCUSTOMED TO. THE TRADITIONAL DUAL LINE IS A ZERO LEAK UNIT FROM THE PISTON TO THE INDICATOR ASSEMBLY. THE LDL SERIES VALVE IS A BOLT ON REPLACEMENT FOR THE FARVAL DD50®, LINCOLN®, HELIOS®, VSG AND VSL®, SERIES VALVES. WHILE TRADITIONAL DUAL LINE LUBRICATION SYSTEMS EMPLOY COUNTLESS OPERATIONAL BENEFITS, THERE ARE DESIGN DRAWBACKS THAT ONLY OUR MODULAR DUAL LINE CAN ACCOMMODATE. TRADITIONAL DUAL LINE MODELS ARE ONE PIECE BLOCKS THAT CAN SERVICE UP TO 8 LUBE POINTS. BECAUSE THEY ARE ONE PIECE BLOCKS, WHEN A SINGLE LUBE POINT FAILS THE ENTIRE BLOCK WILL HAVE TO BE REPLACED. WHEN ADDING LABOR, TIME AND THE COST OF THE NEW BLOCK, THE RESULT COULD BE COSTLY. THE MODULAR DESIGN REMEDIES THIS BY HAVING MODULAR VALVES. WHEN A VALVE NEEDS REPLACING, ALL THAT IS REQUIRED IS THE REPLACEMENT OF THE INDIVIDUAL VALVE, NOT THE ENTIRE BLOCK. THIS SAVES TIME AND MONEY BY NOT HAVING TO DEVOTE MANPOWER TO REPLACE AN ENTIRE BLOCK OR REMOVE ANY LUBRICATION LINES. SIMPLY JUST SWAP OUT THE VALVE AND THE UNIT IS READY TO GO IN MINUTES. MODULAR DUAL LINES ARE SHOWCASED IN THIS BROCHURE ON PAGE 8.



**TRADITIONAL DUAL LINE**

**ORDERING INFORMATION & PART NUMBERS**

**CARBON AND STAINLESS STEEL NPTF DUAL LINE VALVES**

STANDARD WITH STAINLESS STEEL CAPS AND INDICATOR ASSEMBLIES

**100% BOLT ON REPLACEMENT FOR FARVAL DD50 SERIES VALVES**

MAY USE EXISTING TUBING AND FITTINGS

FOR DIMENSIONS AND MOUNTING INFORMATION SEE PAGES 20 & 21

STANDARD PACK: 1 EACH				
MAXIMUM OUTLETS	MOUNTING HOLE	ADJUSTABLE OUTPUT	PART NUMBER CARBON STEEL	PART NUMBER STAINLESS STEEL
2	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-52	SSLDL-52
4	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-54	SSLDL-54
6	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-56	SSLDL-56
8	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-58	SSLDL-58

**CARBON AND STAINLESS STEEL BSPP DUAL LINE VALVES**

STANDARD WITH STAINLESS STEEL CAPS AND INDICATOR ASSEMBLIES

**100% BOLT ON REPLACEMENT FOR LINCOLN, HELIOS, VSG & VSL SERIES VALVES**

MAY USE EXISTING TUBING AND FITTINGS

STANDARD PACK: 1 EACH				
MAXIMUM OUTLETS	MOUNTING HOLE	ADJUSTABLE OUTPUT	PART NUMBER CARBON STEEL	PART NUMBER STAINLESS STEEL
2	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-52H	SSLDL-52H
4	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-54H	SSLDL-54H
6	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-56H	SSLDL-56H
8	21/64"	.01—.30 CUBIC INCHES .16- 4.9 CC	LDL-58H	SSLDL-58H

## ACCESSORIES

### INDICATOR ASSEMBLY SHIELDS

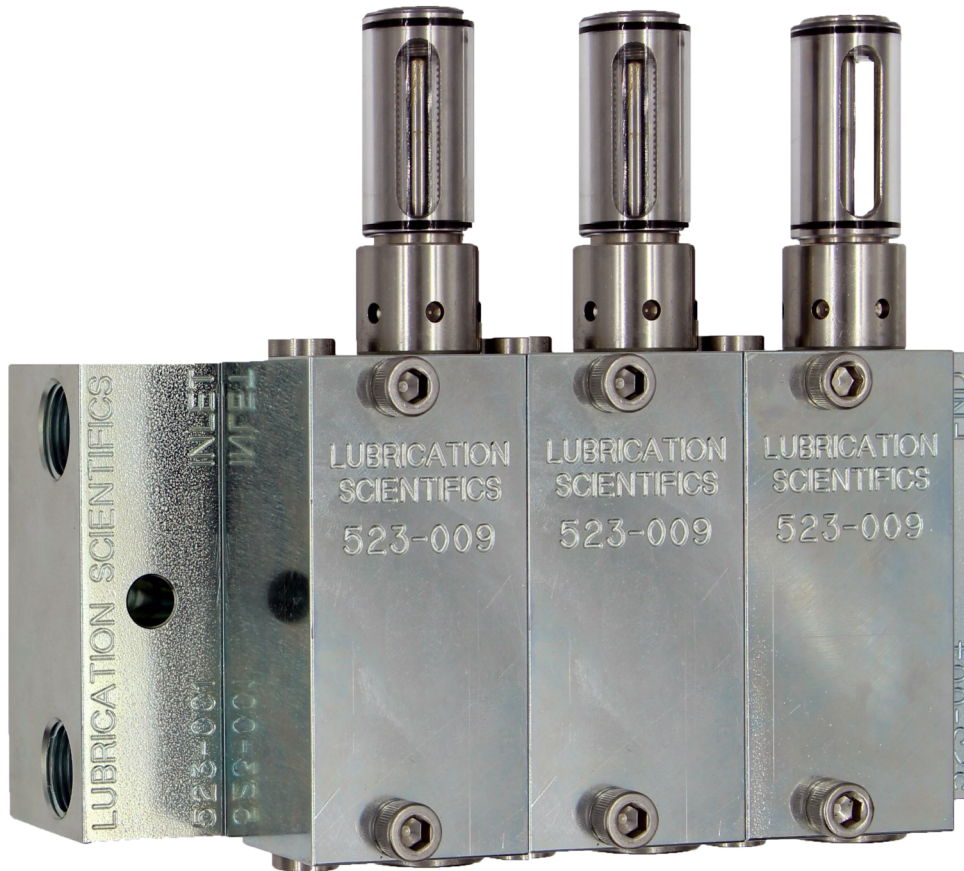
<b>STANDARD PACK: 5 EACH</b>	
<b>SHIELD CONSTRUCTION</b>	<b>PART NUMBER</b>
POLYCARBONATE	523-030P
316 STAINLESS STEEL	SS523-030P



### SYSTEM FEEDBACK—PROXIMITY SWITCH ASSEMBLIES

<b>STANDARD PACK: 1 EACH</b>		
DESCRIPTION	PART NUMBER	PART NUMBER
	303 STAINLESS CONNECTOR	316 STAINLESS CONNECTOR
MOUNTED PROXIMITY SWITCH ASSEMBLY W/ 12' INTEGRAL CABLE, SWITCH TYPE (PNP)	523-015	SS523-015
MOUNTED PROXIMITY SWITCH ASSEMBLY W/ 12' INTEGRAL CABLE, SWITCH TYPE (NPN)	523-016	SS523-016

## MODULAR SERIES DUAL LINE VALVE



THE *MODULAR DUAL LINE* IS UNLIKE ANY DUAL LINE ON THE MARKET DUE TO ITS MODULAR DESIGN. THE OUTPUT IS ADJUSTABLE AND CAN ACCOMMODATE UP TO 36, VALVES SERVICING UP TO 72 LUBE POINTS IN A GIVEN VALVE ASSEMBLY. EACH OUTPUT CAN SUPPLY A LUBE POINT WITH 0.1 TO 1.2 CUBIC INCHES PER CYCLE OF OIL OR GREASE.

THE MAIN FEATURE OF THE MDL IS EACH VALVE CAN BE REPLACED IN MINUTES WITHOUT NEEDING TO REMOVE ANY TUBING. THIS AFFORDS THE ABILITY TO ADD ON VALVES TO AN EXISTING ASSEMBLY AT ANY POINT IN TIME WITHOUT HAVING TO PURCHASE AN ENTIRE MANIFOLD BLOCK. A MODULAR DUAL LINE VALVE ASSEMBLY MEANS MINIMAL SYSTEM DOWNTIME DURING SERVICE AND VALVE REPLACEMENT.

THE MDL IS **THE ONLY HEAVY DUTY DUAL LINE VALVE ON THE MARKET WITH A MODULAR DESIGN** MAKING THIS VALVE VASTLY SUPERIOR TO THE TRADITIONAL DUAL LINE MODELS.

**MODULAR DUAL LINE**

**ORDERING INFORMATION & PART NUMBERS**

**REQUIREMENTS FOR BUILDING AND ORDERING A MODULAR DUAL LINE**

FOR DIMENSIONS AND MOUNTING INFORMATION SEE PAGE 22

**STEP ONE:** PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP TWO:** CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS “VALVES” NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)

**STEP THREE:** BRIDGE SECTION (1 REQUIRED FOR VALVE ASSEMBLIES OF MORE THAN 4 WORKING SECTIONS)

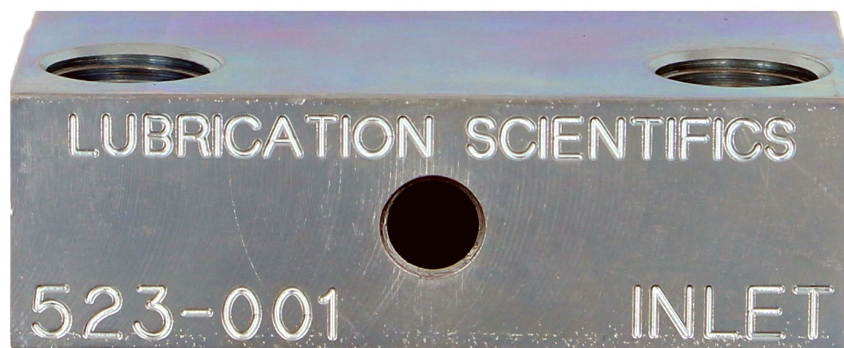
**STEP FOUR:** PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP FIVE:** CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

**STEP ONE**

PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

STANDARD PACK: 1 EACH			
INLET DESCRIPTION	MOUNTING HOLE DIM.	PART NUMBER CARBON STEEL	PART NUMBER 316 STAINLESS STEEL
INLET, 3/8-18 NPTF	21/64"	523-001	SS523-001
INLET, 3/8-18 BSPP	21/64"	523-001M	SS523-001M



## ORDERING INFORMATION & PART NUMBERS

### REQUIREMENTS FOR BUILDING AND ORDERING A MODULAR DUAL LINE

**STEP ONE:** PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP TWO:** CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS “VALVES” NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)

**STEP THREE:** BRIDGE SECTION (1 REQUIRED FOR VALVE ASSEMBLIES OF MORE THAN 4 WORKING SECTIONS)

**STEP FOUR:** PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP FIVE:** CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

### STEP TWO

CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS “VALVES” NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)



STANDARD PACK: 1 EACH			
INTERMEDIATE DESCRIPTION	OUTLET PORT CONNECTION	PART NUMBER	PART NUMBER
		CARBON STEEL	316 STAINLESS STEEL
INTERMEDIATE “A” 1/4-18 NPTF	1/4-18 NPTF	523-002A	SS523-002A
INTERMEDIATE “B” 1/4-18 NPTF	1/4-18 NPTF	523-002B	SS523-002B
INTERMEDIATE “A” 1/4-19 BSPP	1/4-19 BSPP	523-002A-M	SS523-002A-M
INTERMEDIATE “B” 1/4-19 BSPP	1/4-19 BSPP	523-002B-M	SS523-002B-M

**ORDERING NOTE REGARDING “A” & “B” INTERMEDIATE SECTIONS:**

FOR MORE THAN ONE VALVE SECTION, YOU MUST ALTERNATE A’S & B’S FOR ASSEMBLY PURPOSES. SEE BELOW.

3 VALVE SECTION EXAMPLE: INLET | A | B | A | END OR INLET | B | A | B | END

4 VALVE SECTION EXAMPLE: INLET | A | B | A | B | END OR INLET | B | A | B | A | END

## ORDERING INFORMATION & PART NUMBERS

### REQUIREMENTS FOR BUILDING AND ORDERING A MODULAR DUAL LINE

**STEP ONE:** PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP TWO:** CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS “VALVES” NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)

**STEP THREE:** BRIDGE SECTION (1 REQUIRED FOR VALVE ASSEMBLIES OF MORE THAN 4 WORKING SECTIONS)

**STEP FOUR:** PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP FIVE:** CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

### STEP THREE

BRIDGE SECTION (1 REQUIRED AFTER EVERY 4 WORKING SECTIONS)

STANDARD PACK: 1 EACH			
BRIDGE DESCRIPTION	MOUNTING HOLE DIM.	PART NUMBER	PART NUMBER
		CARBON STEEL	316 STAINLESS STEEL
BRIDGE SECTION—ALL	2 1/64"	523-003	SS523-003

EXAMPLE: IF THERE ARE 8 VALVE SECTIONS, 1 BRIDGE IS NEEDED. 12 VALVE SECTIONS, 2 BRIDGE SECTIONS NEEDED.

## ORDERING INFORMATION & PART NUMBERS

### REQUIREMENTS FOR BUILDING AND ORDERING A MODULAR DUAL LINE

**STEP ONE:** PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP TWO:** CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS "VALVES" NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)

**STEP THREE:** BRIDGE SECTION (1 REQUIRED FOR VALVE ASSEMBLIES OF MORE THAN 4 WORKING SECTIONS)

**STEP FOUR:** PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP FIVE:** CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

### STEP FOUR

PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

STANDARD PACK: 1 EACH			
END DESCRIPTION	MOUNTING HOLE DIM.	PART NUMBER	PART NUMBER
END, 3/8-18 NPTF	21/64"	523-004	SS523-004
END, 3/8-18 BSPP	21/64"	523-004M	SS523-004M



## ORDERING INFORMATION & PART NUMBERS

### REQUIREMENTS FOR BUILDING AND ORDERING A MODULAR DUAL LINE

**STEP ONE:** PICK AN INLET SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP TWO:** CHOOSE THE NUMBER OF INTERMEDIATE SECTIONS “VALVES” NEEDED. (MINIMUM OF 1 REQUIRED PER SUB-PLATE ASSEMBLY)

**STEP THREE:** BRIDGE SECTION (1 REQUIRED FOR VALVE ASSEMBLIES OF MORE THAN 4 WORKING SECTIONS)

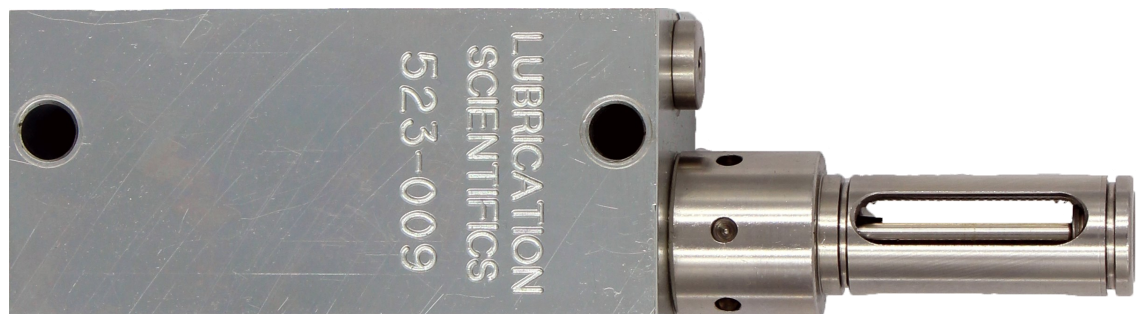
**STEP FOUR:** PICK AN END SECTION (1 REQUIRED PER VALVE ASSEMBLY)

**STEP FIVE:** CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

### STEP FIVE

CHOOSE NUMBER OF VALVE SECTIONS (1 REQUIRED FOR EACH WORKING INTERMEDIATE)

STANDARD PACK: 1 EACH			
INLET DESCRIPTION	ADJUSTABLE OUTPUT	PART NUMBER	PART NUMBER
		CARBON STEEL	316 STAINLESS STEEL
VALVE SECTION	.1 TO 1.2 CUBIC INCHES 1.63 TO 4.91 CC	523-009	SS523-009
INDICATOR HOUSING SHIELD	N/A	523-030P	SS523-030P
INDICATOR HOUSING SHIELD	N/A	523-030	SS523-030





## DUAL SERIES DIVIDER VALVES



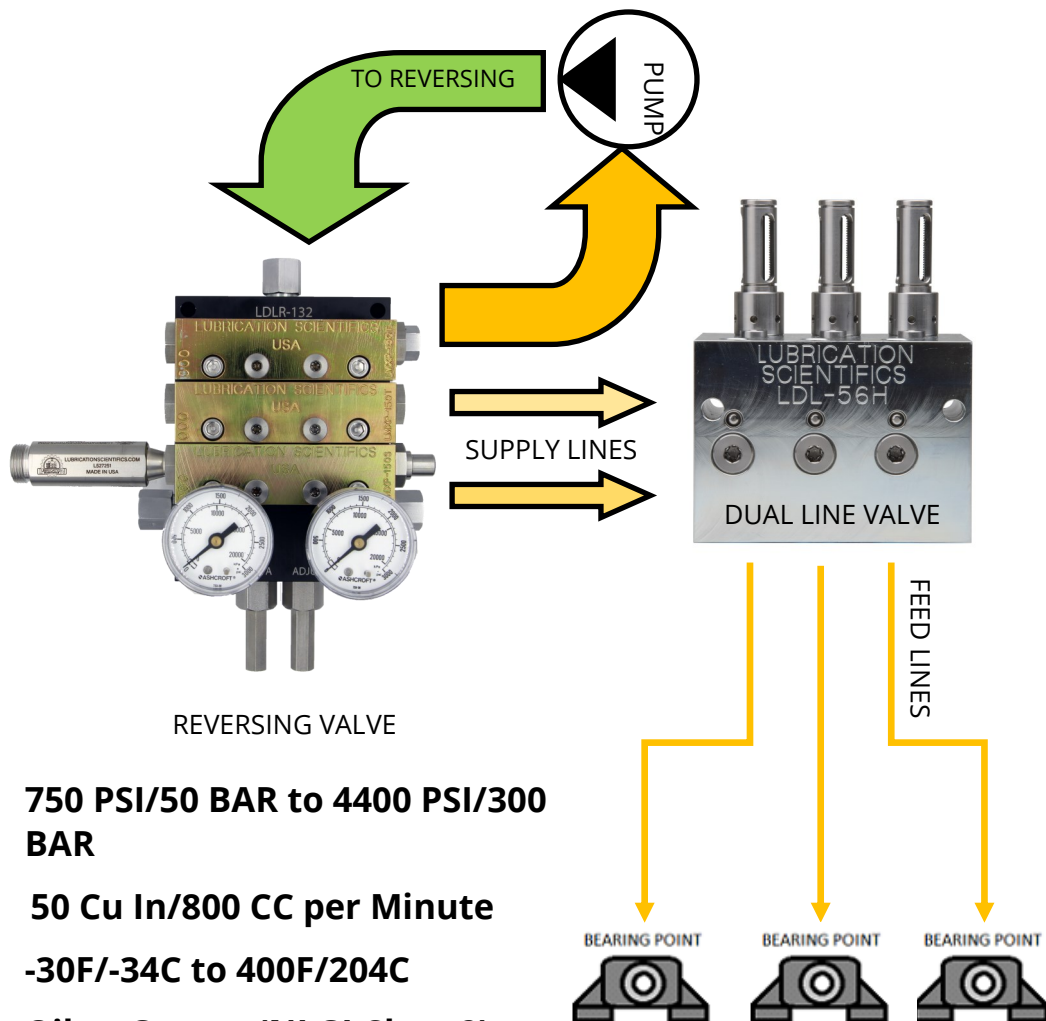
**THE LUBRICATION SCIENTIFICS, LLC EXCLUSIVE DUAL SERIES INLETS** CAN BE INSTALLED IN EITHER NEW OR EXISTING DUAL LINE SYSTEMS. THESE DUAL SERIES INLETS ARE ENGINEERED TO WORK WITH LUBRICATION SCIENTIFICS, LLC STANDARD LSP OR LMXP SERIES PROGRESSIVE COMPONENTS. EACH DUAL SERIES INLET CAN HAVE UP TO 18 OUTLETS, WHICH CAN BE CONNECTED DIRECTLY TO LUBE POINTS OR TO SERIES PROGRESSIVE SECONDARY VALVES. **THE FIRST SECTION, EVEN THOUGH IT IS A STANDARD "T" SECTION, IS USED AS A PILOT AND DISPENSES NO LUBRICANT.** WHEN USING SECONDARY VALVES, UP TO 360 CRITICAL LUBE POINTS CAN BE MONITORED FOR LESS THAN \$1,000.00.

IT IS IMPORTANT TO NOTE, A FAULT IN A SERIES PROGRESSIVE ZONE, SUPPLIED BY A DUAL SERIES INLET, WILL NOT AFFECT THE OPERATION OF THE REST OF THE DUAL LINE LUBRICATION SYSTEM.

- ◆ OUTPUT RANGES FROM .005 TO .300 CUBIC INCHES/CYCLE.
- ◆ NEVER DISCONNECT EITHER SUPPLY OR DISCHARGE LINES TO CHANGE OUT A NON-WORKING SECTION.
- ◆ COST SAVING DESIGN, REPLACE ONLY THE NON-WORKING PISTON SECTION.
- ◆ REPLACE A NON-WORKING PISTON SECTION IN 2 MINUTES, INSTEAD OF 2 HOURS.
- ◆ DS INLET DESIGN ALLOWS EASY MONITORING OF A LARGE NUMBER OF CRITICAL POINTS.
- ◆ INSTALLING SINGLING AND CROSS-PORTING PLATES INSURE ULTIMATE FLEXIBILITY AND VISIBILITY.
- ◆ AVAILABLE FROM STOCK IN CARBON STEEL & 316 STAINLESS STEEL.

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
LSP INLET	DLS-LSP-INL
LMXP INLET	132-11035

REVERSING VALVE ILLUSTRATION & ORDERING INFORMATION



REVERSING VALVE

- Adjustment Range:** 750 PSI/50 BAR to 4400 PSI/300 BAR
- Maximum Flow Rate:** 50 Cu In/800 CC per Minute
- Temperature Range:** -30F/-34C to 400F/204C
- Useable Lubricants:** Oil to Grease (NLGI Class 2)
- Construction:** 2024 AL, CRS Steel, SS Steel & Viton Seals

THE **LDLR-132-000**, REVERSING VALVE ASSEMBLY, SHIFTS THE OUTPUT, FROM ONE SUPPLY TO THE OTHER, VIA INTERNAL RELIEF VALVES, WHICH ARE CONNECTED TO A RETURN PATH TO THE RESERVOIR.

THE **LDLR-132-000**, REVERSING VALVE ASSEMBLY, IS EASILY ADJUSTED, BY USING A 3/16 ALLEN WRENCH ON THE SPECIFIC RELIEF VALVE ASSEMBLY, TIED TO EACH LINE. THE **LDLR-132-000** CAN BE ADJUSTED TO SHIFT AT ANY PRESSURE VALUE BETWEEN 500 AND 3500 PSI. THE UNIQUE DESIGN INSURES THAT BOTH LINES WILL SHIFT AT PRECISELY THE SAME PRESSURE.

UNLIKE ANY OTHER REVERSING VALVE, **THE LDLR-132-000 CAN BE REBUILT IN THE FIELD.**

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
REVERSING VALVE ASSEMBLY	LDLR-132-000

## ORDERING INFORMATION & PART NUMBERS

### ACCESSORIES

#### SINGLING & CROSSPORTING KITS

STANDARD PACK: 1 EACH			
DESCRIPTION	MAX SINGLE OUTPUT	PART NUMBER CARBON STEEL	PART NUMBER STAINLESS STEEL
<a href="#">SINGLING KIT</a> —1 VALVE TWIN OUTPUT TO A SINGLE OUTPUT (PLUG 1 OUTLET)	.3 CUBIC INCH 4.91 CC	523-005	SS523-005
<a href="#">CROSSPORT KIT</a> —2 VALVES TWIN OUTPUT TO A SINGLE OUTPUT (PLUG 3 OUTLETS)	.6 CUBIC INCH 9.83	523-006	SS523-006
<a href="#">CROSSPORT KIT</a> —3 VALVES TWIN OUTPUT TO A SINGLE OUTPUT (PLUG 5 OUTLETS)	.9 CUBIC INCH 14.74	523-007	SS523-007
<a href="#">CROSSPORT KIT</a> —4 VALVES TWIN OUTPUT TO A SINGLE OUTPUT (PLUG 7 OUTLETS)	1.2 CUBIC INCH 19.66	523-008	SS523-008

#### SYSTEM FEEDBACK—PROXIMITY SWITCH ASSEMBLIES

STANDARD PACK: 1 EACH		
DESCRIPTION	PART NUMBER 303 STAINLESS CONNECTOR	PART NUMBER 316 STAINLESS CONNECTOR
MOUNTED PROXIMITY SWITCH ASSEMBLY W/ 12' INTEGRAL CABLE, SWITCH TYPE (PNP)	523-015	SS523-015
MOUNTED PROXIMITY SWITCH ASSEMBLY W/ 12' INTEGRAL CABLE, SWITCH TYPE (NPN)	523-016	SS523-016

## ORDERING INFORMATION & PART NUMBERS

### O-RING HARDWARE KITS

STANDARD PACK: 1 KIT EACH	
O-RING HARDWARE LOCATION DESCRIPTION	PART NUMBER CARBON STEEL
ALL INLETS	523-021
ALL INTERMEDIATE SECTIONS	523-022
ALL BRIDGE SECTIONS	523-023
ALL END SECTIONS	523-024
ALL SINGLING PLATES	523-025
ALL 2 VALVE CROSSPORT KIT	523-026
ALL 3 VALVE CROSSPORT KIT	523-027
ALL 4 VALVE CROSSPORT KIT	523-028
ALL VALVE SECTIONS	523-029

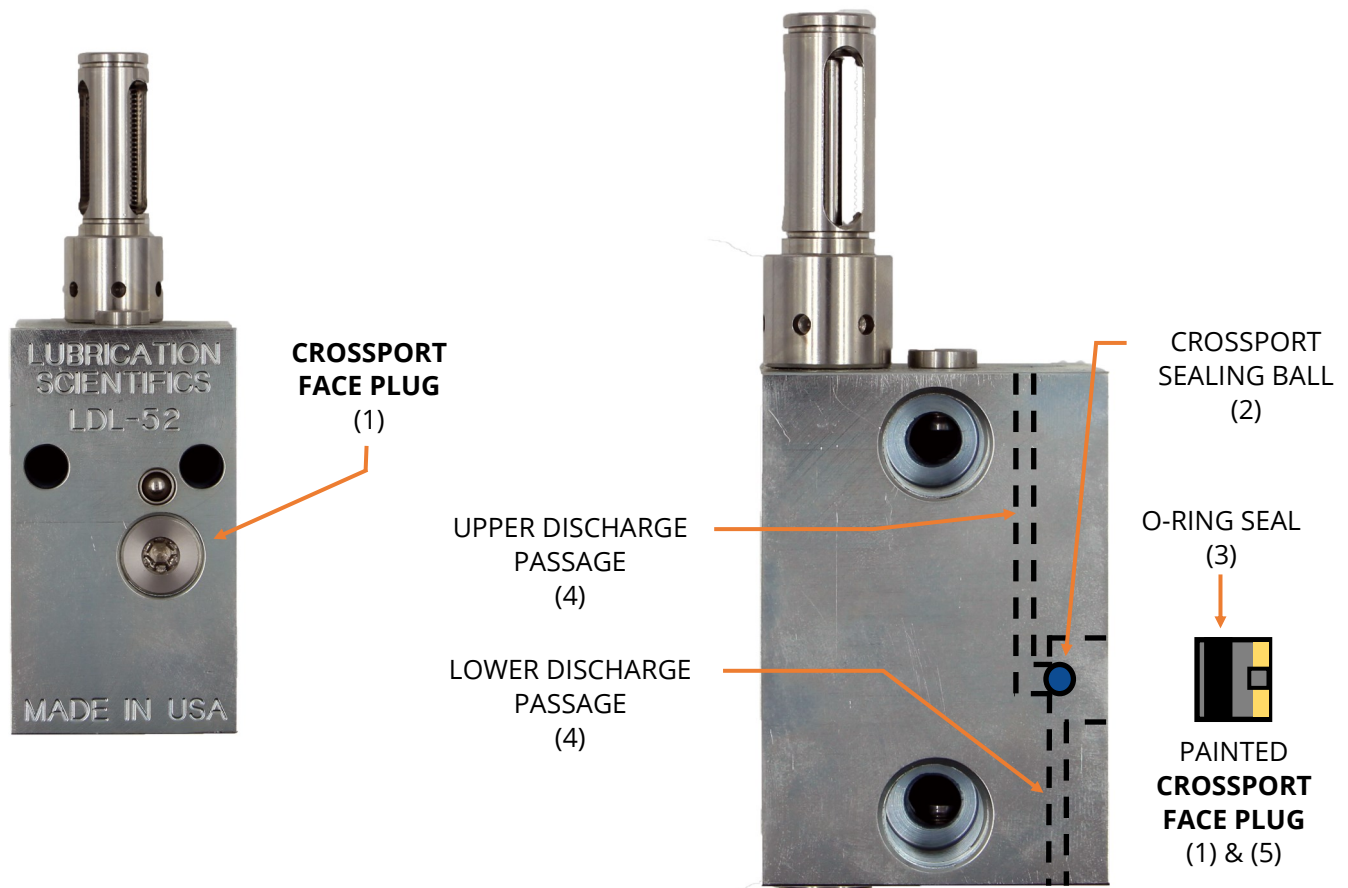
## SINGLING INSTRUCTIONS FOR LDL SERIES

### TO SINGLE:

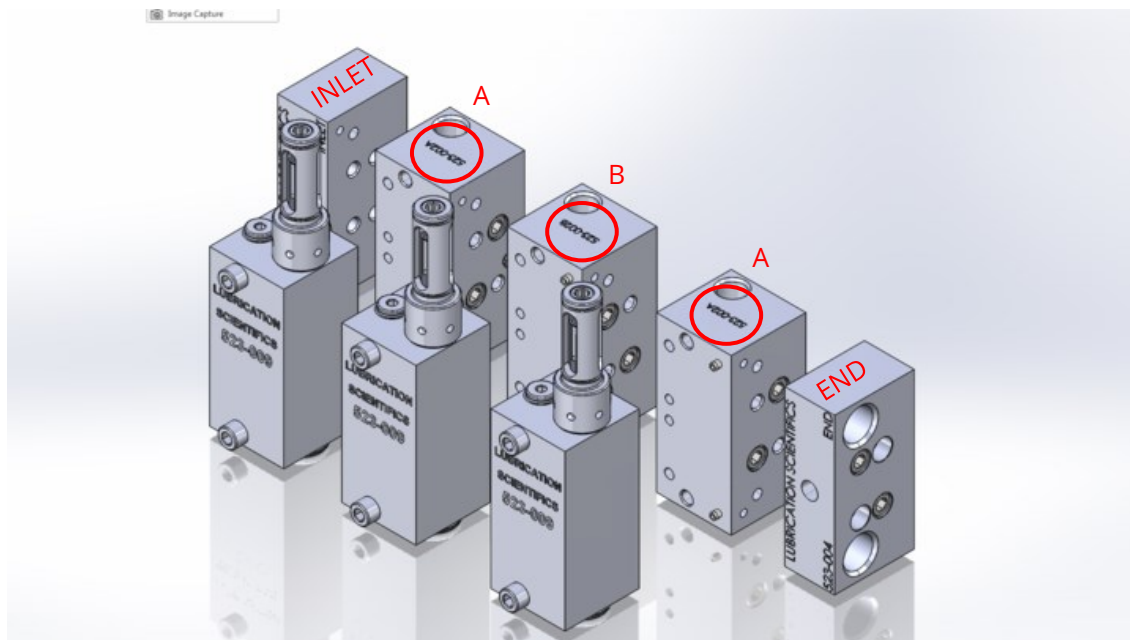
- 1) REMOVE THE CROSSPORT FACE PLUG
- 2) REMOVE CROSSPORT SEALING BALL (STEEL BALL)
- 3) APPLY OIL OR GREASE TO THE CROSSPORT FACE PLUG SEAL AND CAREFULLY INSTALL IN THE THREADED PORT
- 4) PLUG EITHER THE UPPER OR LOWER DISCHARGE PORT USING 1/4 NPTF OR 1/4-19 BSPP DEPENDING ON MODEL
- 5) EITHER PAINT OR MECHANICALLY MARK THE CROSSPORT FACE PLUG TO INDICATE THAT THIS PISTON IS SINGLED (CROSSPORTED)

NOTE: YOU MAY ORDER SPECIAL SINGLING CROSSPORT FACE PLUGS, WHICH ARE YELLOW PLATED TO INDICATE SINGLING OF THE PORT INTO WHICH THEY ARE INSTALLED

FOR SINGLING KITS, [SEE PAGE 16.](#)



## LUBRICATION SCIENTIFICS' MDL ASSEMBLY



**SEQUENCING** —> Inlet > A intermediate > B intermediate > A intermediate > End  
 Or, Inlet > B intermediate > A intermediate > B intermediate > End

**Step 1:** Start with inlet block and align intermediate A or intermediate B  
 Torque cap screws with 8-9 ft/lb

**Step 2:** Next intermediate must alternate.

EXAMPLE: first intermediate is engraved 523-002B-M, the second intermediate must read 523-002A-M

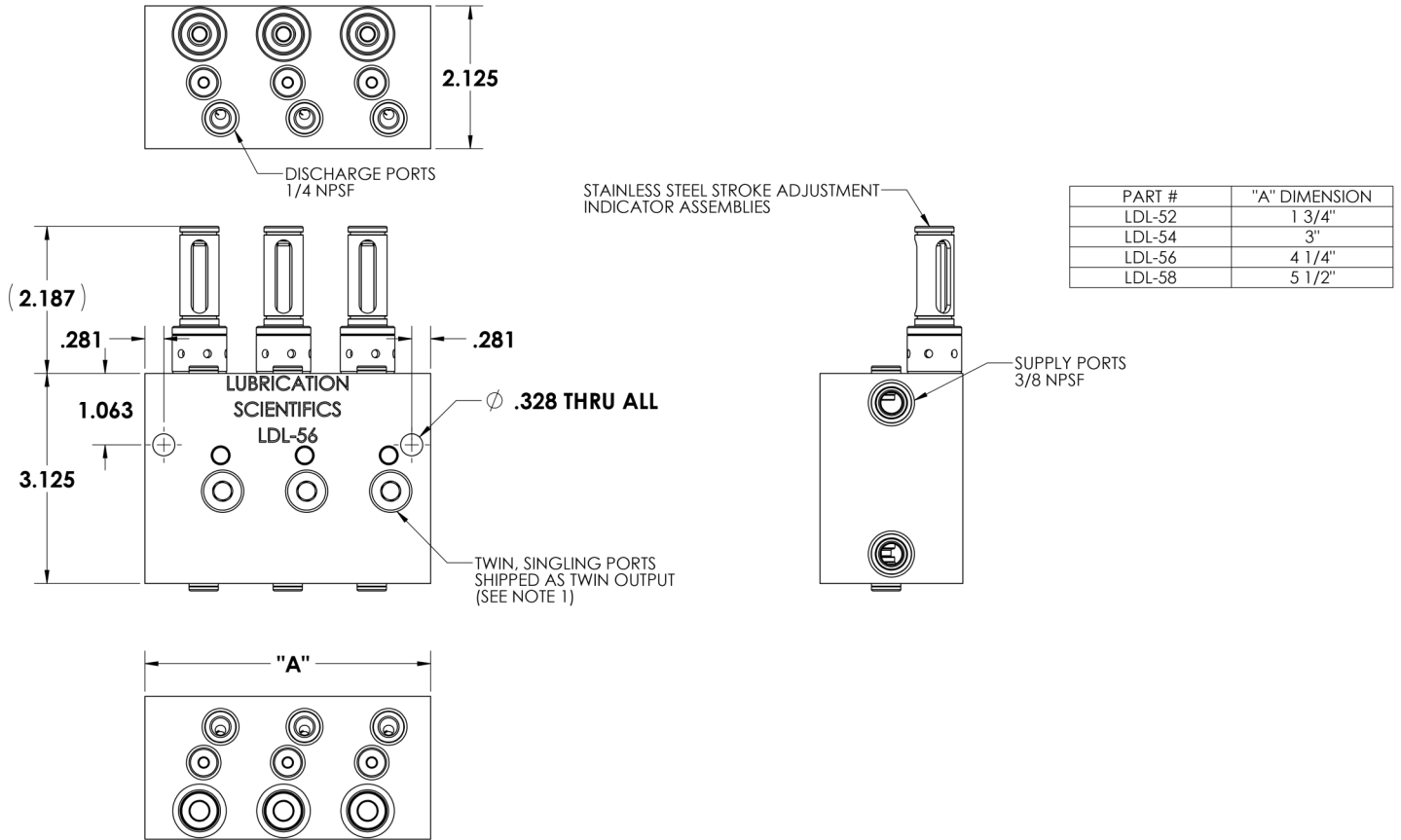
Torque cap screws with 8-9 ft/lb

**Step 3:** Repeat step 2 alternating from previous intermediate.

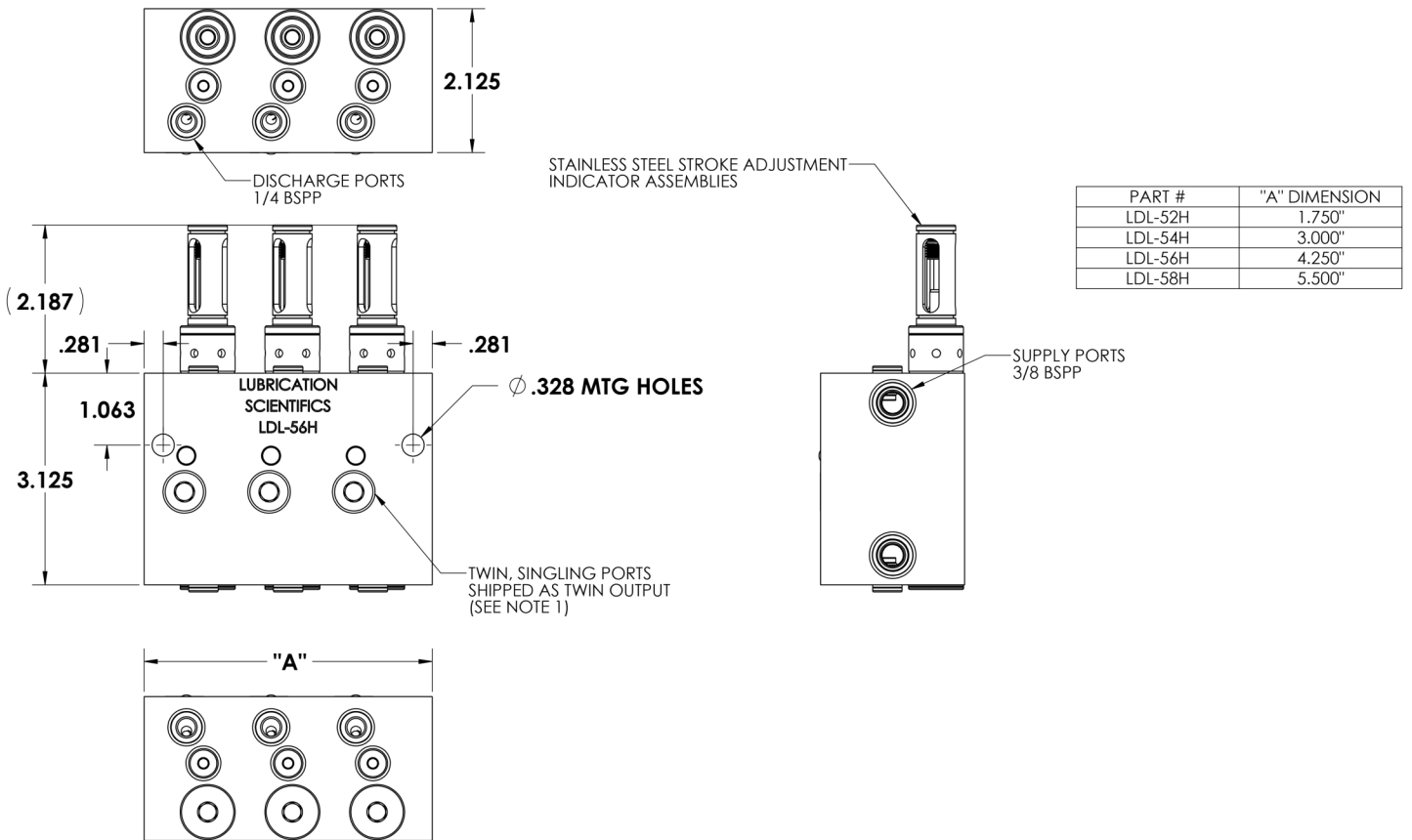
**Step 4:** Align "END" block and Torque cap screws with 8-9 ft/lb

**Step 5:** Align valve sections to intermediates and Torque cap screws with 8-9 ft/lb

TRADITIONAL DUAL LINE DIMENSIONS AND MOUNTING INFORMATION

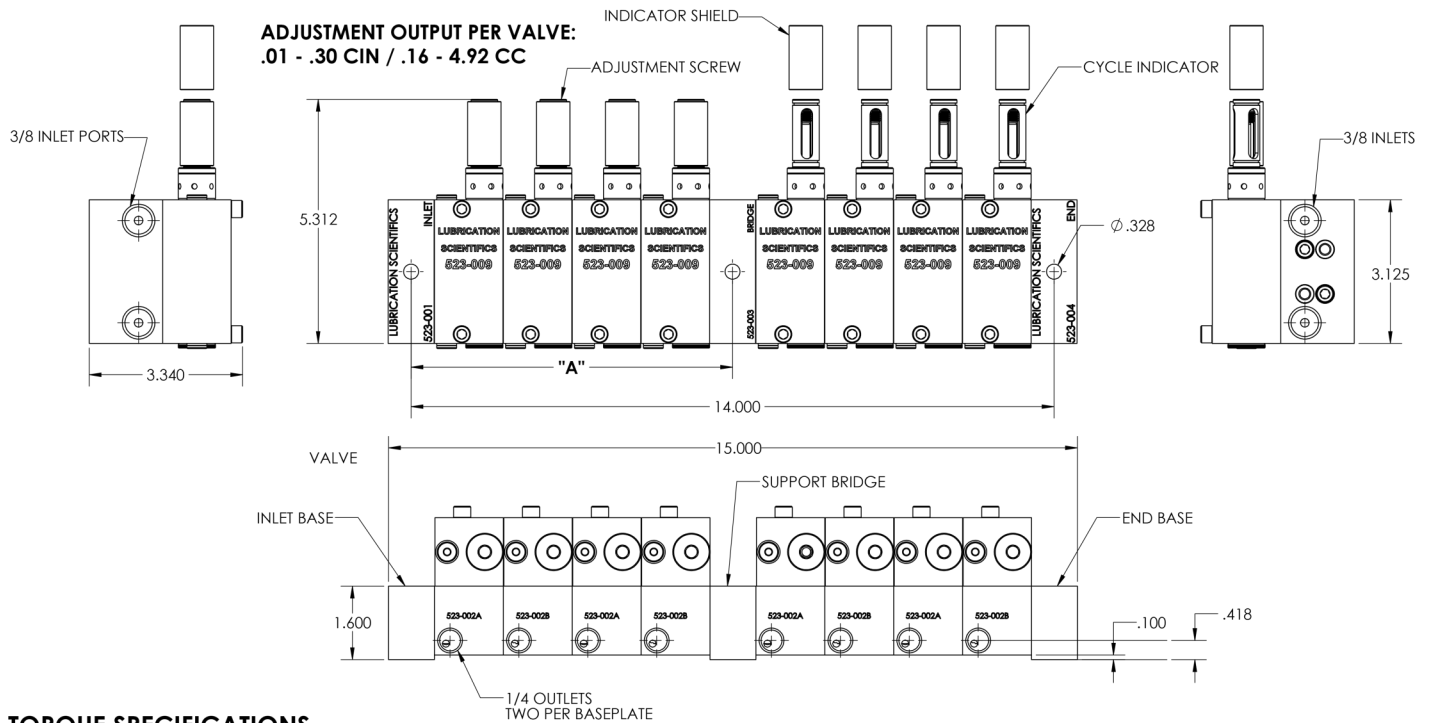


## HELIO DUAL LINE DIMENSIONS AND MOUNTING INFORMATION





MODULAR DUAL LINE DIMENSIONS AND MOUNTING INFORMATION



**TORQUE SPECIFICATIONS**

- VALVE SECTION MOUNTING SCREW 8-9 FT. LBS.
- ENCLOSURE PLUGS - 6-8 FT. LBS.

SECTIONS	CENTER TO CENTER DIM "A"
1 SECTION	2.500"
2 SECTION	4.000"
3 SECTION	5.500"
4 SECTION	7.000"

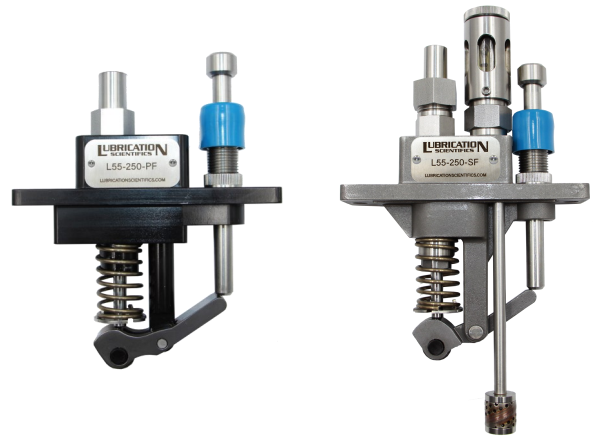
# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



## BOX LUBRICATION PUMPS

DROP IN REPLACEMENTS—PRESSURE FED—SUCTION FED



## LUBRICATION BOX PUMPS

### PRODUCT DESCRIPTION

303 STAINLESS STEEL CONSTRUCTION AND STEEL COMPONENTS

1/4" & 3/8" PLUNGER SIZES AVAILABLE

WEATHER PROOF, CORROSION RESISTANT

HARDENED STEEL ROLLER ROCKER ARM FOR HIGH PRESSURE APPLICATIONS

PUMP MODELS CAN BE CONFIGURED FOR EITHER SUCTION PUMP OR GRAVITY FED OPERATION

PUMP ASSEMBLY RETROFITS ARE COMPATIBLE WITH MOST LUBE BOXES, SEE FULL LIST FOR DETAILS

USED FOR OIL APPLICATIONS

### BENEFITS & FEATURES

ONE PIECE 303 STAINLESS STEEL BODY

STEEL PUMP HARDWARE & COMPONENTS FOR HIGH PRESSURE APPLICATIONS

DIRECT REPLACEMENT & RETROFIT FOR MANY LUBE BOXES

GRAVITY FED & SUCTION PUMPS AVAILABLE

## READY FOR IMMEDIATE SHIPMENT

MADE IN

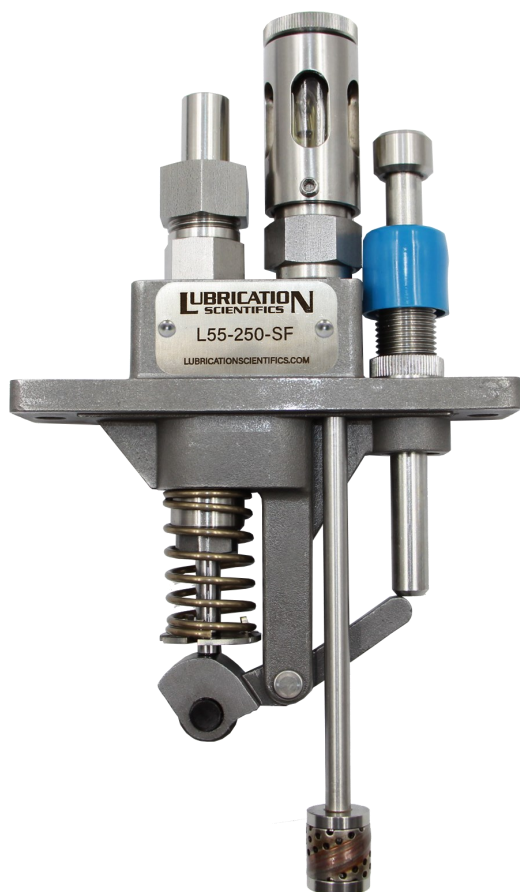


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ORDERING INFORMATION & PART NUMBERS

PUMPS, BOXES, GASKETS, & SEALS

STANDARD PACK: 1 EACH			
PRODUCT DESCRIPTION	MAX DISPLACEMENT PER STROKE	PRESSURE (PSI/ BAR)	PART NUMBER
3/16" M55, SUCTION FEED	.010 CU.IN .163 CC	7500 / 517	L55-187-SF
1/4" M55, SUCTION FEED	.018 CU. IN. .294 CC	6500 / 448	L55-250-SF
3/8" M55, SUCTION FEED	.041 CU.IN. .671 CC	3500 / 241	L55-375-SF
3/16" M55, PRESSURE FEED	.010 CU.IN .163 CC	7500 / 517	L55-187-PF
1/4" M55, PRESSURE FEED	.018 CU. IN. .294 CC	6500 / 448	L55-250-PF
3/8" M55, PRESSURE FEED	.041 CU. IN. .671 CC	3500 / 241	L55-375-PF
GASKET, BOX LUBRICATOR BOX	N/A	N/A	1225-027
BOX PUMP VITON UMBRELLA SEAL VSS-302	N/A	N/A	1225-017



SPECIFICATIONS	
LUBRICATION	MINERAL BASED OR SYNTHETIC OIL
OIL VISCOSITY	90 SUS—8000 SUS
TEMPERATURE	-20—190 DEGREES F
OPERATING SPEED	4—30 RPM

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



## LMPP PUMPING SOLUTIONS

PNEUMATIC—HYDRAULIC—OIL OR GREASE APPLICATION



PNEUMATIC, HYDRAULIC, & ECONOMY PUMPS



## PRODUCT DESCRIPTION

PUMPS AVAILABLE IN PNEUMATIC OR HYDRAULIC MECHANICAL OPERATION

PRESSURES RANGE FROM 40-150 PSI  
OR 200-2000 PSI

ADJUSTABLE OUTPUTS

CYCLE RATES RANGE FROM 20 TO 100 CYCLES PER  
MINUTE

INTERMEDIATE MANIFOLD REQUIRED FOR NON  
ECONOMY PNEUMATIC POWERED PUMPS

POLYCARBONATE TUBES FOR LUBRICATION RESERVOIRS

## BENEFITS & FEATURES

ADJUSTABLE OUTPUT RANGING FROM .01 TO .12  
CUBIC INCHES OF LUBRICANT

SINGLE ACTION AND DOUBLE ACTION

STAINLESS STEEL HARDWARE

ACCOMMODATES OIL OR GREASE APPLICATIONS

6, 12, & 20 PINT OIL RESERVOIRS AVAILABLE

6, 12 & 20 LBS GREASE TUBE AVAILABLE

PUMP PACKAGES AVAILABLE WITH LOW LEVEL, &  
HIGH PRESSURE SWITCH OPTIONS

## READY FOR IMMEDIATE SHIPMENT

MADE IN



**ORDERING INFORMATION & PART NUMBERS**

**PNEUMATIC POWERED PUMPS**

PRESSURE RANGE: 40-150 PSI

ADJUSTABLE OUTPUT

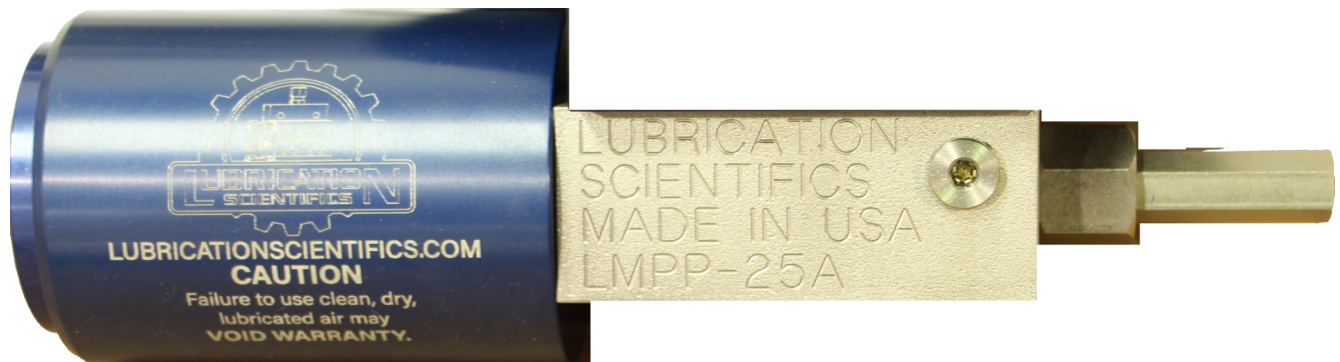
VITON SEALS

STAINLESS STEEL ADJUSTMENT ASSEMBLY

STAINLESS STEEL HARDWARE

**INTERMEDIATE MANIFOLD REQUIRED**

STANDARD PACK: 1 EACH						
PUMP SPECIFICATIONS				PART NUMBERS		
MODEL	RATIO & ACTION	CYCLES PER MIN	OUTPUT (CU IN/ CC)	CARBON STEEL	303 STAINLESS	316 STAINLESS
05	30:1 S/A AIR	65	.01-.03 .16-.49	LP-05A1	LP-05A1-303	LP-05A1-316
25	30:1 S/A AIR	25	.03-.12 .49-1.96	LP-25A1	LP-25A1-303	LP-25A1-316
50	30:1 S/A AIR	20	.06-.250 1.96-4.09	LP-50A1	LP-50A1-303	LP-50A1-316
05	30:1 D/A AIR	100	.01-.03 .16-.49	LP-05A2	LP-05A2-303	LP-05A2-316
25	30:1 D/A AIR	100	.03-.12 .49-1.96	LP-25A2	LP-25A2-303	LP-25A2-316
50	30:1 D/A AIR	60	.06-.250 1.96-4.09	LP-50A2	LP-50A2-303	LP-50A2-316



**ORDERING INFORMATION & PART NUMBERS**

**HYDRAULIC POWERED PUMPS**

PRESSURE RANGE: 200-2000 PSI

ADJUSTABLE OUTPUT

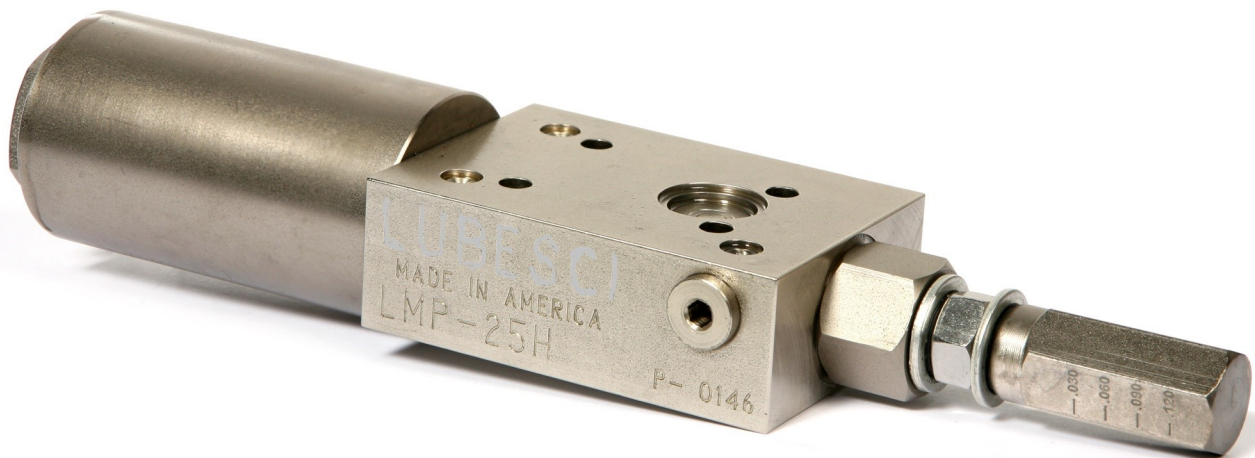
VITON SEALS

STAINLESS STEEL ADJUSTMENT ASSEMBLY

STAINLESS STEEL HARDWARE

**INTERMEDIATE MANIFOLD REQUIRED**

STANDARD PACK: 1 EACH						
PUMP SPECIFICATIONS				PART NUMBERS		
MODEL	RATIO & ACTION	CYCLES PER MIN	OUTPUT (CU IN / CC)	CARBON STEEL	303 STAINLESS	316 STAINLESS
05	5.5:1 D/A HYD	100	.01-.03 .16-.49	LP-05H2	LP-05H2-303	LP-05H2-316
25	5.5:1 D/A HYD	50	.03-.12 .49-1.96	LP-25H2	LP-25H2-303	LP-25H2-316





**ORDERING INFORMATION & PART NUMBERS**

**ECONOMY PNEUMATIC POWERED PUMP**

PRESSURE RANGE: 40-150 PSI

VITON SEALS

STAINLESS STEEL ADJUSTMENT ASSEMBLY

STAINLESS STEEL HARDWARE

**NO INTERMEDIATE MANIFOLD REQUIRED**

STANDARD PACK: 1 EACH						
PUMP SPECIFICATIONS				PART NUMBERS		
MODEL	RATIO & ACTION	CYCLES PER MIN	OUTPUT (CU IN/ CC STROKE)	CARBON STEEL	303 STAINLESS	316 STAINLESS
ECONOMY	20:1 S/A AIR	30	.03 / .49	LP-ES1	LP-ES1-303	LP-ES1-316

**ORDERING INFORMATION & PART NUMBERS**

**INTERMEDIATE, PUMP TO RESERVOIR MANIFOLD ASSEMBLY**

INCLUDES: MANIFOLD GAGE, CHECK FILLED FITTING, OUTLET CHECK, AND 1750 PSI BLOW-OUT DISK

STANDARD PACK: 1 EACH			
FOR PUMP MODEL	CARBON STEEL	303 STAINLESS	316 STAINLESS
ALL RESERVOIR TO PUMP	LM-01	N/A	LM-01-316
ALL REMOTE (WALL) MOUNT	LM-01RM	N/A	LM-01RM-316
AIR FLOW RESTRICTOR—PROTECTS PUMP FROM SURGES	N/A	LP-FR01	LP-FR01-316

STANDARD PACK: 1 EACH	
RESERVOIR SIZE	CAST ALUMINUM
6LB GREASE   8.5" TUBE	LR-06-G
12LB GREASE   13" TUBE	LR-12-G
20LB GREASE   20" TUBE	LR-20-G

**GREASE RESERVOIRS**

- POLYCARBONATE TUBES
- POWDER COATED TOPS & BASES
- STAINLESS STEEL TIE RODS
- FILL FITTINGS INCLUDED

**OIL RESERVOIRS**

- POLYCARBONATE TUBES
- POWDER COATED TOPS & BASES
- STAINLESS STEEL TIE RODS
- OIL FIL STRAINERS

STANDARD PACK: 1 EACH	
RESERVOIR SIZE	CAST ALUMINUM
6 PINT OIL   8.5" TUBE HEIGHT	LR-06-O
12 PINT OIL   13" TUBE HEIGHT	LR-12-O
20 PINT OIL   20" TUBE HEIGHT	LR-20-O

## ORDERING INFORMATION & PART NUMBERS

### LOW LEVEL SWITCHES

FOR GREASE AND OIL

RESERVOIR CAPS ALREADY MACHINED FOR LOW LEVEL SWITCHES

STANDARD PACK: 1 EACH	
RESERVOIR SIZE	PART NUMBER
ALL CYLINDRICAL—6, 12, & 20 POUND GREASE	LP-LLG
ALL CYLINDRICAL—6 PINT OIL	LP-LLO-06
ALL CYLINDRICAL—12 PINT OIL	LP-LLO-12
ALL CYLINDRICAL—20 PINT OIL	LP-LLO-20

### HIGH PRESSURE SWITCHES

FOR GREASE AND OIL

STANDARD PACK: 1 EACH	
RESERVOIR SIZE & TYPE	PART NUMBER
INTERMEDIATE MANIFOLD MOUNT ALL CYLINDRICAL—6, 12, & 20 POUND GREASE & OIL—5 AMP	LP-HPS-MM
RESERVOIR MOUNT—COMPLETE KIT ALL CYLINDRICAL—6, 12, & 20 POUND GREASE & OIL—15 AMP	LP-HPS-RM

## ORDERING INFORMATION & PART NUMBERS

### PNEUMATIC/HYDRAULIC/RESERVOIR REPAIR PARTS

PUMP REPAIR KITS, ALL PNEUMATIC, HYDRAULIC, & ECONOMY

STANDARD PACK: 1 KIT		
PUMP MODEL		PART NUMBERS
MODEL	RATIO & ACTION	FOR CRS/303 SS/316 SS
05	30:1 S/A AIR	LP-05A1-RK
25	30:1 S/A AIR	LP-25A1-RK
50	30:1 S/A AIR	LP-50A1-RK
05	30:1 D/A AIR	LP-05A2-RK
25	30:1 D/A AIR	LP-25A2-RK
50	30:1 D/A AIR	LP-50A2-RK
05	5.5:1 D/A HDY	LP-05H2-RK
25	5.5:1 D/A HDY	LP-25H2-RK
ECONOMY	20:1 S/A AIR	LP-ES1-RK

### REPLACEMENT RESERVOIR TUBE WITH LOWER SEAL

POLYCARBONATE CONSTRUCTION

STANDARD PACK: 1 KIT	
PUMP MODEL	PART NUMBERS
SIZE	CAST ALUMINUM
6 PINT/POUND	LP-RP06TK
12 PINT/POUND	LP-RP12TK
20 PINT/POUND	LP-RP20TK

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**LPE SERIES ELECTRIC PUMPING SYSTEMS**

**ECONOMY—HEAVY DUTY—PERFORMANCE**



## LPE ELECTRIC PUMP PACKAGE

### PRODUCT DESCRIPTION

ECONOMY/SMALL SYSTEM AND HEAVY DUTY/LARGE SYSTEM PUMP PACKAGES AVAILABLE

12 & 24 VDC MOTORS AVAILABLE IN BOTH SMALL AND LARGE MODELS

2.5 CC (ECONOMY) & 3.2 CC (LARGE) PUMPING OUTPUTS

AVAILABLE WITH MAGNETIC AND PROXIMITY LOW LEVEL (PROXIMITY LOW LEVEL RECOMMENDED FOR LOW TEMPERATURE AND HEAVY GREASE APPLICATIONS)

4KG, 6KG, 8KG, 10KG, PUMP PACKAGES AVAILABLE WITH EITHER TOP FILL OR STANDARD FILL LOCATIONS

DESIGNED FOR BOTH OFF ROAD AND INDUSTRIAL APPLICATIONS

FULLY ASSEMBLED AND SHIPPED READY FOR INSTALLATION

### BENEFITS & FEATURES

ELECTRIC MOTORIZED PUMPS AVAILABLE IN 12 & 24 VOLT MODELS

SUITABLE FOR RUGGED OUTDOOR USE

MINIMIZES SYSTEM AND OPERATIONAL COSTS

DESIGNED TO BE COMPACT AND ECONOMICAL

AVAILABLE WITH BUILT IN TIMER AND LOW LEVEL

COMES STANDARD WITH 2.5 CC PUMPING UNIT WITH PRV & GAGE

ACCOMMODATES UP TO 3 PUMPING UNITS

STANDARD PRESSURE PUMPING UNIT

## READY FOR IMMEDIATE SHIPMENT

MADE IN



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**ORDERING INFORMATION & PART NUMBERS**

**ECONOMY PUMP SYSTEM PACKAGE**

12 & 24 VDC

STANDARD WITH 2.8 KG (6.2#) RESERVOIR

2.5 CC/min PUMPING UNIT WITH PRV

WILL ACCOMMODATE UP TO THREE PUMPING UNITS

AVAILABLE WITH BUILT IN TIMER AND LOW LEVEL

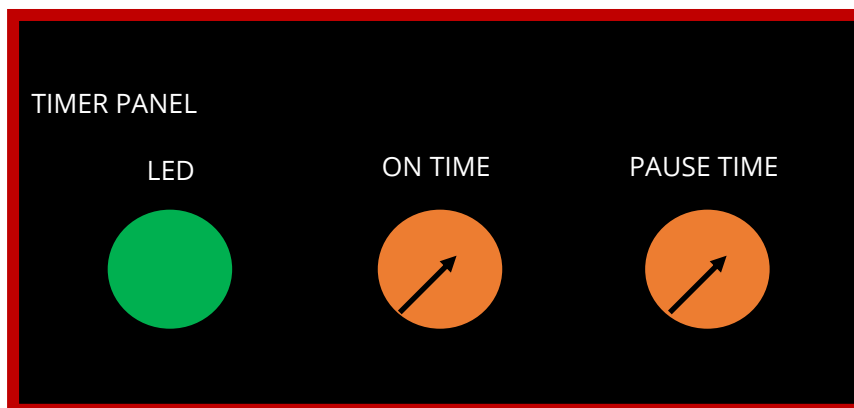
FULLY ASSEMBLED AND READY TO INSTALL

STANDARD PACK: 1 EACH				
ECONOMY ELECTRIC PUMP PACKAGE DESCRIPTION			PART NUMBERS	
COMPLETE PUMP PACKAGE	TIMER	LOW LEVEL	12 VOLT	24 VOLT
1	NO	NO	LPE-ECP1-12-0	LPE-ECP1-24-0
1	NO	YES	LPE-ECP1-12-1	LPE-ECP1-24-1
1	YES	NO	LPE-ECP1-12-2	LPE-ECP1-24-2
1	YES	YES	LPE-ECP1-12-3	LPE-ECP1-24-3
ADD ADDITIONAL 2.5 CC PUMPING UNIT W/ PRV	N/A	N/A	LPE-ECP1-PA	



### LPE-ECP1 SPECIFICATION SHEET

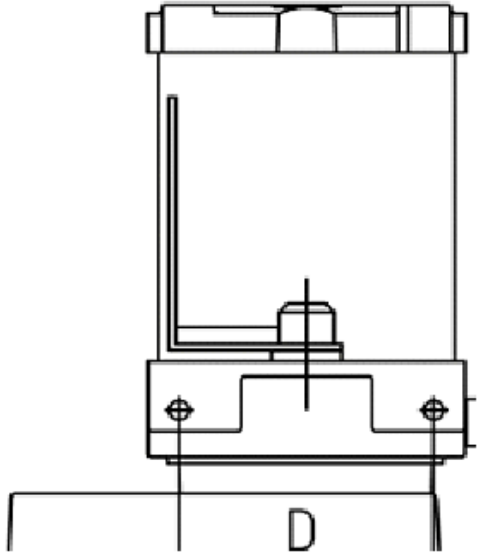
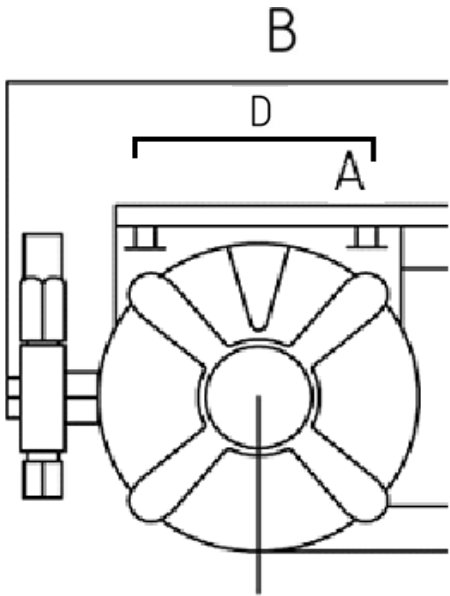
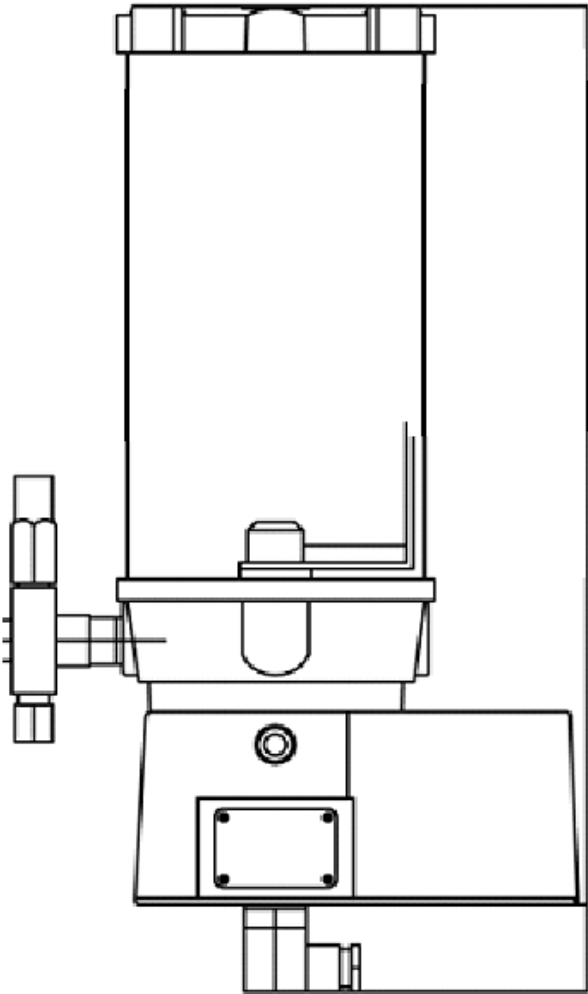
SPECIFICATIONS	
PART NUMBER	LPE-ECP1-XX-Y
MOTOR	ELECTRIC
VOLTAGE	12 VDC OR 24 VDC
MAX REVOLUTIONS PER MINUTE	20
AMP LOAD	0,8 AMPS (AT 4351 PSI AT 68° F)
INTERNATIONAL PROTECTION RATING	IP-65
RESERVOIR	POLYCARBONATE PLASTIC, TRANSPARENT
CAPACITY	6 LBS
MAX PSI / BAR	4351 PSI / 300 BAR
PUMPING ( FLOW CONTROL VALVE FIXED)	0-8.66 in3/STROKE
FLOW CONTROL VALVE MAX	104 in3 / hour PER PUMP
TEMPERATURE RANGE	-22° F TO 176° F
RELOAD RESERVOIR	GREASE FITTING
OUTPUT CONNECTION	6MM TUBE
POWER CABLE LENGTH	19.6'
GREASE CONSISTENCY	GREASE NGLI 000-2 MAX

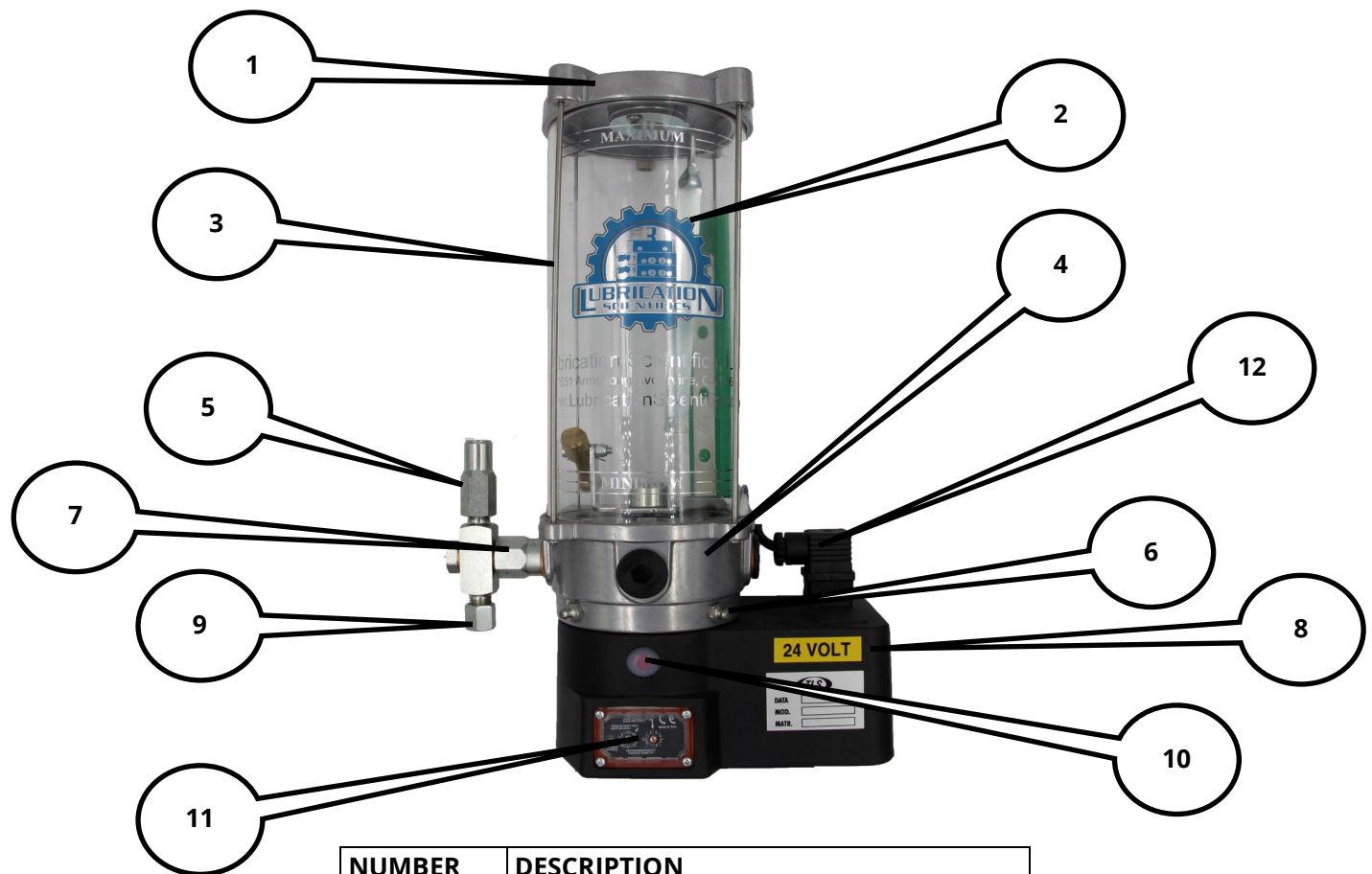


COMMAND FUNCTIONS	
VOLTAGE	10—30 V
CURRENT	6 A (MAX)
TEMPERATURE	-22° F TO 158° F
FUNCTION	PAUSE—ON
PROGRAMABLE ON TIME	2-32 MINUTES
PROGRAMMABLE PAUSE TIME	30 MINUTES TO 8 HOURS



DIMENSIONS	
H	17.126"
A	9.843"
B	12.205"
D	5.118"





NUMBER	DESCRIPTION
1	ALUMINUM TOP CAP
2	POLYCARBONATE RESERVOIR
3	TIE ROD
4	ALUMINUM PUMPING BODY
5	MAXIMUM PRESSURE RELIEF VALVE
6	GREASE FILL FITTING
7	PUMPING UNIT
8	ELECTRIC MOTOR HOUSING BODY
9	TUBE FITTING
10	TIMER CONTROL PANEL
11	MANUAL PUMPING BUTTON
12	POWER SUPPLY CONNECTOR

## ORDERING INFORMATION & PART NUMBERS

### HEAVY DUTY/LARGE SYSTEM ELECTRIC PUMP PACKAGE

BASIC PUMP READY FOR 4 INDIVIDUAL PUMPING UNITS

SHIPPED STANDARD WITH ONE 3.2 CC/min PUMP/ PRESSURE RELIEF VALVE ASSEMBLY

AVAILABLE WITH EITHER **MAGNETIC** OR **PROXIMITY** LOW LEVEL

FULLY ASSEMBLED AND READY FOR INSTALLATION


DESIGNED FOR BOTH OFF ROAD AND INDUSTRIAL APPLICATIONS

**PROXIMITY LOW LEVEL RECOMMENDED FOR LOW TEMPERATURE & HEAVY GREASE**



ORDERING GUIDE & PART NUMBERS


ELECTRIC PUMP PART NUMBER BUILDER

ORDERING PROGRESSION						
	1	2	3	4	5	6
PUMP SERIES	PUMP QUANTITY	LOW LEVEL DESIGNATOR	RESERVOIR SIZE	RESERVOIR TYPE	HIGH PRESSURE SWITCH	TIMER
LPE-	XXX-PRV-	XXX-	XX-	XXX-	XXX-	XXX

1: PUMP QUANTITY		
LPE- <del>XXX</del> -PRV-XXX-XX-XXX-XXX-XXX		
PUMP QUANTITY	PER PUMP OUTPUT CC per minute	<del>XXX</del> DESIGNATION NUMBER
1	3.2 CC	124
2	3.2 CC	224
3	3.2 CC	324
4	3.2 CC	424
1	2.1 CC	125
2	2.1 CC	225
3	2.1 CC	325
4	2.1 CC	425
1	4.6 CC	126
2	4.6 CC	226
3	4.6 CC	326
4	4.6 CC	426

## ORDERING GUIDE & PART NUMBERS


### ELECTRIC PUMP PART NUMBER BUILDER

ORDERING PROGRESSION						
	1	2	3	4	5	6
PUMP SERIES	PUMP QUANTITY	LOW LEVEL DESIGNATOR	RESERVOIR SIZE	RESERVOIR TYPE	HIGH PRESSURE SWITCH	TIMER
LPE-	XXX-PRV-	XXX-	XX-	XXX-	XXX-	XXX

