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Vehicle Service Equipment Buyer's Guide

Fluid Handling Equipment for Industrial and Commercial Applications

Construction | Fleets and Transportation | Industrial | Mining | Energy | Agriculture

PROVEN QUALITY. LEADING TECHNOLOGY.

Table of Contents

About Graco

Established in 1926, Graco has built a worldwide reputation for high quality, reliable and technically advanced products, world-class manufacturing and outstanding customer service. Headquartered in Minneapolis, Minnesota, Graco works closely with distributors around the world to offer innovative products that set the quality standard for spray finishing, paint circulation, lubrication, sealant and adhesives dispensing, process application and contractor power equipment. These best-in-class products are manufactured in the U.S. and China and supplied through our distribution centers around the world. Every day, Graco's fluid-handling equipment and systems move, measure, mix, control, dispense and spray a variety of fluids and materials.

Lubrication Equipment Division

From the first air-powered grease gun to our industry-leading Fire-Ball pump, Graco's Lubrication Equipment Division is what started it all. We manufacture equipment to monitor, control, manage and dispense fluids. Offering innovative equipment for all your vehicle services, industrial and automatic lubrication needs. We offer a full range of high-quality pumps, meters, valves, hose reels and accessories to increase production and reduce waste and downtime.

Graco offers a full line of quality equipment to meet the varying needs of vehicle maintenance and repair. Streamline your workflow and move more lubricants through your shop. We offer reliable, high-quality equipment you can depend on for fuel, diesel, antifreeze, oil and grease. Our versatile fluid inventory control and management systems are designed to accurately track the use of oil, grease and other automotive fluids at vehicle maintenance facilities, and our lubrication equipment ensures you deliver fluids to the right spot in your shop. From light-duty applications to high-performance concepts designed for heavy-duty jobs, our equipment is known for its rugged, durable and long-life design.

More than **3,300** distribution partners offer local service and support in more than **100** countries all over the world

Machining is a core competency of Graco – it enables complete control of the component parts needed to ensure precise metering, reliable dispensing and fluid movement.

When it comes to **research and development**, Graco is one step ahead, ensuring we offer the best possible solutions. To guarantee superior quality and to meet the changing requirements of your markets, we prioritize investing resources in research and development. Innovative technologies and extensive field testing are a natural part of our process to develop new products. Also, every aspect of our production is subject to constant testing and evaluation. It's the foundation to deliver products with long service life and low cost of ownership. The insurance to help you grow your business.

We understand our customers. We build a partnership, working and striving towards new solutions, together. We are at the service of our distribution partners, supporting you along the way. Look at Graco not just as a manufacturer or supplier but as an extension of your business. Our dedicated and experienced teams offer unique capabilities to help you meet your specific goals and challenges.

• Innovative, high-quality products with unique features
• A professional warranty and high service rate
• Purchasing conditions aimed at profitable growth
• A committed sales and marketing team for tailor-made support of expanding sales opportunities
• Continuous technical, commercial and hands-on training

Our world-class distribution centers and unrivaled global distributor network give Graco a unique industry advantage that allows us to rapidly deliver our products to end users worldwide.

Exceeding customer expectations is our priority. Our multilingual team of customer service specialists and technical engineers are available to you. Graco offers instructor-lead training sessions in the United States, EMEA and Asia Pacific. These courses teach theory and hands-on practical applications, covering basic operational to advanced technical knowledge. Each training session can be adapted to your specific needs.

Offering more than just products, we are focused on building relationships, identifying and developing business opportunities with you. Our sales team is available to collaborate, define strategies to assist in navigating through our product offering and provide advice on promotional activities.

Graco's marketing specialists investigate ways to expand the market and develop the right technologies for any application, in close cooperation with distributors and field users. We offer tailor-made promotional and communication support, from defining strategic requirements to developing marketing campaigns, organizing events and creating digital or printed material.

Did You Know?

Graco also manufactures and sells a complete line of automatic lubrication systems and accessories!

Keep your equipment running at peak performance. Graco automatic lubrication solutions give you the ultimate machine performance by lubricating key wear points – the right amount of lubricant, at the right time, in the right location. Graco has automatic lubrication solutions for the industrial, on-road mobile, off-road mobile, energy industries and more.

Visit www.graco.com/autolube

Graco Resources

Graco has developed tools and resources to help educate and better serve our distribution channel. Check them out today:

Graco Sales Book

Stay up-to-date with the newest information from Graco by downloading the Graco Sales Book App.

Graco Sales Book is an innovative mobile application, designed to give Distributors access to Graco product information, including brochures, manuals, videos, and training documents – all on your mobile device.

Download today by visiting
Salesbook.graco.com

Graco University

Graco University is an e-learning module that can be accessed online, anytime, and contains assets that help educate you on Graco products.

This innovative online learning program gives the tools to stay on the leading edge with a variety of resources such as virtual and instructor led courses, online books, live and on-demand video presentations, and much more.

Learn more today at
training.graco.com

Graco Gear

Graco Gear is your one-stop shop for branded merchandise and other tools that will help you build customer relationships.

Order shirts, hats, banners, and more whenever you need! You can even add your logo for a small fee. Most orders ship next day.

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FLUID MANAGEMENT SYSTEMS

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Choosing a Graco Fluid Management Solution

FEATURE	Traditional Box	Pulse FC	Pulse Pro
Control. Regulate the amount of fluid that's dispensed to reduce spillage and waste.			
Allow control of dispenses	✔	✔	✔
Restrict the quantity of fluid	✔	✔	✔
Ensure correct amount of fluid	✔	✔	✔
Meters. Put control into the hands of your technicians so they can be more productive, accurate and accountable.			
Works with petroleum, synthetic based oils, antifreeze	✔	✔	✔
Works with windshield wash solvent	✔		✔
Meter displays quantity dispensed		✔	✔
Fluid measured at dispense point (highly accurate)		✔	✔
Installation. Seamless integration simplifies dispenses without compromising workflows or productivity.			
Works with oil bar	✔	✔	✔
Wire-free installation		✔	✔
Wireless communication			✔
Pump air control (PAC)	✔		✔
Flexibility. Accommodate emerging demands to maintain or expand productivity and profitability.			
Works with mobile roll-around packages		✔	✔
Easy expansion with additional fluids		✔	✔
Easy upgrade to comprehensive fluid management		✔	N/A
User Interface. Access the information necessary to make more informed decisions quickly.			
Simple PC-based software		✔	
No software to install			✔
Accessible from any PC, phone or tablet			✔
Fluid Management. Improve accountability for your entire operations.			
Track dispenses by invoice or work order			✔
Track dispenses by technician			✔
Record fluid type and quantity dispensed			✔
Keeps technician in service bay			✔
Fluid Inventory. Simplify how you re-order and store inventory to minimize delays.			
Monitor tank levels (TLM)			✔
Dealer Management Solution (DMS) integration			✔
Reporting. Capture critical information and insights to simplify decision-making.			
Print on dispense			✔
Automated customizable reports			✔
Automated alerts to simplify inventory tasks			✔
Software updates		✔	✔
Permanent record of all dispenses or authorizations		✔	✔

Fluid Management

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Pulse® Pro Fluid Management simplifies how forward-thinking shops track and manage bulk fluids in real time – adding more transparency and accountability to drive productivity and profitability.
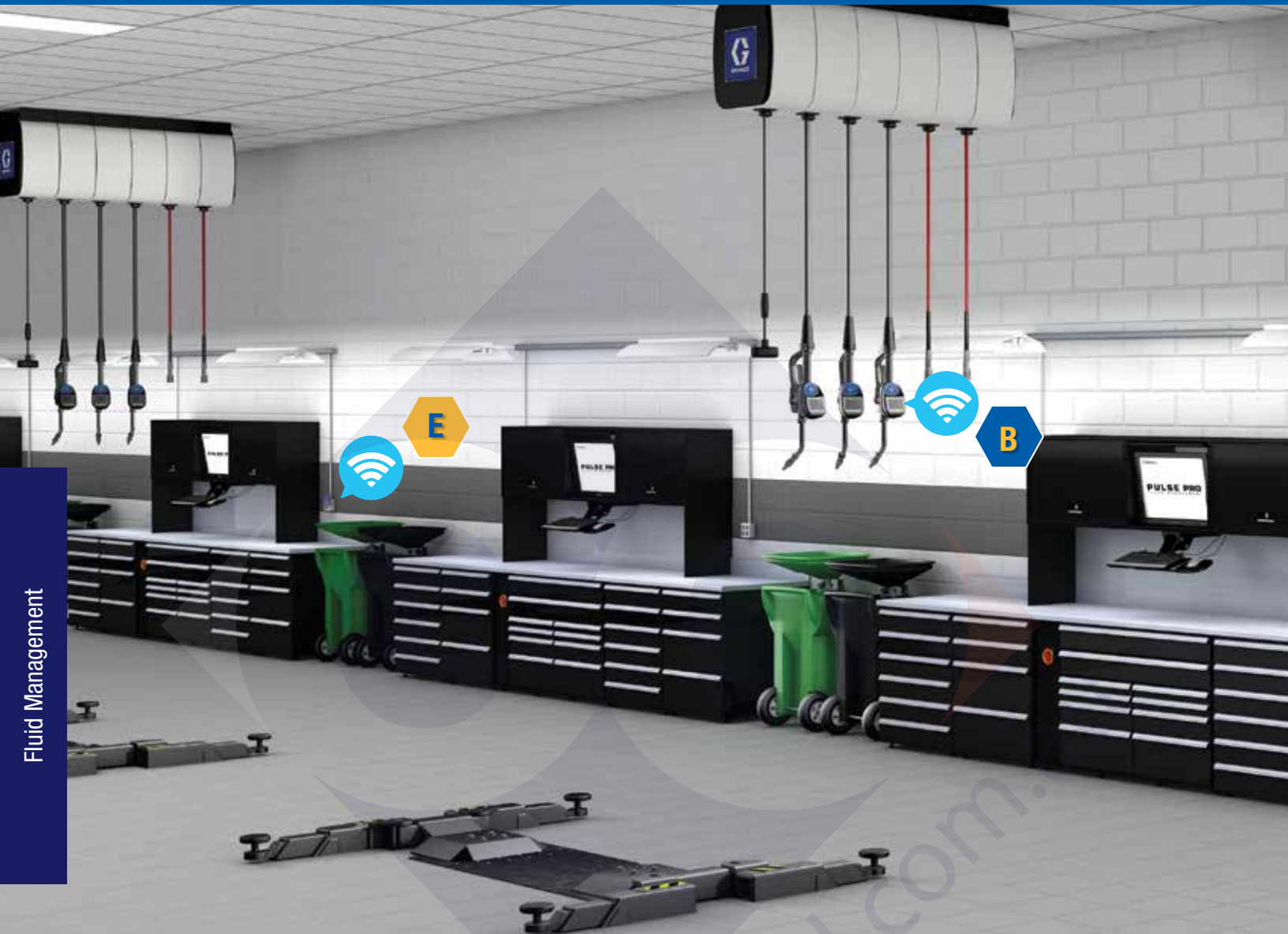
Benefits of Pulse Pro Fluid Management

Transparency. Monitor every drop, every time – automatically – and minimize shrinkage, rounding and discrepancies.

Accountability. Track issues to the source via advanced technology, including automated alerts and customizable reports.

Integration. Capture data, integrate it with popular DMSs and share it with other stakeholders quickly.

Portability. Pair with mobile dispense units and drums easily to reduce extra steps and hassles for technicians.

Scalability. Add Pulse into almost any environment quickly, and even retrofit applications or multiple buildings within the same facility.

Accurate billing. Automatically assign every ounce of fluid directly to a work order to simplify billing and maximize profit margins.

Simplicity. Avoid surprises, interruptions and delays. Fluids are tracked and recorded instantly and automatically.

Inventory management. Monitor fluid inventory and schedule refills to minimize delays and excessive costs.

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Fluid Management

Steps to Build Your Pulse Pro System:

A Hub with Software

1 REQUIRED

B Add Meters

MINIMUM 1 REQUIRED

Add Accessories

C Tank Level Monitor (TLM)

Tank Level Monitor can be used as a standalone product.

OPTIONAL

D Pump Air Controller (PAC)

OPTIONAL

E Pulse Extender and Pulse Remote Extender

OPTIONAL

F Roll Around Package

OPTIONAL

G Oil Bar Dispenser

OPTIONAL

graco.com   11

Pulse® Pro Fluid Management

Pulse Hub

Simply connect the Pulse Hub to a power source and access your local network to get started. The self-contained device includes everything necessary for users to access monitoring and reporting tools instantly from any network-connected PC, tablet or smartphone.

2 Year Warranty!

Pulse Software

Pulse Pro Fluid Management software is pre-installed on the Pulse HUB and focused on simple intuitive design with powerful information at your fingertips. Get a quick consolidated view of all dispenses for the entire shop via specifically designed web page and easy-to-use software. Track tank levels at a glance. Generate customizable reports and automated e-mail alerts to share critical information with other key decision-makers. For further efficiency and automation, Pulse software can be integrated with your DMS through Pulse standard integrations or our generic third-party interface.
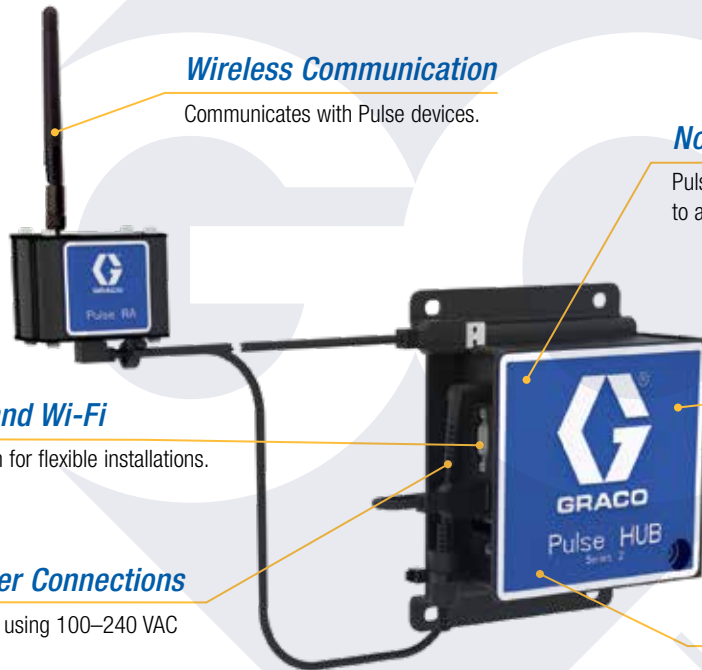
Wireless Communication
Communicates with Pulse devices.

No PC Software to Install
Pulse software delivered via web pages to any PC, tablet or phone.

Built-In Computer
Runs custom operating system to eliminate common PC operating system issues.

Ethernet and Wi-Fi
LAN connection for flexible installations.

Universal Power Connections
Facilitates installation using 100–240 VAC electrical outlets.

Easily Updates
Automatic updates through internet connection.

Features and Benefits

- No PC software to install – Pulse Hub generates a local web page
- Responsive web design – Use any-size screen, from a PC to a phone
- Consolidated dispense queue – Find everything you need in one convenient table
- Advanced reporting – Create and schedule automated reports to track history and fluid usage
- Informative and preventive alerts – The software offers over two dozen alert activities
- Automatic software updates – Software notifies you when updates are ready to install

Technical Specifications

Weight	1.45 lb (660 gm)
Power Supply	
Input Power	100–240 VAC line voltage (0.05 A)
To Hub	5 VDC (0.5 amps)
Warranty	Two years electronics

A Ordering Information

Part Number	Description
25U972	Hub for non-CE installation with global power adapter

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DMS Integration Options for Pulse Pro

An integration, put simply, is the communication between two separate business systems. Pulse uses integrations to provide enhanced control and monitoring for fluid dispenses.

Option 1 – *Partner Integrations*

AssetWORKS
- Requires FleetFocus: FA or M5 with FluidFocus Module
- Communication through Enterprise Asset Management System

CDK Global.
- Requires CDK Drive DMS
- Communication through CDK's Third-Party Access Program

Dealertrack
- Requires Dealertrack DMS
- Communication through Dealertrack's Opentrack API

procede software
- Requires Excede v9.22+ with Excede Database
- Communication through Excede API v2.0

PBS
- Requires PBS DMS
- Communication through PBS Partner Hub

Reynolds & Reynolds.
- Requires ERA
- Communication through RCI Web Service

Option 2 – *Communication through Graco Third Party Interface*

PULSE
DMS INTEGRATION
- Requires End-user developed integration for non-supported DMS
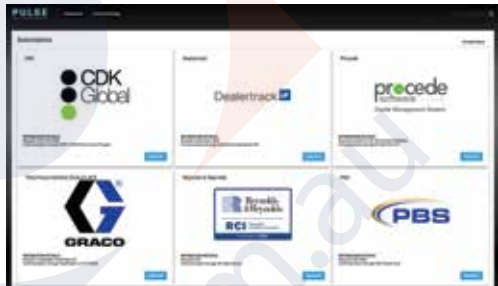
How It Works

The interface to business systems or DMS provides two important basic functions:

1 WORK ORDER VALIDATION

With DMS integration, dispenses occur only when a valid work order exists.

