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## Liquid Valve Flush PART NO: PLI-200-HP-VF

Our PL LIQUID VALVE FLUSH is developed to remove even the most stubborn of hydrocarbon deposits and old hydrocarbon sealants from the seal and spring areas of a valve, without damaging elastomers or seals. It will also dissolve waxes produced in oil production, thus allowing the valves to be effectively flushed prior to lubrication and sealing. It is applied with an air operated liquid injection pump.



All products are being upgraded to reflect use of new synthetic oil immiscible in condensate and white gasoline, improved lubricity and elastomeric bridging properties.

PLI LIQUID VALVE FLUSH is a unique combination of valve penetrant and moisture displacer engineered for today's growing valve maintenance market.

PLI LIQUID VALVE FLUSH is a superior corrosion inhibitor because it safely removes old hydrocarbon deposits and also removes oxidation deposits.

PLI LIQUID VALVE FLUSH will also remove even the toughest sealant deposits that may have solidified in the seal pockets.

In addition to these benefits, it provides an excellent corrosion inhibiting film. This film contains no dangerous chlorinated solvents and provides unsurpassed protection in harsh conditions.

Recommended users of PLI LIQUID VALVE FLUSH include valve manufacturers, valve refurbishes, pipeline operators, geothermal power generation plants and geothermal well operators.

#### **BENEFITS**

Corrosion, scale inhibitor and oxidation preventative Noncorrosive Harmless to valve elastomers Dissolves hydrocarbon deposits Loosens rust and scale Will clean up most metal surfaces Max temp range of 500°F

#### **APPLICATION**

PLI LIQUID VALVE FLUSH can be applied using an air operated liquid injection pump, or a hand held liquid injection pump.

#### **RECOMMENDED USES**

Flushing of seized valves prior to lubrication / sealing, so as to clear out the lubrication passageways, cleaning down of valves.

#### **PACKAGING**

20 litres

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au





## Grease Form Valve Cleaner PART NO: PLI-200-HP-GFVC40

This product is a combination valve cleaner and penetrating lubricant engineered to free up and clean out difficult or impossible to operate lubricated valves.

Pressure Lube Valve Cleaner penetrates and cleans residual gum, lacquer, hardened sealants and lubricants. Valve Cleaner also penetrates and loosens rust and corrosion deposits extending the life and performance of all types of lubricated valves. When used regularly it will prevent additional build up.

#### **FEATURES**

- · Compatible with all valve lubricants
- Cuts residual gum and lacquer deposits
- Removes rust and corrosion
- · Do not use in oxygen service
- Temperature Range -40 to 400°F
- Ideal for valves orientated at an angle

#### **APPLICATION PROCEDURE**

Apply the Valve Cleaner with a PLI bucket pump. Turn valve slowly and repeat the process until valve opens freely.

After the valve is operable, lubricate with one of PLI's high quality valve lubricants, or sealant.

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au

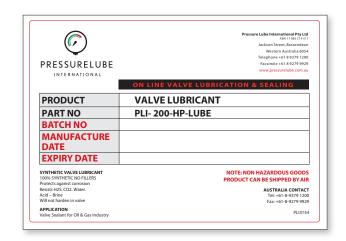






## Valve Lubricant PART NO: PLI-200-HP-LUBE

We developed our SYNTHETIC VALVE LUBRICANT to be used in continual P.M. systems as a cheaper alternative to costly sealants. PLI's synthetic lubricant is resilient to all products coming up a production string or produced in a gas processing plant. This reduces the need to stock various types of lubricants and therefore reduces costs. Since it is fully synthetic it will also not harden or block up the injection ports reducing torque and giving a perfect seal even after repeated cycling. This lubricant can be used in ball, gate and plug valves. For geothermal valves, you may use the specially formulated SYNTHETIC GEOTHERMAL LUBRICANT, a high temperature (up to 900F) lubricant, developed for geothermal use.



PLI HIGH PERFORMANCE SYNTHETIC VALVE LUBRICANT is an excellent valve lubricant which reduces friction during operation of valves. PLI HIGH PERFORMANCE SYNTHETIC VALVE LUBRICANT allows valves to turn easily, thereby extending their lifetime and performance.

PLI HIGH PERFORMANCE SYNTHETIC VALVE LUBRICANT is resistant to solvents and chemicals including hydrogen sulphide, crude oil, diesel, carbon dioxide, hydrochloric acid, brine, water and condensates, as well as drilling muds. PLI HIGH PERFORMANCE SYNTHETIC VALVE LUBRICANT is waterproof, will not harden, and adheres to metal assuring protection against rust and corrosion.



#### **BENEFITS**

Non-melting and non-hardening Rust, corrosion and oxidation preventative Resists hydrogen sulphide, crude oil, oilfield brine water, diesel and sea water Insoluble in water Services temperatures up to 600°F Will not wash out

#### **APPLICATION**

PLI HIGH PERFORMANCE SYNTHETIC VALVE LUBRICANT can be applied using an air operated lubrication pump, or a hand held great gun or a volume bucket pump.

#### **RECOMMENDED USERS**

by valve manufacturers, valve refurbishes, pipeline and wellhead companies, refineries, chemical processing plants and LNG plants.

#### **PACKAGING**

40lLb Pails (20 Ltr)

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au



Valve Sealant PART NO: PLI-200-HP-SEAL

PLI's SYNTHETIC VALVE SEALANT is a last line of defence in valve maintenance, i.e. a valve must be sealed at all costs to eliminate the need for an untimely shut down. Our valve sealant contains no PTFE-fillers, will not harden and is excellent for emergency seat renewal and low pressure sealing problems. It comes in various grades, but the standard grade is good for H<sup>2</sup>S and CO<sup>2</sup> services. The 2010 product will be immiscible in condensate.



By using a unique combination of 100% fully synthetic oils and a propriety thickener, PLI HIGH PERFORMANCE VALVE SEALANT was formulated to provide a superior lubricating and sealing compound that is unsurpassed in performance.

There are no fillers such as clay, bentonite or soaps or PTFE PLI HIGH PERFORMANCE VALVE SEALANT does not rely on these fillers as bridging agents.

When injected into the valve, PLI HIGH PERFORMANCE VALVE SEALANT lubricates and seals with as much as 90 percent greater efficiency. PLI HIGH PERFORMANCE VALVE SEALANT will not harden in valve seats or lubrication channels thus eliminating frequent flushing of the valve and allowing for torque operation.

PLI HIGH PERFORMANCE VALVE SEALANT will resist washouts by crude condensate, water, gas, diesel, hydrocarbon acid, oil field brine, H<sup>2</sup>S, CO<sup>2</sup> and is insoluble in water. It can withstand a wide temperature range form -60F to 500F.

#### **BENEFITS**

100% Synthetic
Does not contain fillers
Low friction coefficient
Resistant to water washout
Protects from corrosion
Effective temperature range of -60°F to 500°F
Protects against H<sup>2</sup>S and CO<sup>2</sup>

#### **APPLICATION**

PLI HIGH PERFORMANCE VALVE SEALANT can be applied using an air operated lubrication pump, a hand held grease gun or a volume bucket pump.

#### **RECOMMENDED USERS**

By Valve manufacturers, valve refurbishes, pipeline and wellhead companies, refineries and LNG plants.

