

# A Complete Family of Reliable Lubrication Equipment



# **Petroleum Management Group**

# Graco Pumps & Packages



- garages and repair shops · Handles hose lengths up to 65 ft (20 m)
- · Structurally reinforced frame doesn't flex when handling hose
- Multiple mounting options · Lightweight composite spool
- resists dents and corrosion · Compact design easily fits
- inside tool bench or cabinet
- professional mechanics
- · Handles hose lengths up to 65 ft (20 m)
- Long-lasting spring provides constant spring torque through the entire range of motion
- · Multiple mounting options Steel spool for demanding applications
- Open swivel ports ensure high fluid flow with minimal pressure loss
- Long lasting spring is sealed for protection against the weather Durable steel shool rides on sealed roller bearings to ensure trouble-free performance

lube trucks or large equipment

Handles hose lengths up to

Dual pedestal frame provides

increased strength for extreme-

service

65 ft (20 m)

duty applications

- unrestricted flow · Handles hose lengths up to
- 75 ft (23 m) Heavy-duty ball bearings outlast
  - sleeved-type bearings · Easy rewind with minimal hose
  - guidance Overhead mounting kit available
    - springs
      - · Rugged base and hose rollers · Heavy-duty latch mechanism

· Heavy-duty brackets and

· Handles hose lengths up to

high abrasion and corrosion

Industrial-grade paint for

50 ft (15 m)

resistance

· Full-flow shaft

- · Enclosures provide protection to extend the life of hoses and bearings
- Designed for enclosing the LD and SD single pedestal reels · End caps are easily removed
- for easy access to reels Enclosure mounting channels
- available to accommodate one to six reels

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# LD Pump, Reel and Meter

# **Performance** Runs in the Family

# State-of-the-Art Design

Each product in the LD family has innovative features built-in, plus advanced technologies designed to save you money and provide reliable performance and long life at a competitive price.

# **More Configurations**

Choose drum, tote or wall mount applications with multiple meter, pump and reel choices.

### **Industry Leading Warranty**

Graco offers one of the best warranties in the business – 5 years on all our LD Series family products.\*





# Everything you need right out of the box

Choose from a variety of dispense solutions. From the economical drum package to the high-performance tote packages, every solution is designed with the highest quality components for trouble free operation.



# **Professional Fluid Transfer Technology**

# **DEF Dispensing Systm**

# Choose from more configurations to get exactly what you need for your business.



# Why Graco?

### Value built-in

Choose from a variety of dispense solutions. From the economical drum package to the high-performance tote packages, every solution is designed with the highest quality components for trouble free operation. Uses long lasting BSPP seals for fewer leaks and a clean work environment. Field-proven pump provides years of reliable operation.

### Efficient, money saving operation

Versatile Husky 515 pump delivers up to 15 gpm (57 lpm) works on as little as 20 psi (1.4 bar) for money saving efficiency and is capable of 50 psi (3.4 bar) to provide high output over a long run of hose or piping. Powerful design has superior suction and lift for deep tanks or totes. Choose the best of both in one pump – power plus efficiency.

### **Clean transfer solution**

Quick change inlet kit provides strong seal between drum coupler and insert to prevent tank to tank contamination—easy to disconnect pump from empty tank leaving behind contaminated down tube.

# Everything you need right out of the box

A cost-effective system designed to serve multiple markets and applications. Choose from three configurations to fit your needs.

# The complete package– everything you need to get up and running fast.

All packages come with quick changeover inlet kit, air controls, air-operated double diaphragm pump, supply hose and auto shut-off nozzle. Simple bolt together assembly with no special tools.

### Tote Mount



Wall Mount



# **Drum Mount**



Note: In-line meter is optional. Check ordering information for the package that best fits your needs.

