

# **Lubrication Solutions**

www.gracolubrication.com

### Predict – Protect – Perform, when it comes to fluids, we can handle it.

Since 1926, Graco's core line of lubrication equipment transfers, meters, dispenses and monitors both lubricants and fuels in service shops around the world. In addition, Graco offers complete systems to automate the lubrication process, improving equipment life and reliability.

#### Sit back and relax, while you get the best:

- Automate and drive efficiencies of your maintenance practices;
- Handy solutions to streamline workflows in your service centers.

Graco lubricates your equipment automatically so you can stay focused on your job.

### SERVICE AND MAINTENANCE LUBRICATION EQUIPMENT





#### SERVICE AND MAINTENANCE LUBRICATION EQUIPMENT

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#### **AUTOMATIC LUBRICATION EQUIPMENT**

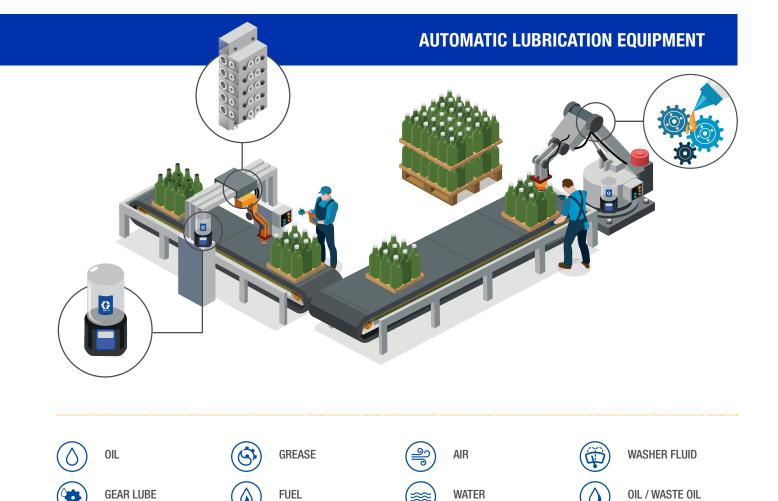
FUEL

PRESSURE WASH

ATF

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- For the complete product offering of Service and Maintenance Lubrication Equipment, please refer to the PMG Buyer's guide (303245)
- For the complete product offering of Automatic Lubrication Equipment, please refer to the ILE Buyer's guide (340821)



WATER

ANTI-FREEZE

DIESEL EXHAUST FLUID (DEF)

## Fluid Management



#### WHY FLUID MANAGEMENT OR CONTROL?

Fluid management is about solving the "five W's" concerning your fluid inventory - track who performed a fluid dispense; what quantity of specific fluid was dispensed; where in the facility the oil or fluid dispense took place; when it occurred and why.

#### PULSE<sup>™</sup> PRO

Pulse Pro Fluid Management is breaking the bounds of traditional fluid inventory control. It offers advanced wireless technology equipment to dispense and track bulk fluids, capture analytics and automate reports.

#### **PULSE HUB**



Self-contained wireless device that communicaties with all components. Includes everything necessary for users to instantly access monitoring and reporting tools on PC, tablet or smartphone.

#### PUMP AIR CONTROL (PAC)



Prevent unauthorized access to fluid inventory. Pump operation is enabled only when a dispense as been activated from the meter and Pump air supply is shut off automatically after the dispense

#### EXTENDERS & REMOTE EXTENDERS



Easily expand the Pulse network to accommodate devices in secondary on-site buildings. Connect devices to wall power and local network via Ethernet or Wi-Fi.

#### TANK LEVEL MONITOR (TLM)



Measure your largest tanks accurately with minimal effort. The monitor's ultrasonic sensor records the tank level and can be configured to e-mail a daily report to key stakeholders detailing tank volumes, low- or high-level warnings and more.

#### **PULSE METER**



## **Fluid Control**



#### PULSE<sup>™</sup> FC

Pulse FC Fluid Control provides service operations with accuracy and command to automate and regulate fluid dispenses.