#### **PACKAGING**

40Lb Pails (20 Ltr)

#### SAFETY DATA SHEET

Available for download from PLI website

www.pressurelube.com.au





## Super Condensate Sealant (Grey) PART NO: PLI-200-HP-SC-SEAL

PLI SUPER CONDENSATE VALVE SEALANT (GREY) is a last line of defence in valve maintenance, i.e. a valve must be sealed at all costs to eliminate the need for an untimely shut down. Our valve sealant contains no PTFE-fillers, will not harden and is excellent for emergency seat renewal and low pressure sealing problems. It is designed for H<sup>2</sup>S and CO<sup>2</sup> service and is immiscible in condensate. This elevates the problem of valves becoming seized or stiff to cycle in condensate service, and improves valves integrity to seal online.

#### **PACKAGING**

40Lb Pails (20 Ltr)

#### PART NUMBER

PLI-200-HP-SC-SEAL

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au







Anti Seize 2200 PART NO: PLI-200-AS-2200

The PLI ANTI SEIZE 2200 is a synthetic oil based graphite aluminium powder. An anti-seize paste for bushing, bearings, gears and chains. The application resists chemicals, gases (except oxygen) and solvents where two metals meet.

#### **PACKAGING**

1Lb Can (454g)

#### PART NUMBER

PLI-200-AS-2200

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au







## Stick Packing 686 PART NO: PLI-200-SP-686

STICK PACKING 686 is a clean odourless, pliable packing used to seal stuffing boxes. 686 is a petroleum hydrocarbon free stick packing made with LIQUILON®\*. 686 continues to seal and lubricate long after conventional packing has failed. Regardless of the size of the stuffing box, 686 will form itself to the configuration of the box and shaft and compensates for wear by remoulding itself. 686 can be used as a supplement to worn conventional packing or intervals with conventional packing. 686 services temperatures to 400°F (204°C) and pressures up to 10,000 psi. 686 Packing is unaffected by most acids, oils, caustics, and common solvents.



#### **TYPICAL OBSERVATIONS**

Colour: Green
Odour: None

Form: Self Forming Sticks

Shape: Square Size: ½" x ½" x 2½" Equilateral

**Active Component:** LIQUILON®\*

Specific Gravity: 1.4 Water-Repellent: Yes Water-Resistant: Yes

**Service Temperature:** 400°F (204°C) **Solubility in Water:** Insoluble

#### **PACKAGING**

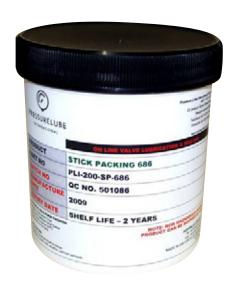
1Lb Jar (454g)

#### PART NUMBER

PLI-200-SP-686

#### SAFETY DATA SHEET

Available for download from PLI website www.pressurelube.com.au



### MAINTENANCE PRODUCTS

Stick Packing 636G PART NO: PLI-200-SP-636G

STICK PACKING 636G is a clean, odourless, pliable packing used to seal stuffing boxes. Made with LIQUILON®\*, 636G continues to seal and lubricate long after conventional packing has failed. Regardless of the size of the stuffing box, 636G forms itself to the configuration of the box and shaft and compensates for wear by remoulding itself. 636G can be used as a supplement to worn conventional packing or intervals with conventional packing. 636G serves temperatures to >400°F (>204°C) and pressures to 10,000 psi. 636G is unaffected by acids, oils, caustics, or common solvents.

#### **TYPICAL OBSERVATIONS**

Form Moldable sticks Shape Triangular prisms Size ½" x ½" x ½" x 2½"

**Equilateral** 

Color Green

**Odor** None

**Active Component LIQUILON®** 

**Water-Repellant** Yes

**Water-Resistant** Yes

**Service Temperature** Up to >400°F (>204°C)

Service Pressure Up to 10,000 psi

**Solubility in Water** Insoluble

Hardness (Durometer) 50 - 60

#### **PACKAGING**

1Lb Jar (454g)

#### PART NUMBER

PLI-200-SP-636G

#### SAFETY DATA SHEET

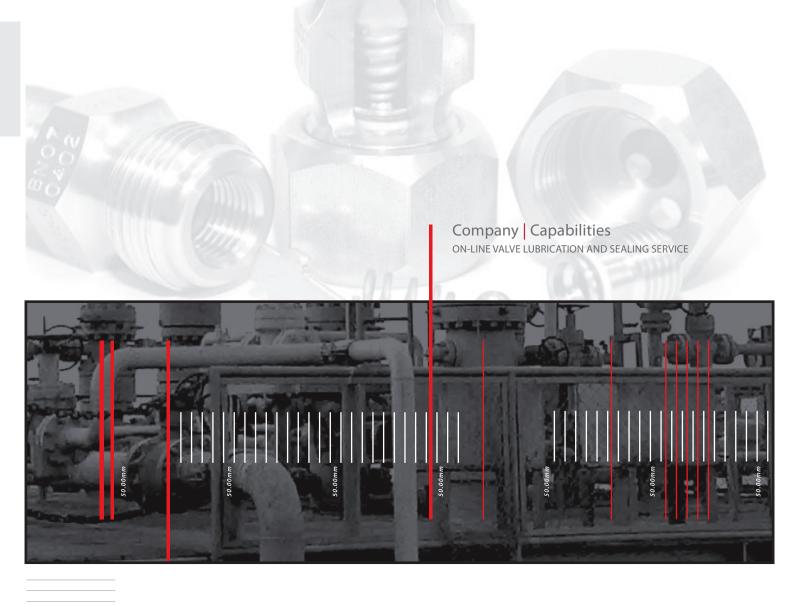
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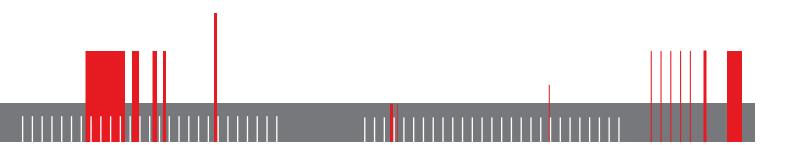








**Fittings** 





## MANUFACTURER DATA REPORT (MDR) JUNE 2011 10,000 PSI STAINLESS STEEL LUBRICANT FITTINGS ¼" NPT to 1" NPT

Pressure Lube International Pty Ltd manufactures lubrication injection fittings under the following model numbers:

PLI-EFLF-VC -

Easiflow Vented Cap

PLI-EFLF-LS

Easiflow Long Stem

PLI-EFLF-60D -

Easiflow 60 Degrees

PLI-EFLF-GBH -

Easiflow Vented Cap Giant Button Head

The design of all fittings conform to AS1210-2010 Pressure Vessels Standard.

Materials conform to the following standards:

- 1. AISI 316 to ASME SA 182, ASTM A276 and ASTM A 479 (bodies, caps & plugs)
- 2. Inconel springs to UNS no. 660, ASTM B163, ASME SB-163
- 3. Monel K500 balls UNS no. 5500, ASTM B865
- 4. NACE MR 0175 is applicable to all the above materials
- 5. NPT threads comply to ANSI BI.20.1

The fittings having been independently tested by Age Developments Pty Ltd to a burst test of 50,000psi (344.7MPa) without failure are rated to 10,000psi (68.9MPa). The design of the Easiflow Lubrication fitting has been assessed as being in accordance with the requirements of AS1210-2010 with a design pressure of 92.6MPa.

The design is verified independently by K.J. Beer Pty Ltd consulting engineers.

