# **LubePro™ Series Pumps**



For Simple, Injector-based Automatic Lubrication Systems



As a hard-working professional focused on ensuring your production lines keep moving and your operating costs are reduced, automatic lubrication should be an essential part of your machine maintenance. Without proper lubrication your equipment can suffer from downtime and reduced life, which impacts your company's bottom line. Avoid the hassle. Meet your LubePro...

# LubePro

# **Built to Last. Built to Perform.**



# Field-Proven Reliability

For nearly 60 years, Graco Fire-Ball™ pumps have been a mainstay in the lubrication marketplace for durability and long life. Designed for the toughest applications, the Fire-Ball repeatedly outperforms and outlasts the competition. LubePro™ series pumps leverage the same proven quality and leading technology.

### **Performance**

LubePro series pumps offer a robust solution where high output and fast lubrication cycles and flow rates are needed to optimally lubricate equipment while it's working. Our robust design has been tested to outperform the competition.

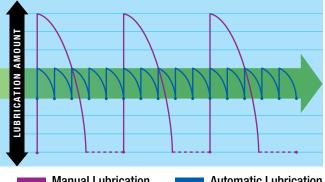
**Over-Lubrication** • Wasted lubricant

- Excess heat build-up
- Unnecessary labor costs

## **Optimal Lubrication**

**Under-Lubrication** • Higher energy usage

- More component wear
- Increased operating costs



**Manual Lubrication** Automatic Lubrication

# **Positive Impact to Your Bottom Line**

LubePro is the choice of lubrication professionals, because it positively impacts your company's bottom line by automatically providing the optimal amount of lubrication at the right time.

- Extends equipment life
- Improves productivity
- · Reduces downtime
- Reduces repair costs
- Reduces operating costs
- Improves employee safety

# **Typical Applications**

- Packaging
- Food and Beverage Processing and Packaging
- Glass Manufacturing
- Tire Production
- Thermoforming
- Injection Molding

- Paper Production
- Labelers
- Automation Machinery
- Presses
- · Steel Forging and Finishing
- Bearing Manufacturing









# **Vertical Pumps**

# **A2800 and A2900**

### High-strength, shatter-resistant reservoir

Utilizes a high-quality, polycarbonate reservoir

## Self-venting pump

Integrated vent automatically relieves pressure on return stroke, no pressure switch or wiring required

### Easy to Install

Utilize existing mounting holes for easy replacement and installation

### Simple Controlling

PLC or Lube controller actuates a 3-way air valve to drive pump, and vent on the return stroke

## Pneumatic Power

Easily installed into existing air line

#### **Technical Specifications** A2800 A2900 Fluid Handling Capabilities 40 cSt oil minimum Up to #2 grease Maximum Working Pressure 3,500 psi (241 bar) 3,500 psi (241 bar) Pressure Ratio 28:1 29:1 Pump Output Per Stroke 0.56 in3 (9.18 cm3) 0.58 in<sup>3</sup> (9.5 cm<sup>3</sup>) Maximum Air Inlet Pressure 175 psi (12.1 bar) 175 psi (12.1 bar) Air Inlet Size Fluid Outlet Size 1/4 in. NPT 14° F - 149° F (-10° C - 65° C) Operating Temperature

### Fast cycle rate and flow

Pro A2800

24Z028

Cycles and vents lubricant injectors in as little as 10 seconds. 0.56 in³ of oil per stroke and 0.58 in³ of grease per stroke.

### Multiple Reservoir Types

Oil without follower plate -0.6 and 2 liter Grease with follower plate -1 and 4 lb.

### Low Level Detection

Reliable, Graco factory-installed low level indicator that is easy to connect using a simple DIN connection.



Ordering Information							
				NF	PT	BS	PP
Pump Model	Fluid	Pressure Ratio	Reservoir Size	Pump Without Low Level	Pump With Low Level	Pump Without Low Level	Pump With Low Level
			0.6 liters	iters 24Z020	24Z021 (NO)	24Z023	24Z024 (NO)
A2800	Oil	28:1	0.0 111615		24Z022 (NC)		24Z025 (NC)
A2000	UII	28:1	2 liters	24Z026	24Z027 (NO)	24Z029	24Z030 (NO)
					24Z028 (NC)		24Z050 (NC)
			1 lb	0.47051	24Z052 (NO)	24Z054	24Z055 (NO)
40000	Crass	00.1	1 10	24Z051	24Z053 (NC)		24Z056 (NC)
A2900	Grease	29:1	1 lb	0.47057	24Z058 (NO)		24Z061 (NO)
		4 lb 247	24Z057 24Z059 (NC)	24Z060	24Z062 (NC)		

**Horizontal Pumps** 

H1900, A1900 and A2600

## Two reservoir types

2 liter reservoir available in grease or oil. Select from the 19:1 oil pump or the 26:1 grease pump.