2: LOW LEVEL DESIGNATOR	
LPE-XXX-PRV- <b>XXX</b> -XX-XXX-XXX-XXX	
LOW LEVEL TYPE	<b>XXX</b> DESIGNATION NUMBER
MAGNETIC	MLL
PROXIMITY	PLL

3: RESERVOIR SIZE	
LPE-XXX-PRV-XXX- <b>XX</b> -XXX-XXX-XXX	
RESERVOIR SIZE	<b>XX</b> DESIGNATION NUMBER
8.82 # / 4 KG	04
13.23 # / 6 KG	06
17.64 # / 8 KG	08
22.04 # / 10 KG	10

## ELECTRIC PUMP PART NUMBER BUILDER

ORDERING PROGRESSION						
	1	2	3	4	5	6
PUMP SERIES	PUMP QUANTITY	LOW LEVEL DESIGNATOR	RESERVOIR SIZE	RESERVOIR TYPE	HIGH PRESSURE SWITCH	TIMER
LPE-	XXX-PRV-	XXX-	XX-	XXX-	XXX-	XXX

4: RESERVOIR TYPE	
LPE-XXX-PRV-XXX-XX-XXX-XXX-XXX	
RESERVOIR SIZE	XXX DESIGNATION NUMBER
MAGNETIC LL, STD TOP	MRC
MAGNETIC LL, FILL TOP	MTC
PROXIMITY LL, STD TOP	PRC
PROXIMITY LL, FILL TOP	PTC

5: HIGH PRESSURE SWITCH	
LPE-XXX-PRV-XXX-XX-XXX-XXX-XXX	
SWITCH OPTION	XXX DESIGNATION NUMBER
NO SWITCH	000
HIGH PRESSURE SWITCH	HPS

6: TIMER	
LPE-XXX-PRV-XXX-XX-XXX-XXX-XXX	
SWITCH OPTION	XXX DESIGNATION NUMBER
NO TIMER	000
TIMER	TMR

**BLANK ORDERING FORM**

**ELECTRIC PUMP HEAVY DUTY**

LPE-XXX-PRV-XXX-XX-XXX-XXX-XXX

LPE- \_\_\_\_\_ -PRV- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

QUANTITY: \_\_\_\_\_

LPE- \_\_\_\_\_ -PRV- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

QUANTITY: \_\_\_\_\_

LPE- \_\_\_\_\_ -PRV- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

QUANTITY: \_\_\_\_\_

LPE- \_\_\_\_\_ -PRV- \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

QUANTITY: \_\_\_\_\_

**ADDITIONAL PUMPING UNITS**

LPE-XP \_\_\_\_\_ - \_\_\_\_\_ QTY: \_\_\_\_\_

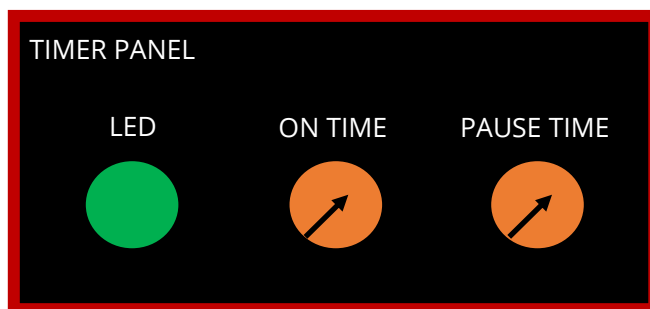
LPE-XP \_\_\_\_\_ - \_\_\_\_\_ QTY: \_\_\_\_\_

LPE-XP \_\_\_\_\_ - \_\_\_\_\_ QTY: \_\_\_\_\_

LPE-XP \_\_\_\_\_ - \_\_\_\_\_ QTY: \_\_\_\_\_

**LPE-ECP1 SPECIFICATION SHEET**

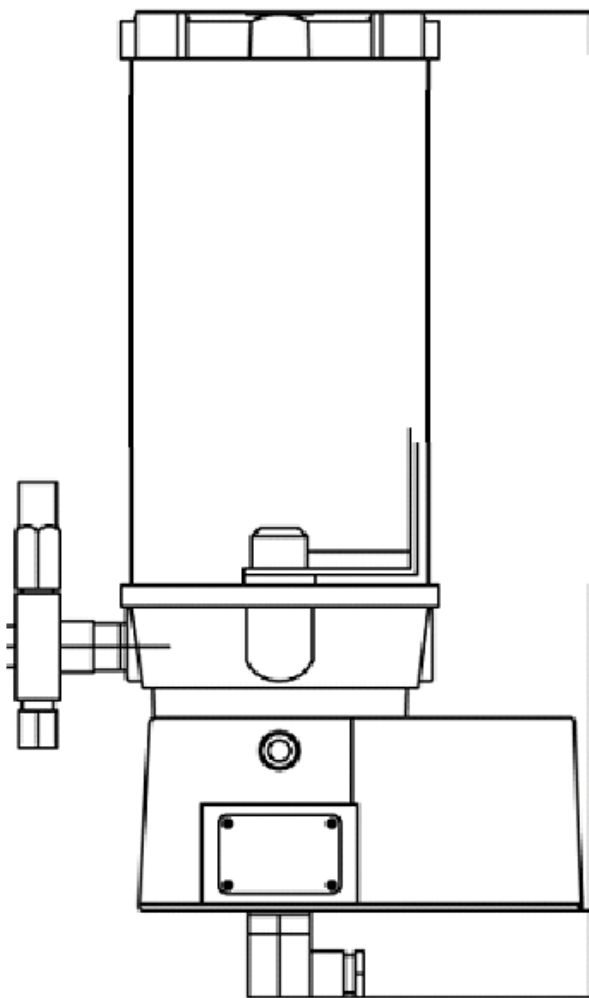
<b>SPECIFICATIONS</b>	
PART NUMBER	LPE-XXX-PRV-XXX-XX-XXX-XXX-XXX
MOTOR	ELECTRICAL
POWER SUPPLY VOLTAGE	24 VDC
NOMINAL CONSUMPTION	1A 12V-0,7A 24V
MAX PEAK STARTING CONSUMPTION	3 A 24VDC
MOTOR RPM	20
PROTECTION	IP56
TANK	TRANSPARENT POLYCARBONATE
TANK CAPACITY	KG.4-KG.6-KG.10
NO. OF PUMPING OUTLETS	FROM 1 TO 4
STANDARD PUMPING ELEMENT	0.22CM3/STEP
MAX GREASE FLOW RATE PER PUMPING ELEMENT	264 CM3/H (EACH PUMPING ELEMENT)
WORKING TEMPERATURE	-30 +80°C
FILLING CONNECTOR	GREASE NIPPLE ¼ (DIN 71412)
PUMP FILLING FILTER	150 MICRON
OUTLET CONNECTOR	HOSE 6 STANDARD-HOSE 8 ON REQUEST
POWER CABLE	L=6 MT. STANDARD
GREASE CONSISTENCY	GREASE NGLI 000-2
OIL VISCOSITY (MINIMUM)	46CST
MAX RELATIVE HUMIDITY	90%
SOUND PRESSURE LEVEL	< 70 DB(A)
PUMP MATERIAL	ALUMINUM



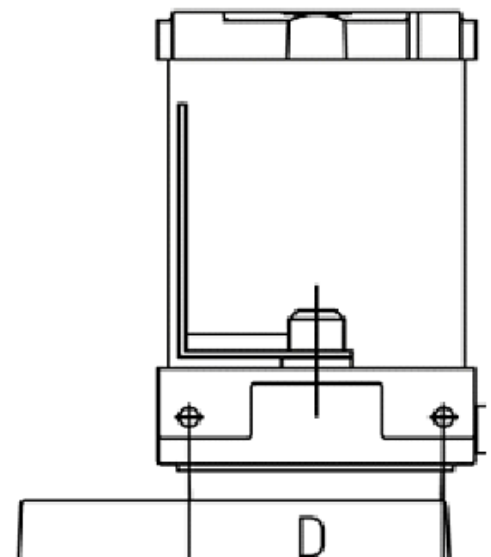
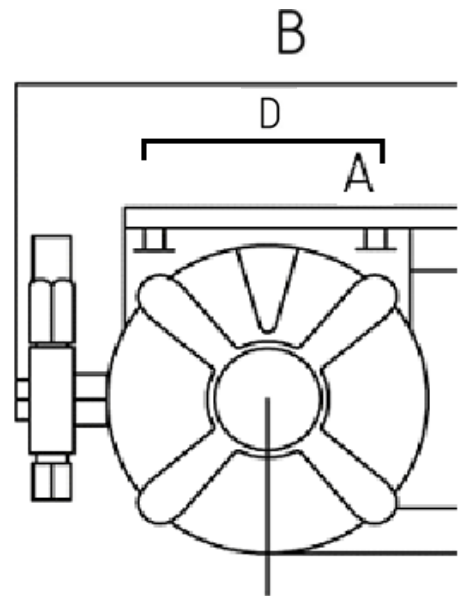
<b>COMMAND FUNCTIONS</b>	
VOLTAGE	10—30 VDC
MAX CONTINUOUS CURRENT	6 A (MAX)
TEMPERATURE	-22° F TO 158° F
FUNCTION	PAUSE—ON
PROGRAMABLE WORK TIME	2-32 MINUTES WORK
PROGRAMMABLE PAUSE TIME	.30 TO 8 HOUR PAUSE

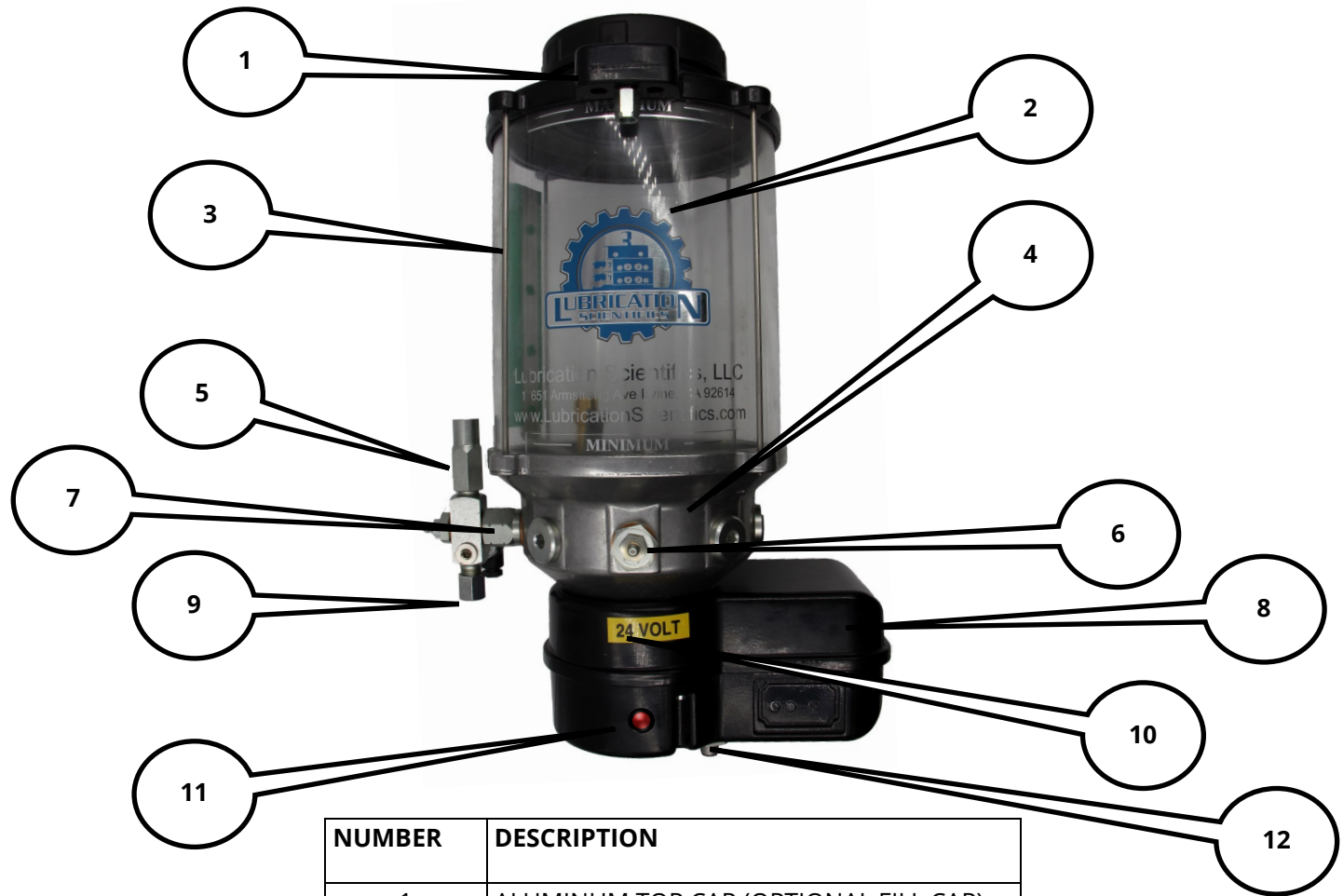


DIMENSIONS	
H, 6 KG	17.126''
H, 8 KG	21.063''
H, 10 KG	25.000''
A	9.843''
B	12.205''
D	5.118''



H





NUMBER	DESCRIPTION
1	ALUMINUM TOP CAP (OPTIONAL FILL CAP)
2	POLYCARBONATE RESERVOIR
3	TIE ROD
4	ALUMINUM PUMPING BODY
5	MAXIMUM PRESSURE RELIEF VALVE
6	GREASE FILL FITTING
7	PUMPING UNIT
8	ELECTRIC MOTOR HOUSING BODY
9	TUBE FITTING
10	TIMER CONTROL PANEL
11	MANUAL PUMPING BUTTON
12	POWER SUPPLY CONNECTOR

**REPLACEMENT OR ADDITIONAL PUMP ORDERING INFORMATION**

COMPATIBLE WITH BOTH ECONOMY & HEAVY DUTY LPE PUMP BODIES

**PUMP ELEMENTS**

THESE PUMPING ELEMENTS ARE FOR USED WITH OUR LPE PISTON PUMPS. THESE PUMPING ELEMENTS ARE BOUGHT FOR REPLACING EXISTING PUMP ELEMENTS, ADDING ADDITIONAL PUMPING ELEMENTS TO EXISTING PUMPS, OR INCREASING THE CURRENT OUTPUT CAPABILITIES ON EXISTING PUMPING UNITS.

**TECHNICAL DATA**

VOLUME:

LDPE-60	0.06 cm <sup>3</sup> /stroke   2.1 cc/ min
LDPE-120	0.12 cm <sup>3</sup> /stroke   3.2 cc/ min
LDPE-170	0.17 cm <sup>3</sup> /stroke   4.6 cc/ min

MAX OPERATING PRESSURE: 5000 PSI

LUBRICANT: OIL & GREASE NLGI 2

**NO PRESSURE LIMITING VALVE**

<b>ADDITIONAL PUMP (S) PER BELOW PART NUMBER CONVERSION CHART</b>	<b>OUTPUT (PER STROKE)</b>	<b>PUMP ELEMENT PART NUMBER</b>
3.2 CC/MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (STANDARD PUMP FOR ALL BASE PUMP PACKAGES)	0.12 cm <sup>3</sup> /stroke	LDPE-120
2.1 CC /MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (MAY BE SUBSTITUTED ON ANY PUMP PACKAGE) (CONTACT CUSTOMER SERVICE TO SUBSTITUTE THIS PUMP)	0.06 cm <sup>3</sup> /stroke	LDPE-60
4.6 CC/MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (MAY BE SUBSTITUTED ON ANY PUMP PACKAGE) (CONTACT CUSTOMER SERVICE TO SUBSTITUTE THIS PUMP)	0.17 cm <sup>3</sup> /stroke	LDPE-170
3.2CC PUMPING BODY ONLY	N/A	LPE-XP32

**REPLACEMENT OR ADDITIONAL PUMP ORDERING INFORMATION**

**COMPATIBLE WITH BOTH ECONOMY & HEAVY DUTY LPE PUMP BODIES**

**PUMP ELEMENTS**

THESE PUMPING ELEMENTS ARE FOR USED WITH OUR LPE PISTON PUMPS. THESE PUMPING ELEMENTS ARE BOUGHT FOR REPLACING EXISTING PUMP ELEMENTS, ADDING ADDITIONAL PUMPING ELEMENTS TO EXISTING PUMPS, OR INCREASING THE CURRENT OUTPUT CAPABILITIES ON EXISTING PUMPING UNITS.

**TECHNICAL DATA**

VOLUME:

LDPE-60-PRV	0.06 cm <sup>3</sup> /stroke   2.1 cc/min
LDPE-120-PRV	0.12 cm <sup>3</sup> /stroke   3.2 cc/min
LDPE-170-PRV	0.17 cm <sup>3</sup> /stroke   4.6 cc/min

MAX OPERATING PRESSURE: 5000 PSI

LUBRICANT: OIL & GREASE NLGI 2

**WITH PRESSURE LIMITING VALVE**

<b>ADDITIONAL PUMP (S) PER BELOW PART NUMBER CONVERSION CHART</b>	<b>OUTPUT (PER STROKE)</b>	<b>PUMP ELEMENT PART NUMBER</b>
3.2 CC/MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (STANDARD PUMP FOR ALL BASE PUMP PACKAGES)	0.12 cm <sup>3</sup> /stroke	LDPE-120-PRV
2.1 CC /MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (MAY BE SUBSTITUTED ON ANY PUMP PACKAGE) (CONTACT CUSTOMER SERVICE TO SUBSTITUTE THIS PUMP)	0.06 cm <sup>3</sup> /stroke	LDPE-60-PRV
4.6 CC/MIN PUMPING UNIT & PRESSURE RELIEF VALVE ASSEMBLY (MAY BE SUBSTITUTED ON ANY PUMP PACKAGE) (CONTACT CUSTOMER SERVICE TO SUBSTITUTE THIS PUMP)	0.17 cm <sup>3</sup> /stroke	LDPE-170-PRV
3.2CC PUMPING BODY ONLY	N/A	LPE-XP32

**REPLACEMENT OR ADDITIONAL PUMP ORDERING INFORMATION**

COMPATIBLE WITH BOTH ECONOMY & HEAVY DUTY LPE PUMP BODIES

**RESERVOIR REPAIR AND REPLACEMENT COMPONENTS**

RESERVOIR TYPE	TIE ROD KIT (4 INCLUDED)	RESERVOIR TUBE (LPE)
4 KG—ALL	LPE-TR4	LPE-TU04
6 KG—ALL	LPE-TR6	LPE--TU06
8 KG—ALL	LPE-TR8	LPE--TU08
10 KG—ALL	LPE-TR10	LPE--TU10

**HIGH PRESSURE SWITCH REPLACEMENTS**

REPLACEMENT HIGH PRESSURE SWITCH	PART NUMBER
PRESSURE RATING 3625 PSI / 250 BAR	LPE-HPS-O

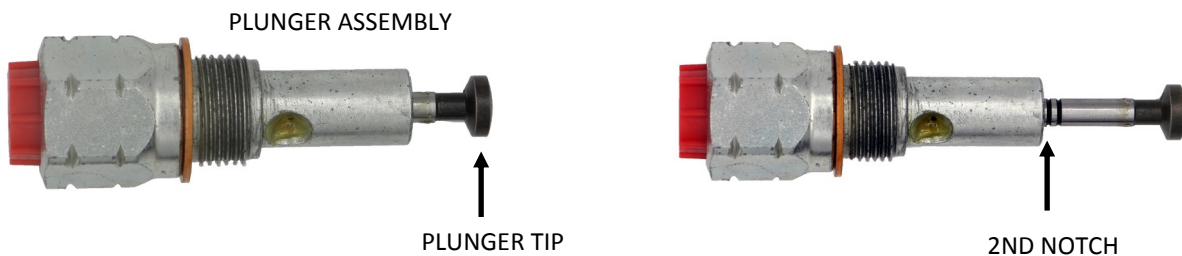
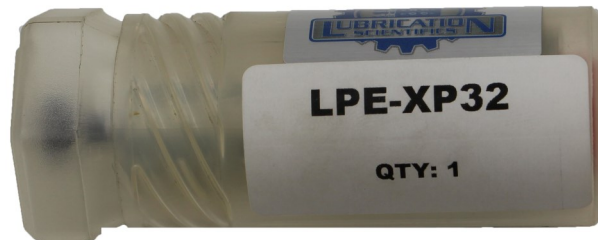
**TOP FILL RESERVOIR LID OPTIONS**

RESERVOIR TYPE	PART NUMBER
FOR MRC & MTC RESERVOIRS	LPE-TFC-M1
FOR PRC & PTC RESERVOIRS	LPE-TFC-P1

## PLUNGER INSTALLATION GUIDE FOR LPE-ECP-24 SERIES

**ITEMS NEEDED:** LPE PUMP, LPE-XP32 PLUNGER ASSEMBLY, AND CRESCENT WRENCH

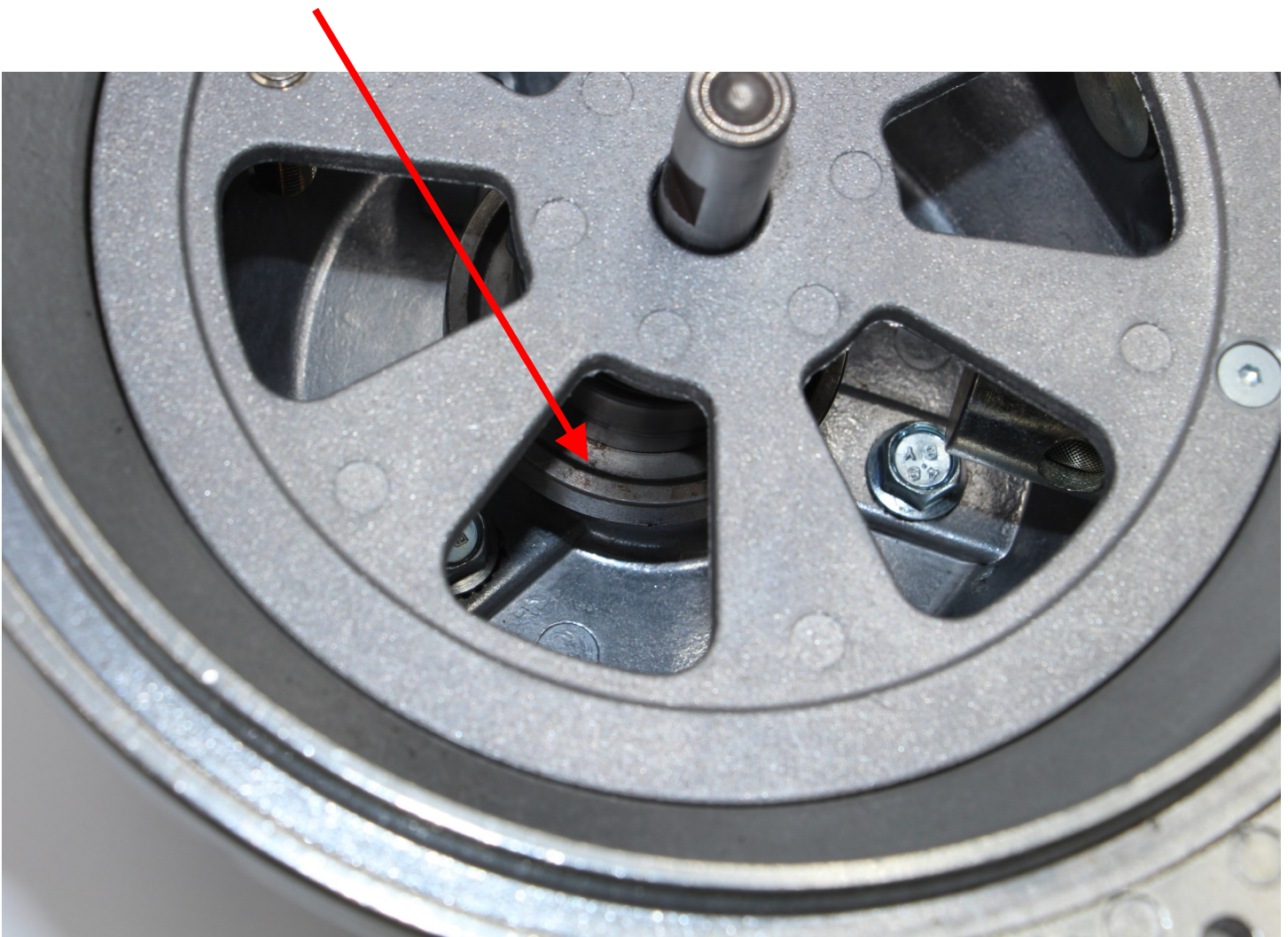
**STEP 1:** REMOVE PLUNGER ASSEMBLY FROM PLASTIC CONTAINER. NOTE THE PLUNGER COMPONENTS AS SHOWN BELOW. THERE ARE THREE NOTCHES ON THE PLUNGER SHAFT. PULL PLUNGER OUT TO THE SECOND NOTCH AS SHOWN.



## PLUNGER INSTALLATION GUIDE FOR LPE-ECP-24 SERIES

**STEP 2:** TAKE PUMP AND LOOK THROUGH THE TOP LUBRICATION SLOTS. NOTICE A TRACKED DISK IN-BETWEEN THE SLOTTED TOP PORTION AND THE FLOOR OF THE PUMP AS SHOWN. **WHEN PROPERLY INSTALLED, THE PLUNGER TIP WILL SIT IN THIS TRACK.**

TRACKED DISK

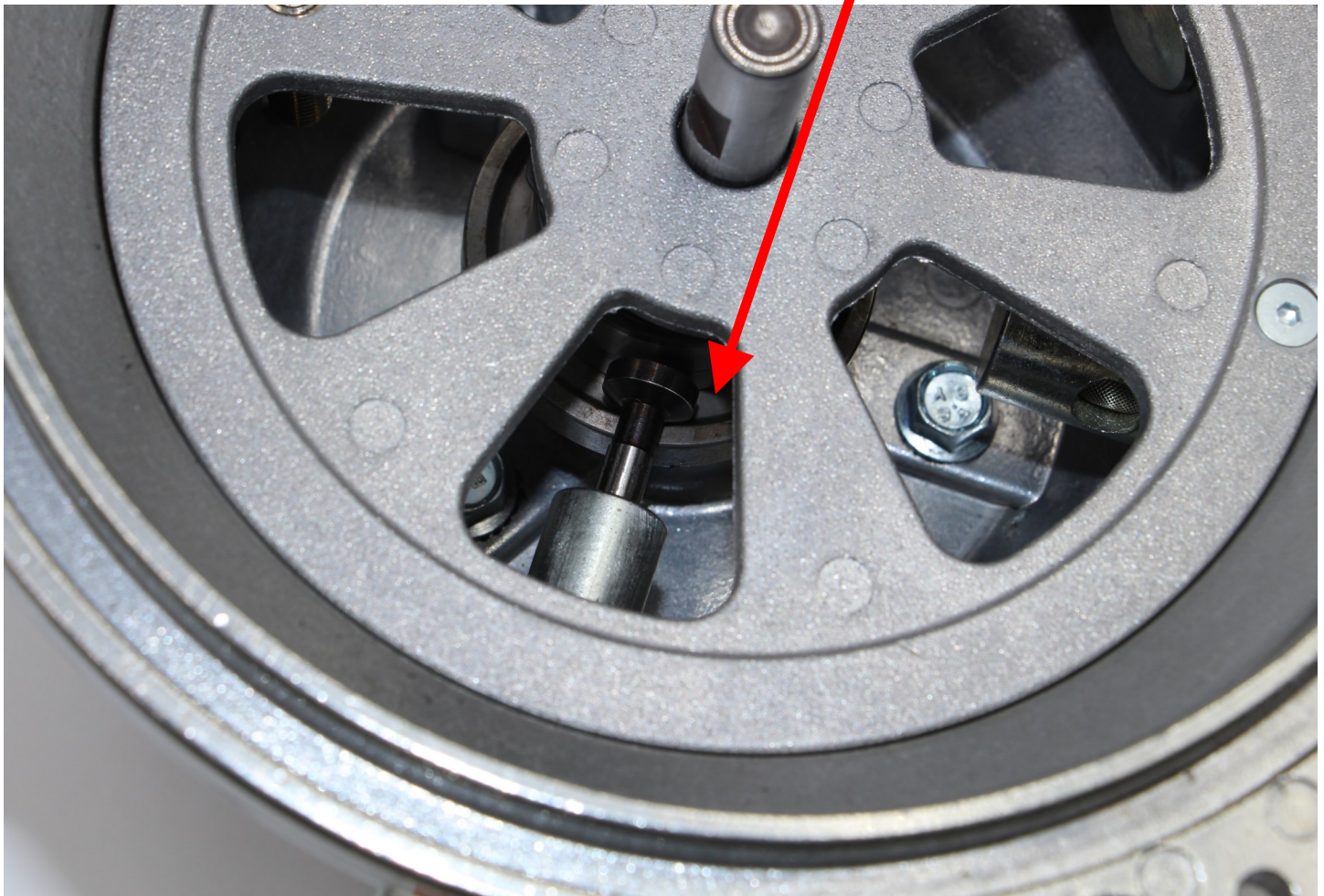


## PLUNGER INSTALLATION GUIDE FOR LPE-ECP-24 SERIES

**STEP 3:** TAKE THE PLUNGER ASSEMBLY WITH THE PISTON PULLED OUT TO THE SECOND NOTCH AND INSERT THE PLUNGER ASSEMBLY INTO THE PUMP BODY AT APPROXIMATELY A 30 DEGREE ANGLE, UPWARDS, CLEARING THE DISK FROM THE TIP. ONCE INSERTED UP TO THE THREADS OF THE PLUNGER ASSEMBLY, STRAIGHTEN OUT, **ENSUREING THE PLUNGER TIP SEATS INTO THE TRACK.** THREAD THE PLUNGER ASSEMBLY INTO THE PUMP HOUSING UNTIL HAND TIGHT. USE A WRENCH TO TIGHTEN THE REST OF THE WAY. SEE ILLUSTRATION BELOW. CHECK AGAIN TO ENSURE TIP REMAINS IN THE TRACK.



**ENSURE TIP SEATS WITH THE TRACK**







# MANUAL PUMPS FOR CENTRALIZED LUBRICATION SYSTEMS



SERIES 1 MANUAL PUMP FOR SERIES PROGRESSIVE SYSTEMS



SERIES 2 MANUAL PUMP FOR INJECTOR SYSTEMS

READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

# MANUAL PUMPS FOR CENTRALIZED LUBRICATION SYSTEMS

## PRODUCT DESCRIPTION

MANUAL POWERED OIL AND GREASE PUMPS

AVAILABLE 6 PINT (2.84 LITER) / 6LB (2.72KG), 12 PINT  
(5.68 LITER) / 12LB (5.44KG), 20 PINT (9.46 LITER) /  
20LB (9.06KG) RESERVOIR SIZES

PERFECT FOR IN-PLANT USE AND MACHINERY USE

COMPLETE READY TO USE ALL IN ONE PUMP  
SYSTEMS

## BENEFITS & FEATURES

SINGLE ACTING POSITIVE DISPLACEMENT PUMP IS  
DESIGNED TO MINIMIZE THE NUMBER OF MOVING PARTS  
AND WEAR FOR EXTENDED LIFE AND DECREASED  
MAINTENANCE

OPTIONAL PRESSURE RELIEVE VALVE PROTECTS SYSTEM  
FROM OVERPRESSURE

OPTIONAL OUTLET CHECK VALVE AVOIDS BACKPRESSURE  
FROM CAUSING PUMP FAILURE AND LOWERS THE RISK  
FOR CONTAMINANTS BEING INTRODUCED INTO THE  
LUBRICANT SUPPLY OR PUMP (FOR USE IN SERIES 1 SERIES  
PROGRESSIVE PUMPS ONLY)

WIDE VARIETY OF SYSTEM DESIGNS TAILORED TO  
APPLICATION SPECIFICATIONS

## INDEX

DESCRIPTION	PAGE
SERIES #1 MANUAL PUMP FOR SERIES PROGRESSIVE SYSTEMS	3
SERIES #2 MANUAL PUMP FOR INJECTOR SYSTEMS	4

## READY FOR IMMEDIATE SHIPMENT

MADE IN



SERIES #1 MANUAL PUMP / SERIES PROGRESSIVE SYSTEMS



ATMOSPHERIC RELIEF

\* FOR PUMP DIMENSIONS SEE PAGE 5

SERIES #1 MANUAL GREASE PUMP & RESERVOIR DESCRIPTION	PART NUMBER
SERIES 1 PUMP WITH 6LB GREASE RESERVOIR	LMNP-001-06G
SERIES 1 PUMP WITH 12LB GREASE RESERVOIR	LMNP-001-12G
SERIES 1 PUMP WITH 20LB GREASE RESERVOIR	LMNP-001-20G

SERIES #1 MANUAL OIL PUMP & RESERVOIR DESCRIPTION	PART NUMBER
SERIES 1 PUMP WITH 6PT OIL RESERVOIR	LMNP-001-06O
SERIES 1 PUMP WITH 12PT OIL RESERVOIR	LMNP-001-12O
SERIES 1 PUMP WITH 20PT OIL RESERVOIR	LMNP-001-20O

BARE SERIES #1 MANUAL PUMP, NO RESERVOIR	PART NUMBER
BARE SERIES 1 PUMP, WITHOUT RESERVOIR	LMNP-001

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY. AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS. MANUAL PUMPS ARE CUSTOMIZABLE FOR A WIDE VARIETY OF APPLICATION USES.

**FLUIDS / TECHNICAL DATA**

- OIL AND GREASE
- PUMP OUTPUT: 0.16 CUIN / 2.6 CC
- MAXIMUM OPERATING PRESSURE: 3,000 PSI / 207 BAR
- HIGH PRESSURE RELIEF VALVE: 2,500 PSI / 172 BAR
- RESERVOIR CAPACITIES: 6 PINT / 2.84 LITER, 6LB / 2.72KG, 12 PINT / 5.68 LITER, 12LB / 5.44KG, 20 PINT / 9.46 LITER, AND 20LB / 9.06KG
- FORCE TO HANDLE: 29LB / 13.14KG PER 1,000 PSI / 69 BAR @ RATED PRESSURE

**APPLICATIONS**

- IN-PLANT EQUIPMENT AND MACHINERY

SERIES #1 MANUAL GREASE/OIL PUMP ACCESSORY DESCRIPTION	PART NUMBER
PRESSURE GAUGE	LCB-15-6K-2
PRESSURE RELIEF VALVE	L5082500-NPTF
FILL STUD	L5215-H262

SERIES #2 MANUAL PUMP / INJECTOR SYSTEMS



SERIES #2 MANUAL GREASE PUMP & RESERVOIR DESCRIPTION	PART NUMBER
SERIES 1 PUMP WITH 6LB GREASE RESERVOIR	LMNP-002-06G
SERIES 1 PUMP WITH 12LB GREASE RESERVOIR	LMNP-002-12G
SERIES 1 PUMP WITH 20LB GREASE RESERVOIR	LMNP-002-20G

SERIES #2 MANUAL OIL PUMP & RESERVOIR DESCRIPTION	PART NUMBER
SERIES 1 PUMP WITH 6PT OIL RESERVOIR	LMNP-002-06O
SERIES 1 PUMP WITH 12PT OIL RESERVOIR	LMNP-002-12O
SERIES 1 PUMP WITH 20PT OIL RESERVOIR	LMNP-002-20O

BARE SERIES #2 MANUAL PUMP, NO RESERVOIR	PART NUMBER
BARE SERIES 1 PUMP, WITHOUT RESERVOIR	LMNP-002

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY. AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS. MANUAL PUMPS ARE CUSTOMIZABLE FOR A WIDE VARIETY OF APPLICATION USES.

**FLUIDS / TECHNICAL DATA**

- OIL AND GREASE
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- RESERVOIR CAPACITIES: 6 PINT / 2.84 LITER, 6LB / 2.72KG, 12 PINT / 5.68 LITER, 12LB / 5.44KG, 20 PINT / 9.46 LITER, AND 20LB / 9.06KG
- FORCE TO HANDLE: 29LB / 13.14KG PER 1,000 PSI / 69 BAR @ RATED PRESSURE

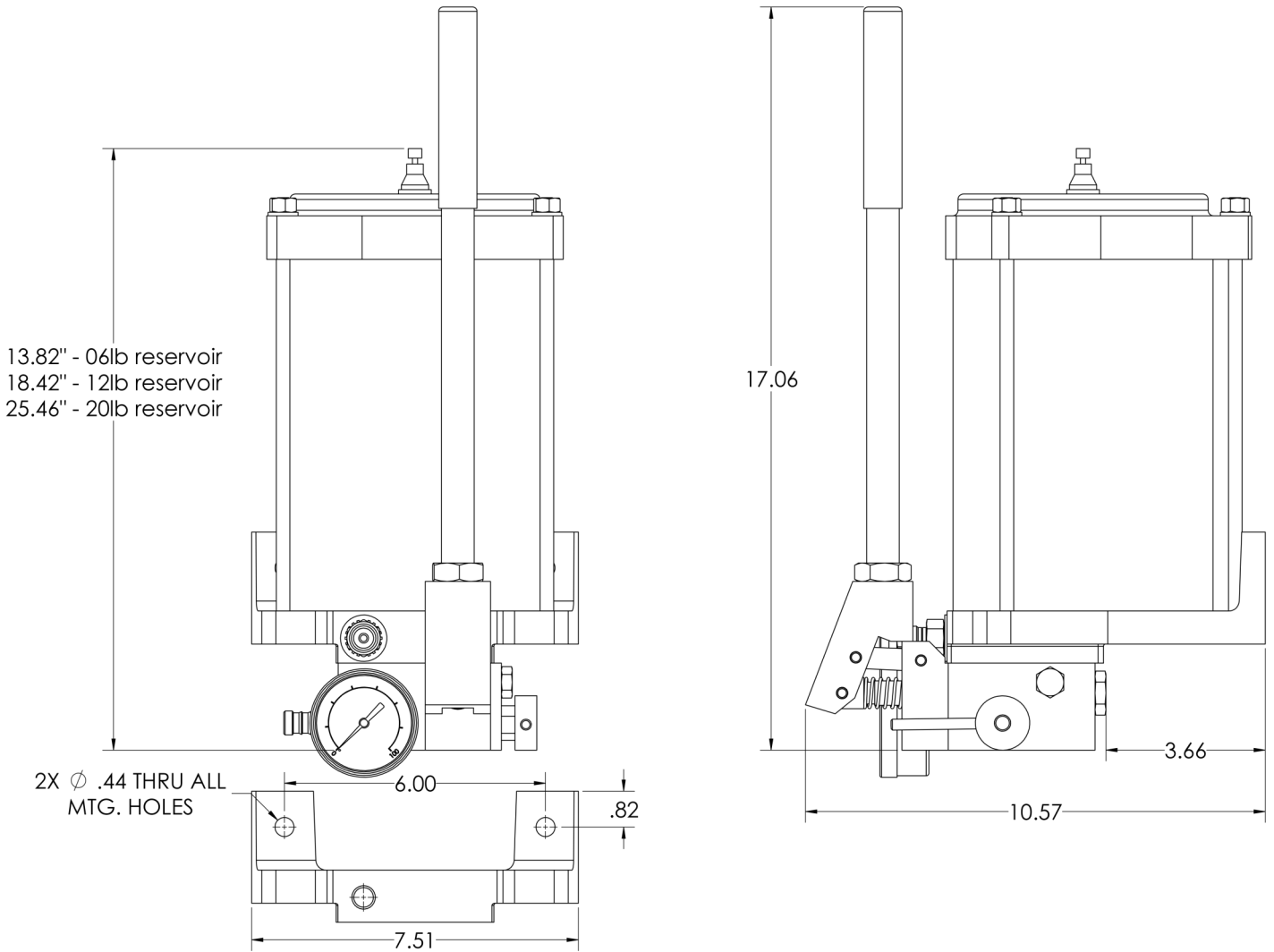
**APPLICATIONS**

- IN-PLANT EQUIPMENT AND MACHINERY

\* FOR PUMP DIMENSIONS SEE PAGE 5

SERIES #2 MANUAL GREASE/OIL PUMP ACCESSORY DESCRIPTION	PART NUMBER
PRESSURE GAUGE	LCB-15-6K-2
PRESSURE RELIEF VALVE	L5082500-NPTF
FILL STUD	L5215-H262

MANUAL PUMP DIMENSIONS





**PNEUMATIC PUMPS**  
GREASE/OIL BARREL, TRANSFER,  
MECHANICAL RAM PUMPS  
& ACCESSORIES  
ECONOMY, STANDARD, HEAVY DUTY  
PUMPS, AND SYSTEMS



READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

# PNEUMATIC PUMPS

GREASE/OIL BARREL, TRANSFER,  
MECHANICAL RAM PUMPS & ACCESSORIES

ECONOMY, STANDARD, HEAVY DUTY PUMPS, AND SYSTEMS

## PRODUCT DESCRIPTION

PNEUMATIC POWERED OIL AND GREASE PUMPS

AVAILABLE IN ECONOMY, STANDARD-DUTY, & HEAVY-DUTY DESIGNS

PERFECT FOR SMALL, MEDIUM AND LARGE AUTOMATIC LUBE SYSTEMS

PERFECT FOR AUTOMATIC LUBE SYSTEM AUTO-REFILL SYSTEMS

COMPLETE ACCESSORY AND MAINTENANCE KIT OFFERING

## BENEFITS & FEATURES

SUPERIOR QUALITY CONSTRUCTION

STATE OF THE ART MODERN PUMP DESIGN

1:1 OIL TRANSFER PUMPS AVAILABLE IN CRS AND STAINLESS STEEL (PERFECT FOR COMPRESSOR LUBRICATION SUPPLY TANKS)

GREASE PUMPS AVAILABLE FROM 40:1 TO 80:1

GREASE PRESSURES UP TO 8000 PSI

SINGLE AND DOUBLE POST MECHANICAL RAM PUMPS AVAILABLE

BULK GREASE TOTE PUMPS AVAILABLE

EASIER AND FASTER TO REBUILD THAN COMPETITOR'S PUMPS

ALL REBUILD KITS IN STOCK

## INDEX

<b>ECONOMY</b> GREASE PUMPS	PAGE 3
<b>STANDARD</b> DUTY GREASE PUMPS	PAGE 4
<b>HEAVY DUTY</b> GREASE PUMPS (40:1)	PAGE 5
<b>HEAVY DUTY</b> GREASE PUMPS (70:1)	PAGE 6
<b>HEAVY DUTY</b> GREASE PUMPS (80:1)	PAGE 7
OIL TRANSFER PUMPS	PAGE 8
SINGLE POST ( <b>ECONOMY</b> ) MECHANICAL RAM PUMPS	PAGE 9
DOUBLE POST (HEAVY DUTY) MECHANICAL RAM PUMPS	PAGE 9
DIMENSIONS - DOUBLE POST (HEAVY DUTY) MECHANICAL RAM PUMPS	PAGE 10
ACCESSORIES	PAGE 11
REPAIR KITS	PAGE 12, 13, 14, & 15
INTERCHANGE	PAGE 16 & 17

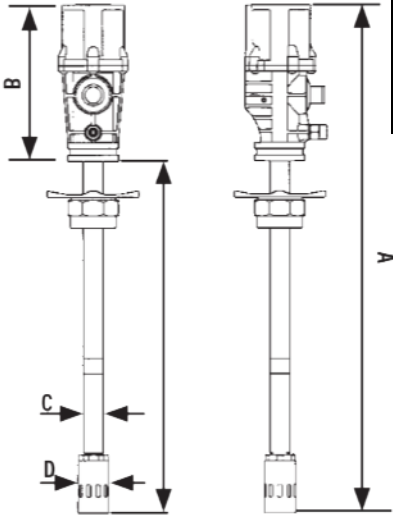
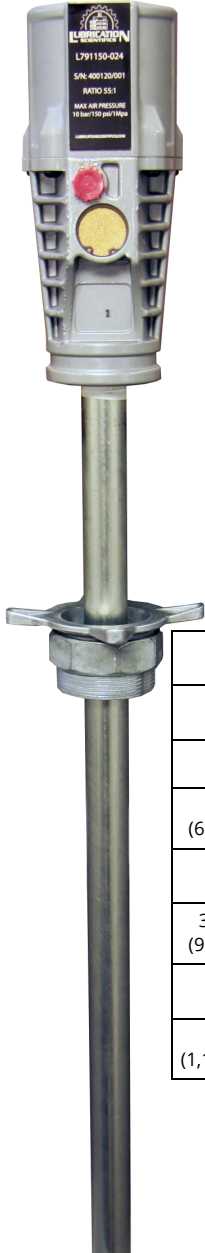
READY FOR IMMEDIATE SHIPMENT

MADE IN



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**ECONOMY GREASE PUMPS**  
55:1 PUMP



ECONOMY GREASE PUMP DESCRIPTION	PART NUMBER
GREASE PUMP, <b>ECONOMY</b> SERIES, 55:1, 35 LB	L791150-022
GREASE PUMP, <b>ECONOMY</b> SERIES, 55:1, 120 LB	L791150-023
GREASE PUMP, <b>ECONOMY</b> SERIES, 55:1, 400 LB	L791150-024

DESIGNED FOR 25-35, 120 AND 400 LB DRUMS, PORTABLE USE, AND SINGLE POINT DISPENSE. IDEAL FOR THE LOW VOLUME USER FOR GREASE FITTINGS ON SMALLER VEHICLES. DOUBLE ACTING POSITIVE DISPLACEMENT CAPABLE OF DELIVERING UP TO 1.2 LBS PER MINUTE.

**FLUIDS / TECHNICAL DATA**

- GREASE: UP TO NLGI-2
- PUMP RATIO: 55:1
- PUMP DELIVERY, 100 PSI ( 7 BAR) AIR PRESSURE AND FREE FLOW: 1.2 LB/ MIN (0,5 KG/MIN)
- OPERATING AIR PRESSURE: 20-140 PSI (1.5 -10 BAR)
- AIR CONSUMPTION: 90 PSI (6 BAR) & 110 CYCLES PER MIN - 5.8 SCFM
- MAX FLUID STALL PRESSURE @140 PSI (10 BAR) AIR - 7,700 PSI (550 BAR)
- CYCLES PER LB @ 100 PSI (7 BAR) FREE FLOW: 318

**APPLICATIONS**

- COST EFFICIENT SMALL TO MEDIUM AUTOMATIC LUBRICATION SYSTEMS
- IN-PLANT LOW VOLUME USE

DIMENSIONS				
L791150-022				
A	B	C	D	E
24" (610 MM)	8" (200 MM)	1" (26 MM)	16" (410 MM)	1 1/2" (38 MM)
L791150-023				
36 1/2" (925 MM)	8" (200 MM)	1" (26 MM)	28 1/2" (725 MM)	1 1/2" (38 MM)
L791150-024				
44" (1,120 MM)	8" (200 MM)	1" (26 MM)	36" (920 MM)	1 1/2" (38 MM)



**DRUM COVERS, FOLLOWERS, & BUNG ADAPTERS 55:1**  
**ECONOMY GREASE PUMPS**

DRUM SIZE	DRUM COVER PART NUMBER	FOLLOWER PLATE PART NUMBER	BUNG ADAPTER PART NUMBER
35 LB	L794420-010	L794440-013	L794411-023
120 LB	L794420-011	L794440-014	L794411-023
400 LB	L794420-015	L794440-018	L794411-023

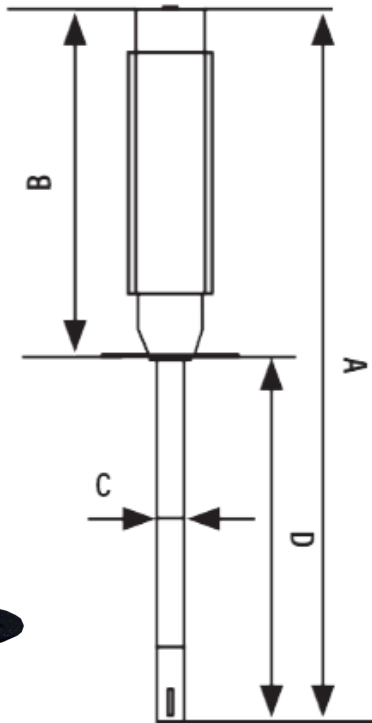
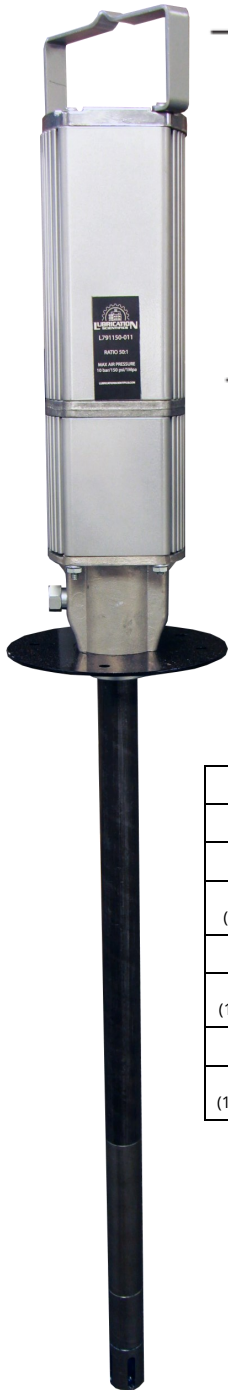
FIT MULTIPLE PUMP SIZES



FOR REPAIR KITS SEE PAGE 12



**STANDARD DUTY GREASE PUMPS**  
50:1 PUMP



STANDARD DUTY GREASE PUMP DESCRIPTION	PART NUMBER
GREASE PUMP, STANDARD DUTY, 50:1 35 LB	L791150-009
GREASE PUMP, STANDARD DUTY, 50:1, 120 LB	L791150-010
GREASE PUMP, STANDARD DUTY, 50:1, 400 LB	L791150-011

DESIGNED FOR LOWER VOLUME USERS UP TO 2 DISPENSE POINTS. USED WITH 25-35, 120 AND 400 LB DRUMS. PERFECT FOR LOWER GREASE FITTINGS ON VEHICLES. DOUBLE ACTING POSITIVE DISPLACEMENT CAPABLE OF DELIVERING UP TO 3.4 LBS PER MINUTE.

**FLUIDS / TECHNICAL DATA**

- GREASE: UP TO NLGI-2
- PUMP RATIO: 50:1
- OPERATING AIR PRESSURE: 40-150 PSI (2.8 -10 BAR)
- AIR CONSUMPTION: 100 PSI (7 BAR) & 1.5 LB/MIN (.68 KG/MIN) - 14.5 SCFM
- MAX FLUID STALL PRESSURE @150 PSI (10 BAR) AIR - 7,500 PSI (517 BAR)
- CYCLES PER LB @ 100 PSI (7 BAR) FREE FLOW: 70

**APPLICATIONS**

- MEDIUM TO MODERATLY LARGE AUTOMATIC LUBRICATION SYSTEMS
- IN-PLANT LOW VOLUME USE

DIMENSIONS			
L791150-009			
A	B	C	D
36 3/4" (933 MM)	18 3/4" (476 MM)	1 1/4" (31.75 MM)	18" (46 MM)
L791150-010			
46 3/4" (1187 MM)	18 3/4" (476 MM)	1 1/4" (31.75 MM)	28" (71 MM)
L791150-011			
44" (1,120 MM)	18 3/4" (476 MM)	1 1/4" (31.75 MM)	34" (86 MM)



**DRUM COVERS, FOLLOWERS, & BUNG ADAPTERS 50:1**  
**STANDARD DUTY GREASE PUMPS**

DRUM SIZE	DRUM COVER PART NUMBER	FOLLOWER PLATE PART NUMBER	BUNG ADAPTER PART NUMBER
35 LB	L794420-008	L794440-007	L794411009N
120 LB	L794420-009	L794440-008	L794411009N
400 LB	L794420-004	L794440-009	L794411009N



FIT MULTIPLE PUMP SIZES



FOR REPAIR KITS SEE PAGE 12

**HEAVY DUTY GREASE PUMPS**  
**40:1 450 SERIES PUMP**

40:1 <b>HEAVY DUTY</b> GREASE PUMP DESCRIPTION	PART NUMBER
GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, 400 LB	L791450-002
GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, 120 LB	L791450-003
GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, BULK TOTE	L791450-004

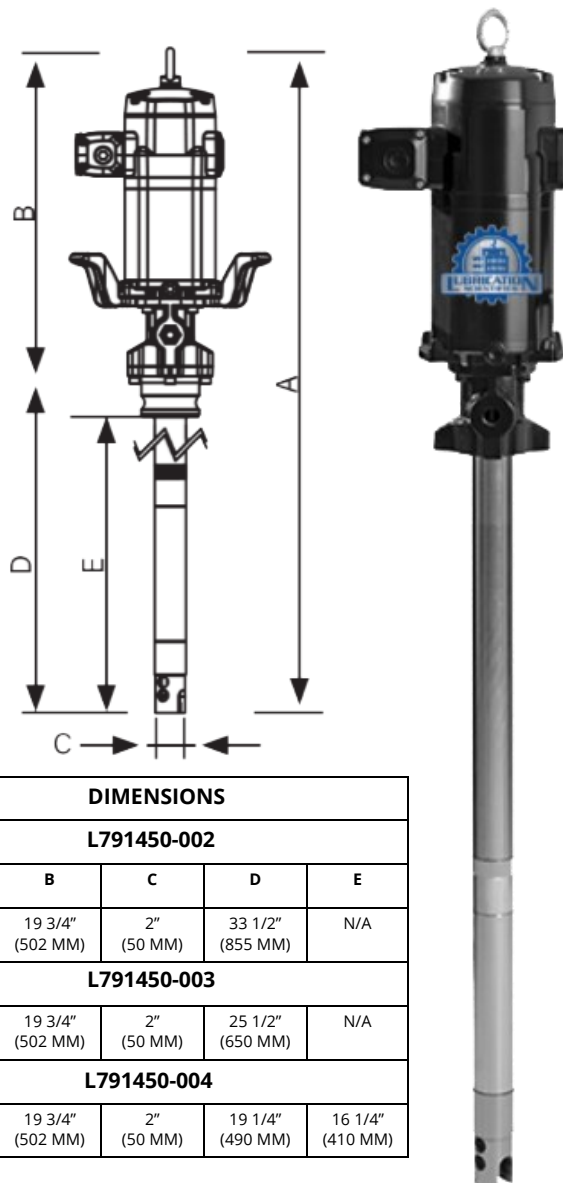
DESIGNED FOR MEDIUM VOLUME APPLICATIONS THAT REQUIRE HIGHER FLOW AND PRESSURE DELIVERY. CAN BE COMBINED WITH A FOLLOWER PLATE, GRAVITY MECHANICAL RAM SYSTEM, OR A DOUBLE POST RAM FOR SIMULTANEOUS DISPENSE, AND HIGHER FLOW APPLICATIONS.

**FLUIDS / TECHNICAL DATA**

- GREASE: UP TO NLGI-2
- CONTINUOUS DUTY FLOW RATE: 8 LB/MIN (3.5 KG/MIN)
- MAXIMUM FREE FLOW: 24 LB/MIN (11KG/MIN)
- CYCLES PER LB: 10
- OPERATING AIR PRESSURE: 30-200 PSI (1.38 - 14 BAR)
- MAXIMUM OUTLET PRESSURE: 8,000 PSI (560 BAR)

**APPLICATIONS**

- LARGE AUTOMATIC LUBRICATION SYSTEMS
- AUTOMATIC REFILL SYSTEMS



DIMENSIONS				
L791450-002				
A	B	C	D	E
53 1/4" (1,357 MM)	19 3/4" (502 MM)	2" (50 MM)	33 1/2" (855 MM)	N/A
L791450-003				
45 1/4" (1,152 MM)	19 3/4" (502 MM)	2" (50 MM)	25 1/2" (650 MM)	N/A
L791450-004				
39" (992 MM)	19 3/4" (502 MM)	2" (50 MM)	19 1/4" (490 MM)	16 1/4" (410 MM)

**DRUM COVERS, FOLLOWERS, & BUNG ADAPTERS 40:1**  
**450 SERIES **HEAVY DUTY** GREASE PUMPS**

DRUM SIZE	DRUM COVER PART NUMBER	FOLLOWER PLATE PART NUMBER	BUNG ADAPTER MALE PART NUMBER	BUNG ADAPTER FEMALE PART NUMBER
120 LB	L794420-014	L794440-017	L794140058	L794140059
400 LB	L794420-013	L794440-015	L794140058	L794140059

FIT MULTIPLE PUMP SIZES



FOR REPAIR KITS SEE PAGE 13

**HEAVY DUTY GREASE PUMPS**  
70:1 450 SERIES PUMP

70:1 HEAVY DUTY GREASE PUMP DESCRIPTION	PART NUMBER
GREASE PUMP, <b>HEAVY DUTY</b> , 4.5" MOTOR, 70:1, 400 LB	L791450-005
GREASE PUMP, <b>HEAVY DUTY</b> , 4.5" MOTOR, 70:1, 120 LB	L791450-006
GREASE PUMP, <b>HEAVY DUTY</b> , 4.5" MOTOR, 70:1, BULK TOTE	L791450-007

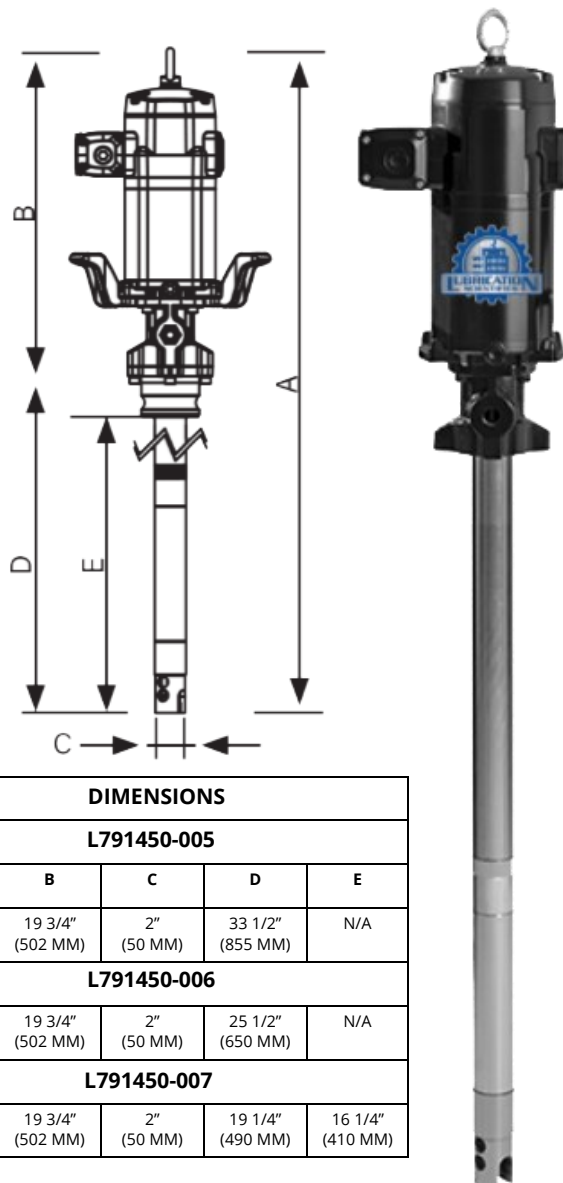
DESIGNED FOR **VERY COLD ENVIRONMENTS** AND/OR APPLICATIONS WHERE ONLY MEDIUM PRESSURE AIR IS AVAILABLE. CAN BE COMBINED WITH A FOLLOWER PLATE, GRAVITY MECHANICAL RAM SYSTEM, OR A DOUBLE POST RAM FOR SIMULTANEOUS DISPENSE, AND HIGHER FLOW APPLICATIONS.

**FLUIDS / TECHNICAL DATA**

- GREASE: UP TO NLGI-2
- CONTINUOUS DUTY FLOW RATE: 5 LB/MIN (2 KG/MIN)
- MAXIMUM FREE FLOW: 16 LB/MIN (7.25 KG/MIN)
- CYCLES PER LB: 17
- OPERATING AIR PRESSURE: 30-100 PSI (1.38 - 7 BAR)
- MAXIMUM OUTLET PRESSURE: 7,000 PSI (490 BAR)

**APPLICATIONS**

- LARGE AUTOMATIC LUBRICATION SYSTEMS



DIMENSIONS				
L791450-005				
A	B	C	D	E
53 1/4" (1,357 MM)	19 3/4" (502 MM)	2" (50 MM)	33 1/2" (855 MM)	N/A
L791450-006				
45 1/4" (1,152 MM)	19 3/4" (502 MM)	2" (50 MM)	25 1/2" (650 MM)	N/A
L791450-007				
39" (992 MM)	19 3/4" (502 MM)	2" (50 MM)	19 1/4" (490 MM)	16 1/4" (410 MM)

**DRUM COVERS, FOLLOWERS, & BUNG ADAPTERS 70:1 450 SERIES HEAVY DUTY GREASE PUMPS**

DRUM SIZE	DRUM COVER PART NUMBER	FOLLOWER PLATE PART NUMBER	BUNG ADAPTER MALE PART NUMBER	BUNG ADAPTER FEMALE PART NUMBER
120 LB	L794420-014	L794440-017	L794140058	L794140059
400 LB	L794420-013	L794440-015	L794140058	L794140059

FIT MULTIPLE PUMP SIZES



FOR REPAIR KITS SEE PAGE 13

**HEAVY DUTY GREASE PUMPS**  
**80:1 600 SERIES PUMP**

80:1 HEAVY DUTY GREASE PUMP DESCRIPTION	PART NUMBER
GREASE PUMP, HEAVY DUTY, 6.0" MOTOR, 80:1, 400 LB	L791450-008
GREASE PUMP, HEAVY DUTY, 6.0" MOTOR, 80:1, 120 LB	L791450-009

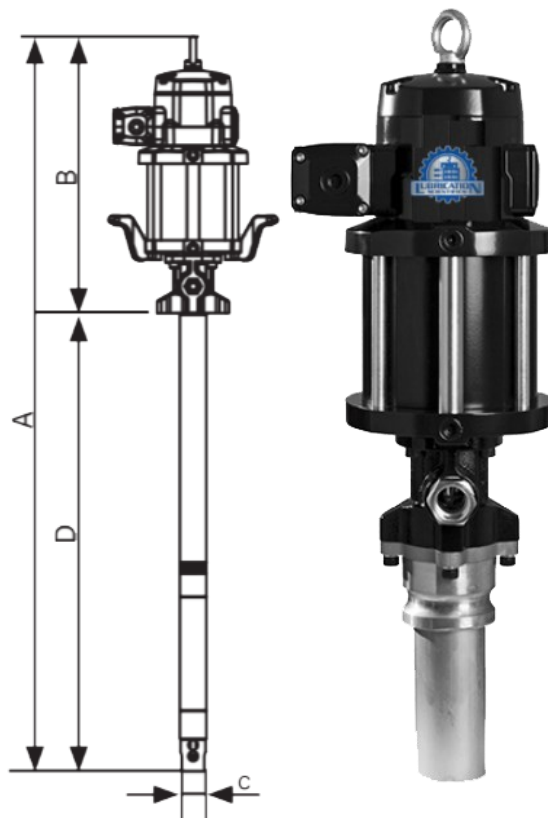
DESIGNED FOR **VERY COLD ENVIRONMENTS** AND/OR APPLICATIONS WHERE ONLY MEDIUM PRESSURE AIR IS AVAILABLE. CAN BE COMBINED WITH A FOLLOWER PLATE, GRAVITY MECHANICAL RAM SYSTEM, OR A DOUBLE POST RAM FOR SIMULTANEOUS DISPENSE, AND HIGHER FLOW APPLICATIONS. SIMILAR TO THE 70:1 GREASE PUMP BUT OPERATES AT LOWER CYCLE RATES FOR SEVERE ENVIRONMENTS.

**FLUIDS / TECHNICAL DATA**

- GREASE: UP TO NLGI-2
- CONTINUOUS DUTY FLOW RATE: 6 LB/MIN (2.5 KG/MIN)
- MAXIMUM FREE FLOW: 18 LB/MIN (8 KG/MIN)
- CYCLES PER LB: 11
- OPERATING AIR PRESSURE: 30-100 PSI (1.38 - 7 BAR)
- MAXIMUM OUTLET PRESSURE: 8,000 PSI (560 BAR)

**APPLICATIONS**

- VERY LARGE AUTOMATIC LUBRICATION SYSTEMS

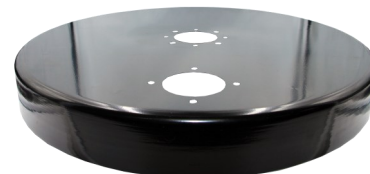


DIMENSIONS			
L791450-008			
A	B	C	D
53 1/2" (1,371 MM)	20" (516 MM)	2" (50 MM)	33 1/2" (855 MM)
L791450-009			
45 1/2" (1,166MM)	20" (516 MM)	2" (50 MM)	25 1/2" (650 MM)

**DRUM COVERS, FOLLOWERS, & BUNG ADAPTERS 80:1**  
**600 SERIES HEAVY DUTY GREASE PUMPS**

DRUM SIZE	DRUM COVER PART NUMBER	FOLLOWER PLATE PART NUMBER	BUNG ADAPTER MALE PART NUMBER	BUNG ADAPTER FEMALE PART NUMBER
120 LB	L794420-014	L794440-017	L794140058	L794140059
400 LB	L794420-013	L794440-015	L794140058	L794140059

FIT MULTIPLE PUMP SIZES



FOR REPAIR KITS SEE PAGE 14

OIL TRANSFER PUMPS  
1:1—CRS & STAINLESS STEEL PUMP

TRANSFER PUMP DESCRIPTION	PART NUMBER
TRANSFER PUMP, 1:1, SS, W/ BUNG ADAP	L791160-008
TRANSFER PUMP, 1:1, CRS, W/BUNG ADAP	L791110-010

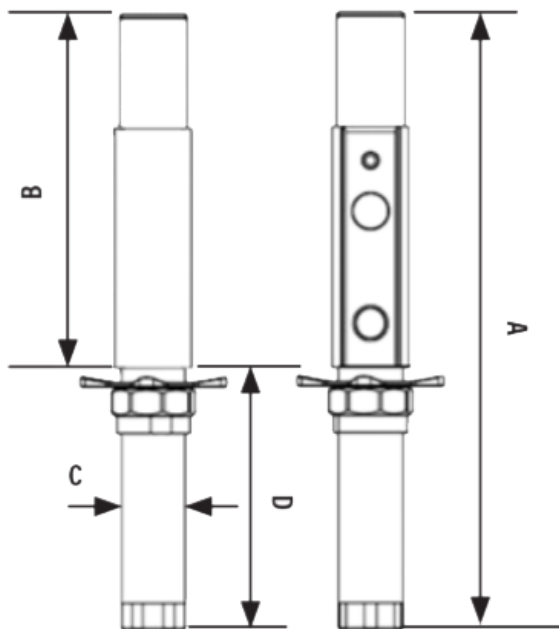
DESIGNED FOR SMALL VOLUME USERS, FOR SYNTHETICS, GEAR OILS, AND STANDARD MINERAL OILS.