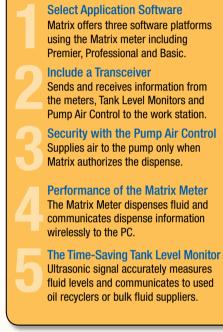
# Matrix<sup>®</sup> Total Fluid Management System™

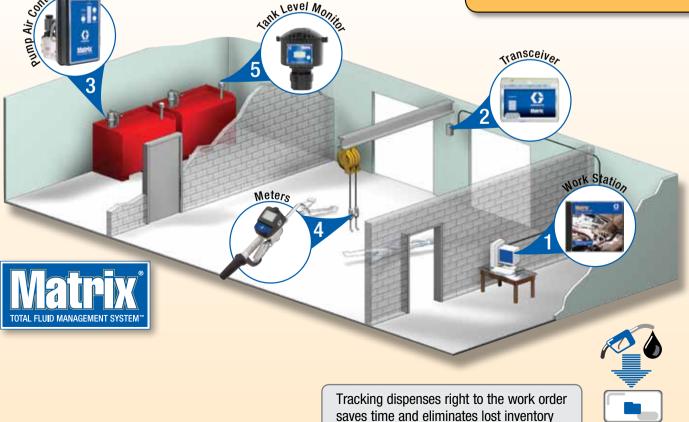
**Ideal for** car dealerships, truck dealerships, off-road maintenance shops, including mining and construction, fleet facilities, fast lubes, service shops and in-plant applications



Fluid dispense and **inventory control** at your **fingertips** for petroleum, synthetic oil products and anti-freeze mixtures

### **5 Steps to Choose Your System**





# The Benefits of Automatic Lubrication

# **Extends Equipment Life**

Proper lubrication means less component wear - extending your equipment's useful life and minimizing downtime for repairs.

# **Reduces Operating Costs**

Consume less energy, use less lubricant and run at maximum capacity.

### **Increases Productivity**

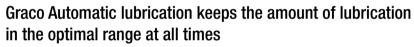
Lubricating your equipment while it's working eliminates downtime for routine lubrication and maintenance.

# **Results in Less Waste**

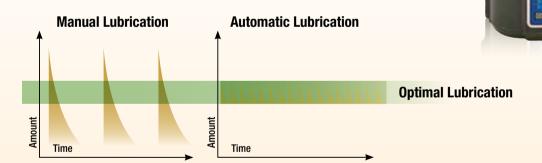
Measured amounts eliminates wasted lubricants and maintenance labor.

# Safer Work Environment

Manually lubricating machinery while it is in operation can be hazardous. Graco automatic lubrication equipment keeps you out of harm's way.



- Small amounts at frequent intervals
- In the right place at the right time-no more skipped lube points!
- No move over or under lubrication





# **Dyna-Star<sup>®</sup> Hydraulic Pump**

# Long-lasting, flexible design saves money and is easy to use and install

- Achieve full pressure performance by safely tapping low pressure hydraulics
- Pre-packaged modules ready-to-work with both injector and divider valve systems
- Multiple pump and accessory options for use with refinery drum and custom tank installations
- Self-lubricating for long life and reliable operation
- Ultra-quiet hydraulic motor no need for add-on mufflers

Rugged Digital Controller

Full featured performance-time- or pressure-based control to monitor

reservoir levels and system

High efficiency motor design uses less hydraulic oil

### **GL-1** Injectors

- · Exclusive seal design for up to 30% longer life
- Field adjustable output for most every application







# Trabon<sup>®</sup> Divider Valve Assembly

- · Accurately meters lubrication to each point
- Add performance indicators to ensure vital components have been lubricated

### **Pressure Switch**

Lets the controller know when optimum system pressure is reached ensuring complete lubrication cycle



### Field-Proven Graco Fire-Ball<sup>®</sup> Grease Pump Lower

Double-acting piston design - the industry standard for long life

### For optimal system performance NLGI #1 grease is recommended

### **Built-In Gauge**

### Pressure and Flow Control

Ability to adjust pressure and flow puts you in control



Conveniently monitor hydraulic output pressure



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# pressure

### Level Indicator

- Positive, at-a-glance indication of reservoir lubrication level
- Auto shut-down when low level is reached

### **Follower Plate**

Innovative design forces grease into the pump for consistent operation

#### **Center-Feed** Vent and Refill Port

Located below follower plate for trouble-free venting and refilling

# Introducing the G3 electric lubrication pump

With its flexible design, including adjustable pump elements and an ability to work with both injector-based and series progressive systems, G3 is a rugged, cost-effective pump designed to serve multiple markets and applications. Three control choices also mean added flexibility for easy lube system set-up, operation and troubleshooting. Extend machinery life, reduce operating costs and increase productivity with a G3 today!