Signed as a true and correct record

John R. Worner BSc (Metallurgy)

Managing Director



## Easiflow Vented Cap

#### **PREAMBLE**

The philosophy behind the latest lubrication Injection Fittings places great importance on the integrity of back seating (non return) capacity.

In cases where check valves within a valve body at lubricant injection points fail to back seat in service, the grease or lubricant fitting must seal under line pressures.

Furthermore, modern lubrication injection pumps are capable of generating 7,500 Psi. The new fitting is tested and rated to 10,000 PSI. Some other patented fittings in ¼" size do not rate to even 7,500 because of wall thicknesses between threads being less than Engineering Minimums.

The spring is tapered to ensure easy flow of lubricant outside and through the fitting, avoiding solid locking. The top loaded spring and ball retained by the pressed tee piece prevents blow out.

#### **MATERIAL SPECIFICATION**

#### **PLUG, BODY & CAP**

316 Stainless Steel

#### **SPRING**

Tapered shape in Inconel 600

#### BALL

Monel K500

#### O'RING

Nitrile 70/90 D. Plus Teflon Backing Washer

#### **TAPERED SPRING HOLDER**

316 Stainless 2B finish

#### **EASIFLOW ORIFICES**

Inlet 5MM Dia, Outlet 6MM Dia

#### **THREADS**

Available ¼", 3/8", ½" NPT. Standard. Other threads available on request.

#### **PRESSURE RATING**

10,000 PSI.

#### SEALING

Observe primary metal/metal seals of plug to body and ball to plug

Fire-safe

Secondary back-up seal by O-Ring

#### **QUALITY ASSURANCE & MARKINGS**

Basis of AS3902 (ISO 9002) full material certification. Marked with Grade, Pressure Rating, Quality Batch No. Quality batch number eg (BN 970203) will relate to Material Heat Certificates and Batch sample Stub Ends held at our factory in Australia, in this case batch number three produced in February 1997.

#### **GAUGING & TESTING**

All threads gauge tested. All fittings pressure tested, to 100 PSI bubble.

#### **EASIFLOW CHARACTERISTICS**

By increasing the outlet orifice size from the inlet orifice, lubricant and sealant flow is enhanced. By tapering the spring and holder, in the event of sealant hardening, i.e. if non PLI sealant were used, the wedge effect of the spring and retainer will assist with flushing and breakdown of a solidified mass. In the case of some fittings with parallel springs it is possible that the spring acts as an anchor reinforcement impeding complete dislodgment by flushing pressure.

#### **VENTED CAP**

The cone within the vented cap seals metal to metal on the inlet orifice taper.

#### **ASSEMBLY**

Ball location sealing point is polished on assembly by a controlled hammer peen. Plug is screwed into place and torqued with non-standard Hexagon Key and should not be removed. Each fitting is then pressure tested for thread and ball seal integrity.

#### **SEALS**

B y incorporating primary seals of metal to metal design the fitting becomes "A Fire Safe Check Valve". This can be seen on the drawing plug to body and ball to plug,

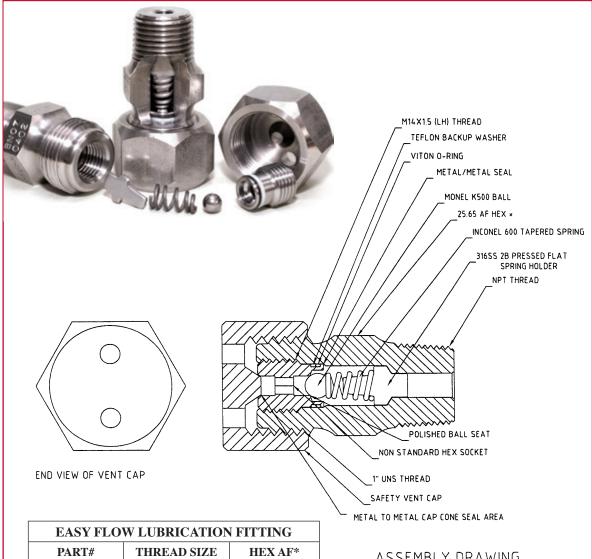
If unforseen field plug removal and replacement allows a hair or minute dirt particle onto the seat area plug to body, the secondary O-Ring Seal on the plug acts as a back-up only and seals the fitting when needed. Any disassembly must be noted, reported and the fitting tagged for replacement at the next maintenance or shut down. If necessary, the fitting may be returned to the factory for a new plug.

#### PART NUMBER

PLI-EFLF-VC



### Easiflow Vented Cap



EASY FLOW LUBRICATION FITTING		
PART#	THREAD SIZE	HEX AF*
PLI-EFLF18	1/8" NPT	25.65
PLI-EFLF14	1/4" NPT	25.65
PLI-EFLF38	<sup>3</sup> / <sub>8</sub> " NPT	25.65
PLI-EFLF12	¹/2" NPT	25.65
PLI-EFLF34	3/4" NPT	33.05
PLI-EFLF1	1" NPT	39.00

#### **OPTIONS:**

- Other threads available on request, including UNC Parallel Threads
- Ball material options include Tungsten Carbide (WC)
- Spring material options include INCONEL X-750
- O-Ring material options available

#### ASSEMBLY DRAWING

#### AS 1210

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#### ON LINE VALVE LUBRICATION & SEALING TITLE: PLI EASY FLOW LUBRICATION FITTING

23 JACKSON STREET, BASSENDEAN DRAWING NUMBER: PLI-EFLF-VC **WESTERN AUSTRALIA 6054** 

PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929 DRAWN BY: DAVID BRAMLEY

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DATE:3/5/05



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WESTERN AUSTRALIA 6017.
PHONE: 61-9-446 9644 ALL HOURS
FAX: 61-9-446 7090 ALL HOURS



### HYDROSTATIC PRESSURE TEST CERTIFICATE

Date of Test: 1/12/94   Client: Press Form (W.A.) Pty Ltd			Report No: 11	
	tic Pressur	e Proof &	Burst Tests	
rest Item Details:	a , arm a			
			CANT INJECTION	FITTING
7	with ¼" NP	T Male co	onnection.	
Specification: Proof T	ost Pronour	10.000	) noi	
pecinication. 11001 1	est Flessul	e - 10,000	) psi	
TEST RESULTS	•			
Test Item	Temp	Time	Test	Comments
Markings	(deg.C)	(min)	Pressure	Commente
			(psi)	
DD O O E TE OT				
PROOF TEST	Amb.	5	10,000	
BURST TEST	1 mm h	77/4	50,000	NO 71 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
DUKSI IESI	Amb.	N/A	50,000	NO FAILURE
,				
				· · · •
Observations:		·····		,
1) No leakage				
2) Test gauge	accuracy f	or Proof T	$\Gamma est = \pm 150 \text{ psi.}$	
3) Test gauge	accuracy f	or Burst T	Test = $\pm 500$ psi.	
4) Burst test v	vas termina	ted at lim	it of test equipment.	
Markings: Engraved "		" on hex f		
Approved	Name		Signature	Date
Signatory	Clem Ro	we	(Ide	2/12/94
219.14(0)	J.J 200			A 14177

Reg No:2227

the National Association of Testing Authorities of Australia. The tests reported here have been performed in accordance with its terms of registration.