**FLUIDS**

- SYNTHETIC AND MINERAL BASED LUBRICANTS
- HYDRAULIC FLUID
- TRANSMISION FLUID
- ANTI-FREEZE/WINDSHIELD WASK FLUID (COMPATIBLE ONLY WITH STAINLESS STEEL)

**APPLICATIONS**

- LUBRICATION SYSTEM DAY TANKS



DIMENSIONS			
L791110-008			
A	B	C	D
48 4/5" (1,239.5 MM)	12 1/5" (309.9 MM)	2 4/5" (309.9 MM)	36 1/2" (927 MM)
L791110-009			
48 23/32" (1,212 MM)	11 2/9" (285 MM)	2 4/5" (309.9 MM)	36 1/2" (927 MM)

FOR USE WITH	SUCTION TUBE DESCRIPTION	PART NUMBER
16 GAL DRUM	SUCTION PICKUP TUBE, TRANSFER PUMP, 18"	L794412-044
165/280 GAL BENCH TANK	SUCTION PICKUP TUBE, TRANSFER PUMP, 21"	L794412-045
55 GAL DRUM	SUCTION PICKUP TUBE, TRANSFER PUMP, 26"	L794412-046
250 GAL BENCH TANK DOUBLE TAP	SUCTION PICKUP TUBE, TRANSFER PUMP, 28"	L794412-047
165/280 GAL BENCH TANK DOUBLE TAP	SUCTION PICKUP TUBE, TRANSFER PUMP, 30"	L794412-048
275 GAL TOTE	SUCTION PICKUP TUBE, TRANSFER PUMP, 32"	L794412-049
330 GAL TOTE	SUCTION PICKUP TUBE, TRANSFER PUMP, 39"	L794412-050
275/330 GAL HOIZONTAL OBROUND DOUBLE TAP	SUCTION PICKUP TUBE, TRANSFER PUMP, 42"	L794412-051
330 GAL VERTICAL OBROUND	SUCTION PICKUP TUBE, TRANSFER PUMP, 60"	L794412-052



FOR REPAIR KITS SEE PAGE 15

SINGLE POST (**ECONOMY**)  
MECHANICAL RAM PUMPS

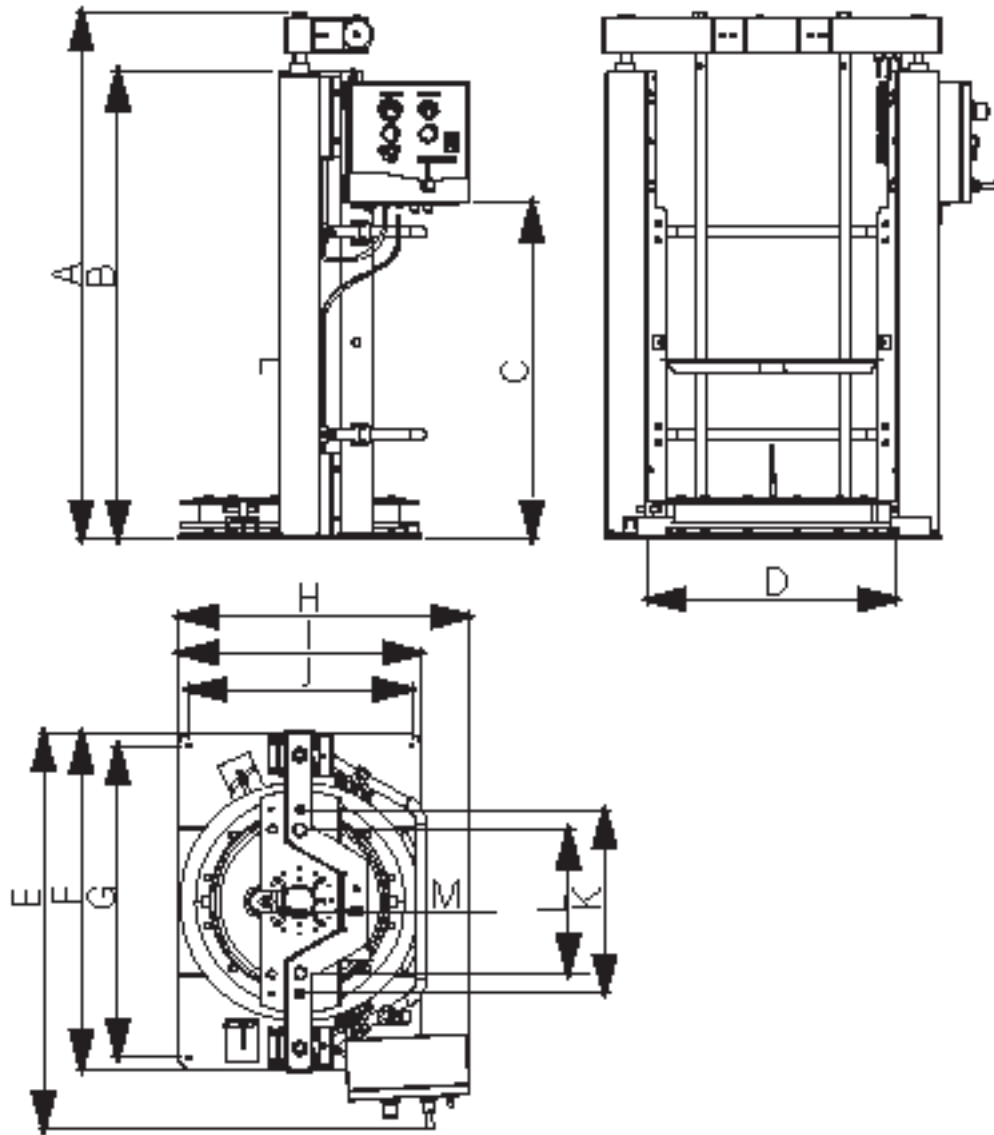


DOUBLE POST (**HEAVY DUTY**) MECHANICAL  
RAM PUMPS











DESCRIPTION	PART NUMBER	DESCRIPTION (SEE DIMENSIONS ON PAGE 8)	MODELS AVAILABLE
GREASE PUMP, <b>HEAVY DUTY</b> MECHANICAL RAM SYSTEM, 40:1, 400 LB *	L791451-004	MECHANICAL RAM, DOUBLE POST AIR OPERATED.	<b>L794450-004</b>
GREASE PUMP, <b>HEAVY DUTY</b> MECHANICAL RAM SYSTEM, 70:1, 400 LB *	L791451-005	450, 40:1 PUMP DOUBLE POST MECHANICAL RAM.	<b>L791451-001</b>
GREASE PUMP, <b>HEAVY DUTY</b> MECHANICAL RAM SYSTEMS, 80:1, 400 LB *	L791451-006	INCLUDES: L791450-003 450, 40:1 PUMP L794450-004 DOUBLE POST MECHANICAL RAM KIT, COLLAR/FOLLOWER-PLATE	
*FOR PUMP SPECIFICATIONS AND DIMENSIONS REFER TO PAGES 5, 6, OR 7.		PACKAGE, 450, 70:1 PUMP DOUBLE POST MECHANICAL RAM.	<b>L791451-002</b>
		INCLUDES: L791450-006 450, 70:1 PUMP L794450-004 DOUBLE POST MECHANICAL RAM KIT, COLLAR/FOLLOWER-PLATE	
		PACKAGE, 600, 80:1 PUMP DOUBLE POST MECHANICAL RAM.	<b>L791451-003</b>
<b>FLOOR MOUNTING SINGLE BRACKET</b>			
DESCRIPTION	PART NUMBER	INCLUDES: L791450-009 600, 80:1 PUMP L794450-004 DOUBLE POST MECHANICAL RAM KIT, COLLAR/FOLLOWER-PLATE	
BASE FOR GREASE HOIST & MECHANICAL RAM	L794450-005	PACKAGE, 600, 12:1 PUMP DOUBLE POST MECHANICAL RAM.	<b>L791451-007</b>
		INCLUDES: L791450-010 600, 12:1 PUMP L794450-004 DOUBLE POST MECHANICAL RAM KIT, COLLAR/FOLLOWER-PLATE	

DIMENSIONS - DOUBLE POST (HEAVY DUTY) MECHANICAL RAM PUMPS



DIMENSIONS INCHES (MM)							
A	B	C	D	E	F	G	H
LOWERED/ RAISED							
52" (1,320 mm) 88" (2,230 mm)	45 1/2" (1,156 mm)	32 2/3" (830 mm)	24 1/2" (74 mm)	38 3/4" (554 mm)	32 2/3" (830 mm)	30 1/3" (771 mm)	28 1/3" (720 mm)
I	J	K	L	M			
LOWERED/ RAISED							
23 2/3" (600 mm)	21 3/4" (554 mm)	18" (455 mm)	14" (355 mm)	4" (104 mm)			

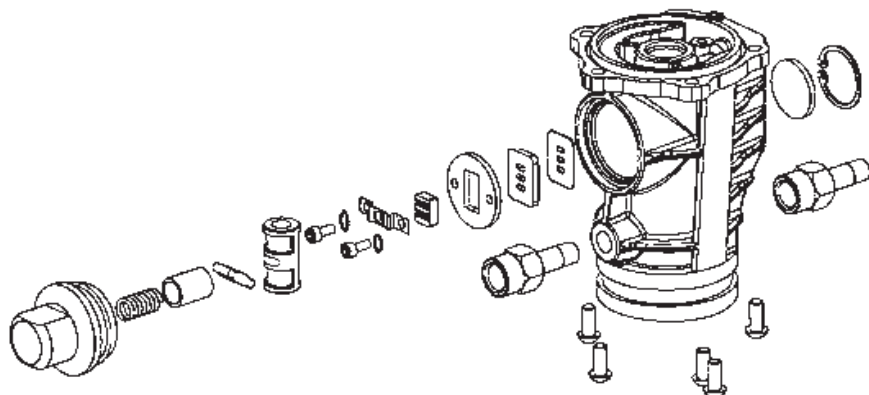
ACCESSORIES

<p><b>Inlet Screen Mesh</b></p>		<p>L794430-003, INLET SCREEN, 30-MESH 50:1 L794430-004, INLET SCREEN, 30-MESH GREASE PUMP</p>			
<p><b>Grease Handles</b></p>		<p>L793310-008, GREASE HANDLE L793310-010, GREASE HANDLE WITH Z-SWIVEL L793310-025, GREASE HANDLE WITH 18" WHIP HOSE AND Z-SWIVEL L793310-020, GREASE HANDLE WITH 36" WHIP HOSE AND Z-SWIVEL L793310-007, GREASE HANDLE L793310-009, BOOSTER GREASE HANDLE WITH Z-SWIVEL L793310-030, COMFORT GRIP GREASE HANDLE L793310-031, COMFORT GRIP GREASE HANDLE WITH 18" WHIP HOSE AND Z-SWIVEL L793310-032, COMFORT GRIP GREASE HANDLE WITH 36" WHIP HOSE AND Z-SWIVEL</p>	<p><b>Pump Runaway Control</b></p>		<p>L793241-002, PUMP RUNAWAY CONTROL 1/4" NPT(F) L793241-001, PUMP RUNAWAY CONTROL 1/2" NPT(F)</p>
<p><b>Other Accessories</b></p>		<p>L798390-002, 18" WHIP HOSE HP L798390-003, 36" WHIP HOSE HP L798390-004, 42" WHIP HOSE HP MAX. PRESSURE 5,000 PSI (345 BAR) HOSE END 1/8" NPT(M) ON BOTH ENDS COMPATIBLE FLUID NLGI LB2 GREASE FLEXIBLE EXTENSION L795310-018, Z-SWIVEL 1/4" NPT(F) X 1/4" NPT(M) L795200-017, QUICK LOCK GREASE COUPLER 1/8" NPT(F) L795310-024, GREASE COUPLER 4-JAWS L795400-003, BEARING PACKER</p>	<p><b>Connecting Hose Kit</b></p>		<p>L794410-035, CONNECTING HOSE KIT W/GREASE HANDLE FOR GREASE L794410-036, CONNECTING HOSE KIT FOR GREASE L794410-030, CONNECTING HOSE KIT FOR GREASE:</p>
			<p><b>Holster</b></p>		<p>L794420-012, HOLSTER, GREASE GUN HOLDER FOR DRUM COVER L794420-010</p>
			<p><b>Cam-lock</b></p>		<p>L794140-058, MALE CAM-LOCK 3" 450/600 FOR TOTE APPLICATIONS L794140-059, FEMALE CAM-LOCK 3" 450/600 FOR TOTE APPLICATIONS</p>
			<p><b>Filter Regulator</b></p>		<p>L793260-036, F/R AUTO DRAIN 1/2" NPT (F)</p>

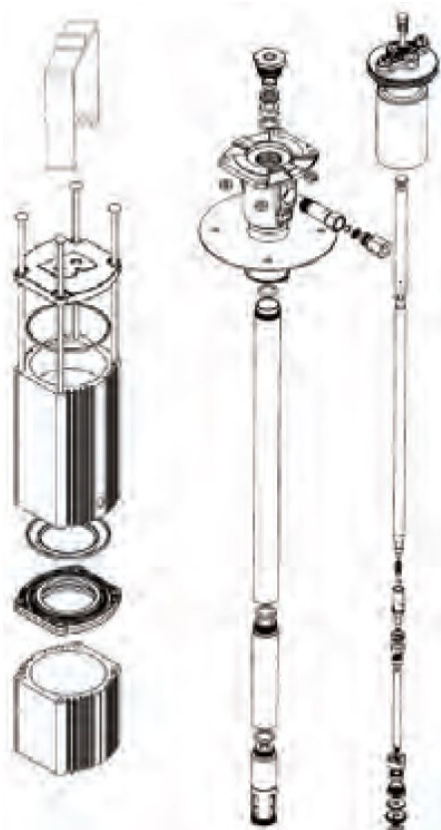


PISTON PUMP REPAIR KITS FOR GREASE PUMPS

REPAIR KIT <b>ECONOMY</b> GREASE PUMPS 55:1 DESCRIPTION	PUMP PART NUMBER	REPAIR KIT PART NUMBER
REPAIR KIT, AIR MOTOR, <b>ECONOMY</b> , 55:1, ALL	L791150-022 L791150-023 L791150-024	L79833038
REPAIR KIT, PACKING SEAL, <b>ECONOMY</b> , 55:1, ALL	L791150-022 L791150-023 L791150-024	L79833039
REPAIR KIT, FOOT VALVE, <b>ECONOMY</b> , 55:1, ALL	L791150-022 L791150-023 L791150-024	L79833040
REPAIR KIT, HP PISTON/CYL & CHECK, <b>ECONOMY</b> , 55:1, ALL	L791150-022 L791150-023 L791150-024	L79833041



REPAIR KIT <b>STANDARD</b> DUTY GREASE PUMPS 50:1 DESCRIPTION	PUMP PART NUMBER	PART NUMBER
REPAIR KIT, AIR MOTOR, <b>STANDARD</b> DUTY, 50:1, ALL	L791150-009 L791150-010 L791150-011	L79831619
REPAIR KIT, FLUID SEAL, <b>STANDARD</b> DUTY, 50:1, ALL	L791150-009 L791150-010 L791150-011	L79900022
REPAIR KIT, FLUID - COMPLETE, <b>STANDARD</b> DUTY, 50:1, 35 LB	L791150-009 L791150-010 L791150-011	L79831616 *
REPAIR KIT, FLUID - COMPLETE, <b>STANDARD</b> DUTY, 50:1, 120 LB	L791150-009 L791150-010 L791150-011	L79831617 *
REPAIR KIT, FLUID - COMPLETE, <b>STANDARD</b> DUTY, 50:1, 400 LB	L791150-009 L791150-010 L791150-011	L79831618 *



\*AVAILABLE BY SPECIAL ORDER ONLY  
FIT MULTIPLE PUMP SIZES

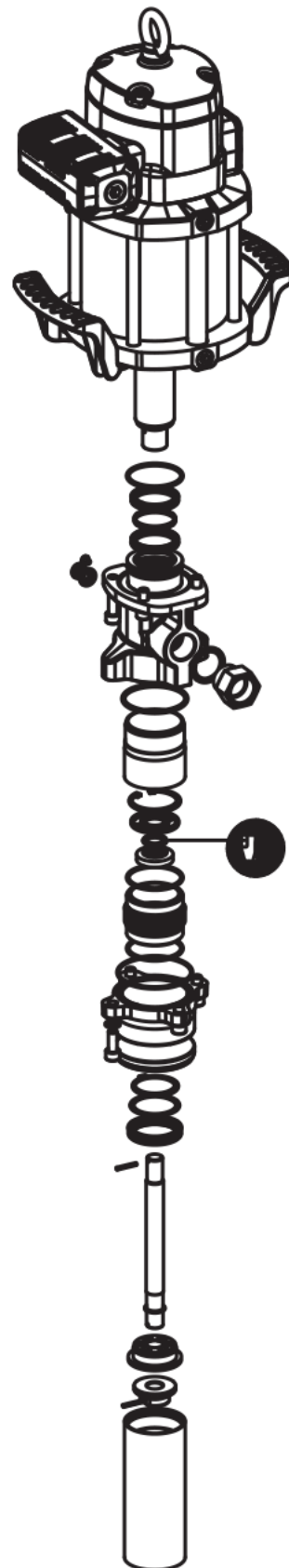
PISTON PUMP REPAIR KITS FOR GREASE PUMPS  
(CONTINUED)

REPAIR KIT <b>HEAVY DUTY</b> GREASE PUMPS 40:1 450 SERIES DESCRIPTION	PUMP PART NUMBER	PART NUMBER
REPAIR KIT, LOWER SEAL KIT, ALL 40:1 PUMPS	L791450-002 L791450-003 L791450-004	L79833409
REPAIR KIT, FOOT VALVE, HEAVY DUTY, ALL 40:1	L791450-002 L791450-003 L791450-004	L79833410
REPAIR KIT, UPPER VALVE KIT, ALL 40:1	L791450-002 L791450-003 L791450-004	L79833411
REPAIR KIT, AIR MTR SEAL KIT, ALL 40:1	L791450-002 L791450-003 L791450-004	L79833412
REPAIR KIT, EXH MUFFLER KIT, ALL <b>HEAVY DUTY</b> 40:1	L791450-002 L791450-003 L791450-004	L79833413
REPAIR KIT, SPOOLS/SEAL KIT, ALL <b>HEAVY DUTY</b> 40:1	L791450-002 L791450-003 L791450-004	L79833414
COLLAR/FOLLOWER PLATE, 40:1 400LB	L791450-002	L79833650 *

\*AVAILABLE BY SPECIAL ORDER ONLY  
FIT MULTIPLE PUMP SIZES

REPAIR KIT <b>HEAVY DUTY</b> GREASE PUMPS 70:1 450 SERIES DESCRIPTION	PUMP PART NUMBER	PART NUMBER
REPAIR KIT, UPPER VALVE KIT, ALL 70:1	L791450-005 L791450-006 L791450-007	L79833411
REPAIR KIT, AIR MTR SEAL KIT, ALL 70:1	L791450-005 L791450-006 L791450-007	L79833412
REPAIR KIT, EXH MUFFLER KIT, ALL <b>HEAVY DUTY</b> 70:1	L791450-005 L791450-006 L791450-007	L79833413
REPAIR KIT, SPOOLS/SEAL KIT, ALL <b>HEAVY DUTY</b> 70:1	L791450-005 L791450-006 L791450-007	L79833414
REPAIR KIT, LOWER SEAL KIT, ALL 70:1 PUMPS	L791450-005 L791450-006 L791450-007	L79833598
REPAIR KIT, FOOT VALVE, <b>HEAVY DUTY</b> , ALL 70:1	L791450-005 L791450-006 L791450-007	L79833599
COLLAR/FOLLOWER PLATE, 70:1 120LB	L791450-006	L79833650 *

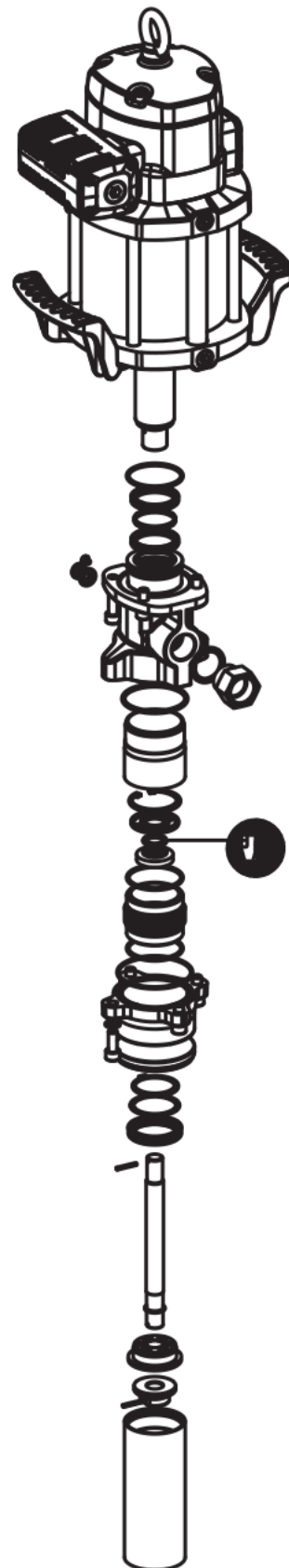
\*AVAILABLE BY SPECIAL ORDER ONLY  
FIT MULTIPLE PUMP SIZES



PISTON PUMP REPAIR KITS FOR GREASE PUMPS  
(CONTINUED)

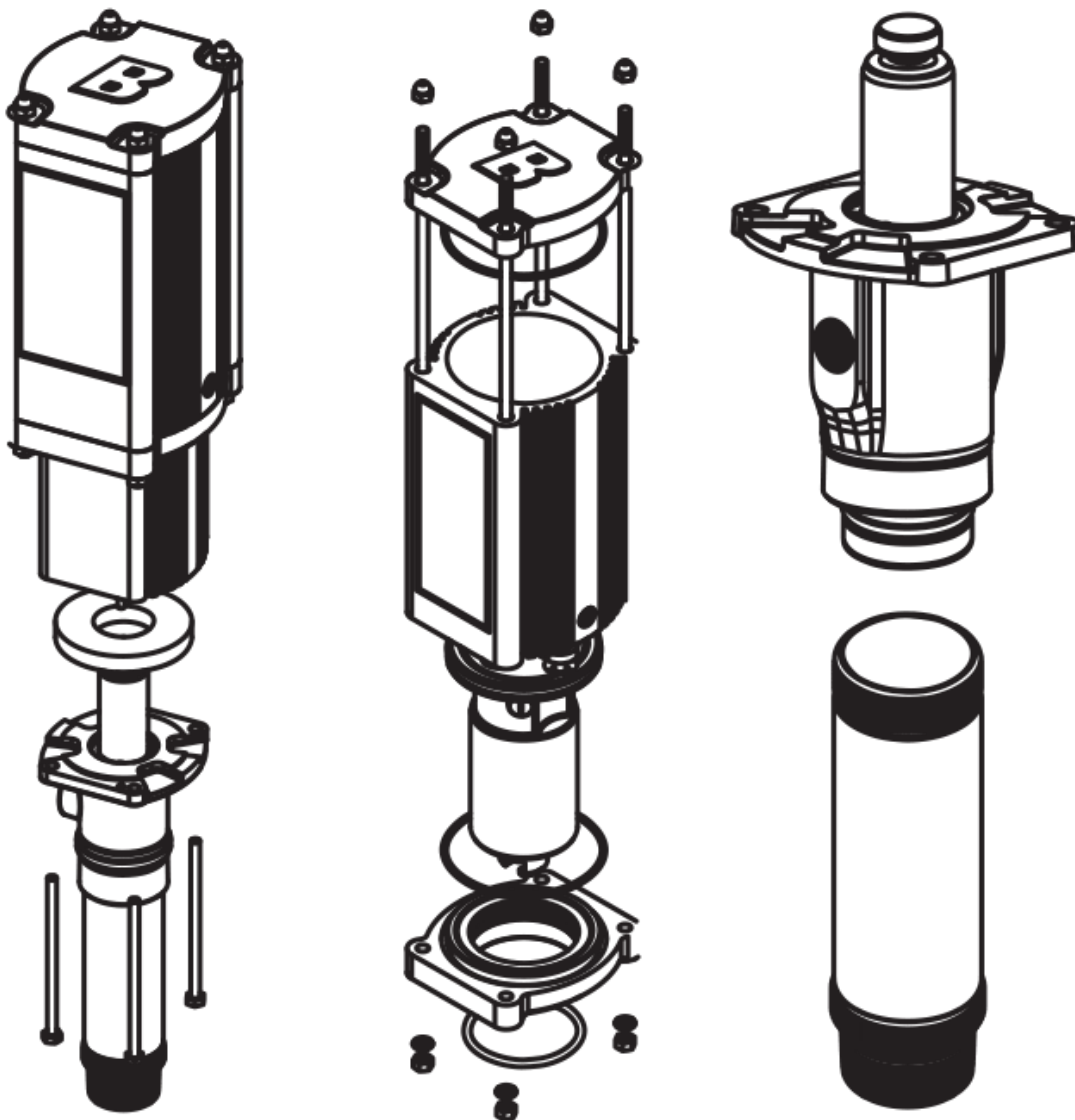
REPAIR KIT <b>HEAVY DUTY</b> GREASE PUMPS 80:1 600 SERIES DESCRIPTION	PUMP PART NUMBER	PART NUMBER
REPAIR KIT, LOWER SEAL KIT, ALL 80:1 PUMPS	L791450-008 L791450-009	L79833409
REPAIR KIT, EXH MUFFLER KIT, ALL <b>HEAVY DUTY</b> 80:1	L791450-008 L791450-009	L79833413
REPAIR KIT, SPOOLS/SEAL KIT, ALL <b>HEAVY DUTY</b> 80:1	L791450-008 L791450-009	L79833414
COLLAR/FOLLOWER PLATE, 80:1 120LB	L791450-009	L79833650 *
REPAIR KIT, AIR MTR SEAL KIT, ALL 6.0" MTR, 80:1	L791450-008 L791450-009	L79833511

\*AVAILABLE BY SPECIAL ORDER ONLY  
FIT MULTIPLE PUMP SIZES



PISTON PUMP REPAIR KITS FOR OIL PUMPS

REPAIR KIT OIL TRANSFER PUMPS 1:1—CRS & STAINLESS STEEL DESCRIPTION	PUMP PART NUMBER	PART NUMBER
1:1 REPAIR KIT, L791160-008 SS PUMP	L791160-008	L79832953
1:1 REPAIR KIT, L791110-010 CRS PUMP	L791110-010	L79833109
1:1 REPAIR KIT, AIR VALVE L791110-010 CRS PUMP	L791110-010	L79833110



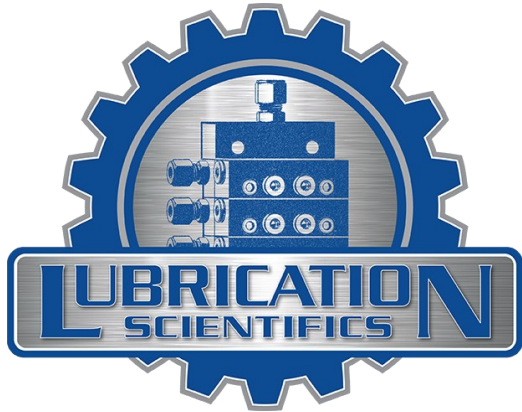
PART NUMBER INTERCHANGE

LINCOLN PART NUMBER	GRACO PART NUMBER	LUBRICATION SCIENTIFICS	PRODUCT DESCRIPTION
N/A	77X540	L527680-NO-000	24 VDC ELECTRIC VENT VALVE
84080-9	N/A	L791160-008	TRANSFER PUMP, 1:1, SS, W/BUNG ADAP
4490/84829	N/A	L791110-010	TRANSFER PUMP, 1:1, CRS, W/BUNG ADAP
N/A	N/A	L794412-044	SUCTION PICKUP TUBE, TRANSFER PUMP, 18"
N/A	N/A	L794412-045	SUCTION PICKUP TUBE, TRANSFER PUMP, 21"
N/A	N/A	L794412-046	SUCTION PICKUP TUBE, TRANSFER PUMP, 26"
N/A	N/A	L794412-047	SUCTION PICKUP TUBE, TRANSFER PUMP, 28"
N/A	N/A	L794412-048	SUCTION PICKUP TUBE, TRANSFER PUMP, 30"
N/A	N/A	L794412-049	SUCTION PICKUP TUBE, TRANSFER PUMP, 32"
N/A	N/A	L794412-050	SUCTION PICKUP TUBE, TRANSFER PUMP, 39"
N/A	N/A	L794412-051	SUCTION PICKUP TUBE, TRANSFER PUMP, 42"
N/A	N/A	L794412-052	SUCTION PICKUP TUBE, TRANSFER PUMP, 60"
N/A	N/A	L791150-022	GREASE PUMP, ECONOMY SERIES, 55:1, 35LB
82050	N/A	L791150-023	GREASE PUMP, ECONOMY SERIES, 55:1, 120LB
82054	N/A	L791150-024	GREASE PUMP, ECONOMY SERIES, 55:1, 400LB
N/A	N/A	L794420-010	DRUM COVER, ECON SERIES, 55:1, 35LB
N/A	N/A	L794440-013	FOLLOWER, ECON SERIES, 55:1, 35LB
46007	N/A	L794420-011	DRUM COVER, ECON SERIES, 55:1, 120LB
84780	N/A	L794440-014	FOLLOWER, ECON SERIES, 55:1, 120LB
81523	N/A	L794420-015	DRUM COVER, ECON SERIES, 55:1, 400LB
83366	N/A	L794440-018	FOLLOWER, ECON SERIES, 55:1, 400LB
N/A	N/A	L794411-023	BUNG ADAPTER, ECON SERIES 55:1, ALL
N/A	N/A	L79833038	REPAIR KIT, AIR MOTOR, ECON, 55:1, ALL
N/A	N/A	L79833039	REPAIR KIT, PACKING SEAL, ECON, 55:1, ALL
N/A	N/A	L79833040	REPAIR KIT, FOOT VALVE, ECON, 55:1, ALL
N/A	N/A	L79833041	REPAIR KIT, HP PISTON/CYL & CHECK, ECON, 55:1, ALL
N/A	N/A	L791150-009	GREASE PUMP, STANDARD DUTY, 50:1, 35LB
84667	N/A	L791150-010	GREASE PUMP, STANDARD DUTY, 50:1, 120LB
84668	N/A	L791150-011	GREASE PUMP, STANDARD DUTY, 50:1, 400LB
N/A	N/A	L794420-008	DRUM COVER, STD DUTY SERIES, 50:1, 35LB
N/A	N/A	L794440-007	FOLLOWER, STD DUTY SERIES, 50:1, 35LB
81538	N/A	L794420-009	DRUM COVER, STD DUTY SERIES, 50:1, 120LB
84780	N/A	L794440-008	FOLLOWER, STD DUTY SERIES, 50:1, 120LB
81412	N/A	L794420-004	DRUM COVER, STD DUTY SERIES, 50:1, 400LB
83369	N/A	L794440-009	FOLLOWER, STD DUTY SERIES, 50:1, 400LB
N/A	N/A	L794411009N	BUNG ADAPTER, STD DUTY SERIES 50:1, ALL
N/A	N/A	L79831619	REPAIR KIT, AIR MOTOR, STD DUTY, 50:1, ALL
N/A	N/A	L79900022	REPAIR KIT, FLUID SEAL, STD DUTY, 50:1, ALL
N/A	N/A	L79831616	REPAIR KIT, FLUID - COMPLETE, STD DUTY, 50:1, 35LB
N/A	N/A	L79831617	REPAIR KIT, FLUID - COMPLETE, STD DUTY, 50:1, 120LB
N/A	N/A	L79831618	REPAIR KIT, FLUID - COMPLETE, STD DUTY, 50:1, 400LB
2011	N/A	L791450-003	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, 120LB
2010	N/A	L791450-002	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, 400LB
N/A	N/A	L791450-004	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 40:1, BULK TOTE
1908	N/A	L791450-006	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 70:1, 120LB
1904	N/A	L791450-005	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 70:1, 400LB
N/A	N/A	L791450-007	GREASE PUMP, HEAVY DUTY, 4.5" MOTOR, 70:1, BULK TOTE
2008	N/A	L791450-009	GREASE PUMP, HEAVY DUTY, 6.0" MOTOR, 80:1, 120LB

**DISCLAIMER:** Lubrication Scientifics, LLC assumes no responsibility for errors or omissions which may have occurred. While every effort is made to attain accurate information, it is ultimately the responsibility of the distributor and/or customer to verify the accuracy of the information.

PART NUMBER INTERCHANGE

LINCOLN PART NUMBER	GRACO PART NUMBER	LUBRICATION SCIENTIFICS PART NUMBER	PRODUCT DESCRIPTION
2004	N/A	L791450-008	GREASE PUMP, HEAVY DUTY, 6.0" MOTOR, 80:1, 400LB
81538	N/A	L794420-014	DRUM COVER, HEAVY DUTY SERIES, 4.5" & 6.0" MTR, ALL 120LB
84780	N/A	L794440-017	FOLLOWER, HEAVY DUTY SERIES, 4.5" & 6.0" MTR, ALL 120LB
81412	N/A	L794420-013	DRUM COVER, HEAVY DUTY SERIES, 4.5" & 6.0" MTR, ALL 400LB
83369	N/A	L794440-015	FOLLOWER, HEAVY DUTY SERIES, 4.5" & 6.0" MTR, ALL 400LB
N/A	N/A	L794140058	BUNG ADAPTER, HEAVY DUTY SERIES, MALE CAM LOCK, ALL
N/A	N/A	L794140059	BUNG ADAPTER, HEAVY DUTY SERIES, FEMALE CAM LOCK, ALL
N/A	N/A	L79833409	REPAIR KIT, LOWER SEAL KIT, ALL 40:1 & 80:1 PUMPS
N/A	N/A	L79833410	REPAIR KIT, FOOT VALVE, HEAVY DUTY, ALL 40:1
N/A	N/A	L79833411	REPAIR KIT, UPPER VALVE KIT, ALL 40:1 & 70:1
N/A	N/A	L79833412	REPAIR KIT, AIR MTR SEAL KIT, ALL 40:1 & 70:1
N/A	N/A	L79833413	REPAIR KIT, EXH MUFFLER KIT, ALL HEAVY DUTY 40:1, 70:1, & 80:1
N/A	N/A	L79833414	REPAIR KIT, SPOOLS/SEAL KIT, ALL HEAVY DUTY 40:1, 70:1, & 80:1
N/A	N/A	L79833650	COLLAR/FOLLOWER PLATE, 40:1 400LB, 70:1 120LB & 80:1 120LB
N/A	N/A	L79833598	REPAIR KIT, LOWER SEAL KIT, ALL 70:1 PUMPS
N/A	N/A	L79833599	REPAIR KIT, FOOT VALVE, HEAVY DUTY, ALL 70:1
N/A	N/A	L79833511	REPAIR KIT, AIR MTR SEAL KIT, ALL 6.0" MTR, 80:1
2790	N/A	L791451-004	GREASE PUMP, HEAVY DUTY MECHANICAL RAM SYSTEM, 40:1, 400LB
2716/2010	N/A	L791451-005	GREASE PUMP, HEAVY DUTY MECHANICAL RAM SYSTEM, 70:1, 400LB
2716/2004	N/A	L791451-006	GREASE PUMP, HEAVY DUTY MECHANICAL RAM SYSTEMS, 80:1, 400LB
N/A	N/A	L794450005	BASE FOR GREASE HOIST & MECHANICAL RAM



# LMAG PNEUMATIC PUMP FOR CENTRALIZED LUBRICATION SYSTEMS



READY FOR IMMEDIATE SHIPMENT

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# LMAG PNEUMATIC PUMP FOR CENTRALIZED LUBRICATION SYSTEMS

PRODUCT DESCRIPTION	BENEFITS & FEATURES
<p>PERFECT FOR SMALLER INJECTOR SYSTEMS (LSL-32: UP TO 150 INJECTORS AND LSL-1: UP TO 25 INJECTORS)</p> <p>PRODUCES GREATER OUTPUT PER STROKE THAN COMPETITIVE MODELS</p> <p>NO PRESSURE SWITCH NEEDED - VENT VALVE AUTOMATICALLY AND EFFICIENTLY RELIEVES PRESSURE ON EVERY RETURN STROKE</p> <p>OPTIONAL LOW LEVEL READY UPON REQUEST</p> <p>BUILT WITH HIGH QUALITY MATERIAL TO WITHSTAND THE HARSHTEST ENVIRONMENTS</p>	<p>PNEUMATIC POWER FOR EASY INSTALL INTO EXISTING AIR LINES</p> <p>DELIVERS ACCURATE, RELIABLE LUBRICATION FOR EVERY LUBE POINT</p> <p>HIGHER LUBE OUTPUT AND FASTER LUBRICATION CYCLE RATE</p> <p>DURABLE SHATTER PROOF RESERVOIR</p> <p>SIMPLIFIED INSTALLATION USING EXISTING MOUNTING HOLES</p>

### INDEX

DESCRIPTION	PAGE
LMAG PUMP, NO RESERVOIR	3
LMAG GREASE PUMP	4
LMAG OIL PUMP	5
INSTALLATION	6
TECHNICAL DATA	7
DIMENSIONS	8
ASSEMBLY	9

**READY FOR IMMEDIATE SHIPMENT**

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## LMAG PNEUMATIC PUMP

LMAG GREASE PUMP	PART NUMBER
LMAG, BARE INJECTOR PUMP, NO RESERVOIR	LMAG-001

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS AND ARE AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS. LMAG PUMPS ARE CUSTOMIZABLE FOR A WIDE VARIETY OF APPLICATIONS. TRUST LUBRICATION SCIENTIFICS INDUSTRY

### FLUIDS / TECHNICAL DATA

- OIL AND GREASE
- PUMP OUTPUT: 2.5 CU IN / 2.6 CC PER STROKE
- MIN AIR PRESSURE 50PSI / 3 BAR / MAX AIR PRESSURE 140PSI / 9 BAR
- AIR RATIO: 25:1
- MAXIMUM OPERATING PRESSURE: 3500PSI / 241 BAR
- RESERVOIR CAPACITIES: 6 PINT / 2.84 LITER, 6LB / 2.72KG,  
12 PINT / 5.68 LITER, 12LB / 5.44KG,  
20 PINT / 9.46 LITER, AND 20LB / 9.06KG

### APPLICATIONS

- PACKAGING
- AUTOMATION MACHINERY
- PAPER PRODUCTION
- PRESSES
- TIRE PRODUCTION
- LABELERS



LMAG-001  
BARE PUMP, NO RESERVOIR

## LMAG PNEUMATIC PUMP (GREASE)

LMAG GREASE PUMP & RESERVOIR DESCRIPTION	PART NUMBER
LMAG PUMP WITH 6PT GREASE RESERVOIR	LMAG-001-06G
LMAG PUMP WITH 12PT GREASE RESERVOIR	LMAG-001-12G
LMAG PUMP WITH 20PT GREASE RESERVOIR	LMAG-001-20G
LMAG PUMP WITH 6PT GREASE RESERVOIR W/ LOW LEVEL	LMAG-001-06GLL
LMAG PUMP WITH 12PT GREASE RESERVOIR W/ LOW LEVEL	LMAG-001-12GLL
LMAG PUMP WITH 20PT GREASE RESERVOIR W/ LOW LEVEL	LMAG-001-20GLL

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS AND ARE AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS. LMAG PUMPS ARE CUSTOMIZABLE FOR A WIDE VARIETY OF APPLICATIONS. TRUST LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY.

### FLUIDS / TECHNICAL DATA

- GREASE
- PUMP OUTPUT: 2.5 CU IN / 2.6 CC PER STROKE
- MIN AIR PRESSURE 50PSI / 3 BAR / MAX AIR PRESSURE 140PSI / 9 BAR
- AIR RATIO: 25:1
- MAXIMUM OPERATING PRESSURE: 3500PSI / 241 BAR
- RESERVOIR CAPACITIES: 6 PINT / 2.84 LITER, 6LB / 2.72KG, 12 PINT / 5.68 LITER, 12LB / 5.44KG, 20 PINT / 9.46 LITER, AND 20LB / 9.06KG

### APPLICATIONS

- PACKAGING
- AUTOMATION MACHINERY
- PAPER PRODUCTION
- PRESSES
- TIRE PRODUCTION
- LABELERS
- INJECTION MOLDING
- MANUFACTURING
- THERMOFORMING



LMAG-001-06G

LMAG WITH 6LB GREASE RESERVOIR, NO LOW LEVEL

## LMAG PNEUMATIC PUMP (OIL)

LMAG OIL PUMP & RESERVOIR DESCRIPTION	PART NUMBER
LMAG PUMP WITH 6PT OIL RESERVOIR	LMAG-001-06O
LMAG PUMP WITH 12PT OIL RESERVOIR	LMAG-001-12O
LMAG PUMP WITH 20PT OIL RESERVOIR	LMAG-001-20O
LMAG PUMP WITH 6PT OIL RESERVOIR W/ LOW LEVEL	LMAG-001-06OLL
LMAG PUMP WITH 12PT OIL RESERVOIR W/ LOW LEVEL	LMAG-001-12OLL
LMAG PUMP WITH 20PT OIL RESERVOIR W/ LOW LEVEL	LMAG-001-20OLL

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS AND ARE AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS. LMAG PUMPS ARE CUSTOMIZABLE FOR A WIDE VARIETY OF APPLICATIONS. TRUST LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY.

### FLUIDS / TECHNICAL DATA

- OIL
- PUMP OUTPUT: 2.5 CU IN / 2.6 CC PER STROKE
- MIN AIR PRESSURE 50PSI / 3 BAR / MAX AIR PRESSURE 140PSI / 9 BAR
- AIR RATIO: 25:1
- MAXIMUM OPERATING PRESSURE: 3500PSI / 241 BAR
- RESERVOIR CAPACITIES: 6 PINT / 2.84 LITER, 6LB / 2.72KG, 12 PINT / 5.68 LITER, 12LB / 5.44KG, 20 PINT / 9.46 LITER, AND 20LB / 9.06KG

### APPLICATIONS

- PACKAGING
- AUTOMATION MACHINERY
- PAPER PRODUCTION
- PRESSES
- TIRE PRODUCTION
- LABELERS
- INJECTION MOLDING
- MANUFACTURING
- THERMOFORMING



LMAG-001-06PT

LMAG WITH 6PT OIL RESERVOIR, NO LOW LEVEL

## LMAG INSTALLATION INSTRUCTIONS

### AIR/FLUID LINES

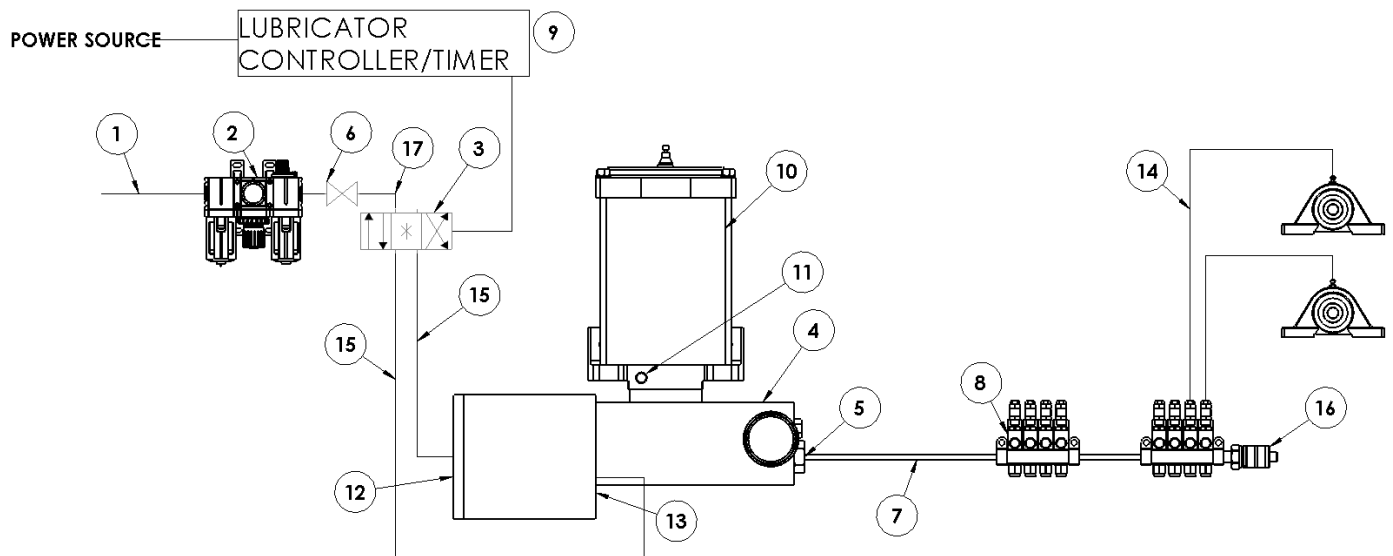
1. INSTALL THE AIRLINE ACCESSORIES IN ORDER AS SHOWN ON LMAG-TYP-INSTALL.
2. AN AIR BLEED VALVE (6) IS USEFUL TO BLEED TRAPPED AIR BETWEEN PUMP AND AIR INLET.
3. AN AIR LINE FILTER IS CRITICAL AND NECESSARY TO REMOVE DAMAGING CONTAMINATION AND MOISTURE FROM COMPRESSED AIR.
4. REGULATOR IS NECESSARY TO REGULATE CORRECT AIR PRESSURE TO SYSTEM: PRESSURE RATIO 25:1 (MAX 140 PSI).
5. INSTALL LP-FR01 ORIFICE FLOW RESTRICTOR IN THE PNEUMATIC SOLENOID VALVE INLET.

### FILL RESERVOIR

1. LOCATE PUMP RESERVOIR FILL PORT/STUD (11).
2. CONNECT QUICK CONNECT FITTING FROM FILL PUMP TO THE FILL PORT.
3. SLOWLY FILL RESERVOIR ALLOWING THE FOLLOWER PLATE TO LIFE ABOVE THE RESERVOIR VENT HOLE EXPELLING ENTRAPPED AIR.

### PRIMING

1. PRIME PUMP BEFORE CONNECTING PUMP TO SUPPLY LINE AND SYSTEM.
2. FOR PROPER PRIMING OF PUMP MAKE SURE RESERVOIR IS COMPLETELY FILLED. FAILING TO COMPLETELY FILL RESERVOIR CAN RESULT IN TRAPPED AIR IN THE PUMP AND SYSTEM.
3. RUN PUMP UNTIL GREASE COMES OUT OF OUTLET AND IS FREE OF AIR BUBBLES.
4. IT MAY TAKE 15 OR MORE PUMP STROKES TO SUCCESSFULLY PRIME PUMP DEPENDING ON VISCOSITY OF LUBRICANT AND TEMPERATURE.
5. ON/OFF TIME FOR FORWARD AND RETURN STROKE SHOULD BE 5 SECONDS.
6. FILL ALL LINES WITH LUBRICANT BEFORE CONNECTING TO ANY BEARING POINTS AND OUTLETS.



1. MAIN AIR SUPPLY	7. HIGH PRESSURE LUBRICATION SUPPLY LINES	13. PUMP AIR INLET—RETURN STROKE
2. FILTER/REGULATOR/LUBRICATOR ASSEMBLY	8. INJECTOR	14. BEARING FEED LINES
3. AIR SOLENOID (4-WAY)	9. LUBRICATOR CONTROLLER	15. AIR SUPPLY LINES
4. PUMP	10. PUMP RESERVOIR	16. PRESSURE SWITCH
5. PUMP OUTLET	11. PUMP RESERVOIR FILL PORT	17. ORIFICE FLOW RESTRICTOR
6. AIR BLEED VALVE	12. PUMP AIR INLET—FORWARD STROKE	

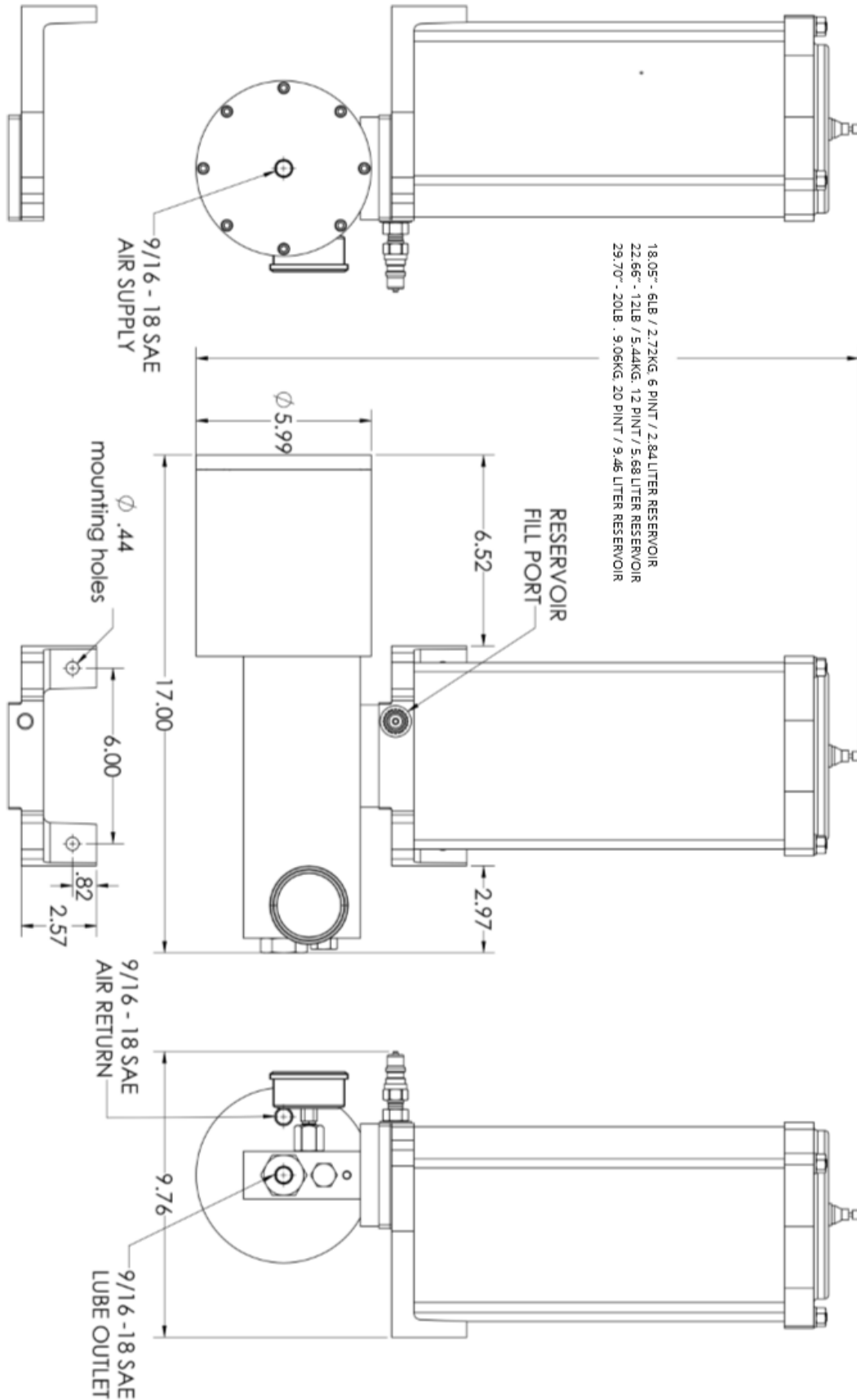
### LUBRICANT OUTPUT AND PRESSURE

1	2	3	4		5		6	
INJECTOR TYPE	MAX INJECTOR OUTPUT CU. IN.	MAX PUMP LUBRICANT OUTPUT/STROKE CU. IN.	MINIMUM PRESSURE 50 PSI		MAXIMUM PRESSURE 140 PSI		RECOMMENDED PRESSURE 80-100 PSI	
			OUTPUT PSI	REQUIRED AIR PSI	OUTPUT PSI	REQUIRED AIR PSI	OUTPUT PSI	REQUIRED AIR PSI
LSL-1	0.080	2.5	1850	74	3500	140	2500	100
LSL-32	0.012		1200	50			1500	60

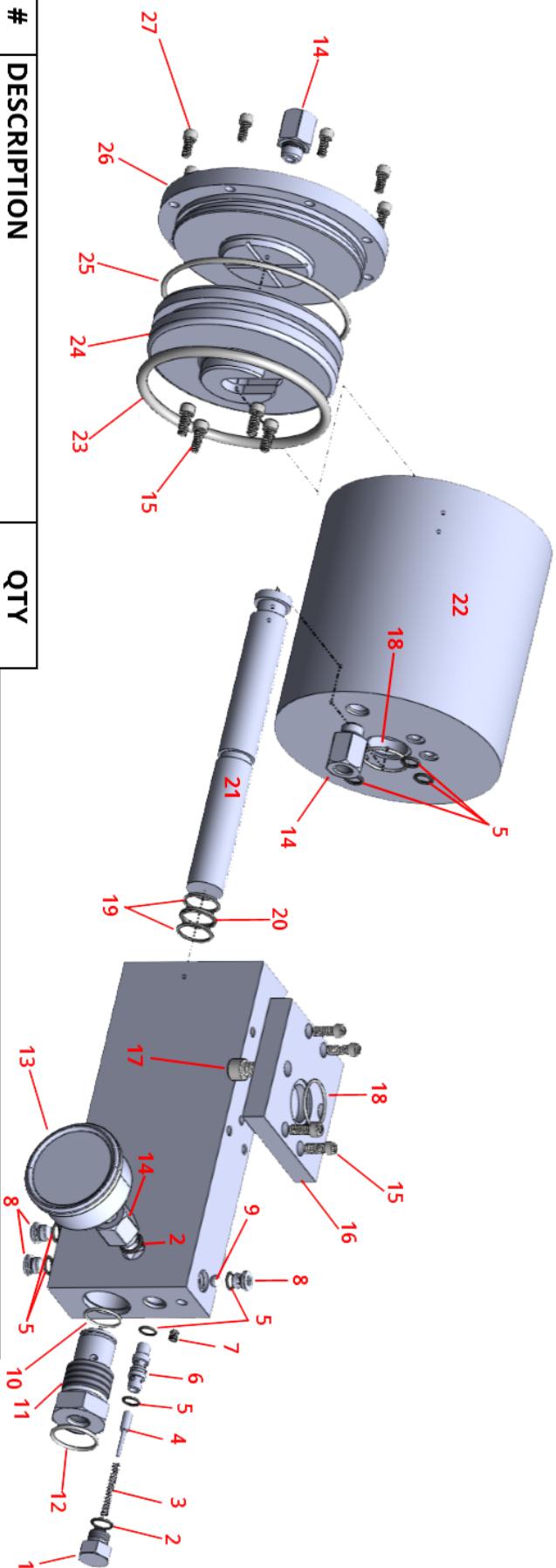
### TECHNICAL DATA

SINGLE STROKE GREASE PUMP		
	US	METRIC
MAXIMUM FLUID WORKING PRESSURE	3500 PSI	241 BAR
PRESSURE RATIO	25:1	
PUMP OUTPUT	2.5 CU. IN./STROKE	
RESERVOIR CAPACITY GREASE	6LBS, 12LBS, 20LBS	
RESERVOIR CAPACITY OIL	6 PINTS , 12 PINTS, 20 PINTS	
MINIMUM AIR PRESSURE	50 PSI	3.4 BAR
MAX AIR INLET PRESSURE	140 PSI	9.6 BAR
AIR INLET SIZE	1/4 IN. NPT(F) - 1/4 NPSF	
MINIMUM CFM TO FUNCTION	40 CFM, 4 WAY SOLENOID MUST HAVE MIN. CV OF .7 @ 100 PSI	
FLUID OUTLET SIZE	3/4 IN. NPT(F) - 1/4 NPSF - 3/8 NPSF	

**LMAG PUMP DIMENSIONS**

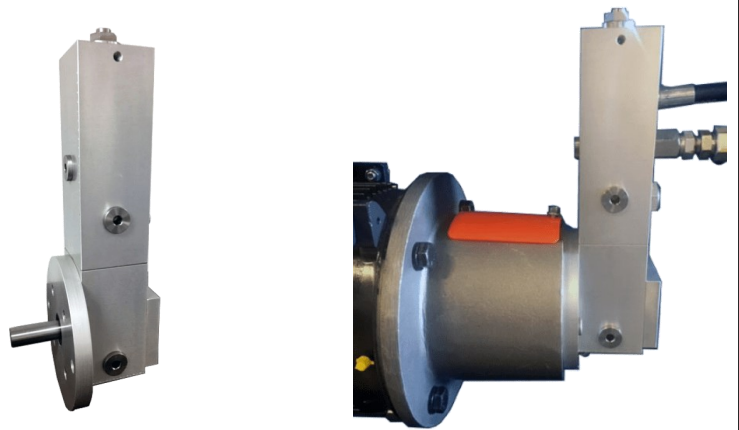


LMAG ASSEMBLY INSTRUCTIONS



#	DESCRIPTION	QTY	#	DESCRIPTION	QTY
1	VENT SLEEVE RETAINER	1	15	1/4-28 X 5/8 SOCKET HEAD CAP SCREW	8
2	-906 VITON O-RING	4	16	ADAPTER PLATE	1
3	VENT PISTON SPRING	1	17	3/8 - 16 X 5/8 SOCKET HEAD CAP SCREW	2
4	VENT PISTON	1	18	-024 VITON O-RING	2
5	-012 90 DURO VITON O-RING	7	19	BACK UP RING	2
6	VENT SLEEVE	1	20	QUAD RING	1
7	KOENIG	1	21	LUBE PISTON	1
8	PLUG	3	22	CYLINDER	1
9	5/16" 316 SS BALL	1	23	-425 VITON O-RING	1
10	-020 VITON O-RING	1	24	PNEUMATIC PISTON	1
11	OUTLET ADAPTER	1	25	-248 VITON O-RING	1
12	-122 VITON O-RING	1	26	END CAP	1
13	GAUGE	1	27	1/4 - 20 X 1/2 SOCKET HEAD CAP SCREW	8
14	9/16-18 X 1/4 NPSF ADAPTER	3			

## LJP SINGLE—LUBRICATION PUMP



### BENEFITS & ADVANTAGES

- THREE PISTON SIZES AVAILABLE, EITHER FIXED OR ADJUSTABLE OUTPUTS, FOR LARGE OUTPUT RANGES.
- PUMP WITH 3/16" DIAMETER PISTON CAN OPERATE UP TO 10,000 PSI
- SIMPLIFIED, PATENT PENDING, DESIGN WITH LESS THAN HALF THE INTERNAL COMPONENTS OF COMPETITIVE PUMPS.
- DISCHARGE PISTON AND LOWER PLUNGER ARE LOCKED TOGETHER, BUT ARE FREE TO ROTATE 360° ELIMINATING NEED FOR KEY OR PIN.
- AIR BLEED PLUG AT TOP OF CYLINDER ASSEMBLY.
- EXTERNAL PUMP OUTPUT ADJUSTMENT ON ADJUSTABLE OUTPUT TYPES.
- ADAPTERS AVAILABLE FOR MOUNTING TO VARIOUS SIZE FOOTED "C" FACE MOTORS

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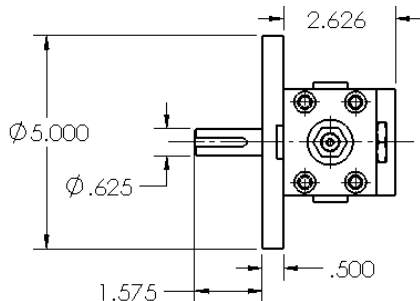


## LJP SINGLE ORDERING GUIDE/SPECIFICATIONS

LJP-S-X-XX		LJP-S-X-XX	
TYPE	P/N	OUTPUT SIZE:	P/N
FIXED OUTPUT:	F	3/16 DIA	19
ADJUSTABLE OUTPUT	A	1/4 DIA	25
		3/8 DIA	38

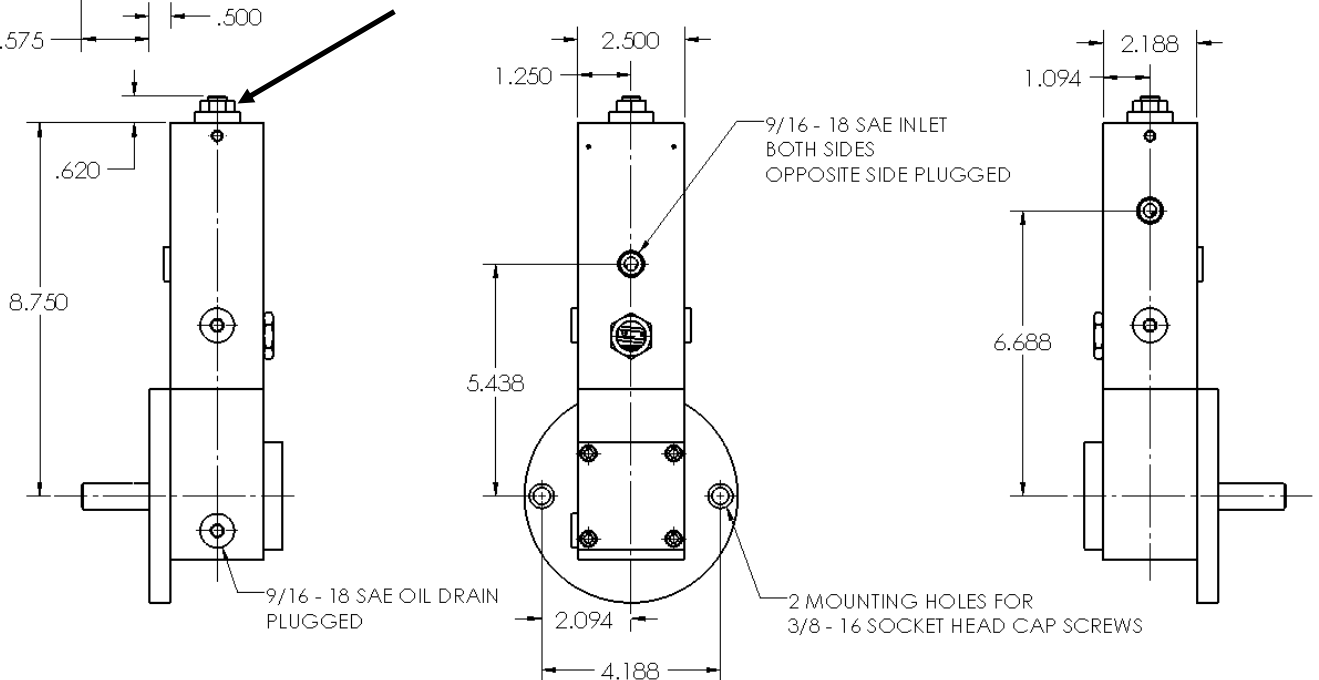
### OUTPUT SPECIFICATIONS

PLUNGER SIZE	MIN OUTPUT PER STROKE	MAX OUTPUT PER STROKE	OUTPUT CHANGE PER 1/4 ROTATION OF CYL.	MAXIMUM CONTINUOUS OPERATING PRESSURE	MAXIMUM INTERMITTENT PRESSURE
19	.0015 CU IN	.006 CU IN	.0005 CU. IN. .008 CC	10,000 PSI 690 BAR	12,000 PSI 827 BAR
25	.0030 CU IN	.0125 CU IN	.0009 CU. IN. .014 CC	6,000 PSI 414 BAR	8,000 PSI 552 BAR
38	.0065 CU IN	.026 CU IN	.0019 CU. IN. .031 CC	3,500 PSI	6,000 PSI 414 BAR



#### ADJUSTMENT INSTRUCTIONS:

WITH CYLINDER BOTTOMED OUT ON PUMP HOUSING THE PUMP IS AT MAXIMUM OUTPUT. LOOSEN THE SET SCREW AND ROTATE COUNTER CLOCKWISE TO REDUCE OUTPUT TO A MAXIMUM GAP OF .190 FOR MINIMUM OUTPUT. RE-TIGHTEN SET SCREW AFTER ADJUSTMENT.



**LJP SINGLE PUMP REPAIR/REPLACEMENT PARTS**

**MASTER PUMP REPAIR KIT**



**PUMP REPAIR KIT**



**LOWER PLUNGER KIT**



PART NUMBER	ASSEMBLY DESCRIPTION
LJP-MPE19	MASTER PUMP KIT, 3/16 PISTON ADJUSTABLE
LJP-MPE25	MASTER PUMP KIT, 1/4 PISTON ADJUSTABLE
LJP-MPE38	MASTER PUMP KIT, 3/8 PISTON ADJUSTABLE
LJP-RPE19	PUMP REPAIR KIT, 3/16 PISTON ADJUSTABLE
LJP-RPE25	PUMP REPAIR KIT, 1/4 PISTON ADJUSTABLE
LJP-RPE35	PUMP REPAIR KIT, 3/8 PISTON ADJUSTABLE
LJP-RPKU	LOWER PLUNGER REPAIR KIT, ALL
LJP-MPE19-F	MASTER PUMP KIT, 3/16 PISTON FIXED
LJP-MPE25-F	MASTER PUMP KIT, 1/4 PISTON FIXED
LJP-MPE38-F	MASTER PUMP KIT, 3/8 PISTON FIXED
LJP-RPE19-F	PUMP REPAIR KIT, 3/16" FIXED
LJP-RPE25-F	PUMP REPAIR KIT, 1/4" FIXED
LJP-RPE38-F	PUMP REPAIR KIT, 3/8" FIXED

**LJP SINGLE — PROCEDURE TO REPLACE LJP PUMP CYLINDER ASSEMBLY**

- SHUT OFF THE OIL SUPPLY TO THE PUMP.
- REMOVE THE DRAIN PLUG AND DRAIN THE OIL FROM THE LOWER PUMP HOUSING
- MEASURE AND RECORD THE SPACE BETWEEN THE TOP OF THE PUMP HOUSING AND THE BOTTOM OF THE CYLINDER HEAD FOR ADJUSTABLE OUTPUT PUMP.
- LOOSEN THE SETSCREW LOCKING THE CYLINDER IN PLACE.
- REMOVE THE SCREWS HOLDING THE UPPER AND LOWER PUMP HOUSING TOGETHER.
- LIFT THE UPPER HOUSING AND DISCONNECT PISTON FROM LOWER PLUNGER.
- FOR ADJUSTABLE OUTPUT PUMP ROTATE THE CYLINDER COUNTER CLOCKWISE TO REMOVE.
- FOR FIXED OUTPUT PUMP PUSH THE CYLINDER OUT FROM THE BOTTOM END.
- INSTALL NEW CYLINDER ASSEMBLY IN TO THE UPPER HOUSING AND TIGHTEN SETSCREW. FOR ADJUSTABLE OUTPUT TYPE SET THE HEIGHT TO THE PREVIOUSLY MEASURED SPACE.
- SLIDE PISTON INTO LOWER PLUNGER AND REATTACH THE UPPER HOUSING TO THE LOWER HOUSING.
- FILL LOWER HOUSING WITH OIL TO CENTER OF SITE GAGE.
- TURN ON OIL SUPPLY AND BLEED PUMP OF AIR.

## LJP SINGLE PUMP TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
NO OUTPUT	<ul style="list-style-type: none"> <li>AIR IN PUMP</li> <li>OIL SUPPLY EMPTY</li> </ul>	<ul style="list-style-type: none"> <li>REMOVE AIR BLEED PLUG UNTIL AIR FREE OIL IS COMING OUT</li> <li>FILL RESERVOIR AND BLEED AIR TO PUMP INLET</li> </ul>
WILL NOT BUILD PRESSURE	<ul style="list-style-type: none"> <li>AIR IN PUMP</li> <li>CONTAMINATION</li> </ul>	<ul style="list-style-type: none"> <li>BLEED AIR PER ABOVE</li> <li>REMOVE AIR BLEED PLUG AND LOOSEN CHECK VALVE RETAINER APPROXIMATELY FIVE TURNS AND LET PUMP RUN FOR A FEW STROKES. IF THIS DOES NOT WORK THE CYLINDER ASSEMBLY MAY NEED TO BE REPLACED.</li> </ul>
LOW PUMP OUTPUT	<ul style="list-style-type: none"> <li>AIR IN PUMP</li> <li>CONTAMINATION</li> <li>HIGH OIL VISCOSITY</li> </ul>	<ul style="list-style-type: none"> <li>BLEED PER ABOVE</li> <li>REMOVE PER ABOVE.</li> <li>VERIFY OIL SUPPLY AT PUMP INLET. IF NOT ADEQUATE THE OIL SUPPLY MAY NEED TO BE PRESSURIZED</li> </ul>



# LCPR ELECTRIC AND PNEUMATIC PUMP PACKAGES



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## LCPR PUMP PACKAGES

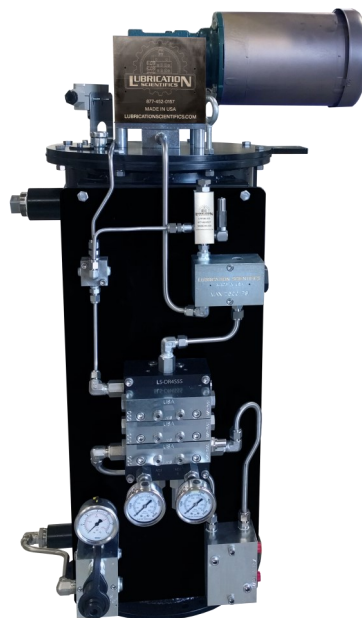
24 VOLT DC PUMP PACKAGE DESCRIPTION	44 POUND / 20 KG RESERVOIR	60 POUND / 28 KG RESERVOIR	90 POUND / 40 KG RESERVOIR
<b>LCPR - 24 VDC SMALL SYSTEM PACKAGE</b> <b>OUTPUT 5.5 CU IN/MIN</b> INCLUDES: BARE 24VDC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E24DC-LO	LCPR-60-E24DC-LO	LCPR-90-E24DC-LO
<b>LCPR - 24 VDC LARGE SYSTEM PACKAGE</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 24VDC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E24DC	LCPR-60-E24DC	LCPR-90-E24DC
115 VOLT AC PUMP PACKAGE DESCRIPTION	44 POUND / 20 KG RESERVOIR	60 POUND / 28 KG RESERVOIR	90 POUND / 40 KG RESERVOIR
<b>LCPR - 115 VAC, 1PH STANDARD DUTY PACKAGE</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 110 VAC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E110AC	LCPR-60-E110AC	LCPR-90-E110AC
115-230 VAC 1PH PUMP PACKAGE DESCRIPTION	44 POUND / 20 KG RESERVOIR	60 POUND / 28 KG RESERVOIR	90 POUND / 40 KG RESERVOIR
<b>LCPR - 115-230 VAC, 1PH HEAVY DUTY PACKAGE</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 115-230 VAC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E230AC	LCPR-60-E230AC	LCPR-90-E230AC
<b>LCPR - 115-230 VAC, 1PH HEAVY DUTY PACKAGE</b> <b>EXPLOSION PROOF MOTOR</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 115-230 VAC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E230AC-XP	LCPR-60-E230AC-XP	LCPR-90-E230AC-XP
<b>LCPR - 115-230 VAC, 1PH HEAVY DUTY PACKAGE</b> <b>HIGH OUTPUT 16.5 CU IN/MIN</b> INCLUDES: BARE 115-230 VAC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E230AC-HO	LCPR-60-E230AC-HO	LCPR-90-E230AC-HO
<b>LCPR - 115-230 VAC, 1PH HEAVY DUTY PACKAGE</b> <b>EXPLOSION PROOF MOTOR</b> <b>HIGH OUTPUT 16.5 CU IN/MIN</b> INCLUDES: BARE 115-230 VAC PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E230AC-XP-HO	LCPR-60-E230AC-XP-HO	LCPR-90-E230AC-XP-HO

## LCPR PUMP PACKAGES (CONTINUED)

208-460 VOLT AC 3PH PUMP PACKAGE DESCRIPTION	44 POUND / 20 KG RESERVOIR	60 POUND / 28 KG RESERVOIR	90 POUND / 40 KG RESERVOIR
<b>LCPR - 208-460 VAC, 3PH HEAVY DUTY PACKAGE</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 208-460 VAC 3PH PUMP, FOLLOWER, PRV, FILTER FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E460AC	LCPR-60-E460AC	LCPR-90-E460AC
<b>LCPR - 208-460 VAC, 3PH HEAVY DUTY PACKAGE</b> <b>EXPLOSION PROOF MOTOR</b> <b>OUTPUT 11.0 CU IN/MIN</b> INCLUDES: BARE 208-460 VAC 3PH PUMP, FOLLOWER, PRV, FILTER,	LCPR-44-E460AC-XP	LCPR-60-E460AC-XP	LCPR-90-E460AC-XP
<b>LCPR - 208-460 VAC, 3PH HEAVY DUTY PACKAGE</b> <b>HIGH OUTPUT 16.5 CU IN/MIN</b> INCLUDES: BARE 208-460 VAC 3PH PUMP, FOLLOWER, PRV, FILTER FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E460AC-HO	LCPR-60-E460AC-HO	LCPR-90-E460AC-HO
<b>LCPR - 208-460 VAC, 3PH HEAVY DUTY PACKAGE</b> <b>EXPLOSION PROOF MOTOR</b> <b>HIGH OUTPUT 16.5 CU IN/MIN</b> INCLUDES: BARE 208-460 VAC 3PH PUMP, FOLLOWER, PRV, FILTER, FULLY ASSEMBLED & INSTALLATION READY	LCPR-44-E460AC-XP-HO	LCPR-60-E460AC-XP-HO	LCPR-90-E460AC-XP-HO

## SYSTEM SPECIFIC RESERVOIR OPTIONS

ALL LCPR PAUMP PACKAGES ARE READY FOR INSTALLATION IN SERIES PROGRESSIVE (DIVIDER VALVE) APPLICATIONS.  
 FACTORY BUILT PUMP PACKAGES ARE AVAILABLE FOR INJECTOR AND DUAL LINE SYSTEMS.  
 CHOOSE THE SYSTEM YOU NEED BY ADDING THE FOLLOWING SUFFIX TO THE BASIC PART NUMBER.

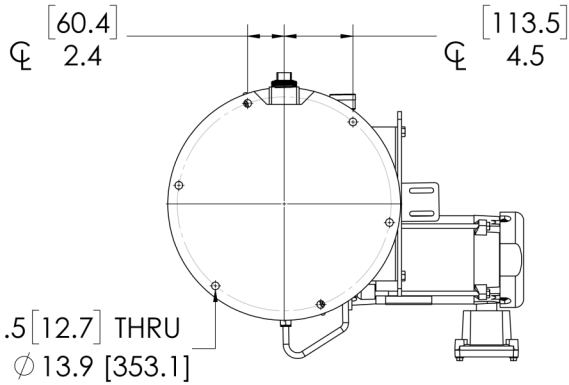
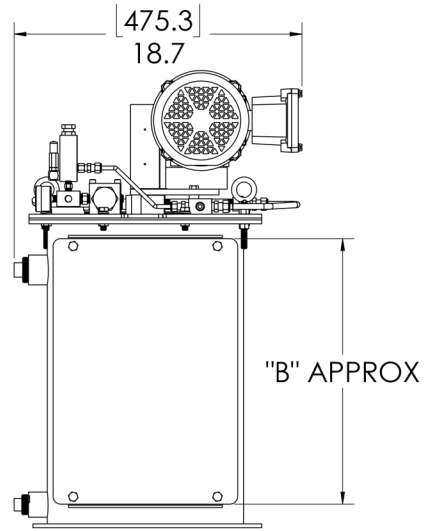
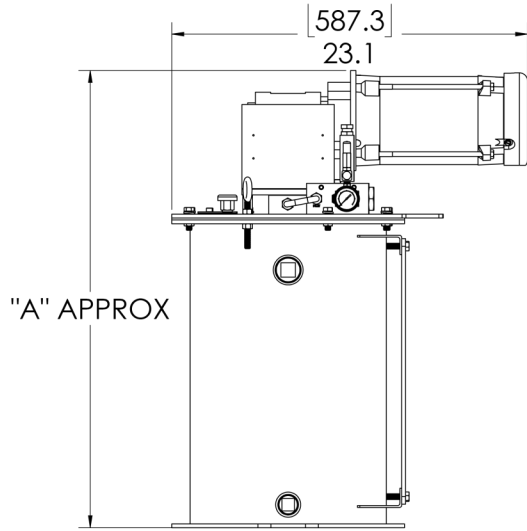


FOR INJECTOR PACKAGES ADD **ICS** SUFFIX TO ALL PART NUMBERS    FOR DUAL LINE PACKAGES ADD **DLP** SUFFIX TO ALL PART NUMBERS

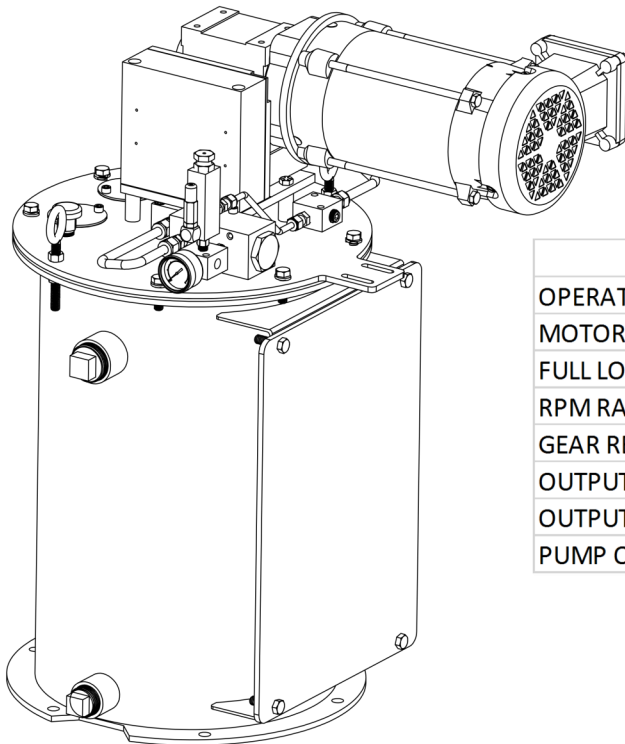
## LCPR PUMP PACKAGE OPTIONS

LOW LEVEL/HIGH LEVEL OPTIONS	PART NUMBER
LOW LEVEL SWITCH ASSEMBLY, ALL 44LB RESERVOIRS	LCPR-LLA-44
LOW LEVEL SWITCH ASSEMBLY, ALL 60LB RESERVOIRS	LCPR-LLA-60
LOW LEVEL SWITCH ASSEMBLY, ALL 90LB RESERVOIRS	LCPR-LLA-90
HIGH LEVEL ASSEMBLY, 24VDC OR 115VAC	LCPR-HLA
MOUNTING PLATE OPTIONS	PART NUMBER
MOUNTING PLATE, ALL 44LB	LCPR-AMP44
MOUNTING PLATE, ALL 60LB	LCPR-AMP44
MOUNTING PLATE, ALL 90LB	LCPR-AMP44
ACCESSORIES	PART NUMBER
AUX CONTROLLER MOUNTING PLATE, ALL	LCPR-CMP
IMMERSION HEATER	LCPR-SUBHTR
DIPTICK 3/8" NPT, 40 MIC, 1.6 CAP DIAMETER	LCPR-DIP-60
RESERVOIR VENT	LCPR-VENT
ICS, CONTAMINATION PREV PUMP RES SYS, 60LB, 24 VDC	LCPR-60-E24DC-ICS
REMOTE FILL DIRT TRAP OPTIONS	PART NUMBER
REMOTE FILL DIRT TRAP BODY	RFDT-0001
REMOTE FILL DIRT TRAP ASSEMBLY, 3 MICRON OIL	RFDT-003-O
REMOTE FILL DIRT TRAP ASSEMBLY, 5 MICRON OIL	RFDT-005-O
REMOTE FILL DIRT TRAP ASSEMBLY, 10 MICRON OIL	RFDT-010-O
REMOTE FILL DIRT TRAP ASSEMBLY, 25 MICRON OIL	RFDT-025-O
REMOTE FILL DIRT TRAP ASSEMBLY, 40 MESH, GREASE	RFTDA-040-G
REMOTE FILL DIRT TRAP ASSEMBLY, 100 MESH, GREASE	RFTDA-100-G
REMOTE FILL SUPPLY RETURN MANIFOLD, CRS	RFDT-SRM-000
REMOTE FILL HOSE END COUPLER	RFDT-H4F4-C
REMOTE FILL FITTING W/ PROTECTIVE CAP	RFDT-H4F4-F
RESEVOIR MOUNT REMOTE FILL DIRT TRAP OPTIONS	PART NUMBER
REMOTE FILL DIRT TRAP BODY, RESERVOIR MOUNT	RFDT-0001R
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 3 MICRON, OIL	RFDTRA-003-O
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 5 MICRON, OIL	RFDTRA-005-O
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 10 MICRON, OIL	RFDTRA-010-O
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 25 MICRON, OIL	RFDTRA-025-O
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 40 MESH, GREASE	RFDTRA-040-O
REMOTE FILL DIRT TRAP ASSEMBLY, RESERVOIR MOUNT, 100 MESH, GREASE	RFDTRA-100-O

**DIMENSIONS AND SPECIFICATIONS (ALL AC)**



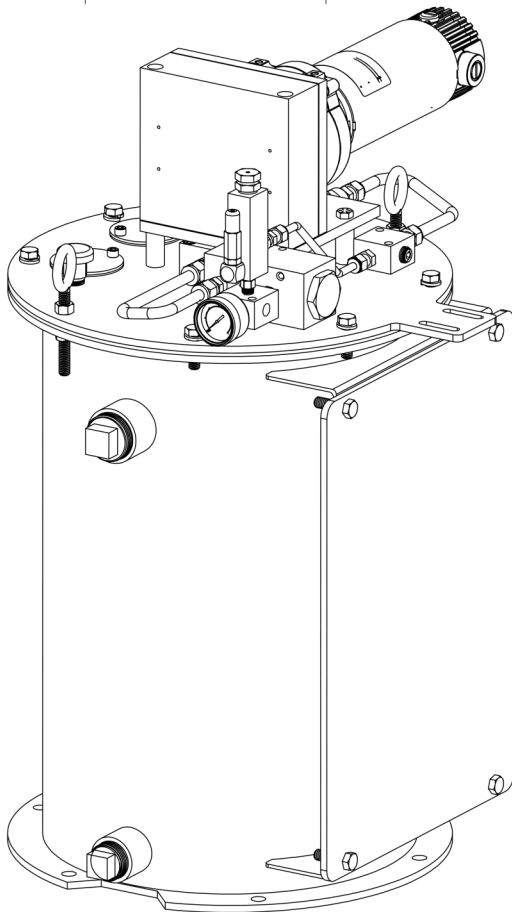
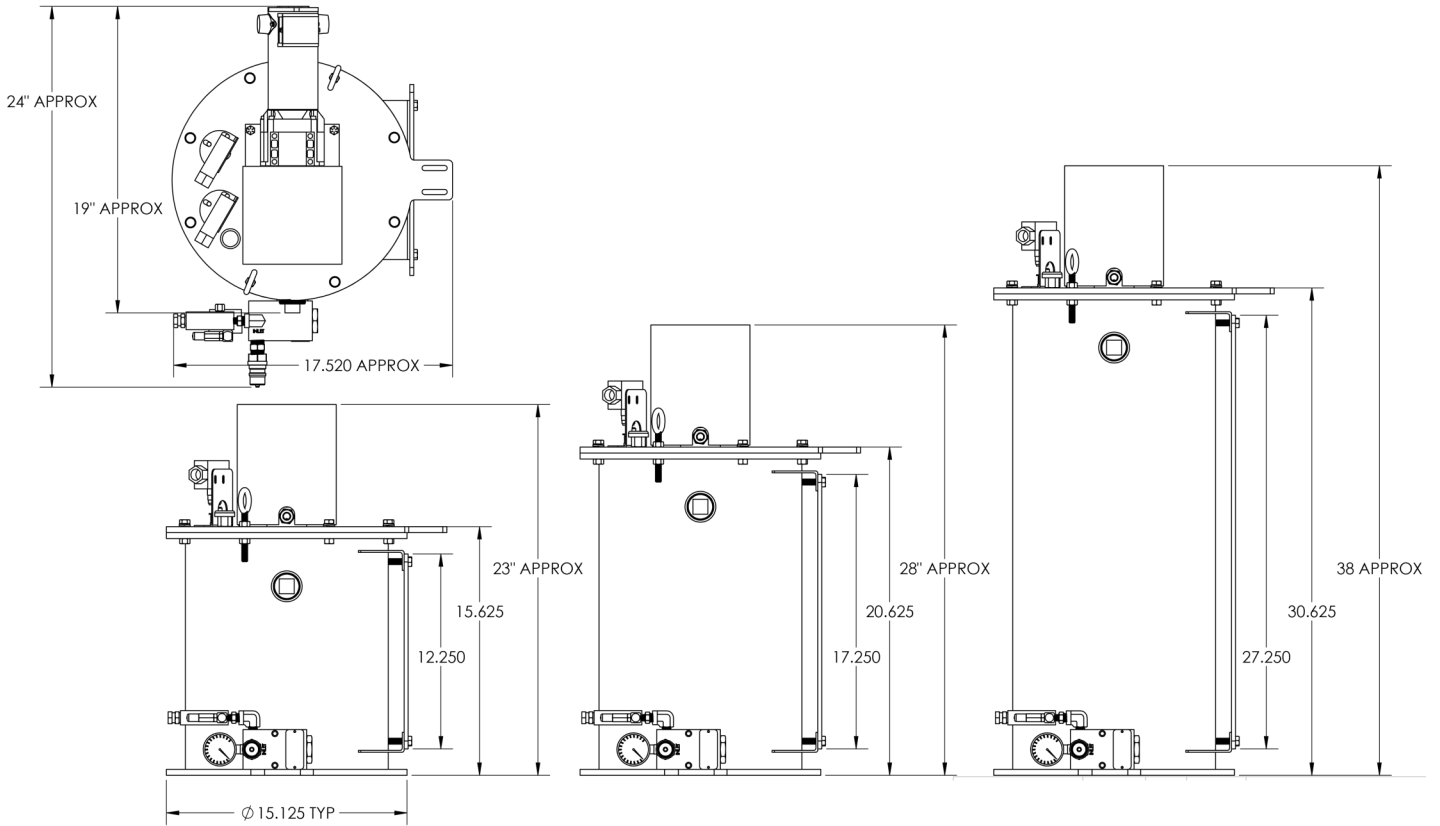
RESERVOIR SIZE	DIM "A" in (mm)	DIM "B" in (mm)
44LB	24.7" (627.4)	12.25" (311.15)
60LB	29.7" (754.6)	17.25" (438.15)
90LB	39.7" (1008.4)	27.25 (692.15)



PUMP PERFORMANCE AND SPECIFICATIONS	
OPERATING VOLTAGE, VAC	ALL AC
MOTOR, HP	1/2 hp
FULL LOAD AMPS	7.7/3.9-3.9
RPM RANGE	1701-1800
GEAR REDUCER RATIO	10:01
OUTPUT/PUMP CYCLE, in <sup>3</sup>	0.066in <sup>3</sup>
OUTPUT/PUMP CYLCE, MINUTE	11.3-11.9in <sup>3</sup> /min
PUMP OUTLET	1/4-18 NPSF