#### Powerful pumping performance

• G3 delivers up to 5100 psi (352 bar) for handling NLGI #2 grease, even in cold temperatures

#### Two reservoir styles to choose from

- Stirring paddle with wiper arm breaks up air pockets and helps prevent grease separation
- Follower plate design allows for operation in any orientation; includes stirring paddle to help prevent grease separation

#### One, two or three pump elements

- G3 comes standard with one pump installed
- Add up to two more pump elements for higher output on large projects

#### AC and DC power choices - G3 makes it easy!

• Flexibility to connect to DC (12 or 24V) and AC (90-240V) power sources in both CPC and DIN-style connectors

# G3<sup>™</sup> Electric Pump

# Standard, Pro and Max

Choose the level of control you need for your series progressive or injector based applications.



#### G3 Standard

- No internal controller—use with separate or existing machine control for a low cost solution
- Capable of sending a low level signal to your external controller or PLC



#### G3 Pro

- Built-in controller with selectable pump on/pump off timer
- Low level indicator provides low warning and shut-down alarm
- Manual run initiates lube cycle on-demand (remote option also available)
- Password protection safeguards settings
- Pre-lube function can initiate lube cycle on start-up



- 1 Easy-to-read LED display
- 2 Clearly identified pump on/off indication
- ③ Monitoring of up to three independent zones
- 4 Programmable machine count feature
- 5 Alarm signal of lube system shutdown
- 6 Warning signal prior to lube system shutdown
- 7 Low level indication
  8 Password protected access to control
- 9 Pre-lube capability
- 10 Easy-to-use navigation keys





#### G3 Max

- Built-in controller with selectable pump on/pump off timer
- Low level indicator provides low warning and shut-down alarm
- Manual run initiates lube cycle on-demand (remote option also available)
- Password protection safeguards
- Pre-lube function can initiate lube cycle on start-up
- Up to three pressure or cycle switch inputs to ensure proper lubrication cycles
- Mix/match cycle and pressure switches for custom installations and feedback
- Machine count input–ideally suited for inconsistently used equipment
- Fault indication to external alarms

#### **Tech Specs**

Max Pressure 5100 psi (352 bar)
Power 12 VDC, 24 VDC, 90-240 VAC
Operating Temperature ~13 to 158 °F (-25 to 70 °C)
Reservoir Size 2, 4, 8, 12, or 16 liter
Adjustable Pump Output Per Element Per Minute
0.12 in <sup>3</sup> , 0.18 in <sup>3</sup> , 0.25 in <sup>3</sup> (2 cm <sup>3</sup> , 3 cm <sup>3</sup> , 4 cm <sup>3</sup> )
Lube Type Oil or Grease, up to NLGI #2
Certifications/RatingsCE, ETL*, IP69K *Conforms to UL 73, certified to CSA 22.2 No. 68-09
Instruction Manual 3A0414

# **Series Progressive Driver Valves**



# Trabon<sup>®</sup> USP-Uniblock Series Progressive

Trabon USP is an economical option to solving your lubrication system needs. It serves as a high quality entry point to move away from manual lubrication, and is smaller than competitive mono blocks to save valuable machine space.

#### **Features**

- Series progressive metering in a one piece block-no assembly required!
- Space efficient design with 6, 8, 10, 12, 14, or 16 outlets. Outlets can be combined to meet larger bearing needs
- Requires no special fittings, all fittings come with the valve block
- · Built-in outlet check valves ensure accurate lube delivery, every time
- Works with standard MSP magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event

#### **Typical Application**

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

# **Trabon<sup>®</sup> MD Series**

The Trabon MD Series is the most compact series progressive solution making it a perfect fit for tight spaced applications.