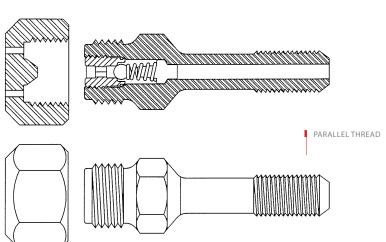


Easiflow Long Stem PART NO: PLI-EFLF-LS

#### PART NUMBER

PLI-EFLF-LS

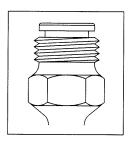




Long Stems Coupled With Parallel Threads are Available to Suit Any Requirement.

#### EasiFlow Lubrication Fitting Long Stem

PLI-EFLF-LS14	
PLI-EFLF-LS38	
PLI-EFLF-LS12	
PLI-EFLF-LS78	
PLI-EFLF-GBH-LS14	
PLI-EFLF-GBH-LS38	
PLI-EFLF-GBH-LS12	
PLI-EFLF-GBH-LS78	



AS1210

Combination GBH Fitting Available

Suits Both 1" UNS and Giant Button Head Attachment

\*n.b. (the giant head button reduces pressure rating of the fitting)

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ON LINE VALVE LUBRICATION & SEALING

TITLE: PLI EASY FLOW LUBE FITTING LONG STEM

23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054 PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929

DRAWING NUMBER: PLI-EFLF-LS

DRAWN BY: DAVID BRAMLEY

AMLEY © COPYRIGHT DATE:3/5/05

### **FITTINGS**

Easy Flow 60 Degrees PART NO: PLI-EFLF-60D

This image of the Easy Flow Lube Fitting shows the parallel thread and 60 degree sealing shoulder.

#### PART NUMBER

PLI-EFLF-60D

#### AS 1210



Long stem or short stem and thread type are available on request.



## Easiflow Vented Cap Giant Button Head PART NO: PLI-EFLF-GBH

The Easiflow Vented Cap Giant Button Head suits both 1 UNS and giant button head\* attachment – a combination Long Stem fitting is also available.

All manufacturing process, materials used and the internal components of the PLI-EFLF-GBH are the same as PLI-EFLF fitting, The only difference is the addition of the GBH groove.

**n.b.** (The giant button head groove reduces the pressure rating of the fitting)

#### PART NUMBERS

PLI-EFLF-GBH1

PLI-EFLF-GBH12

PLI-EFLF-GBH14

PLI-EFLF-GBH18

PLI-EFLF-GBH34

PLI-EFLF-GBH38

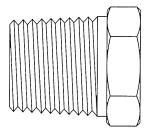
#### AS 1210

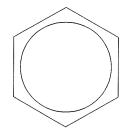


Cavity Plug PART NO: PLI-CP

#### PART NUMBER

PLI-CP





CAVITIY PLUG			
PART#	THREAD SIZE	MATERIAL	
PLI-CP1	1" NPT	316 SS	
PLI-CP34	<sup>3</sup> / <sub>4</sub> " NPT	316 SS	
PLI-CP12	1/2" NPT	316 SS	
PLI-CP38	<sup>3</sup> / <sub>8</sub> " NPT	316 SS	
PLI-CP14	1/4" NPT	316 SS	
PLI-CP18	1/8" NPT	316 SS	
PLI-CP12-SAF	1/2" NPT	UNS 31803 (Duplex)	
PLI-CP14-SAF	1/4" NPT	UNS 31803 (Duplex)	
PLI-CP1-SAF	1" NPT	UNS 31803 (Duplex)	
PLI-CP34-SAF	<sup>3</sup> / <sub>4</sub> " NPT	UNS 31803 (Duplex)	
PLI-CP38-SAF	<sup>3</sup> / <sub>8</sub> " NPT	UNS 31803 (Duplex)	
OPTIONS: Alternate conf	figurations, Threads, Materials and Pla	ating are available on request.	

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ON LINE VALVE LUBRICATION & SEALING TITLE: PL CAVITY PLUG

23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054
PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929
DRAWN BY: DAVID BRAMLEY

DRAWING NUMBER: PLI-CP

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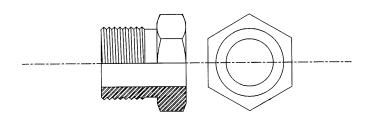


# Packing Glands PART NO: PLI-PG

Manufactured to order; different configurations, materials & plating available on request.

#### PART NUMBER

PLI-PG



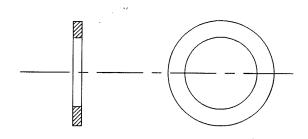
	PACKING GLAND		
PART #	PLI-PG		
OPTIONS:	Manufactured To Order		
	Different Configurations, Materials and Plating are		
	Available on Request		

### Junk Ring PART NO: PLI-JR

The Junk Ring is manufactured to order with different configurations, materials and plating available on request.

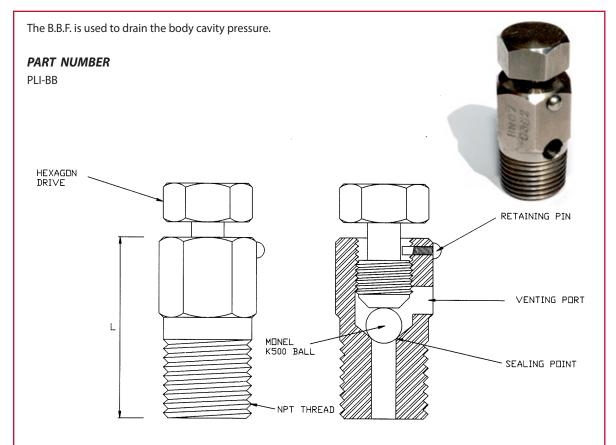
#### PART NUMBER

PLI-JR



JUNK RINGS		
PART #	PLI-JR	
OPTIONS: Manufactured To Order		
Different Configurations, Materials and Plating are		
1	Available on Request	

# Body Bleed Fitting PART NO: PLI-BB



BODY BLEEDER FITTING					
PART#	THREAD SIZE	MATERIAL	HEX SIZE	L	BALL
PLI-BB112	1 1/2" NPT	316 SS	2"	25/8"	Monel K500
PLI-BB114	1 1/4" NPT	316 SS	13/4"	21/2"	Monel K500
PLI-BB1	1" NPT	316 SS	15/16"	27/16"	Monel K500
PLI-BB34	3/4" NPT	316 SS	11/8"	13/4"	Monel K500
PLI-BB12	1/2" NPT	316 SS	7/8"	15/8"	Monel K500
PLI-BB38	3/8" NPT	316 SS	7/8"	15/8"	Monel K500
PLI-BB14	1/4" NPT	316 SS	7/8"	15/8"	Monel K500

OPTIONS: Alternative configurations, threads, materials (UNS S31803 - Duplex) and plating are available on request.

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ON LINE VALVE LUBRICATION & SEALING

TITLE: PLI BODY BLEED FITTING

23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054 PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929

DRAWING NUMBER: PLI-BB DRAWN BY: DAVID BRAMLEY

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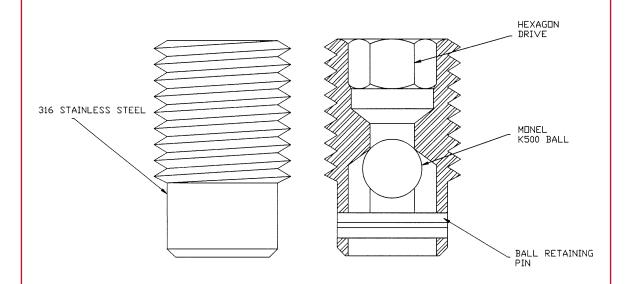
## Internal Check Fitting

PART NO: PLI-ICF

The I.C.F. is installed before the lube fitting.