**DIMENSIONS AND SPECIFICATIONS (24VDC)**

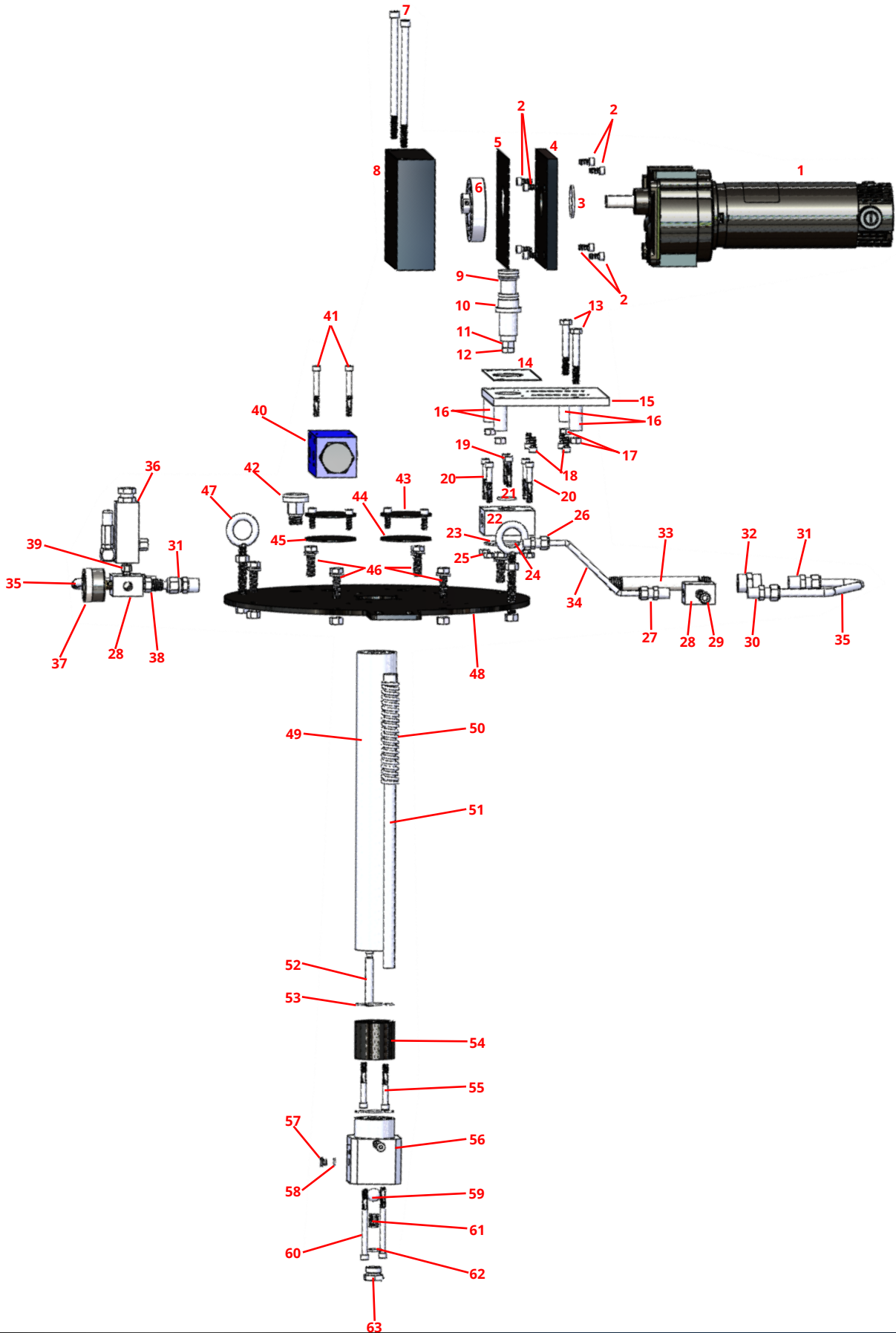


PUMP PERFORMANCE AND SPECIFICATIONS	
OPERATING VOLTAGE, VDC	24
MOTOR, HP	1/4 hp
AMPS	9.77
RPM	170
RATIO	10.6:1
OUTPUT/PUMP CYCLE, in <sup>3</sup>	0.066in <sup>3</sup>
OUTPUT/ PUMP CYLCE, MINUTE	11.3in <sup>3</sup> /min
PUMP OUTLET	1/4-18 NPSF

**PARTS LIST (24VDC)**

ITEM NO.	DESCRIPTION	QUANTITY	ITEM NO.	DESCRIPTION	QUANTITY
1	24VDC MOTOR	1	37	PRESSURE GAUGE	1
2	1/4 - 20 X 1/2 SOCKET HEAD CAP SCREW	8	38	1/4" NPT PIPE NIPPLE	1
3	-127 VITON ORING	1	39	1/8" NPT PIPE NIPPLE	1
4	ECCENTRIC HOUSING BACK PLAT	1	40	MINI DIRT TRAP FILTER	1
5	ECCENTRIC HOUSING BACK PLATE GASKET	1	41	1/4 - 28 X 2 - 1/4 SOCKET HEAD CAP SCREW	2
6	ECCENTRIC	1	42	BREATHER	1
7	5/16 - 18 X 6 - 1/2" SOCKET HEAD CAP SCREW	2	43	LOW/HIGH LEVEL COVER	2
8	ECCENTRIC FRONT COVER	1	44	LOW/HIGH LEVEL COVER GASKET	2
9	DRIVE PISTON	1	45	3/8-16 X 1 - 1/4 HEX CAP SCREW	6
10	DRIVE PISTON SLEEVE	1	46	3/8 SPLIT LOCK WASHER	6
11	3/8 - 24 HEXT NUT	1	47	3/8 - 16 EYE BOLT	2
12	3/8 - 24 X 1" HEX HEAD SCREW	1	48	RESERVOIR LID	1
13	5/16-18 X 2 - 1/2" HEX HEAD SCREW	2	49	PICK UP TUBE	1
14	ECCENTRIC HOUSING LOWER GASKET	21	50	RETURN SPRING	1
15	MOTOR MOUNTING PLATE	11	51	PLUNGER PISTON ASSEMBLY	1
16	SPACER	14	52	PRESSURE PISTON	1
17	5/16-18 LOCK NUT	44	53	-018 VITON ORING	2
18	1/4-28 X 1 SOCKET HEAD CAP SCREWS	44	54	PICK UP TUBE ADAPTER BLOCK/SPACER	1
19	1/4-28 X 1-1/2 SOCKET HEAD CAP SCREW	42	55	1/4 - 28 X 2" SOCKET HEAD CAP SCREW	2
20	1/4-28 X 1-3/4 SOCKET HEAD CAP SCREW	24	56	PUMPING ELEMENT BODY	1
21	-910 VITON ORING	41	57	ENCLOSURE PLUG	2
22	PUMP OUTLET/RETURN MANIFOLD	11	58	-010 VITON ORING	2
23	-034 VITON ORING	11	59	5/8" CHECK BALL	1
24	-011 VITON ORING	16	60	1/4 - 28 X 3 - 1/2 SOCKET HEAD CAP SCREW	2
25	1/4-28 LOCK NUT	64	61	CHECK SPRING	1
26	TUBE FITTING 1/4" TUBE X 1/8" NPT	1	62	-908 VITON ORING	1
27	TUBE FITTING 1/4" TUBE X 1/4" NPT	1	63	CHECK RETAINER	1
28	1/4" NPSF 4 WAY ANCHOR BLOCK	2			
29	1/4" NPT PIPE PLUG	5			
30	TUBE FITTING 3/8" TUBE X 1/4" NPT	2			
31	TUBE FITTING 3/8" TUBE X 3/8" NPT	2			
32	PIPE FITTING 3/8" X 3/8" NPTF FEMALE	1			
33	STEEL PIPE 3/8" NPT X 4 - 1/2" LONG	1			
34	1/4 TUBE	N/A			
35	3/8 TUBE	N/A			
36	PRESSURE RELIEF (LPRVM W/MEMORY)	1			

### PARTS LIST (24VDC)





## FILTER PRIMER—AIR TRAP

### PRODUCT DESCRIPTION

CONSTRUCTED WITH ANODIZED ALUMINUM & POLY  
CARBONATE TUBING

STAINLESS STEEL HARDWARE FOR ZERO RUST  
CONTAMINATION

REMOVES AIR BUBBLES TRAPPED IN LUBE LINE BEFORE  
ENTERING THE PUMP

PREVENTS AIR-LOCK IN THE SYSTEM  
MANUAL AIR VENTING

AIR MOVES INTO THE AIR TRAP CHAMBER AND RISES TO  
THE SURFACE, NEVER GETTING BACK INTO THE LUBE LINE

MESH SIZES AVAILABLE IN 100 MESH, 40 MESH, 25 MICRON,  
10 MICRON, & 5 MICRON

REBUILD KITS AVAILABLE

MAX PRESSURE 150 PSI

FOR USE WITH OIL APPLICATIONS ONLY

### BENEFITS & FEATURES

REMOVES AIR IN THE LUBRICATION LINE

ANODIZED ALUMINUM, NON STEEL  
COMPONENTS FOR RUST FREE AIR FILTRATION

SLEEK, SCRATCH RESISTANT DESIGN

STAINLESS STEEL BRACKETS, STRAINERS, & TIE  
RODS

MULTIPLE STRAINER MESH SIZES AVAILABLE

## READY FOR IMMEDIATE SHIPMENT

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[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

**ORDERING INFORMATION & PART NUMBERS**

**FILTER PRIMER ASSEMBLY**

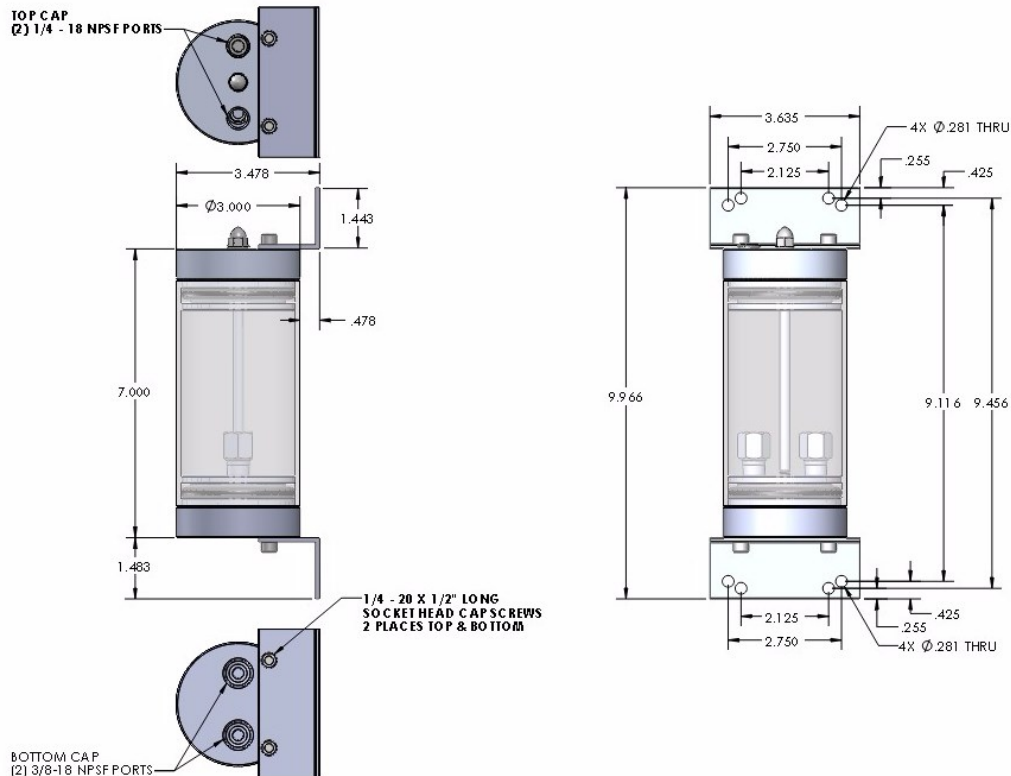
**STANDARD PACK: 1**

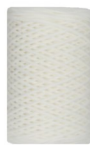
PRODUCT DESCRIPTION	PART NUMBER
FILTER PRIMER—AIR TRAP	PPA-1500
FILTER PRIMER—AIR TRAP REBUILD KIT	PPA-1500-TRK

STANDARD PACK: 2 EACH	
STRAINER MESH ASSEMBLIES	PART NUMBER
100 MESH	SF-250-100
40 MESH	SF-250-040
25 MICRON	SF-250-025
10 MICRON	SF-250-010
5 MICRON	SF-250-005



**AIR TRAP DIMENSIONS**





**HIGH PRESSURE/ HIGH FLOW CARTRIDGE FILTER FOR CIRCULATING OIL SYSTEMS**

**PRODUCT DESCRIPTION**

OIL FILTER CARTRIDGES DECONTAMINATE LUBRICANT AT 10, 20, AND 50 MICRONS

LIGHTWEIGHT 2024 AIRCRAFT ALUMINUM CONSTRUCTION

EASY MAINTENANCE AND CARTRIDGE REPLACEMENT

CAN ACCOMMODATE PRESSURES UP TO 3000 PSI

EASY TO DETERMINE WHEN CARTRIDGES ARE FULL USING PRESSURE GAUGES

STANDARD AND LONG CARTRIDGES AVAILABLE

HIGH PRESSURE AND LOW PRESSURE CARTRIDGES AVAILABLE

**BENEFITS & FEATURES**

1 PIECE MACHINED CANISTER—NO TIE RODS

ZERO LEAK, HIGH PRESSURE CARTRIDGE FILTER

LIGHTWEIGHT ANODIZED ALUMINUM CONSTRUCTION

10, 20, & 50 MICRON FILTER CARTRIDGES AVAILABLE

FILTER ELEMENT SELF-CENTERS IN CANISTER

OPTIONAL LONG FILTER OPTION FOR LONGER FILTER LIFE AND LARGER CAPACITY

FOR OIL APPLICATIONS

EASY TO REPLACE CARTRIDGES

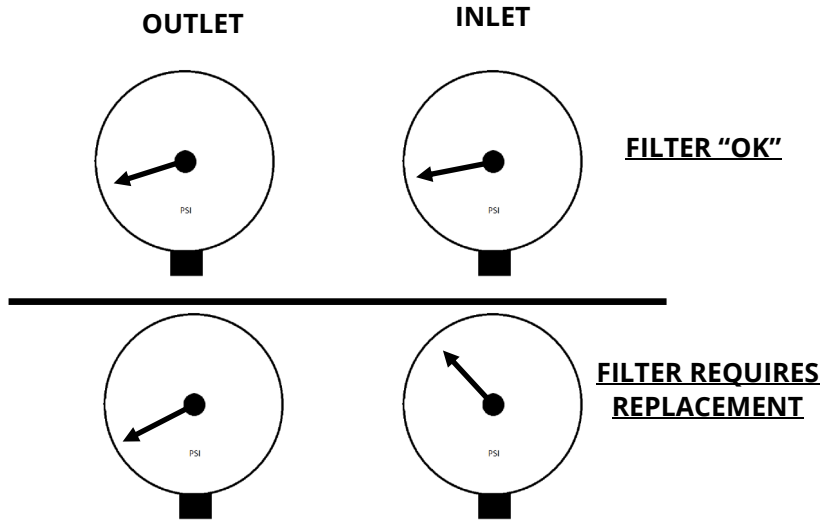
EASY TO INSTALL INLINE

**READY FOR IMMEDIATE SHIPMENT**

MADE IN

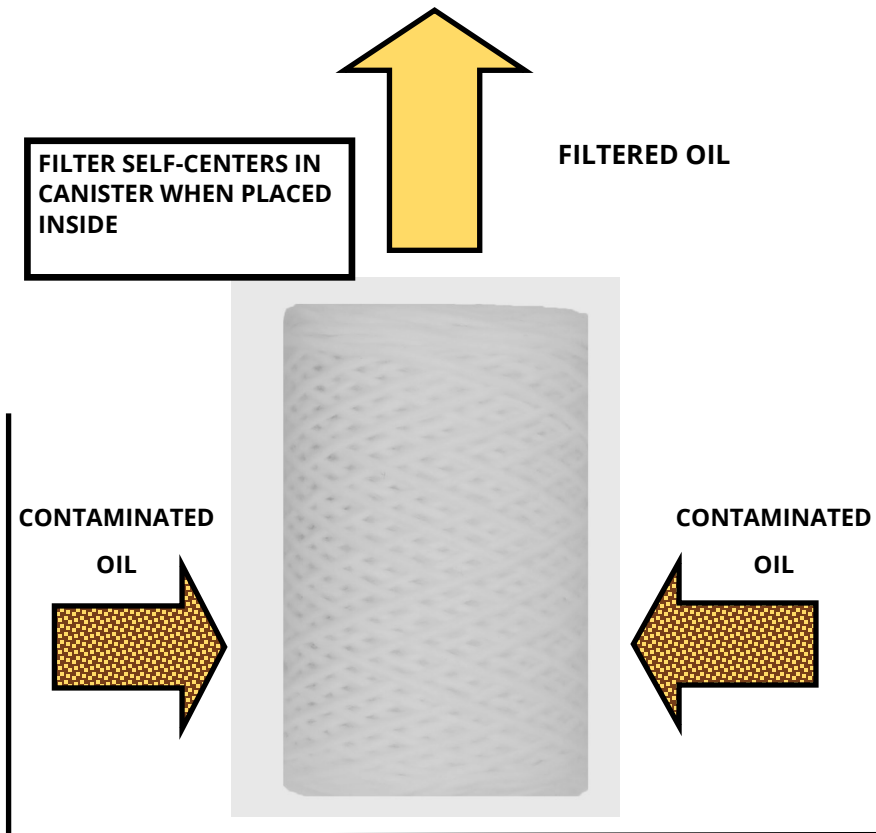


**FUNCTION ILLUSTRATION & SPECIFICATIONS**



Oil is decontaminated by passing lubricant through the filter element as shown below. Installation of pressure gauges make indication of element replacement easy. **The filter is functioning properly when both gauges are at approximately the same psi level.**

During filtration, particles are left behind in the filter element. Over time, the contaminated build up against the filter wall creates flow resistance. As the resistance increases, the outlet pressure will rise as it tries to push the lubricant through the clogged filter. **When the outlet pressure is noticeably higher (~40 psi) than the inlet pressure, it is time to replace the filter.**



**SPECIFICATIONS**

- 2024 AIRCRAFT GRADE ALUMINUM
- FILTER RATING: OIL @ 10,20,50 MICRONS
- PRESSURE RATING: 3500/5000 PSI
- WEIGHT: 2 LBS

**ORDERING INFORMATION & PART NUMBERS**

**COMPLETE FILTER ASSEMBLY (NO GAUGE)**

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY, 3 MICRONS (SHORT)	CFIL-03-US
FILTER ASSEMBLY, 5 MICRONS (SHORT)	CFIL-05-US
FILTER ASSEMBLY, 10 MICRONS (SHORT)	CFIL-10-US
FILTER ASSEMBLY, 20 MICRONS (SHORT)	CFIL-20-US
FILTER ASSEMBLY, 50 MICRONS (SHORT)	CFIL-50-US

**REPLACEMENT FILTER ELEMENTS & GAUGE**

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT, 3 MICRONS (SHORT)	CFIL-03-ES
FILTER ELEMENT, 5 MICRONS (SHORT)	CFIL-05-ES
FILTER ELEMENT, 10 MICRONS (SHORT)	CFIL-10-ES
FILTER ELEMENT, 20 MICRONS (SHORT)	CFIL-20-ES
FILTER ELEMENT, 50 MICRONS (SHORT)	CFIL-50-ES

**NOTE: PRESSURE GAUGES SOLD SEPARATELY**

STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ASSEMBLY, 3 MICRONS (LONG)	CFIL-03-UL
FILTER ASSEMBLY, 5 MICRONS (LONG)	CFIL-05-UL
FILTER ASSEMBLY, 10 MICRONS (LONG)	CFIL-10-UL
FILTER ASSEMBLY, 20 MICRONS (LONG)	CFIL-20-UL
FILTER ASSEMBLY, 50 MICRONS (LONG)	CFIL-50-UL

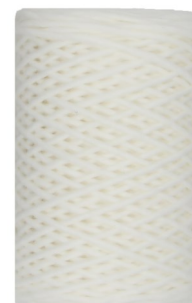
STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
FILTER ELEMENT, 3 MICRONS (LONG)	CFIL-03-EL
FILTER ELEMENT, 5 MICRONS (LONG)	CFIL-05-EL
FILTER ELEMENT, 10 MICRONS (LONG)	CFIL-10-EL
FILTER ELEMENT, 20 MICRONS (LONG)	CFIL-20-EL
FILTER ELEMENT, 50 MICRONS (LONG)	CFIL-50-EL

**NOTE: PRESSURE GAUGES SOLD SEPARATELY**

STANDARD PACK: 1 EACH	
GAUGE DESCRIPTION	PART NUMBER
LOWER MOUNT, 1/4 NPTF, 5000 PSI	LM-25-5K-4



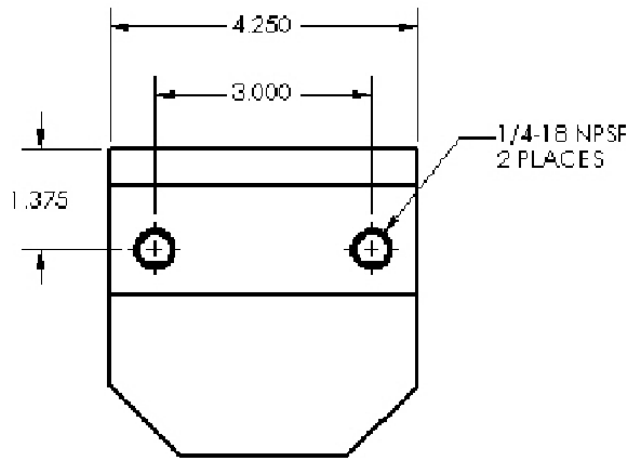
STANDARD PACK: 1 EACH	
PRODUCT DESCRIPTION	PART NUMBER
4.5" FILTER, WITHOUT ELEMENT	CFIL-U-US
10.5" FILTER WITHOUT ELEMENT	CFIL-U-UL



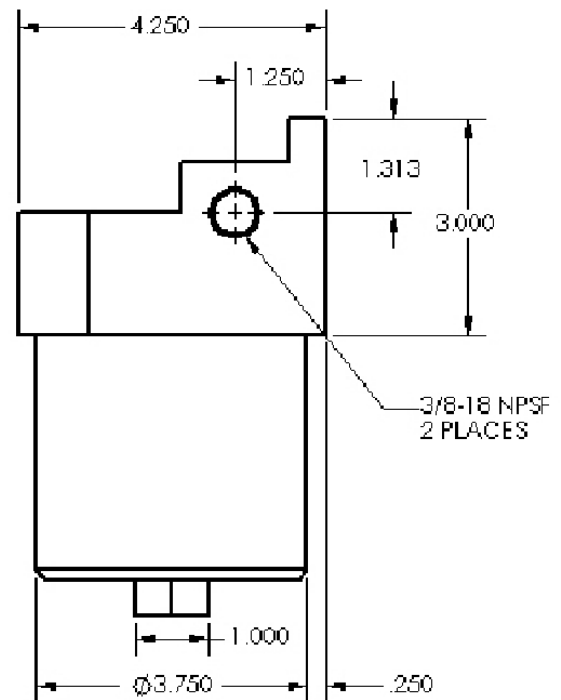
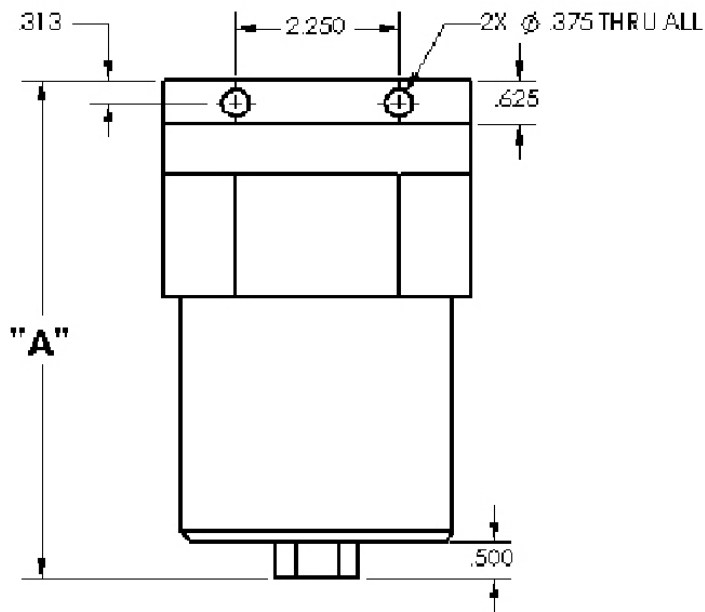


## ORDERING INFORMATION

DIMENSIONS ARE IN INCHES



PART NUMBER	"A" DIM
CFIL-10-US	6.875" (SHORT)
CFIL-20-US	
CFIL-50-US	
CFIL-10-UL	12.875 (LONG)
CFIL-20-UL	
CFIL-50-UL	



# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**DIRT TRAP FILTRATION SOLUTIONS**

**HEAVY DUTY—RELIABILITY SOLUTION—DIRT TRAPPING TECHNOLOGY**



**HIGH PRESSURE IN-LINE FILTER ASSEMBLIES WITH DIRT TRAP TECHNOLOGY**

**PRODUCT DESCRIPTION**

DESIGNED FOR HIGH PRESSURE HYDRAULIC & LUBRICATION APPLICATIONS.

AVAILABLE IN STEEL AND 2024 ALUMINUM CONSTRUCTION.

STEEL BODIES HAVE BOTH 1/4 & 3/8 INLET AND OUTLET NPSF CONNECTIONS

ALUMINUM BODIES HAVE BOTH 1/4 INLET AND OUTLET NPSF CONNECTIONS

STEEL CONSTRUCTION BODIES ARE DESIGNED FOR HIGH PRESSURE SURGE APPLICATIONS.

AIRCRAFT ALUMINUM BODIES HAVE TWO INLET AND TWO OUTLETS PORTS.

BOTH BODY DESIGNS USE STANDARD DIRT TRAP ELEMENTS, WHICH ARE AVAILABLE IN BOTH GREASE AND OIL FILTRATION RANGES.

FILTER ELEMENTS EASILY CHANGED WITHOUT REMOVING TUBING CONNECTIONS.

AVAILABLE FILTRATION RATINGS:

**OIL**

5 MICRON      10 MICRON      25 MICRON

**GREASE**

150 MICRON (100 MESH) 420 MICRON (40 MESH)

**BENEFITS & FEATURES**

AVAILABLE FOR OIL OR GREASE

FROM 5 TO 420 MICRON FILTRATION

ELEMENTS EASILY REPLACED

CONTAMINATION TRAPPED INSIDE THE THROW AWAY ELEMENT

HIGH PRESSURE APPLICATIONS

STEEL BODY - 7,500 PSI

AL 2024 BODY - 6,000 PSI

MOUNTS IN ANY ORIENTATION

MULTIPLE INLETS AND OUTLETS

FOR MONITORING PRESSURE,

INSTALL GAUGE IN 1 INLET & 1 OUTLET

USE OPTIONAL OUTLET FOR AIR-BLEED PORT

**READY FOR IMMEDIATE SHIPMENT**

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## DIRT TRAPS

BODIES ARE DESIGNED FOR HIGH PRESSURE  
HYDRAULIC & LUBRICATION APPLICATIONS  
AVAILABLE IN CRS, 316 STAINLESS STEEL & ALUMINUM

### DIRT TRAP FILTER ASSEMBLY

STANDARD PACK: 1 EACH			
FILTER RATING	PLATED CARBON STEEL 7,500 PSI	AL2024 BLUE ANODIZED ALUMINUM 6,000 PSI	316 STAINLESS STEEL 7,500 PSI
5 MICRON	DTFA-005-O	M DFA-005-O	DTFA-005-O-316
10 MICRON	DTFA-010-O	M DFA-010-O	DTFA-010-O-316
25 MICRON	DTFA-025-O	M DFA-025-O	DTFA-025-O-316
150 MICRON 100 MESH	DTFA-100-G	M DFA-100-G	DTFA-100-G-316
420 MICRON 40 MESH	DTFA-040-G	M DFA-040-G	DTFA-040-G-316



READY FOR IMMEDIATE SHIPMENT

MADE IN



## REMOTE FILL DIRT TRAP

BODIES ARE DESIGNED FOR HIGH PRESSURE  
HYDRAULIC & LUBRICATION APPLICATIONS  
AVAILABLE WITH PRESSURE RELIEF VALVE WITH MEMORY,  
SAFETY RELIEF VALVE, FILL FITTING,  
AND PRESSURE GAUGE



### AVAILABLE OPTIONS

STANDARD PACK: 1 EACH	
FILTER RATING	PLATED CARBON STEEL 7,500 PSI
BODY ONLY	RFDT-001
ASSEMBLY W/ 5 MICRON FILTER	RFDTA-005-O
ASSEMBLY W/ 10 MICRON FILTER	RFDTA-010-O
ASSEMBLY W/ 25 MICRON FILTER	RFDTA-025-O
ASSEMBLY W/ 150 MICRON FILTER	RFDTA-100-G
ASSEMBLY W/ 100 MESH FILTER	
ASSEMBLY W/ 420 MICRON FILTER	RFDTA-040-G
ASSEMBLY W/ 40 MESH FILTER	

\*MUST BUY ELEMENT WITH BODY

DESCRIPTION	PART NUMBER
PRESSURE RELIEF VALVE W/ MEMORY, 1500 PSI	LPRVM-303-1500
PRESSURE RELIEF VALVE W/ MEMORY, 2000 PSI	LPRVM-303-2000
PRESSURE RELIEF VALVE W/ MEMORY, 2500 PSI	LPRVM-303-2500
PRESSURE RELIEF VALVE W/ MEMORY, 3000 PSI	LPRVM-303-3000
PRESSURE RELIEF VALVE W/ MEMORY, 3500 PSI	LPRVM-303-3500
PRESSURE RELIEF VALVE W/ MEMORY, 4000 PSI	LPRVM-303-4000
PRESSURE RELIEF VALVE W/ MEMORY, 5000 PSI	LPRVM-303-5000
SAFETY RELIEF VALVE	SRV-303-250-4000
FILL FITTING (INCLUDES PROTECTIVE CAP)	RFDT-H4F4
HOSE END COUPLER	RFDT-H4F4-C
PRESSURE GAUGE	LM-25-5K-4
SUPPLY (1/2 NPSF) RETURN (1/4 NPSF) MANIFOLD (CRS)	RFDT-SRM-000

READY FOR IMMEDIATE SHIPMENT

MADE IN



## 80% OF ALL PUMP FAILURES ARE DUE TO LUBRICANT CONTAMINATION

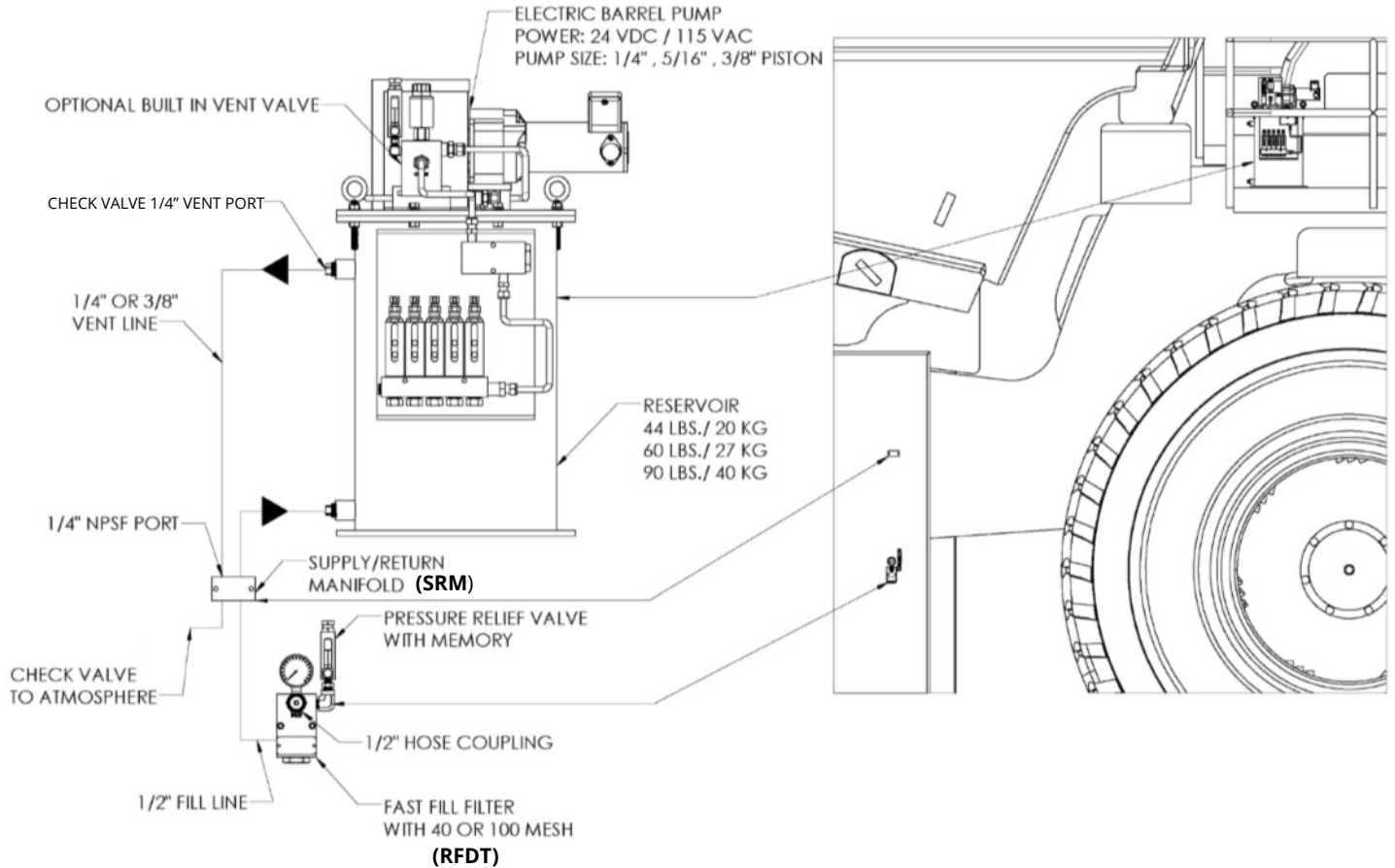
If the operation is under extreme demand and “Best Practices” are unable to be followed, the Remote Fill Filter will reduce the risk of contamination being introduced into your reservoir and destroying the pump.

A common misconception in maintenance and reliability is that new lubricant is clean and ready for immediate use.

Oil/Grease tote delivery systems may contain anywhere from 2 to 20 times the acceptable amount of particulate allowable for most lubrication pumps.



## REMOTE RESERVOIR FILL SYSTEM DESIGN



### OPERATION

1. Connect hose quick coupler to fill fitting on the front of the **REMOTE FILL DIRT TRAP (RFDT)**.

2. Grease is pumped through the **RFDT** to the fill port on the reservoir.

If the reservoir location is remote from the **RFDT**, install the **SUPPLY/RETURN**

**MANIFOLD (SRM)** between the **RFDT** and the reservoir. If there is a considerable distance between the **RFDT** and the remote reservoir, add additional **SRM** units, as required.

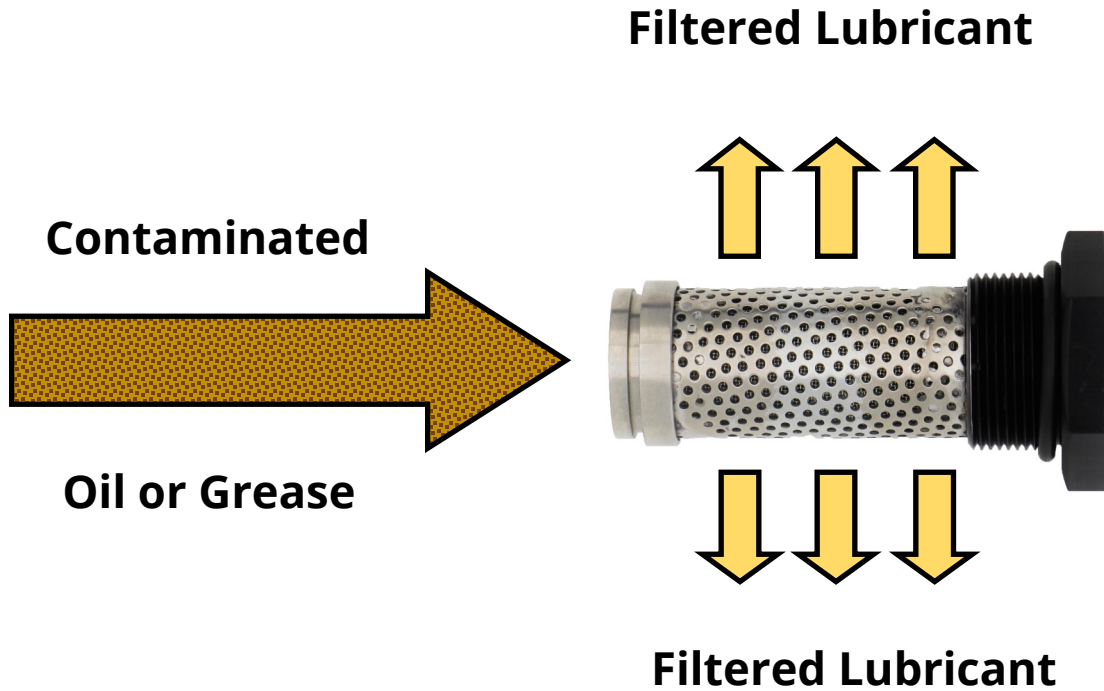
3. As grease is pumped into the reservoir, entrapped air above the follower is vented to atmosphere through a watertight breather, located on the top of the reservoir.

4. Once the grease reaches the **VENT PORT**, on the upper side of the reservoir, pressure will build until the **VENT PORT CHECK VALVE** opens (250 PSI), allowing grease to move down the vent line, opening the **end of vent line check valve** and providing visual indication that the reservoir is full.

**Note A:** In order to insure the vent line provides **POSITIVE INDICATION** that the reservoir is full, an **end of line check valve** must be installed at the **end of the vent line**. If using a **SRM**, install the **end of line check valve** into the bottom 1/4 port on the **SRM**.

**Note B:** If this installation includes **SUPPLY/RETURN MANIFOLDS**, tube from the reservoir **VENT PORT** to the first **SRM** and then to each subsequent **SRM**. Install the terminating check valve on the bottom 1/4 NPSF port of the last **SRM**. Install the last **SRM** close enough to the **RFDT** to insure a clear view of the **end of vent line check valve**.

## FUNCTION ILLUSTRATION & SPECIFICATIONS



### SPECIFICATIONS

MATERIAL: ZINC PLATED CARBON STEEL OR ANODIZED AL 2024  
FILTER RATING: 5,10,25 MICRONS (OIL)/150, 420 MICRONS (GREASE)  
PRESSURE RATING: 7,500 PSI (STEEL)/6,000 PSI (AL)  
WEIGHT: 6LBS (STEEL) / 2LBS (AL)



**ORDERING INFORMATION & PART NUMBERS**

**DIRT TRAP REPLACEMENT ELEMENT**

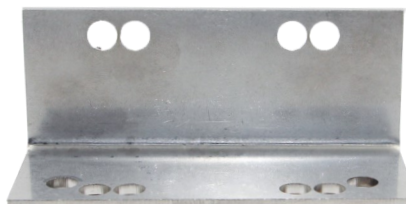
STANDARD PACK: 1 EACH		
FILTER RATING	PART NUMBER ALUMINUM CAP	PART NUMBER 303 SS CAP
5 MICRON	DT-EL-002-005MIC	DT-EL-002-005MIC-SS
10 MICRON	DT-EL-002-010MIC	DT-EL-002-010MIC-SS
25 MICRON	DT-EL-002-025MIC	DT-EL-002-025MIC-SS
150 MICRON 100 MESH	DT-EL-002-100M	DT-EL-002-100M-SS
420 MICRON 40 MESH	DT-EL-002-40M	DT-EL-002-40M-SS



NOTE: Replacement elements are compatible with both the carbon steel and 2024 Aluminum models.

**DIRT TRAP MOUNTING BRACKET**

STANDARD PACK: 1 EACH	
PART NUMBER	DESCRIPTION
LS-BRKT-KIT	316 S/S DIRT TRAP MOUNTING BRACKET



## REPLACEMENT MAGNETIC DIRT TRAP ELEMENT

SPECIFICALLY DESIGNED FOR LUBRICATION AND HYDRAULIC SYSTEMS WHERE THERE IS A REASONABLE PROBABILITY THAT THE HYDRAULIC OR LUBRICATING OIL WILL BE CONTAMINATED WITH METAL DEBRIS

CONSTRUCTED FROM:

304SS CORE

316SS FILTRATION SCREEN

303SS INLET & TIE ROD

2024 AL & 303SS NUT

VITON O RING AND INLET SEAL

NEODYMIUM IRON BORON

PERMANENT MAGNETS (6)



OUR NEODYMIUM IRON BORON PERMANENT MAGNETS ARE MUCH STRONGER AND HAVE A MUCH HIGHER RESISTANCE TO DEMAGNETIZATION THAN CERAMIC, ALNICO AND SM-CO MAGNETS.

ALL CONTAMINANTS ARE TRAPPED INSIDE THE FILTER ELEMENT AND ARE COMPLETELY REMOVED FROM THE SYSTEM WHENEVER THE FILTER ELEMENT IS REPLACED

OUR MAGNETIC DIRT TRAP PROVIDES ONE MORE DEFENSE IN THE BATTLE AGAINST CONTAMINATION, THE ENEMY OF HYDRAULIC OR LUBRICATION SYSTEM RELIABILITY

A CONTAMINATION FREE HYDRAULIC OR LUBRICATION SYSTEM IS A RELIABLE SYSTEM

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## ORDERING INFORMATION & PART NUMBERS

### MAGNETIC DIRT TRAP REPLACEMENT ELEMENT

STANDARD PACK: 1 EACH		
FILTER RATING	PART NUMBER	PART NUMBER
	ALUMINUM CAP	316 SS CAP
3 MICRON	DT-EL-002-003MIC-MAG	DT-EL-002-003MIC-MAG-SS
5 MICRON	DT-EL-002-005MIC-MAG	DT-EL-002-005MIC-MAG-SS
10 MICRON	DT-EL-002-010MIC-MAG	DT-EL-002-010MIC-MAG-SS



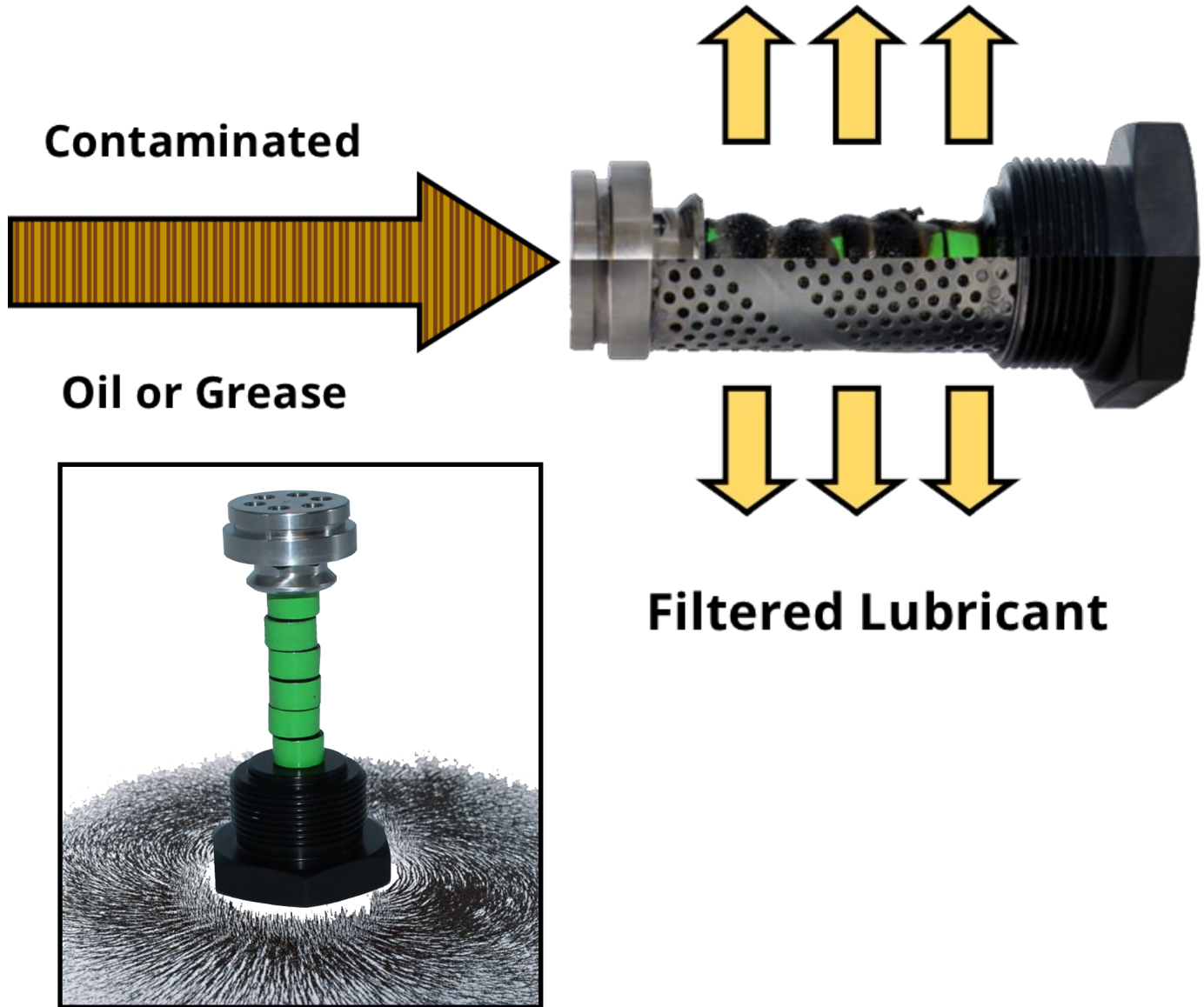
POWERFUL ENOUGH TO CAPTURE THE  
SMALLEST METAL PARTICLES.



NOTE: REPLACEMENT ELEMENTS ARE  
COMPATIBLE WITH BOTH THE CARBON STEEL,  
STAINLESS STEEL, AND 2024 ALUMINUM  
MODELS.

FUNCTION ILLUSTRATION & SPECIFICATIONS

Filtered Lubricant



**SPECIFICATIONS**

MATERIAL: ZINC PLATED CARBON STEEL OR ANODIZED AL 2024  
FILTER RATING: 3, 5, 10 MICRONS (OIL)/150, 420 MICRONS (GREASE)  
PRESSURE RATING: 7,500 PSI (STEEL)/6,000 PSI (AL)  
WEIGHT: 6LBS (STEEL) / 2LBS (AL)

## DIRT TRAP ELEMENT REPLACEMENT INSTRUCTIONS

**Step 1:** Depressurize any residual pressure from the system.

**Step 2:** Remove the old filter element from the filter body. Figure 1.1

**Step 3:** Remove the old Filter Element's Seal from the bottom of the Filter Body. Throw away. Visually inspect the inner body for any debris that may have fallen in during disassembly. Refer to Figure 1.2

**Step 4:** Lightly lubricate the new Dirt Trap Element Seal & O-Ring with oil or grease and drop the seal in the filter body making sure it rests flat on the body floor above the inlet cavity. Refer to Figure 1.2

**Step 5:** Insert the new Dirt Trap Replacement Element into the filter body. Tighten until the element assembly bottoms out onto the filter housing. Figure 1.3

**Step 6:** After installing any Dirt Trap filter in an existing or new lubrication system, run the system and record the differential pressure (difference between inlet pressure reading and outlet pressure reading). When this reading increases by **50 PSI**, replace the filter element

**Tech Support:** Can't figure it out? Give us a call toll free at: (877) 452-0157

Figure 1.1



Figure 1.2

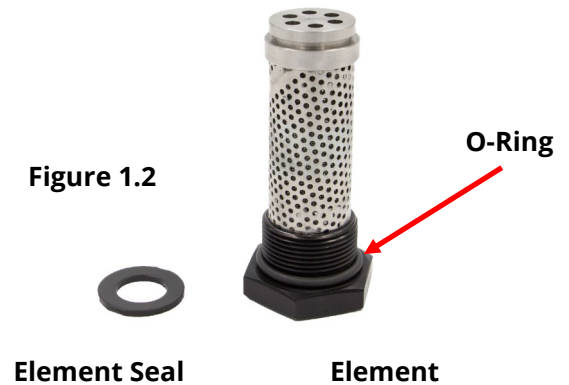
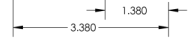


Figure 1.3



**DIMENSIONS & MOUNTING INFORMATION**

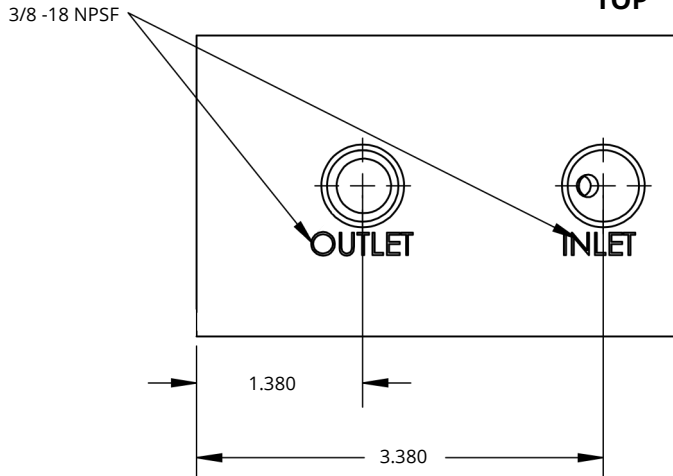


**DIMENSIONS ARE IN INCHES**

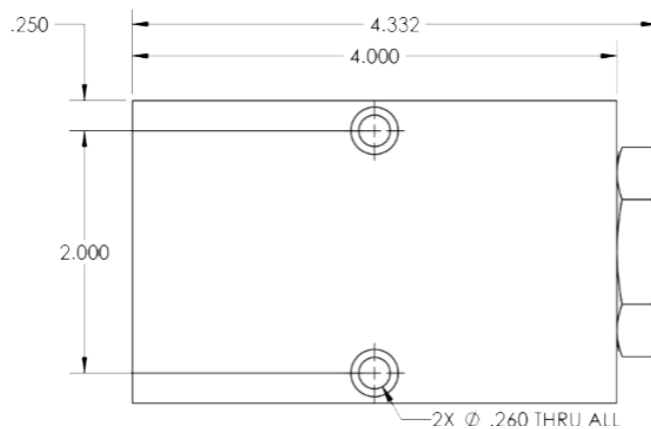
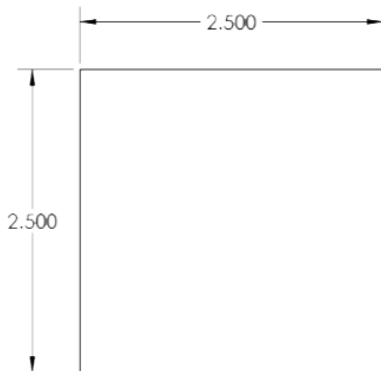
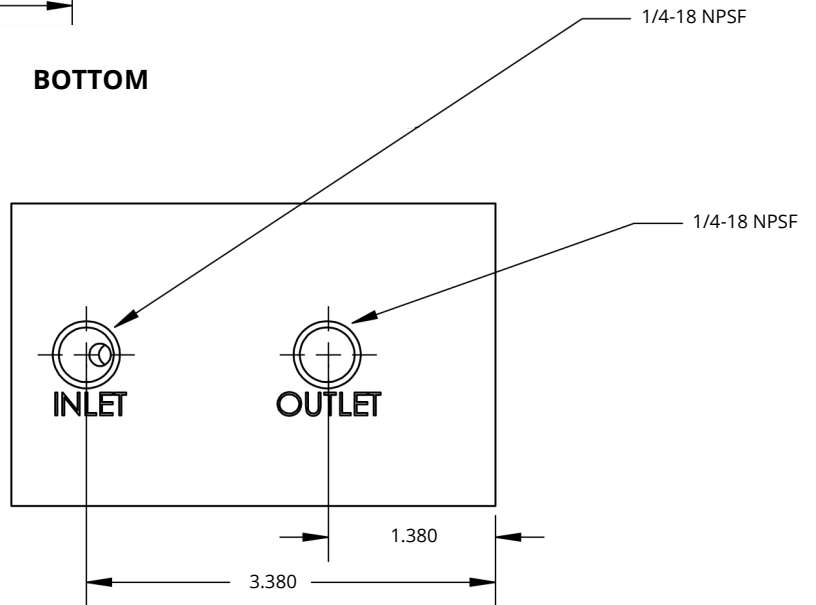
**DIRT TRAP CARBON STEEL**

**7,500 PSI**

**TOP**



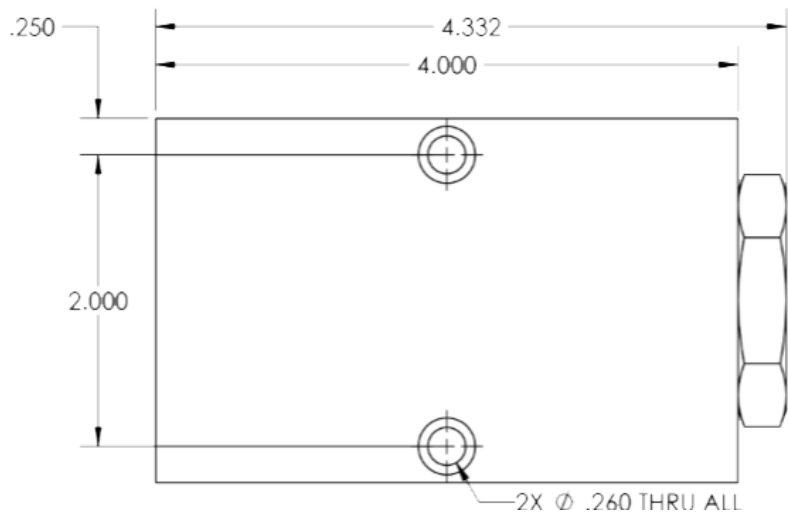
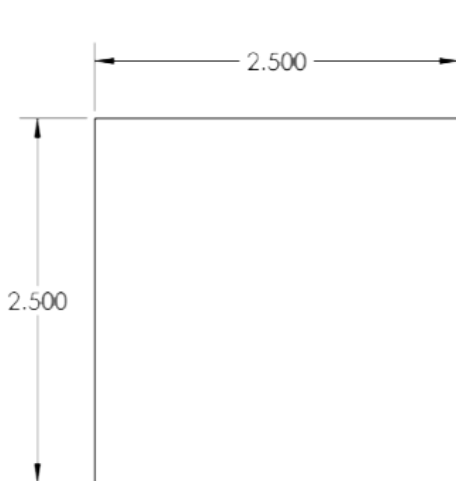
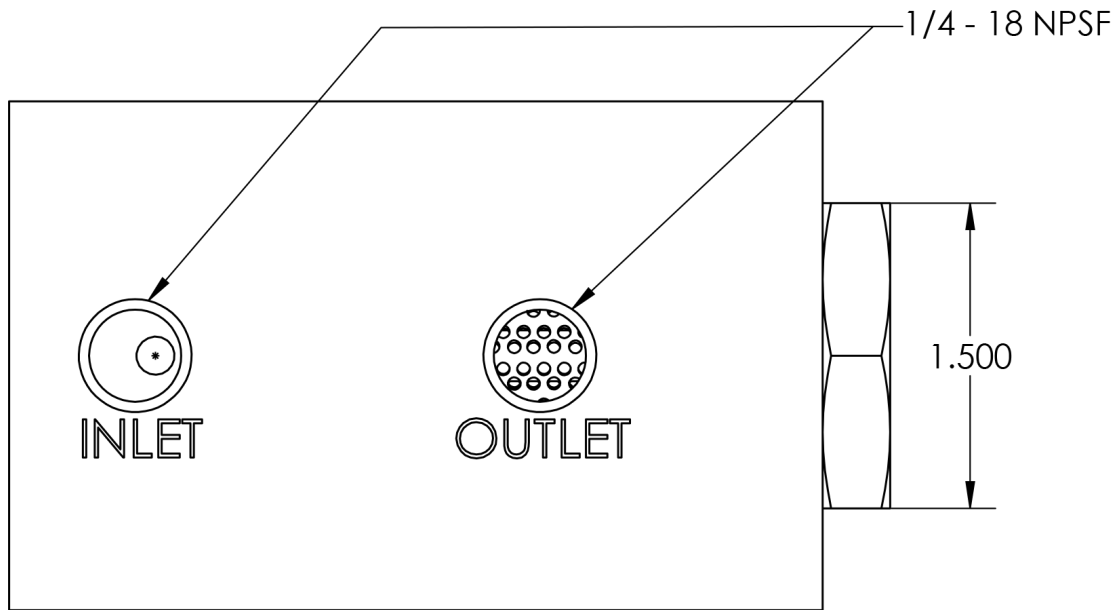
**BOTTOM**



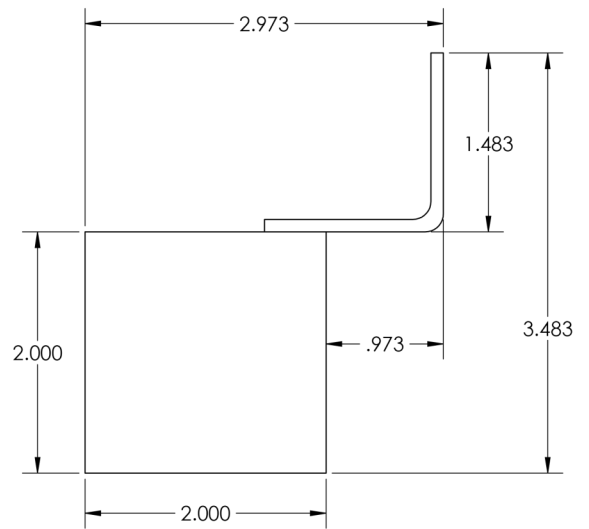
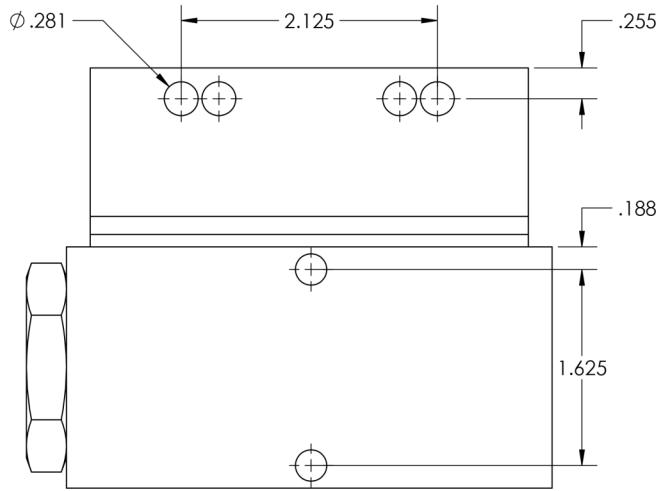
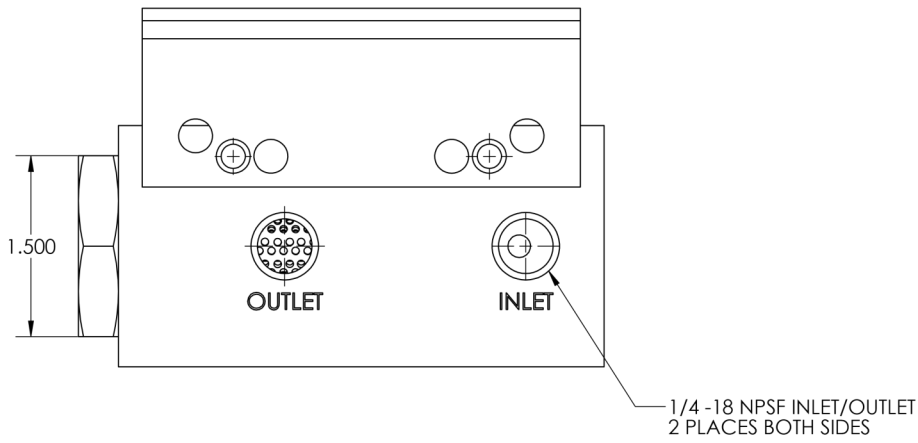
## DIMENSIONS & MOUNTING INFORMATION

DIMENSIONS ARE IN INCHES

DIRT TRAP AL2025 & 316  
STAINLESS



MOUNTNG BRACKET DIMENSIONS







## SPIN-ON CARTRIDGE FILTER



### PRODUCT DESCRIPTION

LOW PRESSURE, HIGH FLOW, SPIN-ON FILTER  
ELEMENT

3/4—16" NPT THREADED INTERFACE TO OIL FILTER

OIL ONLY APPLICATIONS AT 150 PSI MAX PRESSURE  
AT 250

DEGREES FAHRENHEIT

10, 25, AND 150 MICRONS AVAILABLE. ACCEPTS MOST  
AUTOMOTIVE OIL FILTERS WITH A 3/4—16" NPT  
CONNECTION

INLET/OUTLET PORTS ARE 3/8" NPSF CONNECTIONS,  
MOUNTING HOLES ARE 1/4-20"

3/4" CLEARANCE NEEDED TO REMOVE AND INSTALL  
FILTER

### BENEFITS & FEATURES

PROVIDES ACCESS TO AN INEXPENSIVE,  
EASY TO MAINTAIN FILTRATION UNIT FOR  
LOW PRESSURE OIL APPLICATIONS

DESIGNED FOR HIGH FLOW FILTRATION

COMPATIBLE WITH PETROLEUM BASED  
OIL IN MOBILE AND INDUSTRIAL  
APPLICATIONS

GENERAL USES FOR SUCTION LINES,  
RETURN LINES, FILLING OIL TANKS, AND  
OTHER LOW PRESSURE/HIGH FLOW OIL  
APPLICATIONS

WORKS WITH ANY STANDARD AUTOMOTIVE OIL  
FILTER WITH 3/4" NPT THREAD

## READY FOR IMMEDIATE SHIPMENT

MADE IN

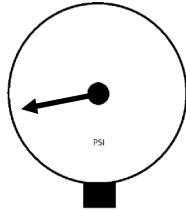
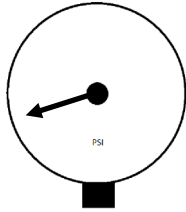


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FUNCTION ILLUSTRATION & SPECIFICATIONS

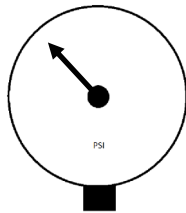
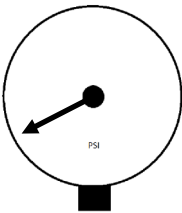
OUTLET

INLET



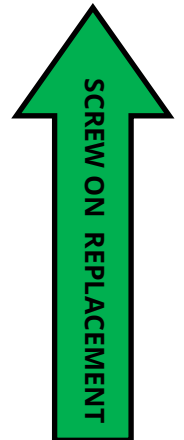
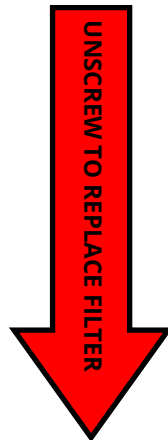
**FILTER "OK"**

Oil is decontaminated by passing lubricant through the filter element. Installation of pressure gauges make indication of element replacement easy. **The filter is functioning properly when both gauges are at approximately the same psi level.**



**FILTER REQUIRES REPLACEMENT**

During filtration, particles are left behind in the filter element. Over time, the contaminated build up against the filter wall creates flow resistance. As the resistance increases, the outlet pressure will rise as it tries to push the lubricant through the clogged filter. **When the outlet pressure is noticeably higher (~40 psi) than the inlet pressure, it is time to replace the filter.**



## ORDERING INFORMATION & PART NUMBERS

### SPIN-ON OIL FILTER ASSEMBLY

ANODIZED ALUMINUM MANIFOLD

STAINLESS STEEL PRESSURE GAGES

MOUNTING BRACKET

HIGH FLOW FILTER

CANISTER FOR OIL USE ONLY

MAX PRESSURE: 150 PSI

STANDARD PACK: 1 EACH	
PART DESCRIPTION	PART NUMBER
SPIN-ON FILTER COMPLETE ASSEMBLY	LPFA-118-AL
REPLACEMENT ELEMENT	LPFA-118-RFE



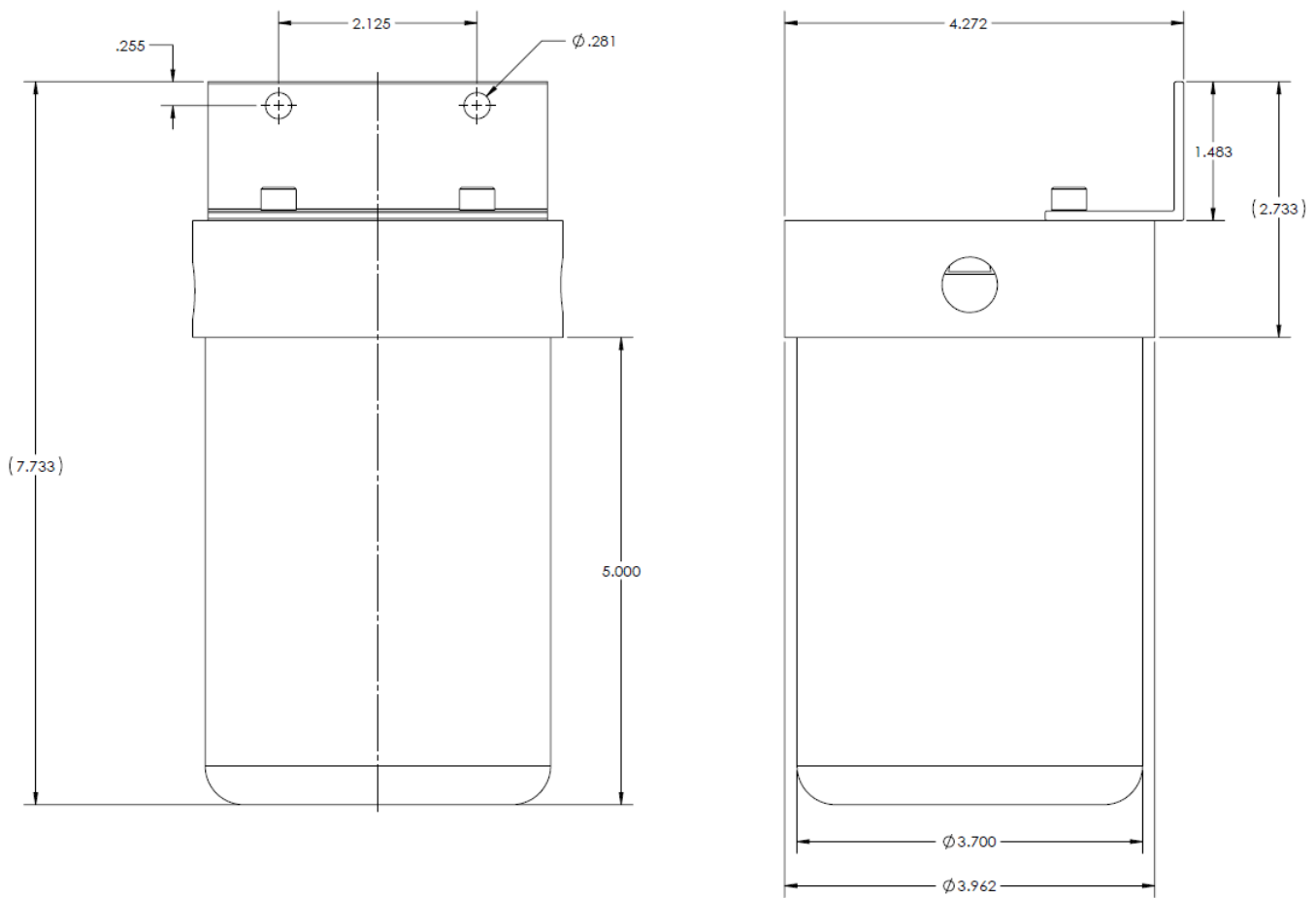
**SPIN-ON FILTER COMPLETE ASSEMBLY**



**REPLACEMENT ELEMENT**

## DIMENSIONS & MOUNTING INFORMATION

DIMENSIONS ARE IN INCHES





## DIGITAL COMPRESSOR MONITORS

### PRODUCT DESCRIPTION

MONITORS AND TRACKS DIVIDER VALVE OPERATION OF LUBRICATION SYSTEMS

MONITOR CONTINUOUSLY ANALYZES DIVIDER VALVES AND PERFORMS A SHUT DOWN IF THERE IS A PROBLEM, PREVENTING DAMAGE

PROGRAMMABLE RANGES FROM 20 SEC. TO 4 MIN. & 30 SEC.

MONITOR AUTOMATICALLY SCROLLS AND DISPLAYS CYCLE TIME, FLOW RATE, TOTAL STROKES, ALARM STATUS, AND TOTAL SYSTEM RUN TIME

AVAILABLE IN 120VAC OR 24VDC @ .040A & "AA" BATTERY POWERED

BATTERY POWERED MONITORS HAVE A LIFE EXPECTANCY OF 5-10 YEARS AND COME EQUIPPED WITH A LOW BATTERY ALARM INDICATOR.

MONITORS ARE AVAILABLE WITH OR WITHOUT EXPLOSION PROOF HOUSINGS FOR HAZARDOUS CONDITIONS

### BENEFITS & FEATURES

SINGLE AND DUAL ZONE MONITORS

EXTERNAL POWER NOT REQUIRED, BATTERY POWERED OPTIONS AVAILABLE

LONG BATTERY LIFE

EXPLOSION PROOF ENCLOSURES

PROGRAMMABLE ALARM & SHUTDOWN PROTECTION PROTECTS COMPRESSORS FROM DAMAGE DUE TO LOSS OF LUBRICATION

DIGITAL LCD DISPLAY

FAILSAFE - OPEN AND CLOSED MODES

## READY FOR IMMEDIATE SHIPMENT

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FUNCTIONAL ILLUSTRATION

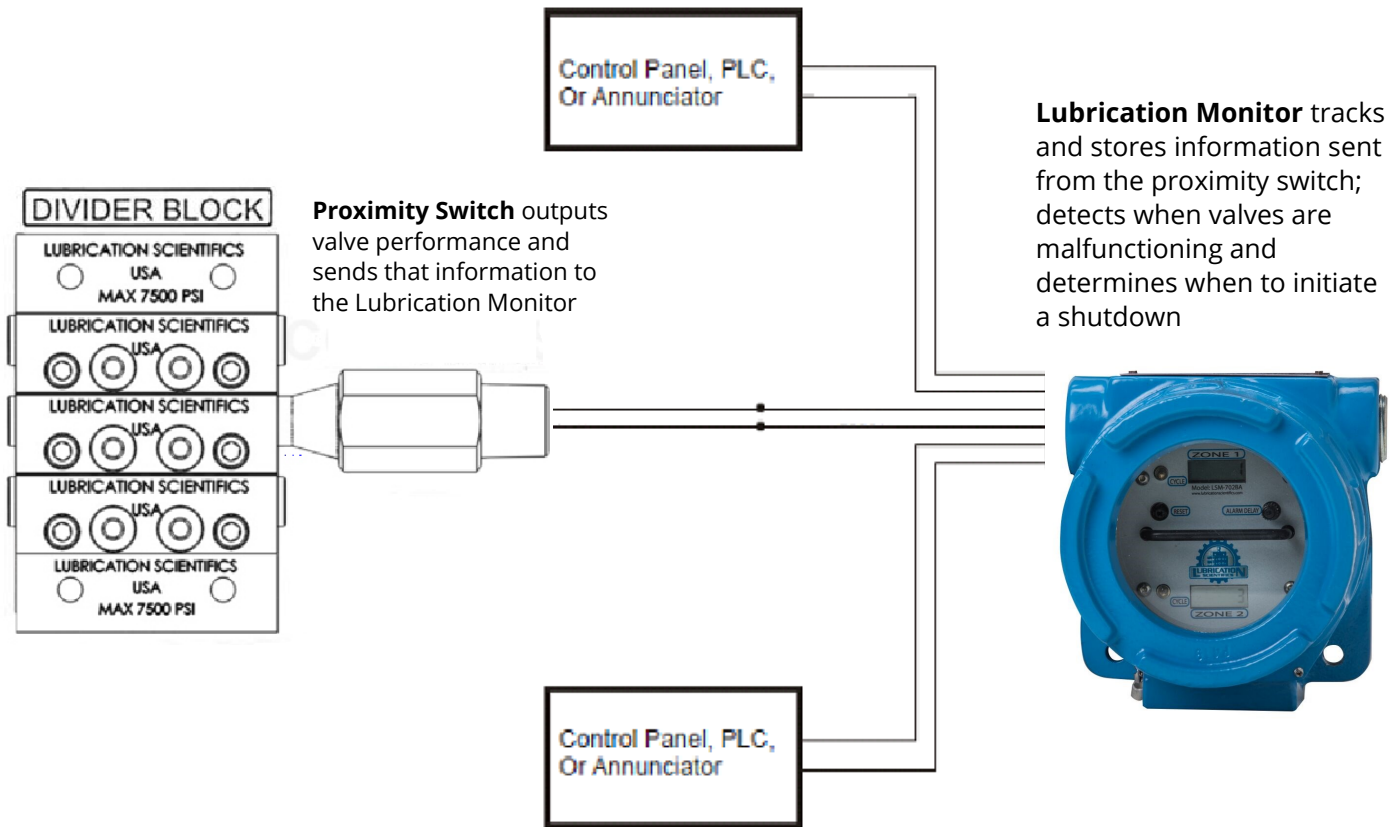


ILLUSTRATION DESCRIPTION

During a lube event, the lubrication monitor is constantly analyzing the performance of the lubrication system by way of the proximity switch. It tracks the following data: cycle time, flow rate, piston strokes, alarm status, and total system run time.

During a lube event where the proximity switch isn't detecting piston movement, an alarm is triggered from the Lubrication monitor for a set amount of time.

Once the alarm time expires, the lubrication monitor will then proceed to shut down the compressor before any damage can be incurred by a lack of lubrication.

## LSM-601-AC & LSM-602-AC SERIES: MONITOR SPECIFICATIONS

### LSM-601AC SINGLE ZONE MONITOR

ENCLOSURE	EXPLOSION PROOF CLASS I DIV I GROUPS A,B,C,D
POWER	120VAC OR 24VDC @ .040 amps
ALARM SWITCH	FORM C CONTACT 120VAC @ 5 amps
ALARM TIME	PROGRAMMABLE: -3 - 250 seconds
TEMPERATURE RANGE	0 - 150 DEGREES f (-32 - 70 DEGREES C)
WARRANTY	1 YEAR
DISPLAY	CYCLE TIME (sec), FLOW RATE (pints/day), TOTAL STROKES, TOTAL SYSTEM RUN TIME (hours)
MEMORY	LAST 100 CYCLES
PROXIMITY SWITCH	1 PROXIMITY SWITCH REQUIRED - REFER TO BULLETIN LSM003



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### LSM-602AC DUAL ZONE MONITOR

ENCLOSURE	EXPLOSION PROOF CLASS I DIV I GROUPS A,B,C,D
POWER	120VAC OR 24VDC @ .040 amps
ALARM SWITCH	FORM C CONTACT 120VAC @ 5 amps
ALARM TIME	PROGRAMMABLE: -3 - 250 seconds
TEMPERATURE RANGE	0 - 150 DEGREES f (-32 - 70 DEGREES C)
WARRANTY	1 YEAR
DISPLAY	CYCLE TIME (sec), FLOW RATE (pints/day), TOTAL STROKES, TOTAL SYSTEM RUN TIME (hours)
MEMORY	LAST 100 CYCLES PER ZONE
PROXIMITY SWITCH	2 PROXIMITY SWITCH REQUIRED - REFER TO BULLETIN LSM003



## LSM-701BA & LSM-702BA SERIES: MONITOR SPECIFICATIONS

### LSM-701BA SINGLE ZONE MONITOR

ENCLOSURE	EXPLOSION PROOF, CLASS I DIV I GROUPS A,B,C,D
POWER	2 "AA" 1.5V BATTERIES - REGULAR OR ALKALINE BATTERIES OK
ALARM SWITCH	10VA/120VAC/240 VDC
ALARM TIME	PROGRAMMABLE: -20 - 270 seconds
TEMPERATURE RANGE	-40- 170 DEGREES F
WARRANTY	2 YEARS
DISPLAY/STROKES	0-99999
MEMORY	LAST 100 CYCLES
PROXIMITY SWITCH	1 PROXIMITY SWITCH REQUIRED - REFER TO BULLETIN LSM003



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### LSM-702BA DUAL ZONE MONITOR

ENCLOSURE	EXPLOSION PROOF, CLASS I DIV I GROUPS A,B,C,D
POWER	2 "AA" 1.5V BATTERIES
ALARM SWITCH	10VA/120VAC/240 VDC
ALARM TIME	PROGRAMMABLE: -20 - 270 seconds
TEMPERATURE RANGE	-40- 170 DEGREES F
WARRANTY	2 YEARS
DISPLAY/STROKES	0-99999
MEMORY	LAST 100 CYCLES PER ZONE
PROXIMITY SWITCH	2 PROXIMITY SWITCH REQUIRED - REFER TO BULLETIN LSM003





**ORDERING INFORMATION & PART NUMBERS**

**COMPRESSOR MONITORS**

<b>STANDARD PACK: 1 EACH</b>		
<b>COMPRESSOR MONITOR—NO ENCLOSURE</b>		<b>PART NUMBER</b>
DIGITAL LUBRICATION MONITOR W/O ENCLOSURE	SINGLE ZONE, AC POWERED	LSM-601AC
DIGITAL LUBRICATION MONITOR W/O ENCLOSURE	DUAL ZONE, AC POWERED	LSM-602AC
DIGITAL LUBRICATION MONITOR W/O ENCLOSURE	BATTERY POWERED, SINGLE ZONE	LSM-701BA
DIGITAL LUBRICATION MONITOR W/O ENCLOSURE	BATTERY POWERED, DUAL ZONE	LSM-702BA

**Note:** Refer to bulletin LSM003 for proximity switch specifications and ordering information.

<b>STANDARD PACK: 1 EACH</b>		
<b>COMPRESSOR MONITOR—WITH EXPLOSION PROOF ENCLOSURE</b>		<b>PART NUMBER</b>
DIGITAL LUBRICATION MONITOR W/ ENCLOSURE	SINGLE ZONE, AC POWERED	LSM-601AC-XPE
DIGITAL LUBRICATION MONITOR W/ ENCLOSURE	DUAL ZONE, AC POWERED	LSM-602AC-XPE
DIGITAL LUBRICATION MONITOR W/ ENCLOSURE	BATTERY POWERED, SINGLE ZONE	LSM-701BA-XPE
DIGITAL LUBRICATION MONITOR W/ ENCLOSURE	BATTERY POWERED, DUAL ZONE	LSM-702BA-XPE

**Note:** Refer to bulletin LSM003 for proximity switch specifications and ordering information.

**LSM-601AC-XPE / LSM-602AC-XPE MODELS**



**LSM-701BA-XPE / LSM-702BA-XPE MODELS**



DUAL ZONE MONITOR (Zone #1/Zone #2)

MONITORS AND RECORDS OPERATION OF DIVIDER BLOCK LUBRICATION SYSTEMS



LSM-601/602-AC

SPECIFICATIONS

- Enclosure.....Compliant with Class I Division I Groups A, B, C, D
- Power.....120VAC or 24VDC@.040 amps
- Alarm Switch .....Form C Contact 120 VAC @ 5 amps N.O. COM. N.C.
- Alarm Time.....Programmable - 3 sec to 250 seconds
- Temperature Range.....0 to +150 F (-32 to +70 C)
- Warranty.....1 Year
- Display.....Cycle Time(Sec), Flow Rate(Pints/Day), Total Strokes,  
Alarm Status, Total System Run Time(Hours)
- Memory.....100 Cycle times Zone #2, 100 Cycle times Zone #1
- Proximity Switch.....2 included, Class I Div I Grps A, B, C, D

**DISPLAY:** Automatically scrolls between Pints/Day, Cycle Time, Total Strokes, System Run Time.

Pressing **(INC.)** Will lock display at the present function.