#### **Features**

- Available with 2, 3, 4, or 6 outlets
- Easy to install on new or existing equipment
- Use our cycle indicator pin models to provide positive assurance of a successful lube event

#### Typical Application

Industrial or mobile applications where space is at a premium



# **Trabon® MJ Series**



The Trabon MJ series features a compact and easily customizable design that can be tailor fit to meet a variety of specific lube requirements. Capable of handling grease grades up to NLGI #1.

#### **Features**

- Space efficient-from 6 to 16 points from one block assembly
- Built-in outlet check valves ensure accurate lube delivery, every time
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event

#### **Typical Application**

Machine tools, textile, glass & can machinery, & mobile equipment

# **Trabon<sup>®</sup> MSP Series**



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

#### **Features**

- Quick change valve sections can be removed from the base assembly without disturbing any lube lines minimizing labor cost and maximizing your machine uptime
- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- Built-in outlet check valves ensure accurate lube delivery, every time

#### **Typical Application**

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

# **Manzel<sup>®</sup> MHH Series**

Same capable design as the Trabon MSP Series, with even tighter and more exacting tolerances. The Manzel MHH Series delivers highly accurate lube delivery for demanding high pressure oil applications.

#### **Features**

- Quick change valve sections can be removed from the base assembly without disturbing any lube lines – minimizing labor cost and maximizing your machine uptime
- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- Built-in outlet check valves ensure accurate lube delivery, every time

### **Typical Application**

Compressors, industrial equipment, textile and mobile equipment

Pre-Assembled and Tested Base Plates Now Available!





Greater output volumes for heavy service requirements make the Trabon MX Series ideal for steel and paper mill systems with it's economical and compact design.

#### **Features**

- Durable design withstands harsh environments and operating conditions
- Built-in outlet check valves ensure accurate lube delivery, every time
- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting

#### **Typical Application**

Pulp and paper, steel mills, heavy and high volume industrial applications

# **Series Progressive Driver Valves**

# **Trabon<sup>®</sup> MXP Series**



The Trabon MXP Series' greater output volume makes it easy to customize your assembly to meet larger machine requirements.

#### **Features**

- Quick change valve sections can be removed from the base assembly without disturbing any lube lines minimizing labor cost and maximizing your machine uptime
- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- Built-in outlet check valves ensure accurate lube delivery, every time

#### **Typical Application**

Pulp and paper, steel mills, heavy and high volume industrial applications

# **Trabon<sup>®</sup> MGO Series**

The Trabon MGO Series offers the largest output available in a series progressive system. Ideal for heavyduty and large bearing applications with wide temperature variations and high volume requirements.

#### **Features**

- Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- · Robust design is virtually indestructible and built to perform in extreme environments

### **Typical Application**

Pulp and paper, steel mills, heavy and high volume industrial applications



# **GL-11 Injector**

# **Precision-honed Components** for Reliable Operation in the **Harshest Environments**

# High volume output at high pressures for the most demanding applications

- · Combine with GL-1s and GL-32s in the same Single Line Parallel System to provide a full range of outputs
- Outperforms the competition-tested to over 250,000 cycles without failure!
- Bolt-on compatible with Lincoln® Centro-Matic SL-11<sup>®</sup> injectors

### Easy Hex Nut Volume Adjustment

Visual Indicator Pin

Lock Nut

### **Technical Specifications**

•		
Maximum Operating Pressure	3,500 psi (241 bar)	
Minimum Operating Pressure	1,000 psi (69 bar)	
Suggested Operating Pressure	2,500 psi (172 bar)	
Reset Pressure	600 psi (41 bar)	
Output Range*	0.05 - 0.50 in <sup>3</sup> (0.82 - 8.2 cm <sup>3</sup> )	
Recommended Fluids	Uses NLGI #2 grease down to 32 °F (0 °C)	
Instruction Manual	313704	
Design Guide	309015	
Zerk Fitting Outlet	1/8 in NPSF	
Supply Line Outlet	1/4 in NPSF	G
Inlet	1/2 in npt	