#### PART NUMBER

PLI-ICF



SINGLE (SPRING LOADED) BALL CHECK FITTING	
PART#	THREAD SIZE
PLI-IC1	1" - 8
PLI-IC78	<sup>7</sup> / <sub>8</sub> " - 9
PLI-IC34	<sup>3</sup> / <sub>4</sub> " - 10
PLI-IC12	1/2" - 13
PLI-IC14	1/4" - 20
PTIONS: Alternate configurations, Threads, M	laterials and Plating are available on requ

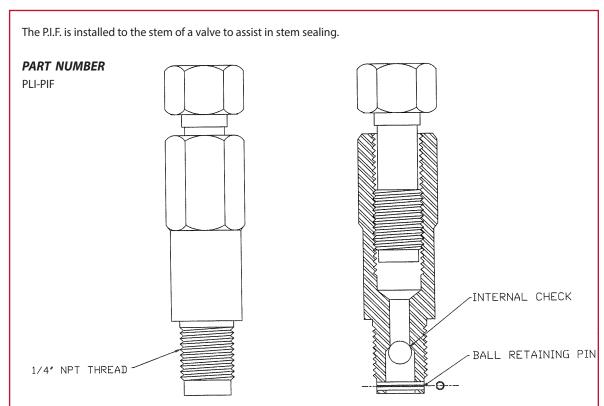
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ON LINE VALVE LUBRICATION & SEALING	TITLE: PL INTERNAL CHECK FI	TTING	
23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054			
PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929		© COPYRIGHT	DATE:3/5/05

# Packing Injection Fitting PART NO: PLI-PIF



PACKING INJECTION FITTING		
PART#	PLI-PIF	
PLI-PIF14	1/4" MPT	
PLI-PIF38	3/8" MPT	
PLI-PIF38	1/2" MPT	
Material: 316 SS		
Plating: Zn + Cr <sub>2</sub> O <sub>4</sub>		
<i>OPTIONS:</i> Alternative material (S1214 plated) grades, plating and attachment threads available on request		

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ON LINE VALVE LUBRICATION & SEALING TITLE: PL PACKING INJECTION FITTING

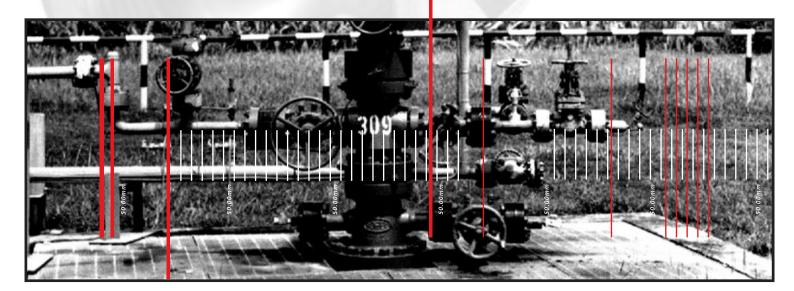
23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054 PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929

DRAWING NUMBER: PLI-PIF DRAWN BY: DAVID BRAMLEY © COPYRIGHT DATE:3/5/05









## **Adaptors**

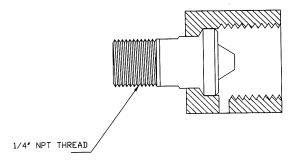


# Lube Adaptor PART NO: PLI-LA

The PLI Lube Adapter is used on the end of a lube whip hose or safety vent coupler for lube fitting connection

#### PART NUMBER

PLI-LA





LUBE ADAPTOR			
PART #	TO FIT THREAD		
PLI-LA114	1" - 14 UNS		
PLI-LA78	7/8" - 14 UNF		
PLI-LA34-16	³¼" - 16 UNF		
STANDARD MATERIAL: S1214			
PLATING : Zn + Cr2O4			

PROPRIETARY NOTICE:

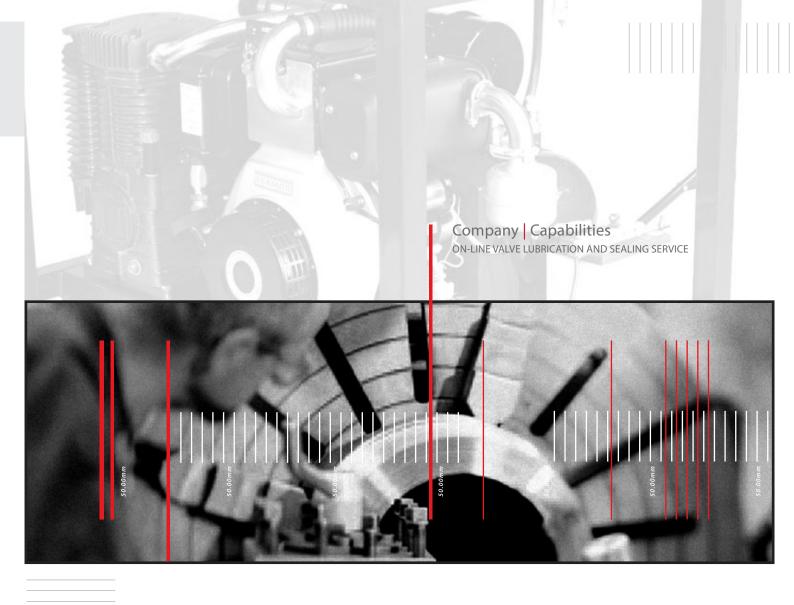
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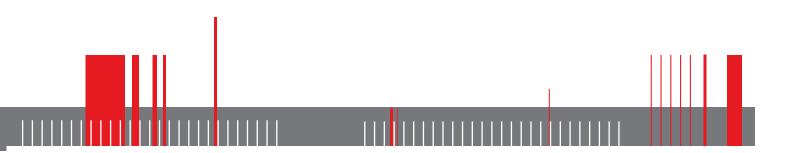
#### ON LINE VALVE LUBRICATION & SEALING