#### **PULSE FC SOFTWARE**



Accurately track the amount of fluid dispensed. Data is captured automatically. Simple reports including fluid levels and dispenses can be printed at any time to make fast, informed decisions regarding billing, inventory, staffing and more.

Durable built to last meter with built-in solenoid. Enter PINs, work order numbers and other data via a larger, more intuitive display or use NFC tags for immediate access.

SD Meters used for Pulse FC.

#### PULSE FC PROGRAMMER



Fluid control system designed for fast, wire-free setup and configuration. Easily pre-program Pulse FC fluid cards to dispense only the correct fluid and authorized amount, minimizing dispense errors and gaining optimal profitability.

#### **ROLL AROUND**

Accurately control your mobile drums and monitor the dispense of expensive synthetic and semi-synthetic fluids with fitted Pulse components.

#### **PULSE FC FLUID CARDS**



Simply scan pre-programmed fluid cards on the meter's interface screen to begin dispensing. Once the pre-programmed amount of fluid has been dispensed, the meter stops automatically. See the exact amount of fluid pumped on the easy-to-read LCD screen.



# Fluid Dispense

## GARAGE WORKSHOP



#### **HOSE REELS**

LD SERIES



Economical enclosed hose reel, which gets up and running fast. Designed to dispense water, anti-freeze, windshield wash, oil and grease.

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- Flexible mounting options
- Full-flow swivel maximizes fluid flow
- Easy spring tension adjustment
- Hose length 11m-15m
- 5 years warranty

#### **METERS & VALVES**

#### ACCU-SHOT & PRO SHOT METER



Accurate, electronic meters designed for daily use. Offering exceptional measurement and control of grease delivery.

- Non-metered and metered options
- Multiple adapters available
- Accu-shot: Max. Pressure: up to 345 bar
- Pro Shot: 552 bar working pressure
- 1 year warranty

#### LD SERIES



Electric and in-line dispense meters ideal for low to medium duty application. For petroleum- and synthetic-based oils and anti-freeze mixtures.

- Indoor use
- Multiple extensions available
- Flow rate: up to 19 lpm
- Max. pressure: up to 69 bar
- Automatic option only
- 7 years warranty

## | HEAVY DUTY / INDUSTRIAL WORKSHOP |







Reliable high volume, high pressure grease transfer pump for challenging applications.

- Flow rate: 14.5kg/min
- Multiple tank options
- Available in 36:1
- 5 year warranty
- (1 year on wear parts)



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Robust bulk fluid transfer pump, ideal for fast and high volumes. Includes data track control.

- Flow rate: up to 117 lpm
- Fluid pressure: up to 119 bar for oil and 380 bar for grease
- 10 years warranty

#### **SD SERIES**



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Professional, durable hose reels designed for continous daily use. For water air, oil or grease.

- Mutiple mounting options
- Durable steel pool and open swivel port
- Long-lasting spring
- Hose length: 11m-20m
- 7 years warranty



**XD SERIES** 

Superior-performance hose reels, designed for high pressure flows. Durable long-life design compatible with different fluid types.

- Durable steel dual pedestal frame optiom
- Long lasting spring with easy rewind
- Motor driven as of XD60
- Hose length: 11m-50m
- 7 years warranty

#### **SD METER**



Efficient electric, mechanical and in-line meters and valves ideal for metered oil and grease dispense for standard and heavy-duty applications. For petroleum- and synthetic-based oils.

- Manual and preset models
- Multiple extensions available
- Flow rate: up to 53 lpm
- Max. pressure: up to 103 bar
- 7 years warranty

#### **EM METERS**



High flow, electric, manual dispense meters. Featuring high-flow mechanical and in-line options. High pressure protection for all weather conditions. For petroleum- and synthetic-based oils.