Work Order or Technician PIN

Authorization to Dispense → DMS

2 WORK ORDER POSTING

Pulse software communicates with the DMS, posting the dispense to the work order.

Post Dispense → DMS

Confirm Posting

⟩⟩ Ordering Information

Interface Activation Codes

Part Number	Description
25R975	Pulse software with CDK Global Drive
25R976	Pulse software with Dealertrack
25R977	Pulse software with AssetWORKS
25R978	Pulse software with Reynolds & Reynolds
25R979	Pulse software with Procede Software – 2nd site
25R980	Pulse software with Procede Software
25R981	Pulse software with PBS

Fluid Management

Oil | Gear Lube | Antifreeze | Washer Fluid | ATF

B

Pulse Dispense Meter

The dispense meter is durable and easy to use, giving technicians everything they need at their fingertips. PINs and other data can be entered in moments via a larger, more intuitive display. NFC tags can be used for immediate PIN entry and faster access to work orders.

5 Year Warranty!

Large, Intuitive Display
High-contrast display for low- and bright-light conditions.

Faster PIN Entry
Built-in NFC reader and simple, efficient controls.

Wireless Communication
Communicates dispense information with Hub.

Ergonomic Design
Lower button placement.

Fluid Extension Kits
Choose from rigid, flexible or gear lube extensions with automatic flush-mount nozzle design.

Long Battery Life
Uses four off-the-shelf AA batteries – easy to replace.

Long-Life Valve Design
Cartridge design for long life and easier repair.

Protective Trigger Guard
Prevents accidental dispenses.

Technical Specifications	
Flow Range*	0.25 to 18 gpm (0.9 to 68 lpm)
Maximum Working Pressure	1,500 psi (103.4 bar)
Units of Measure (factory set to quarts)	Pints, quarts, gallons, liters
Weight	5.3 lbs (2.4 kg)
Inlet	1/2 in NPT or 3/4 in NPT
Outlet	3/4 in straight thread O-ring boss
Dimensions (without extension)	
Length	13 in (33 cm)
Width	3.75 in (9.5 cm)
Height	5.75 in (14.6 cm)
Maximum Recorded Dispense	999.99 units
Operating Temperature Range	4°F to 158°F (-16°C to 70°C)
Storage Temperature Range	-40°F to 158°F (-40°C to 70°C)
Battery**	4 AA alkaline or lithium batteries
RF Frequency Band	2,400 to 2,483.5 MHz
Maximum RF Transmit Power	8 dBm
Wetted Parts	Aluminum, stainless steel, PBT, nitrile rubber, zinc-plated carbon steel, nickel-plated carbon steel
Fluid Compatibility	Antifreeze, gear oil, crankcase oil, ATF, windshield wash (up to 50% alcohol-based solutions)
Meter Accuracy[†]	+/- 0.5 percent
Warranty	Five year structural, 3 years electronics, 1 year wear components

*Tested in 10W motor oil. Flow rates vary with fluid pressure, temperature and viscosity.
**Battery required to meet life expectancy: Energizer® Alkaline E91.
[†]At 2.5 gpm (9.5 lpm), at 70°F (21°C), with 10W oil and 1 gallon dispensed. May require calibration; out-of-box accuracy is +/- 1.25 percent.

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Oil Gear Lube Antifreeze Washer Fluid ATF

B Ordering Information

8 gpm (30 lpm) Meters

Fluid	Extension	Nozzle	Size (in)	Part Number
Oil	Flexible	Automatic Quick-Close	1/2	25M319
Oil	Rigid	Automatic Quick-Close	1/2	25M317
Antifreeze	Flexible	Manual Antifreeze	1/2	25M320
Antifreeze	Rigid	Manual Antifreeze	1/2	25M318
Gear Lube	Gear Lube	Manual	1/2	25M326
Windshield Wash	Rigid	None	1/2	25M328

18 gpm (68 lpm) Meters

Fluid	Extension	Nozzle	Size (in)	Part Number
Oil / Antifreeze	Flexible	Manual High-Flow	1/2	25M324
Oil / Antifreeze	Rigid	Manual High-Flow	1/2	25M323
Oil / Antifreeze	Flexible	Manual High-Flow	3/4	25M330
Oil / Antifreeze	Rigid	Manual High-Flow	3/4	25M329

Accessories
Nozzle and Extension Kits

	Extension	Fluid	Nozzle Description	Part Number	Compatible Meters
	Rigid	Oil	Automatic, non-drip, quick-close	255852	Pulse 8 gpm
	Rigid	Antifreeze	Non-drip, quick-close	26C267	Pulse 8 gpm
	Rigid	Oil/Antifreeze	High-flow, non-drip, quick-close	255857	Pulse 18 gpm
	Rigid	Gear lube	Non-drip, quick-close	255854	Pulse 8 gpm
	Flexible	Oil	Automatic, non-drip, quick-close	255853	Pulse 8 gpm
	Flexible	Antifreeze	Non-drip, quick-close	26C268	Pulse 8 gpm
	Flexible	Oil/Antifreeze	High-flow, non-drip, quick-close	255858	Pulse 18 gpm
	Nozzle Only	Oil	Automatic, non-drip, quick-close	17R220	Pulse 8 gpm
	Nozzle Only	Antifreeze	Non-drip, quick-close	17T207	Pulse 8 gpm
	Nozzle Only	Oil/Antifreeze	High-flow, non-drip, quick-close	255461	Pulse 18 gpm
	Nozzle Only	Gear lube	Non-drip, quick-close	255470	Pulse 8 gpm
	Flexible	Oil/Antifreeze	Extension only, 2 ft length	131733	Pulse 8 gpm
	Rigid	Windshield wash	Extension, nozzle	273079	Pulse 8 gpm

NFC Tags

Part Number	Description
131462	NFC tags for user identification with meter. 25-pack, blue.

Pulse Meter Filter Kits

Part Number	Description
25D906	Filter kit includes filters/strainers (15M308) and O-rings (155332)

Swivel Covers / Impact Protection

	Part Number	Description
	15T366	Black swivel cover (standard color with meter)
	15T367	Red swivel cover
	15T368	Blue swivel cover
	15T369	Green swivel cover
	15T370	Yellow swivel cover
	131226	Pulse / SD meter boot

Fluid Management

C Pulse 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.

2 Year *Warranty!*

Simple Wireless Setup
Automatic network identification.

Long Battery Life
Allows for remote installations. Uses four off-the-shelf AA batteries – easy to replace.

Built-In Display
Real-time level visible from built-in display.

Supports Multiple Tank Shapes
Ability to input strapping table for any tank shape.

Tough Exterior
Sealed enclosure to accommodate outdoor usage.

Compact Design
Easily fits into more spaces.

On-Demand Readings
Ability to take reading at any time.

C Ordering Information

Part Number	Description
25M449	Tank Level Monitor (TLM)

Technical Specifications

Ultrasonic Tank Depth Measurement range (Not for use in pressurized tanks)	5 in to 30 ft (12.7 cm to 9.14 m)
Fluid Level Measurement Accuracy	+/- 1.8 in (4.57 cm)
Mounting	1.5 in and 2 in threaded NPT connector (Adapter for BSPP and BSPT thread options available)
Weight (with batteries installed)	1.25 lb (567 g)
RF Frequency Band	2,400 to 2,483.5 MHz
Operating Temperature Range (Display will not function below 32°F [0°C])	-22°F to 185°F (-30°C to 85°C)
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)
Batteries	Four AA alkaline
Enclosure	IPX5
RF Communication	2,400 to 2,483.5 MHz
Vertical Tanks	
Maximum Volume	999,999 gal (999,999 l)
Maximum Height	30 ft (9.14 m)
Cylindrical Tanks	
Maximum Volume	999,999 gal (999,999 l)
Maximum Height	30 ft (9.14 m)
Maximum Length	30 ft (9.14 m)
Maximum Width	30 ft (9.14 m)
Fluid Compatibility	Automatic transmission fluid, antifreeze, window wash, coolant, waste water
Warranty	Two years electronics

Fluid Management

Oil | Gear Lube | Antifreeze | Washer Fluid | ATF

D

Pulse Pump Air Control (PAC)

Prevent unauthorized access to fluid inventory. Pump air supply is shut off automatically after the dispense, preventing spills and expensive cleanup if a broken line occurs. Pump operation is enabled only when a dispense has been activated from the meter.

2 Year Warranty!

Easy Installation
Built-in mounting bracket.

Simple Wireless Setup
Automatic network identification.

High-Volume Air Valve
Supports a variety of pumps.

Multiple Thread Options
NPT and BSPP air valve options.

Compact Design
Allows for mounting directly on pump or in tight spaces.

Rugged Exterior
Sealed enclosure to protect internal components.

Multiple Wiring Options
NEMA 5-15 plug or flying leads.

Fluid Management

D Ordering Information

Part Number	Description
24Z728	NPT with NEMA 5-15 plug

Technical Specifications

Minimum Operating Pressure	36 psi (0.25 MPa, 2.5 bar)
Maximum Operating Pressure	145 psi (1.0 MPa, 10 bar)
Maximum Air Flow	93 SCFM (2.6 m³/min)
Power Supply	100–240 VAC line voltage, 24 VDC solenoid
Power Cord	
Model 24Z676, 24Z677	6 ft SJOOW, 3-wire, 18-gauge cable with flying leads
Model 24Z728	Power cord with integrated NEMA 5-15 plug
Current	25 to 60 mA
RF Frequency Band	2,400–2,483.5 MHz
Connection Ports Size (inlet, outlet, exhaust)	
Model 24Z676, 24Z728	3/8 in NPT
Model 24Z677	3/8 BSPP
Operating Temperature Range	14°F to 122°F (-10°C to 50°C)
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)
Weight	2.44 lbs (1.11 kg)
Dimensions	
Length	9.5 in (241.3 mm)
Width	2.25 in (57.2 mm)
Height	3.75 in (95.3 mm)
Warranty	Two years electronics

Pulse® Pro Fluid Management

E

2 Year *Warranty!*

Pulse Extender

The Pulse wireless network can easily be expanded to accommodate large shops or a large number of devices. Simply plug the Extender into wall power to extend the network.

Expands Pulse Network

Supports 20 devices and extends the network range.

Simple Wireless Setup

Automatic network identification.

Integrated Electrical Plug

Simply plugs into wall.

Compact Design

Place conveniently in standard electrical outlet locations.

Technical Specifications	
Operating Temperature	32°F to 140°F (0°C to 60°C)
Power Input	Universal AC input (100 - 240 VAC)
Length	2.31 in (5.87 cm)
Width	1.27 in (3.23 cm)
Height	3.28 in (8.33 cm)
Weight	0.5 lb (0.25 kg)
Warranty	Two years electronics

E Ordering Information

Part Number	Description
20A058	Pulse Pro Extender

2 Year *Warranty!*

Pulse Remote Extender

The Pulse wireless network can easily be expanded to accommodate devices in secondary on-site buildings. Connect the Remote Extender to wall power and local network via Ethernet or Wi-Fi to extend the network.

Expands Pulse Network

Supports 20 devices and extends the network range.

Simple Wireless Setup

Automatic network identification.

Multiple Network Connection Options

Utilizes local network Ethernet or Wi-Fi to communicate back to Hub.

Compact Design

Easy to place even in tight spaces.

Electrical Power

Includes plug-in power adapter.

Technical Specifications	
Connections	Ethernet or Wi-Fi
Ethernet	10/100Base-T
Wi-Fi	802.11 b/g/n
Operating Temperature	32°F to 104°F (0°C to 40°C)
Length	3 in (7.62 cm)
Width	3 in (7.62 cm)
Height	1 in (2.54 cm)
Warranty	Two years electronics

E Ordering Information

Part Number	Description
17F878	Remote Extender with global power adapter

F

Roll Around Package

Pulse Pro Fluid Management wireless technology allows you to control your mobile drums and dispenses by providing security for expensive drums of synthetic and semi-synthetic fluids. Each package contains everything you need to manage your drums in existing Pulse installations. Drum not included.

Proven Durability

Graco LD® Series 3:1 pump is a durable, high performance pump solution.

Ease-of-Use

The battery-powered meter means only an air connection is needed to pump and manage fluid dispenses.

Ready to Roll

Packages include everything you need to set up the pump and meter system on your 55-gallon oil drum.

Mobile Productivity

Dispense fluids anywhere in your shop without compromising security or productivity.

F Ordering Information

Package Number	Extensions	Package Includes					
		Meter	Pump	Downtube	Drum Cart	Air Regulator	Hose
25D948	8 GPM, Rigid	25M317					
25D952	8 GPM, Flexible	25M319	24G576	16F878	24F915	24H420	24H865
25D953	8 GPM, Gear Lube	25M326					

G Ordering Information

Oil Bar

Part Number	Description
25D121	Oil Bar Console
25D130	Oil Bar Dispense Kit
25N415	Oil Bar Pulse Dispense Meter

Oil Bar
Components ordered separately. For complete unit, order console (25D121), dispense kit (25D130) (one per meter) and Pulse meters (25N415) as needed.

Accessories

Part Number	Description
249440	Console bracket

Pulse Pro Demo Kit

Pulse Pro demo case with everything needed to show customers how Pulse Pro will save them time, gain them more billable hours and maximize their fixed operation's profitability.

Part Number	Description
25D625	Includes Pulse Hub (24Z978), Pulse Dispense Meter, Pulse TLM (25M449), Pulse PAC (24Z728), Pulse Extender (20A058), Pulse Remote Extender (17F878), Pulse NFC Tag, case and protective foam

Fluid Management

Pulse® FC is wire-free, so installation and configurations are easier and cheaper. We've replaced the big box console with fast, reliable and convenient fluid cards scanned at easy-to-handle meters, so users can employ the same type of familiar technologies they use elsewhere.

Steps to Build Your Pulse FC System:

A Starter Kit

1 REQUIRED

B Add SD™ Preset Meters

MINIMUM 1 REQUIRED

C Oil Bar Dispenser

Add Accessories

Roll Around Package

OPTIONAL

HOW IT WORKS

Pulse FC is a fluid control system that utilizes SD Preset meters. When put into Pulse FC mode, SD Preset meters will only dispense fluid when authorized with Fluid Cards. These included cards are programmed using the Pulse FC Software and Card Programmer. Once programmed, the cards are simply tapped to the meter which will be preset for the authorized amount of fluid and will not dispense any more than authorized.

PARTS ROOM/BACK OFFICE	TECHNICIAN	WORKSHOP
1 Program fluid card with Pulse FC software and card programmer	**2** Card passed to technician	**3** Card tapped on any meter of correct fluid and meter is preset and restricted to the programmed quantity
5 Software indicates card has been returned and is ready to be reused	**4** Card is returned to parts room	

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| Oil | Gear Lube | Antifreeze | ATF |

GAIN INSIGHT INTO AND CONTROL OF YOUR BULK FLUIDS

Simplicity. Avoid surprises, interruptions and delays. Fluids are easily controlled so technicians can spend more time serving more customers.

Accountability. Be assured every vehicle or machine receives the appropriate amount of fluid for more accurate billing.
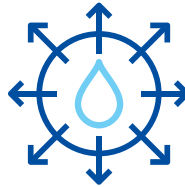
Scalability. Add Pulse FC into almost any environment quickly, even retrofit applications and avoid excessive installation costs and delays. You can also easily upgrade to Graco's Pulse Pro.

Mobility. Pair with mobile dispense units and drums quickly so your team can conveniently dispense without delays, hassles or extra steps.

Pulse FC Software

Pulse FC is a Windows PC-based software. Paired with the card programmer it allows setup and operation of the system. Cards can be utilized to authorize dispenses, totalize all fluids dispensed, as well as setup and calibrate SD™ Preset meters.

Fluid Management

Oil **Gear Lube** **Antifreeze** **ATF**

A Pulse FC Starter Kit

Enjoy an easy-to-use, easy-to-install, out-of-the-box fluid control system designed for fast wire-free setup and configuration. Pulse FC integrates into existing or new environments quickly and cost-effectively without interrupting daily operations.

Pulse FC Programmer

Easily program cards for dispense or fluid totals.

Pulse FC Fluid Cards

Reusable fluid cards can be scanned directly on the SD preset meter's built-in NFC reader.

Pulse FC Software Quick Start

Easy-to-follow instructions for quick system setup.

Pulse FC Software

Simple PC-based software is used in conjunction with Pulse FC Programmer.

A Ordering Information

Part Number	Description
26C401	Pulse FC Starter Kit – Includes Software, Card Programmer, Software Quick Start and 50-Pack of Fluid Cards

Fluid Management

Oil **Gear Lube** **Antifreeze** **ATF**

B SD™ Preset Dispense Meters

Up to
18 gpm
(68 lpm)

With Pulse FC, dispense only precise volumes to create efficiencies for your entire shop operation. Monitor how much fluid you're using. Choose the amount of fluid each technician can dispense in order to maintain accurate inventory.