### High-strength, shatter-resistant reservoir

Utilizes a high-quality, polycarbonate reservoir that is securely mounted to the pump with rigid tie rods for optimal sealing

### Easy to install

Utilize existing mounting holes for easy replacement and installation

### Fire-Ball pump casting

Leverages the proven quality and long life of Graco's Fire-Ball pump. Eliminates tie rods and end cap.

### Low level detection option

Reliable, Graco factory-installed low level indicator that is easy to connect using a simple DIN connection

### Fast cycle rate and flow

Cycles and vents lubricant injectors in as little as 10 seconds. 2.2 in<sup>3</sup> of grease per stroke and 3.0 in<sup>3</sup> of oil per stroke.

### Self-venting pump

Integrated vent automatically and reliably relieves pressure on return stroke, no pressure switch or wiring required

### No priming required

No need to bleed the valve to prime the pump, no priming is required

#### Pneumatic Power

Easily installed into existing air line

17C753

Technical Specifications				
	H1900	A1900	A2600	
Fluid Handling Capabilities	40 cSt oil minimum	40 cSt oil minimum	Up to #2 grease	
Maximum Working Pressure	3,500 psi (241 bar)	3,500 psi (241 bar)	3,500 psi (241 bar)	
Pressure Ratio	19:1	19:1	26:1	
Pump Output Per Stroke	3.0 in³ (49.16 cm³)	3.0 in³ (49.16 cm³)	2.2 in³ (36.05 cm³)	
Maximum Air Inlet Pressure	185 psi (12.8 bar)	185 psi (12.8 bar)	135 psi (9.3 bar)	
Air Inlet Size	1/4 in. NPT			
Fluid Outlet Size	3/4 in. NPT			
Operating Temperature	14° F - 149° F (-10° C - 65° C)			

Ordering Information							
			NPT		BSPP		
Pump Model	Fluid	Pressure Ratio	Reservoir Size	Pump Without Low Level	Pump With Low Level	Pump Without Low Level	Pump With Low Level
H1900	Oil	19:1	-	24Y498	24Y499	25Y498	25Y499
A1900	Oil	Oil 19:1	2 liters	17C753	17C752 (NO)	18C753	18C752 (NO)
AISOU	Oil	19.1	2 111613		19C752 (NC)		20C752 (NC)
A2600	Grease	26:1	4 lb	170750	17C751 (NO)	18C750	18C751 (NO)
A2600	Grease	20:1	4 10	17C750	19C751 (NC)		20C751 (NC)

17C750

24Y499

# **A900 Pump**

### High-strength, shatter-resistant reservoir

Utilizes a high-quality, polycarbonate reservoir that is securely mounted to the pump with rigid tie rods for optimal sealing

## Low level detection option

Reliable, Graco factory-installed low level indicator

### Large-capacity oil pump

9:1 oil pump with 2.8 liter capacity

### Fast cycle rate and flow

Cycles and vents lubricant injectors in as little as 10 seconds and provides 1.5 in³ of oil per stroke

# Self-venting pump

Integrated vent automatically relieves pressure on return stroke, no pressure switch or wiring required

## Pneumatic Power

Easily installed into existing air line

Technical Specifications			
	A900		
Fluid Handling Capabilities	40 cSt oil minimum		
Maximum Working Pressure	1,350 psi (93.1 bar)		
Pressure Ratio	9:1		
Pump Output Per Stroke	1.5 in³ (24.58 cm³)		
Maximum Air Inlet Pressure	150 psi (10.3 bar)		
Air Inlet Size	1/4 in18 NPSF		
Fluid Outlet Size	1/4 in18 NPT		
Operating Temperature	-4° F - 149° F (-20° C - 65° C)		

Ordering Information					
			NI	PT	
Pump Model	Fluid	Pressure Ratio	Reservoir Size	Pump Without Low Level	Pump With Low Level
A900	Oil	9:1	2.8 liters	24X717	24X694



# **GL Series Grease and Oil Injectors**

# **Higher Quality, Higher Performance**

Choose durable, long-lasting Graco injectors to perform your lubrication automatically and minimize downtime and maintenance costs.