\*Limited by operating temperatures and lubricant additives

# How many injectors in this picture?



24 GL-11s 24 GL-11s 16 GL-11s

#### To adjust:

- 1. Loosen the lock nut
- 2. Rotate 5/8 inch output adjustment nut clockwise to decrease grease outputdecrease the travel of the piston
- 3. Rotate 5/8 inch output adjustment nut counter-clockwise to increase grease output-increase the travel piston



# **GL-1** Injectors

# Precision-honed Components for Reliable Operation in the Harshest Environments

# Graco's captured seal design is the best in the business!

- Test results show the difference GL-1 injectors showed no seal leakage at 215,000 cycles
- Seals last 5 times longer than the competition's!
- Combine with GL-11s and GL-32s in the same Single Line Parallel System for a full range of outputs

### **Technical Specifications**

Maximum operating pressure	3500 psi (241 bar)
Minimum operating pressure	1850 psi (128 bar)
Suggested operating pressure	2500 psi (172 bar)
Reset pressure	600 psi (4.1 bar)
Output volume per cycle	0.008–0.08 in <sup>3</sup> (0.13–1.13 c <sup>3</sup> )
Recommended fluids	Uses NLGI #2 grease down to 32° F (0 °C)
Instruction manual	308953
Design Guide	309
Zerk Fitting Outlet	1/8 in npt
Supply Line Outlet	1/4 in npt
Inlet	3/8 in npt

#### To adjust:

- 1. Loosen the lock nut
- 2. Rotate 5/8 inch output adjustment nut clockwise to decrease grease outputdecrease the travel of the piston
- 3. Rotate 5/8 inch output adjustment nut counter-clockwise to increase grease output-increase the travel piston





# **GL-32<sup>™</sup> Grease Injectors**

# High-performance injectors for reliable machine lubrication

Accurate, reliable and adjustable lubrication for every lube point on your machine

- Longer lasting seal design for troublefree performance
- Easy to design, setup and operate
- Flexible-add or subtract lube points without redesigning your system
- High performance-handles up to NLGI
   #2 grease

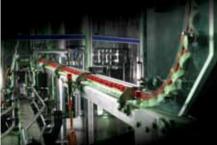




# **Technical Specifications**

Maximum operating pressure	3500 psi (241 bar)
Minimum operating pressure	1200 psi (83 bar)
Typical operating pressure	1500 psi (103 bar)
Reset (vent) pressure	200 psi (13.7 bar)
Output volume per cycle (adjustable)	0.001–0.008 in <sup>3</sup> (0.02–0.13 cm <sup>3</sup> )
Recommended fluids	Grease up to NLGI #2
Instruction manual	313798







# Adjustable to fit any machine

### **One Piece Cast Injector**

One piece design for added durability

### **Output Adjustment Nut**

Adjustable output volume from 0.001–0.008 in<sup>3</sup> (0.02–0.13 cm<sup>3</sup>) makes it easy to customize each individual lube point

### Visual Indicator Pin

Convenient front-mounted cycle pin indicator confirms that the injector is functioning properly





### **ABOUT GRACO**

#### | PROVEN QUALITY. LEADING TECHNOLOGY.

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

#### **GRACO LOCATIONS**

#### MAILING ADDRESS

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

#### AMERICAS

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

#### EUROPE

#### BELGIUM

European Headquarters Graco N.V. Industrieterrein-Oude Bunders Slakweidestraat 31 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, P.R.China Tel: 86 21 649 50088 Fax: 86 21 649 50077

#### INDIA

Graco Hong Kong Ltd. India Liaison Office Room 443, Augusta Point Regus Business Centre 53 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

SALES/ DISTRIBUTION/ SERVICE

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