Pressing the **(EXIT)** will release the scroll lock and return to automatic.

DISPLAY FUNCTIONS:

**Pints/Day ZONE#1 and ZONE #2**

- Z1 XXX.X P/D Pints/Day Zone #1
- Z2 XXX.X P/D Pints/Day Zone #2

**Cycle time ZONE#1**

- Z1 XXX.X SEC Cycle time in seconds
- PREV. XXX.X Previous Cycle time for Zone#1

**Cycle time ZONE #2**

- Z2 XXX.X SEC Cycle time in seconds
- PREV. XXX.X Previous Cycle time for Zone#2

**Total strokes ZONE#1 and ZONE #2**

- Z1 XXXXXX STK Total Strokes Zone#1
- Z2 XXXXXX STK Total Strokes Zone #2

**Total run time in hours**

000000.000

DESCRIPTION

The LSM-602AC is a microprocessor based dual mode monitor for the display and control of progressive in-line lubrication systems. Proximity switches mounted to the divider block system for Zone #1 and Zone #2 signals the LSM-602AC each cycle. The time between cycles is displayed on the LCD readout as time into the current cycle as well as the time for the previous cycle. Each 10 seconds the display changes to show the flow rate in pints/day, cycle time, total strokes, and system run time for both Zone #1 and Zone #2. If the time between cycles exceeds the programmed alarm time an alarm signal is activated. The last 100 cycle times for the Zone #1 and Zone #2 lubrication systems are stored in permanent memory and can be read out via local control of program buttons.

## MONITOR DISASSEMBLY INSTRUCTIONS

FOR WIRING AND BOARD ACCESS

FOR MODELS: LSM-601/602/701/702 MODELS

**TOOLS NEEDED:** 1/16" ALLEN WRENCH AND SMALL FLAT HEAD SCREWDRIVER

### DISASSEMBLY OF MONITOR FOR WIRING ACCESS

**STEP 1:** REMOVE SET SCREW ON MONITOR HOUSING.

**STEP 2:** REMOVE THE EXPLOSION PROOF LID FROM THE MONITOR BODY BY UNSCREWING COUNTERCLOCKWISE. UNSEATING MAY BE DIFFICULT DUE TO O-RING SEAL.

**STEP 3:** REMOVE THE DIGITAL DISPLAY PANEL FROM THE HOUSING BODY. REMOVE USING THE BLACK HANDLES. PULLING STRAIGHT OUT MAY BE DIFFICULT, PULL FROM ONE SIDE AT A TIME LITTLE BY LITTLE UNTIL THE DISPLAY IS ABLE TO WIGGLE FREE.

ONCE THE DISPLAY IS OFF, YOU WILL NOW HAVE ACCESS TO THE BOARD FOR WIRING. USE THE DIAGRAMS ON THE FOLLOWING PAGES FOR PINOUTS AND WIRING.

### REASSEMBLING THE MONITOR

**STEP 1:** MAKE SURE ALL WIRING IS OUT OF THE WAY OF THE BANANA PLUGS. ENSURE ALL EXPOSED WIRE IS PROTECTED FROM SHORTING .

**STEP 2:** HOLDING THE BLACK HANDLES, LINE UP THE DISPLAY SO THAT THE HORIZONTAL LINE OF THE SCREEN IS PARALLEL TO THE TOP OF THE MONITOR. SLOWLY PRESS THE DISPLAY EVENLY AND DOWNWARD INTO THE BODY. YOU SHOULD BE ABLE TO **FEEL** THE PLUGS GUIDING INTO THE CORRESPONDING CONNECTORS. IF THE DISPLAY FEELS TO BE PROPERLY ALIGNED, CONTINUE TO PRESS DOWNWARD UNTIL YOU FEEL THE DISPLAY BOTTOM OUT. THE BLACK HANDLES SHOULD SIT JUST ABOVE THE TOP OF THE BODY THREADS.

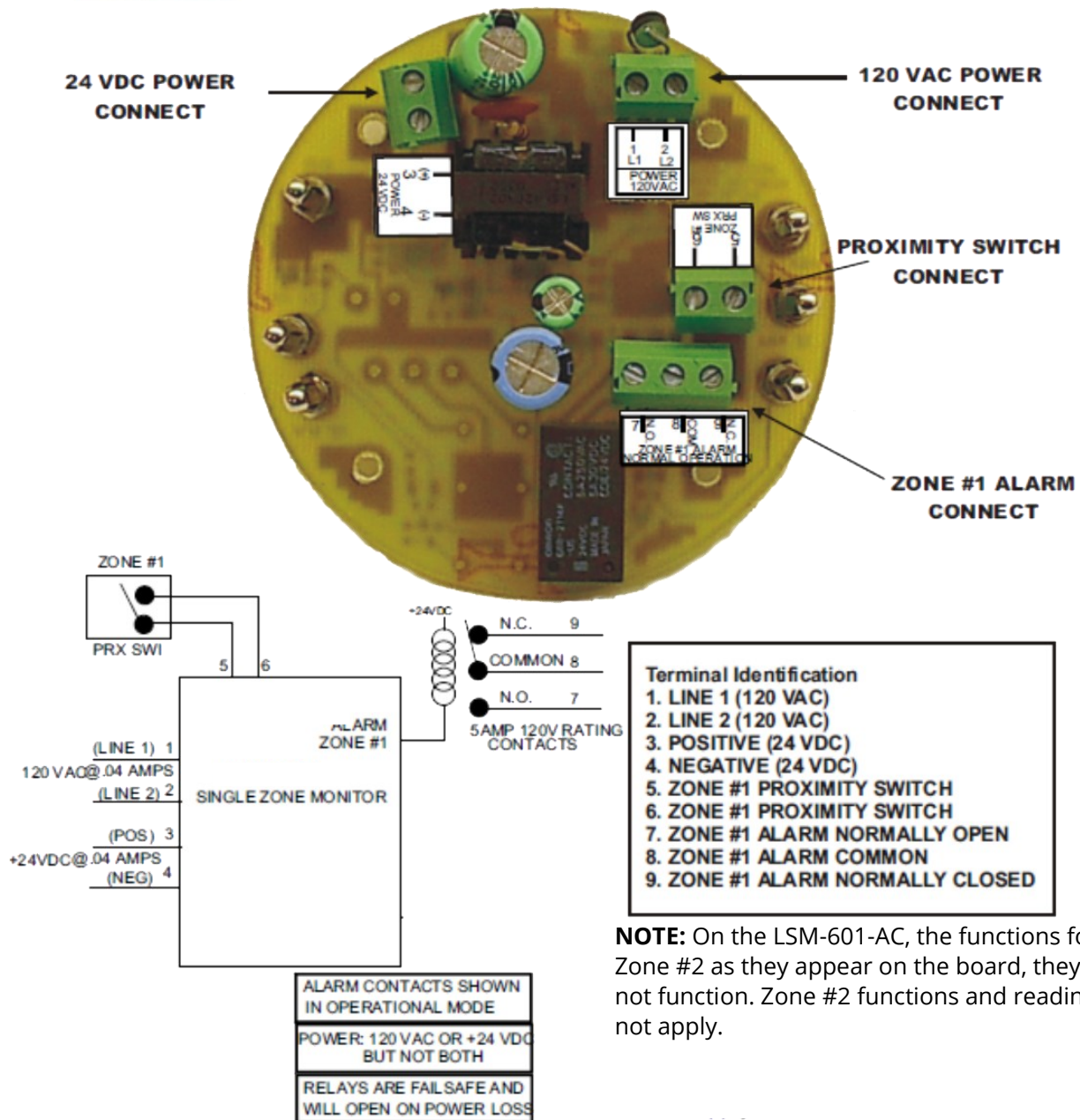
**STEP 3:** SCREW THE LID ON UNTIL THE LID IS FLUSH WITH THE BODY. SCREW IN THE SET SCREW TO SECURE.



WIRE DIAGRAMS FOR LSM-601-AC MODEL



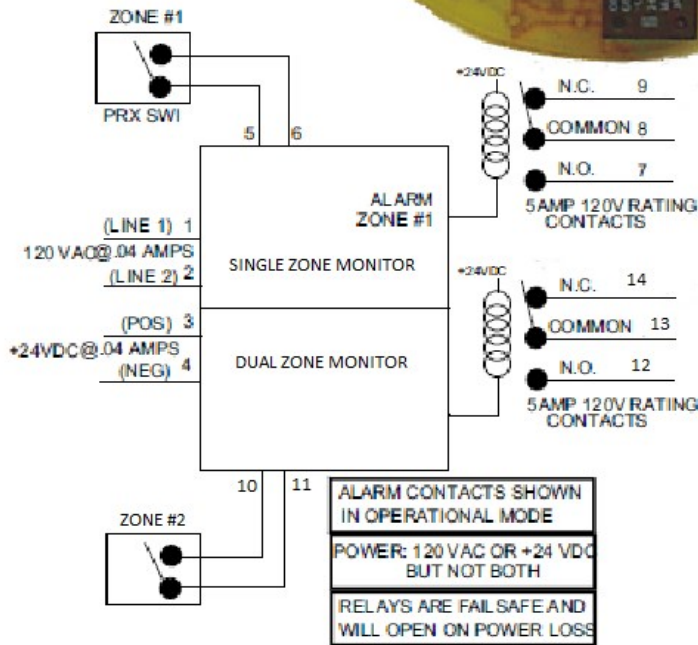
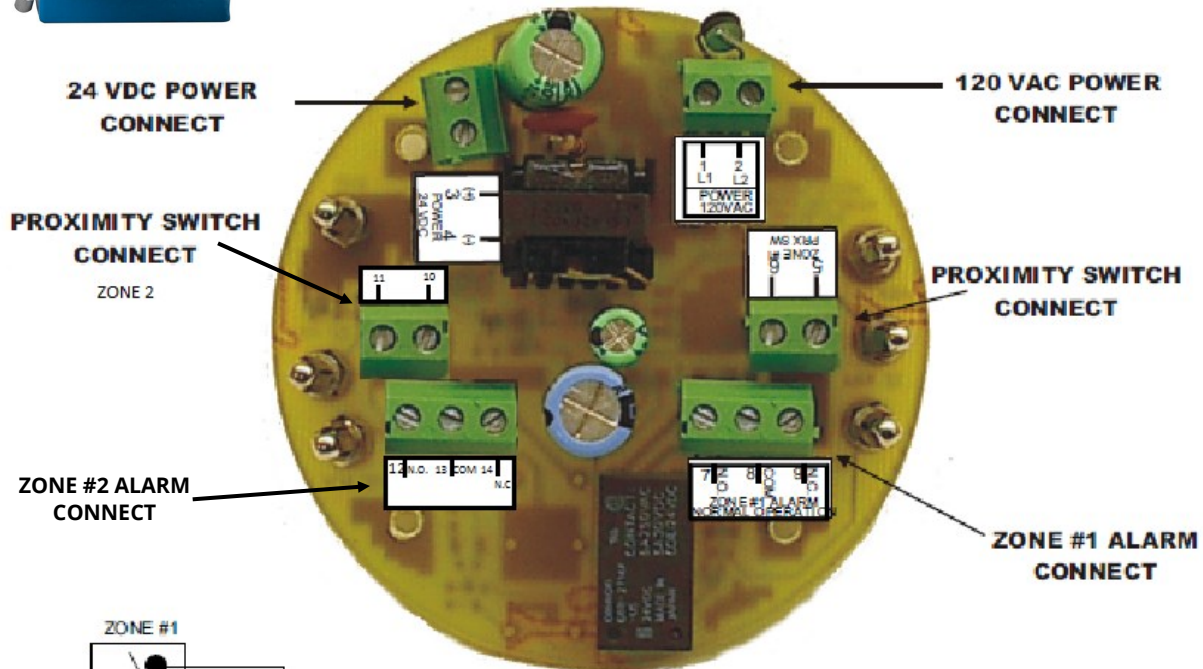
SINGLE ZONE MONITOR (Zone #1)  
WIRING



WIRE DIAGRAMS FOR LSM-602-AC MODEL



DUAL ZONE MONITOR (ZONE #1/ZONE #2)  
WIRING DIAGRAM



TERMINAL IDENTIFICATION

1. LINE 1 (120 VAC)
2. LINE 2 (120 VAC)
3. POSITIVE (24 VDC)
4. NEGATIVE (24 VDC)
5. ZONE #1 PROXIMITY SWITCH
6. ZONE #1 PROXIMITY SWITCH
7. ZONE #1 ALARM NORMALLY OPEN
8. ZONE #1 ALARM COMMON
9. ZONE #1 ALARM NORMALLY CLOSED
10. ZONE #2 PROXIMITY SWITCH
11. ZONE #2 PROXIMITY SWITCH
12. ZONE #2 ALARM NORMALLY OPEN
13. ZONE #2 ALARM COMMON
14. ZONE #2 ALARM NORMALLY CLOSED

ALARM CONTACTS SHOWN  
IN OPERATIONAL MODE  
POWER: 120 VAC OR +24 VDC  
BUT NOT BOTH  
RELAYS ARE FAILSAFE AND  
WILL OPEN ON POWER LOSS

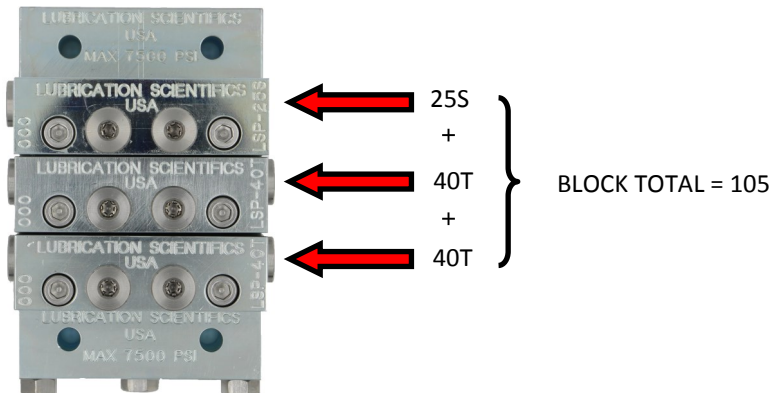
## PROGRAMING INSTRUCTIONS FOR LSM-602-AC MODEL

**TO SCROLL BETWEEN FUNCTIONS:** PRESS AND HOLD "PRG" USE THE INC OR DEC BUTTONS TO SCROLL BETWEEN FUNCTIONS.

PRESSING THE "EXIT" BUTTON WILL RETURN TO THE NORMAL SCAN.

**FIRST STEP** WILL BE TO ENTER THE BLOCK TOTALS FOR EACH ZONE (BLK TOTL). ADD UP THE VALUES STAMPED ON THE FACE OF EACH DIVIDER BLOCK FOR THAT ZONE.

EX. IF YOU HAVE 3 VALVES VALUED AT 25S, 40T, & 40T. THE TOTAL BLOCK VALUE WOULD BE 105. SEE BELOW.



FUNCTION SELECTION	PROGRAMMABLE PARAMETERS	USE BUTTONS TO SET
ZONE #1 BLOCK TOTAL	18-144 BLK TOTL	INC OR DEC
ZONE #2 BLOCK TOTAL	18-144 BLK TOTL	INC OR DEC
ZONE #1 ALARM	3-250 SECONDS	INC OR DEC
ZONE #2 ALARM	3-250 SECONDS	INC OR DEC
ZONE #1 CYCLE TIME MEMORY	TO VIEW LAST 100 CYCLE TIMES	INC OR DEC
ZONE #2 CYCLE TIME MEMORY	TO VIEW LAST 100 CYCLE TIMES	INC OR DEC

## DISPLAY

**AUTOMATICALLY SCROLLS BETWEEN:** PINTS/DAY, CYCLE TIME, TOTAL STROKES, AND SYSTEM RUN TIME.

PRESSING "INC" WILL LOCK THE DISPLAY AT THE PRESENT FUNCTION.

PRESSING "EXIT" WILL RELEASE THE SCROLL LOCK AND RETURN TO AUTOMATIC SCROLL

THE FOUR BUTTONS ARE USED TO CHANGE THE SETUP PARAMETERS

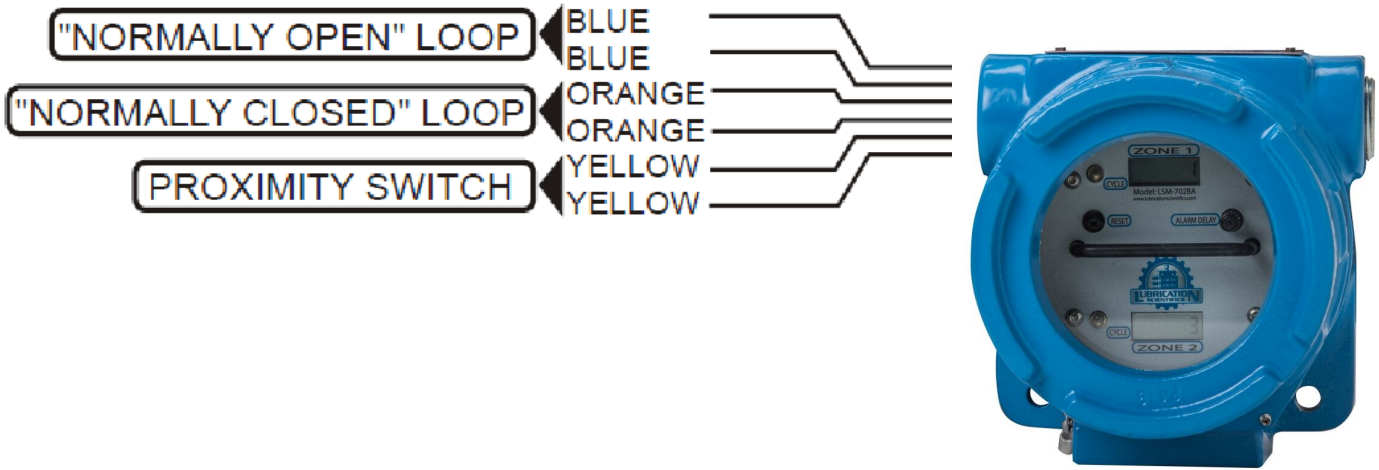
PROGRAM MENU ITEMS ARE ASSESSED BY PRESSING THE "PRG" BUTTON

PRESSING THE "PRG" + "EXT" OR "PRG" + "INC" AT THE SAME TIME WILL ACCESS THE OTHER MENU ITEMS.

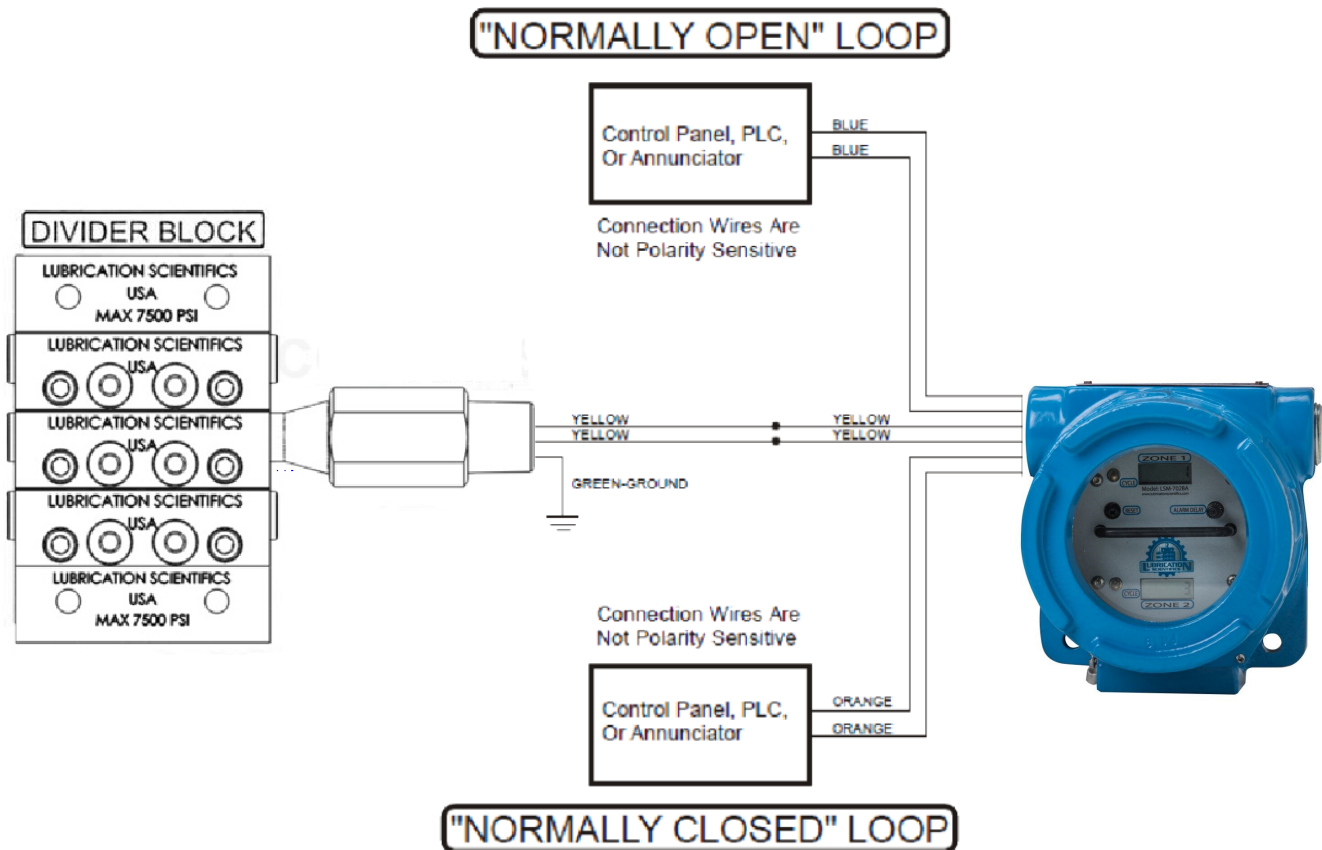
HOLDING THE "PRG" AND "EXT" BUTTONS WILL SCROLL SLOWLY THEN RAPIDLY IF HELD DOWN

THE "EXIT" BUTTON WILL RETURN TO THE DISPLAY PRG IF PRESSED AT ANYTIME

WIRE DIAGRAM FOR LSM-701-BA MODEL

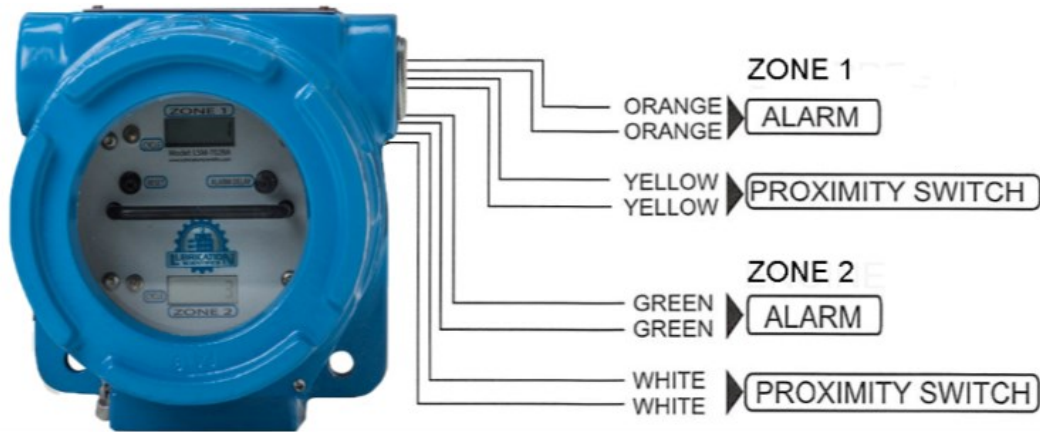


WIRING DIAGRAM FOR "OPEN LOOP OR CLOSED LOOP" OPERATION



# Digital Lubrication Monitor

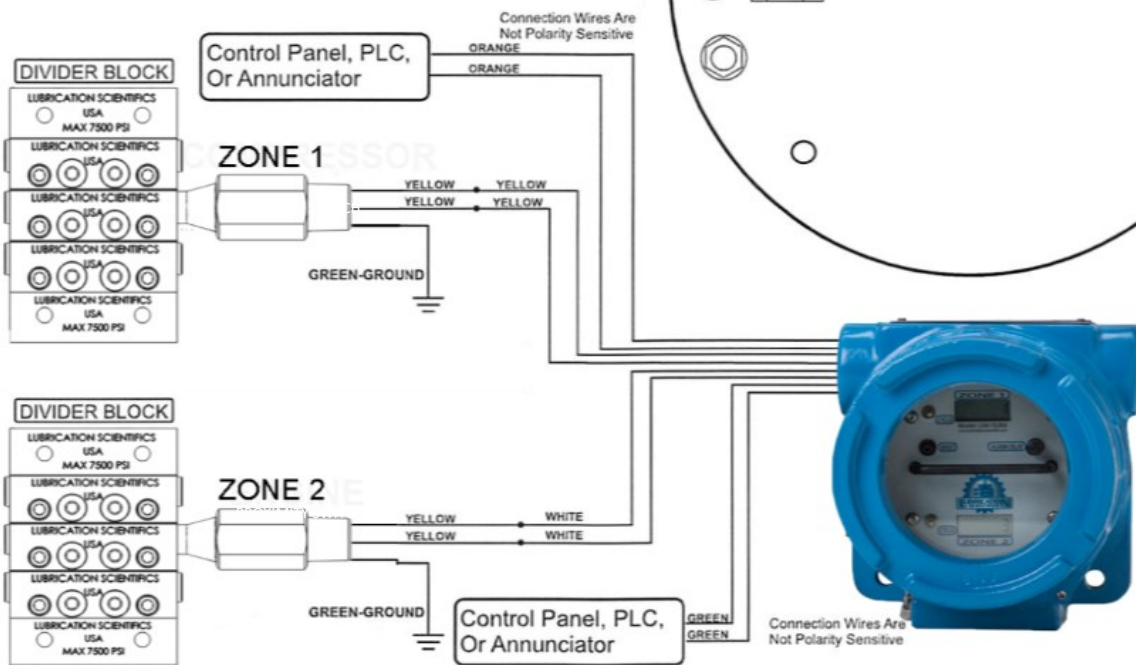
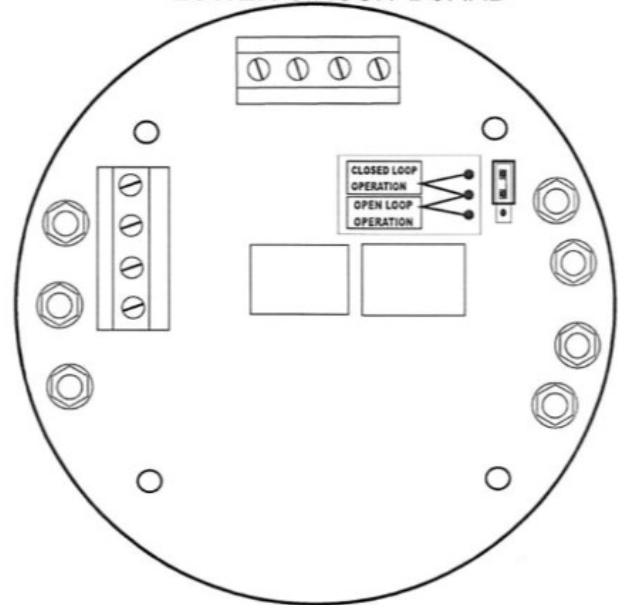
WIRING INSTRUCTIONS  
PART# LSM-702BA-XPE



WIRING DIAGRAM FOR "CLOSED LOOP OR OPEN LOOP" OPERATION

Note: Unit is preset for closed loop operation. For open loop operation jumper on lower circuit board must be moved to open loop position.

LOWER CIRCUIT BOARD





## PROGRAMMING INSTRUCTIONS FOR LSM-701BA AND LSM-702BA MODELS

### PROGRAMMING INSTRUCTIONS:

**TO VIEW ALARM TIME:** PRESS AND HOLD THE "RESET" BUTTON UNTIL ALARM TIME IS SHOWN.

NOTE: KEEPING THE RESET BUTTON DEPRESSED WILL RESET THE CYCLE INDICATOR TO 0

**RESETTING THE CYCLE INDICATOR:** PRESS AND HOLD THE "RESET" BUTTON UNTIL THE CYCLE INDICATOR COUNT SHOWS 0 AND FLASHES THE ALARM TIME AT ONE SECOND INTERVALS.

**ADJUSTING THE ALARM TIME:** HOLD THE "RESET" TIMER AND TURN THE "ALARM DELAY" KNOB TO THE DESIRED SECONDS INTERVAL.

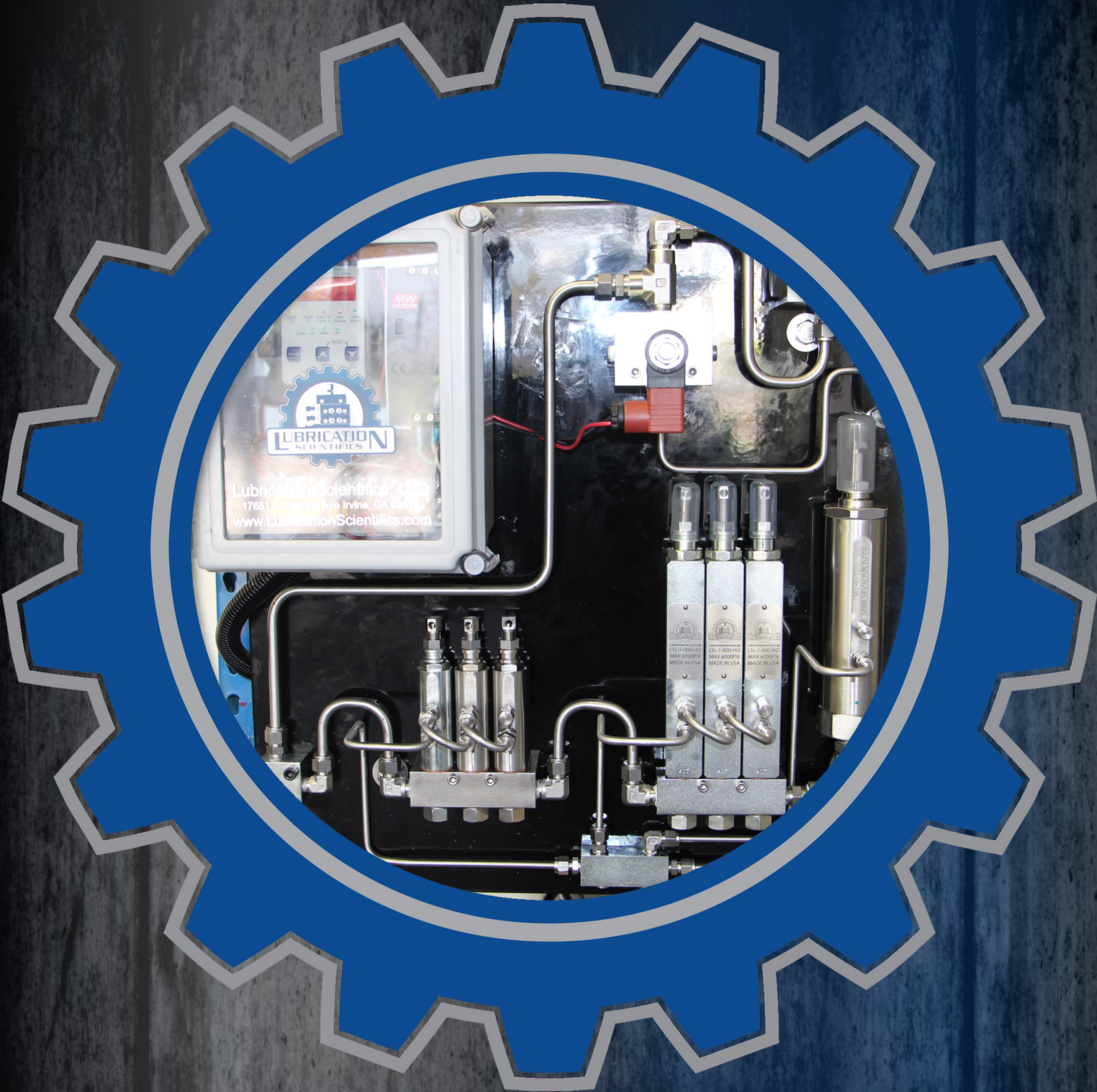
NOTE: YOU CAN ADJUST THE ALARM DELAY WITHOUT RESETTING THE CYCLE INDICATOR TO 0. WHEN HOLDING RESET, JUST ADJUST THE "ALARM DELAY" THEN DEPRESS THE "RESET" BUTTON

#### OTHER NOTES:

- THE ALARM TIME IS NOT AFFECTED BY TEMPERATURE CHANGE.
- THE LSM-701 & 702 MODELS ARE A BIPOLAR DEVICE. IT IS NOT NECESSARY TO DETERMINE THE POLARITY OF THE WIRES COMING FROM THE ANNUNCIATOR, PLC, OR OTHER TYPES OF SHUTDOWN CONTROLLERS BECAUSE THE CLOSED AND OPEN LOOP ALARM CIRCUITS ARE A BIPOLAR DEVICE.

# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**FULL FEATURED LUBRICATION SYSTEM CONTROLLER**

**MULTI-ZONE—SOLID STATE—BOX UNITS**



## LUBRICATION SYSTEM CONTROLLER

### PRODUCT DESCRIPTION

FULL FEATURED, SOLID STATE, MULTI ZONE LUBRICATION SYSTEM CONTROLLER

UP TO SIX INPUTS FROM SYSTEM SENSORS & TWO OUTPUTS

PROGRAMMABLE ALARM INPUTS INCLUDE LOW RESERVOIR LEVEL, HIGH PRESSURE DETECTION, ZONE CYCLE VERIFICATION, MOTOR LOW/HIGH CURRENT LEVELS

OUTPUT CONTROLS INCLUDE ENERGIZING PUMP TO INITIATE LUBE EVENT AND ENERGIZE ALARM CIRCUIT FOR SYSTEM FAULT NOTIFICATIONS

### BENEFITS & FEATURES

MONITORS LUBE SYSTEM IN ITS ENTIRETY

FAULT MONITORING

MULTI-MONITORING OF LUBRICATION MONITORS, LUBRICATION PUMPS, HIGH PRESSURE SWITCHES, & LUBRICATION LEVELS

CONTROLS AIR SOLENOIDS FOR SPRAY SYSTEMS

CONTROL OF LUBRICATION AND MACHINE SHUTOFF TIMES

PROGRAMMABLE CONSTRAINTS TO DICTATE HOW THE CONTROLLER PERCEIVES AND ACTS UPON ALARMS

AVAILABLE SUPPLY RANGES POWER OF 24VDC-580VAC

## READY FOR IMMEDIATE SHIPMENT

MADE IN

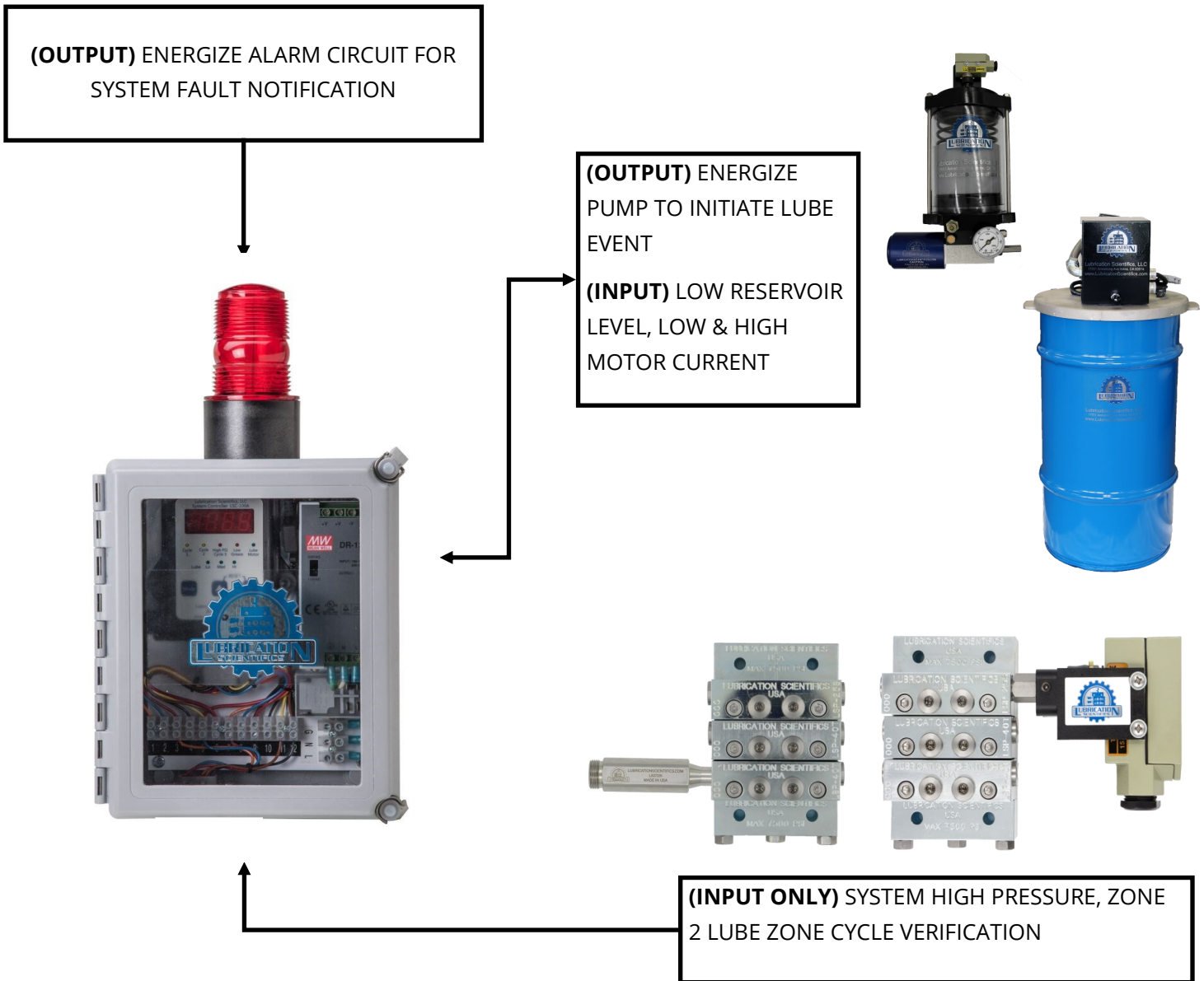


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ORDERING INFORMATION & PART NUMBERS

FULL FEATURED, SOLID STATE, MULTI-ZONE LUBRICATION SYSTEM CONTROLLER WITH UP TO SIX INPUTS FROM SYSTEM SENSORS AND TWO OUTPUTS.

DESIGNED TO POWER 24VDC, 115 VAC, & 240 VAC PUMPS



PRODUCT DESCRIPTION	PART NUMBER
UNIVERSAL COMPLETE SYSTEM CONTROLLER BOX SETUP 115 VAC	LSC-100A-AC-U115
UNIVERSAL COMPLETE SYSTEM CONTROLLER BOX SETUP 240 VAC	LSC-100AC-U240

**LSC-100A**



- USE WITH 12 VDC /24 VDC POWER SUPPLY FROM VEHICLE OR OTHER POWER SOURCE.
- USE WITH LS CABLE FOR DIRECT CONNECT TO PUMPING UNIT

**LSC-100A-AC-LS**



- USE WITH 115 VAC / 230 VAC POWER SUPPLY FROM PLANT POWER SOURCE, OR OTHER POWER SOURCE.
- USE WITH LS CABLE FOR DIRECT CONNECT TO PUMPING UNIT

**LSC-100A-AC-U115**



- USE WITH 115 VAC / 230 VAC POWER SUPPLY FROM PLANT POWER SOURCE.
- NO LS CABLE REQUIRED
- CONNECT I/O USING CONTROLLER TERMINAL STRIP

**LSC-100A-AC-U140**



- USE WITH 240 VAC / 480 VAC SINGLE PHASE FROM PLANT POWER SOURCE.
- NO LS CABLE REQUIRED
- CONNECT I/O USING CONTROLLER TERMINAL STRIP

ORDERING INFORMATION & PART NUMBERS



LSC-100A-AC-LS COMPLETE SETUP



LSC-100A STAND ALONE CONTROLLER

COMPATIBLE PUMP STYLES



PRODUCT DESCRIPTION	PART NUMBER
STAND ALONE SYSTEM CONTROLLER	LSC-100A
WIRE LOOM KIT FOR LSC-100A 24 V FOR 3 POSITION CONTROLLER	LSC-100A-LKW3P
WIRE LOOM KIT FOR LSC-100A 24 V FOR 6 POSITION CONTROLLER	LSC-100A-LKW6P

The LSC-100A-AC-LS IS FOR USE WITH 12 & 24 VOLT BARREL & MOUNTABLE PUMPS. SEE BULLETIN LSM018 FOR INFORMATION ON PUMPS.

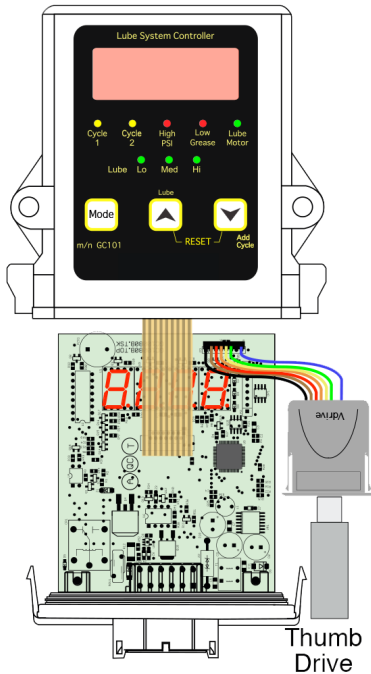
PRODUCT DESCRIPTION	PART NUMBER
COMPLETE SYSTEM CONTROLLER BOX SETUP	LSC-100A-AC-LS

**LSC-100A-TEST  
CONTROLLER TEST BOX**

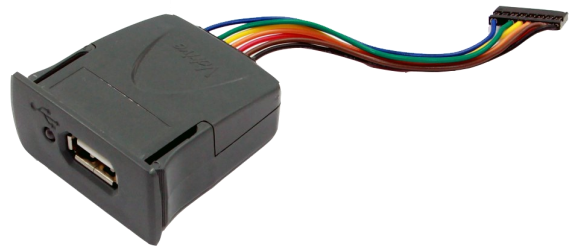


- USE TO SIMULATE ALL POSSIBLE CONDITIONS AND ENVIRONMENTS
- ALLOWS FOR CONTROLLER PROGRAMMING AND TESTING OFF-SITE

**LSC-100A-USB  
V-DRIVE CONTROLLER UPDATE DEVICE**



- ENABLES CUSTOMER/DISTRIBUTOR TO UPDATE CONTROLLER SOFTWARE ON EXISTING INSTALLED UNITS
- ENSURES ALL CONTROLLERS HAVE THE LATEST SOFTWARE UPDATE WITH CURRENT FEATURES AND FIXES



## PROGRAMMING INSTRUCTIONS

**KEYS:**            **MODE: SHIFT KEY**    **INC: UP ARROW KEY**    **DEC: DOWN ARROW KEY**

### MENU NUMBERS:

There are (33) different menus, (the full menu list is shown on the next page).  
For purposes of this manual, the following will be used, when referring to a specific menu number.

Menu no. 7 = M7, Menu no. 24 = M24, etc.

The MENU LIST is grouped, as follows:

<b>M2 thru M9</b>	Programmable Timer settings
<b>M10 thru M19</b>	Programmable operational settings
<b>M20 thru M28</b>	Status and Operational timer displays
<b>M30 thru M32</b>	Test <u>INPUTS &amp; OUTPUTS</u> and <u>CHECKSUM</u>
<b>M99</b>	Pass Code entry

CHECKSUM is the PROGRAM IDENTIFIER

(Note; M29, M33-97, are not assigned)

### MOVING THROUGH THE MENUS:

Press and hold the **Mode** key, use the **INC** or **DEC** keys to select a menu number, release the **Mode** key. Briefly the menu Tag name is displayed, then the value of the current setting is displayed for view or edit.

- Pass Code**    In order to change settings for any menu item it requires the operator enter a pass code, see M99. Without a valid pass code the operator can only **view** menus and settings. User Pass Code = **181**
- Checksum**    The checksum is a program verification process. Each time the LSC-100A is powered up the program's checksum is evaluated and displayed before the unit goes into Run mode.  
Note; The Checksum is a 4-digit hexadecimal number. (Examples. 72b9, 6EFd, 7d4B, F9EC, etc.)
- Errors**        The LSC-100A can determine (6) different conditions. If any of these occur and Error code is displayed and a beeper sounds. To silence the beeper press both the **INC** and **DEC** keys. Each error has an accumulated timer to record how long an error occurred. Following is a list of errors;
- E1** - Hi Psi switch indication a possible blockage in the lube line
  - E2** - Lube reservoir is low
  - E3** - Too few pulses received on Cycle Switch #1
  - E4** - Too few pulses received on Cycle Switch #2
  - E5** - Motor current is too low, likely there is an open circuit
  - E6** - Motor current is over 9 amps, likely there is a short circuit
- Status LED's**    There are (5) status LED's located along the bottom edge of the display window. The first LED (Yellow on the left) indicates each time Cycle Switch#1 transitions. The second LED (Yellow) indicates each time Cycle Switch#2 transitions. The third LED (Red) indicates High PSI input is active. The fourth LED (Red) indicates when the lube reservoir is low. And the fifth LED (Green) indicates when the pump motor is on.
- Lube Modes**    There are (3) Lubrication modes of operation. Each has On/Off time settings (see next page). Mode is selected with the **INC** key.
- Extra Cycle**    To add an extra Lube Cycle Press and hold the **DEC** key for 2 seconds.



**MENU FUNCTION LIST WITH FACTORY SETTINGS**

<u>Menu #</u>	<u>Tag</u>	<u>Factory Setting</u>	<u>Function</u>
1	<b>run</b>		RUN MODE: Lube timer is displayed HOURS (hh), MINUTES (mm) & SECONDS, (ss) <u>PUMP ON</u> is shown in MINUTES (mm) & SECONDS (ss) and <u>PUMP OFF</u> is shown in HOURS (hh) and MINUTES (mm).
2	<b>1 on</b>	30 Min	<u>SET PUMP ON TIMER</u> for <u>LOW LUBE SETTING</u> . Set MINUTES (mm) & SECONDS (ss). Range: 0-59 minutes (mm), & 5-59 seconds (ss). Wait 5 seconds, after releasing MODE key, use INC / DEC to change minutes/seconds. Press both INC & DEC <u>together</u> to move cursor between minutes (mm) & seconds (ss).
3	<b>1 of</b>	5 Min	<u>SET PUMP OFF TIMER</u> for <u>LOW LUBE SETTING</u> . If <u>Menu #8</u> = tiE, set HOURS (hh) & MINUTES (mm). Range (0-48 hours & 2-59 minutes). Use INC / DEC to set either HOURS (hh) or MINUTES (mm). Press both INC & DEC together to move cursor between hours (hh) and minutes (mm).  If <u>Menu #8</u> = PULS, Use INC / DEC to set OFF pulse set point.
4	<b>2 on</b>	5 Min	<u>SET PUMP ON TIMER</u> for <u>MEDIUM LUBE SETTING</u> . Set MINUTES (mm) & SECONDS (ss). Range: 0-59 minutes (mm), & 5-59 seconds (ss). Wait 5 seconds, after releasing MODE key, use INC / DEC to change minutes/seconds. Press both INC & DEC <u>together</u> to move cursor between minutes (mm) & seconds (ss).
5	<b>2 of</b>	30 Min	<u>SET PUMP OFF TIMER</u> for <u>MEDIUM LUBE SETTING</u> . If <u>Menu #8</u> = tiE, set HOURS (hh) & MINUTES (mm). Range (0-48 hours & 2-59 minutes). Use INC / DEC to set either HOURS (hh) or MINUTES (mm). Press both INC & DEC together to move cursor between hours (hh) and minutes (mm).  If <u>Menu #8</u> = PULS, Use INC / DEC to set OFF pulse set point.
6	<b>3 on</b>	5 Min	<u>SET PUMP ON TIMER</u> for <u>HIGH LUBE SETTING</u> . Set MINUTES (mm) & SECONDS (ss). Range: 0-59 minutes (mm), & 5-59 seconds (ss). Wait 5 seconds, after releasing MODE key, use INC / DEC to change minutes/seconds. Press both INC & DEC <u>together</u> to move cursor between minutes (mm) & seconds (ss).
7	<b>3 of</b>	30 Min	<u>SET PUMP OFF TIMER</u> for <u>HIGH LUBE SETTING</u> . If <u>Menu #8</u> = tiE, set HOURS (hh) & MINUTES (mm). Range (0-48 hours & 2-59 minutes). Use INC / DEC to set either HOURS (hh) or MINUTES (mm). Press both INC & DEC together to move cursor between hours (hh) and minutes (mm).  If <u>Menu #8</u> = PULS, Use INC / DEC to set OFF pulse set point.

**MENU FUNCTION LIST WITH FACTORY SETTINGS**

Menu #	Tag	Factory Setting	Function
8	<b>OF t</b>	tiE	Select lube off mode; based on cycle pulses or based on time. PULS = cycle count mode or tiE = timer mode. This setting applies to all 3 modes (Low, medium, and High).
9	<b>OF S</b>	Hr.In	Select Off Time Scale.  If Menu #9 = Hr.In, the off time setting will be in Hours & Minutes If Menu #9 = In.Sc, the off time setting will be in Minutes & Seconds
10	<b>SEtr</b>	tiE	Select lube run mode; based on cycle pulses or based on time. PULS = cycle count mode or tiE = timer mode
11	<b>CyC1</b>	0	Set Cycle count set point #1
12	<b>CyC2</b>	0	Set Cycle count set point #2
13	<b>HI-F</b>	45 Sec	High psi set accum. time required to create an error (range 5 - 120 sec, INC once beyond 120 = Off)
14	<b>Lo-F</b>	Off	Low lube set accum. time required to create an error (range is 1 - 10, 10 - 120 sec, INC beyond 120 = Off)
15	<b>Lo-P</b>	POS	Low Lube sensor switch polarity press INC to select POS or NEG
16	<b>L-tP</b>	FL-0	Lamp Type, select the mode for the dash lamp, Press INC to select. FL-0 = flash mode, flash the Error number and no motor status FL-1 = flash mode, flash the Error number and On continuous = motor On Cont = continuous mode, On = Error, Off = no Error, no motor status
17	<b>P-Ot</b>	FULL	Pump voltage output. Set pump voltage. If set to FULL the controller will drive the pump to supply voltage. (range is 5.0 - 25.0 INC once beyond 25.0 = FULL)
18	<b>P-tP</b>	nl-C	Pump Type. Normal Current (nL-C), Low Current (Lo-C)
19	<b>Strt</b>	S-ti	Start up mode. Normal timer(S-ti), Always start a cycle at power up (S-on)
20	<b>t-rn</b>		View total motor run time hhhh mm.ss Press no key to view hhhh = hours Hold the INC key to view mm.ss mm = minutes, ss = seconds
21	<b>t-to</b>		View total System ON time hhhh mm.ss Press no key to view hhhh = hours Hold the INC key to view mm.ss mm = minutes, ss = seconds
22	<b>t-rS</b>		Reset run timers and error timers. Hold the INC button for 5 sec to clear.
23	<b>t-E1</b>		View total Over Pressure error time
24	<b>t-E2</b>		View total Low lube error time

**MENU FUNCTION LIST WITH FACTORY SETTINGS, (CONT'D)**

Menu #Tag	Factory Setting	Function
25	<b>t-E3</b>	View total Cycle switch error time
26	<b>t-E4</b>	View total Loss of revolution error time
27	<b>t-E5</b>	View total Motor error time (short or open)
28	<b>A-Ct</b> OFF	Alarm Override; Allows Controller to continue operation for a specified number of faults. When enabled, a fault count will be displayed until a successful lube event occurs or the counter threshold is reached. Upon a successful lube event, the fault counter is reset. 2-999 = Controller will continue operation during fault condition for the specified number of faults. Off = Controller will not operate during fault conditions.
30	<b>inS</b>	Test (7) inputs, (2) outputs; Press INC = Dash lamp, press DEC = Beeper Vertical bars; Off time cycle Sw, Dash PB, Cycle sw2, Cycle sw1, Low lube, Hi Psi sw
31	<b>P-tS</b>	Motor test, display amps, press INC = Motor On, DEC = Motor Of
32	<b>SErL</b>	View Serial number
98	<b>type</b> PUP	Grease System Type PUP = Standard Pump Type Grease System Spry = Spray Grease System
99	<b>P-Cd</b>	Enter Pass code, use INC or DEC keys until the pass code is displayed. After 4 minutes w/ no key strokes, the controller will revert back to the Run Mode.

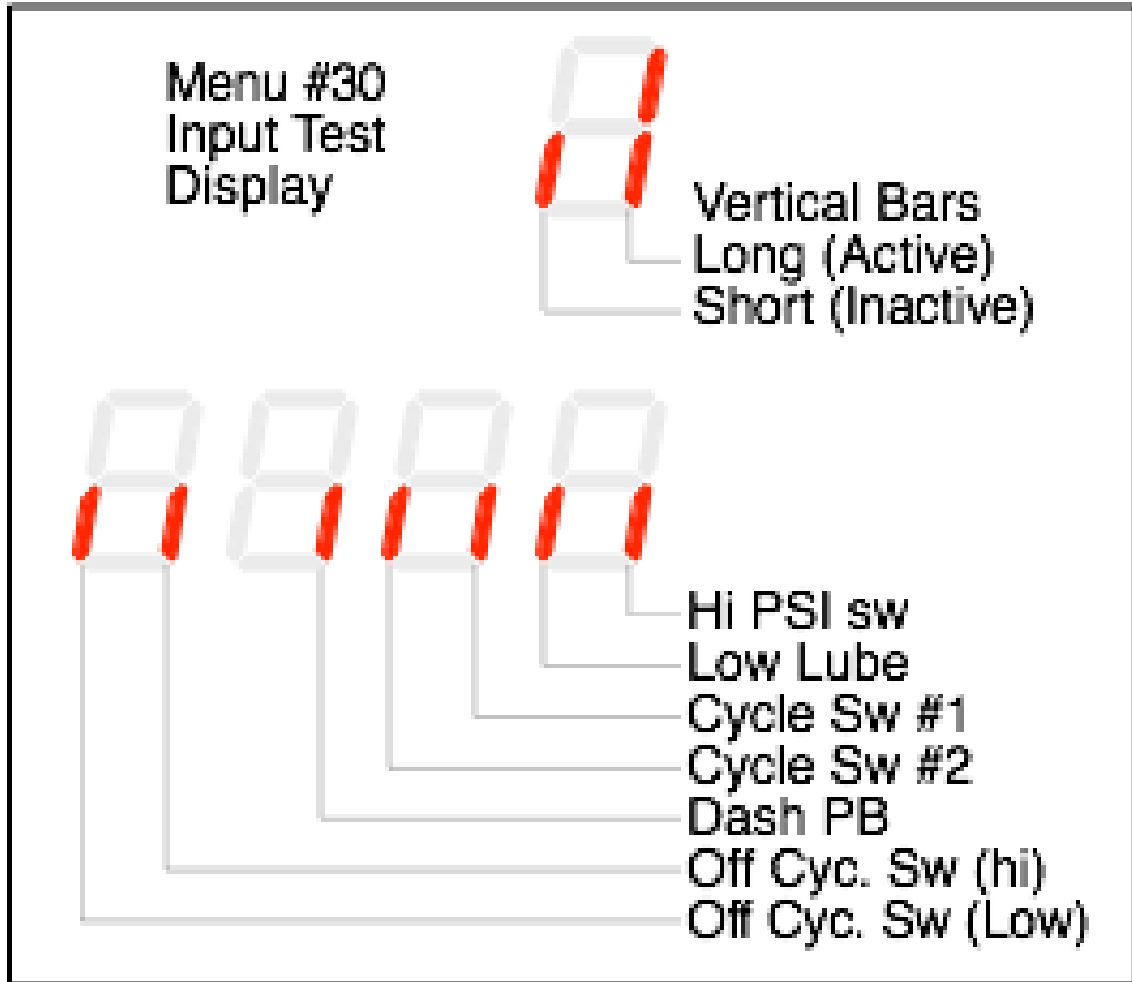
## Spray Grease System Menus

1	<b>run</b>		Run mode, lube timer is displayed (hours hh) (minutes mm) (seconds ss). Pump on is mm ss and Pump off is hh mm
2	<b>t-on</b>	30 Min	Set pump ON timer. Set min/sec mm ss range (0-59 min, 5-59 sec) wait 5 sec after releasing Mode key, use INC / DEC to change min/sec. Press both INC & DEC together to move cursor between mm & ss
3	<b>t-oF</b>	5 Min	Set pump OFF time. If Menu #8 = tiE, set hrs/min hh mm range (0-48 hrs, 2-59 min). Use INC / DEC to set either hrs or min. Press both INC & DEC together to move cursor between hh and mm. If Menu #8 = PULS, Use INC / DEC to set OFF pulse set point.
4	<b>A-on</b>	1 Min	Set Air valve on-time before the pump starts. Set min/sec mm ss range (0-4 min, 5-59 sec) wait 5 sec after releasing Mode key, use INC / DEC to change min/sec. Press both INC & DEC together to move cursor between mm & ss
5	<b>A-oF</b>	1 Min	Set Air valve on-time after the pump stops. Set hrs/min mm ss range (0-4min, 5-59 sec). Use INC / DEC to set either min or sec. Press both INC & DEC together to move cursor between mm and ss.
8	<b>OF t</b>	30 Min	Select lube off mode; based on cycle pulses or based on time. PULS = cycle count mode or tiE = timer mode.
9	<b>OF S</b>	Hr.In	Select Off Time Scale. If Menu #9 = Hr.In, the off time setting will be in Hours & Minutes If Menu #9 = In.Sc, the off time setting will be in Minutes & Seconds
10	<b>SEtr</b>	tiE	Select lube run mode; based on cycle pulses or based on time. PULS = cycle count mode or tiE = timer mode.
11	<b>CyC1</b>	Off	Set Cycle count set point #1 (0 = Off)
12	<b>CyC2</b>	Off	Set Cycle count set point #2 (0 = Off)
13	<b>HI-F</b>	45 Sec	High psi set accum. time required to create an error (range 5 - 120 sec, INC once beyond 120 = Off)
14	<b>Lo-F</b>	Off	Low lube set accum. time required to create an error (range is 1 - 10, 10 - 120 sec, INC beyond 120 = Off)
15	<b>Lo-P</b>	POS	Low Lube sensor switch polarity press INC to select POS or NEG
17	<b>P-Ot</b>	FULL	Pump voltage output. Set pump voltage. If set to FULL the controller will drive the pump to supply voltage. (range is 5.0 - 25.0 INC once beyond 25.0 = FULL)
18	<b>P-tP</b>	nl-C	Pump Type. Normal Current (nL-C), Low Current (Lo-C)
19	<b>Strt</b>	S-ti	Start up mode. Normal timer(S-ti), Always start a cycle at power up (S-on)
20	<b>t-rn</b>		View total motor run time hhhh mm.ss Press no key to view hhhh = hours Hold the INC key to view mm.ss mm = minutes, ss = seconds

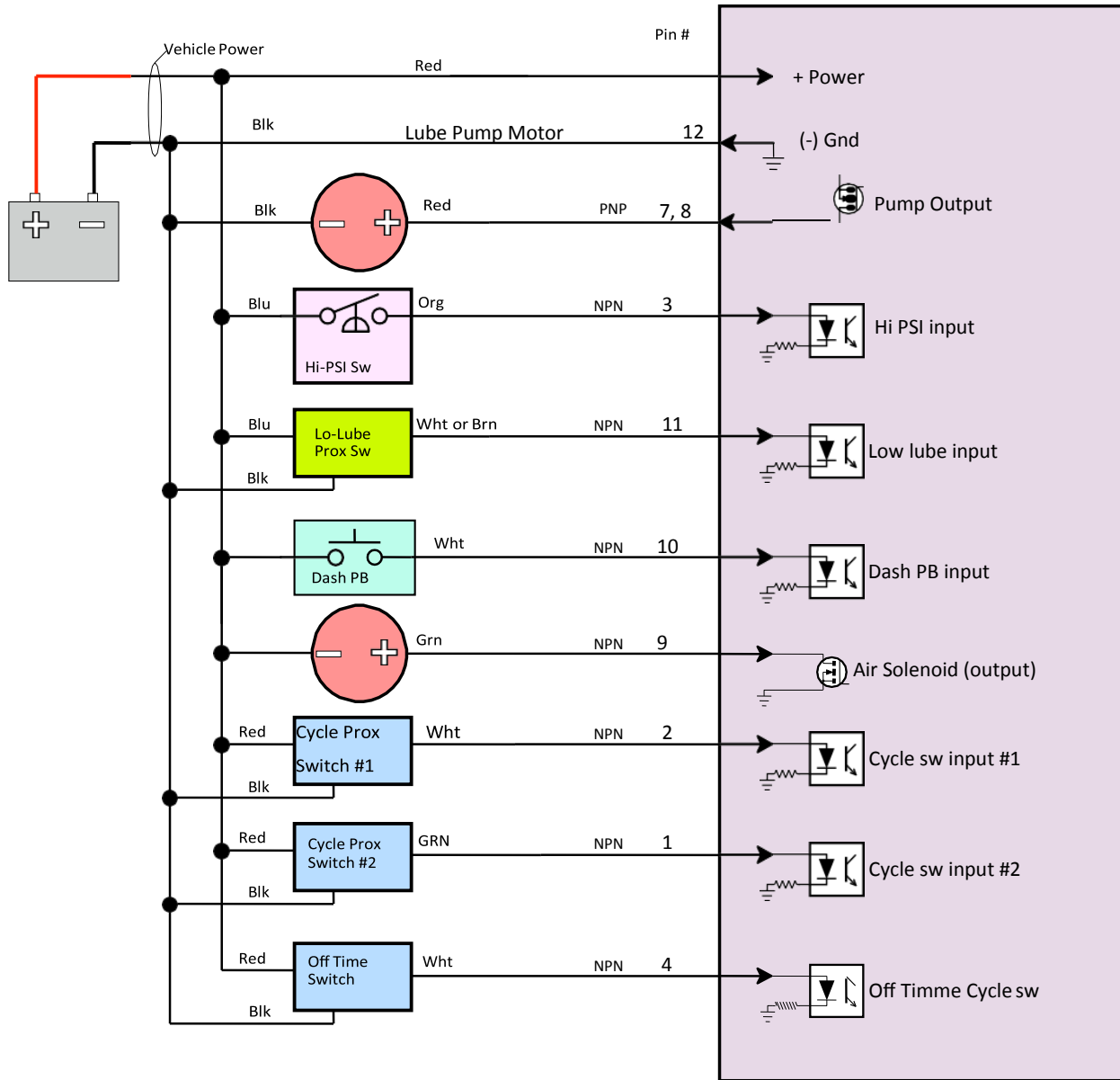
## Spray Grease System Menus

- 21 **t-to** View total System ON time hhhh mm.ss Press no key to view hhhh = hours  
Hold the INC key to view mm.ss mm = minutes, ss = seconds
- 22 **t-rS** Reset run timers and error timers. Hold the INC button for 5  
sec to clear.
- 23 **t-E1** View total Over Pressure error time
- 24 **t-E2** View total Low lube error time
- 25 **t-E3** View total Cycle Switch #1 error time
- 26 **t-E4** View total Cycle Switch #2 error time
- 27 **t-E5** View total Motor error time (short or open)
- 30 **inS** Test (7) inputs, (2) outputs; Press  
INC = Air Valve Press DEC =  
  
Vertical bars; Off time cycle Sw, Dash PB, Cy-  
cle sw2, Cycle sw1, Low lube, Hi Psi sw
- 31 **P-tS** Motor test, display amps, press INC = Motor On, DEC = Motor Off
- 32 **SErL** View Serial number
- 98 **tyPE** PUP Grease System Type  
PUP = Standard Pump type grease system  
SPry = Spray grease system
- 99 **P-Cd** Enter Pass code, use INC or DEC keys until the pass code is displayed.  
After 4 minutes w/ no key strokes, the GC101 will revert back to the  
Run mode.