- · Long-life seals
- One-piece, machined body
- Seven outlet fitting sizes
- · Adjustable injector output
- · Visual indicator pin
- Wide range of manifold options



Technical Specifications				
	GL-32	GL-43	GL-33	GL-42
Maximum operating pressure	3500 psi (241 bar)	1000 psi (69 bar)	3500 psi (241 bar)	1000 psi (69 bar)
Minimum operating pressure	1200 psi (83 bar)	750 psi (52 bar)	1200 psi (83 bar)	750 psi (52 bar)
Typical operating pressure	1500 psi (103 bar)	850 psi (59 bar)	1500 psi (103 bar)	850 psi (59 bar)
Reset pressure	200 psi (13.7 bar)	150 psi (10 bar)	200 psi (13.7 bar)	150 psi (10 bar)
Output volume per cycle	0.001 - 0.008 in <sup>3</sup>	(0.02 - 0.13 cm³)	0.001 - 0.003 in	(0.02 - 0.05 cm³)
Maximum temperature rating	350° F (176° C)			
Recommended fluids	Grease, up to NLGI #2	Oil, SAE 10 weight minimum	Grease, up to NLGI #2	Oil, SAE 10 weight minimu

## **Ordering Information**

### **GL-32 and GL-43**

	Carbor	n Steel	Stainless
Number of Injectors	GL-32	GL-43	GL-32
1	24A921	24E241	24E391
2	24A922	24E242	24E392
3	24A923	24E243	24E393
4	24A924	24E244	24E394
Standalone	24A919	24E240	24E389
Replacement	24A920	24E245	24E390

Graco GL-1 Series injectors can also be used with the LubePro Series pumps. See Graco's Industrial Lubrication Equipment Buyer's Guide for ordering information.

### GL-33 and GL-42

	Carbon Steel		Stainless
Number of Injectors	GL-33	GL-42	GL-33
1	24W401	24W801	24W601
2	24W402	24W802	24W602
3	24W403	24W803	24W603
4	24W404	24W804	24W604
5	24X302	24X306	24X304
6	24W405	24W805	24W605
9	24W406	24W806	N/A
10	24W407	24W807	24W606
15	24W408	24W808	24W607
Standalone	24W487	24W493	24W489
Replacement	24W483	24W491	24W485

# **LubePro Accessories**

### Air Valves

- 3-way air valves available for A900, A2800, and A2900 Vertical Oil Pumps
- 4-way air valves available for A1900, H1900, and A2600 Horizontal Pumps



Ordering I	nformation
215407	3-way air solenoid valve, 150 psi (10 bar), (1/2 npsm(f) conduit ports for wiring; 1/4 npt(f) air ports, adapted to 3/8(f) IN, 3/8(m) OUT) operates on 24V DC and 110 VAC.
105474	3-way air solenoid valve (bare), 150 psi (10 bar), same as 215407 but without wire connectors or adapters. 1/2 npsm(f) conduit ports for wiring, 1/4 npt(f) air ports. 150 psi (10.3 bar) maximum working pressure.
563315*	3-way pneumatic solenoid valve, 115 VAC
563332*	3-way pneumatic solenoid valve, 24 VDC
128305	4-way air valve, 12 VDC
128254	4-way air valve, 24 VDC
128255	4-way air valve, 110 VAC
128257	4-way air valve, 220 VAC
560734	Air valve reservoir mounting bracket
24Y079	4-way air valve installation kit – 12 VDC air valve, bracket, air lines, fittings
24Y080	4-way air valve installation kit – 24 VDC air valve, bracket, air lines, fittings
24Y081	4-way air valve installation kit – 110 VAC air valve, bracket, air lines, fittings
24Y082	4-way air valve installation kit – 220 VAC air valve, bracket, air lines, fittings

<sup>\*</sup>For use with A900 only.

# **Controllers**

GLC2200 or GLC4400 lubrication controllers are available.





## **Pressure Switches**

Not required, but can be used as an alarm to detect if pressure was not achieved.