Large LCD High-Contrast Display

High-contrast screen for reading in all lighting conditions with easy setup and navigation. See what fluid the meter is setup for and exactly how much you are dispensing.

Upgrade Option

Compatible with Pulse™ FC and upgradeable to Pulse™ Pro.

High Flow

Available in two models – 8 gpm (30 lpm) or 18 gpm (68 lpm).

Durable Cast Body

Designed for heavy duty and harsh applications.

Automatic Quick-Close Nozzle

Choose from rigid or flexible extensions with non-drip performance.

Long-Life Valve Design

Cartridge design for fewer and easier repairs.

Ergonomic Handle Design

Four-finger trigger and easy-to-use button pad reduce worker fatigue.

Typical Applications

- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- Service shops
- In-plant
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor gear, and ATF)
- Antifreeze

Technical Specifications

Flow Range*	0.25 gpm to 18 gpm (0.9 lpm to 68 lpm)
Maximum Working Pressure	1,500 psi (103.4 bar)
Units of Measure	Pints, quarts, gallons, liters (factory set to quarts)
Metered Dispense Valve Accuracy**	+/- 0.5%
Inlet	1/2 in–14 NPT or 3/4 in–14 NPT
Outlet	3/4 in–16 straight thread O-ring Boss
Maximum Recorded Dispense	9999 units (factory set in quarts)
Operating Temperature Range	4°F to 158°F (-20°C to 70°C)
Storage Temperature Range	-40°F to 158°F (-40°C to 70°C)
Wetted Parts	Aluminum, stainless steel, PBT, nitrile rubber, zinc plated carbon steel, nickel plated carbon steel
Dimensions (without extension)	13 in L x 3.75 in W x 5.75 in H (33 cm x 9.5 cm x 14.6 cm)
Weight	5.3 lb (2.4 kg)
Warranty	Five years overall, three years electronics
Instruction Manual	3A6711 and 3A6673

*Tested in 10W motor oil. Flow rates vary with fluid pressure, temperature and viscosity.
**At 2.5 gpm (9.5 lpm), at 70°F (21°C), with 10-weight oil and 1 gallon dispensed. May require calibration.
***Battery required to meet life expectancy: Energizer® Alkaline E91.

Pulse® FC Fluid Control

B Ordering Information

SD™ Preset Electronic Meters

26C384

	Dispense Type	Flow Range gpm (lpm)	Fluid	Extension	Inlet in (NPT)	Part Number
SDP8	Preset (Pulse FC enabled)	0.25–8 (1–30)	Oil	Rigid	1/2	26C384
				Flexible	1/2	26C354
			Antifreeze	Rigid	1/2	26C385
				Flexible	1/2	26C355
			Gear lube	Rigid	1/2	26C358
SDP18	Preset (Pulse FC enabled)	0.25–18 (1–68)	Oil	Rigid	1/2	26C356
				Flexible	1/2	26C357
				Rigid	3/4	26C360
				Flexible	3/4	26C361

Nozzle and Extension Kits

	Extension	Fluid	Nozzle Description	Part Number	Compatible Meters
	Rigid	Oil	Automatic, non-drip, quick-close	255852	SDP8
		Antifreeze	Non-drip, manual open/close	26C267	SDP8
		Oil/Antifreeze	High-flow, non-drip, quick-close	255857	SDP18
	Rigid	Gear lube	Non-drip, quick-close	255854	SDP8
	Flexible	Oil	Automatic, non-drip, quick-close	255853	SDP8
		Antifreeze	Non-drip, manual open/close	26C268	SDP8
		Oil/Antifreeze	High-flow, non-drip, quick-close	255858	SDP18
	Nozzle Only	Oil	Automatic, non-drip, quick-close	17R220	SDP8
	Nozzle Only	Gear lube	Non-drip, quick-close	255470	SDP8
	Nozzle Only	Oil/Antifreeze	Non-drip, manual open/close	17T207	SDP8
	Flexible	Oil/Antifreeze	Extension only, 2 ft length	131733	SDP8

Fluid Management

Oil **Gear Lube** **Antifreeze** **ATF**

C Ordering Information

Roll Around Package

Pulse FC wire-free technology allows you to control your mobile drums and dispenses by providing security for expensive drums of synthetic and semi-synthetic fluids. Each package contains everything you need to manage your drums in existing installations. Drum not included.

Package Number	Extensions	Package Includes					
		Meter	Pump	Downtube	Drum Cart	Air Regulator	Hose
26C366	8 GPM, Gear Lube	26C358	24G576	16F878	24F915	24H420	24H865
26C367	8 GPM, Flexible	26C354					
26C409	8 GPM, Rigid	26C384					

Oil Bar

Part Number	Description
25D121	Oil Bar Console
25D130	Oil Bar Dispense Kit
25N771	Oil Bar SD Preset Dispense Meter

Oil Bar
Components ordered separately. For complete unit, order console (25D121), dispense kit (25D130) (one per meter) and Pulse FC meters (25N771) as needed.

Accessories

Pulse FC Fluid Cards

Part Number	Description
130783	Pulse FC Fluid Cards – 50-Pack, White

Pulse FC Demo Kit

Part Number	Description
26C399	Includes Pulse FC Dispense Meter, Software, Card Programmer and 5-Pack of Fluid Cards

SD Meter Filter Kits

Part Number	Description
25D906	Filter kit includes filters/strainers (15M308) and O-rings (155332)

Swivel Covers / Impact Protection

Part Number	Description
15T366	Black swivel cover (standard color with meter)
15T367	Red swivel cover
15T368	Blue swivel cover
15T369	Green swivel cover
15T370	Yellow swivel cover
131226	Pulse / SD meter boot

Fluid Management

Graco Pulse® Level offers highly intuitive tank-level-visibility options to help you optimize deliveries, margins and customer service. Choose from multiple tank-level-monitoring technologies, including a system that can run entirely on Wi-Fi. Track tank levels, capture and apply data, and assign distribution routes quickly, accurately and confidently from the industry's leading fluid management expert.

Choose Your Pulse Level System:

25T460

25T461

25T462

Ultrasonic Wi-Fi
There are other TLM solutions on the market – but none of them are designed for Wi-Fi configuration. When connected to a reliable network, marketers and their customers can avoid service fees or contracts entirely.

Ultrasonic Cellular
No need to worry about obsolete cellular network, we use a long term data solution. Versatile multi-thread adapter allows for installation on all different tank types.

Pressure Cellular
No need to worry about obsolete cellular network, we use a long term data solution. Our pressure unit is approved for hazardous locations and measures tanks up to 30 feet tall.

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Fuel (diesel/gasoline/kerosene)
- Water/waste water
- Antifreeze
- Windshield washer fluid
- Waste oil
- DEF

Typical Applications

- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garage
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Mining
- Remote job sites

Part Number	25T460	25T461	25T462
No Monthly Fees	•		
No Maintenance Contract	•	•	•
Easy-to-Use Software for Monitoring Data	•	•	•
Easily Replaceable Batteries	•	•	•
NPT Thread for Easy Installation	•	•	•
Viewable Data with Other Models of Pulse Level	•	•	•
LTE Cellular Coverage		•	•
Works in Remote Locations		•	•
30 ft Tanks			•
Hazardous Environment Approved			•

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Oil	Gear Lube	ATF	Fuel	Water	Antifreeze	Washer Fluid	Oil/ Waste Oil	Diesel Exhaust Fluid (DEF)	

Pulse® Level Fluid Management

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Ultrasonic Wi-Fi

No Ongoing Fees

Wi-Fi connection.

Long Battery Life

7-year battery life with replaceable C batteries.

On-Demand Reading

Ability to take reading at any time.

Ultrasonic Sensor

Measure tanks 10 ft tall.

Ultrasonic Cellular

Cellular Communication

No need for local network connection.

Long Battery Life

5-year battery life with replaceable C batteries.

On-Demand Reading

Ability to take reading at any time.

Ultrasonic Sensor

Measure tanks 13 ft tall.

Pressure Cellular

Cellular Communication

No need for local network connection.

Long Battery Life

Up to 10-year battery life.

Submersible Pressure Sensor

Measure tanks up to 30 ft tall.

Hazardous-Location Rating

Approved for use with flammable fluids such as gasoline.

Fluid Management

Pulse® Level Fluid Management

| Oil | Gear Lube | ATF | Fuel | Water | Antifreeze | Washer Fluid | Oil/ Waste Oil | Diesel Exhaust Fluid (DEF) |

Technical Specifications

|	Ultrasonic Wi-Fi TLM	Ultrasonic Cellular TLM	Pressure Cellular TLM
Compatible Fluids	Oil, kerosene, diesel, lubricants, additives, DEF/AdBlue, coolants, water, waste oil, waste water	Oil, kerosene, diesel, lubricants, additives, DEF/AdBlue, coolants, water, waste oil, waste water	Oil, kerosene, diesel, lubricants, additives, DEF/AdBlue, coolants, water, waste oil, waste water, gasoline
Tank Depth Measurement Range	5.0 in to 9 ft-7 in	5.0 in to 13 ft	30 ft
Fluid Level Measurement Accuracy	+/- 1.0 in	+/- 1.0 in	+/- 1.0 in
Mounting	1.25 in,1.5 in and 2.0 in threaded NPT connector	1.25 in,1.5 in and 2.0 in threaded NPT connector	1 in threaded NPT connector with wall-mounted logger
Clearance Height Above Tank for TLM	7.5 in	7.5 in	N/A
Weight	0.5 lb	1.17 lb with batteries	0.75 lb
RF Frequency Band	2.412 GHz - 2.462 GHz	LTE CAT-M1	LTE CAT-M1
Maximum RF Transmit Power	18 dBm	23 dBm	23 dBm
Operating Temperature Range	0°F to 122°F	0°F to 122°F	-4°F to 131°F
Batteries	Li-SOC12 Size R14, 3.6V C-cell	4 x Alkaline C-cell	Graco Part Number 19D216
Battery Life	7.5 years* from activation	5 years*	10 years* from activation
Enclosure (Ingress Protection)	IP67	IP67	IP68
Tanks			
Maximum Volume	999,999 gallons	999,999 gallons	999,999 gallons
Maximum Height	9 ft-7 in	13 ft	30 ft
Altitude	<6,000 ft	<6,000 ft	<6,000 ft

*The battery life is based upon four (4) measurements per day and one (1) data drop per day from a location with adequate coverage, and a normal distribution over the operating temperature range centered at +25°C (77°F).

Pulse Level Software

Pulse Level software has a simple intuitive design and gives you powerful information at your fingertips. Get a quick consolidated view of key sites via a specifically designed web page. Track tank levels at a glance, generate customizable reports and automated email alerts, and share critical information with other key decision makers.

- Intuitive alerts ensure your customers never run out of products
- See the status of each customer site on an easy-to-view map
- Advanced reporting – create and schedule automated reports to track history and see usage trends
- Expand the capabilities of your existing software systems with tank data from Pulse Level's API
- Simple annual and monthly billing options, or avoid charges altogether with Wi-Fi
- Allow customer to find insights on their own tanks by sharing Pulse Level data
- Use customers' existing Pulse Pro hardware to avoid the cost of additional monitors

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Fluid Defender®

Oil | ATF | Fuel | Antifreeze | Washer Fluid | Oil/Waste Oil
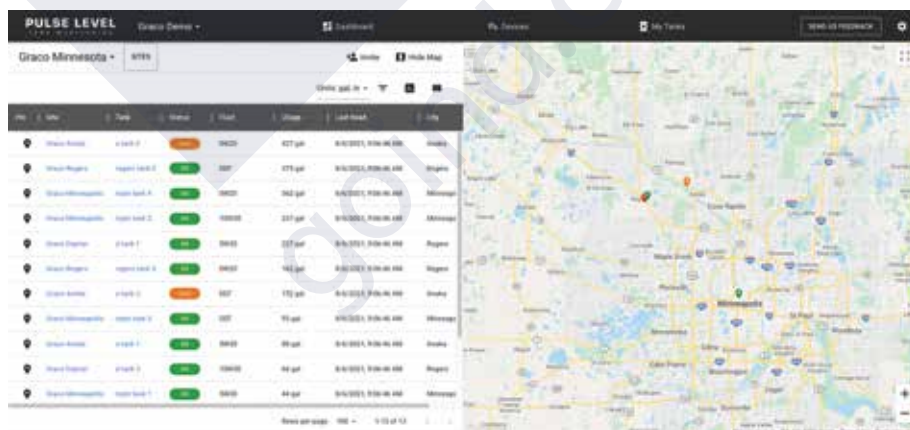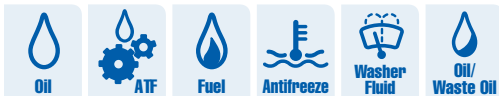
Don't Take Risks With Your Bulk Fluids

Designed for control of bulk fluid tanks, preventing overfill and pump runaway.

Monitor and Control up to 5 Tanks
Manage an entire tank room with one system.

Fresh Oil and Waste Oil Monitoring
Provides emergency shut off, over-fill and run away protection.

Remote Filling
Allows for up to 1,000 feet between control box and tanks.

Alarm Notifications
Siren, rotating beacon and remote lights.

Pulse Integration
Integrate with Pulse® software for increased insights, analysis and control.

Fluid Defender

Control and monitor up to 5 tanks and utilize air solenoids to increase control and defend from overfill or pump run away.

25V478

Pulse Fluid Defender

Receive valuable tank data into the Pulse Pro software to further improve tracking and management of bulk fluids. Set email alerts to increase visibility to alarms during off-business hours.

18G109

Fluid Management

Typical Applications

- Service shops
- Automotive dealerships
- Fast lube centers
- Agriculture dealers

›› Ordering Information

Part Number	Description
25V470	Fluid Defender
25V471	Pulse Fluid Defender
25V475	High Level Float
25V476	Low Level 10 ft Float
25V477	Low Level 30 ft Float
25V478	Dual Level 10 ft Float
25V479	Dual Level 30 ft Float
25V482	Air Control Solenoid
18G108	Single Light Bracket Kit
18G109	Multi-Light Bracket Kit

Technical Specifications

Controllers	
Dimensions (W x H x D)	11.88 in x 10.29 in x 6.43 in (30.18 cm x 26.14 cm x 16.33 cm)
Weight	5 lbs (2.27 kg)
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Enclosure Rating	NEMA Type 3R
Power Requirement	120 VAC
Audible Alarm	Yes
Audible Alarm Pressure Level	103 dB(A)
Visual Alarm Indicators	Rotating beacon, red light, remote light (optional), email notification (Pulse)
Channels	5
Floats	
Single Tank Versions	10 ft and 30 ft (3.05 m and 9.14 m)
Dual Tank Versions	10 ft and 30 ft (3.05 m and 9.14 m)
Intended Use	Motor Oil, Waste Oil, ATF, Antifreeze, Diesel, WWS
Minimum Specific Gravity	0.75
Amp Rating	0.1 amp
Maximum Fluid Viscosity	2,000 centipoise
Temperature Range	14°F to 122°F (-10°C to 50°C)
Minimum Detectable Tank Level	2 in (5.1 cm)
Minimum Head Space	5.5 in (2.54 cm)

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Oil | Gear Lube | Antifreeze | ATF
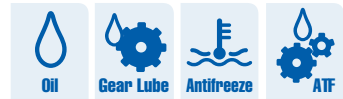
Ordering Information

In-Line Meters

Part Number	Description
236763	Electronic pulse output meter (quarts)
236764	Electronic pulse output meter (liters)
215474	Mechanical pulse output meter (quarts)
244342	Meter pulse converter, used when upgrading old-style modular fluid commander to electronic allows use of 215474/215475 with the EFC.

Air Solenoid Valves

Part Number	Description
215407	Air solenoid valve, 150 psi (10 bar) (1/2 npsm (f) conduit ports for wiring; 1/4 in NPT(F) air ports, adapted to 3/8 (f) IN, 3/8 (m) OUT) operates on 24V DC and 110 VAC. Automatically shuts-off air inlet to pump when pre-set dispensed amount is reached. Materials of construction: brass, SST, Buna.
105474	Air solenoid valve (bare) 150 psi (10 bar), same as 215407 but without wire connectors or adapters. 1/2 in npsm (f) conduit ports for wiring; 1/4 in NPT(F) air ports.150 psi (10.3 bar) max. working pressure.