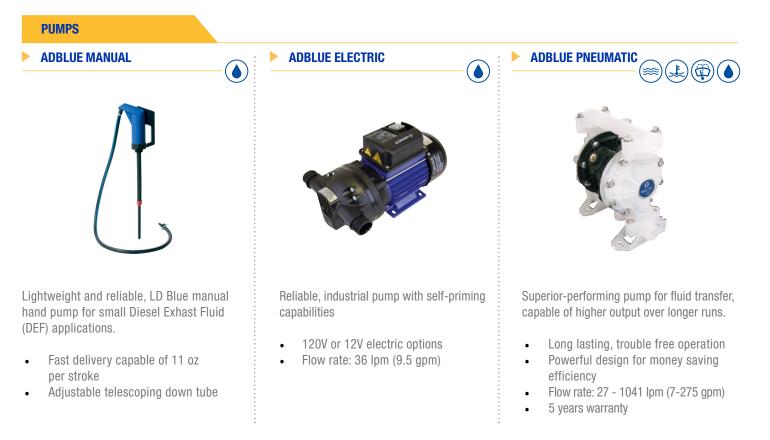
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- Indoor or outdoor use
- Multiple extensions available
- Flow rate: up to 76 lpm
- Pressure: up to 102 bar
- IP69k rated
- Lock-on trigger
  - 5-7 years warranty

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## AdBlue

## STANDARD TO HEAVY USAGE



#### **HOSE REELS**

ADBLUE HOSE REEL



Robust heavy-duty hose reel designed for DEF application.

- Durable steel dual pedestal frame option
- Long lasting spring with easy rewind
- Hose length: 11m-50m

#### **METERS & VALVES**

#### **ADBLUE METERS**



Easy to install DEF meter for continous usage.

- In-built meter option
- Nozzle flow rates up to 45 lpm (12 gpm)
- Max. pressure: 3.4 bar (50 psi)
- Meter flow rates up to 99 lpm (26.4 gpm)

# Fluid Reclaim / Waste Oil

## STANDARD USAGE





## **Centralized Lubrication**



Graco's automatic lubrication solutions ensure that your machinery is lubricated when its needed most – while it's working. In order to avoid friction that cause severe wear and tear to your machine tool, production and press equipment, our line of centralized lubrication systems is delivering precise amounts of lubricants at frequent intervals to every lube point – even if they are hard to reach.

#### MAIN COMPONENTS FOR AUTOMATIC LUBRICATION

PUMPS & RESERVOIRS: store and provide the lubricant to the systemCONTROLLER: activates the systemDIVIDERS: dispenses the right amount of lubricant to the application point

## SINGLE LINE PARALLEL SYSTEMS

A single line parallel system is the simplest automatic lubrication system. A pump pressurizes a main supply line and fills a number of individual piston distributors or injectors. Each injector serves one lubrication point and can be easily adjusted to deliver a precise amount of lubricant with a high degree of accuracy.

The injectors operate independently of each other. The advantage of this is that failure of an individual injector, or a blocked supply line, does not disrupt the rest of the system.

#### **BENEFITS**

- · Basic monitoring with pressure switch ensures the system is operating properly
- Designed for higher pressures to handle a wide variety of lubricants up to NLGI #2 as well as oil
- Different sized injectors give you a wide output range to lubricate any size bearing
- One-to-one relationship between the metering device and the lube point for precision dispensing



### **INCREASE**

PRODUCTIVITY RELIABILITY AVAILABILITY SAFETY DURABILITY

### DECREASE

HEAT GENERATION WEAR & NOISE DOWNTIME & OPERATING COSTS PRODUCT CONTAMINATION & CORROSION MAINTENANCE LUBRICANT CONSUMPTION

## SERIES PROGRESSIVE SYSTEMS

In a series progressive system, a pump supplies the lubricant through a master metering valve and optional secondary metering valves to the lubrication points. The metering valves are custom sized for each lubrication point to deliver the exact amount of lube required.

Each piston inside a divider block is dependent on the flow of the previous piston. Lubricant is therefore delivered to each lube point in succession. This means that if lubricant reaches the final lube point in the network, you know that each point in the network has received its specific amount.

#### **BENEFITS**

- Large number of outputs to handle a full range of oils and greases
- · Most advanced and precise monitoring with overall system diagnostics plus troubleshooting at the lube point
- With a zone valve you can decide where and when to lubricate
- Covers the broadest range of small to large applications

# **Single Line Parallel Systems**

## | INDUSTRIAL AND OFF-ROAD APPLICATIONS |

#### **PUMPS**

#### LUBEPR0<sup>™</sup>





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Robust solution where high output and fast lubrication cycles and flow rates are needed.