Ordering Ir	Ordering Information			
24N468	GLC 2200 controller			
24P314	GLC 2200 wiring harness – 5 feet (150 cm), flying leads			
24W981	GLC 2200 wiring harness – 10 feet (300 cm), flying leads			
24P686	GLC 2200 connector (1) and pins (12)			
24P687	GLC 2200 connectors (5) and pins (60)			
24B591	GLC 4400 Controller, 9-30 VDC			
24B596	GLC 4400 Controller, 100-240 VAC			

Ordering Information		
24K414	Set pressure range 290-580 psi (20-40 bar), reset pressure range 175-5,685 psi (12-392 bar), M12 connector (female), 9.6-32 VDC, 1/4 inch (7.6 cm) npt thread (male)	
115124	Single post pressure switch	
558947	Dual post control pressure switch	
24N180	IP65 rated. Fluoroelastomer seals. Din connector. 580-5,800 psi (40-400 bar). 1/4 inch bspp inlet.	
24N181	IP65 rated. Fluoroelastomer seals. Din connector. 580-5,800 psi (40-400 bar). 1/4 inch npt inlet.	

Visit www.graco.com for additional switch options.

# Air Filter-Regulator-Lubricators

Not required, but can be used in-line to protect and extend system component life.

# Coupler

Quick-disconnect coupler used to fill grease reservoirs on A2600 and A2900.

### **Ordering Information**

110149

Kit includes 20 micron air filter (110146), regulator (110318), 300 psi (21 bar) WPR maximum lubricator (110148), and pressure gauge (110319). 1/4 inch npt inlet/outlet.

### **Ordering Information**

121474

Female coupler. Quick-disconnect. 1/4 inch npt.



### **AMERICAS**

### **MINNESOTA**

Worldwide Headquarters Graco Inc. 88-11th Avenue N.E. Minneapolis, MN 55413

#### MAILING ADDRESS

P.O. Box 1441 Minneapolis, MN 55440-1441 Tel: 612-623-6000 Fax: 612-623-6777

### **EUROPE**

### **BELGIUM**

Graco BVBA Industrieterrein-Oude Bunders Slakweidestraat 31 B-3630 Maasmechelen, Belgium Tel: 32 89 770 700 Fax: 32 89 770 777

### **ASIA PACIFIC**

## AUSTRALIA

Graco Australia Pty Ltd. Suite 17, 2 Enterprise Drive Bundoora, Victoria 3083 Australia Tel: 61 3 9468 8500 Fax: 61 3 9468 8599

#### CHINA

Graco Hong Kong Ltd.
Shanghai Representative Office
Building 7
1029 Zhongshan Road South,
Huangpu District
Shanghai, 200011
The People's Republic of China
Tel: 86 21 649 50088 Fax: 86 21 649 50077

### INDIA

Graco Hong Kong Ltd. India Liaison Office Room 443, Level 4 Augusta Point, Golf Course Road Gurgaon, Haryana, India 122001 Tel: 91 124 435 4208 Fax: 91 124 435 4001

### JAPAN

Graco K.K. 1-27-12 Hayabuchi Tsuzuki-ku Yokohama City, Japan 2240025 Tel: 81 45 593 7300 Fax: 81 45 593 7301

#### KOREA

Graco Korea Inc. Shinhan Bank Building 4th Floor #1599 Gwanyang-Dong, Dongan-Ku, Anyang-si, Korea 431-060 Tel: 82 31 476 9400 Fax: 82 31 476 9801

©2016 Graco Inc. 352376 Rev. C 7/16 All other brand names or marks are used for identification purposes and are trademarks of their respective owners. All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.



# Graco's got you covered

**Facilities Worldwide for Global Support** 



# **Quality First**

At Graco we pride ourselves on providing best-in-class products. Engineered solutions are manufactured in our own facilities, with the highest standards in the industry. We provide you with world-class customer support and expertise to help solve your lubrication challenges.



## **Global Reach**

Graco has facilities and distribution partners across the globe to provide you with the products and service *you* need, where *you* live. Plus, Graco has dedicated field experts in all areas of the world to support the products we sell.



# **Product Capabilities**

Graco has a broad range of products to provide solutions that meet your needs. Our products are engineered and tested to perform in the harshest environments so you can be certain your equipment is protected and working at peak performance.

# Contact us today!

Call **800-533-9655** to speak with a Graco representative, or visit **www.gracolubepro.com** for more information.