**MENU FUNCTION LIST WITH FACTORY SETTINGS, (CONT'D)**



GREASE SPRAY SYSTEM

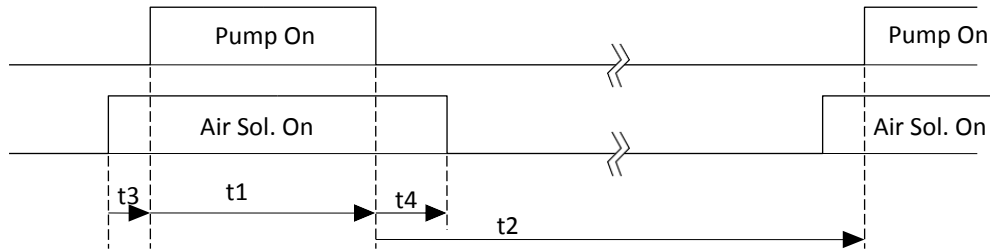


## GREASE SPRAY SYSTEM

When setup as a grease spray system, this LED indicates the air solenoid status



When the air valve is on before the pump starts (t3 in diagram below) this LED will be on.



t1 (Menu #2) = Pump On time (Lube Motor & Lube Low LEDs = on)

t2 (Menu #3) = Pump OFF time

t3 (Menu #4) = Air valve on-time before the pump starts (Lube Low & Med = on)

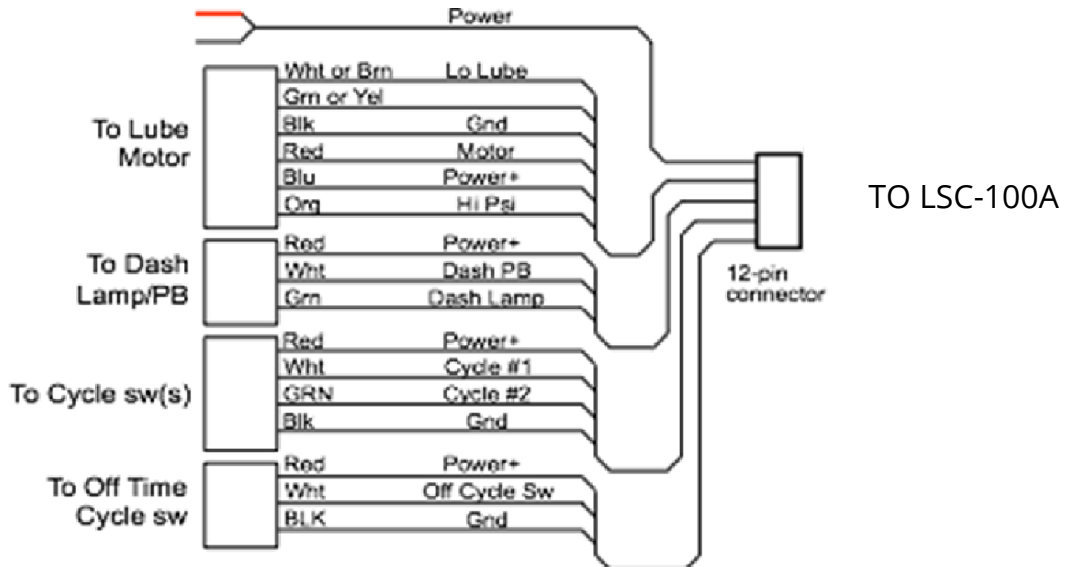
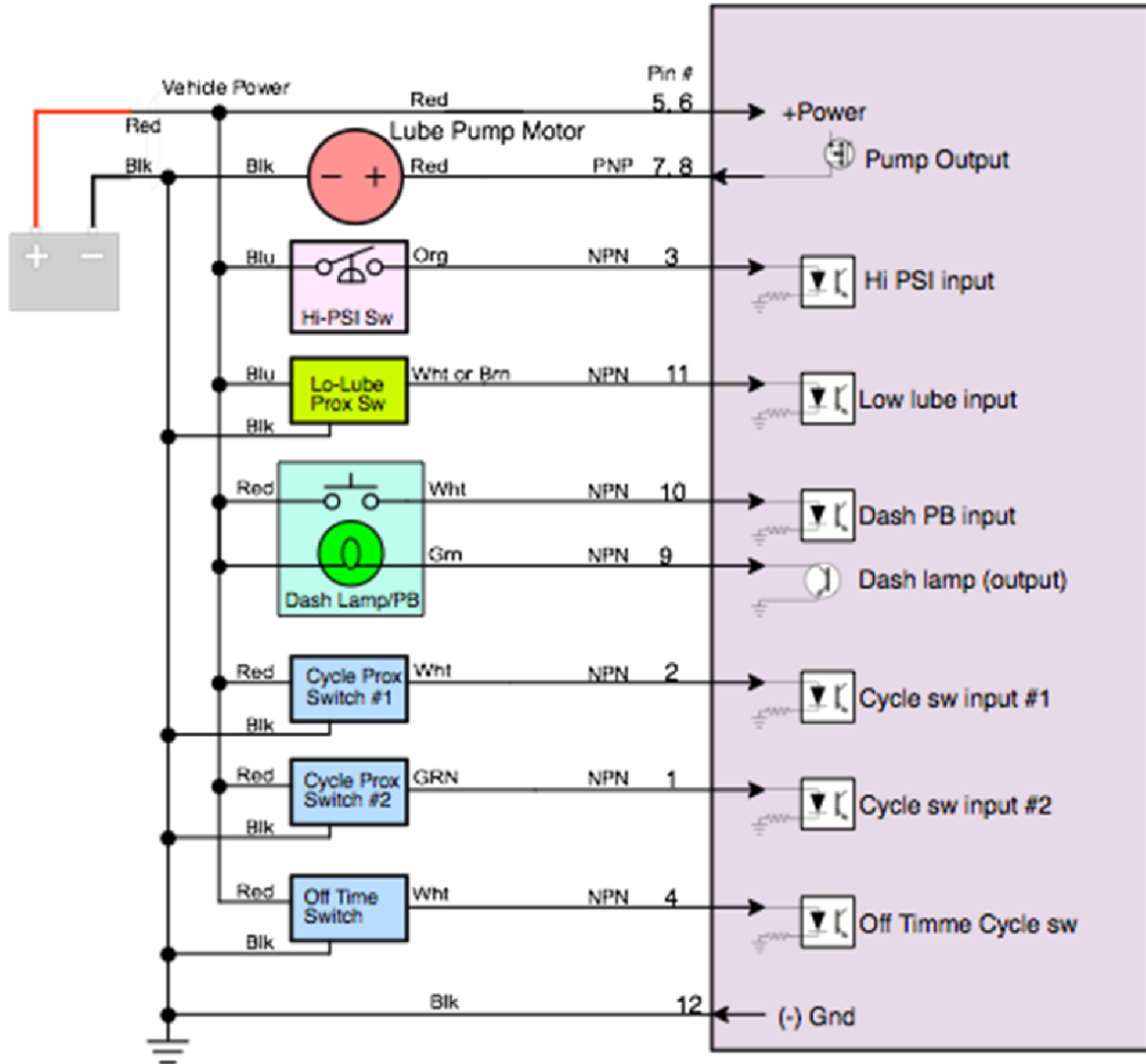
t4 (Menu #5) = Air valve on-time after the pump stops (Lube Low = on)

User pass code = **181** used to only edit menu # 2 - 18

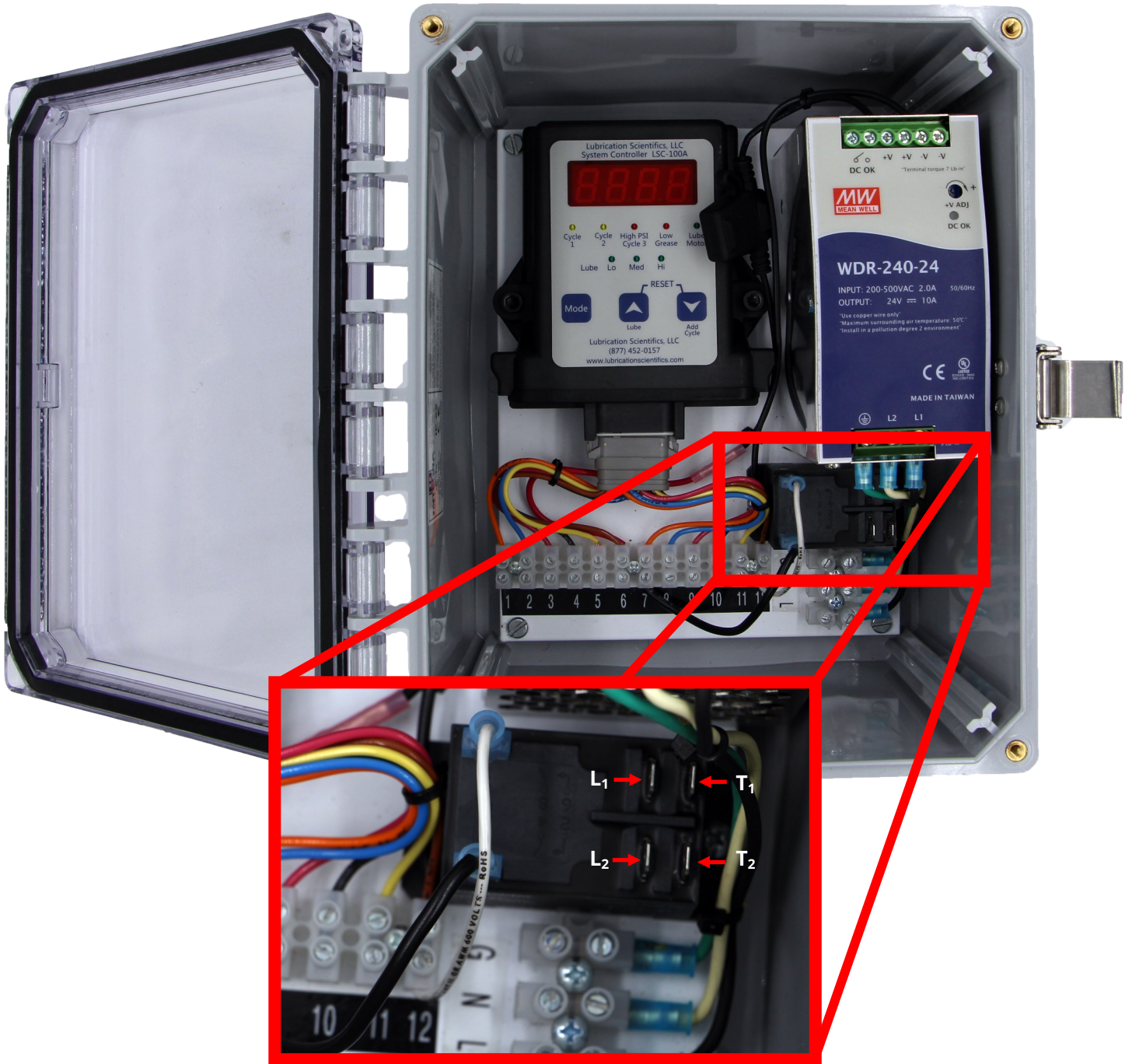
Master pass code = **1322**



LSC-100A WIRING DIAGRAM

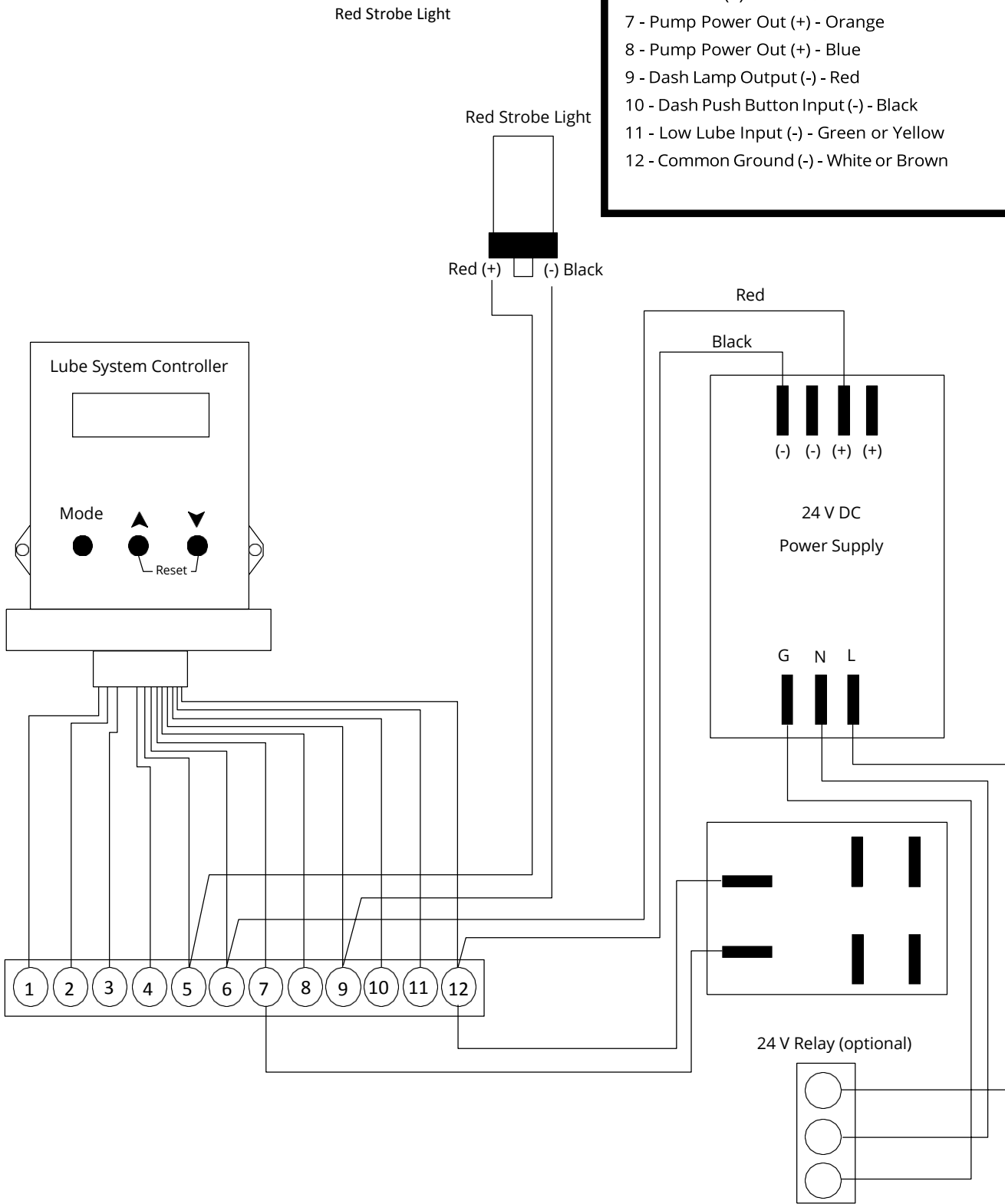


### LSC-100A WIRING DIAGRAM



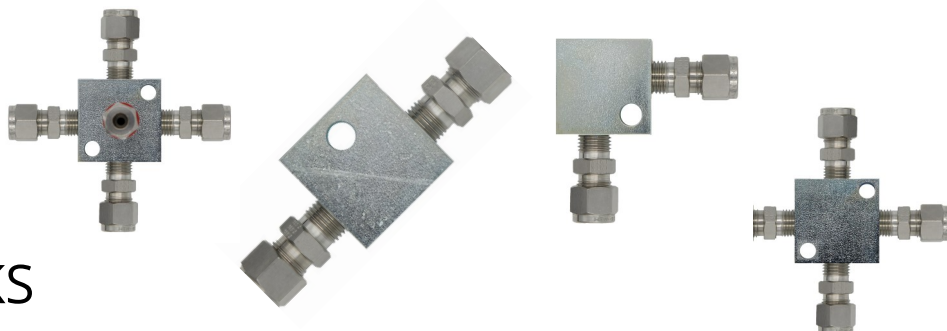
24 VDC—30 Amp Relay  
Max Switching Voltage  
250 DC Conforming to IEC  
250 VAC conforming to IEC

- 1 - RPM Input (-) - Orange
- 2 - Cycle Switch Input (-) - Blue
- 3 - Pressure Switch Input (-) - Red
- 4 - Spare Input - Black
- 5 - Power In (+) - Green or Yellow
- 6 - Power In (+) - White or Brown
- 7 - Pump Power Out (+) - Orange
- 8 - Pump Power Out (+) - Blue
- 9 - Dash Lamp Output (-) - Red
- 10 - Dash Push Button Input (-) - Black
- 11 - Low Lube Input (-) - Green or Yellow
- 12 - Common Ground (-) - White or Brown





## ANCHOR BLOCKS



### PRODUCT DESCRIPTION

ANCHOR BLOCKS ARE LUBRICATION CONNECTING DEVICES THAT CAN BE BOLTED OR WELDED TO ANY MACHINE

MULTIPLE BLOCK STYLES AVAILABLE

MOUNTING HOLES FOR SECURING TO MACHINERY

DESIGNED TO KEEP LUBRICATION LINES SECURE AND IN PLACE

IDEAL FOR MOUNTING GAUGES, BLOWOUT FITTINGS, SAFETY DEVICES, PRESSURE SWITCHES, FLEXIBLE HOSE DROPS, AND OTHER SYSTEM COMPONENTS REQUIRING A SOLID BASE

AVAILABLE IN CARBON STEEL, 303, AND 316 STAINLESS STEEL

### BENEFITS & FEATURES

REDUCES TOTAL COST OF A LUBRICATION SYSTEM INSTALLATION BY REQUIRING LESS LABOR COSTS FOR RUNNING LUBE LINES

90 DEGREE, 4 WAY CROSS, 5 WAY CROSS, AND TEE PORTS IN 1/4" AND 1/8" NPTF AVAILABLE

ANCHOR BLOCK INSTALLATION GIVES ANY MACHINE A CLEAN, PROFESSIONAL LOOK

MOUNTING HARDWARE REQUIRING A SOLID BASE

## READY FOR IMMEDIATE SHIPMENT

MADE IN



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**ORDERING INFORMATION & PART NUMBERS**

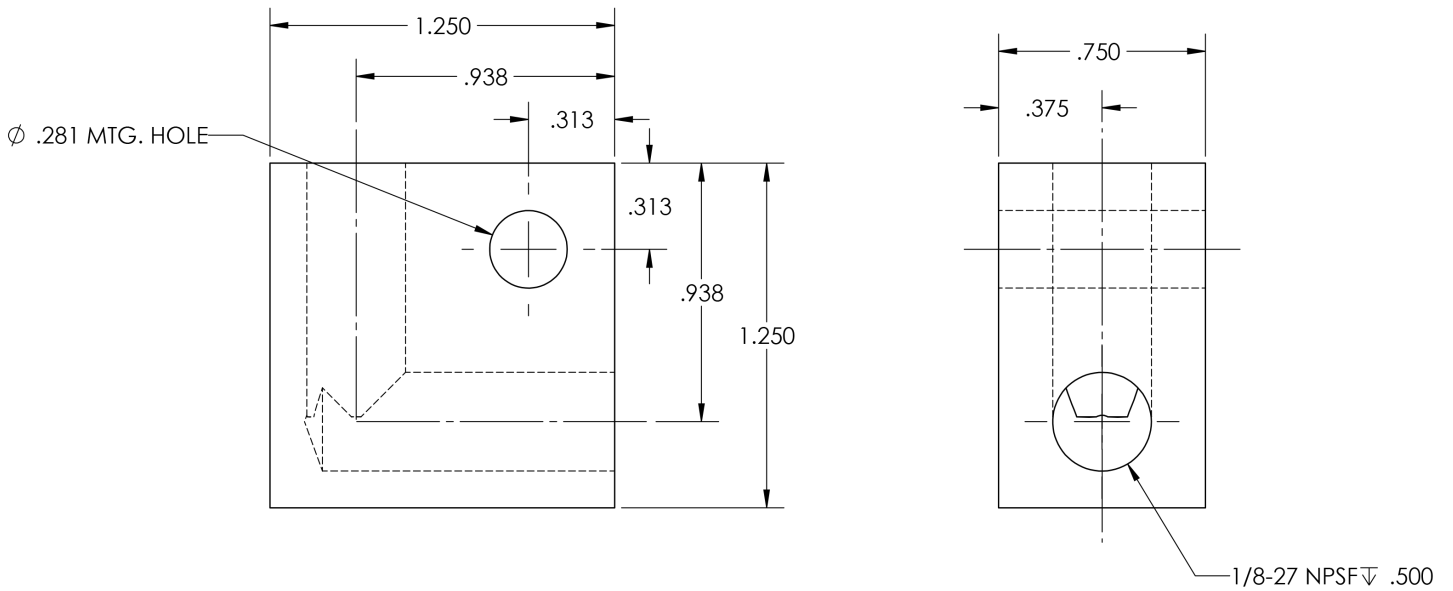
<b>STANDARD PACK: 5 EACH</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CARBON STEEL</b>	<b>303 STAINLESS STEEL</b>	<b>316 STAINLESS STEEL</b>
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316



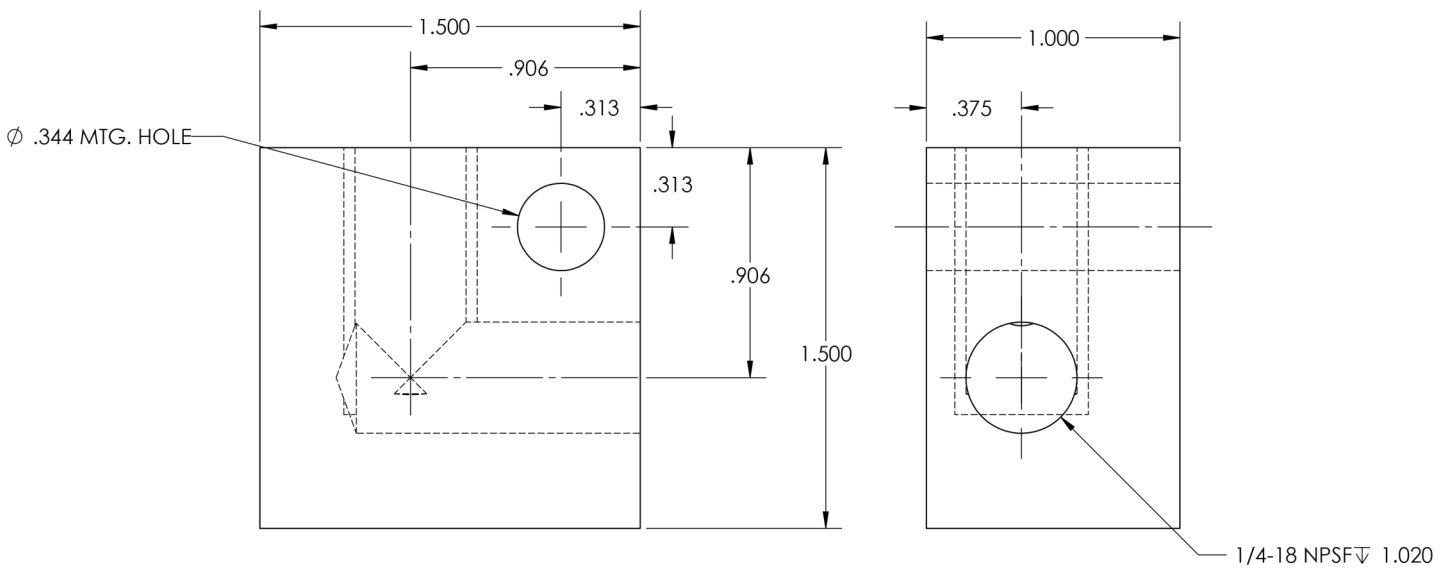
## DIMENSIONS & MOUNTING INFORMATION

DIMENSIONS ARE IN INCHES

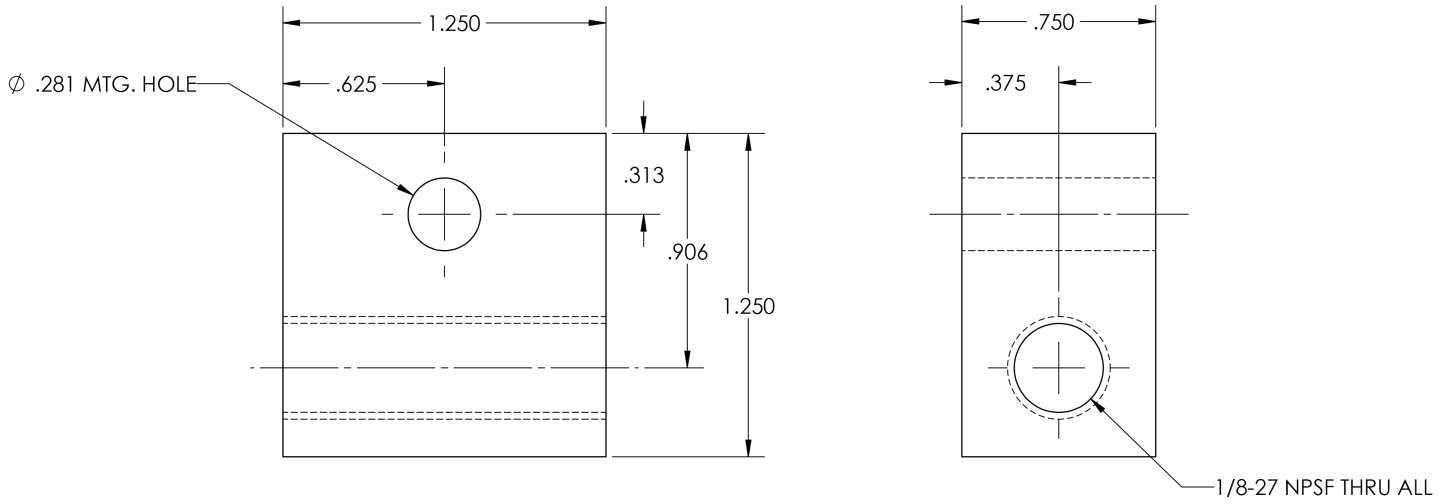
### 1/8" 90° ELBOW DIMENSIONS



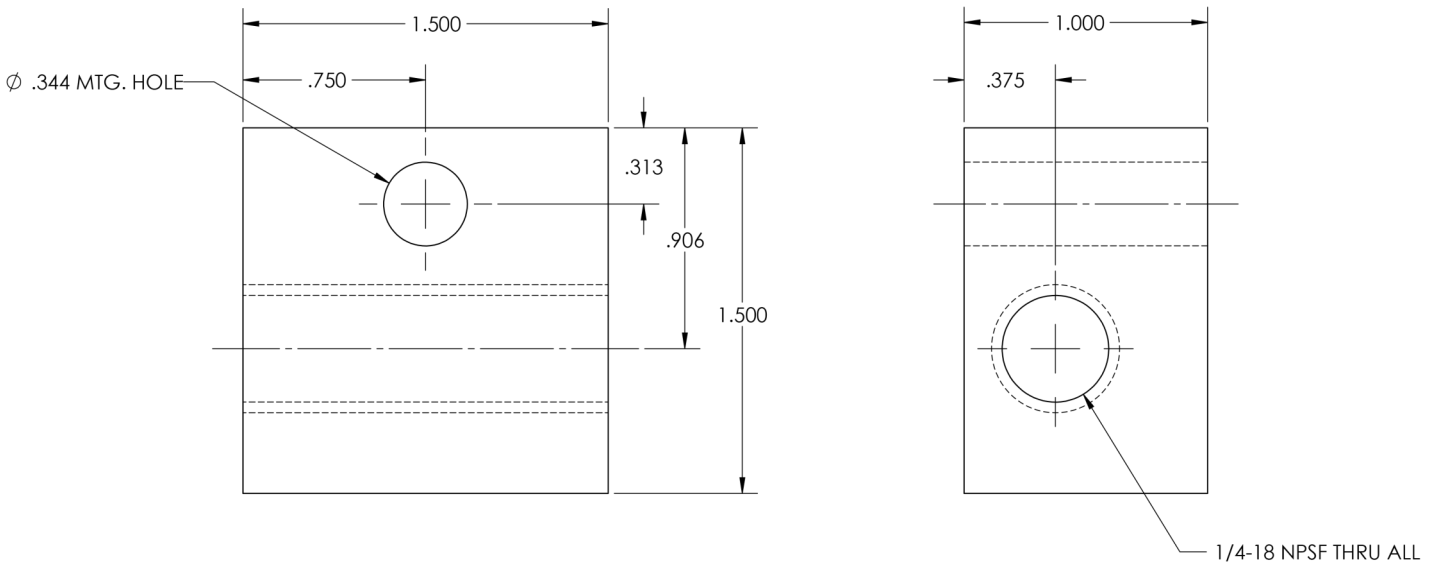
### 1/4" 90° ELBOW DIMENSIONS



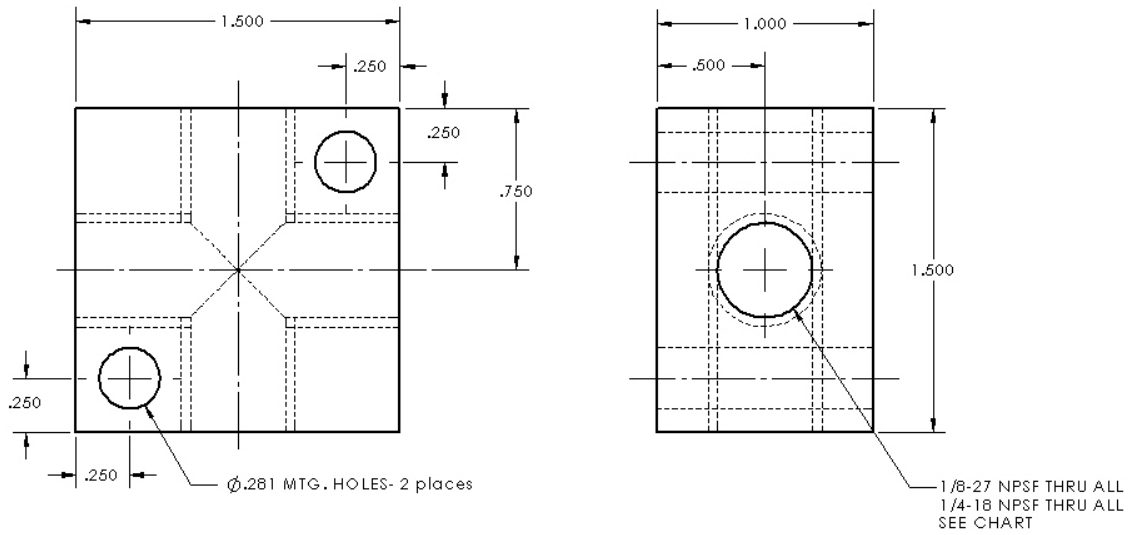
### 1/8" 2 WAY STRAIGHT DIMENSIONS



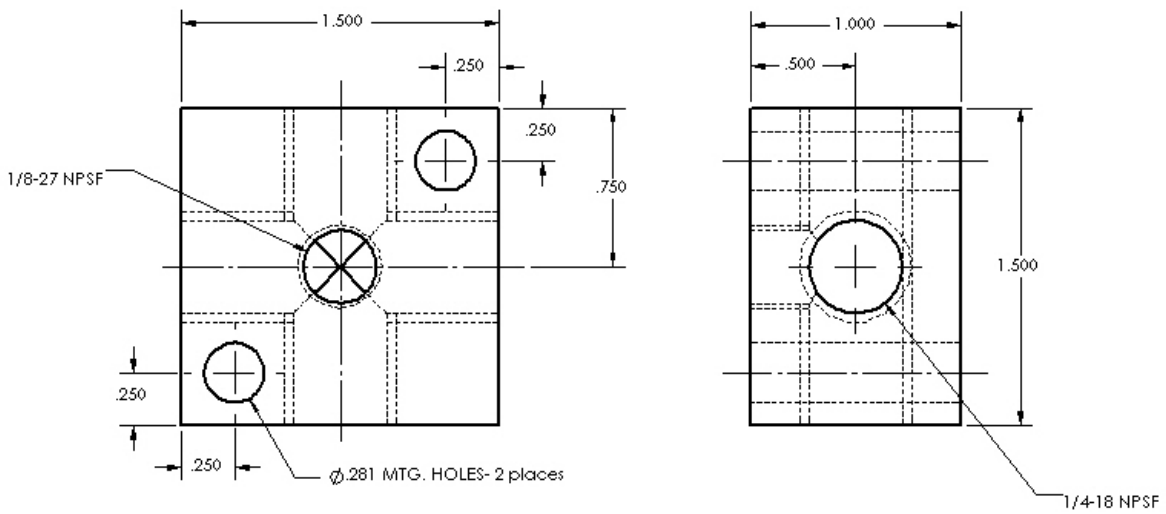
### 1/4" 2 WAY STRAIGHT DIMENSIONS



### 4 WAY STRAIGHT DIMENSIONS



### 5 WAY STRAIGHT DIMENSIONS







## PRESSURE COMPENSATING BALANCING VALVE

### PRODUCT DESCRIPTION

DESIGNED TO ASSURE PRECISE AND ACCURATE DIVIDER VALVE LUBRICANT OUTPUT

FOR APPLICATIONS WITH HIGH DIFFERENTIAL INJECTION PRESSURES BETWEEN THE VARIOUS LUBRICATION POINTS SERVICED BY THE DIVIDER VALVE

COMPACT FOOTPRINT

ADJUSTABLE RANGE 1500—6000 PSI

FACTORY SET AT 3000 PSI

INLET AND OUTLET 1/8 NPSF

FOR EASE OF ADJUSTMENT, EACH PCBV HAS A 1/8 NPSF GAUGE PORT ON FRONT FACE

ADJUSTING MECHANISM INCLUDES A LOCK NUT FOR SECURING PRESSURE SETTING

ALL STAINLESS STEEL CONSTRUCTION

SHIPPED WITH STAINLESS STEEL MOUNTING BOLTS

### BENEFITS & FEATURES

EXTENDS SERVICE LIFE OF DIVIDER VALVES IN HIGH DIFFERENTIAL PRESSURE APPLICATIONS

EASILY ADDED TO EXISTING SYSTEMS

MAY BE PANEL MOUNTED OR DIRECTLY MOUNTED INTO A SECONDARY DIVIDER VALVE

MAY BE MOUNTED IN ANY ORIENTATION

FIELD ADJUSTABLE WITHOUT CHANGING SPRINGS

REDUCE ONSITE INVENTORY—ONE VALVE COVERS ALL APPLICATIONS

FIELD REBUILD KIT AVAILABLE

NOT AFFECTED BY DOWN STREAM PRESSURES

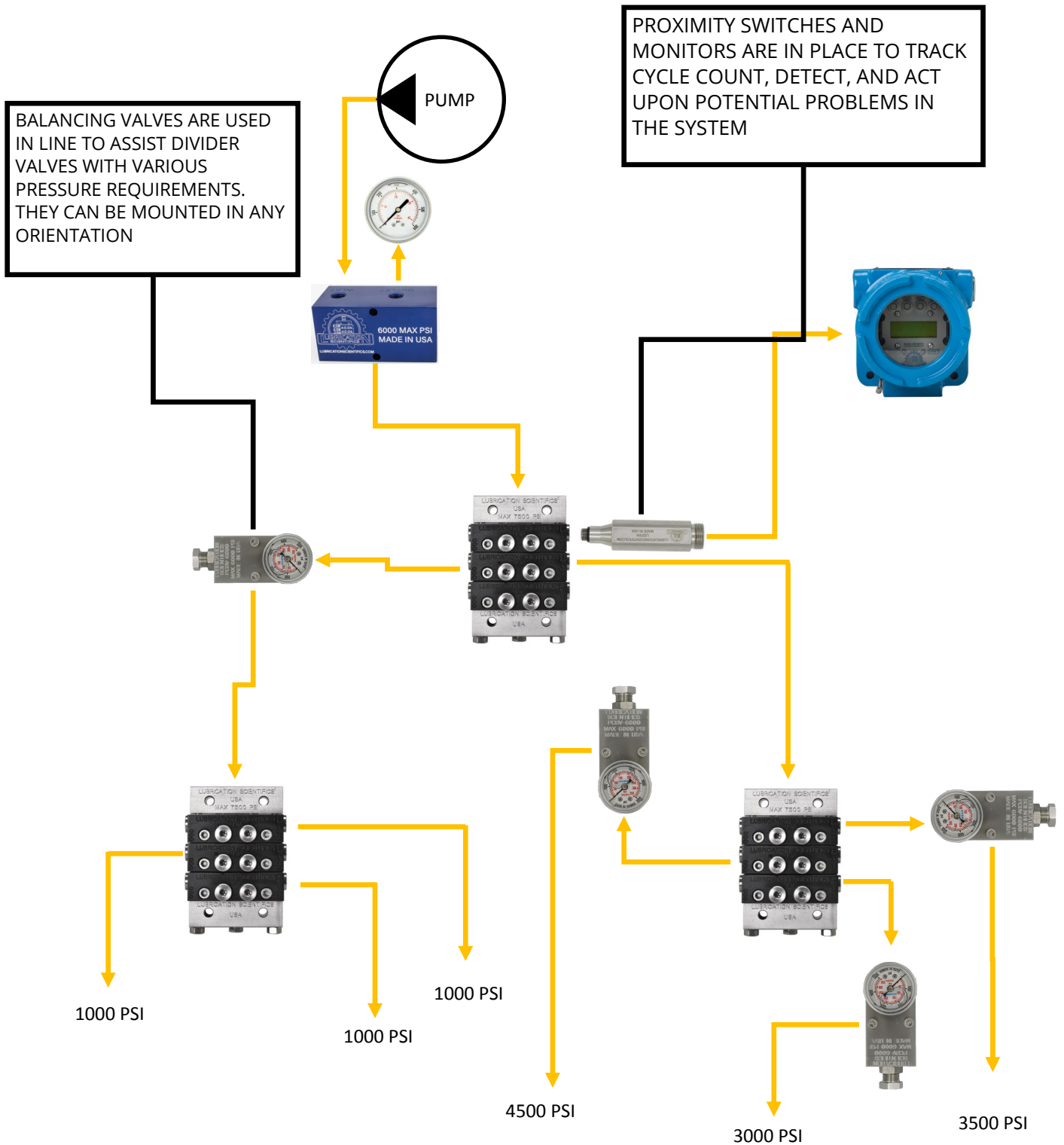
## READY FOR IMMEDIATE SHIPMENT

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**FUNCTION ILLUSTRATION & SPECIFICATIONS**



**ORDERING INFORMATION & PART NUMBERS**

<b>STANDARD PACK: 1 EACH</b>	
<b>PART DESCRIPTION</b>	<b>PART NUMBER</b>
PRESSURE COMPENSATOR BALANCING VALVE <b>FACTORY PRESET AT 3000 PSI</b>	PCBV-6000
FIELD VALVE REBUILD KIT	PCBV-MRK
PRESSURE GAUGE, 0-6000 PSI	LCB-15-6K-2
1/8 "X 1/4" NPTF DIRECT MOUNT HEX NIPPLE ADAPTER	PCBV-DMADP

**DIRECT MOUNT WITH HEX NIPPLE ADAPTER**

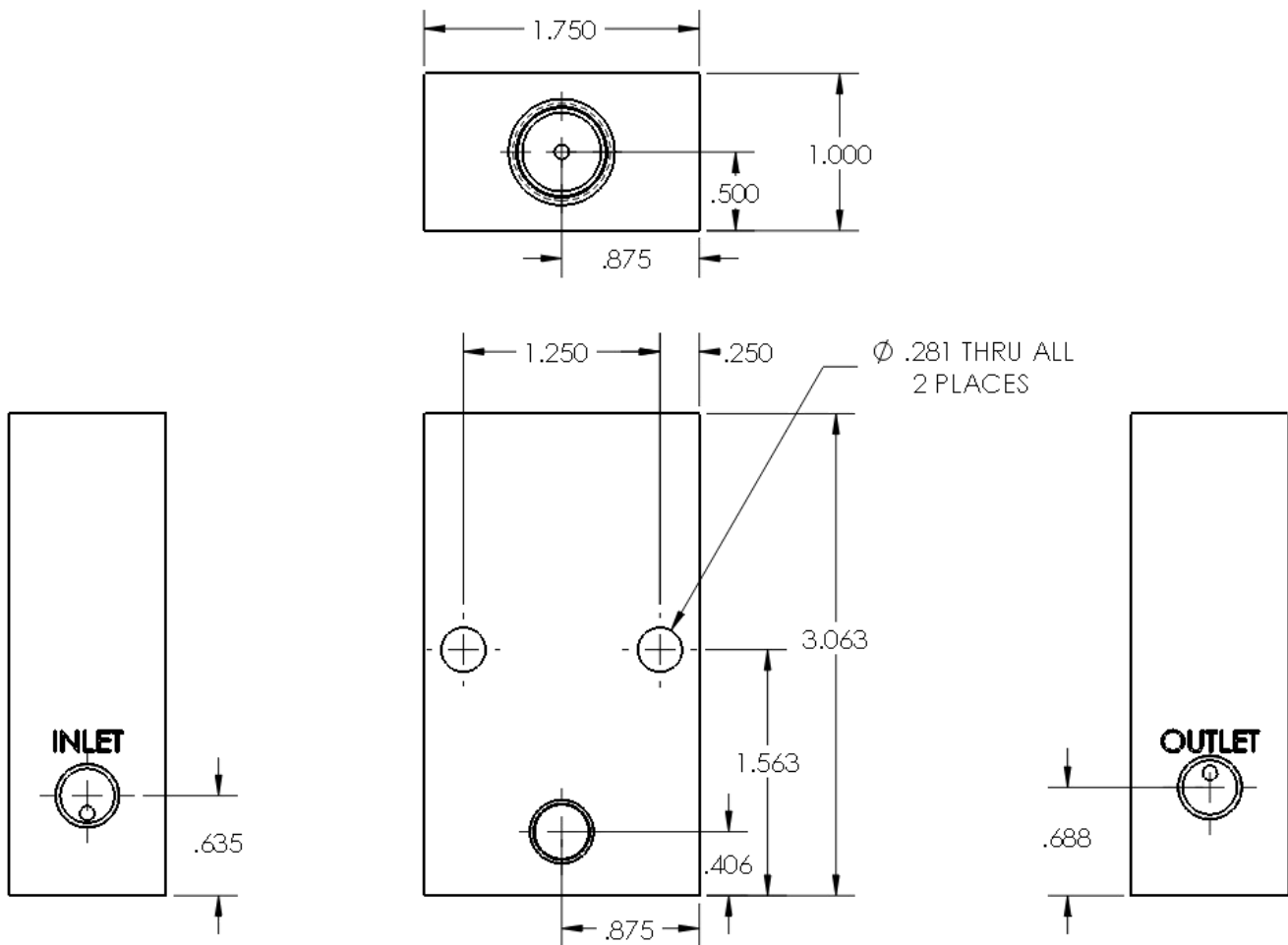


**TYPICAL PANEL MOUNT EXAMPLE**



## DIMENSIONS & MOUNTING INFORMATION

DIMENSIONS ARE IN INCHES



### SPECIFICATIONS

MATERIAL: 303 STAINLESS STEEL

ADJUSTABLE PRESSURE RANGE: 1500 PSI—6000 PSI

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## ADJUSTMENT INSTRUCTIONS

**TOOLS NEEDED:** CRESCENT WRENCH OR THREE QUARTER INCH WRENCH

**NOTE:** FACTORY PRESET AT 3000 PSI

**MAXIMUM PRESSURE:** 6000 PSI

**MINIMUM PRESSURE:** 1500 PSI

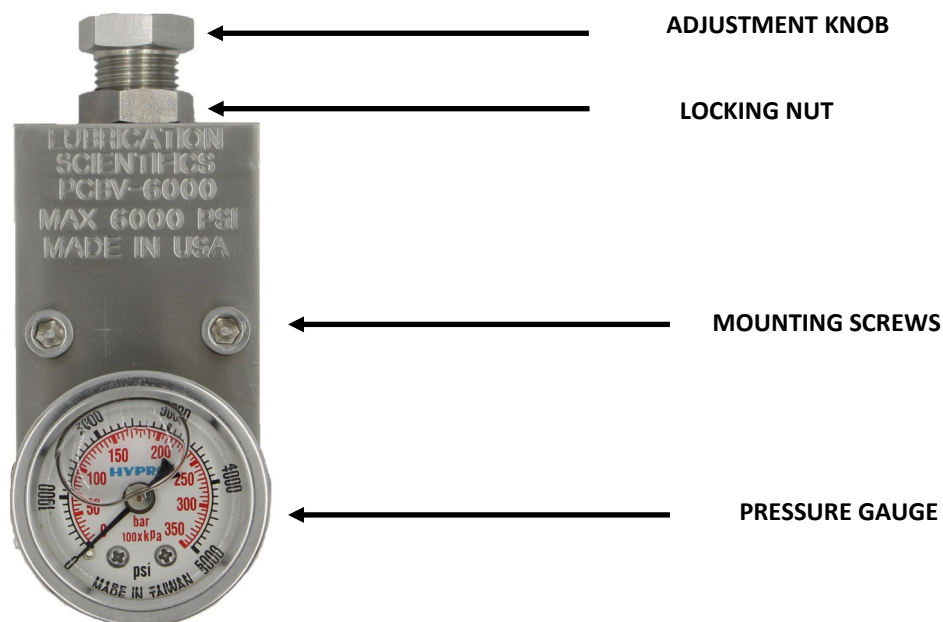
**ADJUSTMENT: 1 QUARTER TURN = 250 PSI ± 50 PSI**

ADJUSTMENTS MAY BE MADE WHILE UNDER PRESSURE

**TO INCREASE PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB CLOCKWISE UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.

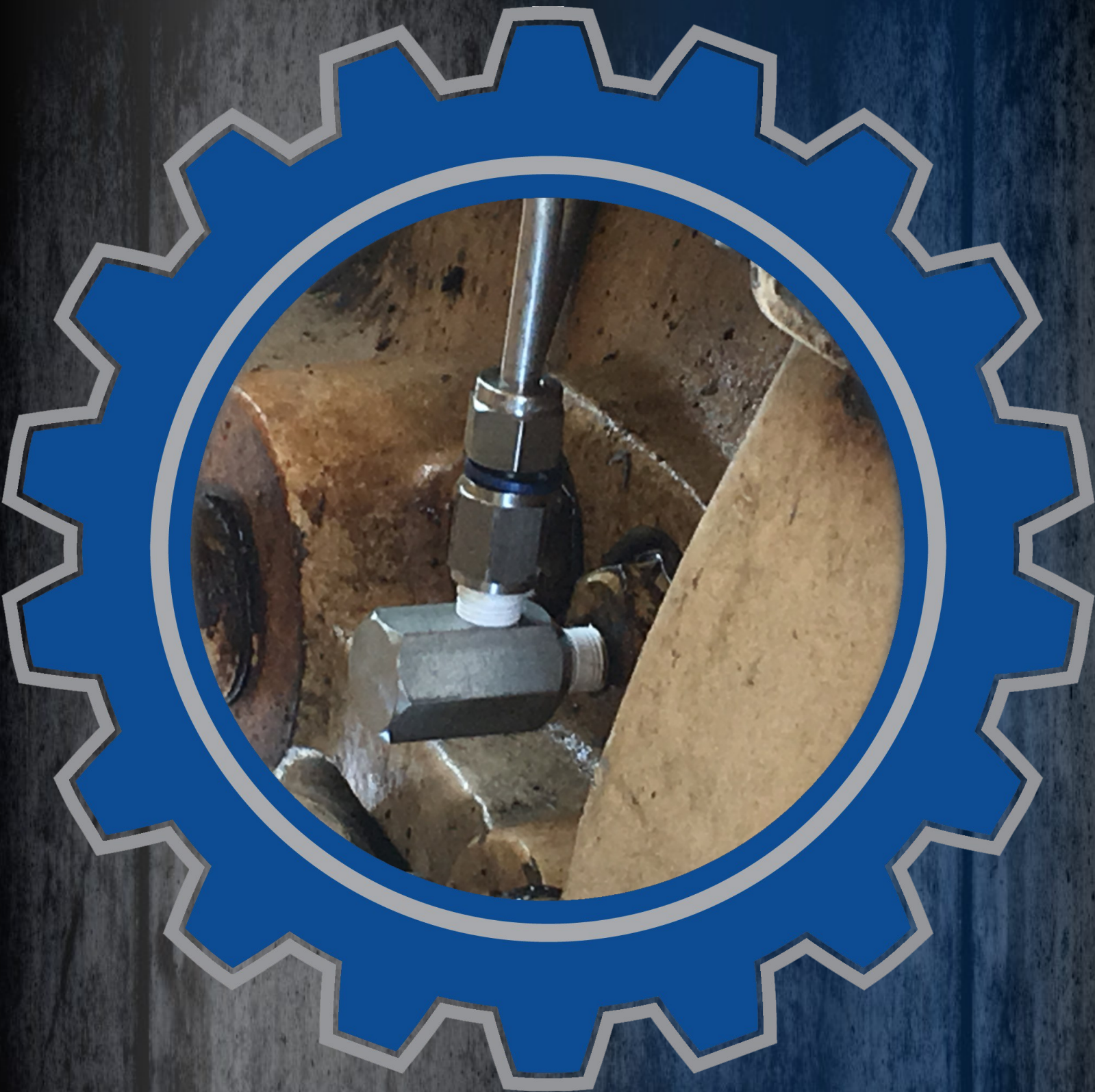
**TO DECREASE PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB COUNTER CLOCKWISE UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.

**ADJUSTING UNDER PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB A QUARTER TURN AT A TIME BETWEEN PUMP CYCLES; MONITORING PEAK PRESSURES USING THE GAUGE ON THE BALANCING VALVE. THE PEAK PRESSURE IS THE SET PRESSURE. ADJUST KNOB UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.



# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



## CHECK VALVES & ACCESSORIES

OUTLET CHECKS—TERMINATING CHECKS—DOUBLE & SINGLE BALL



## CHECK VALVES & ADAPTERS



### PRODUCT DESCRIPTION

CHECK VALVES CONSTRAIN LUBRICATION FLOW TO ONE DIRECTION

INLET AND OUTLET CHECK VALVES ARE INTEGRATED INTO THE SYSTEM TO ENSURE PROPER LUBRICATION SYSTEM OPERATION. WHEN USED IN TANDEM, OUTLET & INLET CHECK VALVES PREVENT SYSTEM BACK PRESSURE FROM STALLING/DAMAGING VALVE COMPONENTS WHILE KEEPING OIL LINES FULL

OUTLET CHECK VALVES ARE AVAILABLE IN SINGLE BALL, CONVENTIONAL DESIGN (REQUIRES ADDITIONAL TUBE FITTING) AND SINGLE BALL WITH INTEGRAL FITTING (NO ADDITIONAL TUBE FITTING REQUIRED)

INLET CHECK VALVES (TERMINATING INJECTION CHECK) ARE AVAILABLE IN SINGLE BALL AND DOUBLE BALL HIGH OUTPUT, CONVENTIONAL DESIGN (REQUIRES ADDITIONAL TUBE FITTING) AND DOUBLE BALL WITH INTEGRAL FITTING (NO ADDITIONAL TUBE FITTING REQUIRED)

CONNECTION ADAPTERS MAKE THIS PRODUCT LINE VERSATILE AND REDUCES INVENTORY COSTS

### BENEFITS & FEATURES

COIN SEATED CHECK VALVES FOR SUPERIOR SEALING

ALL SPRINGS & CHECK BALLS ARE CORROSION RESISTANT, 316 STAINLESS STEEL

VALVES AVAILABLE IN 303 AND 316 STAINLESS STEEL

SINGLE AND DOUBLE BALL CHECK VALVES AVAILABLE

NPTF, BSPP, METRIC, O-RING SEAL, AND TUBE FITTING CONNECTION OPTIONS

MULTIPLE OPENING PRESSURES AVAILABLE

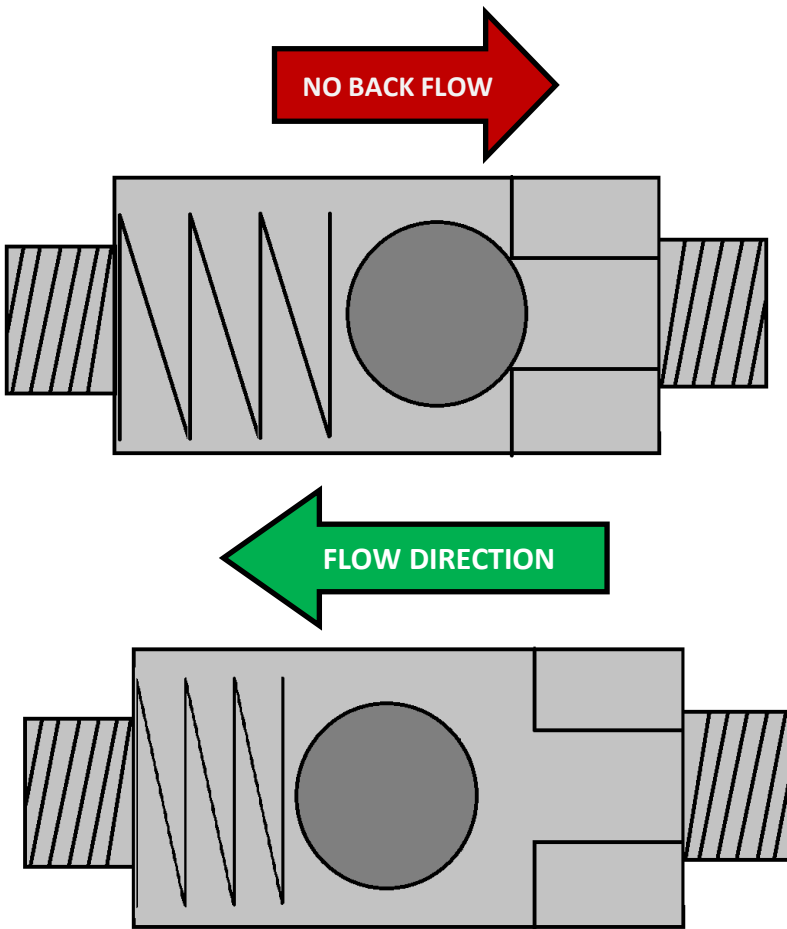
## READY FOR IMMEDIATE SHIPMENT

MADE IN



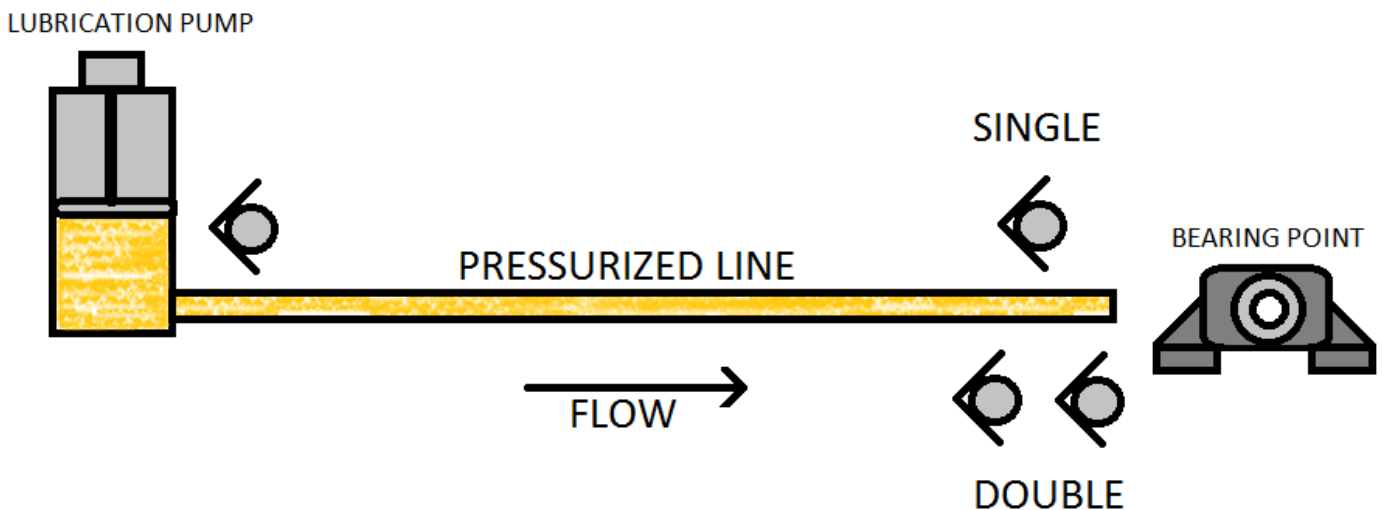
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FUNCTION ILLUSTRATION & SPECIFICATIONS



CHECK VALVE FUNCTION ILLUSTRATION

The single and double ball check valves are in place to constrain the lubrication to one direction while ensuring lube lines stay full and valves function properly. During a lube event, a pump is operating, injecting pressurized lubricant into the system. Without check valves in place, the lube lines would not stay pressurized. Every time the pump cycles, it will inject a specific amount of pressurized lubricant through a check valve by unseating and passing through a steel ball. Once the pressure backs off and the pump resets, the pressure will let off, reengaging a spring which resets the ball and closes the valve. This allows the line to remain pressurized. The double ball option is available and offers a safe guard from any bypass if a ball fails to seat properly. All ball bearings are coined to help eliminate potential backflow due to improper seating.



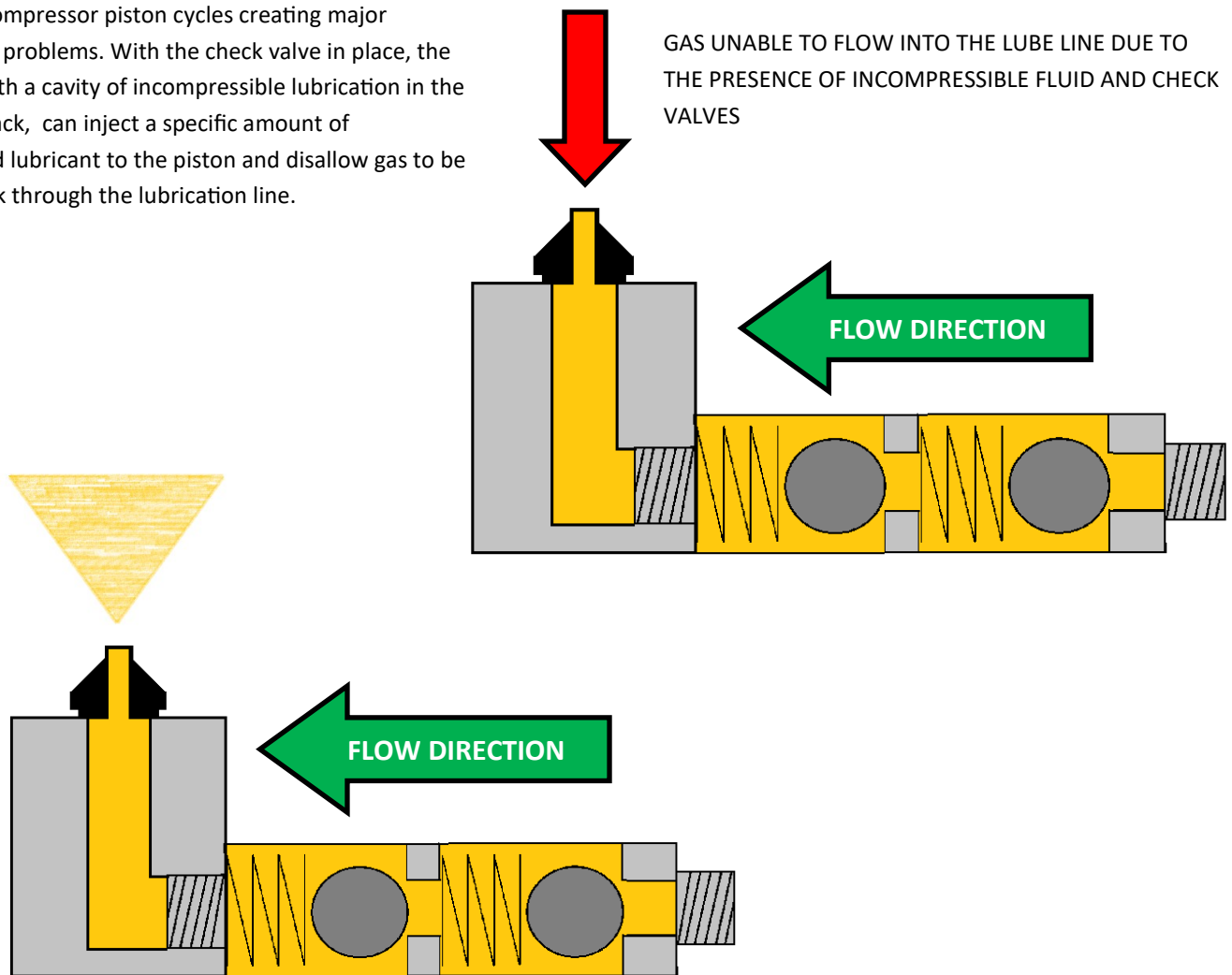


## FUNCTION ILLUSTRATION & SPECIFICATIONS

### DOUBLE BALL CHECK VALVE W/ ADAPTER

Double ball (terminating injection) check valves are in place to ensure lubrication travels in one direction and the lube lines stay filled with lubrication up to the injector.

During this lube event, a compressor is operating; injecting pressurized lubricant into the system. Without check valves in place, the injection system would drain out and allow pressurized gas through the line every time the compressor piston cycles creating major lubrication problems. With the check valve in place, the adapter with a cavity of incompressible lubrication in the adapter track, can inject a specific amount of pressurized lubricant to the piston and disallow gas to be forced back through the lubrication line.



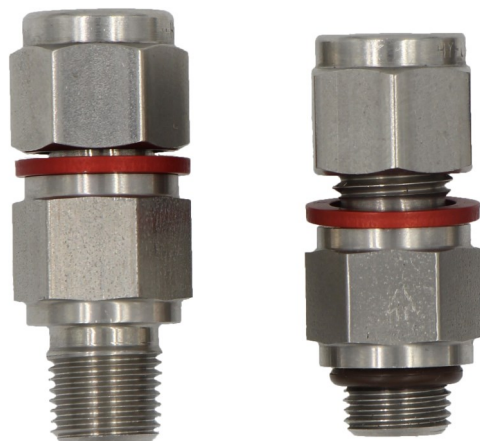
DOUBLE BALL CHECK VALVE WITH HIGH OUTPUT ADAPTER INSTALLED

**ORDERING INFORMATION & PART NUMBERS**

**CHECK VALVES—OCV SERIES**

OUTLET TYPE WITH SINGLE BALL

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/4" TUBE	35	OCV-303-125-NPTF	OCV-316-125-NPTF	INTEGRAL TUBE FITTING
1/8" ORS (M)	1/4" TUBE	35	OCV-303-125-ORS	OCV-316-125-ORS	INTEGRAL TUBE FITTING
1/8" BSPP (M)	6MM TUBE	35	OCV-303-125-BSPP	OCV-316-125-BSPP	INTEGRAL TUBE FITTING
M10 ISO (M)	6MM TUBE	35	OCV-303-125-ISO	OCV-316-125-ISO	INTEGRAL TUBE FITTING
7/16"-20 SAE (M)	1/4" TUBE	35	OCV-303-125-SAE	OCV-316-125-SAE	INTEGRAL TUBE FITTING

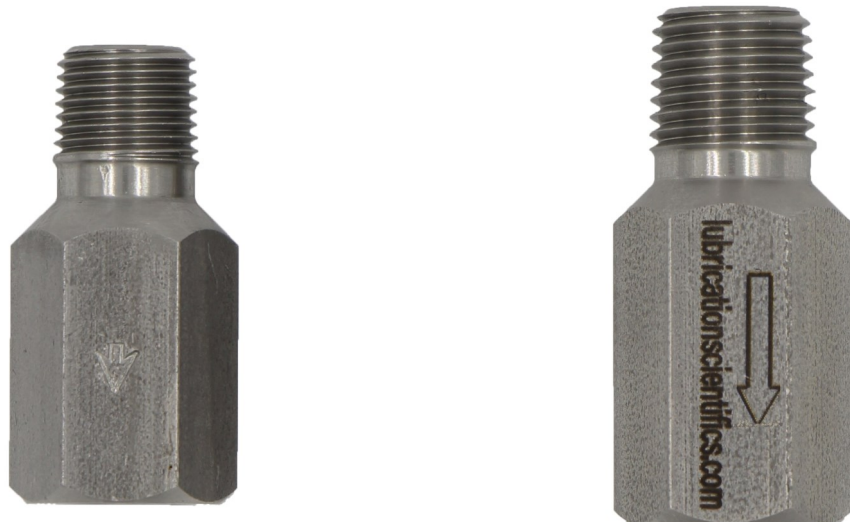


**ORDERING INFORMATION & PART NUMBERS**

**CHECK VALVES—OCV SERIES**

OUTLET TYPE WITH SINGLE BALL CHECK VALVES

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPSF (M)	1/8" NPTF (F)	35	OCV-303-125R-35	OCV-316-125R-35	<b>TUBE FITTING</b>
1/8" NPSF (M)	1/8" NPTF (F)	60	OCV-303-125R-60	OCV-316-125R-60	<b>TUBE FITTING</b>
1/8" NPSF (M)	1/8" NPTF (F)	250	OCV-303-125R-250	OCV-316-125R-250	<b>TUBE FITTING</b>
1/4" NPTF (M)	1/4" NPSF (F)	35	OCV-303-250R-35	OCV-316-250R-35	<b>TUBE FITTING</b>



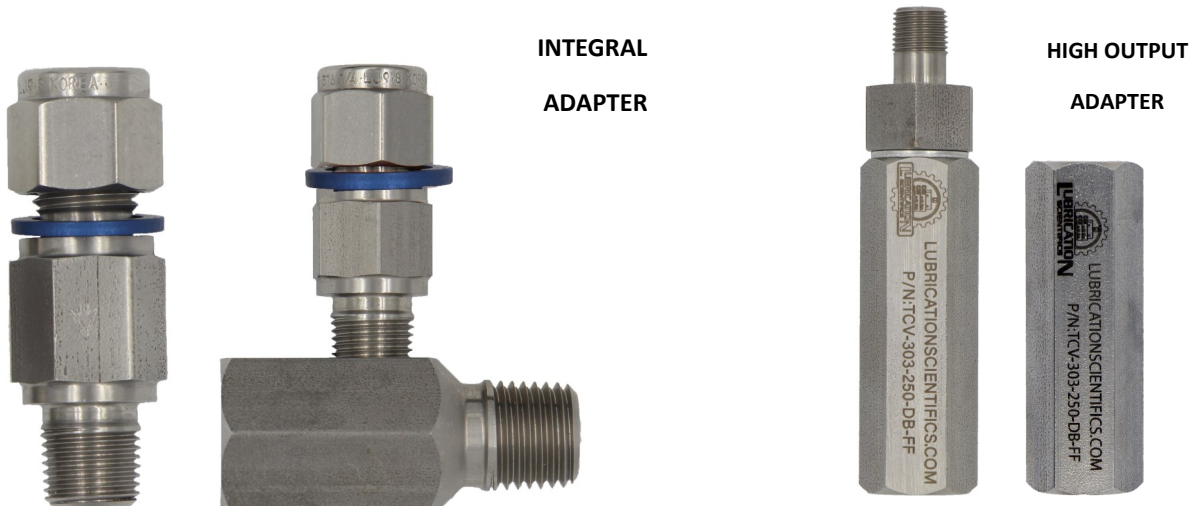
**ORDERING INFORMATION & PART NUMBERS**

**CHECK VALVES—TCV SERIES**

TERMINATING (INJECTION) DOUBLE BALL CHECK VALVES

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/4" TUBE	1/8" NPTF (M)	150	TCV-303-125-NPTF	TCV-316-125-NPTF	INTEGRAL TUBE FITTING
6MM TUBE	1/8" BSPP (M)	150	TCV-303-125-BSPP	TCV-316-125-BSPP	INTEGRAL TUBE FITTING
6MM TUBE	M10 (M)	150	TCV-303-125-ISO	TCV-316-125-ISO	INTEGRAL TUBE FITTING
1/4" TUBE	7/16"-20 SAE	150	TCV-303-125-SAE	TCV-316-125-SAE	INTEGRAL TUBE FITTING
1/4" NPSF (F)**	1/4" NPSF (F)	150	TCV-303-250-DB-FF	TCV-316-250-DB-FF	INLET & OUTLET
1/4" NPSF (F)**	1/8" NPTF (M)	150	TCV-303-250-DB-FM2	TCV-316-250-DB-FM2	INLET
1/4" NPSF (F)**	1/4" NPTF (M)	150	TCV-303-250-DB-FM4	TCV-316-250-DB-FM4	INLET

\*\* HIGH OUTPUT



**ORDERING INFORMATION & PART NUMBERS**

**CHECK VALVES—TCV SERIES**

TERMINATING (INJECTION) SINGLE BALL CHECK VALVES

STANDARD PACK: 5 EACH					
CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPSF (F)	1/8" NPTF (M)	35	TCV-303-125-35	TCV-316-125-35	<b>TUBE FITTING</b>
1/8" NPSF (F)	1/8" NPTF (M)	60	TCV-303-125-60	TCV-316-125-60	<b>TUBE FITTING</b>
1/8" NPSF (F)	1/8" NPTF (M)	250	TCV-303-125-250	TCV-316-125-250	<b>TUBE FITTING</b>
1/4" NPTF (F)	1/4" NPSF (M)	35	TCV-303-250-35	TCV-316-250-35	<b>TUBE FITTING</b>



## ORDERING INFORMATION & PART NUMBERS

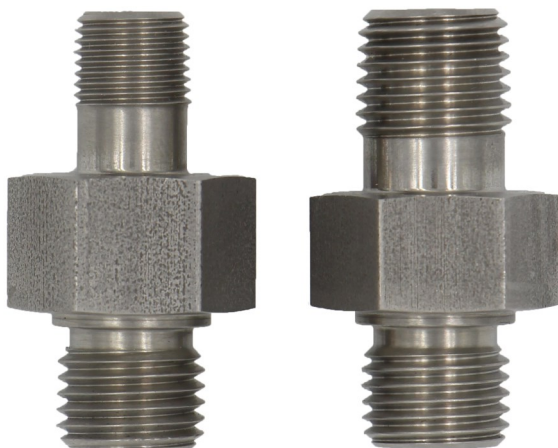
### CHECK VALVE ADAPTERS, TERMINATING (INJECTION)

ADAPTS CHECK VALVES—FOR USE IN EITHER 1/8" NPTF OR 1/4" NPTF INJECTION PORTS

**FOR HIGH OUTPUT:** INSTALL SELECTED ADAPTER INTO OUTPUT END OF CHECK VALVE

STANDARD PACK: 5 EACH				
CHECK VALVE DESCRIPTION			PART NUMBER	
INLET SIZE	OUTLET SIZE	USE WITH	303 STAINLESS	316 STAINLESS
1/4" NPSF (F)	1/8" NPTF (M)	HIGH OUTPUT DOUBLE BALL CHECK	DBFFADP-2-303	DBFFADP-2-316
1/4" NPSF (F)	1/4" NPTF (M)	HIGH OUTPUT DOUBLE BALL CHECK	DBFFADP-4-303	DBFFADP-4-316
1/8" NPSF (F)	1/8" NPTF (M)	1/8" NPTF TERMINATING CHECK	TCVADP-2-303	TCVADP-2-316
1/8" NPSF (F)	1/4" NPTF (M)	1/8" NPTF TERMINATING CHECK	TCVADP-4-303	TCVADP-4-316

HIGH OUTPUT ADAPTERS



INTEGRAL ADAPTERS



## ORDERING INFORMATION &amp; PART NUMBERS

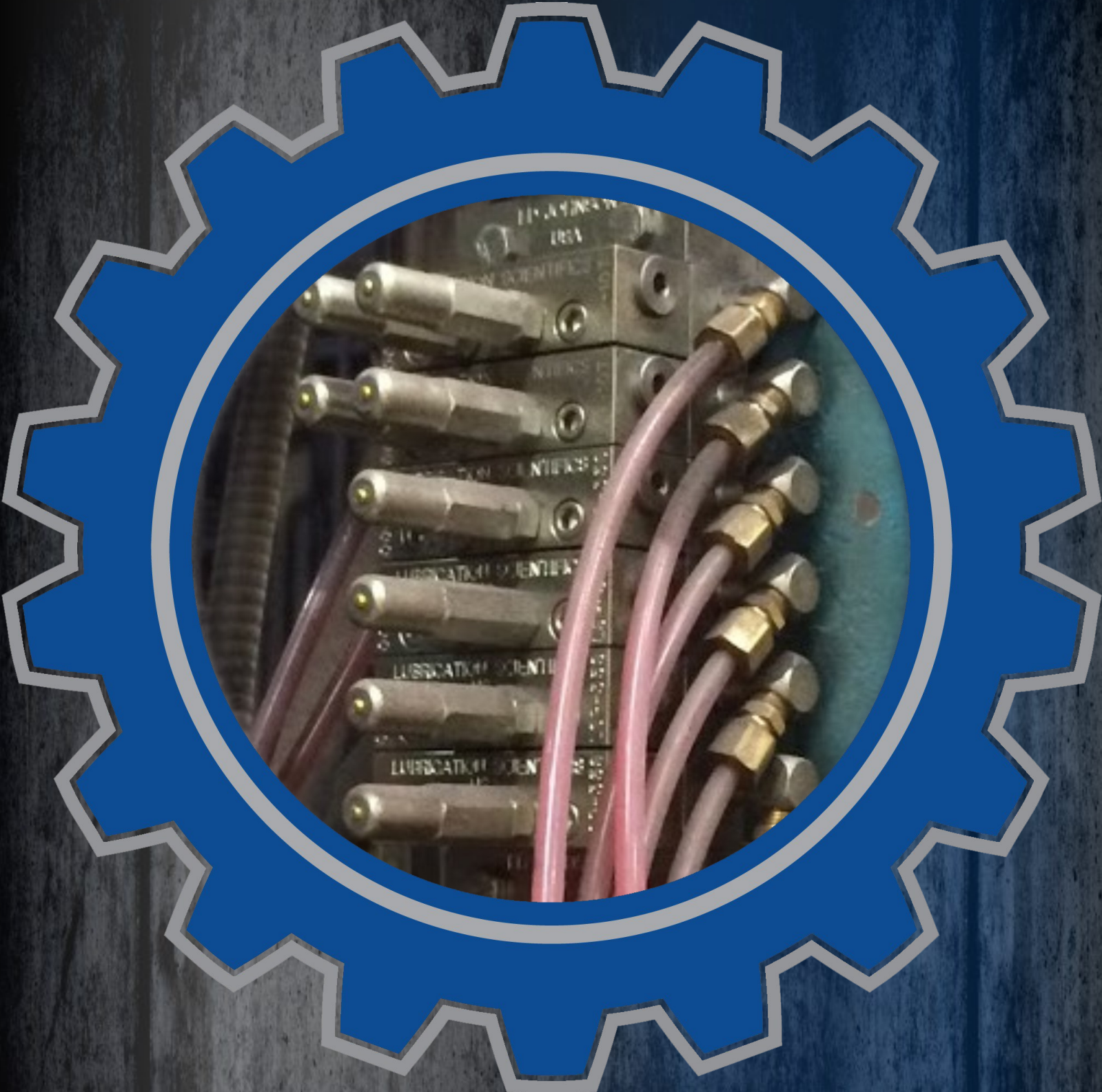
## TERMINATING ORIFICE FITTINGS

STANDARD PACK: 5 EACH			
FITTING DESCRIPTION			PART NUMBER
INLET SIZE	OUTLET SIZE	ORIFICE SIZE (INCHES)	303 STAINLESS
1/8" NPSF (F)	1/8" NPTF (M)	.011	TO-303-125-011
1/8" NPSF (F)	1/8" NPTF (M)	.030	TO-303-125-013
1/8" NPSF (F)	1/8" NPTF (M)	.045	TO-303-125-015
1/8" NPSF (F)	1/8" NPTF (M)	.0177	TO-303-125-017
1/8" NPSF (F)	1/8" NPTF (M)	.0197	TO-303-125-019
1/8" NPSF (F)	1/8" NPTF (M)	.0210	TO-303-125-021
1/8" NPSF (F)	1/8" NPTF (M)	.0236	TO-303-125-023
1/8" NPSF (F)	1/8" NPTF (M)	.0250	TO-303-125-025



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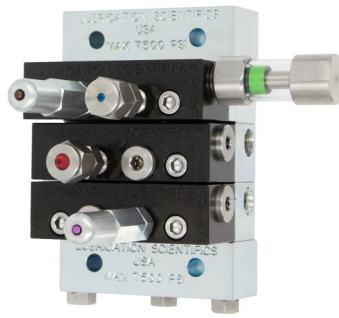
THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



**PERFORMANCE INDICATOR PRODUCTS**

**RESET INDICATORS—BLOWOUT FITTINGS—ATMOSPHERIC RESETS**





**AUTOMATIC RELIEF RESET INDICATOR, MANUAL RESET INDICATOR, BLOWOUT FITTINGS & DISKS**

## PRODUCT DESCRIPTION

DESIGNED FOR HIGH PRESSURE HYDRAULIC AND LUBRICATION APPLICATIONS

INSTALL IN ALTERNATE OUTLET PORTS OF SERIES PROGRESSIVE DIVIDER VALVES

BLOWOUT FITTINGS & ATMOSPHERIC RESETS ALLOW FOR VALVE FUNCTION DURING LUBE LINE BLOCKAGE

ACCURATELY DETECT LOCATIONS OF VALVE FAILURES, HIGH PRESSURE CONDITIONS, AND LUBE LINE BLOCKAGES

MANUAL RESET INDICATOR WITH MEMORY ELIMINATES THE GUESS WORK OF LOCATING A HIGH PRESSURE VALVE OR LUBE LINE AREA

## BENEFITS & FEATURES

CAN EASILY BE INTEGRATED INTO EXISTING SYSTEMS

THE OPTION OF AUTOMATIC OR MANUAL RESETTING INDICATORS

ENABLES FAST TROUBLESHOOTING OF SYSTEM BLOCKAGES OR HIGH PRESSURE SPIKES

OFFERS THE FLEXIBILITY TO EITHER SHUT DOWN A LUBE SYSTEM OR CONTINUE OPERATION DURING A VALVE BLOCKAGE OR HIGH PRESSURE CONDITION

303 AND 316 STAINLESS STEEL AVAILABLE FOR ALL INDICATORS—CARBON STEEL ALSO AVAILABLE FOR MANUAL RESET INDICATORS

## READY FOR IMMEDIATE SHIPMENT

MADE IN



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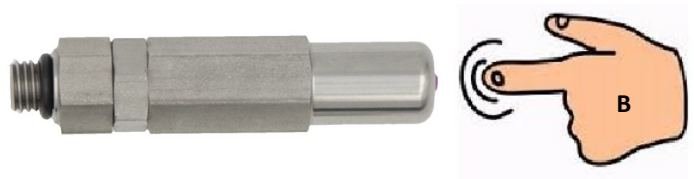
## FUNCTION ILLUSTRATION

### Manual Reset Memory Indicator Function

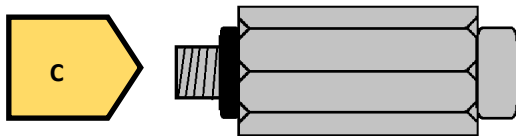
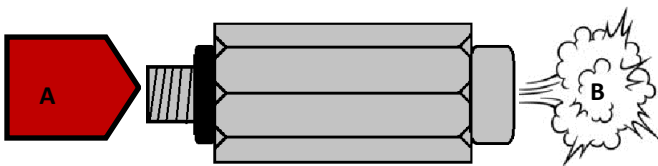
**Illustration A:** Excess pressure builds in lube point outlet due to a blockage and begins to overcome an engineered pressure indicator spring pushing the indicator pin outward.

**Illustration B:** The indicator pin remains engaged until manually reset showing pressure, at some point, had built up. Pin is manually reset once the location of the high pressure is noted.

#### MANUAL RESET INDICATOR



#### ATMOSPHERIC RESET



### Atmospheric Reset Illustration

**Illustration A:** A blockage in the lube line creates a high pressure situation in a valve.

**Illustration B:** In order to supply lubricant to the non blocked lube points, pressure must be relieved from the blocked line. The excess pressure, created by the blockage, overcomes an engineered pressure indicator spring pushing the valve open allowing the pressure to vent. In turn, the lube system is able to function.

**Illustration C:** Once the pressure is reduced, the indicator spring will close the vent allowing for normal valve operation. If the line is still blocked, the process will repeat.

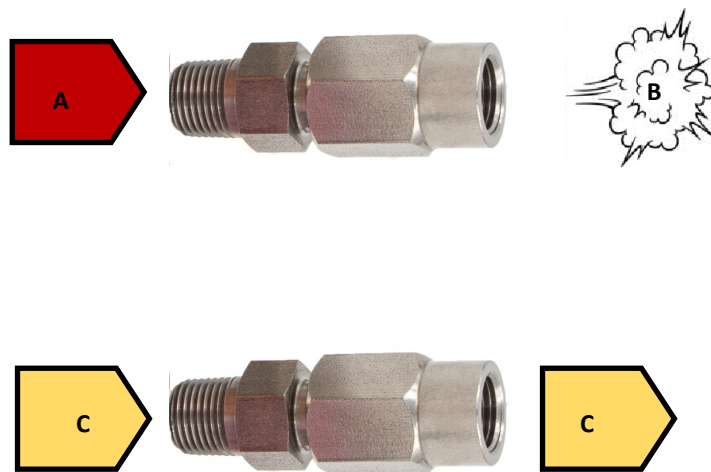
## FUNCTION ILLUSTRATION

## Blowout Indicator Illustration

**Illustration A:** A blockage in the lube line creates excess pressure in the valve.

**Illustration B:** The high pressure from the lube line blockage causes the disk to rupture. The rupture allows the pressure to be relieved from that location.

**Illustration C:** Once the disk is ruptured, the lube will spill out from the rupture point indicating a location of a high pressure. Once the blockage is noted and cleared, the disk will need to be replaced before normal lube operation may resume.



## ORDERING INFORMATION & PART NUMBERS

### PERFORMANCE RESET INDICATORS W/ MEMORY

STANDARD PACK: 5 EACH		1/8 NPSF O-RING CONNECTION	
ITEM DESCRIPTION	CARBON STEEL	303 STAINLESS	316 STAINLESS
1,000 PSI	N/A	303-P1000	316-P1000
1,500 PSI	N/A	303-P1500	316-P1500
2,000 PSI	N/A	303-P2000	316-P2000
2,500 PSI	N/A	303-P2500	316-P2500
3,000 PSI	N/A	303-P3000	316-P3000
3,500 PSI	N/A	303-P3500	316-P3500
4,000 PSI	N/A	303-P4000	316-P4000
5,000 PSI	N/A	303-P5000	316-P5000



NOTE: Performance indicators are compatible with Trabon Style Divider Valves only

**FOR LINCOLN STYLE VALVES USE ADAPTER WITH THE PERFORMANCE RESET INDICATORS ABOVE.**

DESCRIPTION	303 STAINLESS STEEL	316 STAINLESS STEEL
LINCOLN STYLE INDICATOR ADAPTER	303-PI-ADP-L	316-PI-ADP-L



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**ORDERING INFORMATION & PART NUMBERS**

**BLOWOUT FITTINGS**



↑  
LOW PRESSURE PLAIN NUT

↑  
HIGH PRESSURE PLAIN NUT

STANDARD PACK: 5 EACH	1/8" O-RING SEAL OR 1/8" NPTF THREADS	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-NPTF BOF-LP-303-ORS	BOF-LP-316-NPTF BOF-LP-316-ORS
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-NPTF BOF-LP-303R-ORS	BOF-LP-316R-NPTF BOF-LP-316R-ORS
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-NPTF BOF-HP-303-ORS	BOF-HP-316-NPTF BOF-HP-316-ORS
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-NPTF BOF-HP-303R-ORS	BOF-HP-316R-NPTF BOF-HP-316R-ORS

NOTE: RUPTURE DISK NOT INCLUDED—SEE PAGE 6

**BLOWOUT FITTINGS FOR LINCOLN MC2 DIVIDER VALVES**

STANDARD PACK: 5 EACH	1/8" O-RING SEAL	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
LOW PRESSURE 1/8" NPSF PLAIN NUT W/ 1/4" APERTURE	BOF-LP-303-ORS-L	BOF-LP-316-ORS-L
LOW PRESSURE 1/8" NPSF SPUD NUT W/ 1/4" APERTURE	BOF-LP-303R-ORS-L	BOF-LP-316R-ORS-L
HIGH PRESSURE 1/8" NPSF PLAIN NUT W/ 1/8" APERTURE	BOF-HP-303-ORS-L	BOF-HP-316-ORS-L
HIGH PRESSURE 1/8" NPSF SPUD NUT W/ 1/8" APERTURE	BOF-HP-303R-ORS-L	BOF-HP-316R-ORS-L

**BLOWOUT FITTING WITH SPUD NUT**



NOTE: RUPTURE DISK NOT INCLUDED—SEE PAGE 6

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**ORDERING INFORMATION & PART NUMBERS**



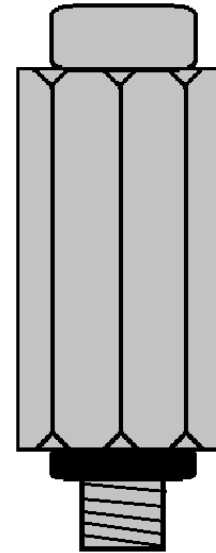
STANDARD PACK: 25 EACH				
DISC COLOR	DISK DIAMETER	LOW PRESSURE BURST (PSI) (1/4" APERTURE FITTING)	HIGH PRESSURE BURST (PSI) (1/8" APERTURE FITTING)	PART NUMBER
BLACK	3/8"	900	NOT OBSERVED	A509-276-000
GREEN	3/8"	1,175	NOT OBSERVED	A509-277-000
RED	3/8"	1,750	4,600	A509-279-000
ORANGE	3/8"	2,050	5,500	A509-280-000
ALUMINUM	3/8"	2,350	N/R	A509-281-000
PINK	3/8"	2,650	6,400	A509-282-000
BLUE	3/8"	2,950	7,300	A509-283-000
PURPLE	3/8"	3,250	8,200	A509-284-000
YELLOW	11/16"	1,450	3,700	A509-292-000
RED	11/16"	1,750	NOT OBSERVED	A509-293-000
ORANGE	11/16"	2,050	NOT OBSERVED	A509-294-000
SILVER	11/16"	2,350	NOT OBSERVED	A509-295-000
PINK	11/16"	2,650	NOT OBSERVED	A509-296-000
BLUE	11/16"	2,950	NOT OBSERVED	A509-297-000
PURPLE	11/16"	3,250	NOT OBSERVED	A509-298-000

NOTE: ALL DISKS HAVE A RUPTURE TOLERANCE OF +500 PSI

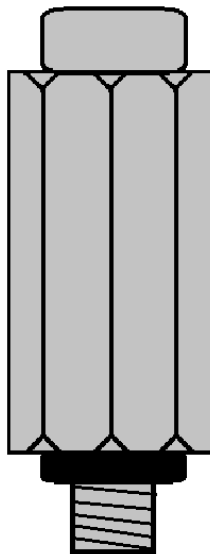
**ORDERING INFORMATION & PART NUMBERS**

**ATMOSPHERIC RESET INDICATOR TRABON STYLE**

STANDARD PACK: 5 EACH	1/8" O-RING SEAL OR 1/8" NPTF THREADS	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
1,000 PSI	L5081000-NPTF L5081000-ORS	L5081000-316-NPTF L5081000-316-ORS
1,500 PSI	L5081500-NPTF L5081500-ORS	L5081500-316-NPTF L5081500-316-ORS
2,000 PSI	L5082000-NPTF L5082000-ORS	L5082000-316-NPTF L5082000-316-ORS
2,500 PSI	L5082500-NPTF L5082500-ORS	L5082500-316-NPTF L5082500-316-ORS
3,000 PSI	L5083000-NPTF L5083000-ORS	L5083000-316-NPTF L5083000-316-ORS



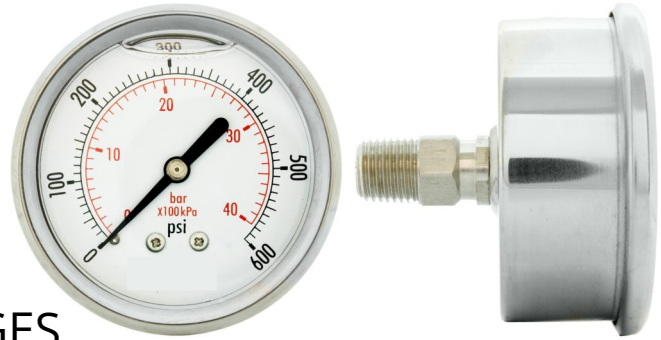
**ATMOSPHERIC RESET INDICATOR FOR LINCOLN MC2 DIVIDER VALVES**



STANDARD PACK: 5 EACH	1/8" O-RING SEAL	
ITEM DESCRIPTION	303 STAINLESS	316 STAINLESS
1,000 PSI	L5081000-ORS-L	L5081000-316-ORS-L
1,500 PSI	L5081500-ORS-L	L5081500-316-ORS-L
2,000 PSI	L5082000-ORS-L	L5082000-316-ORS-L
2,500 PSI	L5082500-ORS-L	L5082500-316-ORS-L
3,000 PSI	L5083000-ORS-L	L5083000-316-ORS-L

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## LIQUID FILLED PRESSURE GAUGES

### PRODUCT DESCRIPTION

STAINLESS STEEL CONSTRUCTION

ACRYLIC LENS

1/4 & 1/8 NPT GAUGES AVAILABLE

ALL GAUGES ARE 3-2-3 % ACCURACY

DIALS ARE STANDARD PSI/BAR WITH LEGEND 100 X  
kPa

GAUGE SIZES AVAILABLE IN 1.5", 2.0", & 2.5"  
DIAMETER

MAX PRESSURE RATINGS AVAILABLE FROM 300—6000  
PSI

### BENEFITS & FEATURES

ABLE TO ACCURATELY MEASURE PRESSURE  
IN A LUBRICATION SYSTEM

USES INCLUDE PRESSURE MONITORING,  
DETERMINING CLOGGED FILTERS, &  
VISUALIZING PRESSURE DIFFERENTIALS

2-3 % PRESSURE ACCURACY

GAUGES AVAILABLE IN CENTER BACK  
MOUNT OR LOWER BACK MOUNT

IMPACT/SCRATCH RESISTANT GAUGE LENS

## READY FOR IMMEDIATE SHIPMENT

MADE IN



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## FUNCTION ILLUSTRATION & SPECIFICATIONS

### GAUGE LEGEND

#### COMMON PRESSURE SCALES

PSI	POUND PER SQUARE INCH
IN. .HG.	INCHES OF MERCURY
IN. H2O	INCHES OF WATER COLUMN
kPa	KILOPASCAL
mBar	MILIBAR
Oz/sq. IN	INCHES PER SQUARE INCH

### ACCURACY LEGEND ASME CLASS

GRADE A	+/- 2-1-2% OF SPAN
GRADE B	+/- 3-2-3% OF SPAN
GRADE 1A	+/- 1% OF SPAN
GRADE 2A	+/- 0.05% OF SPAN
GRADE 3A	+/- 0.25% OF SPAN

#### DEFINING THE +/- 3-2-3% OF SPAN ACCURACY

- THE 3-2-3% ACCURACY IS RELATIVE TO WHERE THE NEEDLE IS POSITIONED ON THE SPAN OF THE GAUGE.
- THE FIRST "TWO" IN THE 2-3-2% REFERS TO THE ACCURACY IN THE FIRST 1/4 SECTION OF THE GAUGE. THE FIRST 1/4 SECTION IS ACCURATE +/- 3%. THE NEXT 1/2 OF THE GAUGE IS +/- 2% ACCURATE. AND FINALLY, THE LAST 1/4 IS BACK TO 3% ACCURACY

THIS IS HOW THE +/- 3-2-3% ACCURACY EXPRESSION IS INTERPRETED.