23 JACKSON STREET, BASSENDEAN WESTERN AUSTRALIA 6054
PHONE: +61-8-9379 1200 FAX: 61-8-9279 9929 DRAWN BY: DAVID BRAMLEY

G	TITLE: PLI LUBE ADAPTOR		
N 54	DRAWING NUMBER: PLI-LA		
29	DRAWN BY: DAVID BRAMLEY	© COPYRIGHT	DATE:3/5/05



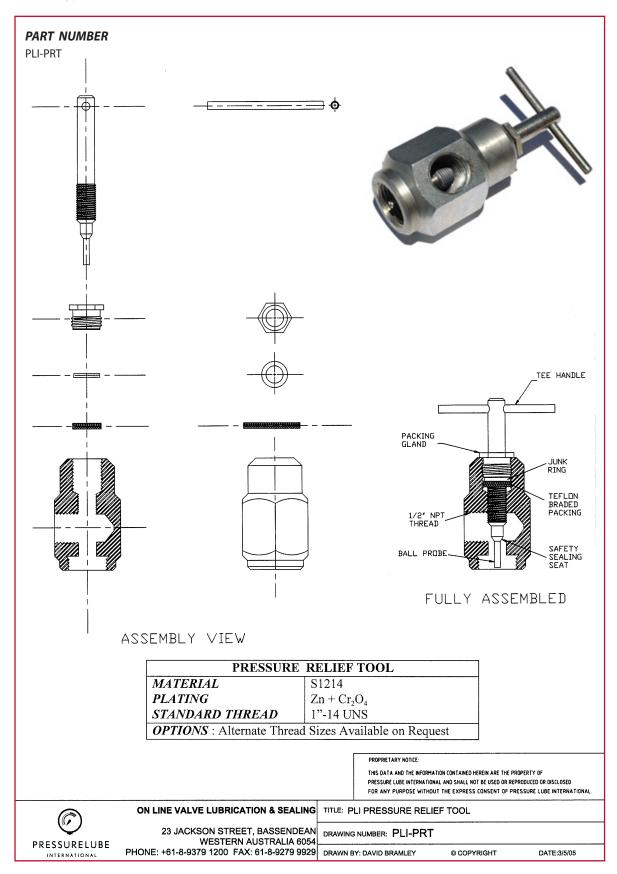
Safety Tools





## Pressure Relief Tool PART NO: PLI-PRT

The PLI Pressure Relief Tool is used to screw onto the lube fitting to vent pressure.



### Leak Lock Fitting PART NO: PLI-LLF

The L.L.F. connects to a giant button head fitting. It is used as a lube adapter or to seal a leaking giant button head fitting.

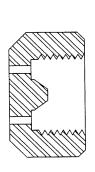
#### PART NUMBER

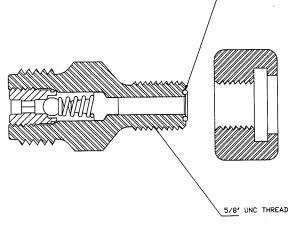
PLI-LLF

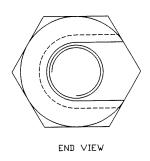


NOTE: O-RING FOR EFFICIENT SEAL









LEAK LOK FITTING		
PART #	TO SUIT	
PLI-LL1	GIANT BUTTON HEAD	
PLI-LL2	STANDARD BUTTON HEAD	
NUT: MATERIAL: S1214		
$PLATING: Zn + Cr_2O_4$		
FITTING: AS PER STANDARD EASY FLOW FITTING		

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ON LINE VALVE LUBRICATION & SEALING TITLE: PLI LEAK LOCK FITTING

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DRAWING NUMBER: PLI-LL

© COPYRIGHT DATE:3/5/05



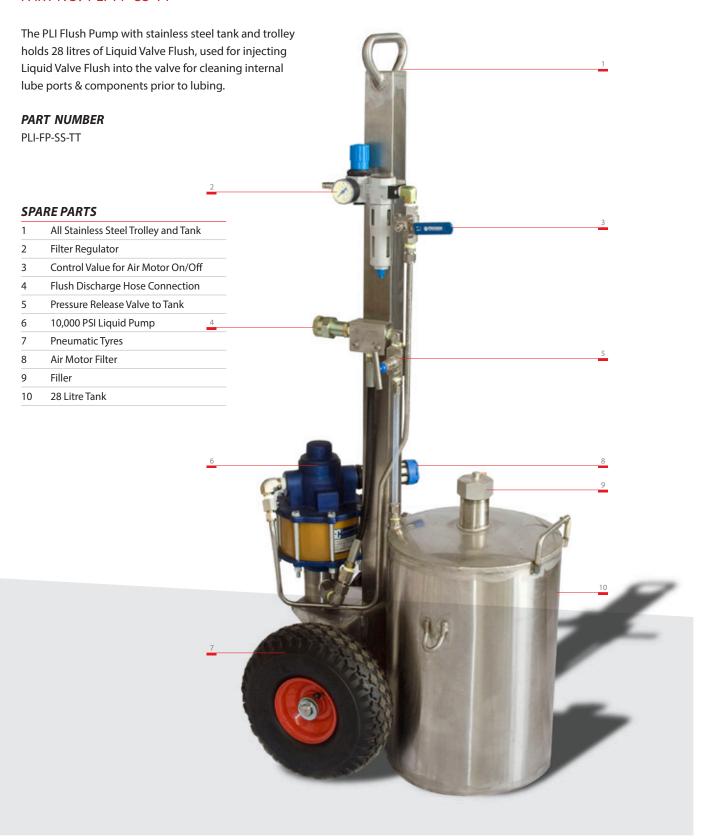




## Diesel Air Compressor Pumps & Equipment



### Flush Pump PART NO: PLI-FP-SS-TT

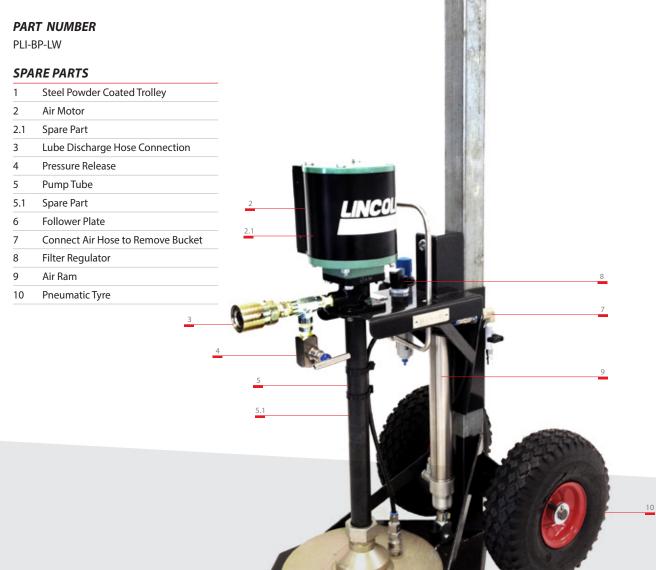


## DIESEL AIR COMPRESSOR

### Bucket Pump PART NO: PLI-BP-LW

The PLI Bucket pump (lightweight) will deliver up to 8,500psi. It is used for the injection of sealant and lubrication into valves.

The PMV 8,500psi Bucket Pump is designed as a compact lightweight, high pressure unit that is easily carried in a helicopter. Good for servicing up to 12" ball valves.





#### PM3 Pump - Premium PART NO: PLI-PM3-7PSI PRM

The Powermaster 3 - 7,500psi high pressure lubrications and injecting lubricant or sealant into any size Gate, Plug or Ball Valve. It features the same PM3 lubrication pump arrangement as the Standard Model but includes additional features that provide improved life cycle & functionality. Features: Heavy duty, compact frame, HD pneumatic wheels, Pneumatic lift ram, Air filter lubricator, 2 sets of Quick connect couplings, Lincoln Power Master 3 Air Motor with Full 6" stroke, 4.5m high pressure hose (1,000 bar wp). 1/2" Whip hose assembly with Universal Swivel, safety tee for high pressure bleed off, 10,000psi gauge and ball valve, 316SS Fittings & Tubing, Built in counter for accurate measurement of lube/sealant, Blow off valve to the follower plate for easy removal of the bucket, Safety guarding on the trolley.