Fluid Solenoid Valves

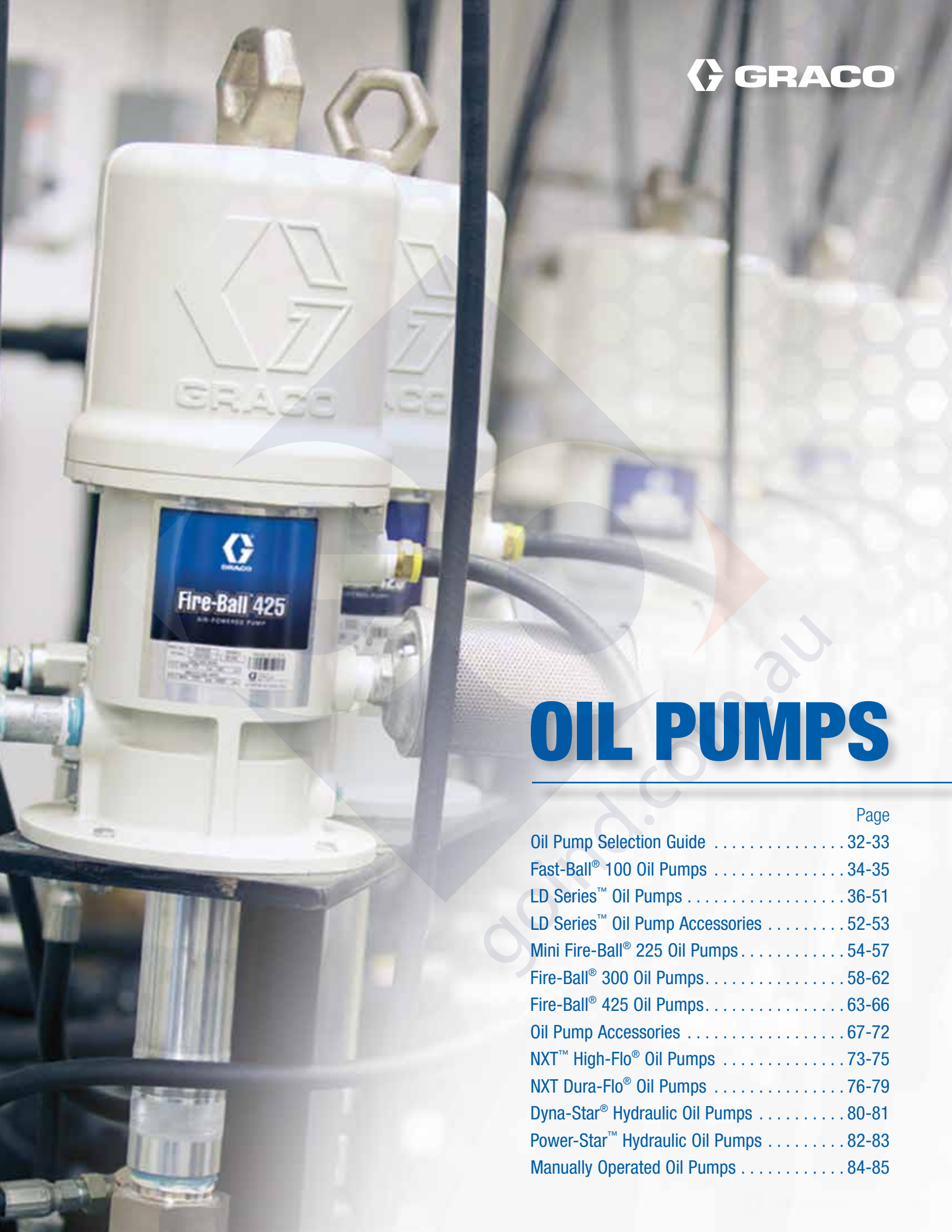| Part Number	Description
215487	Fluid solenoid valve, 1/2 in NPT(F) 3,000 psi (207 bar) operates on 24V DC. Automatically shuts-off fluid when pre-set dispensed amount is reached. Includes tube, valve, pin connector, wire plug connector and adapter.
514150	Fluid solenoid valve for antifreeze, 150 psi max. (10 bar), 1/2 in NPT(F), same as features as 215487.
110025	Bare fluid solenoid valve, 1/2 in NPT(F) 3,000 psi, same features as 215487 above, but without wiring connectors or adapters.

Ready-Light Kits

Part Number	Description
218588	Ready-light kit, signals operator when dispensing can begin. Includes "ready to dispense" indicator light (239019), strainer (240417), fluid solenoid valve (215487) and hardware.
238996	Ready-light with junction box (no solenoid or strainer)
239019	Ready-to-dispense indicator light only
113859	Lamp for indicator only

Installation Components

Part Number	Description
111620	Check valve
223179	Fluid filter kit (for bare electronic meter)
186472	Wall-mounting bracket
108458	Fluid shut-off valve
237893	Thermal relief kit for 900 psi (62 bar), relieves excess heat-induced pressure from dispense system. Male and female ends allow for simple installation.

Connecting Cables for Connecting Solenoids and Consoles, 90-volt, 2-wire, 18-gauge

Part Number	Description
215481	100 ft (30.5 m) pre-connected at both ends

Fluid Management

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![GRACO logo]

OIL PUMPS

Oil Pump Selection Guide

Pump Family and Fluid Pressure Ratio	Typical Applications	Annual Usage	Line Length	Simultaneous Dispense Points	Approximate Free Flow Rate @ 100 psi	Air Inlet	Fluid Inlet	Fluid Outlet	Air Operation Range	Reference Page
Fast-Ball 100	• Fluid transfer • Specialty fluid dispenses • Point of use • Mobile fluid carts	5,000 gal (19,00 l)	< 100 ft (30 m)	1 (no reels)	5 gpm (19 lpm)	1/4 NPT(F)	1 NPT(F)	3/4 NPT(F)	40-150 psi (2.8-10.3 bar)	34
LD, 3:1	• Automotive dealerships • Fast lube centers • Lube trucks • Lubricant transfer • Service shops	20,000 gal (75,000 l)	300 ft (91 m)	1 to 2	7.8 gpm (30 lpm)	1/4 NPT(F)	1 NPT(F)	1/2 NPT(F)	20-150 psi (1.37-10.3 bar)	36
LD, 5:1	• Automotive dealerships • Fast lube centers • Lube trucks • Lubricant transfer • Service shops	20,000 gal (75,000 l)	300 ft (91 m)	1 to 2	6.7 gpm (25 lpm)	1/4 NPT(F)	1 NPT(F)	1/2 NPT(F)	20-150 psi (1.37-10.3 bar)	36
Mini Fire-Ball 225, 3:1	• Automotive dealerships • Fast lube centers • Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	30,000 gal (113,500 l)	250 ft (76 m)	1 to 2	8.3 gpm (32 lpm)	3/8 NPT(F)	1-1/2 NPT(F)	1/2 NPT(F)	40-180 psi (2.8-12 bar)	54
Fire-Ball 300, 5:1	• Automotive dealerships • Fast lube centers • Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	35,000 gal (132,000 l)	500 ft (152 m)	1 to 3	12.1 gpm (46 lpm)	3/8 NPT(F)	1-1/2 NPT(F)	1/2 NPT(F)	40-180 psi (2.8-12 bar)	58
Fire-Ball 425, 3:1	• Automotive dealerships • Fast lube centers • Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	> 35,000 gal (132,000 l)	Up to 250 ft (76 m)	3 to 4	28.7 gpm (109 lpm)	1/2 NPT(F)	1-1/2 NPT(F)	3/4 NPT(F)	40-180 psi (2.8-12 bar)	63
Fire-Ball 425, 6:1	• Automotive dealerships • Fast lube centers • Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	> 35,000 gal (132,000 l)	Up to 500 ft (152 m)	3 to 4	17.1 gpm (65 lpm)	1/2 NPT(F)	1-1/2 NPT(F)	3/4 NPT(F)	40-180 psi (2.8-12 bar)	63
Fire-Ball 425, 10:1	• Automotive dealerships • Fast lube centers • Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	> 35,000 gal (132,000 l)	Up to 750 ft (228.6 m)	3 to 4	11.7 gpm (44 lpm)	1/2 NPT(F)	1-1/2 NPT(F)	3/4 NPT(F)	40-180 psi (2.8-12 bar)	63

Pump Family and Fluid Pressure Ratio	Typical Applications	Annual Usage	Line Length	Simultaneous Dispense Points	Air Inlet	Fluid Inlet	Fluid Outlet	Air Operation Range	Reference Page
NXT High Flo, 3.5:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 250 ft (76 m)	4 to 5	3/4 NPT(F)	1-1/2 NPT(F)	1 NPT(F)	20-100 psi (1.4-7 bar)	73
NXT High Flo, 4.5:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 450 ft (137 m)	4 to 5	3/4 NPT(F)	1-1/2 NPT(F)	1 NPT(F)	20-100 psi (1.4-7 bar)	73
NXT High Flo, 6:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 500 ft (152 m)	4 to 5	3/4 NPT(F)	2 NPT(F)	2 NPT(F)	20-75 psi (1.4-5.2 bar)	76
NXT Dura-Flo, 6:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 500 ft (152 m)	2 to 4	3/4 NPT(F)	2 NPT(F)	1-1/2 NPT(F)	20-100 psi (1.4-7 bar)	76
NXT Dura-Flo, 10:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 750 ft (228.6 m)	2 to 4	3/4 NPT(F)	2 NPT(F)	1-1/2 NPT(F)	20-100 psi (1.4-7 bar)	76
NXT Dura-Flo, 12:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 1000 ft (305 m)	2 to 4	3/4 NPT(F)	2 NPT(F)	1-1/2 NPT(M)	20-100 psi (1.4-7 bar)	76
NXT Dura-Flo, 23:1	• Fleet service facilities • In-plant large runs • Large volume lubricant transfer • Mining remote fill	> 35,000 gal (132,000 l)	Up to 1000 ft (305 m)	2 to 4	3/4 NPT(F)	2 NPT(F)	1-1/2 NPT(M)	20-75 psi (1.4-5.2 bar)	76

Pump Family and Fluid Pressure Ratio	Typical Applications	Maximum Output Flow Rate	Maximum Fluid Output Pressure	Hydraulic Inlet	Hydraulic Outlet	Fluid Inlet	Fluid Outlet	Maximum Hydraulic Inlet Pressure	Reference Page
Dyna-Star 1:1	• Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	3 gpm (11 lpm)	1500 psi (102 bar)	3/8 NPT(F)	3/4 NPT(F)	1-1/2 NPT(F)	1/2 NPT(F)	1500 psi (102 bar)	80
Dyna-Star 1/4:1	• Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	10 gpm (38 lpm)	375 psi (25.1 bar)	3/8 NPT(F)	3/4 NPT(F)	1-1/2 NPT(F)	1/2 NPT(F)	1500 psi (102 bar)	80
Power-Star 1:1	• Fleet service facilities • Heavy-duty dealerships • In-plant • Lube trucks • Lubricant transfer • Mining • Service shops	12 gpm (45 lpm)	1500 psi (102 bar)	3/4 NPT(F)	1-1/4 NPT(F)	1-1/2 NPT(F)	1/2 NPT(F)	1500 psi (102 bar)	82

Oil Pumps and Packages

Oil **Gear Lube** **ATF**

5 Year
Warranty!

Designed for Enhanced Quality, Durability and Reliability

When you purchase Graco, you expect the best. The fully redesigned Fast-Ball delivers unmatched Graco performance and operation. Its simple, easy-to-install design allows for efficient serviceability to minimize downtime and keep your operations running.

In-Line Design
Means fewer parts for less pump wear.

Double-Acting Pump
Provides reliable fluid flow.

Differential Air Motor
Ensures smooth pump operation.

5-Year Warranty
Graco's quality guarantee and peace of mind.

Typical Applications

- Fluid transfer
- Specialty fluid dispenses
- Point of use
- Mobile fluid carts

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Pump Performance
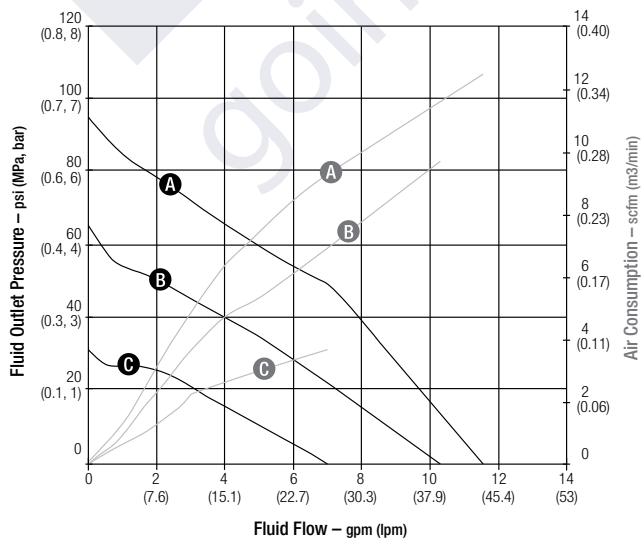
Inlet Pressures:

A = 100 psi (0.7 MPa, 7 bar) air pressure

B = 70 psi (0.48 MPa, 4.8 bar) air pressure

C = 40 psi (0.28 MPa, 2.8 bar) air pressure

TEST FLUID: ISO 46 Hydraulic Oil at Room Temperature

Fluid Outlet Pressure – psi (MPa, bar)

Air Consumption – scfm (m3/min)

Fluid Flow – gpm (lpm)

Technical Specifications

Air Inlet Size	1/4 in NPT
Air Operating Range	40-150 psi (2.8-10.3 bar)
Compatible Material	Oil, Gear Lube, ATF
Maximum Fluid Flow	12.5 gpm (47.3 lpm)
Fluid Inlet Size	1 in NPT
Fluid Outlet Size	3/4 in NPT
Maximum Air Inlet Pressure	150 psi (10.3 bar)
Maximum Continuous Cycle Rate	100 cpm
Maximum Working Pressure	150 psi (10.3 bar)
Power Type	Pneumatic
Pump Ratio	1:1
Sound Power Level	78 dB(A)
Weight	6.3-9.8 lbs (2.9-4.4 kg)

≫ Ordering Information

Pumps

Part Number	Description
279035	Universal Length Pump
279036	Cut-to-Length PVC Downtube Pump
279037	55 Gallon Drum Length Pump

Pump Packages

Package Number	2000726	2000727
Type of Package	Spigot Kit	Mobile Dolly Kit
Container Size	55 gal (200 l)	55 gal (200 l)
Ratio	1:1	1:1
Pump	279037	279037
Dispense Kit	218115	247712
Air Regulator Kit	218316	24H420
Air Hose Size	1/4 in x 6 ft	3/8 in x 6 ft
Fluid Hose Size	–	1/2 in x 15 ft
Dolly Base	–	129645
Instruction Manual	3A9348	3A9348

Oil   **Gear Lube**   **ATF**

5 Year *Warranty!*

Durable and Hardworking

Stay ahead of the competition with LD Series pumps. These affordable and full-featured pumps are designed for lower-volume applications. LD pumps are fine-tuned for a compact, flexible and durable solution.

Three Inch Air Motor

Provides more power to create better flow.

Engineered for Durability

Patented cup and plate design eliminates the need for O-rings that wear out faster, for a more durable, longer-lasting solution.

Modular Air Valve

Air inlet and exhaust locations are easy to configure with just four bolts for simple, hassle-free installations.

Pilot Valves

Patented self-cleaning design increases reliability in dirty air environments and minimizes pressure drop with rapid changeovers for reduced stalling and smoother flow.

Built-In Thermal Relief and Inlet Strainer

Built-in thermal relief protects your equipment from thermal expansion, and an inlet strainer is built in to protect pump from contaminants.