#### DEFINING BACK CENTER MOUNT AND BOTTOM MOUNT



**BOTTOM MOUNT**



**BACK CENTER MOUNT**

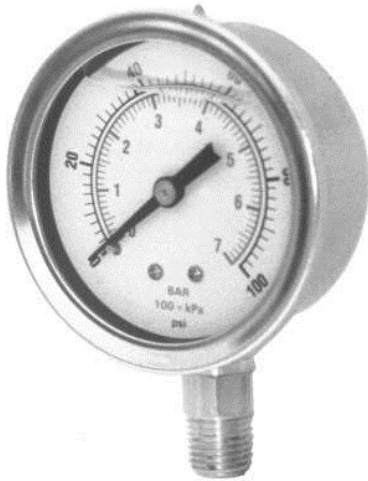
**BOTTOM MOUNT**—ARE THE MORE COMMON MOUNTING STYLE FOR PRESSURE GAUGES. THE PIPE THREAD STEMS OUT FROM THE BOTTOM OF THE GAUGE.

**BACK MOUNT**— THE PIPE THREAD STEMS FROM THE REAR OF THE GAUGE

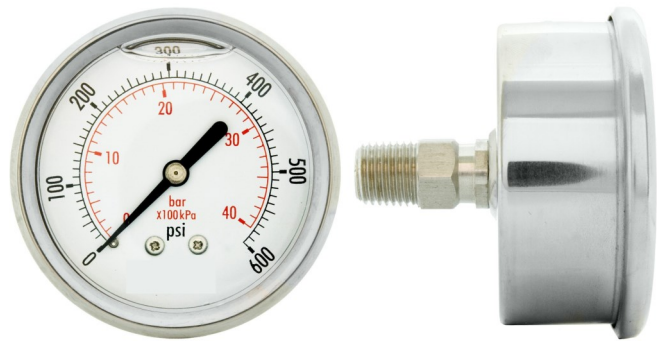
**PRESSURE GAUGE PART NUMBER ORDERING INFORMATION**

**ALL PRESSURE GAUGES ARE STAINLESS STEEL CONSTRUCTION, LIQUID FILLED**

STANDARD PACK: 1 EACH			
MOUNT LOCATION	PSI	FITTING	PART NUMBER
LOWER MOUNT	300	1/4" NPT	LLM-20-3C-4
LOWER MOUNT	1000	1/4" NPT	LLM-25-1K-4
LOWER MOUNT	3000	1/4" NPT	LLM-25-3K-4
LOWER MOUNT	5000	1/4" NPT	LM-25-5K-4
LOWER MOUNT	6000	1/4" NPT	LLM-25-6K-4
LOWER MOUNT	10000	1/4" NPT	LLM-25-10K-4
CENTER BACK MOUNT	6000	1/8" NPT	LCB-15-6K-2



**LOWER MOUNT**



**CENTER BACK MOUNT**



## SWIVEL FITTING ASSEMBLIES



### PRODUCT DESCRIPTION

303 & 316 STAINLESS STEEL CONSTRUCTION

COMPACT, HIGH PRESSURE FITTING

FOR USE IN STRAIGHT, REVOLVING, OR OSCILLATING APPLICATIONS

SWIVELS ARE AVAILABLE IN 180 DEGREE STRAIGHT OR 90 DEGREE ELBOW FITTINGS

THREAD SIZES AVAILABLE IN 1/4", 1/8", AND 3/8" NPTF

FOR USE WITH OIL OR GREASE

### BENEFITS & FEATURES

SUPERIOR DESIGN ELIMINATES COUNTER WEAR

COMPACT DESIGN

NO ADAPTERS REQUIRED TO CONNECT TO LUBE LINES

3500 MAX OPERATING PRESSURE

HIGH OPERATING PRESSURE FOR MORE INDUSTRIAL APPLICATIONS

REDUCES THE CHANCE OF TWISTED, BENT, OR KINKED LUBE LINES

REDUCES RIGIDITY RESTRICTION IN HOSES & LINES

REDUCES SYSTEM DOWNTIME FROM LINE SHOCK DAMAGE, LINE TWISTING & ENTANGLEMENT

## READY FOR IMMEDIATE SHIPMENT

MADE IN



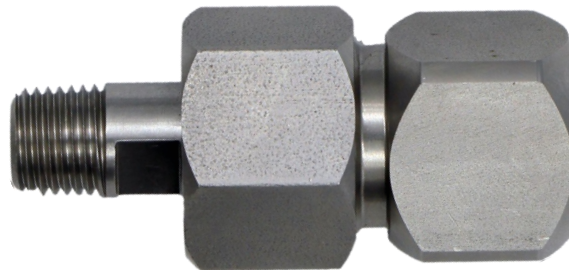
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**ORDERING INFORMATION & PART NUMBERS**

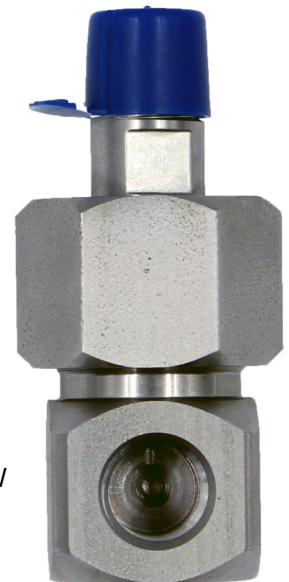
**SWIVEL VALVE ASSEMBLY**

<b>STANDARD PACK: 1</b>			
<b>PRODUCT DESCRIPTION</b>	<b>CONNECTION TYPE</b>	<b>MATERIAL</b>	<b>PART NUMBER</b>
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90 DEG ELBOW	CRS	L509405-000
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90 DEG ELBOW	303 SS	L509405-303
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90 DEG ELBOW	316 SS	L509405-316
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	CRS	L509406-000
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	303 SS	L509406-303
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	316 SS	L509406-316

STRAIGHT  
CONNECTION

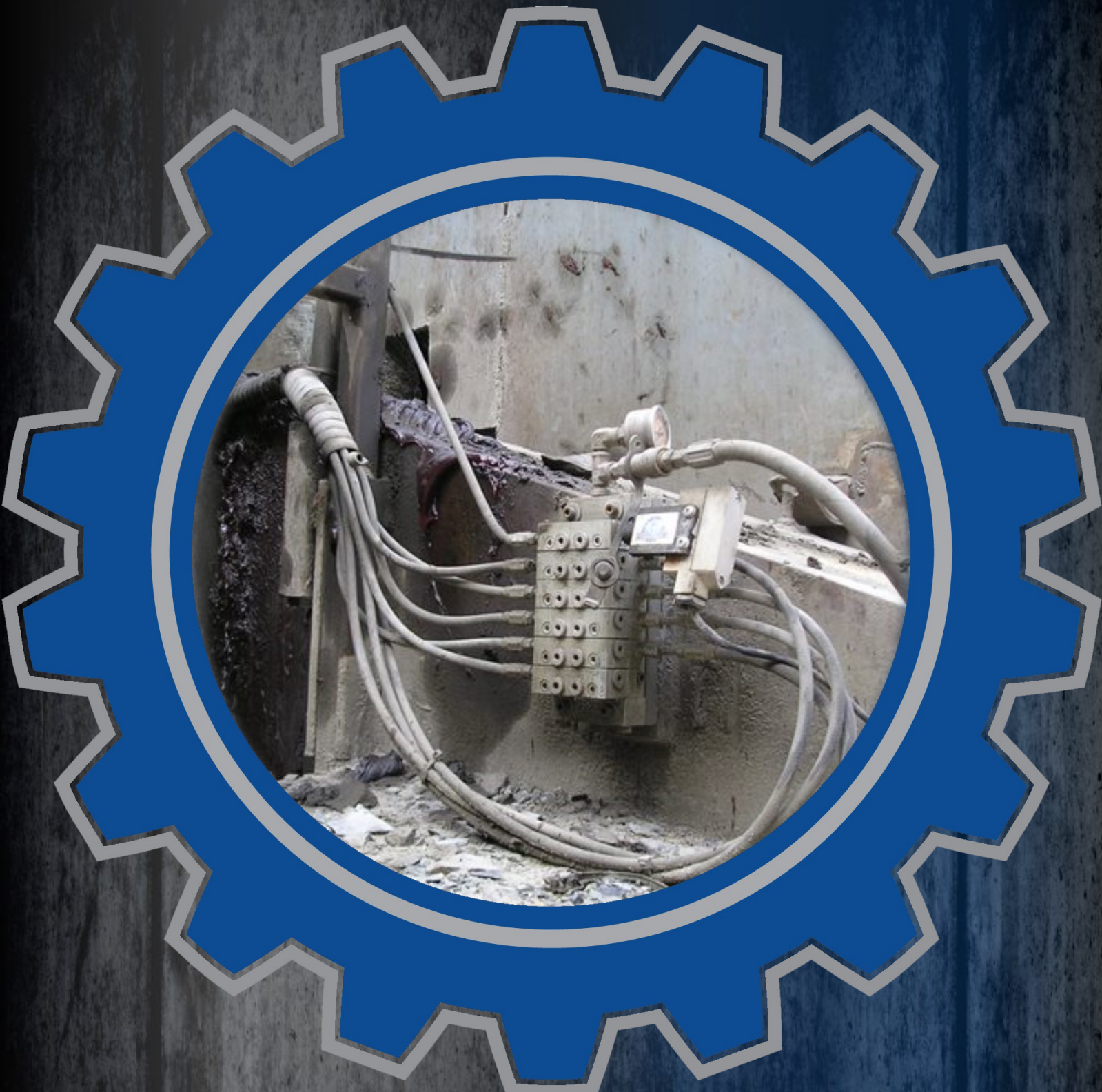


90 DEGREE ELBOW  
CONNECTION



# LUBRICATION SCIENTIFICS, LLC

THE RIGHT PRODUCTS. THE RIGHT VALUES. THE RIGHT CHOICE.



## CRITICAL MONITORING DEVICES

PROXIMITY SWITCHES—LIMIT SWITCHES—VISUAL CYCLE INDICATORS



## VISUAL CYCLE INDICATORS, LIMIT SWITCHES, & PROXIMITY SWITCHES

### PRODUCT DESCRIPTION

DESIGNED FOR HIGH PRESSURE HYDRAULIC AND LUBRICATION APPLICATIONS

ALLOWS THE VISUAL OR DIGITAL MONITORING OF VALVE CYCLE

VISUAL INDICATORS ARE 316 STAINLESS STEEL

PRESSURE RANGES UP TO 7,500 PSI

LIMIT SWITCHES OFFER CONTROL OVER YOUR LUBE SYSTEM BY DETECTING AND MANAGING LUBE SYSTEM FAILURES

### BENEFITS & FEATURES

MECHANICAL AND ELECTRICAL VISUAL INDICATORS FOR ANY BUDGET

PROXIMITY SWITCHES ARE MADE OF 316 STAINLESS STEEL CONSTRUCTION

RATED FOR HAZARDOUS CONDITIONS

WORKS WITH BOTH OIL OR GREASE APPLICATIONS

## READY FOR IMMEDIATE SHIPMENT

MADE IN



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## FUNCTION ILLUSTRATION

### Valve Cycle Indicator Function

**Cycle Indicators provide a visual means to verify proper function of a piston cycle.**

**Figure 1.1:** During a lube event, the piston acts upon the actuator pin pushing the indicator forward, showing that the valve is functioning properly.

**Figure 1.2:** When the piston cycles back to its original position, the spring in the visual indicator returns the indicator bead to its previous position and awaits the next cycle.

Figure 1.1

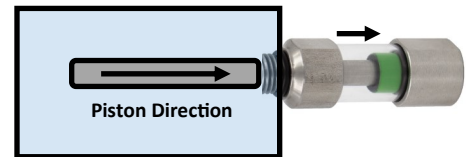
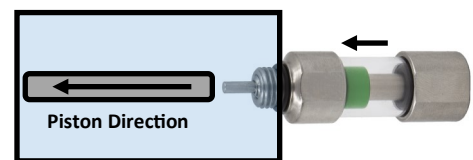


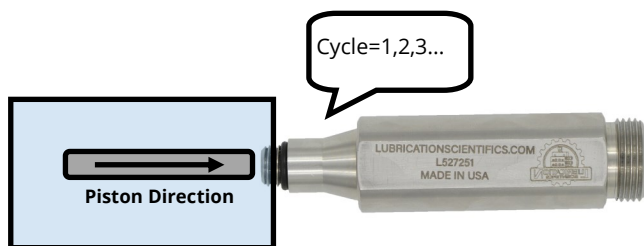
Figure 1.2



During a lube event, you will have a visual indication if the valves are not cycling.

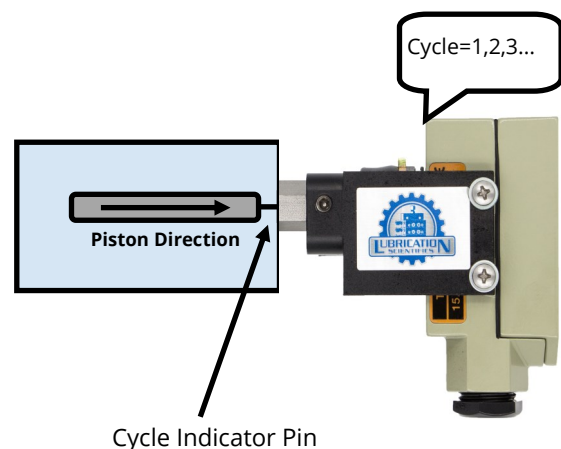
### Proximity Switches

**Proximity Switch** is a sensor able to detect the presence of nearby objects, in this case a piston, without any physical contact. It is used to digitally count cycles or detect potential problems in a system. The illustration below shows generally how a Proximity Switch work.



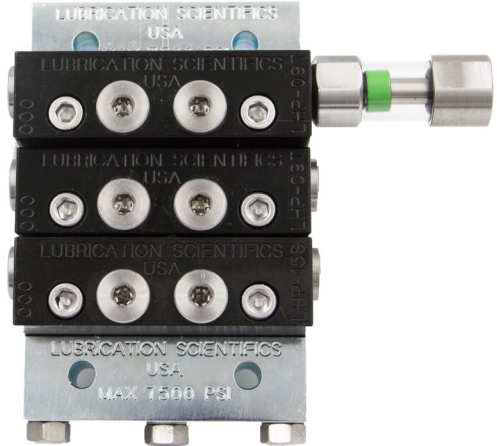
### Limit Switches

**A limit switch** is an electromechanical device that consists of an actuator mechanically linked to a set of contacts. When a cycle indicator pin comes into contact with the actuator, the device operates the contacts to make or break an electrical connection.



**ORDERING INFORMATION & PART NUMBERS**

**CYCLE VERIFICATION DEVICES**



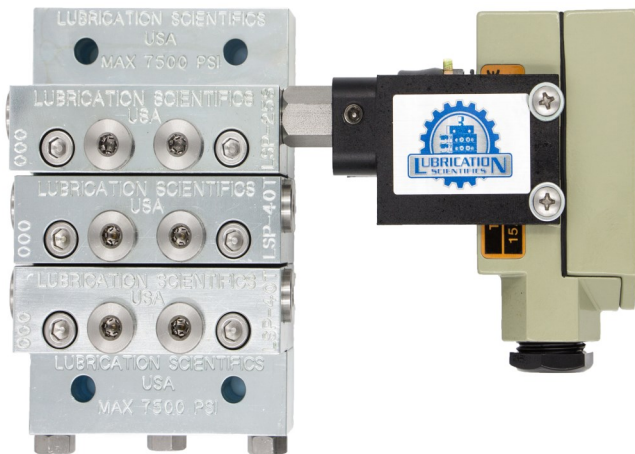
STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
STAINLESS STEEL VISUAL CYCLE INDICATOR Fits Trabon Style Divider Valves	VCI-437
316 STAINLESS STEEL VISUAL CYCLE INDICATOR	VCI-437-316
STAINLESS STEEL VISUAL CYCLE INDICATOR W/ LMX/LMXP ADAPTER	VCI-437-1312
LINCOLN STYLE VISUAL CYCLE INDICATOR Fits Lincoln MC2 Style Divider Valves	VCI-437-L

**VISUAL CYCLE INDICATORS:** Fits any valve, right or left side; Twin or Single valve types.

**LINCOLN STYLE VISUAL CYCLE INDICATOR**



STANDARD PACK: 1 EACH	
ITEM DESCRIPTION	PART NUMBER
LIMIT SWITCH ASSEMBLY, SPDT	LSW-001
LIMIT SWITCH ASSEMBLY, DPDT	LSW-002



**ELECTRICAL RATING**

15 Amps @ 120V/240V/480V AC  
 6 Amps @ 24V DC  
 .5 Amps @ 125V DC  
 .25 Amps @ 250V DC

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**ORDERING INFORMATION & PART NUMBERS**

**PROXIMITY SWITCHES**

STANDARD PACK: 1 EACH				
ITEM DESCRIPTION	FITS VALVE	PART NUMBER	MAX PSI	HAZARD RATING
PROXIMITY SWITCH, 3 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527251	7,500 PSI	NO RATING
	LMX/LMXP	L527251-1312		
	LGO	L527251-1410		
PROXIMITY SWITCH, 4 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527112	7,500 PSI	NO RATING
	LMX/LMXP	L527112-1312		
	LGO	L527112-1410		
PROXIMITY SWITCH, 5 PIN MINI-QUICK DISCONNECT	LSP/LHP	L527111	7,500 PSI	NO RATING
	LMX/LMXP	L527111-1312		
	LGO	L527111-1410		
PROXIMITY SWITCH, EXPLOSION PROOF, 1/2" NPT WITH LEADS	LSP/LHP	L527431	7,500 PSI	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III
	LMX/LMXP	L527431-1312		
	LGO	L527431-1410		
PROXIMITY SWITCH LINCOLN EXPLOSION PROOF, 1/2" NPT WITH LEADS	LINCOLN	L527431-MC2	7,500 PSI	CLASS I, GROUPS A,B,C,D CLASS II, GROUPS E,F,G CLASS III
PROXIMITY SWITCH W/ TRABON MAG ASSEMBLY	TRABON	L527430	7,500 PSI	NO RATING
REPLACEMENT MAGNET ASSEMBLY	TRABON	L527430-RM-T	7,500 PSI	NO RATING
REPLACEMENT MAGNET ASSEMBLY	LINCOLN	L527430-RM-L	7,500 PSI	NO RATING
REPLACEMENT MAGNET ASSEMBLY	DROPSA	L527430-RM-D	7,500 PSI	NO RATING



**PROXIMITY SWITCH SPECIFICATIONS**

**Specification Description**

All Proximity Switches are field sensitive, dry contact, with ceramic magnets. They have a max cycle rate of 200 cycles per minute. A max pressure rating of 7,500 psi.

**Electrical rating are as follows for all models:**

4 Amps @ 120V AC, 2 Amps @ 240V DC, 3 Amps @ 24V DC, .5 Amps @ 125V DC

**CYCLE LIFE:**

150,000,000 Cycles

STANDARD PACK: 1 CABLE	
ITEM DESCRIPTION	12' CABLE PART NUMBER
12' 3 PIN CABLE	L527251-CBL12
12' 4 PIN CABLE	L527112-CBL12
12' 5 PIN CABLE	L527111-CBL12

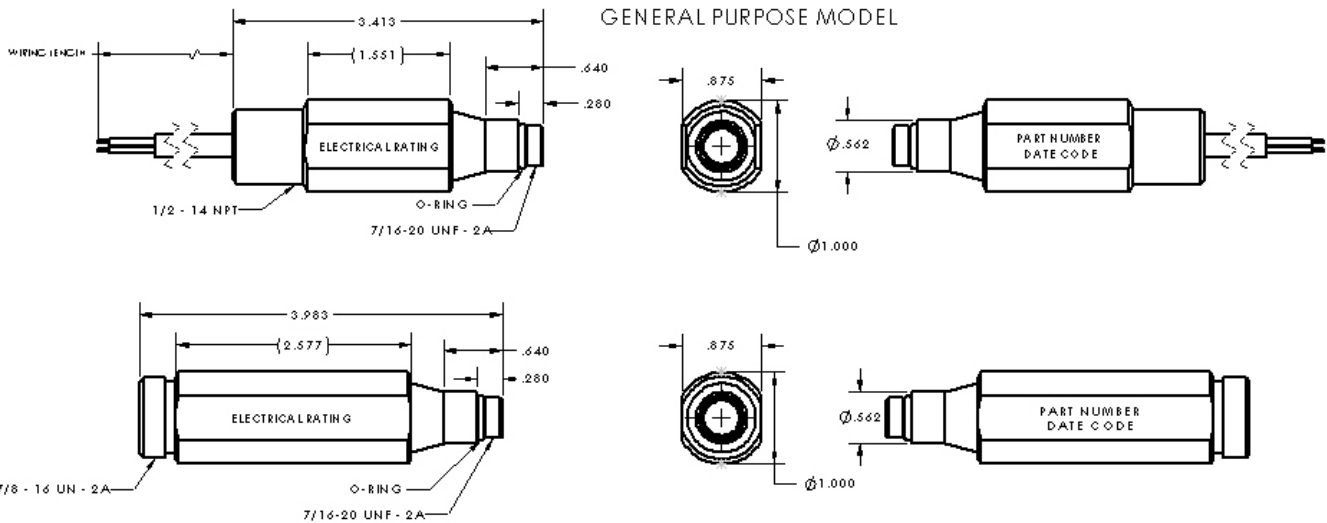


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DROPSA IS A REGISTERED TRADEMARK OF DROPSA

PROXIMITY SWITCH DATA SHEET

GENERAL SPECIFICATIONS	
SENSING DISTANCE	0.025 in
DIFFERENTIAL	0.010 in
TEMPERATURE RANGE	-4 Degrees F - 176 Degrees F
	-20 degrees C - 80 Degrees C
CONTACT ARRANGEMENT	SPST FORM A (N/O)
ELECTRICAL RATING	4 Amp / 120 VAC
	2 Amp / 240 VAC
	3 Amp / 24 VDC
	.5 Amp / 125 VDC
MAX OPERATING FREQUENCY	3Hz
MAX PRESSURE	7500 PSI
ENCLOSURE MATERIAL	316L STAINLESS STEEL
O-RING MATERIAL	VITON
MOUNTING TORQUE	6-8 FT-LB

MAX VIBRATION RATING:  
7g, 10-55hz

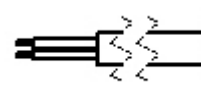


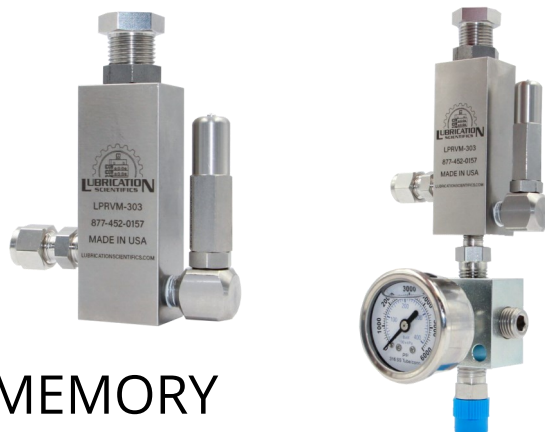
L527251, 3 PIN	
PIN	PIN OUT (WIRE COLOR)
1	GROUND (GREEN)
2	COM (BLACK)
3	N/O (WHITE)

L527112, 4 PIN	
PIN	PIN OUT (WIRE COLOR)
1	N/O (BLACK)
2	COM (WHITE)
3	NOT USED (RED)
4	GND (GREEN)

L527111, 5 PIN	
PIN	PIN OUT (WIRE COLOR)
1	N/O (WHITE)
2	NOT USED (RED)
3	GND (GREEN)
4	NOT USED (ORANGE)
5	COM (BLACK)

L527431	
WIRING - B, PVC CABLE	
WIRE COLOR	WIRE ASSIGNMENT
RED	GND
WHITE	N/O
BLACK	COM
APPROVED FOR	
CLASS I	GROUPS A, B, & D
CLASS II	GROUPS E, F, G
CLASS III	





## PRESSURE RELIEF VALVE WITH MEMORY

### PRODUCT DESCRIPTION

DESIGNED TO REPLACE ATMOSPHERIC RUPTURE ASSEMBLIES

AUTOMATICALLY ACTIVATED WHEN THE DIVIDER BLOCK SYSTEM OVERPRESSURES

ONCE ACTIVATED, THE LPRVM DIVERTS OIL TO A DESIGNATED RESERVOIR

### BENEFITS & FEATURES

PROTECTS A TECHNICIAN FROM POSSIBLE INJURY CAUSED BY AN OIL RUPTURE

OPENS AT A PRE-DETERMINED PRESSURE TO PROTECT THE SYSTEM FROM DAMAGE

VALVE IS RESET AFTER PRESSURE IS RELIEVED, BUT THE RESET INDICATOR REMAINS VISIBLE UNTIL IT IS MANUALLY RESET BY TECHNICIAN

CAN BE USED ON ANY DIVIDER SYSTEM

ELIMINATES OIL SPILLS AND UNNECESSARY WASTE

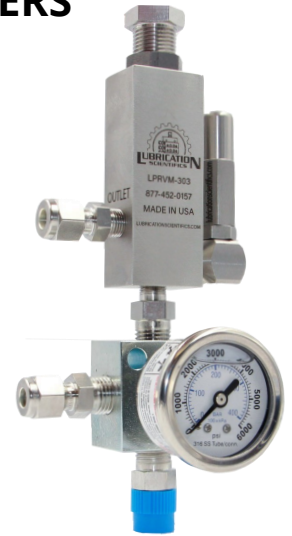
## READY FOR IMMEDIATE SHIPMENT

MADE IN

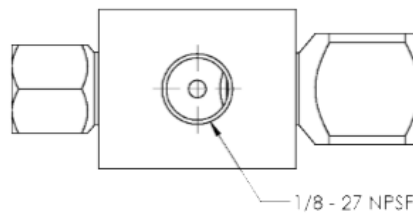
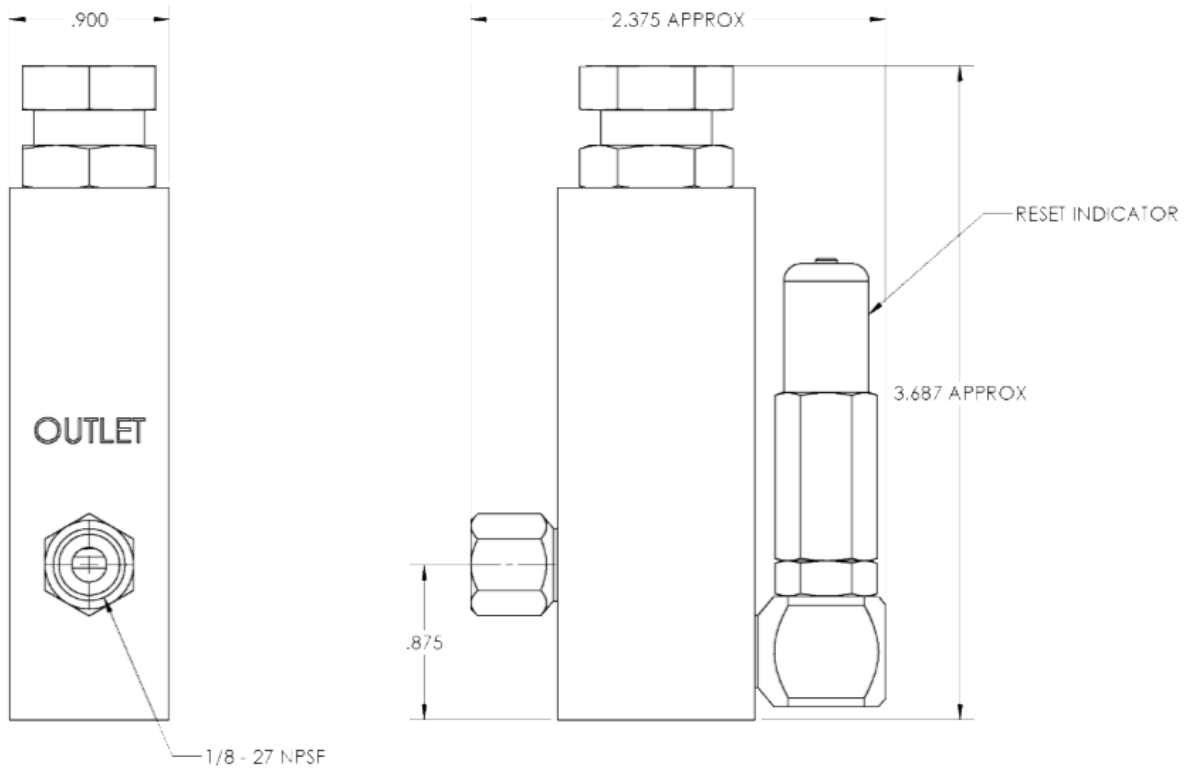


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## ORDERING INFORMATION & PART NUMBERS



### GENERAL LPRVM DIMENSIONS



## ORDERING INFORMATION & PART NUMBERS



### LPRVM PRESSURE RELIEF

DESCRIPTION	PSI	PART NUMBER
PRESSURE RELIEF VALVE W/ MEMORY, 1500 PSI	1500	LPRVM-303-1500
PRESSURE RELIEF VALVE W/ MEMORY, 2000 PSI	2000	LPRVM-303-2000
PRESSURE RELIEF VALVE W/ MEMORY, 2500 PSI	2500	LPRVM-303-2500
PRESSURE RELIEF VALVE W/ MEMORY, 3000 PSI	3000	LPRVM-303-3000
PRESSURE RELIEF VALVE W/ MEMORY, 3500 PSI	3500	LPRVM-303-3500
PRESSURE RELIEF VALVE W/ MEMORY, 4000 PSI	4000	LPRVM-303-4000
PRESSURE RELIEF VALVE W/ MEMORY, 5000 PSI	5000	LPRVM-303-5000
PRESSURE RELIEF VALVE, UNIVERSAL	N/A	LPRVM-303-U
PRVM REBUILD KIT	N/A	LPRVM-MRK

## ADJUSTMENT INSTRUCTIONS

**TOOLS NEEDED:** CRESCENT WRENCH OR THREE QUARTER INCH WRENCH, DOWNSTREAM PRESSURE GAUGE

**MAXIMUM PRESSURE: 5000 PSI**

**MINIMUM PRESSURE: 1500 PSI**

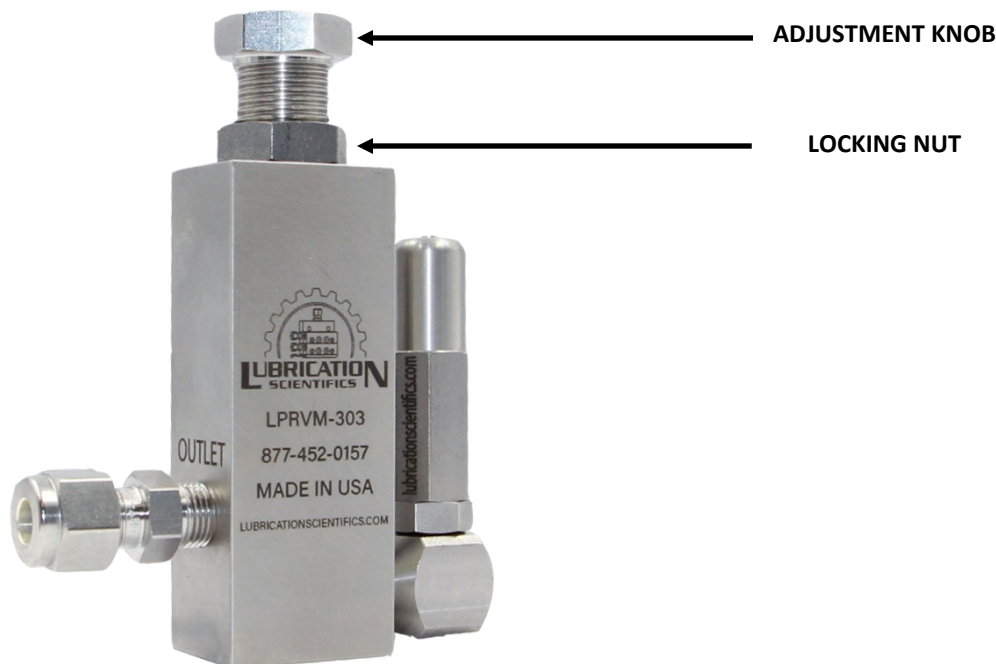
**ADJUSTMENT: 1 QUARTER TURN = 250 PSI  $\pm$  50 PSI**

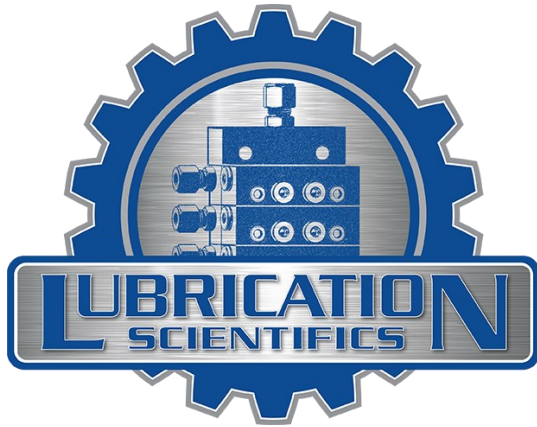
ADJUSTMENTS MAY BE MADE WHILE UNDER PRESSURE

**TO INCREASE PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB CLOCKWISE UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.

**TO DECREASE PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB COUNTER CLOCKWISE UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.

**ADJUSTING UNDER PRESSURE,** LOOSEN LOCK NUT, TURN ADJUSTMENT KNOB A QUARTER TURN AT A TIME BETWEEN PUMP CYCLES; MONITORING PEAK PRESSURES USING A GAUGE. THE PEAK PRESSURE IS THE SET PRESSURE. ADJUST KNOB UNTIL DESIRED PRESSURE IS REACHED. USE LOCK NUT TO SECURE PRESSURE.





# HOSES, FITTINGS & ACCESSORIES FOR CENTRALIZED LUBRICATION SYSTEMS

HIGH PRESSURE HOSE, HOSE ENDS, & CONNECTORS



MEDIUM PRESSURE HOSE, FITTINGS, & CONNECTORS



STEEL TUBE FITTINGS, & CONNECTORS



LUBE POINT EXTENSIONS



45° & 90° ELBOW ADAPTERS, METRIC, & NPT



SWIVELS & BANJO FITTINGS - METRIC/NPT



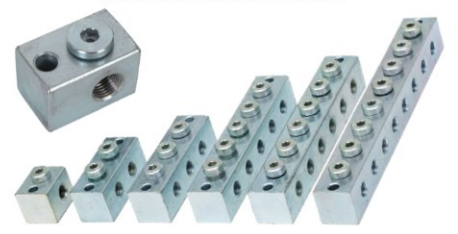
FILL FITTINGS, METRIC & NPT



CHECK (NON-RETURN VALVES) METRIC & NPT



ZERK (MANUAL LUBE) BARS



GREASE (ZERK) FITTINGS, FILL FITTINGS & PLUGS



ANCHOR BLOCKS & HOSE DROPS, NPTF



ANCHOR BLOCKS & HOSE DROPS, NPTF



THE PRODUCTS CONTAINED HEREIN ARE MANUFACTURED BY FRITSCHKE GMBH AND LUBRICATION SCIENTIFICS, LLC

**INDEX**

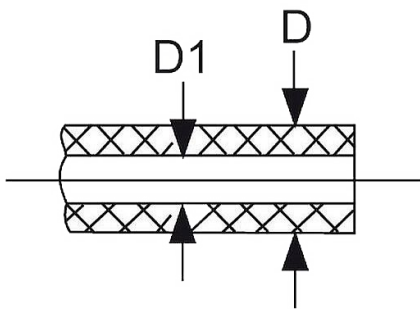
<b>SECTION</b>	<b>PAGE</b>
HIGH PRESSURE HOSE, HOSE ENDS, & CONNECTORS	3-6
MEDIUM PRESSURE HOSE, FITTINGS, & CONNECTORS	7-10
STEEL TUBE FITTINGS, & CONNECTORS	11-14
LUBE POINT EXTENSIONS	15
45° & 90° ELBOW ADAPTERS, METRIC, & NPT	16-17
SWIVELS & BANJO FITTINGS, METRIC & NPT	18-19
FILL FITTINGS, METRIC & NPTF	20
CHECK (NON-RETURN VALVES, METRIC & NPTF)	21-23
ZERK (MANUAL LUBE) BARS	24
GREASE (ZERK) FITTINGS, FILL FITINGS & CLOSURE PLUGS	25
ANCHOR BLOCKS & HOSE DROPS, NPTF	26



## HIGH PRESSURE HOSE, HOSE ENDS, & CONNECTORS

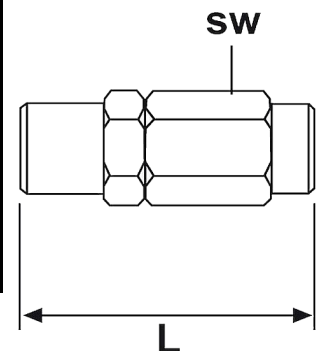
### HIGH PRESSURE HOSE

HIGH PRESSURE HOSE DESCRIPTION	PSI/BAR	D	D1	PART NUMBER
HIGH PRESSURE HOSE FILLED WITH NLGI 2 GREASE , 50 M COIL	12,183/840	8.6MM	4.0MM	<b>LFR100-001</b>
HIGH PRESSURE HOSE, EMPTY , 50 M COIL	12,183/840	8.6MM	4.0M	<b>LFR100-002</b>
HIGH-PRESSURE HOSE FILLED WITH	12,183/840	11.3MM	6.3M	<b>LFR100-011</b>
HIGH-PRESSURE HOSE, EMPTY, 100 M COIL	12,183/840	11.3MM	6.3M	<b>LFR100-012</b>
HIGH-PRESSURE HOSE FILLED WITH NLGI 2 GREASE , 100 M COIL	12,183 / 840	5/16IN	1/8IN	<b>LFR4010-101</b>
HIGH-PRESSURE HOSE, EMPTY, 100	12,183 / 840	5/16IN	1/8IN	<b>LFR4010-100</b>



### HIGH PRESSURE SCREW SLEEVES

SCREW SLEEVE DESCRIPTION	FIG.	HOSE ID X OD	L	SW	PART NUMBER
STEEL THREADED HOSE SLEEVE	1	4,1 x 8,75	28MM	12MM	<b>LFR100-050</b>
STEEL THREADED HOSE SLEEVE	1	1/8 X 5/16	26MM	12MM	<b>LFR100-050-1</b>
THREADED HOSE SLEEVE, BLACK ZINC	1	4,1 x 8,75	28MM	12MM	<b>LFR100-050-SW</b>
SS THREADED HOSE SLEEVE	1	4,1 x 8,75	28MM	12MM	<b>LFR100-050-VA</b>
STEEL THREADED HOSE SLEEVE	1	6.35 X 11.3	35.8MM	17MM	<b>LFR100-060</b>
SS THREADED HOSE SLEEVE	1	6.35 X 11.3	35.8MM	17MM	<b>LFR100-060-VA</b>
SS THREADED HOSE SLEEVE	1	1/8 X 5/16	26MM	1/2IN	<b>LFR3010-001</b>



HIGH PRESSURE STRAIGHT HOSE STUDS

STRAIGHT HOSE STUD DESCRIPTION	FIG.	HOSE ID X OD	G	D	L	SW	SW 1	PART NUMBER
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	6MM	30MM	10MM	N/A	LFR100-051
STEEL HOSE STUD STRAIGHT	4	1/8 X 5/16	1/8 NPT	1/8IN	N/A	7/16IN	N/A	LFR100-051-1
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	8MM	30MM	10MM	N/A	LFR100-051-8
STEEL HOSE STUD STRAIGHT, PUSH LOCK	2	4,1 x 8,75	N/A	6MM	20MM	10MM	N/A	LFR100-051-NUT
SS HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	6MM	30MM	10MM	N/A	LFR100-051-VA
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	6MM	20MM	10MM	N/A	LFR100-054
STEEL HOSE STUD STRAIGHT, PUSH LOCK	1	4,1 x 8,75	N/A	6MM	20MM	10MM	N/A	LFR100-054-NUT
STEEL HOSE STUD STRAIGHT, PUSH LOCK, BLACK	2	4,1 x 8,75	N/A	6MM	21.5MM	10MM	N/A	LFR100-054-NUT-SW
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	6MM	24MM	10MM	N/A	LFR100-055
STEEL HOSE STUD STRAIGHT, HOSE UNION	3	4,1 x 8,75	N/A	N/A	56MM	10MM	N/A	LFR100-061
STEEL HOSE STUD STRAIGHT	1	6.35 X 11.3	N/A	6MM	20MM	12MM	N/A	LFR100-064
STEEL HOSE STUD STRAIGHT, PUSH LOCK	1	6.35 X 11.3	N/A	6MM	20MM	12MM	N/A	LFR100-064-NUT
SS HOSE STUD STRAIGHT	1	6.35 X 11.3	N/A	6MM	20MM	12MM	N/A	LFR100-064-VA
STEEL HOSE STUD STRAIGHT	1	6.35 X 11.3	N/A	8MM	20MM	12MM	N/A	LFR100-074
SS HOSE STUD STRAIGHT	1	6.35 X 11.3	N/A	8MM	20MM	12MM	N/A	LFR100-074-VA
STEEL HOSE STUD STRAIGHT	1	6.35 X 11.3	N/A	10MM	30MM	12MM	N/A	LFR100-081
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	6MM	65.5MM	10MM	N/A	LFR100-091
STEEL HOSE STUD STRAIGHT (NON SWIVEL)	5	4,1 x 8,75	M10 x 1	6LL	N/A	11MM	N/A	LFR3510-101
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	1/4IN	30MM	11MM	N/A	LFR3510-110
STEEL HOSE STUD STRAIGHT, PUSH LOCK	2	4,1 x 8,75	N/A	1/4IN	30MM	11MM	N/A	LFR3510-111
STEEL HOSE STUD STRAIGHT, PUSH LOCK	2	1/8 X 5/16	N/A	1/4IN	1/18IN	7/16IN	N/A	LFR3510-112
STEEL HOSE STUD STRAIGHT	1	4,1 x 8,75	N/A	3/16IN	20MM	10MM	N/A	LFR3510-113
HOSE STUD, STRAIGHT, STEEL, #4 JIC SWIVEL	6	4,1 x 8,75	#4 JIC	N/A	N/A	14MM	14MM	LFR3510-114

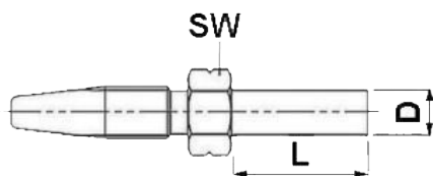


FIG 1

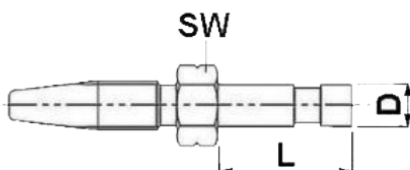


FIG 2

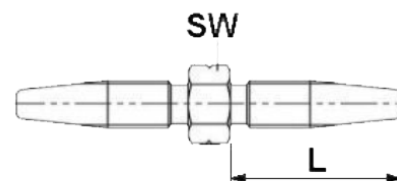


FIG 3

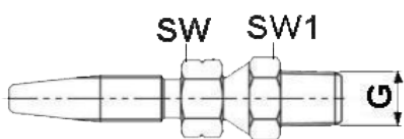


FIG 4

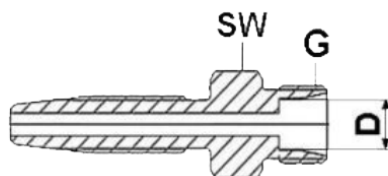


FIG 5

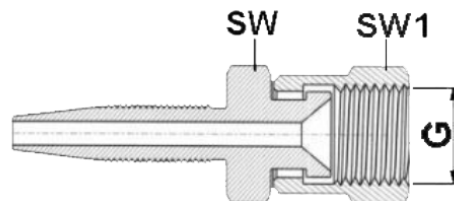


FIG 6

## HIGH PRESSURE 90° HOSE STUDS

90° HOSE STUD DESCRIPTION	FIG.	HOSE ID X OD	D	H	L	SW	SW1	PART NUMBER
STEEL HOSE STUD 90°	1	4,1 x 8,75	6MM	13MM	21MM	10MM	N/A	<b>LFR100-052</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	6MM	28MM	37MM	10MM	N/A	<b>LFR100-053</b>
STEEL HOSE STUD 90°, PUSH LOCK	2	4,1 x 8,75	6MM	28MM	37MM	10MM	N/A	<b>LFR100-053-NUT</b>
STEEL HOSE STUD 90°, PUSH LOCK, BLACK	2	4,1 x 8,75	6MM	28MM	37MM	10MM	N/A	<b>LFR100-053-NUT-SW</b>
SS HOSE STUD 90°	2	4,1 x 8,75	6MM	28MM	37MM	10MM	N/A	<b>LFR100-053-NUT-VA</b>
SS HOSE STUD 90°	1	4,1 x 8,75	6MM	28MM	37MM	10MM	N/A	<b>LFR100-053-VA</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	6MM	28MM	53MM	10MM	N/A	<b>LFR100-056</b>
STEEL HOSE STUD 90°, PUSH LOCK	2	4,1 x 8,75	6MM	28MM	53MM	10MM	N/A	<b>LFR100-056-NUT</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	6MM	14MM	33MM	10MM	N/A	<b>LFR100-059</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	4MM	14MM	30MM	10MM	N/A	<b>LFR100-059-4</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	6MM	17MM	28MM	10MM	N/A	<b>LFR100-062</b>
STEEL HOSE STUD 90°	1	6.35 X 11.3	6MM	22MM	45MM	12MM	N/A	<b>LFR100-063</b>
STEEL HOSE STUD 90°	1	6.35 X 11.3	8MM	23MM	36MM	12MM	N/A	<b>LFR100-073</b>
SS HOSE STUD 90°	1	6.35 X 11.3	8MM	23MM	26MM	12MM	N/A	<b>LFR100-073-VA</b>
STEEL HOSE STUD 90°	1	6.35 X 11.3	8MM	23MM	55MM	12MM	N/A	<b>LFR100-076</b>
STEEL HOSE STUD 90°	1	6.35 X 11.3	10MM	23MM	36MM	12MM	N/A	<b>LFR100-083</b>
STEEL HOSE STUD 90°	2	1/8 X 5/16	1/4IN	1.06IN	1.18IN	7/16IN	N/A	<b>LFR3510-112</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	3/16IN	14MM	32MM	10MM	N/A	<b>LFR3511-113</b>
STEEL HOSE STUD 90°	1	4,1 x 8,75	1/4IN	28MM	37MM	11MM	N/A	<b>LFR3511-110</b>
STEEL HOSE STUD 90°, PUSH LOCK	2	4,1 x 8,75	1/4IN	28MM	37MM	11MM	N/A	<b>LFR3511-111</b>
STEEL HOSE STUD 90°, #JIC SWIVEL	4	4,1 x 8,75	N/A	20.7MM	25.7MM	14MM	14MM	<b>LFR3511-114</b>
SS HOSE STUD 90°	1	6.35 X 11.3	6MM	22MM	45MM	12MM	N/A	<b>LFR3511-210</b>
SS HOSE STUD 90°	1	6.35 X 11.3	10MM	23MM	36MM	12MM	N/A	<b>LFR3511-212</b>

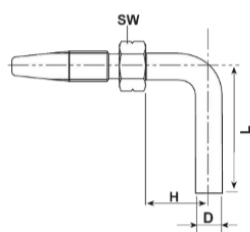


FIG 1

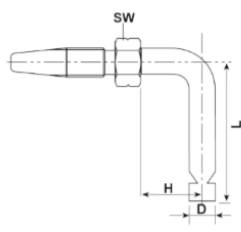


FIG 2

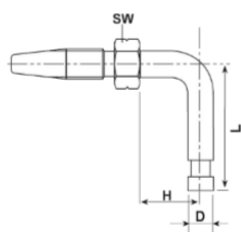


FIG 3

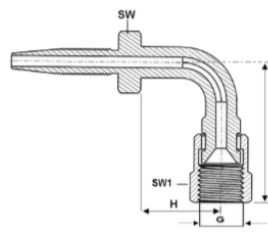


FIG 4

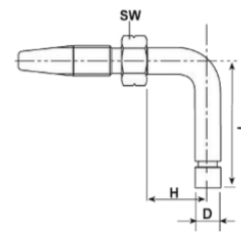


FIG 5

HIGH PRESSURE 45° HOSE STUDS

45° HOSE STUD DESCRIPTION	FIG.	HOSE ID X OD	D	H	L	SW	PART NUMBER
STEEL HOSE STUD 45°	1	4,1 x 8,75	6MM	24MM	15MM	10MM	LFR100-057
STEEL HOSE STUD 45°, PUSH LOCK	2	4,1 x 8,75	6MM	24MM	15MM	10MM	LFR100-057-NUT
STEEL HOSE STUD 45°	1	4,1 x 8,75	6MM	24MM	25MM	10MM	LFR100-058
STEEL HOSE STUD 45°, PUSH LOCK	2	4,1 x 8,75	6MM	35MM	25MM	10MM	LFR100-058-NUT
STEEL HOSE STUD 45°, PUSH LOCK, BLACK	2	4,1 x 8,75	6MM	35MM	25MM	10MM	LFR100-058-NUT-SW
SS HOSE STUD 45°	2	4,1 x 8,75	6MM	35MM	25MM	10MM	LFR100-058-VA
STEEL HOSE STUD 45°	1	6.35 X 11.3	6MM	35MM	25MM	12MM	LFR100-068
STEEL HOSE STUD 45°	1	6.35 X 11.3	8MM	35MM	25MM	12MM	LFR100-078
STEEL HOSE STUD 45°	1	4,1 x 8,75	1/4IN	35MM	25MM	11MM	LFR3512-110
STEEL HOSE STUD 45°, PUSH LOCK	2	4,1 x 8,75	1/4IN	35MM	25MM	11MM	LFR3512-111

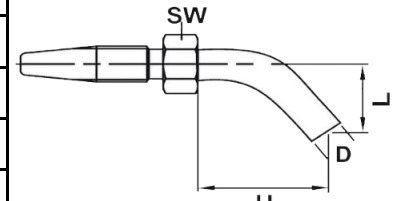


FIG 1

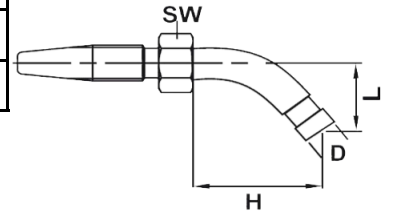
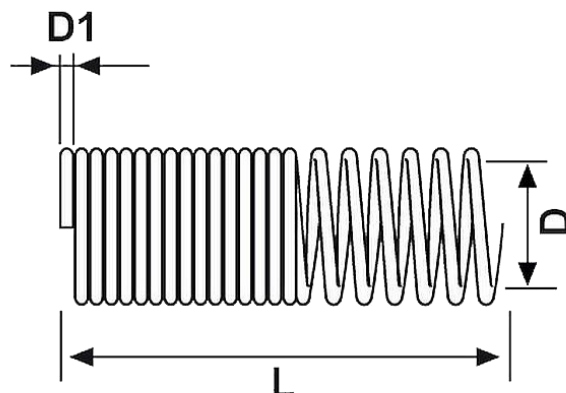


FIG 2

STAINLESS STEEL SPRING COILS FOR SHIELDING HIGH PRESSURE HOSE

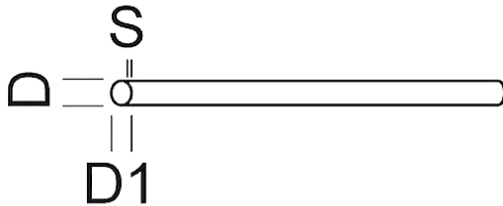
SPRING COIL DESCRIPTION	L	D	D1	PART NUMBER
SS SPRING COIL (SHORT)	200MM	10.6MM	1.2MM	LFR100-045-VA
SS SPRING COIL (LONG)	2000MM	10.6MM	1.2MM	LFR100-046-VA
SS SPRING COIL (LONG)	5000MM	10.6MM	1.2MM	LFR100-047-VA



## MEDIUM PRESSURE HOSE, FITTINGS, & CONNECTORS

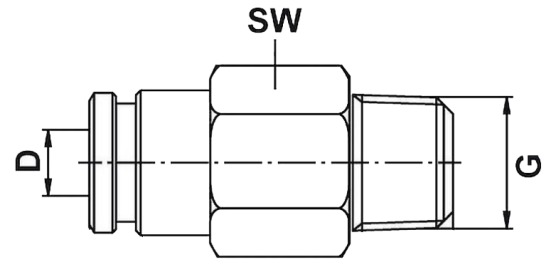
### MEDIUM PRESSURE PLASTIC HOSE

PLASTIC TUBE DESCRIPTION	PSI/BAR	D	D1	S	PART NUMBER
PLASTIC TUBE SEMI-RIGID, 4X.85, 50M COIL (BLACK)	1,044/72	4MM	2.3MM	.85MM	LFR100-010
PLASTIC TUBE SEMI-RIGID, 6X1.5, 100M COIL (BLACK)	1,044/72	6MM	3.0MM	.85MM	LFR100-003
PLASTIC TUBE SEMI-RIGID, 4X.85 50M COIL (BLACK)	1,291/89	4MM	2.3MM	.85MM	LFR100-006
PLASTIC TUBE SEMI-RIGID, 4X.85 50M COIL (CLEAR)	1,291/89	4MM	2.3MM	.85MM	LFR100-006-T
PLASTIC TUBE SEMI-RIGID, 6X1.5, 25M COIL (BLACK)	1,291/89	6MM	3.0MM	1.5MM	LFR100-003-25
HIGH-PRESSURE HOSE FILLED WITH NLGI 2 GREASE , 25 M COIL	1,291/89	6MM	3.0MM	1.5MM	LFR100-009-25



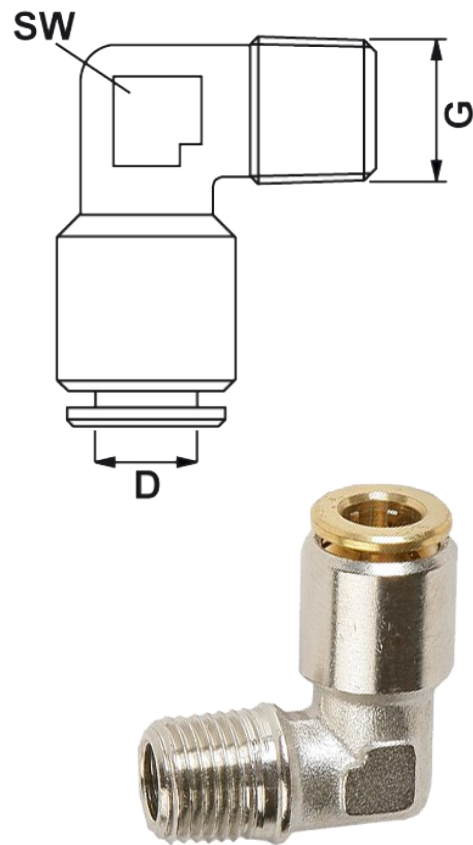
### PUSH-IN STRAIGHT THREADED CONNECTORS FOR MEDIUM PRESSURE HOSE

PUSH-IN STRAIGHT CONNECTOR DESCRIPTION	G	D	SW	PART NUMBER
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	6X1	4MM	10MM	LFR104-051
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	8X1	4MM	10MM	LFR104-052
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	10X1	4MM	11MM	LFR104-053
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/8 BSP	4MM	10MM	LFR104-054
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/8 NPT	4MM	11MM	LFR104-054-NPT
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/4-28 UNF	4MM	11MM	LFR104-055-UNF
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	6X1	4MM	12MM	LFR106-051
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	8X1	6MM	12MM	LFR106-052
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	10X1	6MM	12MM	LFR106-053
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/8 BSP	6MM	12MM	LFR106-054
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/8 NPT	6MM	12MM	LFR106-054-NPT
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/4-28 UNF	6MM	12MM	LFR106-055-UNF
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/4-28 UNF	1/4IN	12MM	LFR2010-101
BRASS PLATED PUSH-IN - STRAIGHT CONNECTORS	1/8 NPT	1/4IN	12MM	LFR2010-102



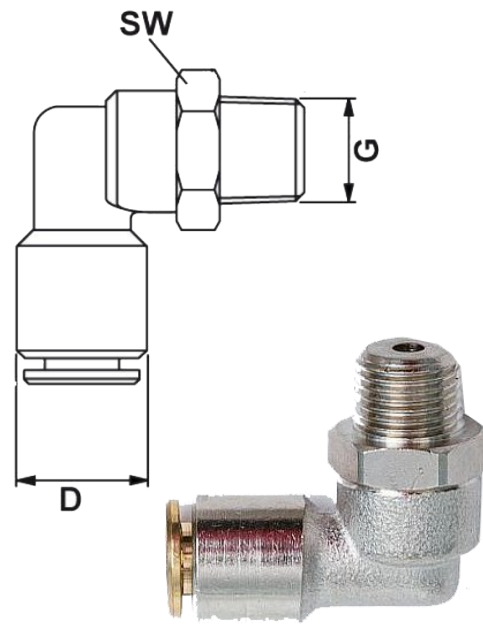
PUSH-IN THREADED ELBOW CONNECTORS FOR MEDIUM PRESSURE HOSE

PUSH-IN ELBOW CONNECTOR DESCRIPTION	G	D	SW	PART NUMBER
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	6X1	4MM	10MM	LFR104-151
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	8X1	4MM	10MM	LFR104-152
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	10X1	4MM	10MM	LFR104-153
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/8 BSP	4MM	10MM	LFR104-154
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/8 NPT	4MM	10MM	LFR104-154-NPT
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/4-28 UNF	4MM	10MM	LFR104-155-UNF
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	6X1	6MM	10MM	LFR106-151
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	8X1	6MM	10MM	LFR106-152
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	10X1	6MM	10MM	LFR106-153
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/8 BSP	6MM	10MM	LFR106-154
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/8 NPT	6MM	10MM	LFR106-154-NPT
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/4-28 UNF	6MM	10MM	LFR106-155-UNF
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/4-28 UNF	1/4IN	10MM	LFR2011-101
BRASS PLATED PUSH-IN ELBOW-CONNECTORS	1/8 NPT	1/4IN	10MM	LFR2011-102



PUSH-IN-90° THREADED SWIVELS FOR MEDIUM PRESSURE HOSE

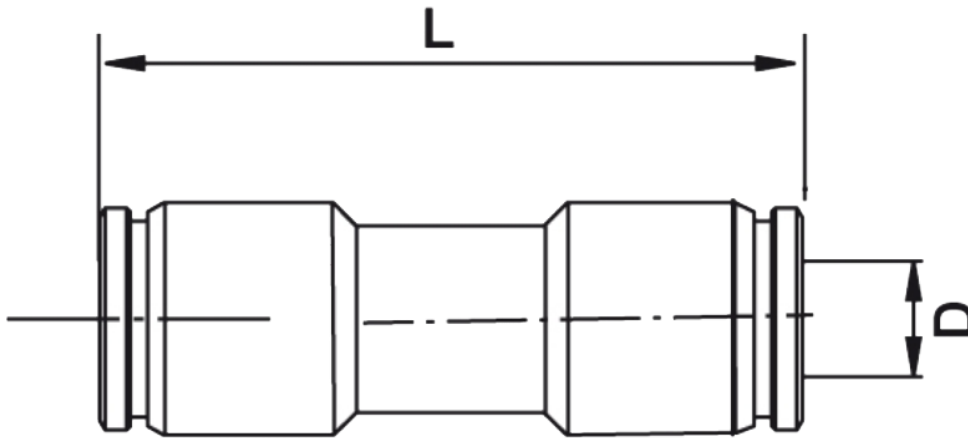
PUSH-IN-90° SWIVEL DESCRIPTION	G	D	SW	PART NUMBER
BRASS PLATED PUSH-IN-90° SWIVELS	6X1	4MM	13MM	LFR104-111
BRASS PLATED PUSH-IN-90° SWIVELS	8X1	4MM	13MM	LFR104-112
BRASS PLATED PUSH-IN-90° SWIVELS	10X1	4MM	13MM	LFR104-113
BRASS PLATED PUSH-IN-90° SWIVELS	1/8 BSP	4MM	13MM	LFR104-114
BRASS PLATED PUSH-IN-90° SWIVELS	1/8 NPT	4MM	13MM	LFR104-114-NPT
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/4-28 UNF	4MM	13MM	LFR104-115-UNF
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	6X1	6MM	13MM	LFR106-111
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	8X1	6MM	13MM	LFR106-112
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	10X1	6MM	13MM	LFR106-113
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/8 BSP	6MM	13MM	LFR106-114
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/8 NPT	6MM	13MM	LFR106-114-NPT
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/4-28 UNF	6MM	13MM	LFR106-115-UNF
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/8 NPT	1/4IN	13MM	LFR2012-102
BRASS PLATED PUSH-IN-90° SWIVELS, FREELY MOVABLE	1/4-28 UNF	1/4IN	13MM	LFR2012-101



\*OPERATING PRESSURE OF ALL PUSH-IN FITTING IS 1160 PSI / 80 BAR

PUSH-IN TUBING CONNECTORS FOR MEDIUM PRESSURE HOSE

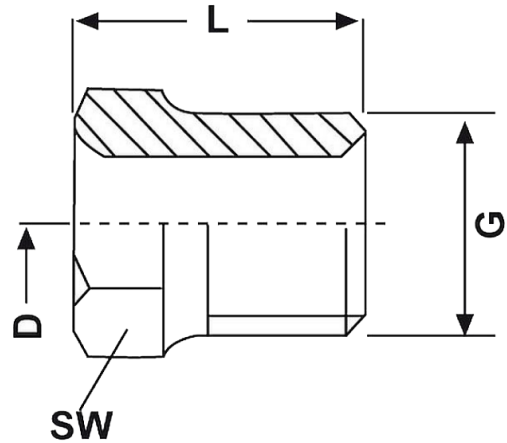
PUSH-IN CONNECTOR DESCRIPTION	D	L	PART NUMBER
BRASS PLATED PUSH-IN CONNECTORS	4MM	30MM	LFR104-110
BRASS PLATED PUSH-IN CONNECTORS	6MM	33.5MM	LFR106-110
BRASS PLATED PUSH-IN CONNECTORS	1/4IN	35.5MM	LFR2013-100



\*OPERATING PRESSURE OF ALL PUSH-IN FITTING IS 1160 PSI / 80 BAR

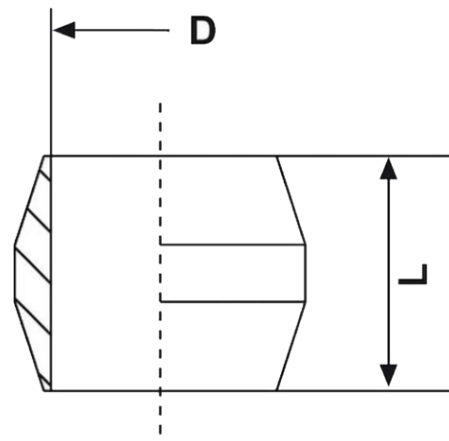
SOCKET UNION FOR DOUBLE CONE FERRULES (DRIVES) FOR PLASTIC TUBE

SOCKET UNION FOR DOUBLE CONE DRIVE DESCRIPTION	G	D	L	SW	PART NUMBER
STEEL SOCKET UNION FOR DOUBLE CONE	8X1	4MM	12MM	8MM	LFR104-205
STEEL SOCKET UNION FOR DOUBLE CONE	10X1	6MM	14MM	10MM	LFR106-205



DOUBLE CONE FERRULES (DRIVES) FOR PLASTIC TUBE

DOUBLE CONE DRIVE DESCRIPTION	D	L	PART NUMBER
BRASS DOUBLE CONE DRIVE	4MM	5.5MM	LFR104-215
BRASS DOUBLE CONE DRIVE	6MM	7MM	LFR106-215
SS M10 X 1.0 PLUG	4MM	7MM	1202-400
SS TUBE NUT	6MM	7MM	FL316-401-6
M10 X 1.0 CONNECTOR	6MM	7MM	1202-401-6
SS M10 X 1.0 CONNECTOR	4MM	7MM	1202-401-4MK
SS M10 X 1.0 CONNECTOR	6MM	7MM	1202-401-6MK

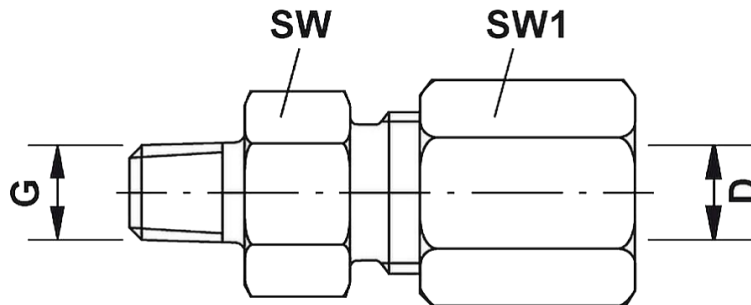




## STEEL TUBE FITTINGS & CONNECTORS

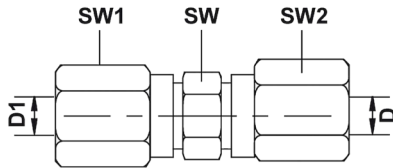
### STRAIGHT SCREW COUPLINGS FOR STEEL TUBE

STRAIGHT SCREW COUPLING DESCRIPTION	G	D	SW	SW1	PART NUMBER
STEEL STRAIGHT SCREW COUPLING	6X1	4MM	9MM	10MM	LFR104-001
STEEL STRAIGHT SCREW COUPLING	10X1	4MM	9MM	10MM	LFR104-002
STEEL STRAIGHT SCREW COUPLING	10X1	4MM	11MM	10MM	LFR104-003
STEEL STRAIGHT SCREW COUPLING	6X1	6MM	11MM	12MM	LFR106-001
SS STRAIGHT SCREW COUPLING	6X1	6MM	11MM	12MM	LFR106-001-VA
STEEL STRAIGHT SCREW COUPLING	8X1	6MM	11MM	12MM	LFR106-002
SS STRAIGHT SCREW COUPLING	8X1	6MM	11MM	12MM	LFR106-002-VA
STEEL STRAIGHT SCREW COUPLING	10X1	6MM	11MM	12MM	LFR106-003
SS STRAIGHT SCREW COUPLING	10X1	6MM	11MM	12MM	LFR106-003-VA
STEEL STRAIGHT SCREW COUPLING	1/8 BSP	6MM	11MM	12MM	LFR106-004
SS STRAIGHT SCREW COUPLING	1/8 BSP	6MM	11MM	12MM	LFR106-004-VA
STEEL STRAIGHT SCREW COUPLING	1/8 NPT	6MM	11MM	12MM	LFR106-004-NPT
STEEL STRAIGHT SCREW COUPLING	1/4 BSP	6MM	19MM	14MM	LFR106-005-L
STEEL STRAIGHT SCREW COUPLING	10X1	8MM	14MM	14MM	LFR108-003
SS STRAIGHT SCREW COUPLING	10X1	8MM	17MM	17MM	LFR108-003-VA-L
STEEL MALE CONNECTOR, STRAIGHT COUPLING	1/8 BSP	8MM	19MM	14MM	LFR108-004-L
STEEL STRAIGHT SCREW COUPLING	1/4 BSP	8MM	19MM	17MM	LFR108-005-L



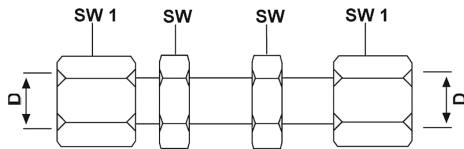
STRAIGHT CONNECTORS FOR STEEL TUBE

STRAIGHT CONNECTOR DESCRIPTION	D	D1	SW	SW1	SW2	PART NUMBER
STEEL CONNECTOR STRAIGHT	4MM	4MM	11MM	10MM	12MM	LFR104-000-6
SS CONNECTOR STRAIGHT	4MM	4MM	9MM	10MM	10MM	LFR104-000-VA
STEEL CONNECTOR STRAIGHT	6MM	6MM	11MM	12MM	12MM	LFR106-000
SS CONNECTOR STRAIGHT	6MM	6MM	10MM	11MM	12MM	LFR106-000-VA



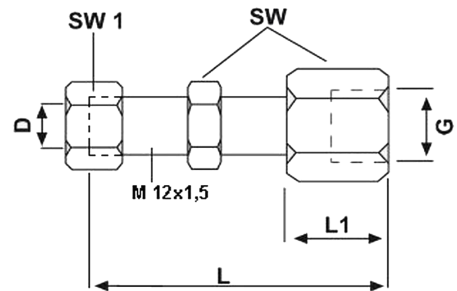
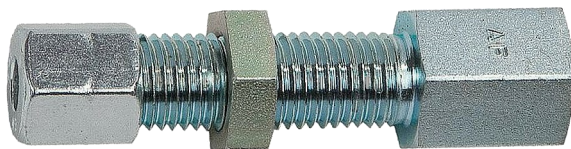
STRAIGHT BULKHEAD FOR STEEL TUBE

STRAIGHT BULKHEAD DESCRIPTION	D	SW	SW1	PART NUMBER
STEEL BULKHEAD STRAIGHT	6MM	17MM	14MM	LFR106-221-L



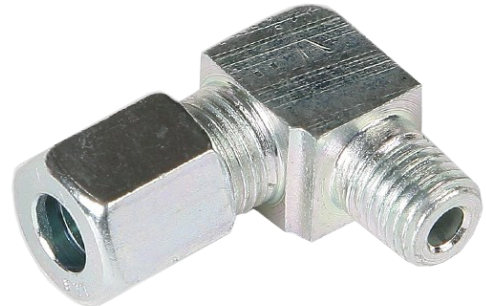
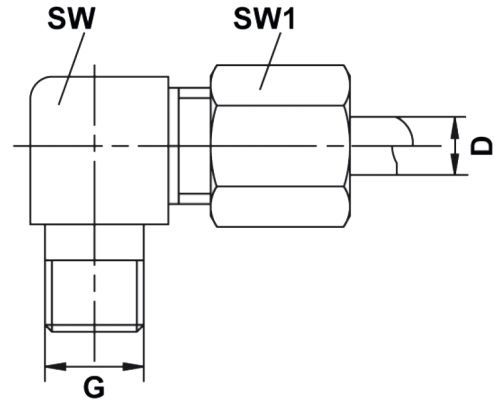
STRAIGHT BULKHEAD M 6x1 / M 10x1 FOR STEEL TUBE

STRAIGHT BULKHEAD DESCRIPTION	G	D	SW	SW1	L	L1	PART NUMBER
STEEL BULKHEAD STRAIGHT	10X1	6MM	17MM	14MM	60MM	20MM	LFR106-243-L



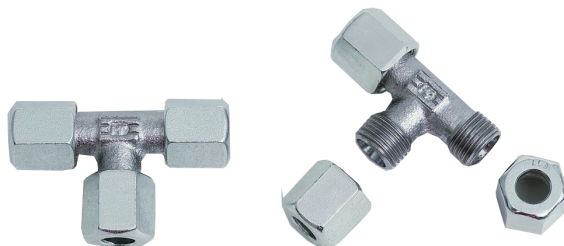
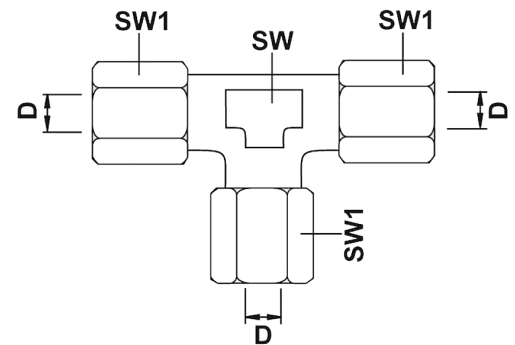
ELBOW SCREW FITTINGS FOR STEEL TUBE

ELBOW SCREW FITTING DESCRIPTION	G	D	SW	SW1	PART NUMBER
STEEL ELBOW SCREW FITTING COMPLETE	6X1	4MM	9MM	10MM	LFR104-101
STEEL ELBOW SCREW FITTING COMPLETE	8X1	4MM	9MM	10MM	LFR104-102
STEEL ELBOW SCREW FITTING COMPLETE	10X1	4MM	11MM	10MM	LFR104-103
STEEL ELBOW SCREW FITTING COMPLETE	1/8 BSP	4MM	11MM	10MM	LFR104-104
STEEL ELBOW SCREW FITTING COMPLETE	6X1	6MM	11MM	12MM	LFR106-101
SS ELBOW SCREW FITTING COMPLETE	6X1	6MM	11MM	12MM	LFR106-101-VA
STEEL ELBOW SCREW FITTING COMPLETE	8X1	6MM	11MM <td 12MM	LFR106-102	
SS ELBOW SCREW FITTING COMPLETE	8X1	6MM	11MM	12MM	LFR106-102-VA
STEEL ELBOW SCREW FITTING COMPLETE	10X1	6MM	11MM	12MM	LFR106-103
SS ELBOW SCREW FITTING COMPLETE	10X1	6MM	11MM	12MM	LFR106-103-VA
STEEL ELBOW SCREW FITTING COMPLETE	1/8 BSP	6MM	11MM	12MM	LFR106-104
STEEL ELBOW SCREW FITTING COMPLETE	1/8 NPT	6MM	11MM	12MM	LFR106-104-NPT
SS ELBOW SCREW FITTING COMPLETE	1/8 BSP	6MM	11MM	12MM	LFR106-104-VA
STEEL ELBOW SCREW FITTING COMPLETE	1/4 BSP	6MM	12MM	14MM	LFR106-105-L
STEEL ELBOW SCREW FITTING COMPLETE	10X1	8MM	12MM	14MM	LFR108-103
STEEL ELBOW SCREW FITTING COMPLETE	1/4 BSP	8MM	12MM	17MM	LFR108-105-L



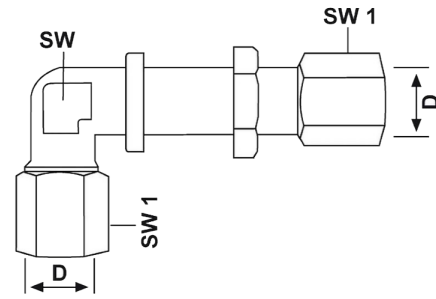
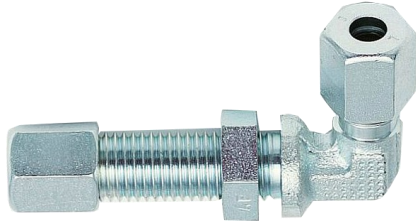
EQUAL TEE CONNECTORS FOR STEEL TUBE