#### PART NUMBER

PLI-PM3-7PSI

SPARE PARTS				
1.1	Power Valve			
1.2	Pilot Bar			
1.3	Muffler Filter			
1.4	Air Motor Complete			
2	Counter with Reset to count air motor strokes from the lube pump			
3	High Pressure Safety Tee with needle valve for pump and line pressure release			
3.1	Needle Valve - Pressure Release			
3.2	Quick Connector			
4	Pump Tube			
5	Follower Plate O-Ring			
5.1	Air Bleed Valve			
6	Solid Trolley Frame powder coat painted			
7	Safety Guard			
8	Air filter / regulator / lubricator (105psi max air pressure)			
9	Air Supply In			
10	Pneumatic Air Ram			
11	Blow off valve to the follower plate for removing the bucket			
12	Up/Down air control valve for the air ram on the lube pump			
13	On/Off valve for the air motor to the lube pump			
14	Identification Tag			
15	Pneumatic Tyres			



### PM3 Pump PART NO: PLI-PM3-14PSI





# Aluminium Trolley PART NO: PLI-AL-T

Sturdy Aluminium Trolley, 4 pneumatic wheels for carrying service equipment throughout process plant. Complete with tie-downs, tool tray and air hose reels.



**SPARE PARTS** 

2 Pneumatic Tyres

Aluminium Trolly Powder Coated

## DIESEL AIR COMPRESSOR PUMPS & FQUIPMENT

### Open Skid Unit PART NO: PLI-OSU

Open Skid Unit with Power Master 3 7,500psi Lubrication Sealant Pump, 38 litre tank with 10,000 PSI, liquid flush pump, two supply hose reels and full pneumatic control cabinet.

Designed for the back of a 4×4 pickup or a light truck. All equipment is air operated and assembled on a heavy duty steel protective frame.

#### PART NUMBER

PLI-OSU



#### SPARE PARTS

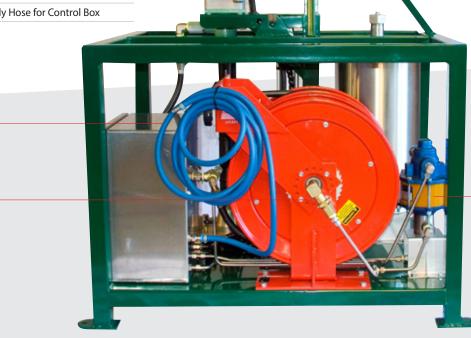
- 1 Complete Air Motor
- 1.1 Power Valve Seals
- 1.2 Pilot Bar Seals
- 1.3 Muffler Filter
- 1.4 Air Motor Seals
- 2 Needle Valve Lube Pressure Release
- 3 Pneumatic Air Ram
- 4 Liquid Flush Reel Complete with Hose
- 5 Lube / Seal Reel Complete with Hose
- 6 Complete Control Cabinet
- 7 Follower Plate O-Ring



### Rear View

#### **SPARE PARTS**

- Liquid Flush Reel Complete with Hose
- Liquid Flush Pump
- Air Supply Hose for Control Box



### Open Skid Unit **Control Cabinet**

### **SPARE PARTS**

- Air Filter Regulator
- 3 Adjustable Oil Lubricator
- 5 Air Control Valve
- Pneumatic Counter with Reset 6
- 7 Lube Pressure Gauge
- 8 On/Off Valve for Lube Air Motor
- 9 **Bucket Blowoff Valve**
- 10 On/Off Valve for Flush Pump
- 11 Flush Pressure Relief Valve
- Flush Pressure Gauge



## DIESEL AIR COMPRESSOR

## Open Skid Unit PART NO: PLI-OSU-1

The Open Skid Unit is designed and used for pumping Lubricant/Sealant and Liquid Flush into Well Head, Pipeline, and process plant valves in the Oil & Gas industry.

The OSU unit consists of two Lincoln PM3 7,500psi Lubrication/Sealant Pumps, Stainless Steel 38 litre liquid tank with a 10,000psi liquid flush pump, 3 supply hose reels complete with 15m hoses and safety whips, 30 CFM, 10HP, Electric and Pull Start Diesel Powered Air Compressor with a 53 litre air receiver, All this is controlled by a full pneumatic control cabinet.

The OSU is designed for the back of a 4×4 pickup, light truck, or a trailer. All equipment is air operated and assembled on a heavy-duty steel Powder Coated protective frame. The frame size and pumps can be modified to suit applications.





## Open Skid Unit PART NO: PLI-SKID-6

The Custom Open Skid Unit is designed and used for pumping Lubricant/Sealant and Liquid Flush into Well Head, Pipeline and process plant valves in the Oil & Gas industry. The frame size and pumps can be modified to suit application.

The COSU consists of two Lincoln PM3 14,000psi Lubrication/Sealant Pumps regulated down to a maximum 10,000psi, Stainless Steel 38 litre liquid tank with a 10,000psi stainless steel liquid flush pump, 3 supply hose reels complete with 15m hoses and safety whips, 30 CFM, 10HP Diesel Powered Air Compressor with a 53 litre air receiver, All this is controlled by a full pneumatic control cabinet.

The COSU is designed for the back of a 4×4 pickup, light truck or a trailer. All equipment is Air Operated and assembled on a heavy-duty steel Powder Coated protective frame.



## DIESEL AIR COMPRESSOR

## Open Skid Unit PART NO: PLI-OSU-7

The Custom Open Skid Unit is designed and used for pumping Lubricant/Sealant and Liquid Flush into Well Head, Pipeline and process plant valves in the Oil & Gas industry. The frame size and pumps can be modified to suit application.

The PLI-OSU-7 consists of two Lincoln PM3 7,500psi Lubrication/Sealant Pumps, Stainless Steel 38 litre liquid tank with a 10,000psi stainless steel liquid flush pump, 3 supply hose reels complete with 15m hoses and safety whips, 1 air hose reel complete with 20m of air hose and quick connector, 30 CFM, 10HP Diesel Powered Air Compressor with a 53 litre air receiver. All this is controlled by a full pneumatic control cabinet.

The PLI-OSU-7 is designed for the back of a 4×4 pickup, light truck or a trailer. All pump equipment is Air Operated and assembled on a heavy-duty steel Powder Coated protective frame.





# Diesel Air Compressor (Zone 2) PART NO: PLI-DPAC-Z2

### **ZONE 2**

Diesel Powered Air Compressor, 30 CFM, 10HP, PULL start, diesel motor, 45 litre receiver, filter regulator with two quick air connectors for air hoses, all electrics are removed. Emergency and auto shut down controls, spark arrested motor. All assembled on a heavy duty protective steel frame designed to work in the dessert.