- Multiple versions available
- Fast cycle rate and flow
- High-strength, shatter resistant reservoir



**DYNA-STAR** 

Reliable heavy-duty pump for bulk fluid transfer.

Multiple options available;
 pneumatic, electric or hydraulic

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- Built-in pressure relief for safety
   and efficient installations
- Multiple reservoir options available
- IP69k rated

#### **METERING DEVICE**

#### GL - 32/42 & GL - 33/43

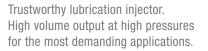


Accurate, reliable lubrication injector. Add or subtract lube points without having to redesign your lubrication system.

Output GL 33 & 42: 0.05 cc
Output GL 32 & 43: 0.13 cc



GL - 1, GL1 - X & XL



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- Output GL1 XL: 5 cc
- Out put GL 11: 8.2 cc

#### CONTROLLER

#### GLC - 4400



Multipurpose controller for automatic lubrication. Programme lubrication timing, cycles counts, pressure, etc.

For injector-based and series progressive systems

- Protection class IP 69K
- Operating temperatures: \* -40°C to 63°C
- AC and DC version available

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## **Series Progressive Systems**

## INDUSTRIAL AND MOBILE APPLICATIONS

#### G SERIES



Robust , high-value pump designed for multiple applications and industries. Five different reservoir sizes; four controller options; three power types and adjustable pump elements.

- Customizable options
- Max. Pressure: up to 352 bar
- 4cc/minute per pump element
- Mix/match cycle and pressure switches

#### CSP DIVIDER VALVE



Compact Series Progressive valve with broad application use. Precise dispense of lubricant to application points.

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- Inlet sizes 1/8 NPT and 1/8 BSPP
- Design with 6 to 22 outlets,
- High output Pressure: up to 350 bar
- Built–in durability with Zinc Iron plating



**MSP DIVIDER VALVE** 

Modular divider valve that sets the industry standard for quality and reliability. Adjustable output with easy-to-use design.

- Fully accessorized with magnetic and electronic proximity switch cycle indicators
- Built-in outlet check valves
- Available in carbon steel or 303
   stainless steel

#### **GLC - 2200**



Versatile controller for automatic lubrication. Precise customization of lubrication timing, cycles counts, pressure, etc.

For injector-based and series progressive systems

- Protection class IP 54
- Operating temperatures: -40°C to 80°C
- Power: up to 12 to 24 volt

## **Other systems**

## **ON-ROAD APPLICATIONS**

#### **PUMPS**

#### GREASE JOCKEY



Simplified, efficient automatic lubrication system for vehicle maintenance. Elongate component life-span through continual lubrication of chassis. For grease application only.  $( \mathfrak{S} )$ 

## OTHER INDUSTRIAL PUMPS



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# **Gas Compression**

## MANZEL

#### **BOX LUBRICATORS**

GBL 7500 MECHANICAL PUMP



Rugged, high-performance force feed pumps & box lubricators. Engineered for long-life, maximum flexibility and easy system integration.

- · Heavy-duty cage and shatter-proof glass design
- Soft-seal O-ring construction reduced contamination
- Stainless steel piston and spring
- Piston sizes 3/8, 1/4 and 3/16 inches
- Output pressure up to 517 bar

#### **METERING DEVICE / DIVIDER VALVE**

#### MHH DIVIDER VALVES



Manzel divider valves for use in series progressive systems where high pressure is required

- Modular, stackable sub-plate design
- Built-in check valves
- SAE or NPSF inlet and outlet connections
- Up to 16 lube points from one divider assembly
- Pressure up to 517 bar

#### ACCESSORIES

LOW LEVEL ALARM



Shaft rotation low-level alarm. Rugged construction for high durability

#### LUBE-LINE ALERT



Indicates Flow or No-Flow at any point in the system ahead of the Lube-Line Alert inlet

#### **SENTRY VALVE**



Provides automatic warning and shutdown of compressors, pumps and engines when oil is not flowing properly to primary divider valves



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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.

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