EQUAL TEE CONNECTOR DESCRIPTION	D	SW	SW1	PART NUMBER
STEEL EQUAL TEE CONNECTOR	4MM	9MM	10MM	LFR104-300
STEEL EQUAL TEE CONNECTOR	6MM	11MM	12MM	LFR106-300
STEEL EQUAL TEE CONNECTOR	6MM	12MM	14MM	LFR106-300-L
STEEL EQUAL TEE CONNECTOR	8MM	12MM	14MM	LFR108-300
STEEL EQUAL TEE CONNECTOR	8MM	12MM	17MM	LFR108-300-L



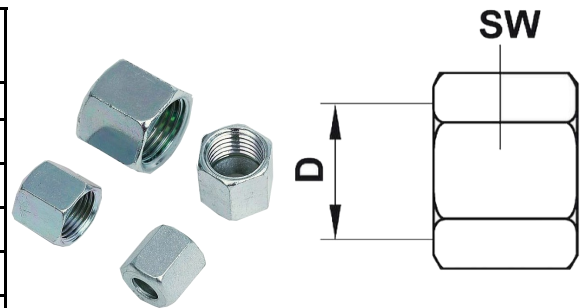
BULKHEAD ELBOW FOR STEEL TUBE

BULKHEAD ELBOW DESCRIPTION	D	SW	SW1	PART NUMBER
STEEL BULKHEAD ELBOW	6MM	12MM	14MM	LFR106-231-L



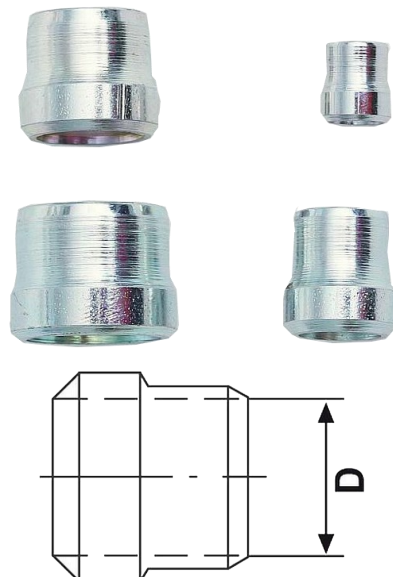
COUPLING NUTS FOR STEEL TUBE

EQUAL TEE CONNECTOR DESCRIPTION	D	SW	PART NUMBER
STEEL COUPLING NUT	6MM	17MM	LFR106-200-S
STEEL COUPLING NUT	6MM	14MM	LFR106-200-L
SS COUPLING NUT	6MM	12MM	LFR106-200-VA
STEEL COUPLING NUT	8MM	14MM	LFR108-200
STEEL COUPLING NUT	10MM	19MM	LFR110-200-L
STEEL COUPLING NUT	4MM	10MM	LFR104-200



CUTTING RINGS FOR STEEL TUBE

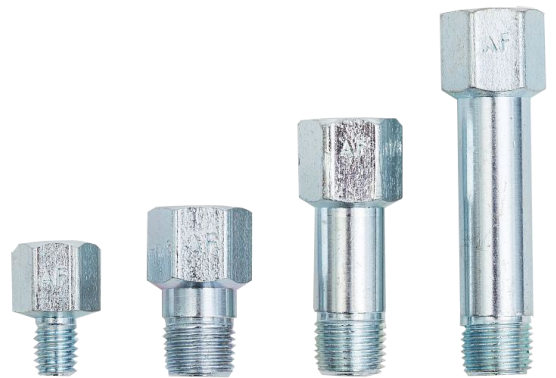
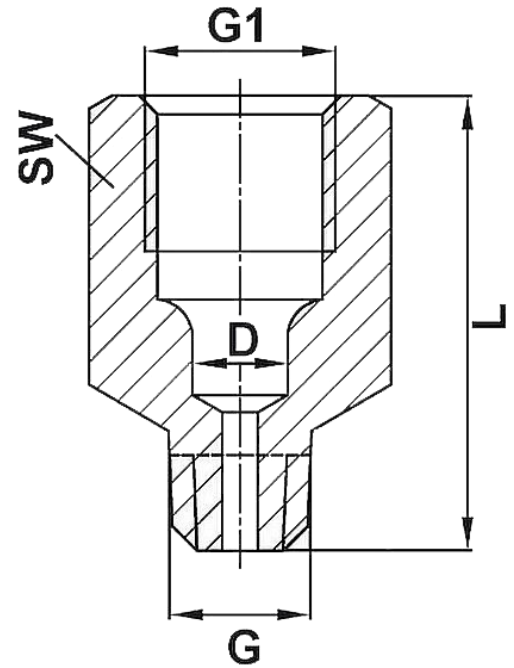
CUTTING RING DESCRIPTION	D	PART NUMBER
STEEL CUTTING RING	4MM	LFR104-210
STEEL CUTTING RING,	6MM	LFR106-210
STEEL CUTTING RING	10MM	LFR106-210-L
BRASS CUTTING RING	6MM	LFR106-210-MS
SS CUTTING RING	6MM	LFR106-210-VA
STEEL CUTTING RING	8MM	LFR108-210
STEEL CUTTING RING	10MM	LFR110-210-L



# LUBE POINT EXTENSIONS

## EXTENSIONS

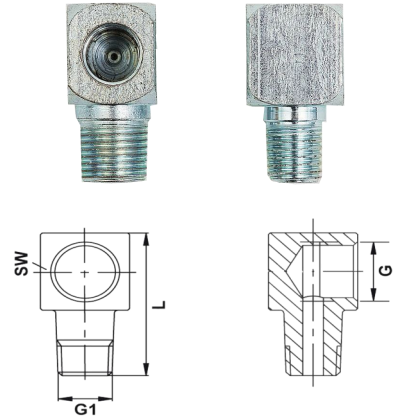
EXTENSION PIECE DESCRIPTION	G	G1	L	SW	PART NUMBER
STEEL EXTENSION PIECE - ADAPTER	(M) 6X1	(F) 8X1	19MM	11MM	<b>LFR100-120</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 8X1	(F) 8X1	18MM	11MM	<b>LFR100-130</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 8X1	(F) 8X1	32MM	11MM	<b>LFR100-132</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 8X1	(F) 8X1	62.5MM	11MM	<b>LFR100-135</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 8X1	(F) 10X1	23MM	13MM	<b>LFR100-137</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 8X1	18MM	11MM	<b>LFR100-140</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 10X1	23MM	13MM	<b>LFR100-141</b>
SS ADAPTER	(M) 10X1	(F) 10X1	23MM	13MM	<b>LFR100-141-VA</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 10X1	18MM	13MM	<b>LFR100-142</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 10X1	40MM	13MM	<b>LFR100-143</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 1/8 BSP	(F) 10X1	20MM	17MM	<b>LFR100-144</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 10X1	35MM	13MM	<b>LFR100-145</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 10X1	(F) 10X1	50MM	13MM	<b>LFR100-146</b>
STEEL EXTENSION PIECE - ADAPTER	(M) 1/4 BSP	(F) 1/8 BSP	20MM	17MM	<b>LFR100-147</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 1/8 BSP	23MM	13MM	<b>LFR100-148</b>
SS ADAPTER	(M) 1/8 BSP	(F) 1/8 BSP	23MM	13MM	<b>LFR100-148-VA</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 1/8 BSP	35MM	13MM	<b>LFR100-149</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 10X1	18MM	13MM	<b>LFR100-151</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 1/8 BSP	18MM	13MM	<b>LFR100-152</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 1/8 BSP	50MM	13MM	<b>LFR100-153</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 1/8 BSP	(F) 1/4 BSP	22MM	17MM	<b>LFR100-162</b>
STEEL ADAPTER, EXTENSION PIECE	(M) 10X1	(F) 1/4 BSP	22MM	17MM	<b>LFR100-171</b>
SS ADAPTER	(M) 6X1	(F) 10X1	18MM	13MM	<b>LFR2510-201</b>
SS ADAPTER	(M) 6X1	(F) 10X1	35MM	13MM	<b>LFR2510-202</b>
SS ADAPTER	(M) 6X1	(F) 10X1	50MM	13MM	<b>LFR2510-203</b>
SS ADAPTER	(M) 1/8 BSP	(F) 1/8 BSP	18MM	11MM	<b>LFR2510-204</b>
SS ADAPTER	(M) 1/8 BSP	(F) 1/8 BSP	35MM	13MM	<b>LFR2510-205</b>
SS ADAPTER	(M) 1/8 BSP	(F) 1/8 BSP	50MM	13MM	<b>LFR2510-206</b>



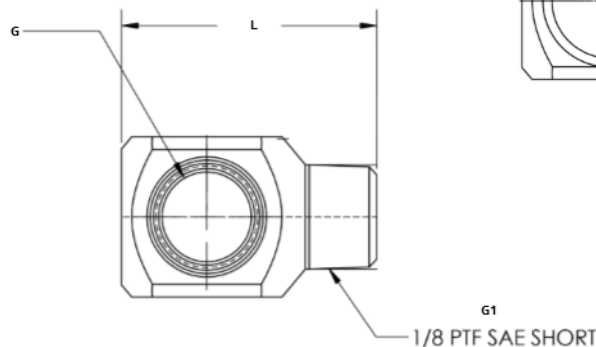
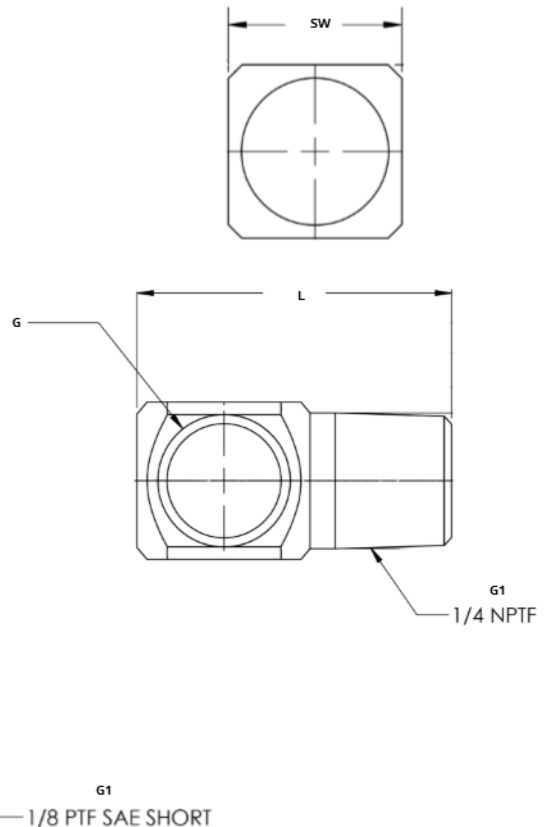
## 45° & 90° ELBOW ADAPTERS - METRIC/NPT

### 90° ELBOW ADAPTERS - METRIC

METRIC 90° ADAPTER DESCRIPTION	G	G1	L	SW	PART NUMBER
METRIC, STEEL ADAPTER 90°	(M) 8X1	(F) 8X1	23MM	12MM	LFR100-722
METRIC, STEEL ADAPTER 90°	(M) 10X1	(F) 10X1	23MM	13MM	LFR100-733
METRIC, STEEL ADAPTER 90°	(M) 1/8 BSP	(F) 1/8 BSP	23MM	13MM	LFR100-744
METRIC, SS ADAPTER 90°	(M) 10X1	(F) 10X1	23MM	13MM	LFR5011-201

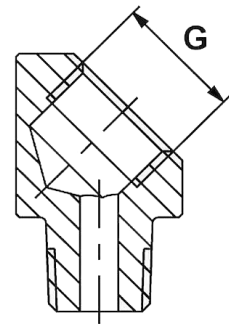
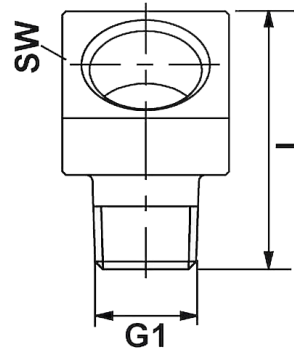


US 90° ADAPTER DESCRIPTION	G	G1	L	SW	PART NUMBER
US, 1/4 NPTF SS 303 ADAPTER 90°	(M) 1/4 NPSF	(F) 1/4 NPTF	1.25"	.625"	L590113-303
US, 1/4 NPTF SS 316 ADAPTER 90°	(M) 1/4 NPSF	(F) 1/4 NPTF	1.25"	.625"	L590113-316
US, 1/8 NPTF SS 303 ADAPTER 90°	(M) 1/8 NPSF	(F) 1/8 NPTF	1.00"	.625"	L590110-NPSF-303
US, 1/8 NPTF SS 316 ADAPTER 90°	(M) 1/8 NPSF	(F) 1/8 PTF SAE SHORT	1.00"	.625"	L590110-316



45° ELBOW ADAPTERS - METRIC

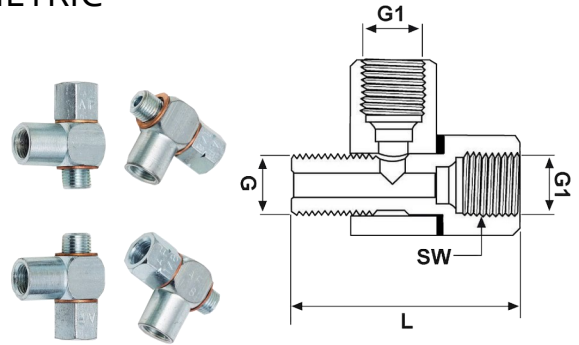
45° ADAPTER DESCRIPTION	G	G1	L	SW	PART NUMBER
STEEL ADAPTER 45°	(M) 8X1	(F) 8X1	23MM	13MM	LFR100-822
STEEL ADAPTER 45°	(M) 10X1	(F) 10X1	23MM	13MM	LFR100-833
STEEL ADAPTER 45°	(M) 1/8 BSP	(F) 1/8 BSP	23MM	13MM	LFR100-844
SS ADAPTER 45°	(M) 10X1	(F) 10X1	23MM	13MM	LFR5010-201



## SWIVELS & BANJO FITTINGS - METRIC/NPT

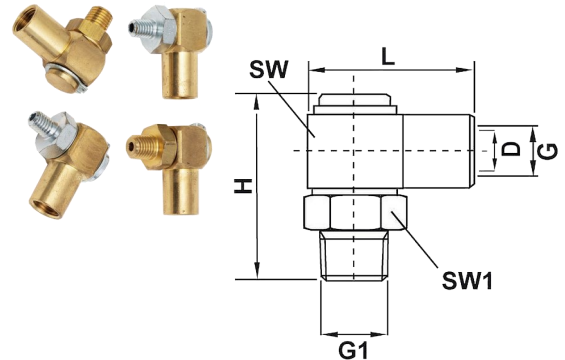
### T-BANJO FITTINGS - METRIC

T-BANJO FITTING DESCRIPTION	G	G1	L	SW	PART NUMBER
ZINC PLATED STEEL T-BANJO SWIVEL FITTING	10X1	10X1	35MM	14MM	LFR1100-323



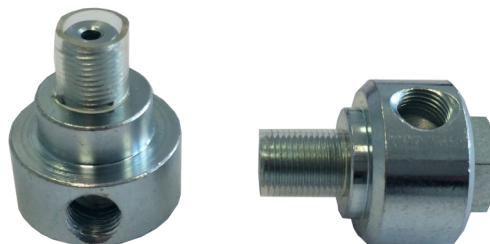
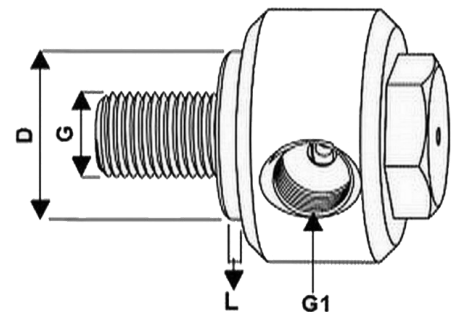
### 90° BANJO FITTINGS - METRIC

BANJO FITTING DESCRIPTION	G	G1	L	SW	SW1	D	H	PART NUMBER
BRASS BANJO FITTING FREELY MOVABLE 90°	(M) 8X1	(M) 8X1	26.5MM	15MM	14MM	4MM	30MM	LFR106-172
BRASS BANJO FITTING FREELY MOVABLE 90°	(M) 8X1	(M) 10X1	26.5MM	15MM	14MM	4MM	30MM	LFR106-173
BRASS BANJO FITTING FREELY MOVABLE 90°	(M) 8X1	1/8 BSP	29MM	15MM	14MM	6MM	30MM	LFR106-174



### BANJOS FOR CONSTRUCTION VEHICLES - METRIC

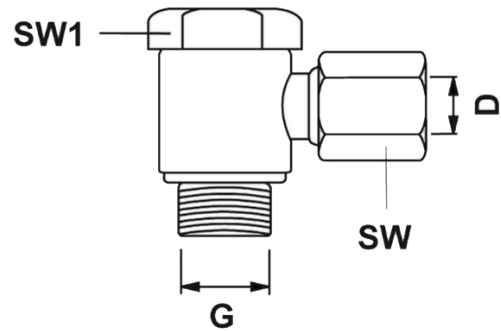
BANJOS FOR CONSTRUCTION VEHICLES DESCRIPTION	G	G1	L	D	PART NUMBER
STEEL SWIVEL UNION 90°	10X1	10X1	3MM	20MM	LFR1021-101
STEEL SWIVEL UNION 90°	10X1	10X1	8MM	20MM	LFR1021-102
STEEL SWIVEL UNION 90°	1/8 BSP	1/8 BSP	3MM	20MM	LFR1022-101
STEEL SWIVEL UNION 90°	1/8 BSP	1/8 BSP	8MM	20MM	LFR1022-102





SWIVEL UNIONS - METRIC

SWIVEL UNION DESCRIPTION	G	D	SW	SW1	PART NUMBER
STEEL SWIVEL UNION 90°	10X1	6MM	10MM	14MM	LFR106-123
STEEL SWIVEL UNION 90°	10X1	4MM	10MM	14MM	LFR1022-110



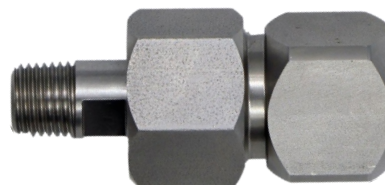
SWIVEL VALVE ASSEMBLIES - NPT

PRODUCT DESCRIPTION	CONNECTION TYPE	MATERIAL	PART NUMBER
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90° ELBOW	CRS	L509405-000
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90° ELBOW	303 SS	L509405-303
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	90° ELBOW	316 SS	L509405-316
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	CRS	L509406-000
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	303 SS	L509406-303
SWIVEL ASSEMBLY 1/4 NPTF X 1/4 NPSF	STRAIGHT	316 SS	L509406-316

90 DEGREE ELBOW CONNECTION



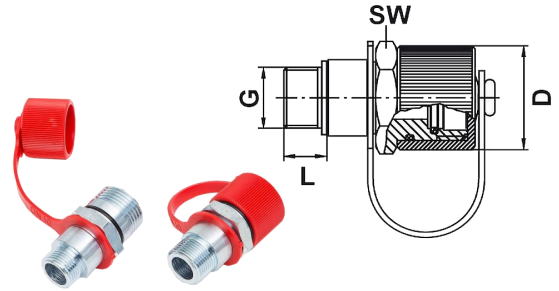
STRAIGHT CONNECTION



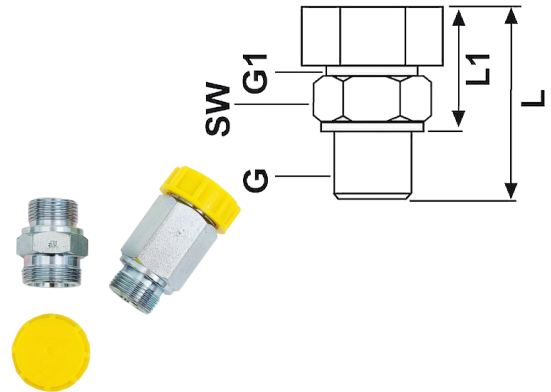
## FILL FITTINGS - METRIC/NPTF

### FILLING CONNECTION ADAPTERS

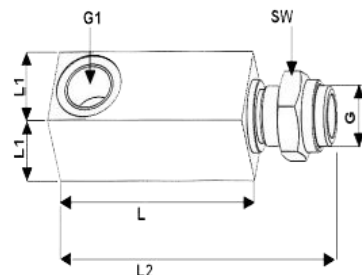
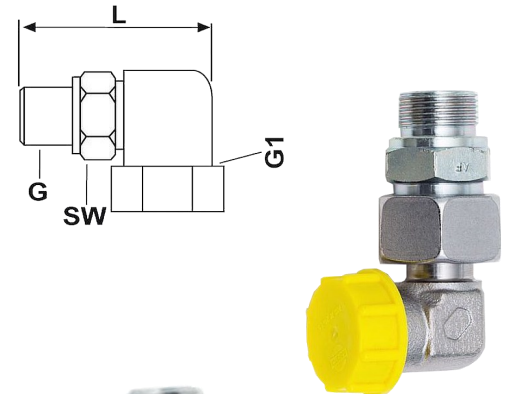
FILLING CONNECTION FOR FILLING PUMP DESCRIPTION	G	D	SW	PART NUMBER
STEEL FILLING CONNECTION FOR FILLING PUMP LFR100-201	(M) 20X1.5	34MM	32MM	LFR100-200
STEEL FILLING CONNECTION FOR FILLING PUMP LFR100-201	(M) 22X1.5	34MM	32MM	LFR100-208



STRAIGHT FILLING CONNECTION DESCRIPTION	G	G1	L	L1	SW	PART NUMBER
STEEL FILLING CONNECTION STRAIGHT	(M) 22X1.5	(M) 26X1.5	38MM	26MM	27MM	LFR100-202
STEEL FILLING CONNECTION STRAIGHT	(M) 20X1.5	(M) 26X1.5	60MM	48MM	27MM	LFR100-207



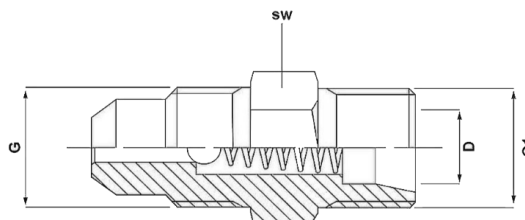
90° FILLING CONNECTION DESCRIPTION	G	G1	L	L1	L2	SW	PART NUMBER
STEEL ADAPTER FILLING CONNECTION 90° WITH STUB	(M) 20X1.5	(M) 20X1.5	82MM	30MM	115MM	27MM	LFR5022-101
STEEL ADAPTER FILLING CONNECTION 90° WITH STUB	(M) 20X1.5	(M) 20X1.5	47MM	30MM	80MM	27MM	LFR5022-102
STEEL ADAPTER FILLING CONNECTION 90° WITH STUB	(M) 22X1.5	(M) 22X1.5	82MM	30MM	115MM	27MM	LFR5022-103
STEEL ADAPTER FILLING CONNECTION 90° WITH STUB	(M) 22X1.5	(M) 22X1.5	47MM	30MM	80MM	27MM	LFR5022-104
STEEL FILLING CONNECTION 90° WITHOUT STUB	(M) 22X1.5	(M) 26X1.5	71MM	N/A	N/A	27MM	LFR100-203



## CHECK (NON-RETURN VALVES - METRIC/NPTF)

### NON-RETURN VALVES

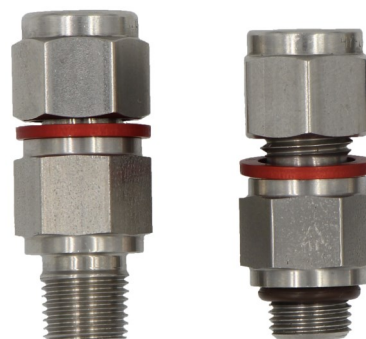
NON-RETURN VALVE DESCRIPTION	G	G1	D	SW	SW1	PART NUMBER
STEEL NON-RETURN VALVE COMPLETE	10X1	10X1	6MM	11MM	12MM	<b>LF106-003-RVB</b>
STEEL NON-RETURN VALVE COMPLETE	10X1	10X1	6MM	11MM	12MM	<b>LF106-003-RVL</b>
STEEL NON-RETURN VALVE COMPLETE	10X1	10X1	6MM	11MM	12MM	<b>LF106-003-RVV</b>
STEEL NON-RETURN VALVE ADAPTER 24° WITHOUT CLAMPING RING	10X1	10X1	6MM	11MM	N/A	<b>LF106-033-RVB</b>
STEEL NON-RETURN VALVE ADAPTER 24° WITH CLAMPING RING	10X1	10X1	6MM	11MM	N/A	<b>LF106-033-RVL</b>
STEEL NON-RETURN VALVE ADAPTER 24°	10X1	10X1	6MM	11MM	N/A	<b>LF106-033-RVV</b>



## CHECK VALVES—OCV SERIES - NPT

### OUTLET TYPE WITH SINGLE BALL

CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPTF (M)	1/4" TUBE	35	OCV-303-125-NPTF	OCV-316-125-NPTF	INTEGRAL TUBE FITTING
1/8" ORS (M)	1/4" TUBE	35	OCV-303-125-ORS	OCV-316-125-ORS	INTEGRAL TUBE FITTING
1/8" BSPP (M)	6MM TUBE	35	OCV-303-125-BSPP	OCV-316-125-BSPP	INTEGRAL TUBE FITTING
M10 ISO (M)	6MM TUBE	35	OCV-303-125-ISO	OCV-316-125-ISO	INTEGRAL TUBE FITTING
7/16"-20 SAE (M)	1/4" TUBE	35	OCV-303-125-SAE	OCV-316-125-SAE	INTEGRAL TUBE FITTING



## CHECK VALVES - OCV SERIES - NPT

### OUTLET TYPE WITH SINGLE BALL CHECK VALVES

CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/8" NPSF (M)	1/8" NPTF (F)	35	OCV-303-125R-35	OCV-316-125R-35	TUBE FITTING
1/8" NPSF (M)	1/8" NPTF (F)	60	OCV-303-125R-60	OCV-316-125R-60	TUBE FITTING
1/8" NPSF (M)	1/8" NPTF (F)	250	OCV-303-125R-250	OCV-316-125R-250	TUBE FITTING
1/4" NPTF (M)	1/4" NPSF (F)	35	OCV-303-250R-35	OCV-316-250R-35	TUBE FITTING



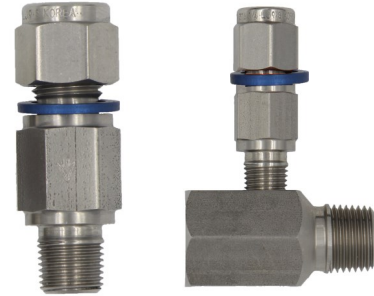
\* FOR CHECK VALVE BULLETINS AND OPERATION/FUNCTION DETAILS PLEASE REFER TO BULLETINS: LSM011 & LSM029

## CHECK (NON-RETURN VALVES - METRIC/NPTF) (CONTINUED)

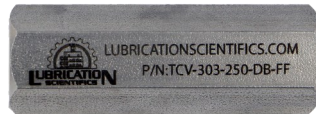
### CHECK VALVES - TCV SERIES - NPT TERMINATING (INJECTION) DOUBLE BALL CHECK VALVES

CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL OPEN PSI	303 STAINLESS	316 STAINLESS	ADAPTER REQUIREMENTS
1/4" TUBE	1/8" NPTF (M)	35	TCV-303-125-NPTF	TCV-316-125-NPTF	INTEGRAL TUBE FITTING
6MM TUBE	1/8" BSPP (M)	35	TCV-303-125-BSPP	TCV-316-125-BSPP	INTEGRAL TUBE FITTING
6MM TUBE	M10 (M)	35	TCV-303-125-ISO	TCV-316-125-ISO	INTEGRAL TUBE FITTING
1/4" TUBE	7/16"-20 SAE	35	TCV-303-125-SAE	TCV-316-125-SAE	INTEGRAL TUBE FITTING
1/4" NPSF (F)**	1/4" NPSF (F)	50	TCV-303-250-DB-	TCV-316-250-DB-FF	INLET & OUTLET
1/4" NPSF (F)**	1/8" NPTF (M)	50	TCV-303-250-DB-FM2	TCV-316-250-DB-FM2	INLET
1/4" NPSF (F)**	1/4" NPTF (M)	50	TCV-303-250-DB-FM4	TCV-316-250-DB-FM4	INLET

#### INTEGRAL ADAPTER



\*\* HIGH OUTPUT



#### HIGH OUTPUT ADAPTER



### CHECK VALVES - TCV SERIES - NPT TERMINATING (INJECTION) SINGLE BALL CHECK VALVES

CHECK VALVE DESCRIPTION			PART NUMBER		
INLET SIZE	OUTLET SIZE	BALL	303 STAINLESS	316 STAINLESS	ADAPTER
1/8" NPSF (F)	1/8" NPTF (M)	35	TCV-303-125-35	TCV-316-125-35	TUBE FITTING
1/8" NPSF (F)	1/8" NPTF (M)	60	TCV-303-125-60	TCV-316-125-60	TUBE FITTING
1/8" NPSF (F)	1/8" NPTF (M)	250	TCV-303-125-250	TCV-316-125-250	TUBE FITTING
1/4"NPTF (F)	1/4" NPSF (M)	35	TCV-303-250-35	TCV-316-250-35	TUBE FITTING



\* FOR CHECK VALVE BULLETINS AND OPERATION/FUNCTION DETAILS PLEASE REFER TO BULLETINS: LSM011 & LSM029

## CHECK (NON-RETURN VALVES - METRIC/NPTF) (CONTINUED)

### CHECK VALVE ADAPTERS, TERMINATING (INJECTION) - NPT

ADAPTS CHECK VALVES—FOR USE IN EITHER 1/8" NPTF OR 1/4" NPTF INJECTION PORTS  
FOR HIGH OUTPUT: INSTALL SELECTED ADAPTER INTO OUTPUT END OF CHECK VALVE  
FOR INTEGRAL FITTING: INSTALL CHECK VALVE INTO SIDE OF SELECTED ADAPTER

CHECK VALVE DESCRIPTION			PART NUMBER	
INLET SIZE	OUTLET SIZE	USE WITH	303 STAINLESS	316 STAINLESS
1/4" NPSF (F)	1/8" NPTF (M)	HIGH OUTPUT DOUBLE BALL CHECK	DBFFADP-2-303	DBFFADP-2-316
1/4" NPSF (F)	1/4" NPTF (M)	HIGH OUTPUT DOUBLE BALL CHECK	DBFFADP-4-303	DBFFADP-4-316
1/8" NPSF (F)	1/8" NPTF (M)	1/8" NPTF TERMINATING CHECK	TCVADP-2-303	TCVADP-2-316
1/8" NPSF (F)	1/4" NPTF (M)	1/8" NPTF TERMINATING CHECK	TCVADP-4-303	TCVADP-4-316

#### HIGH OUTPUT



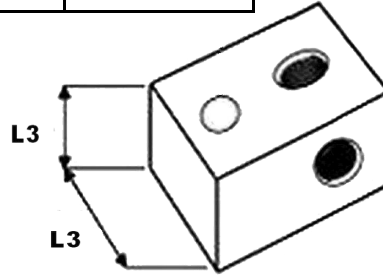
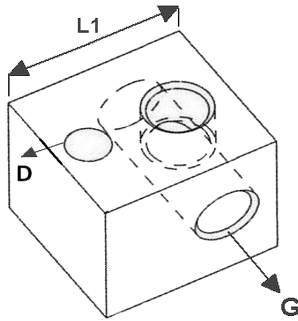
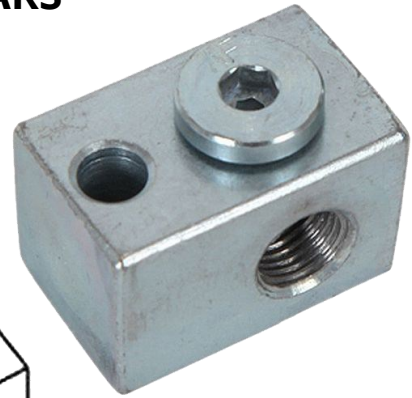
#### INTEGRAL ADAPTERS



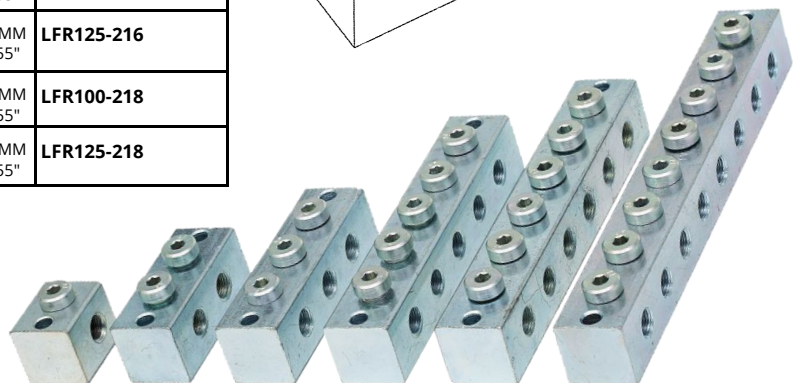
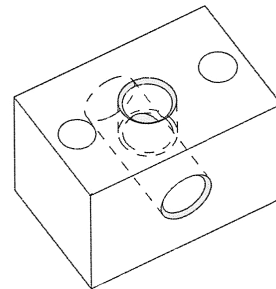
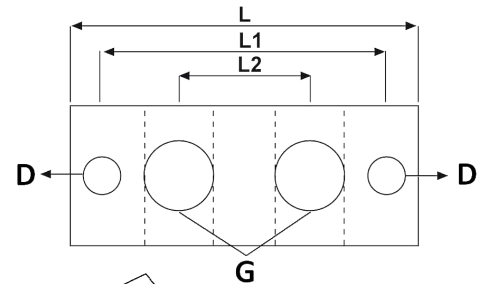
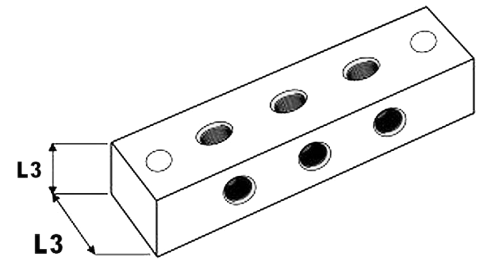
\* FOR CHECK VALVE BULLETINS AND OPERATION/FUNCTION DETAILS PLEASE REFER TO BULLETINS: LSM011 & LSM029

## ZERK (MANUAL LUBE) BARS

1 MOUNTING HOLE GREASE BLOCK DESCRIPTION	G	L	L3	D	PART NUMBER
METRIC, M10 X 1 PORT (1 LINE)	(M) 10X1	30MM 1.18"	25MM 1.00"	6.5MM .255"	<b>LFR100-211</b>
US, 1/8 NPSF (1 LINE)	1/8-27 NPSF	30MM 1.18"	25MM 1.00"	6.5MM .255"	<b>LFR125-211</b>



2 MOUNTING HOLE GREASE BLOCK DESCRIPTION	G	L	L1	L2	L3	D	PART NUMBER
METRIC, M10 X 1 PORTS (2 LINE)	(M) 10X1	60MM 2.36"	50MM 1.97"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-212</b>
US, 1/8 NPSF (2 LINE)	1/8-27 NPSF	60MM 2.36"	50MM 1.97"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-212</b>
METRIC, M10 X 1 PORTS (3 LINE)	M10 X 1	84MM 3.31"	74MM 2.91"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-213</b>
US, 1/8 NPSF (3 LINE)	1/8-27 NPSF	84MM 3.31"	74MM 2.91"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-213</b>
METRIC, M10 X 1 PORTS (4 LINE)	(M) 10X1	106MM 4.17"	96MM 3.78"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-214</b>
US, 1/8 NPSF (4 LINE)	1/8-27 NPSF	106MM 4.17"	96MM 3.78"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-214</b>
METRIC, M10 X 1 PORTS (5 LINE)	(M) 10X1	128MM 5.04"	118MM 4.65"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-215</b>
US, 1/8 NPSF (5 LINE)	1/8-27 NPSF	128MM 5.04"	118MM 4.65"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-215</b>
METRIC, M10 X 1 PORTS (6 LINE)	(M) 10X1	150MM 5.91"	140MM 5.51"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-216</b>
US, 1/8 NPSF (6 LINE)	1/8-27 NPSF	150MM 5.91"	140MM 5.51"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-216</b>
METRIC, M10 X 1 PORTS (8 LINE)	(M) 10X1	194MM 7.64"	184MM 7.25"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR100-218</b>
US, 1/8 NPSF (8 LINE)	1/8-27 NPSF	194MM 7.64"	184MM 7.25"	22MM .866"	25MM 1.00"	6.5MM .255"	<b>LFR125-218</b>

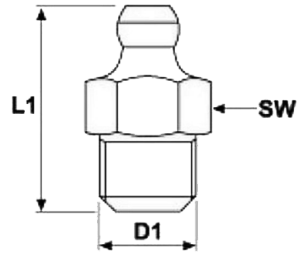


NOTE: ALL DIMENSION PROVIDED ARE +/- 1/16"

# GREASE (ZERK) FITTINGS, FILL FITTINGS & CLOSURE PLUGS

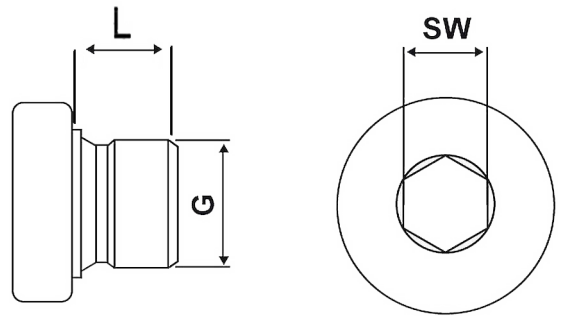
## GREASE NIPPLES

GREASE NIPPLE DESCRIPTION	G	L	PSI/BAR	PART NUMBER
ZINC PLATED STEEL HIGH PRESSURE GREASE NIPPLE	10X1	20.7MM	5800/400	LFR250-003-RV



## CLOSURE PLUGS

CLOSURE PLUG DESCRIPTION	G	L	SW	PART NUMBER
US, 1/8 NPSF (WITH O RING)	1/8-2 ORS	6.25MM	3/16"	A-002-S
US, BASEPLATE ISO PLUG	(M) 10X1	12MM	3/16"	A-003-S
US, 1/8-28 BSP SEAL PLUG	1/8-28BSPP	10MM	3/16"	A-004-S
US, 1/8-27 NPS SEAL PLUG	1/8-27NPS	10MM	3/16"	A-005-S
US, MANUAL FILL FITTING 303 (WITH CAP & O-RING)	1/8-27 ORS	6.5MM	3/16"	L90471-ORS-303
US, MANUAL FILL FITTING 316 (WITH CAP & O-RING)	1/8-27 ORS	6.5MM	3/16"	L90471-ORS-316
INTERNAL CHECK KIT 303 (CAP   O-RING   BALL   SPRING)	N/A	N/A	N/A	1202-430
INTERNAL CHECK KIT 316 (CAP   O-RING   BALL   SPRING)	N/A	N/A	N/A	FL316-430
STEEL CLOSURE PLUG	(M) 10X1	4.5MM	5MM	LFR100-243
STEEL CLOSURE PLUG	(M) 10X1	4.5MM	5MM	LFR100-243-SW



LFR100-243



1202-430



LFR100-243-SW



A-002-S



A-003-S



A-004-S



A-005-S



L90471-ORS-303

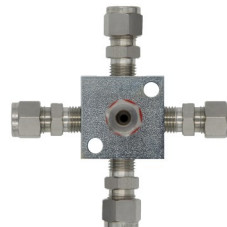


## ANCHOR BLOCKS & HOSE DROPS - NPTF

PRODUCT DESCRIPTION	CARBON STEEL	303 STAINLESS STEEL	316 STAINLESS STEEL
<b>4 WAY CROSS</b> 1/8 NPSF (X4) 9/32 MTG HOLE	L509189-000	L509189-303	L509189-316
<b>4 WAY CROSS</b> 1/4 NPSF (X4) 9/32 MTG HOLE	L509188-000	L509188-303	L509188-316
<b>5 WAY CROSS</b> 1/4 NPSF (X4) 1/8 NPSF (X1) 9/32 MTG HOLE	L509190-000	L509190-303	L509190-316
<b>2 WAY STRAIGHT</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509180-000	L509180-303	L509180-316
<b>2 WAY STRAIGHT</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509185-000	L509185-303	L509185-316
<b>90 DEGREE ELBOW</b> 1/8 NPSF (X2) 9/32 MTG HOLE	L509170-000	L509170-303	L509170-316
<b>90 DEGREE ELBOW</b> 1/4 NPSF (X2) 9/32 MTG HOLE	L509175-000	L509175-303	L509175-316
<b>SIDE IN FRONT OUT</b> 1/4 NPSF (X2) 17/64 MTG	L509177-000	L509177-303	L509177-316



### DIMENSIONS & MOUNTING INFORMATION DIMENSIONS ARE IN INCHES







# PURGE GUN AND GREASE GUN



READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

## PRODUCT DESCRIPTION

A SIMPLE, COMPACT, COST-EFFECTIVE WAY TO DELIVER OIL OR GREASE

IDEAL FOR PURGING EXISTING CENTRALIZED SYSTEMS WHEN CHANGING LUBRICATION OR PERFORMING MAINTENANCE

CLEAR PLASTIC RESERVOIR FOR EASY VISUAL CONFIRMATION OF REMAINING LUBRICANT

## BENEFITS & FEATURES

IDEAL FOR TROUBLESHOOTING AND SYSTEM TESTING

STEEL BODY AND HDPE PLASTIC ARE DESIGNED TO WITHSTAND HARSH ENVIRONMENTS

COMPACT AND NATURAL GRIP DESIGN COMBINE TO MAKE THE PUMP EASY TO HANDLE AND USE

## INDEX

DESCRIPTION	PAGE
Purge Gun, Oil	3
Purge Gun, Oil - Dimensions	4
Purge Gun, With Filter	7
Purge Gun, With Filter - Dimensions	8
Grease Gun	5
Grease Gun - Dimensions	6

READY FOR IMMEDIATE SHIPMENT

MADE IN



PURGE GUN OIL



PURGE GUN	PART NUMBER
PURGE GUN, OIL	LPGO-0001

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY. AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS.

**FLUIDS / TECHNICAL DATA**

- OIL
- PUMP OUTPUT: 0.09 CU.IN / 1.5 CC
- MAXIMUM OPERATING PRESSURE: 5,000 PSI / 345 BAR
- RESERVOIR CAPACITY: 1 PINT / 500 CC, 1 LB / 0.453 KG

**APPLICATIONS**

- IN-PLANT EQUIPMENT AND MACHINERY

ACCESSORIES

PURGE GUN OIL REPLACEMENT PARTS	PART NUMBER
1/8 IN NPT HIGH PRESSURE HOSE	12665-0037
1-1/2" 1/8" CB WET SS/SS 6000PSI PRESSURE GAUGE	LCB-15-6K-2
1/8 NPTF MALE BY 1/8 NPSF FEMALE, OPENS @ 35 PSI CHECK VALVE	OCV-303-125R-35
BODY FOR 0-421PR-OR SS REVERSE CHECK VALVE	12550-OCV-ORB-001
BRNPT REVERSE BALL CHECK BODY	12550-GTC-0421BR-0001



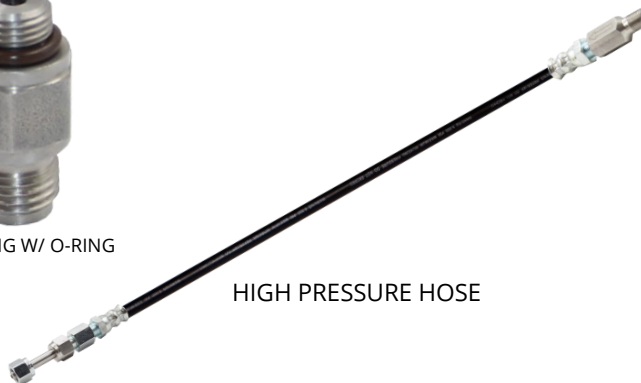
PRESSURE GAUGE



FILL FITTING

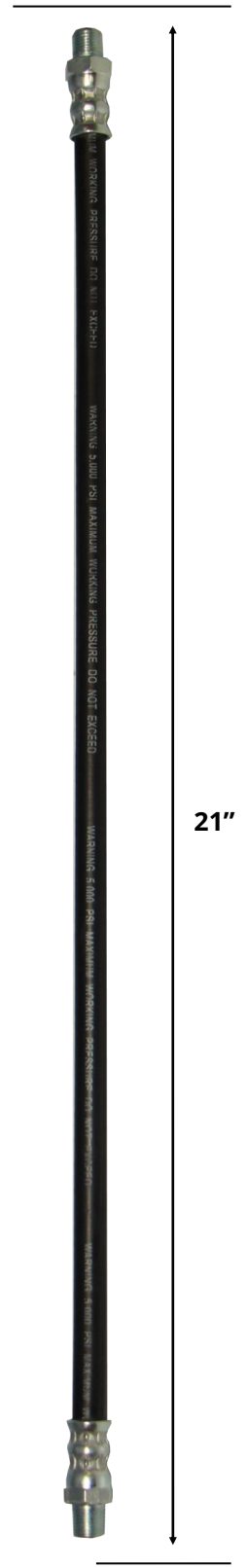


FILL FITTING W/ O-RING



HIGH PRESSURE HOSE

PURGE GUN OIL DIMENSIONS



PURGE GUN WITH FILTER



PURGE GUN	PART NUMBER
PURGE GUN, OIL 3 MICRON	LPGO-0001-F03
PURGE GUN, OIL 5 MICRON	LPGO-0001-F05
PURGE GUN, OIL 10 MICRON	LPGO-0001-F10
PURGE GUN, OIL 25 MICRON	LPGO-0001-F25

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY. AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS.

**FLUIDS / TECHNICAL DATA**

- OIL
- PUMP OUTPUT: 0.09 CU.IN / 1.5 CC
- MAXIMUM OPERATING PRESSURE: 5,000 PSI / 345 BAR
- RESERVOIR CAPACITY: 1 PINT / 500 CC, 1 LB / 0.453 KG

**APPLICATIONS**

- IN-PLANT EQUIPMENT AND MACHINERY

ACCESSORIES

PURGE GUN OIL REPLACEMENT PARTS	PART NUMBER
1/8 IN NPT HIGH PRESSURE HOSE	12665-0037
2-1/2" 1/4" CB WET SS/SS 6000 PSI PRESSURE GAUGE	LCB-25-6K-4
1/8 NPTF MALE BY 1/8 NPSF FEMALE, OPENS @ 35 PSI CHECK VALVE	OCV-303-125R-35
BODY FOR 0-421PR-OR SS REVERSE CHECK VALVE	12550-OCV-ORB-001
BRNPT REVERSE BALL CHECK BODY	12550-GTC-0421BR-0001
3 MICRON DIRT TRAP FILTER ASSEMBLY	DTFA-003-0
5 MICRON DIRT TRAP FILTER ASSEMBLY	DTFA-005-0
10 MICRON DIRT TRAP FILTER ASSEMBLY	DTFA-010-0
25 MICRON DIRT TRAP FILTER ASSEMBLY	DTFA-025-0



FILL FITTING



PRESSURE GAUGE



DIRT TRAP FILTER ASSEMBLY



FILL FITTING W/ O-RING



HIGH PRESSURE HOSE

PURGE GUN WITH FILTER DIMENSIONS



## GREASE GUN



PURGE GUN	PART NUMBER
GREASE GUN	LPGO-0002

MANUFACTURED WITH STEEL AND ALUMINUM COMPONENTS LUBRICATION SCIENTIFICS INDUSTRY LEADING STANDARDS OF QUALITY AND DURABILITY. AVAILABLE FOR EITHER OIL OR GREASE APPLICATIONS.

### FLUIDS / TECHNICAL DATA

- GREASE
- PUMP OUTPUT: 0.09 CU.IN / 1.5 CC
- MAXIMUM OPERATING PRESSURE: 5,000 PSI / 345 BAR
- RESERVOIR CAPACITY: 1 PINT / 500 CC, 1 LB / 0.453 KG

### APPLICATIONS

- IN-PLANT EQUIPMENT AND MACHINERY

### ACCESSORIES

PURGE GUN OIL REPLACEMENT PARTS	PART NUMBER
1/8 IN NPT HIGH PRESSURE HOSE	12665-0037
1/8 FEMALE ZERK FITTING COUPLER	12665-0042



FILL FITTING

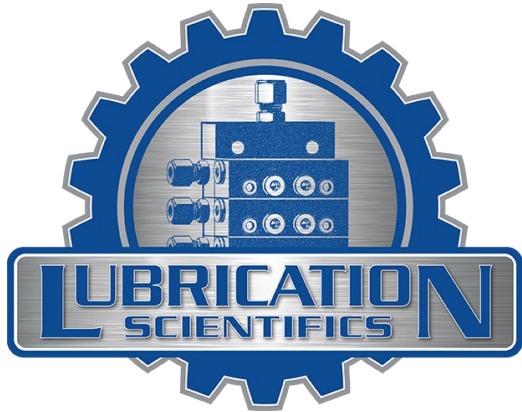


HIGH PRESSURE HOSE

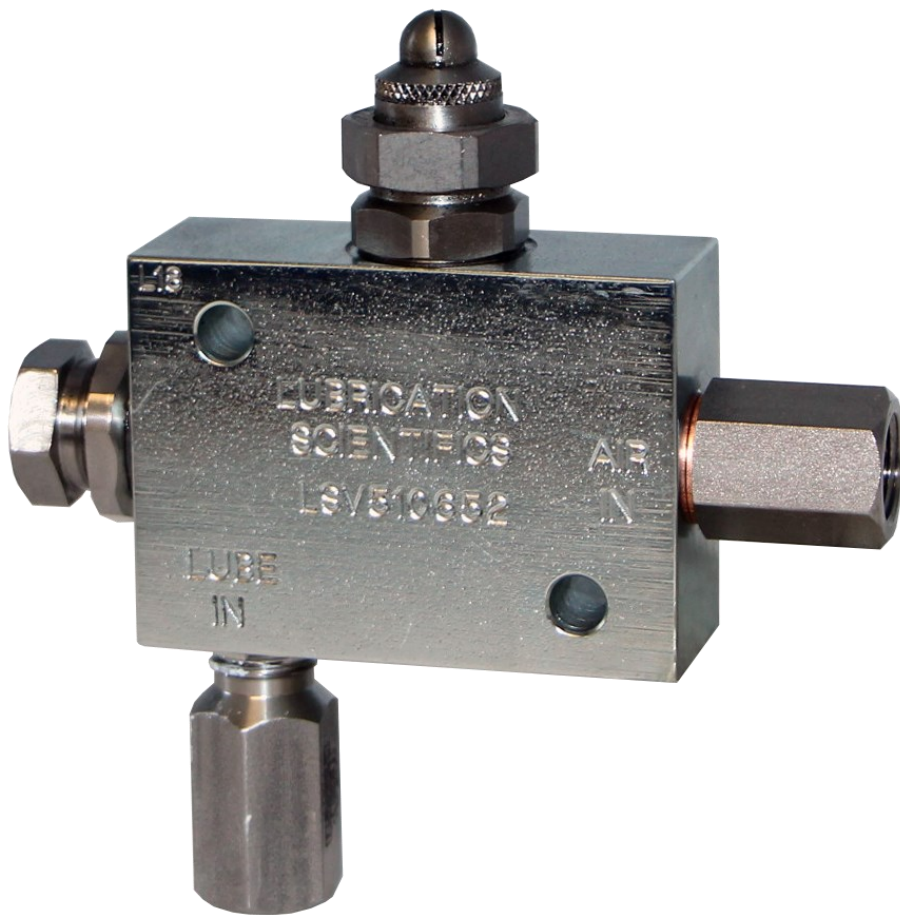
GREASE GUN DIMENSIONS







## GREASE/OIL SPRAY VALVE



READY FOR IMMEDIATE SHIPMENT

MADE IN



## PRODUCT DESCRIPTION

AUTOMATICALLY ALLOWS PRESSURIZED AIR TO ENTER THE AIR-LUBE MIXING NOZZLE WHEN SUPPLIED WITH PRESSURIZED LUBRICANT.

AUTO SHUTS OFF PRESSURIZED AIR WHEN LUBE PRESSURE CEASES.

CAN BE USED WITH BOTH OIL AND GREASE SYSTEMS.

## BENEFITS & FEATURES

SAVES LUBRICANT

POSITIVE AIR SHUT OFF

CONSERVES AIR

PURGES ITSELF AND PREVENTS CLOGGING

NO AIR CONTROL COMPONENTS NEEDED

### LUBE TYPES:

- OIL— MINIMUM OF 100 SUS AT 100° F
- GREASE: NLGI #1 AT ANY TEMPERATURE, NLGI#2 AT 32 ° F OR ABOVE

### TECHNICAL SPECIFICATIONS

MINIMUM AIR PRESSURE	25 PSI (1.7 BAR)
MAXIMUM AIR PRESSURE	145 PSI (10 BAR)
SPRAY PATTERNS	4 INCH OR 8 INCH ( 10.2 cm OR 20.3 cm)

### ORDERING INFORMATION

LSV-510652-4	SPRAY VALVE—4 INCH SPRAY DIAMETER, NORMAL
LSV-510652-8	SPRAY VALVE— 8 INCH SPRAY DIAMETER, WIDE

READY FOR IMMEDIATE SHIPMENT

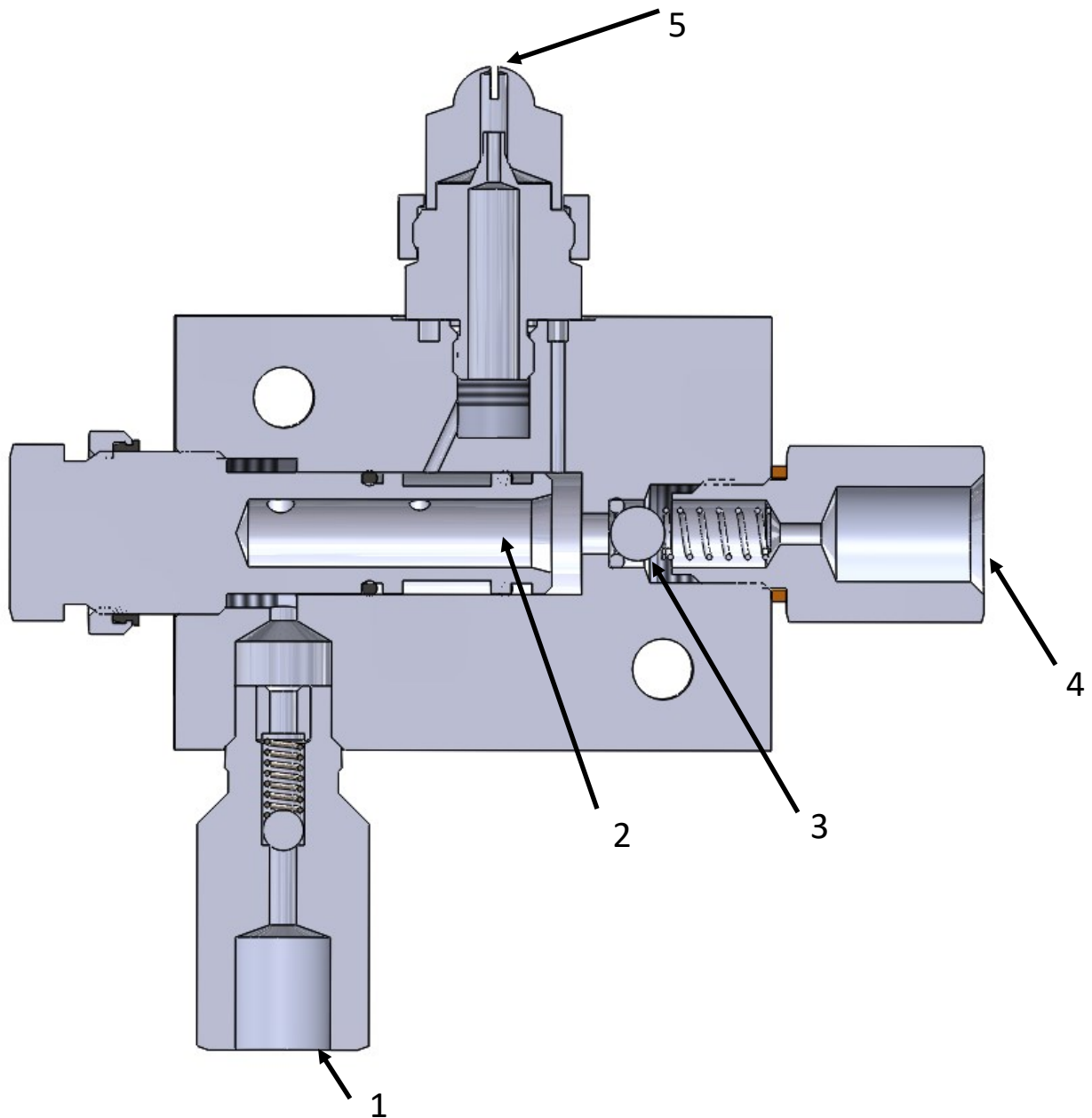
MADE IN



## SPRAY VALVE FUNCTION

### SPRAY VALVE FUNCTION:

WHEN LUBE INLET (1) IS PRESSURIZED LUBE ENTERS CHAMBER (2) ALLOWING THE AIR CHECK (3) TO OPEN. WHEN AIR CHECK (3) IS OPEN, PRESSURIZED AIR ENTERS FROM THE AIR INLET PORT(4). PRESSURIZED GREASE AND AIR MIX CREATING A SPRAY PATTERN OUT OF THE SPRAY CAP (5)





# CASE® SERIES PROGRESSIVE OFF-ROAD LUBRICATION KITS



READY FOR IMMEDIATE SHIPMENT

MADE IN



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- POSITIVE RETURN ON INVESTMENT AND A HEALTHIER BOTTOM LINE



**STANDARD AND PREMIUM**

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- WIRE LOOMS
- CLAMPS
- ZIP TIES
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- SS FITTINGS, ADAPTERS, ETC.
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- INSTALLATION GUIDE

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### UPGRADE FROM STANDARD PUMP TO AN LCPR PUMP PACKAGE

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- 4) Reservoir refill filtration available for all LCPR pump packages. (remote fill/filter the reservoir from any easily accessible location)



LCPR-60-E24DC W 60LB RESERVOIR

### ADD A SYSTEM DOWNSTREAM FILTER

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- 2) Available in 40 and 100 MESH, our filter kit includes the filter mounting bar (Weld type) and a filter fill stud kit for safe manual lubrication during system startup or pump failure.



## FILTRATION OPTIONS AND UPGRADES

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The smallest amount of dirt or sand can contaminate and possibly destroy a \$3000 pump.

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## CASE® WHEEL LOADER KITS



### CASE® 521E 621E 721E

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

STANDARD KIT NO:

**LORK-CASE-521E-721E-STD**

PREMIUM KIT NO:

**LORK-CASE-521E-721E-PREM**



### CASE® 821E 921E

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

STANDARD KIT NO:

**LORK-CASE-821E-921E-STD**

PREMIUM KIT NO:

**LORK-CASE-821E-921E-PREM**



### CASE® 1021E 1121E

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS \*

STANDARD KIT NO:

**LORK-CASE-1021E-1121E-STD**

PREMIUM KIT NO:

**LORK-CASE-1021E-1121E-PREM**

## CASE® EXCAVATOR KITS



### CASE® CX130D CX145D CX160D

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 19 HOURS \*

STANDARD KIT NO:

**LORK-CASE-CX130-160D-STD**

PREMIUM KIT NO:

**LORK-CASE-CX130-160D-PREM**

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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

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## CASE® EXCAVATOR KITS (CONTINUED)



### CASE® CX210 CX245 CX250

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 19 HOURS\*

STANDARD KIT NO:

**LORK-CASE-CX210-250D-STD**

PREMIUM KIT NO:

**LORK-CASE-CX210-250D-PREM**

## CAT® GRADER KITS



### CAT® 140M 160M

29 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

STANDARD KIT NO:

**LORK-CAT-140M-160M-STD**

PREMIUM KIT NO:

**LORK-CAT-140M-160M-PREM**



### CAT® 14M 16M

30 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

STANDARD KIT NO:

**LORK-CAT-14M-16M-STD**

PREMIUM KIT NO:

**LORK-CAT-14M-16M-PREM**

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# CAT® SERIES PROGRESSIVE OFF-ROAD LUBRICATION KITS



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MADE IN



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## STANDARD AND PREMIUM

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- INSTALLATION GUIDE

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LCPR-60-E24DC W 60LB RESERVOIR

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## CAT® EXCAVATOR KITS



### CAT® 308E

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 23 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-308E-STD**

**PREMIUM KIT NO:  
LORK-CAT-308E-PREM**



### CAT® 312E 326E

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-312-326E-STD**

**PREMIUM KIT NO:  
LORK-CAT-312-326E-PREM**



### CAT® 330 336E

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-330-336E-STD**

**PREMIUM KIT NO:  
LORK-CAT-330-336E-PREM**



### CAT® 349E

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 23 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-349E-STD**

**PREMIUM KIT NO:  
LORK-CAT-349E-PREM**

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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

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## CAT® WHEEL LOADER KITS



### CAT® 950 M 962M 966M 972M

24 LUBRICATION POINTS

INSTALLATION ESTIMATE 24 HOURS\*

STANDARD KIT NO:

**LORK-CAT-950M-972M-STD**

PREMIUM KIT NO:

**LORK-CAT-950M-972M-PREM**



### CAT® 980M

29 LUBRICATION POINTS

INSTALLATION ESTIMATE 28 HOURS\*

STANDARD KIT NO:

**LORK-CAT-980KM-STD**

PREMIUM KIT NO:

**LORK-CAT-980KM-PREM**



### CAT® 988M

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

STANDARD KIT NO:

**LORK-CAT-988KM-STD**

PREMIUM KIT NO:

**LORK-CAT-988KM-PREM**

## CAT® ARTICULATED TRUCK KITS



### CAT® 725 740

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 18 HOURS\*

STANDARD KIT NO:

**LORK-CAT-725-740-STD**

PREMIUM KIT NO:

**LORK-CAT-725-740-PREM**

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## CAT® DOZER KITS



### CAT® D6T

29 LUBRICATION POINTS

INSTALLATION ESTIMATE 24 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-D6T-STD**

**PREMIUM KIT NO:  
LORK-CAT-D6T-PREM**



### CAT® D8T

18 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-D8T-STD**

**PREMIUM KIT NO:  
LORK-CAT-D8T-PREM**



### CAT® D9T D10T

18 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-D9T-D10T-STD**

**PREMIUM KIT NO:  
LORK-CAT-D9T-D10T-PREM**



### CAT® D11

18 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-D11-STD**

**PREMIUM KIT NO:  
LORK-CAT-D11-PREM**

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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

## CAT® PAVER KITS



### CAT® AP555

16 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-AP555-STD**

**PREMIUM KIT NO:  
LORK-CAT-AP555-PREM**



### CAT® AP1055

16 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-AP1055-STD**

**PREMIUM KIT NO:  
LORK-CAT-AP1055-PREM**



### CAT® 538 558 568

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 18 HOURS\*

**STANDARD KIT NO:  
LORK-CAT-538-568-STD**

**PREMIUM KIT NO:  
LORK-CAT-538-568-PREM**

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# DEERE-HITACHI® SERIES PROGRESSIVE OFF-ROAD LUBRICATION KITS



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LCPR-60-E24DC W 60LB RESERVOIR

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## HITACHI® EXCAVATOR KITS



### HITACHI® ZX85

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:  
LORK-HJD-85G-ZX85-STD**

**PREMIUM KIT NO:  
LORK-HJD-85G-ZX85-PREM**



### HITACHI® ZX135

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:  
LORK-HJD-135G-ZX135-STD**

**PREMIUM KIT NO:  
LORK-HJD-135G-ZX135-PREM**



### HITACHI® ZX245

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:  
LORK-HJD-245G-ZX245-STD**

**PREMIUM KIT NO:  
LORK-HJD-245G-ZX245-PREM**



### HITACHI® ZX300-ZX380

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:  
LORK-HJD-300-380GZX-STD**

**PREMIUM KIT NO:  
LORK-HJD-300-380GZX-PREM**

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HITACHI® IS A REGISTERED TRADEMARK OF HITACHI CONSTRUCTION MACHINERY CO, LTD.  
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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

## HITACHI® EXCAVATOR KITS (CONTINUED)



### HITACHI® ZX470-ZX800

24 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

STANDARD KIT NO:

**LORK-HJD-470-800GZX-STD**

PREMIUM KIT NO:

**LORK-HJD-470-800GZX-PREM**

## JOHN DEERE® WHEEL LOADER KITS



### JOHN DEERE® 524K 724K

22 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

STANDARD KIT NO:

**LORK-JD-524K-724K-STD**

PREMIUM KIT NO:

**LORK-JD-524K-724K-PREM**



### JOHN DEERE® 844K 944K

29 LUBRICATION POINTS

INSTALLATION ESTIMATE 24 HOURS\*

STANDARD KIT NO:

**LORK-JD-844-944K-STD**

PREMIUM KIT NO:

**LORK-JD-844-944K-PREM**

## JOHN DEERE® GRADER KITS



### JOHN DEERE® 772GP 872GP

27 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

STANDARD KIT NO:

**LORK-JD-772GP-872GP-STD**

PREMIUM KIT NO:

**LORK-JD-772GP-872GP-PREM**

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## JOHN DEERE® DOZER KITS



### JOHN DEERE® 450 650

24 LUBRICATION POINTS

INSTALLATION ESTIMATE 24 HOURS\*

**STANDARD KIT NO:  
LORK-JD-450-650-STD**

**PREMIUM KIT NO:  
LORK-JD-450-650-PREM**



### JOHN DEERE® 750 850

29 LUBRICATION POINTS

INSTALLATION ESTIMATE 26 HOURS\*

**STANDARD KIT NO:  
LORK-JD-750-850-STD**

**PREMIUM KIT NO:  
LORK-JD-750-850-PREM**



### JOHN DEERE® 1050

24 LUBRICATION POINTS

INSTALLATION ESTIMATE 24 HOURS\*

**STANDARD KIT NO:  
LORK-JD-1050-STD**

**PREMIUM KIT NO:  
LORK-JD-1050-PREM**

## JOHN DEERE® EXCAVATOR KITS



### JOHN DEERE® 85G

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:  
LORK-JD-85G-ZX85-STD**

**PREMIUM KIT NO:  
LORK-JD-85G-ZX85-PREM**

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HITACHI® IS A REGISTERED TRADEMARK OF HITACHI CONSTRUCTION MACHINERY CO, LTD.  
NO COPYRIGHT INFRINGEMENT IS INTENDED

\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

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## JOHN DEERE® EXCAVATOR KITS



### JOHN DEERE® 135G

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:**

**LORK-JD-135G-ZX135-STD**

**PREMIUM KIT NO:**

**LORK-JD-135G-ZX135-PREM**



### JOHN DEERE® 245G

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:**

**LORK-JD-245G-ZX245-STD**

**PREMIUM KIT NO:**

**LORK-JD-245G-ZX245-PREM**



### JOHN DEERE® 300G-380G

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 22 HOURS\*

**STANDARD KIT NO:**

**LORK-JD-300-380GZX-STD**

**PREMIUM KIT NO:**

**LORK-JD-300-380GZX-PREM**



### JOHN DEERE® 470G-800G

24 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:**

**LORK-JD-470-800GZX-STD**

**PREMIUM KIT NO:**

**LORK-JD-470-800GZX-PREM**

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## JOHN DEERE® LOG LOADER KITS



### JOHN DEERE® 2154G 3756G

17 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:**  
**LORK-JD-2154-3756G-STD**

**PREMIUM KIT NO:**  
**LORK-JD-2154-3756G-PREM**

## JOHN DEERE® FELLER BUNCHER KITS



### JOHN DEERE® 830M 959M

18 LUBRICATION POINTS

INSTALLATION ESTIMATE 16 HOURS\*

**STANDARD KIT NO:**  
**LORK-JD-803-959M-STD**

**PREMIUM KIT NO:**  
**LORK-JD-803-959M-PREM**

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# KOBELCO® SERIES PROGRESSIVE OFF-ROAD LUBRICATION KITS



READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

**Drastically cut maintenance and repair costs and maximize machine life by automatically supplying lubricant in small amounts at controlled intervals, guaranteeing sufficient lubrication when it is needed the most - while they are in operation.**

- BETTER PERFORMING EQUIPMENT WITH MINIMAL DOWNTIME
- MORE HOURLY PRODUCTION BY KEEPING EQUIPMENT ON THE JOB AND OUT OF THE SHOP
- LESS WASTE AND HIGHER PROFITS DUE TO LOWER LUBRICANT CONSUMPTION
- SAFER OPERATIONS BY ELIMINATING THE NEED TO CLIMB ON THE MACHINE TO LUBRICATE HARD TO REACH POINTS
- POSITIVE RETURN ON INVESTMENT AND A HEALTHIER BOTTOM LINE



**STANDARD AND PREMIUM**

**SERIES PROGRESSIVE OFF ROAD LUBRICATION KITS INCLUDE**

ALL **STANDARD** OFF ROAD KITS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING ITEMS:

- PUMP W/ MOUNTING PLATE
- PRIMARY AND SECONDARY VALVE ASSEMBLIES W/ MOUNTING PLATES
- IN-CAB PUMP OPERATION LIGHT WITH MANUAL LUBE BUTTON
- WIRE LOOMS
- CLAMPS
- ZIP TIES
- SPIRAL WRAP
- SS SPRING COILS
- GREASE FILLED HOSE
- SEMI-RIGID TUBING
- SS FITTINGS, ADAPTERS, ETC.
- DISTRIBUTION VALVE SCHEMATIC
- INSTALLATION GUIDE

ALL **PREMIUM** OFF ROAD KITS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING ITEMS:

- PUMP W/ MOUNTING PLATE
- PRIMARY AND SECONDARY VALVE ASSEMBLIES W/ MOUNTING PLATES
- CONTROLLER W/ MOUNTING PLATE FEATURES FULL MONITORING OF SYSTEM CONDITIONS AND CONDITION MEMORY
- WIRE LOOMS
- CLAMPS
- ZIP TIES
- SPIRAL WRAP
- SS SPRING COILS
- GREASE FILLED HOSE
- SEMI-RIGID TUBING
- SS FITTINGS, ADAPTERS, ETC.
- DISTRIBUTION VALVE SCHEMATIC
- INSTALLATION GUIDE



## LUBRICATION CONTAMINATION PREVENTION RESERVOIR (LCPR) OPTIONS AND UPGRADES

### UPGRADE FROM STANDARD PUMP TO AN LCPR PUMP PACKAGE

- 1) Increase system's operating time between reservoir refills. (Available in 44lb, 60lb and 90lb Reservoirs) with 24 vdc motors
- 2) Rugged construction built for the toughest work environments.
- 3) System downstream filter included with all LCPR pump packages.
- 4) Reservoir refill filtration available for all LCPR pump packages. (remote fill/filter the reservoir from any easily accessible location)



LCPR-60-E24DC W 60LB RESERVOIR

### ADD A SYSTEM DOWNSTREAM FILTER

- 1) Most non-pump related auto-lube system failures are related to contamination in the system metering devices.
- 2) Available in 40 and 100 MESH, our filter kit includes the filter mounting bar (Weld type) and a filter fill stud kit for safe manual lubrication during system startup or pump failure.



## KOBELCO® EXCAVATOR KITS



### KOBELCO® SK140 SK210

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 19 HOURS\*

**STANDARD KIT NO:**

**LORK-KOB-SK140-210-STD**

**PREMIUM KIT NO:**

**LORK-KOB-SK140-210-PREM**



### KOBELCO® SK300 SK350

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 19 HOURS\*

**STANDARD KIT NO:**

**LORK-KOB-SK300-350-STD**

**PREMIUM KIT NO:**

**LORK-KOB-SK300-350-PREM**

## NOTES


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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW

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# KOMATSU® SERIES PROGRESSIVE OFF-ROAD LUBRICATION KITS



READY FOR IMMEDIATE SHIPMENT

MADE IN



[WWW.LUBRICATIONSCIENTIFICS.COM](http://WWW.LUBRICATIONSCIENTIFICS.COM)

**Drastically cut maintenance and repair costs and maximize machine life by automatically supplying lubricant in small amounts at controlled intervals, guaranteeing sufficient lubrication when it is needed the most - while they are in operation.**

- BETTER PERFORMING EQUIPMENT WITH MINIMAL DOWNTIME
- MORE HOURLY PRODUCTION BY KEEPING EQUIPMENT ON THE JOB AND OUT OF THE SHOP
- LESS WASTE AND HIGHER PROFITS DUE TO LOWER LUBRICANT CONSUMPTION
- SAFER OPERATIONS BY ELIMINATING THE NEED TO CLIMB ON THE MACHINE TO LUBRICATE HARD TO REACH POINTS
- POSITIVE RETURN ON INVESTMENT AND A HEALTHIER BOTTOM LINE



**STANDARD AND PREMIUM**

**SERIES PROGRESSIVE OFF ROAD LUBRICATION KITS INCLUDE**

ALL **STANDARD** OFF ROAD KITS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING ITEMS:

- PUMP W/ MOUNTING PLATE
- PRIMARY AND SECONDARY VALVE ASSEMBLIES W/ MOUNTING PLATES
- IN-CAB PUMP OPERATION LIGHT WITH MANUAL LUBE BUTTON
- WIRE LOOMS
- CLAMPS
- ZIP TIES
- SPIRAL WRAP
- SS SPRING COILS
- GREASE FILLED HOSE
- SEMI-RIGID TUBING
- SS FITTINGS, ADAPTERS, ETC.
- DISTRIBUTION VALVE SCHEMATIC
- INSTALLATION GUIDE

ALL **PREMIUM** OFF ROAD KITS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING ITEMS:

- PUMP W/ MOUNTING PLATE
- PRIMARY AND SECONDARY VALVE ASSEMBLIES W/ MOUNTING PLATES
- CONTROLLER W/ MOUNTING PLATE FEATURES FULL MONITORING OF SYSTEM CONDITIONS AND CONDITION MEMORY
- WIRE LOOMS
- CLAMPS
- ZIP TIES
- SPIRAL WRAP
- SS SPRING COILS
- GREASE FILLED HOSE
- SEMI-RIGID TUBING
- SS FITTINGS, ADAPTERS, ETC.
- DISTRIBUTION VALVE SCHEMATIC
- INSTALLATION GUIDE

## LUBRICATION CONTAMINATION PREVENTION RESERVOIR (LCPR) OPTIONS AND UPGRADES

### UPGRADE FROM STANDARD PUMP TO AN LCPR PUMP PACKAGE

- 1) Increase system's operating time between reservoir refills. (Available in 44lb, 60lb and 90lb Reservoirs) with 24 vdc motors
- 2) Rugged construction built for the toughest work environments.
- 3) System downstream filter included with all LCPR pump packages.
- 4) Reservoir refill filtration available for all LCPR pump packages. (remote fill/filter the reservoir from any easily accessible location)



LCPR-60-E24DC W 60LB RESERVOIR

### ADD A SYSTEM DOWNSTREAM FILTER

- 1) Most non-pump related auto-lube system failures are related to contamination in the system metering devices.
- 2) Available in 40 and 100 MESH, our filter kit includes the filter mounting bar (Weld type) and a filter fill stud kit for safe manual lubrication during system startup or pump failure.



## FILTRATION OPTIONS AND UPGRADES

**80% OF ALL PUMP FAILURES ARE DUE TO LUBRICANT CONTAMINATION**

If the operation is under extreme demand and “Best Practices” are unable to be followed, the Remote Fill Filter will reduce the risk of contamination being introduced into your reservoir and destroying the pump.

Oil/Grease tote delivery systems may contain anywhere from 2 to 20 times the acceptable amount of particulate allowable for most lubrication pumps.

The smallest amount of dirt or sand can contaminate and possibly destroy a \$3000 pump.

**OUR REMOTE FILL FILTER IS THE ENEMY OF CONTAMINATION.**



## KOMATSU® EXCAVATOR KITS



### KOMATSU® PC138-PC210

20 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:  
LORK-KOM-PC138-210-STD**

**PREMIUM KIT NO:  
LORK-KOM-PC138-210-PREM**



### KOMATSU® PC228 PC390

20 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS\*

**STANDARD KIT NO:  
LORK-KOM-PC228-390-STD**

**PREMIUM KIT NO:  
LORK-KOM-PC228-390-PREM**



### KOMATSU® PC400 PC890

19 LUBRICATION POINTS

INSTALLATION ESTIMATE 19 HOURS\*

**STANDARD KIT NO:  
LORK-KOM-PC400-890-STD**

**PREMIUM KIT NO:  
LORK-KOM-PC400-890-PREM**



### KOMATSU® PC1250

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 23 HOURS\*

**STANDARD KIT NO:  
LORK-KOM-PC1250-STD**

**PREMIUM KIT NO:  
LORK-KOM-PC1250-PREM**

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\* INSTALLATION TIME BASED UPON A 2 PERSON CREW



## KOMATSU® WHEEL LOADER KITS



**KOMATSU® WA210 WA380**

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 20 HOURS

**STANDARD KIT NO:**

**LORK-KOM-WA210-WA380-STD**

**PREMIUM KIT NO:**

**LORK-KOM-WA210-WA380-PREM**



**KOMATSU® WA470 WA500**

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 23 HOURS\*

**STANDARD KIT NO:**

**LORK-KOM-WA470-WA500-STD**

**PREMIUM KIT NO:**

**LORK-KOM-WA470-WA500-PREM**



**KOMATSU® WA600**

23 LUBRICATION POINTS

INSTALLATION ESTIMATE 23 HOURS\*

**STANDARD KIT NO:**

**LORK-KOM-WA600-STD**

**PREMIUM KIT NO:**

**LORK-KOM-WA600-PREM**

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