Oil Pumps and Packages

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Pump Performance

LD Series 3:1 Pumps

Inlet Air Pressures:
- (A) = 150 psi (10.3 bar)
- (B) = 100 psi (6.9 bar)
- (C) = 70 psi (4.8 bar)
- (D) = 40 psi (2.8 bar)

Test Fluid : ISO 46 Hydraulic Oil

LD Series 5:1 Pumps

Inlet Air Pressures:
- (A) = 150 psi (10.3 bar)
- (B) = 100 psi (6.9 bar)
- (C) = 70 psi (4.8 bar)
- (D) = 40 psi (2.8 bar)

Test Fluid : ISO 46 Hydraulic Oil
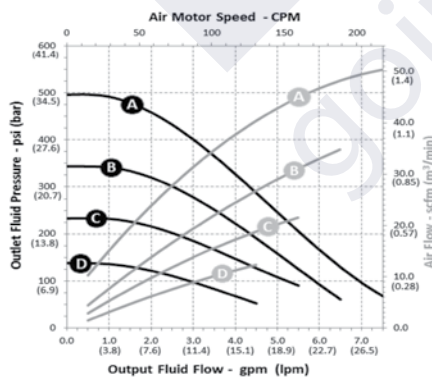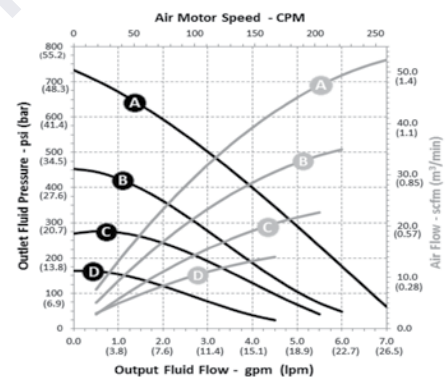
Technical Specifications

	LD Series 3:1	LD Series 5:1
Fluid Pressure Ratio	3:1	5:1
Air Motor Effective Diameter	3 in (76.2 mm)	3 in (76.2 mm)
Maximum Fluid Working Pressure	450 psi (31 bar / 3.1 MPa)	750 psi (51.7 bar / 5.17 MPa)
Approximate Free Flow Rate @ 100 psi	7.8 gal/min (30 liters/min)	6.7 gal/min (25 liters/min)
Output per Cycle	131 cc	102 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	18 scfm @ 2.8 gpm (0.51 m³/min @ 10.6 lpm)	18 scfm @ 2.1 gpm (0.51 m³/min @ 8.0 lpm)
Air Inlet	1/4 in	1/4 in
Fluid Inlet	1 in	1 in
Fluid Outlet	1/2 in	1/2 in
Air Operation Range	20 psi to 150 psi (1.37 bar to 10.3 bar)	20 psi to 150 psi (1.37 bar to 10.3 bar)
Maximum Recommended Pump Speed	120 cpm	180 cpm
Cycles per Gallon (liter)	29 (7.7)	37 (9.8)
Wetted Parts	Zinc plated carbon, steel, aluminum, nitrile, polyurethane, nickel plated aluminum	Zinc plated carbon, steel, aluminum, nitrile, polyurethane, nickel plated aluminum
Sound Pressure Level	72.9 dB(A)	72.9 dB(A)
Sound Power Level	82 dB(A)	82 dB(A)
Approximate Weight	7 lb (3.2 kg)	7.7 lb (3.5 kg)
Instruction Manual	3A1334	3A1334

⟫ Ordering Information

LD Series 3:1 Pumps

Part Number	Description
24G576	3:1 Universal oil pump with bung adapter (24F918)
24G579	3:1 Oil pump with cut-to-length PVC downtube (16F878) and bung adapter (24F918)
24G582	3:1 Oil pump with 55 gal (200 liter) downtube (16F886) and bung adapter (24F918)
24G585	3:1 Oil pump with 275 gal (1,040 liter) steel downtube (16F885) and bung adapter (24F918)

LD Series 5:1 Pumps

Part Number	Description
24G588	5:1 Universal oil pump with bung adapter (24F918)
24G591	5:1 Oil pump with cut-to-length PVC downtube (16F878) and bung adapter (24F918)
24G594	5:1 Oil pump with 55 gal (200 liter) steel downtube (16F886) and bung adapter (24F918)
24G597	5:1 Oil pump with 275 gal (1,040 liter) steel downtube (16F885) and bung adapter (24F918)

Oil Pumps and Packages

LD Series 3:1 Oil Pump Packages

>> Ordering Information

Mobile Oil Packages – Cart

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H751	24H750	24H753	24H752	24H775	24H774	24H777	24H776
Ratio	3:1	3:1	3:1	3:1	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576	24G576	24G576	24G576	24G576
Suction Tube Size	200 L	200 L	200 L	200 L	200 L	200 L	200 L	200 L
Pump Downtube	16F886	16F886	16F886	16F886	16F886	16F886	16F886	16F886
Meter Type	Manual	Manual	Preset	Preset	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277	25C903	25C904	256216	255277
Meter Extension	Rigid	Flexible	Rigid	Flexible	Rigid	Flexible	Rigid	Flexible
Hose Kit	24J495	24J495	24J495	24J495	24H865	24H865	24H865	24H865
Hose Reel Type	LDX	LDX	LDX	LDX	–	–	–	–
Hose Size	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft	–	–	–	–
Hose Reel	HEM004	HEM004	HEM004	HEM004	–	–	–	–
55 gal Cart	24F915	24F915	24F915	24F915	24F915	24F915	24F915	24F915
Instruction Manual	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335

Package 24H775 installed on a 55 gallon drum (not included in package).

⟫ Ordering Information

Mobile Oil Packages – Dolly

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	25C551	25C553	25C550	25C552
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Container Size	16 gal (120 lb)	16 gal (120 lb)	55 gal (400 lb)	55 gal (400 lb)
Pump Downtube	16F878	16F878	16F886	16F886
Meter Type	Manual	Preset	Manual	Preset
Meter Part Number	25C903	256216	25C903	256216
Meter Extension	Rigid	Rigid	Rigid	Rigid
Hose Kit	24H865	24H865	24H865	24H865
Portable Base	131184	131184	129645	129645
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

LD Series 3:1 Oil Pump Packages

>> Ordering Information

Wall Mount Oil Packages

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H689	24H695
Ratio	3:1	3:1
Pump Part Number	24G576	24G576
Suction Tube Size	55 gal drum	275 gal tote
Suction Hose Kit	24F935	24H666
Hose Kit	–	24H859
Wall Mount Bracket	24F910	24F910
Instruction Manual	3A1335	3A1335

Package 24H695 installed on a 275 gallon tote (not included in package).

Stationary Oil Packages

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.
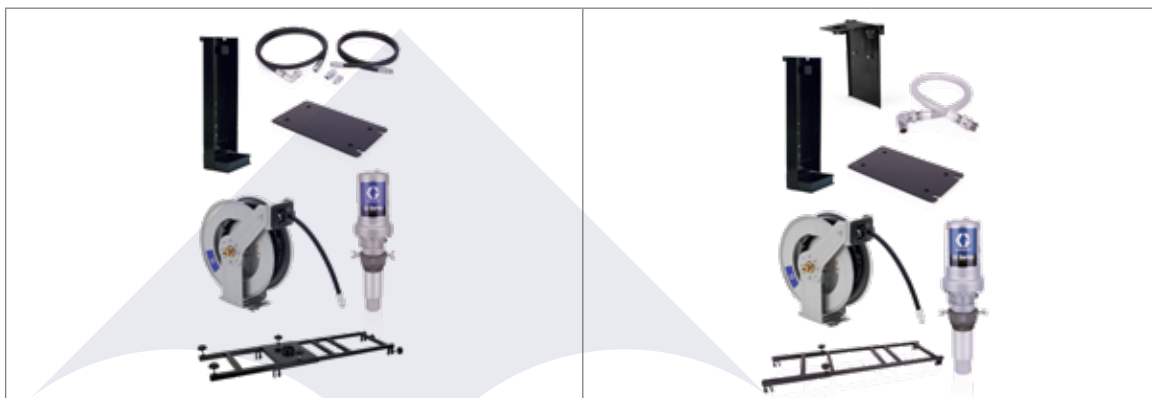
Package Number	24H800	24H799	24H802	24H801
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Suction Tube Size	Universal	Universal	Universal	Universal
Pump Downtube	16F878	16F878	16F878	16F878
Meter Type	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277
Meter Extension	Rigid	Flexible	Rigid	Flexible
Hose Kit	24H859	24H859	24H859	24H859
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

⟫ Ordering Information

Stationary Oil Packages – Tote

Standard packages include LD Series hose reel. Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H702	24H704	24H726	24H728
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Suction Tube Size	275 gal (1,040 l)	275 gal (1,040 l)	275 gal (1,040 l)	275 gal (1,040 l)
Pump Downtube	16F885	16F885	24H669	24H669
Mounting Position	Top	Top	Drain	Drain
Reel Type	LDX	LDX	LDX	LDX
Hose Reel Part Number	HEM004	HEM004	HEM004	HEM004
Hose Size	1/2 in x 35 ft	1/2 in x 35 ft	1/2 in x 35 ft	1/2 in x 35 ft
Reel Bracket Kit	24K285	24K285	24K285	24K285
Meter Type	Manual	Preset	Manual	Preset
Meter Part Number	25C903	256216	25C903	256216
Meter Extension	Rigid	Rigid	Rigid	Rigid
Hose Kit	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose
Hose Kit Part Number	24J495	24J495	24J495	24J495
Top Mount Tote Bracket	24F930	24F930	24F931	24F931
Tote Mount Pump Bracket	–	–	24F920	24F920
Meter Tray	24F914	24F914	24F914	24F914
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

Oil | Gear Lube | ATF

Ordering Information

Deluxe Stationary Oil Packages – Tote

Deluxe packages include SDX Series hose reel. Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24K838	24K842
Ratio	3:1	3:1
Pump Part Number	24G576	24G576
Suction Tube Length	275 gal (1,040 l)	275 gal (1,040 l)
Pump Downtube	16F885	16F885
Reel Type	SDX	SDX
Hose Reel Part Number	SDM6HB	SDM6HB
Meter Type	Preset	Manual
Meter Part Number	256216	25C904
Meter Extension	Rigid	Flexible
Hoses and Fittings	24J495	24J495
Top Mount Tote Bracket	24F930	24F930
SDX Reel/IBC Tote Bracket	24K285	24K285
Meter Tray	24F914	24F914
Instruction Manual	3A1335	3A1335

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Ordering Information

Tank Mount Oil Packages

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24J776	24J733	24J734	24K836
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Hose Reel Type	LDX	SDX	SDX	SDX
Hose Reel	HEM004	SDM6HB	SDM6HB	SDM6HB
Meter Type	Manual	Manual	Preset	Manual
Meter Part Number	25C903	25C903	256216	25C904
Meter Extension	Rigid	Rigid	Rigid	Flexible
Inlet Kit	25U371	218549	218549	218549
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

Ordering Information

Deluxe Tank Mount Oil Packages

Deluxe packages include SDX hose reel, air and fluid hoses with fittings, and mini air regulator.

Package Number	24K777	24K797	24K799	24K834
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Hose Reel Type	SDX	SDX	SDX	SDX
Hose Size	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 35 ft
Hose Reel	SDM6HB	SDM6HB	SDM6HB	SDM33B
Meter Type	Preset	Manual	Manual	Manual
Meter Part Number	256216	25C903	25C904	25C903
Meter Extension	Rigid	Rigid	Flexible	Rigid
Air and Fluid Hoses with Fittings	24J495	24J495	24J495	24J495
Mini Air Regulator with Gauge	24H420	24H420	24H420	24H420
Instruction Manual	3A1335	3A1335	3A1335	3A1335

>> Ordering Information

Mobile Oil Packages – Cart

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H916	24H915	24H918	24H917	24H941	24H940	24H943	24H942
Ratio	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588	24G588	24G588	24G588	24G588
Suction Tube Size	200 L	200 L	200 L	200 L	200 L	200 L	200 L	200 L
Pump Downtube	16F886	16F886	16F886	16F886	16F886	16F886	16F886	16F886
Meter Type	Manual	Manual	Preset	Preset	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277	25C903	25C904	256216	255277
Meter Extension	Rigid	Flexible	Rigid	Flexible	Rigid	Flexible	Rigid	Flexible
Hose Kit	24J495	24J495	24J495	24J495	24H865	24H865	24H865	24H865
Hose Reel Type	LDX	LDX	LDX	LDX	–	–	–	–
Hose Size	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft	–	–	–	–
Hose Reel	HEM004	HEM004	HEM004	HEM004	–	–	–	–
55 gal Cart	24F915	24F915	24F915	24F915	24F915	24F915	24F915	24F915
Instruction Manual	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335

Package 24H941 installed on a 55 gallon drum (not included in package).

Oil Pumps and Packages

LD Series 5:1 Oil Pump Packages

Ordering Information

Mobile Oil Packages – Dolly

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	25C555	25C557	25C554	25C556
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Container Size	16 gal (120 lb)	16 gal (120 lb)	55 gal (400 lb)	55 gal (400 lb)
Pump Downtube	16F878	16F878	16F886	16F886
Meter Type	Manual	Preset	Manual	Preset
Meter Part Number	25C903	256216	25C903	256216
Meter Extension	Rigid	Rigid	Rigid	Rigid
Hose Kit	24H865	24H865	24H865	24H865
Portable Base	131184	131184	129645	129645
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

▶▶ Ordering Information

Wall Mount Oil Packages

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H836	24H842
Ratio	5:1	5:1
Pump Part Number	24G588	24G588
Suction Tube Size	55 gal drum	275 gal tote
Suction Hose Kit	24F935	24H666
Hose Kit	–	24H859
Wall Mount Bracket	24F910	24F910
Instruction Manual	3A1335	3A1335

Package 24H842 installed on a 275 gallon tote (not included in package).

Stationary Oil Packages

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24H965	24H964	24H967	24H966
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Suction Tube Size	Universal	Universal	Universal	Universal
Pump Downtube	16F878	16F878	16F878	16F878
Meter Type	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277
Meter Extension	Rigid	Flexible	Rigid	Flexible
Hose Kit	24H859	24H859	24H859	24H859
Instruction Manual	3A1335	3A1335	3A1335	3A1335

LD Series 5:1 Oil Pump Packages

| | Oil | Gear Lube | ATF |

>> Ordering Information

Stationary Oil Packages – Tote

Standard packages include LD Series hose reel. Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.
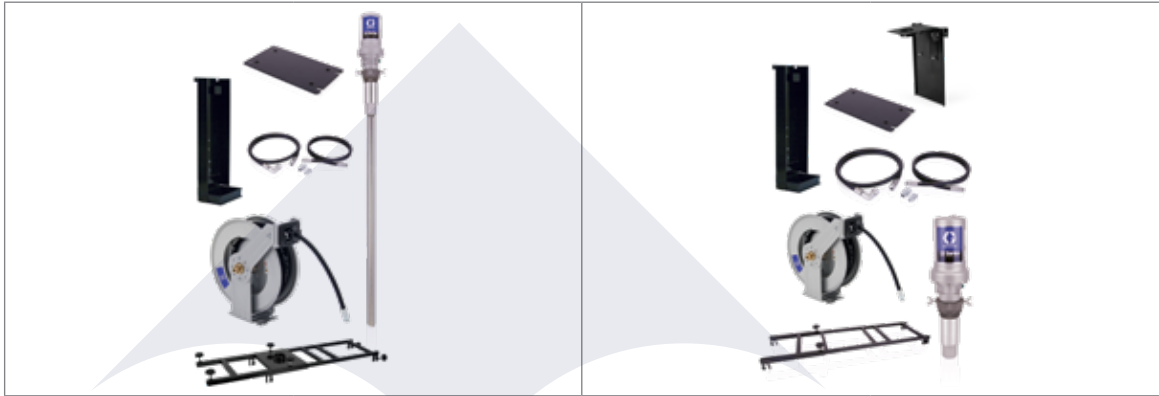
Package Number	24H868	24H870	24H892	24H894
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Suction Tube Size	275 gal (1,040 l)	275 gal (1,040 l)	275 gal (1,040 l)	275 gal (1,040 l)
Pump Downtube	16F885	16F885	24H669	24H669
Mounting Position	Top	Top	Drain	Drain
Reel Type	LDX	LDX	LDX	LDX
Hose Reel Part Number	HEM004	HEM004	HEM004	HEM004
Hose Size	1/2 in x 35 ft	1/2 in x 35 ft	1/2 in x 35 ft	1/2 in x 35 ft
Reel Bracket Kit	24K285	24K285	24K285	24K285
Meter Type	Manual	Preset	Manual	Preset
Meter Part Number	25C903	256216	25C903	256216
Meter Extension	Rigid	Rigid	Rigid	Rigid
Hose Kit	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose	6 ft x 3/8 in air hose / 6 ft x 1/2 in fluid hose
Hose Kit Part Number	24J495	24J495	24J495	24J495
Top Mount Tote Bracket	24F930	24F930	24F931	24F931
Tote Mount Pump Bracket	–	–	24F920	24F920
Meter Tray	24F914	24F914	24F914	24F914
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

Ordering Information

Deluxe Stationary Oil Packages – Tote

Deluxe packages include SDX Series hose reel. Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24K839	24K843
Ratio	5:1	5:1
Pump Part Number	24G588	24G588
Suction Tube Length	275 gal (1,040 l)	275 gal (1,040 l)
Pump Downtube	16F885	16F885
Reel Type	SDX	SDX
Hose Reel Part Number	SDM6HB	SDM6HB
Hose Reel Bracket	24K285	24K285
Meter Type	Preset	Manual
Meter Part Number	256216	25C904
Meter Extension	Rigid	Flexible
Hoses and Fittings	24J495	24J495
Top Mount Tote Bracket	24F930	24F930
Meter Tray	24F914	24F914
Instruction Manual	3A1335	3A1335

Oil | Gear Lube | ATF

Ordering Information

Oil Packages – Tank Mount

Self-relieving air regulator must be used for LD pump thermal relief function. Order regulator 24H420 or filter-regulator 133215 separately.

Package Number	24J777	24J735	24J736	24K837
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Reel Type	LDX	SDX	SDX	SDX
Hose Reel Part Number	HEM004	SDM6HB	SDM6HB	SDM6HB
Meter Type	Manual	Manual	Preset	Manual
Meter Part Number	25C903	25C903	256216	25C904
Meter Extension	Rigid	Rigid	Rigid	Flexible
Inlet Kit	25U371	218549	218549	218549
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

Oil **Gear Lube** **ATF**

▶▶ Ordering Information

Deluxe Oil Packages – Tank Mount

Deluxe packages include SDX hose reel, air and fluid hoses with fittings, and mini air regulator.