#### PART NUMBER

PLI-DPAC-Z2



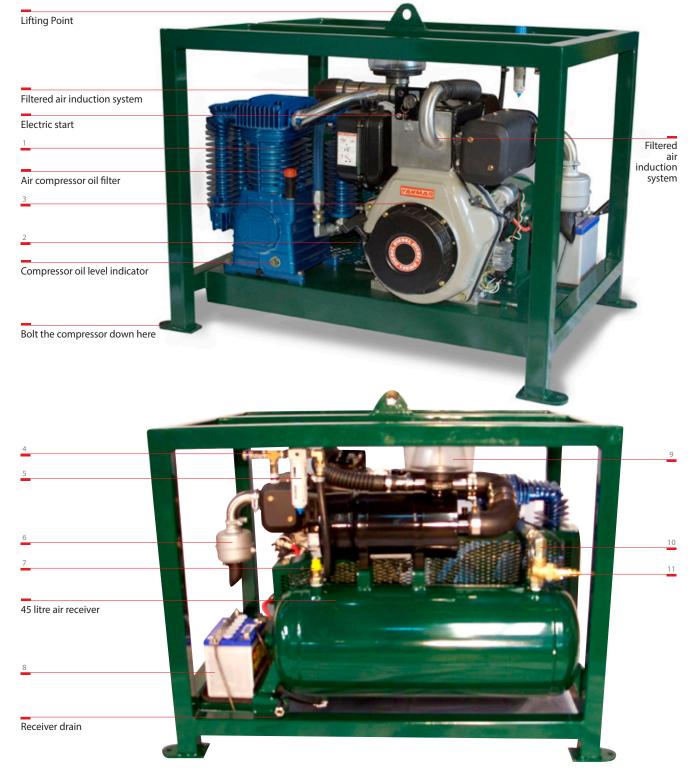
## DIESEL AIR COMPRESSOR PUMPS & FQUIPMENT

## Diesel Air Compressor PART NO: PLI-DPAC-ES

#### **Electric Start**

#### **SPARE PARTS**

1	Piston Air Compressor	7 Pressure Relief
2	Pull Start	8 12 Volt Battery
3	10HP Diesel Engine	9 Donaldson Air Filtration Unit
4	Quick Air Connectors	10 Air Receiver Pressure Gauge
5	Filter Regulator	11 Unloader Valve
6	Spark Arrestor	





# Diesel Air Compressor PART NO: PLI-DPAC-ES

For pull starting. Tune the fuel on. Tune the ignition key on. Hold the decompression lever down and slowly pull the pull start handle 1 time for fuel priming, then standard pull start procedures apply.

NOTE: **Do Not** use the decompression valve to stop the engine

Fill with Diesel only

For electric starting, Tune the fuel on. Tune the key to start the engine. Leave the key in the on position when the engine is running, so the battery can be charged. When the engine is stopped, tune the key off.

Tune fuel valve. ON & OFF

Pull start

Threaded rods to assist in engine alignment and belt tensioning



Pneumatic throttle control.

To check diesel oil

To stop the engine, pull this lever out until engine has completely stopped , then tune the ignition and fuel off.

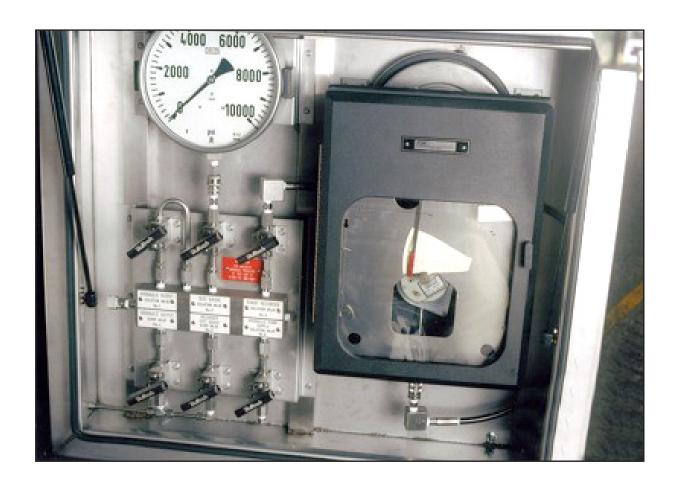


### DIESEL AIR COMPRESSOR PUMPS & EQUIPMENT

## Calibrated Chart Recorder PART NO: PLI-CCR

10,000 PSI Calibrated Chart Recorder as part of an integrity testing rig. The whole unit is mounted in a hinged door stainless steel cabinet, fully weather sealed and lockable.

**PART NUMBER** PLI-CCR





### DIESEL AIR COMPR<mark>e</mark>ssor Pumps & Fquipment

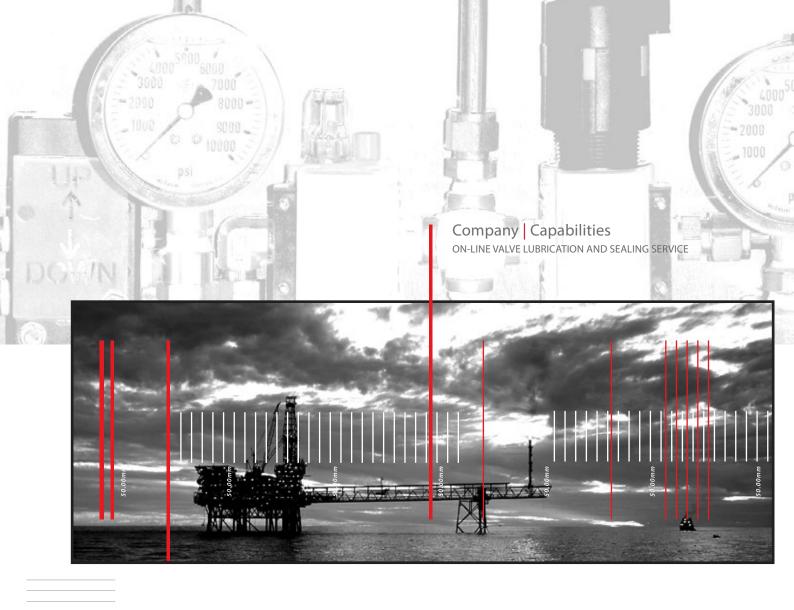
### Whip Hose PART NO: PLI-WP

The PLI Whip Hose is an integral part of the pump's delivery and safety feature. A short flexible high pressure hose allows the operator to step back from the valve and still have control of flow and isolation via the stainless steel ball valve. There is a universal Z-swivel with a 90 degree elbow and a LA114 lube adaptor, these items give greater flexibility when connecting to the valve. The pressure gauge indicates the delivery pressure at the lubrication fitting. This safety whip has a high pressure full flow quick connector, for easy connection/disconnection to the supply hose.

#### PART NUMBER

PLI-WP





### **Lubrication / Sealing Pump Operating Procedures**





### Lubrication / Sealing Pump Operating Procedures

#### STEP1

- · Position unit at desired location.
- Check that 3 way versa valve is in centre (neutral) position.
- · Connect air supply.
- · Check for leaks once the air has equalised.
- Set main regulator to 105 Psi.
- Check lubricator when operation pump to 6-10 drops/minute (minimum 6).

#### STEP 2

- Position the versa valve backward or down position to pressure equalize the air ram before raising the pump up.
- Position the versa valve forward to activate the air cylinder and raise the pump and the follower plate, so that a 40lb pail can be positioned.

#### STEP 3

- Open valve on follower plate.
- Position the versa valve backward to activate the air cylinder and lower the pump and the follower plate.
- Slowly lower pump and follower plate into the 40lb.
   Pail. (Note: insure that the pail is properly centred).
- Leave verse valve in down position. This provides a downward force to assist in pumping.
- · Close valve on follower plate.

#### STEP 4

- · Connect discharge hose.
- · Slowly open main air supply ball valve to pump.
- · Pump will start to cycle.
- Pump lubricant/sealant to clear hose and bleed air.
- Attach whip pump lubricant/sealant to clear and bleed air.
- Close whip ball valve and place proper fitting on swivel for job.
- Set counter, 14 strokes = 1 pound.

#### STEP 5

- To remove pail, position the versa valve forward to activate the air cylinder and raise the pump and follower plate to the fully raised position.
- Slowly open ball valve that directs air to the follower plate. This will blow the pail off.