Package Number	24K796	24K798	24K800	24K835
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Reel Type	SDX	SDX	SDX	SDX
Hose Size	1/2 in x 50 ft (12.7 mm x 15 m)	1/2 in x 50 ft (12.7 mm x 15 m)	1/2 in x 50 ft (12.7 mm x 15 m)	1/2 in x 35 ft (12.7 mm x 10.6 m)
Hose Reel Part Number	SDM6HB	SDM6HB	SDM6HB	SDM33B
Meter Type	Preset	Manual	Manual	Manual
Meter Part Number	256216	25C903	25C904	25C903
Meter Extension	Rigid	Rigid	Flexible	Rigid
Air and Fluid Hoses with Fittings	24J495	24J495	24J495	24J495
Mini Air Regulator with Gauge	24H420	24H420	24H420	24H420
Instruction Manual	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages

LD Series Oil Pump Accessories

Ordering Information

Air Regulators

	Part Number	Description
	24H420	Mini air pressure regulator with gauge, 1/4 in NPT x 3/8 in NPT, self-relieving
	133215	Mini air filter-regulator with gauge, 1/4 in NPT, self-relieving, semi-auto drain

Carts

	Part Number	Description
	24F915	Drum cart with pneumatic wheels for 55 gallon drums, includes chain for securing drum to cart

LD Drum Dollies

	Part Number	Description
	131183	Drum dolly for 35 lb (16 kg) drum
	131184	Drum dolly for 120 lb (54 kg) drum
	129645	Drum dolly for 400 lb (182 kg) drum

Downtubes

	Part Number	Description
	16F878	Universal cut to length PVC downtube
	16F886	Drum length steel downtube
	16F885	Tote length steel downtube

Drum Covers

	Part Number	Description
	24F904	Cover for 35 lb (16 kg) pails
	24F905	Cover for open-head 120 lb drums
	24F906	Cover for open-head 400 lb drums

Hose and Fitting Kits

	Part Number	Description	Kit Includes			
			Fluid Hose	Air Hose	Swivel	Union Fitting
	24H865	15 ft LD pump fluid hose kit	1/2 in x 15 ft	3/8 in x 6 ft	157705	156684
	24H859	6 ft LD pump fluid hose kit	1/2 in x 6 ft	3/8 in x 6 ft	157705	156684

Oil Pumps and Packages

≫ Ordering Information

Suction Kits

Part Number	Description
24F935	LD oil pump suction hose kit for 55 gal (200 L) drum. Includes 55 gal (200 L) drum length metal downtube, bung adapter, foot valve and 6 ft of 1 in suction hose
24H666	LD oil pump suction hose kit for 275 gal (1,040 L) drum. Includes 275 gal (1,040 L) tote length metal downtube, bung adapter, foot valve and 6 ft of 1 in suction hose
24H669	LD oil pump suction hose kit and adapter for mounting pump to the side of IBC tote and dispensing from drain. Includes 1 in x 3 ft suction hose, 1 in elbow fitting and union fitting (160022)

Mounting Hardware

Part Number	Description
24F910	LD Series pump wall mounting bracket
24F918	Bung adapter

Tote Mount Accessories

Part Number	Description
24F914	Meter drip tray for mounting to the side of IBC tote
24F932	LD Series reel bracket for mounting reel to IBC top mount tote bracket (24F930 and 24F920)
24F931	Tote mounting bracket to mount reel on top of IBC tote (pump mounting bracket is not included)
24F930	Top of tote mounting bracket. For mounting LD Series pump in top of IBC tote.
24F920	Bracket for mounting LD Series pump on the side of IBC tote
24K285	Bracket for mounting SDX Series hose reel to IBC tote mounting bracket 24F930 (24F930 bracket sold separately)

Oil Pumps and Packages

7 Year *Warranty!*

Perfect for Medium Pressure, Low-Volume Applications

You can't afford downtime, especially when your shop is small. The Mini Fire-Ball 225 is designed with fewer moving parts, which means less wear and tear and reduced downtime, allowing you to run a more profitable business.

Durable Casting

Thick cast aluminum air motor housing offers unmatched durability.

Fewer Repairs

Fewer moving parts in the air motor assembly means less downtime and low repair cost.

Extended Seal Life

In-line pump design aligns the air motor piston and fluid piston rods to maximize seal life.

Superior Sealing

Non-metallic poppet valves offer positive sealing performance, even with contaminated "dirty" air environments for long life without repair.

Corrosion-Resistant

Corrosion-resistant design utilizes liquid salt nitriding, nickel plating, stainless steel, aluminum and chrome on key components for longer life.
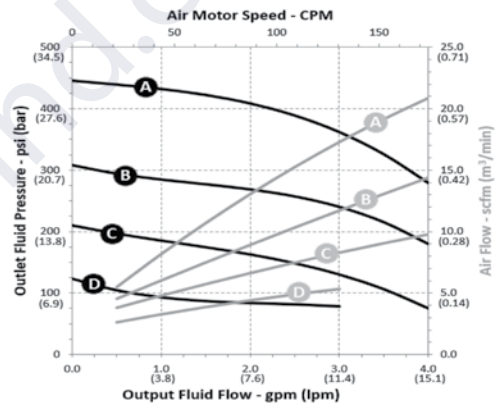
Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Pump Performance

Air Motor Speed - CPM

Inlet Air Pressures:
- (A) = 150 psi (10.3 bar)
- (B) = 100 psi (6.9 bar)
- (C) = 70 psi (4.8 bar)
- (D) = 40 psi (2.8 bar)

Test Fluid: No. 10 Weight Oil

Technical Specifications

Fluid Pressure Ratio	3:1
Air Motor Effective Diameter	2.25 in (57.2 mm)
Maximum Fluid Working Pressure	540 psi (37 bar / 3.7 MPa)
Approximate Free Flow Rate @ 100 psi	8.3 gal/min (32 liters/min)
Output per Cycle	87 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	9 scfm @ 1.9 gpm (0.25 m³/min @ 7.2 lpm)
Air Inlet	3/8 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)
Fluid Outlet	1/2 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12 bar)
Maximum Recommended Pump Speed	100 cpm
Cycles per Gallon (Liter)	43.5 (11.5)
Wetted Parts	Steel, Buna-N, polyurethane, aluminum, Rulon®
Sound Pressure Level	77.8 dB(A)
Sound Power Level	85.6 dB(A)
Approximate Weight	16 lb (7.3 kg)
Instruction Manual	309868

» Ordering Information

Mini Fire-Ball 225 3:1 Pumps

Part Number	Description
246775	3:1 Universal oil pump
248097	3:1 Universal oil pump with suction tube (15C502) and bung adapter (222308)

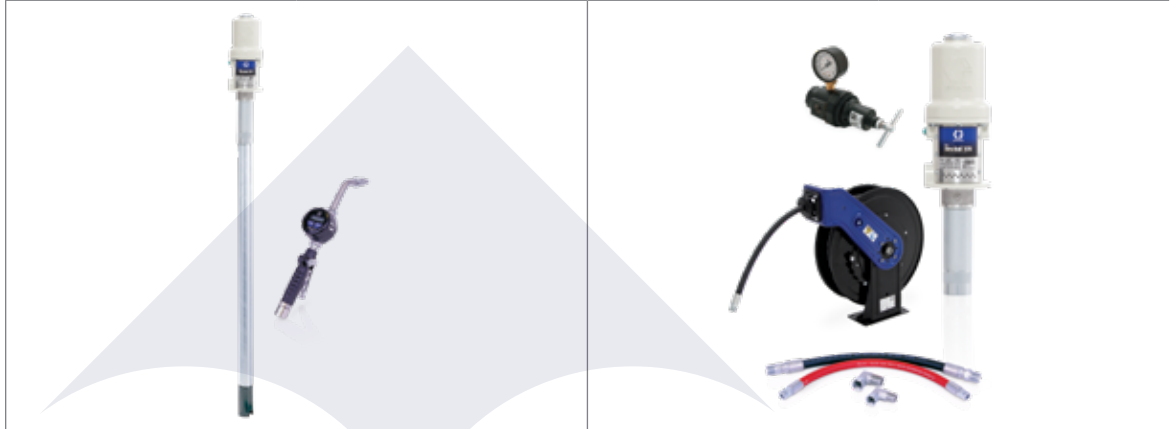Oil Pumps and Packages

▶▶ Ordering Information

Oil Packages

Package Number	246903*	246904*	246906*	246907**	248230**
Ratio	3:1	3:1	3:1	3:1	3:1
Package Type	Portable	Cover-mounted	Cover-mounted	Bung-mounted	Bung-mounted
Maximum Container Size	16 gal (60 l)	16 gal (60 l)	55 gal (200 l)	55 gal (200 l)	275 gal (1,040 l)
Pump	248097	248097	248097	248097	246775
Meter Type	Manual	–	–	–	–
Meter Part Number	25M413	–	–	–	–
Meter Extension	Rigid	–	–	–	–
Dispense/ Hose Fitting Kit	237075	222063	222063	222063	222062
Fluid Hose Size	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 1.5 ft (12.7 mm x 0.46 m)
Air Hose Size	–	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 1.5 ft (9.5 mm x 0.46 m)
Air Regulator	224512	224512	224512	–	–
Pump Shim	17C270	17C270	17C270	–	–
Cover	24R350	24R350	200326	–	–
Caster Base	203622	–	–	–	–
Instruction Manual	307884	307883	307883	307883	309868

*Order low-level shut-off (203688) (1-1/2 in NPT) separately for metered dispense systems.
**Order low-level shut-off (203688) (1-1/2 in NPT) separately for metered dispense systems. Use 3/8 in (9.5 mm) air regulator (109075) as required; must be ordered separately.

Oil Pumps and Packages

>> Ordering Information

Bulk Oil Dispensing Packages

Package Number	248623*	248622*	24F205	24F206
Ratio	3:1	3:1	3:1	3:1
Pump	248097	248097	246775	246775
Bung Adapter	–	–	222308	222308
Reel Size	1/2 in x 50 ft (12.7 mm x 15.2 m)	1/2 in x 35 ft (12.7 mm x 11 m)	1/2 in x 50 ft (12.7 mm x 15.2 m)	1/2 in x 50 ft (12.7 mm x 15.2 m)
Reel Type	SDX	SDX	SDX	SDX
Hose Reel	SDM6HB	SDM33B	SDM6HB	SDM6HB
Meter Type	EM8	EM8	Mechanical	EM8
Manual/Preset	Manual	Manual	Manual	Manual
Meter	25C903	25C903	24V034	25C903
Installation Kit	–	–	222062	222062
Air Regulator	–	–	109075	109075
Instruction Manual	309868, 312668, 313431	309868, 312668, 313431	309868, 313431	309868, 313431

*Order (218549) (1/2 in x 24 in) hose kit separately.

Oil Pumps and Packages

7 Year Warranty!

Ideal for Medium-Sized Shops with High-Pressure Oil Transfer

Install the Fire-Ball 300 in high-pressure, medium-volume oil dispense applications such as automotive dealerships, fast lube centers and service shops. A three inch differential air motor ensures smooth pumping, and the smooth double-acting pump design provides reliable fluid flow and accurate dispense.

Durable Casting
Thick cast aluminum air motor housing offers unmatched durability.

Fewer Repairs
Fewer moving parts in the air motor assembly means less downtime and low repair cost.

Superior Sealing
Non-metallic poppet valves offer positive sealing performance, even with contaminated "dirty" air environments for long life without repair.

Extended Seal Life
In-line pump design aligns the air motor piston and fluid piston rods to maximize seal life.

Corrosion-Resistant
Corrosion-resistant design utilizes liquid nitriding, nickel plating, stainless steel, aluminum and chrome on key components for longer life.
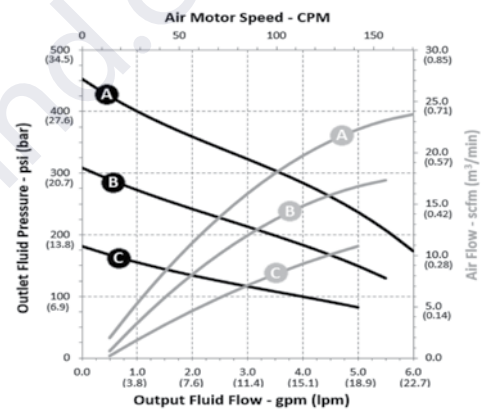
Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Pump Performance

Inlet Air Pressures:

Ⓐ = 100 psi (6.9 bar)
Ⓑ = 70 psi (4.8 bar)
Ⓒ = 40 psi (2.8 bar)

Test Fluid :
ISO 46 Oil

graco.com

Technical Specifications

Fluid Pressure Ratio	5:1
Air Motor Effective Diameter	3 in (76.2 mm)
Maximum Fluid Working Pressure	900 psi (62 bar / 6.2 MPa)
Approximate Free Flow Rate @ 100 psi	12.1 gal/min (46 liters/min)
Output per Cycle	133 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	16 scfm @ 2.8 gpm (0.45 m³/min @ 10.6 lpm)
Air Inlet	3/8 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)
Fluid Outlet	1/2 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12 bar)
Maximum Recommended Pump Speed	70 cpm
Cycles per Gallon (Liter)	28.4 (7.5)
Wetted Parts	Steel, polyurethane, aluminum, Buna-N
Sound Pressure Level	77.8 dB(A)
Sound Power Level	85.6 dB(A)
Approximate Weight	17 lb (7.7 kg)
Instruction Manual	306518

›› Ordering Information

Fire-Ball 300 5:1 Pumps

Part Number	Description
203876	5:1 Universal oil pump
203872	5:1 Oil pump, 16 gal (120 lb) drum size, for cover mount
203857	5:1 Oil pump, 55 gal (400 lb) drum size, for cover mount
204254	5:1 Oil pump, 55 gal (400 lb) drum size, bung mount
222087	5:1 Oil pump, 275 gal (1,040 lb) tank size, bung mount

Oil Pumps and Packages

Oil | **Gear Lube** | **ATF**

Ordering Information

Oil Pump Packages

Package Number	225728*	225094**	225642**	225640**	225931**	225852**
Ratio	5:1	5:1	5:1	5:1	5:1	5:1
Package Type	Portable	Cover-mounted	Cover-mounted	Bung-mounted	Bung-mounted	Universal
Maximum Container Size	16 gal (60 l)	16 gal (60 l)	55 gal (200 l)	55 gal (200 l)	275 gal (1,040 l)	Universal
Pump	203872	203872	203857	204254	222087	203876
Meter Type	Manual	–	–	–	–	
Meter Part Number	25M413	–	–	–	–	
Meter Extension	Rigid	–	–	–	–	
Dispense/ Hose Fitting Kit	237075	222063	222063	222063	222063	222062
Fluid Hose Size	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 1.5 ft (12.7 mm x 0.46 m)
Air Hose Size	–	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 6 ft (9.5 mm x 1.8 m)	3/8 in x 1.5 ft (9.5 mm x x 0.46 m)
Air Regulator	224512	224512	224512	–	–	–
Cover	24R350	24R350	200326	–	–	–
Caster Base	203622	–	–	–	–	–
Bung Adapter	–	–	–	222308	222308	–
Instruction Manual	307884	307883	307883	307883	307883	306520

*Order low-level cut-off (203688) (1-1/2 in NPT) separately for metered dispense systems. Use 3/8 in (9.5 mm) installation kit (224512) as required.
**Order low-level cut- off (203688) (1-1/2 in NPT) separately for metered dispense systems. Use 3/8 in (9.5 mm) air regulator (109075) as required; must be ordered separately.

Oil Pumps and Packages

›› Ordering Information

Bulk Oil Dispensing Packages

Package Number	241633*	224541*	244038*	224534*
Ratio	5:1	5:1	5:1	5:1
Dispensing Location	–	–	–	Bench/Top Tank
Pump	203876	203876	203876	203876
Regulator/Gauge	109075	109075	109075	109075
Nipple	156849	156849	156849	156849
Bung Adapter	222308	222308	222308	222308
Reel Size	1/2 in x 35 ft	1/2 in x 50 ft	1/2 in x 50 ft	1/2 in x 50 ft
Reel Type	SDX	SDX	SDX	SDX
Hose Reel	SDM33B	SDM6HB	SDM6HB	SDM6HB
Type of Meter	SD	SD	SD	SD
Manual/Preset	Manual	Manual	Preset	Manual
Meter	25M404	25M404	26C384	25M404
90° Swivel	–	–	–	157416
Air Filter	–	–	–	106148
Drain Valve	–	–	–	127711
Hose	–	220598	220598	222063
Thermal Relief Valve	–	–	–	237893
Hose Reel Inlet Kit (Not Included)	218549	218549	218549	218549

*Order (218549) (1/2 in x 24 in) hose reel inlet kit separately.

*Package 224534 installed on a
bulk tank (not included in package).*

Oil Pumps and Packages
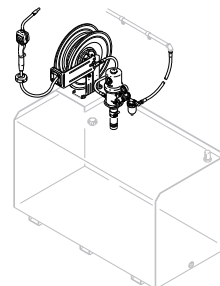
Ordering Information

Lube Truck Packages

Package Number	222086*	206655*	204264*
Ratio	5:1	5:1	5:1
Package Type	Lube truck	Lube truck	Lube truck
Maximum Container Size	16 gal (60l) open-head	55 gal (200l) closed-head	55 gal (200l) closed-head
Pump	203872	203857	204254
Dispense/ Hose Fitting Kit	222063	222063	222063
Fluid Hose Size	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)
Cover	222060	207367	–
Pump Clamp	–	–	204095
Hold Down Kit	222061	207361	207361
Bung Adapter	–	–	224579
Instruction Manual	307883	307883	307883

*Order 3/8 in (9.5 mm) air regulator and gauge (109075) separately.

Fire-Ball 425 Oil Pumps

10 Year *Warranty!*

The Pump of Choice for Your Most Demanding High-Volume Applications

The Fire-Ball 425 features a 4.25 inch air motor to supply the power you need for long pipe runs and higher-volume dispensing. An ideal choice for applications where multiple dispenses happen at the same time.

Durable Casting

Thick cast aluminum air motor housing offers unmatched durability.

Fewer Repairs

Fewer moving parts in the air motor assembly means less downtime and low repair cost.

Superior Sealing

Non-metallic poppet valves offer positive sealing performance, even with contaminated "dirty" air environments for long life without repair.

Extended Seal Life

In-line pump design aligns the air motor piston and fluid piston rods to maximize seal life.

Corrosion-Resistant

Corrosion-resistant design utilizes liquid nitriding, nickel plating, stainless steel, aluminum and chrome on key components for longer life.

Oil Pumps and Packages

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Fire-Ball 425 Oil Pump Packages

Oil | Gear Lube | ATF

Pump Performance

Fire-Ball 425 3:1 Pumps
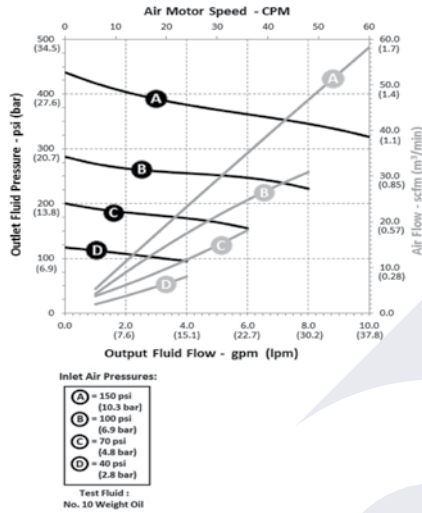
Inlet Air Pressures:
A = 150 psi (10.3 bar)
B = 100 psi (6.9 bar)
C = 70 psi (4.8 bar)
D = 40 psi (2.8 bar)
Test Fluid:
No. 10 Weight Oil

Fire-Ball 425 6:1 Pumps

Inlet Air Pressures:
A = 150 psi (10.3 bar)
B = 100 psi (6.9 bar)
C = 70 psi (4.8 bar)
D = 40 psi (2.8 bar)
Test Fluid:
No. 10 Weight Oil

Fire-Ball 425 10:1 Pumps

Inlet Air Pressures:
A = 150 psi (10.3 bar)
B = 100 psi (6.9 bar)
C = 70 psi (4.8 bar)
D = 40 psi (2.8 bar)
Test Fluid:
No. 10 Weight Oil
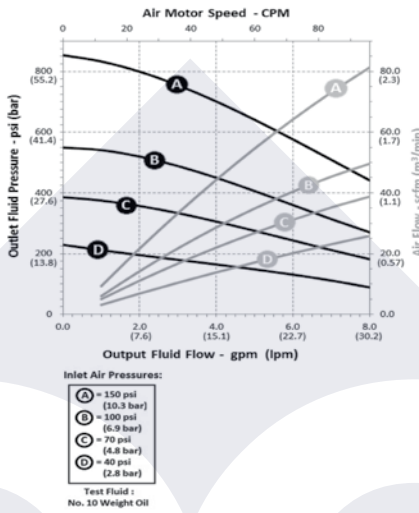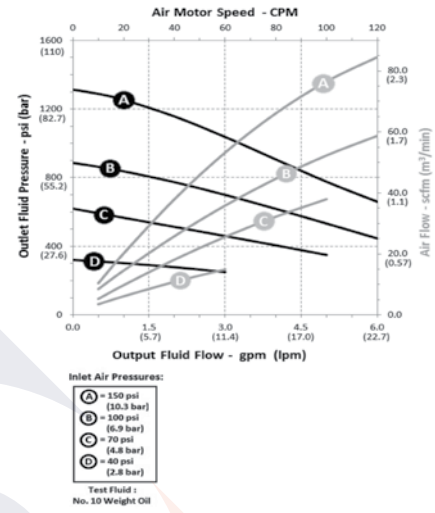
Technical Specifications

Fluid Pressure Ratio	3:1	6:1	10:1
Air Motor Effective Diameter	4.25 in (107.9 mm)	4.25 in (107.9 mm)	4.25 in (107.9 mm)
Maximum Fluid Working Pressure	540 psi (37 bar / 3.7 MPa)	1,100 psi (76 bar / 7.6 MPa)	1,800 psi (124 bar / 12.4 MPa)
Approximate Free Flow Rate @ 100 psi	28.7 gal/min (109 liters/min)	17.1 gal/min (65 liters/min)	11.7 gal/min (44 liters/min)
Output per Cycle	631 cc	261 cc	189 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	43 scfm @ 13.4 gpm (1.23 m³/min @ 50.6 lpm)	44 scfm @ 6.7 gpm (1.25 m³/min @ 25.4 lpm)	45 scfm @ 4.0 gpm (1.27 m³/min @ 15.2 lpm)
Air Inlet	1/2 in NPT(F)	1/2 in NPT(F)	1/2 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)	1-1/2 in NPT(F)	1-1/2 in NPT(F)
Fluid Outlet	3/4 in NPT(F)	3/4 in NPT(F)	3/4 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12 bar)	40 psi to 180 psi (2.8 bar to 12 bar)	40 psi to 180 psi (2.8 bar to 12 bar)
Maximum Recommended Pump Speed	66 cpm	78 cpm	60 cpm
Cycles per Gallon (Liter)	6 (1.6)	14.5 (3.8)	20 (5.3)
Wetted Parts	Steel, polyurethane, aluminum, nitrile	Steel, polyurethane, aluminum, nitrile	Steel, polyurethane, aluminum, nitrile
Sound Pressure Level	82 dB(A)	79.5 dB(A)	78 dB(A)
Approximate Weight	46 lb (20.9 kg)	35 lb (15.9 kg)	29 lb (13.2 kg)
Instruction Manual	308485	308608	308655

Ordering Information

Fire-Ball 425 Pumps

Part Number	Description
237526	3:1 Universal oil pump
238108	6:1 Universal oil pump
205626	10:1 Universal oil pump
222065	10:1 Oil pump, 55 gal (400 lb) drum size, cover mount
222095	10:1 Oil pump, 55 gal (400 lb) drum size, bung mount

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›› Ordering Information

Oil Pump Packages

Package Number	244846	244628*	244847	225782**	225786**	225853**
Package Type	Wall-mounted	Wall-mounted	Wall-mounted	Cover-mounted	Bung-mounted	Universal supply
Maximum Container Size	Universal	Universal	Universal	55 gal (200 l)	55 gal (200 l)	Universal
Ratio	3:1	6:1	10:1	10:1	10:1	10:1
Pump	237526	238108	205626	222065	222095	205626
Hose/Fitting Kit	222068	222068	222068	222066	222066	222068
Fluid Hose Size	3/4 in x 1.5 ft	3/4 in x 1.5 ft	3/4 in x 1.5 ft	3/4 in x 6 ft	3/4 in x 6 ft	3/4 in x 1.5 ft
Air Hose Size	1/2 in x 1.5 ft	1/2 in x 1.5 ft	1/2 in x 1.5 ft	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 1.5 ft
Cover	–	–	–	200326	–	–
Filter, Regulator, Lubricator [FRL]	217072	217072	217072	–	–	–
Air Shutoff Valve	110225	110225	110225	–	–	–
Fluid Shutoff Valve	108537	108537	108537	–	–	–
Wall Mount Bracket	238245	238245	238245	–	–	–
Instruction Manual	309351	309351	309351	307883	307883	306520

*Order low-level cut-off (203688) (1-1/2 in NPT) separately for metered dispense systems.
**Order low-level cut-off (203688) (1-1/2 in NPT) separately for metered dispense. Use 1/2 in (12.7 mm) air regulator (104266) and air pressure gauge (100960) as required; must be ordered separately.

Oil Pumps and Packages

Oil **Gear Lube** **ATF**

▶▶ Ordering Information

Lube Truck Packages

Package Number	206656*	222067*
Ratio	10:1	10:1
Package Type	Lube truck	Lube truck
Maximum Container Size	55 gal (200 l) closed-head	55 gal (200 l) closed-head
Pump	222065	222095
Dispense/ Hose Fitting Kit	222066	222066
Fluid Hose Size	1/2 in x 6 ft (12.7 mm x 1.8 m)	1/2 in x 6 ft (12.7 mm x 1.8 m)
Offset Cover	207367	–
Pump Clamp	–	204095
Hold Down Kit	207361	207361
Bung Adapter	–	224579
Instruction Manual	307883	307883

*Order 1/2 in (12.7 mm) air regulator (104266) and gauge (100960) separately.

Oil Pumps and Packages

Use the quick-reference guide below to determine the part and accessory options available for our most popular oil pumps.

Oil Pump Mounting and Accessory Guide

Pump	Fast-Ball 100	Mini Fire-Ball 225 3:1	Fire-Ball 300 5:1	Fire-Ball 425 3:1	Fire-Ball 425 6:1	Fire-Ball 425 10:1
Bung Adapter	222308	222308	222308	–	–	222308
Connection Hose Kit	222118 (18 in / 4537 cm) / 222119 (72 in / 182.8 cm)	222062 (18 in / 45.7 cm) / 222063 (72 in / 182.8 cm)	222062 (18 in / 45.7 cm) / 222063 (72 in / 182.8 cm)	238246 (24 in / 60.9 cm)	238246 (24 in / 60.9 cm)	222068 (18 in / 4537 cm) / 222066 (72 in / 182.8 cm)
Wall Mounting Bracket	203987	203987	203987	238245	238245	203987
Thermal Relief Kit*	–	235998	237893	237601	240429	240429
Air Regulator and Gauge	110147	109075	109075	104266 / 100960	104266 / 100961	104266 / 100962
Air Filter	110146	106148	106148	106149	106149	106149
Air Lubricator	110148	214847	214847	214848	214848	214848
Filter, Regulator, Lubricator, and Gauge	110149	110150	110150	217072	217072	217072
Airline Shutoff Valve	110223	110224	110224	110225	110225	110225
Fluid Shutoff Valve	108537	108458	108458	108537	108537	108537
Fluid Outlet Filter	240417	240417	240417	101078	–	–
Low-Level Cutoff	203688	203688	203688	203688	203688	203688
Suction Hose Kit	236054	236054	236054	–	–	–

*Required

Oil Pumps and Packages

Oil Pump Accessories

Bleed-Type Air Shut-Off Valves

Part Number	Description
110223	1/4 in NPT
110224	3/8 in NPT
110225	1/2 in NPT
110226	3/4 in NPT

Bung Adapters

Part Number	Description	Compatible Pumps	Includes				
			Double Tap bushing	Bushing Sleeve	1 ft x 3/8 in Hose	90° 3/8 in Adapter	Thumb Screw
222308	Allows direct mounting of all universal length and extended pumps to standard 2 NPT drum bung	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 10:1	–	–	–	–	–
187754	Acetal bung adapter	All pumps	–	–	–	–	100220
176684	Bung adapter for suction kit 203992	–	–	–	–	–	100220
238125	For mounting universal pumps to tanks	Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 10:1	191075	172405	238370	155494	–

Carts

Part Number	Compatible Container Size
203650	5 gal (20 l) 10 gal (40 l) 16 gal (60 l)
222243	120 lb (55 kg)
111470	55 gal (200 l)

Clamps

Part Number	Description	Compatible Pumps
203156	Used to hold pump securely to the edge of an open top drum	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 6:1 Fire-Ball 425 10:1

Dispense Kits for Mini Fire-Ball and Fire-Ball 300 Pumps

Part Number	Description	Hose Length	Includes		
			Fluid Hose	Manual SD Gear Lube Valve	Manual
237075	Use with portable lubricators powered by Fire-Ball 300 Pump	6 ft	220591	255349	307884

>> Ordering Information

Downtube – Universal

Part Number	Description
15C502	1-1/2 in ID tube marked for standard container lengths from 20 in to 41 in (.51 m to 1.04 m)

Drum Covers

Part Number	Container Size	Compatible Pumps
200326	55 gal (200 l)	Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 10:1
24R350	16 gal (60 l)	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 3:1, 6:1, 10:1
222058	5 gal (20 l)	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1, 15:1
160754	55 gal (200 l) 16 gal (60 l) 5 gal (20 l)	Bung-mounted pumps

Drum Elevator

Part Number	Description	Includes		
		Cover Support	Drum Elevator	Air Control Kit
241663	Air-powered elevator to speed up 55 gal (200 l) drum changes	207562	204385	207561

Fluid Shut-Off Valves

Part Number	Description
108458	1/2 in NPT
108537	3/4 in NPT
110314	1 in NPT

Fluid T-Strainers

Part Number	Description
240417	1/2 in inlet, 60 mesh strainer, which prevents foreign material from entering dispense lines
240418	3/8 in inlet, 60 mesh strainer, which prevents foreign material from entering dispense lines
238433	40 mesh replacement element, 3 count
238434	40 mesh replacement element, 25 count
238431	60 mesh (standard) replacement element, 3 count
238432	60 mesh (standard) replacement element, 25 count
238429	100 mesh replacement element, 3 count

Oil Pumps and Packages

Oil Pump Accessories

Fluid Y-Strainers

Part Number	Description
110877	1/2 in NPT inlet/outlet strainer, which filters material before entering the pump
110906	1/2 in NPT inlet/outlet strainer, replacement screen
101078	3/4 in NPT inlet/outlet strainer, which filters material before entering the pump
129699	3/4 in NPT inlet/outlet strainer, replacement screen
110878	1 in NPT inlet/outlet strainer, which filters material before entering the pump
110907	1 in NPT inlet/outlet strainer replacement screen

Hose and Fitting Kits for Mini Fire-Ball 225 and Fire-Ball 300 5:1

Part Number	Description	Connection Length	Includes			
			Air Hose	Air Hose Swivel Elbow	Fluid Hose	Fluid Hose Swivel Elbow
222062	For connecting wall-mounted pumps to piping	18 in	204560	155494	220598	155470
222063	Use with drum-mounted pumps	6 ft	203320	155494	220591	155470

Hose and Fitting Kits for Fire-Ball 425 Pumps

Part Number	Description	Hose Length	Package Includes				
			Air Hose	Air Hose Swivel Elbow	Fluid Hose	Fluid Hose Swivel Elbow	Manual
222068	For connecting wall-mounted Fire-Ball 425 10:1 pump to piping	15 in	218093	155470	109108	160327	306520
238246	For connecting wall-mounted Fire-Ball 425 3:1 and 6:1 pumps to piping	24 in	218903	155470	238247	160327	306520
222066	For use with drum-mounted Fire-Ball 425 10:1 pump	6 ft	205418	155470	109105	160327	307883

Oil Pumps and Packages

Ordering Information

Low-Level Cutoffs for Fast-Ball and Fire-Ball Pumps

Part Number	Description
203688	1-1/2 in NPT cutoff, which prevents air from entering pump when fluid supply from pump is exhausted

Portable Bases

Part Number	Description	Compatible Container Size
205054	Band dolly	5 gal (20 l)
204144	Band dolly	10 gal (40 l) 16 gal (60 l)
203622	Caster base	5 gal (20 l) 10 gal (40 l) 16 gal (60 l)

Runaway Valve

Prevents pump damage by automatically closing the air line to stop the pump when a runaway pump condition occurs due to an empty barrel or hose leak.

Part Number	Inlet
224040	3/4 in NPT(fbe)

Sealed Bung Adapters

Part Number	Fire-Ball Length	Adapter Inside Diameter	Compatible Pumps
204076	Full length	2.140 in	Mini Fire-Ball 225 3:1
224579	Universal length	2.159 in	All except Mini Fire-Ball 225 3:1

Suction Kits

Part Number	Description	Bung Adapter	Bushing Pipe	6 ft Hose
236054	Allows use of Fast-Ball, Mini-Fire-Ball and Fire-Ball universal pumps to work with barrels	188845	101496	109105

Oil Pump Accessories

Suction Tubes

Part Number	Container Size	Type of Mount	Compatible Pumps	Includes		
				Extension Size	Extension	Foot Spacer
238592	16 gal (60 l)	Cover-mounted	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 10:1	14-1/2 in	191126	110127
238593	55 gal (200 l)	Cover-mounted		21-3/4 in	191128	110127
238595	55 gal (200 l)	Bung-mounted		26 in	191130	110127
238596	275 gal (1,100 l)	Bung-mounted		36 in	191131	110127

Thermal Relief Valve Kits

Part Number	Pressure Rating	Compatible Pumps	Includes			
			Valve	Bung Adapter	Swivel	Hose
235998	600 psi (41 bar)	Mini Fire-Ball 225 3:1	112174	191075	155494	238370
237893	900 psi (62 bar)	Fire-Ball 300 5:1	102527	191075	155494	238370
248296	900 psi (62 bar)	Fire-Ball 300 5:1	102527	–	–	109163
237601	600 psi (41 bar)	Fire-Ball 425 3:1	112174	191075	155494	238370
240429	1,600 psi (110 bar)	Fire-Ball 425 6:1 Fire-Ball 425 10:1	102527	191075	155494	238370
248324	1,600 psi (110 bar)	Fire-Ball 425 6:1 Fire-Ball 425 10:1	113053	–	–	109163

Tools for Working on Fire-Ball Air Motors

Part Number	Description
207579	Padded pliers
171818	Poppet gauge
168085	Insert tool

Wall-Mounting Brackets

Part Number	Description	Compatible Pumps
203987	Clamps onto universal pump tube	Fast-Ball 100 Mini Fire-Ball 225 3:1 Fire-Ball 300 5:1 Fire-Ball 425 10:1
238245	Mounts directly to pump flange	Fire-Ball 425 3:1, 6:1, 10:1
236778	Provides mounting to wall surface by flange	Fire-Ball 425 3:1
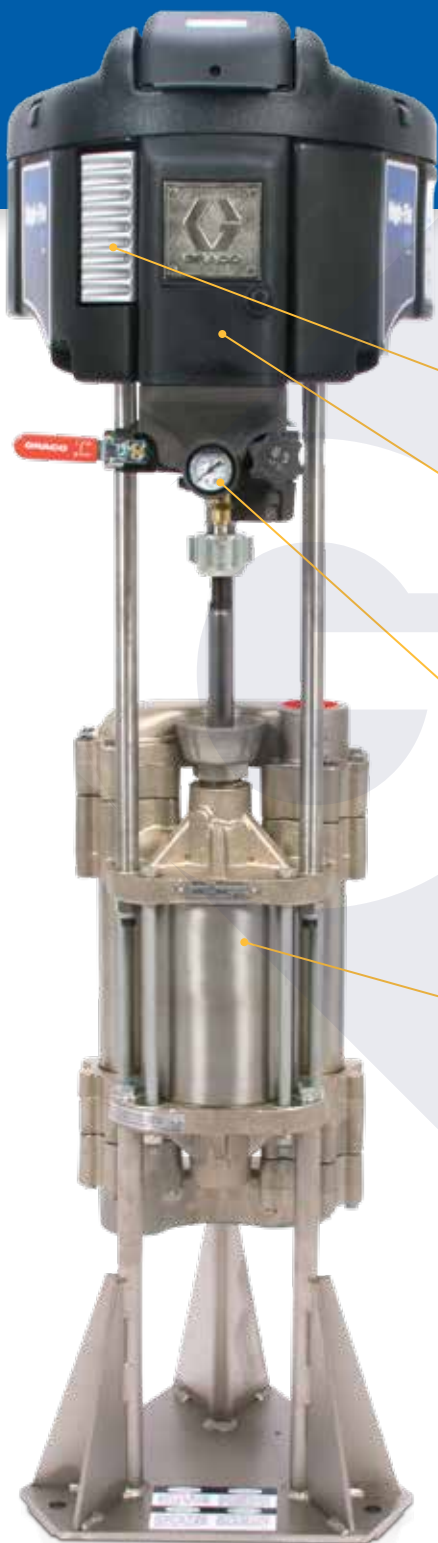
Oil | Gear Lube | ATF

Move Large Amounts of Oil Fast

Tested to outperform and outlast all other pumps on the market — with its long-life design and intuitive, easy-to-use controls — the NXT High-Flo pump is the best value for the money. Fewer parts, faster repairs and long-lasting durability.

NXT Air Motor

Modular design for easier maintenance with rugged body armor that won't rust or dent.

Modular Air Valves

Easy-to-repair valve eliminates stalling and contains de-icing controls.

Integrated Air Controls

Easy-turn, lockable regulator is front-mounted for easy access. Compact and modular with built-in filtration.

Piston Valve with Floating Piston Seal

For maximum pressure balance over a range of material viscosities.
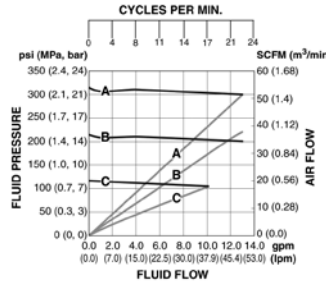
Typical Applications

- Fleet service facilities
- In-plant
- Mining

Typical Fluids Handled

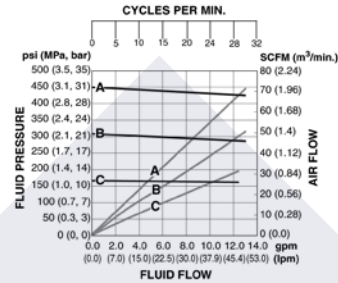- Petroleum- and synthetic-based oils (motor, gear and ATF)

Oil Pumps and Packages

NXT High-Flo Pumps

Pump Performance

NXT 3.5:1 High-Flo Pumps

Inlet Air Pressures:
- **A** =100 psi (6.9 bar)
- **B** =70 psi (4.8 bar)
- **C** =40 psi (2.8 bar)

TEST FLUID: No. 10 Weight Oil

NXT 4.5:1 High-Flo Pumps

Inlet Air Pressures:
- **A** =100 psi (6.9 bar)
- **B** =70 psi (4.8 bar)
- **C** =40 psi (2.8 bar)

TEST FLUID: No. 10 Weight Oil

Technical Specifications

Fluid Pressure Ratio	3.5:1	4.5:1
Air Motor Effective Diameter	7.5 in (191 mm)	7.5 in (191 mm)
Maximum Fluid Working Pressure	350 psi (24 bar / 2.4 MPa)	450 psi (31 bar / 3.1 MPa)
Output per Cycle	2,000 cc	1,500 cc
Air Inlet	3/4 in NPT(F)	3/4 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)	1-1/2 in NPT(F)
Fluid Outlet	1 in NPT(F)	1 in NPT(F)
Air Operation Range	20 psi to 100 psi (1.4 bar to 7 bar)	20 psi to 100 psi (1.4 bar to 7 bar)
Maximum Recommended Pump Speed	60 cpm	60 cpm
Cycles per Gallon (Liter)	1.9 (0.5)	2.5 (0.67)
Wetted Parts	Stainless steel, PTFE, leather, UHMWPE, carbon steel	Stainless steel, PTFE, leather, UHMWPE, carbon steel
Sound Pressure Level	77 dB(A)	77 dB(A)
Sound Power Level	87 dB(A)	87 dB(A)
Approximate Weight	99 lb (44.9 kg)	99 lb (44.9 kg)
Instruction Manuals	System – 312862 Pump – 311211 Pump Lower – 311690 Motor – 311238	System – 312862 Pump – 311211 Pump Lower – 311690 Motor – 311238

Oil Pumps and Packages

Ordering Information

Oil Pump Packages

| Package Number	24D602	24D603
Ratio	3.5:1	4.5:1
Mounting	255143 (Wall)	255143 (Wall)
Pump with Thermal Relief Kit	24D596	24D597
Output per Cycle	2,000 cc	1,500 cc
Output at 60 CPM	31.7 gpm (120 lpm)	23.8 gpm (90 lpm)
Motor Size	NXT 3400	NXT 3400
Maximum Fluid Pressure	350 psi (24.1 bar)	450 psi (31 bar)
Maximum Air Input Pressure	100 psi (6.9 bar)	100 psi (6.9 bar)
System Manual	312862	312862
Pump Manual	311211	311211
Pump Lower Manual	311690	311690
Motor Manual	311238	311238
Pump Inlet Size	1-1/2 in NPT	1-1/2 in NPT
Pump Outlet Size	1 in NPT	1 in NPT
4 ft x 3/4 in Air Hose	110048	110048
6 ft x 1 in Fluid Hose	115042	115042
Instruction Manual	309351	309351

Accessories
DataTrak™ Conversion Kit

For converting NXT air motors to include the DataTrak module with runaway protection. Refer to manual 311486 for more details.

Part Number	Description
NXT306	Conversion kit for NXT3400 motors.

Oil Pumps and Packages

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Oil · Gear Lube · ATF

Move Large Amounts of Oil Fast

Tested to outperform and outlast all other pumps on the market — with its long-life design and intuitive, easy-to-use controls — the NXT Dura-Flo pump is the best value for the money. Fewer parts, faster repairs and long-lasting durability.
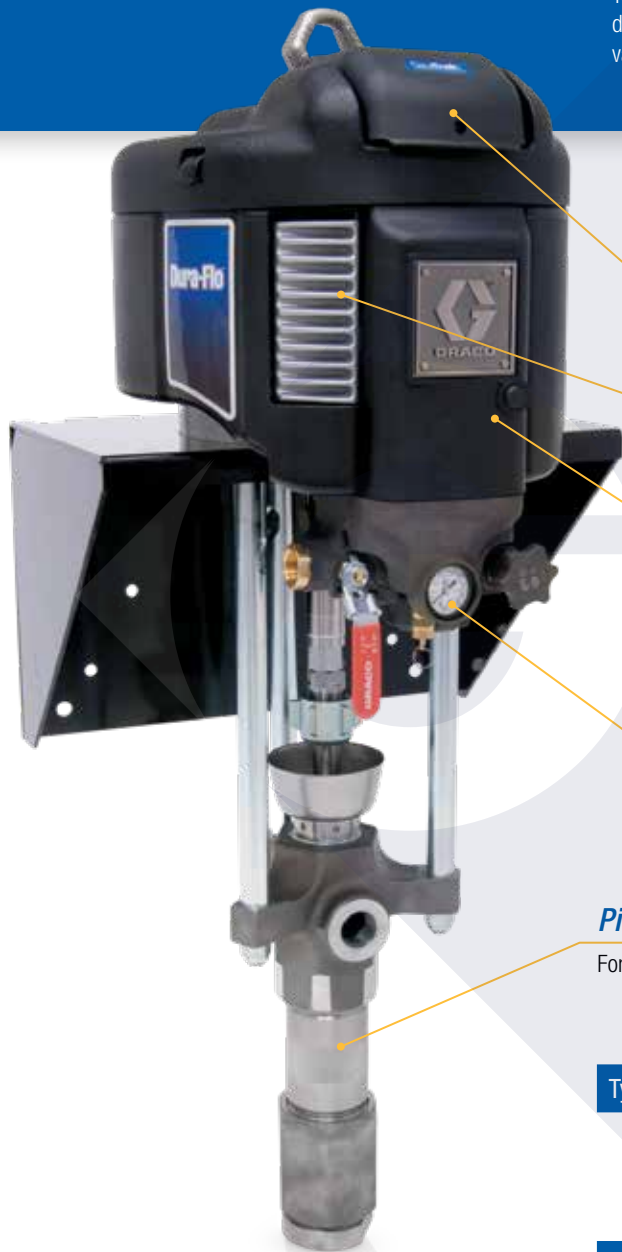
Optional DataTrak™ Control

Intuitive, easy-to-use DataTrak control gives you pump diagnostics, material usage tracking and pump runaway protection.

NXT Air Motor

Modular design for easier maintenance with rugged body armor that won't rust or dent.

Modular Air Valves

Easy-to-repair valve eliminates stalling and contains de-icing controls.

Integrated Air Controls

Easy-turn, lockable regulator is front-mounted for easy access. Compact and modular with built-in filtration.

Piston Valve with Floating Piston Seal

For maximum pressure balance over a range of material viscosities.

Typical Applications

- Fleet service facilities
- In-plant
- Mining

Typical Fluids Handled

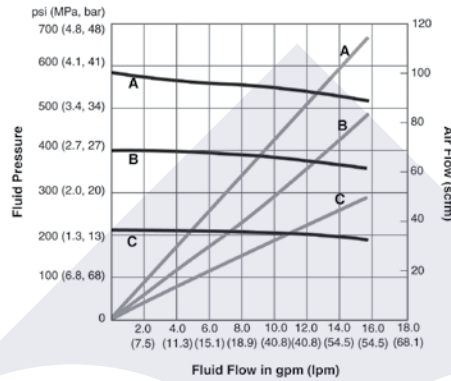- Petroleum- and synthetic-based oils (motor, gear and ATF)
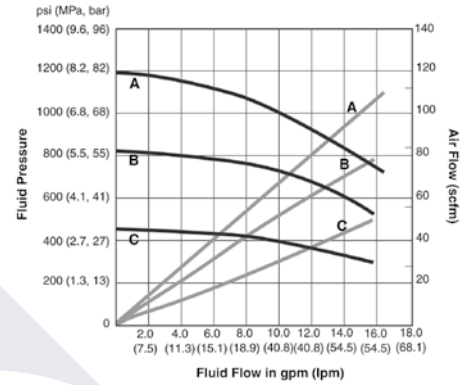
Pump Performance

Inlet Pressures:

A = 100 psi (6.9 bar) air pressure or 1500 (103 bar) hydraulic oil pressure

B = 70 psi (4.8 bar) air pressure or 1050 (72 bar) hydraulic oil pressure

C = 40 psi (2.8 bar) air pressure or 600 (41 bar) hydraulic oil pressure
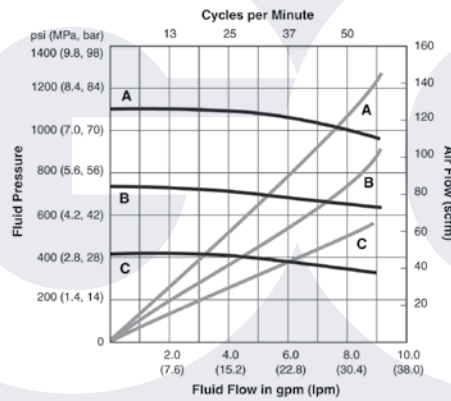
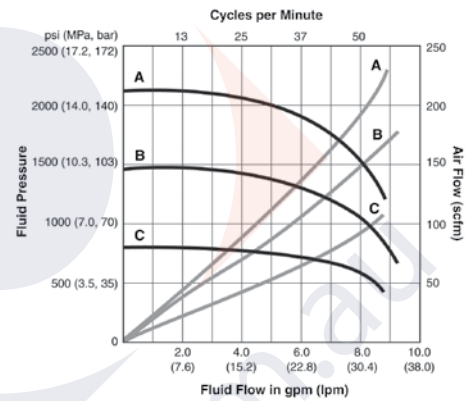TEST FLUID: No. 10 Weight Oil

NXT Dura-Flo 6:1 Pumps

NXT Dura-Flo 10:1 Pumps

NXT Dura-Flo 12:1 Pumps

NXT Dura-Flo 23:1 Pumps

Oil Pumps and Packages

graco.com

77

NXT Dura-Flo Pumps

Technical Specifications

Fluid Pressure Ratio	6:1	10:1	12:1	23:1
Air Motor Effective Diameter	7.5 in (191 mm)	10.375 in (264 mm)	7.5 in (191 mm)	10.375 in (264 mm)
Maximum Fluid Working Pressure	620 psi (43 bar / 4.3 MPa)	1,180 psi (81 bar / 8.1 MPa)	1,190 psi (82 bar / 8.2 MPa)	1,725 psi (119 bar / 11.9 MPa)
Output per Cycle	1,000 cc	1,000 cc	580 cc	580 cc
Air Inlet	3/4 in NPT(F)	3/4 in NPT(F)	3/4 in NPT(F)	3/4 in NPT(F)
Fluid Inlet	2 in NPT(F)	2 in NPT(F)	2 in NPT(F)	2 in NPT(F)
Fluid Outlet	1-1/2 in NPT(F)	1-1/2 in NPT(F)	1-1/2 in NPT(F)	1-1/2 in NPT(F)
Air Operation Range	20 psi to 100 psi (1.4 bar to 7 bar)	20 psi to 100 psi (1.4 bar to 7 bar)	20 psi to 100 psi (1.4 bar to 7 bar)	20 psi to 75 psi (1.4 bar - 5.2 bar)
Maximum Recommended Pump Speed	60 cpm	60 cpm	60 cpm	60 cpm
Cycles per Gallon (Liter)	3.8 (1.0)	3.8 (1.0)	6.5 (1.72)	6.5 (1.72)
Wetted Parts	Stainless steel, CS, chrome, zinc, nickel, Buna-N, tungsten carbide, nylon, UHMWPE, leather, PTFE, PEEK	Stainless steel, CS, chrome, zinc, nickel, Buna-N, tungsten carbide, nylon, UHMWPE, leather, PTFE, PEEK	Stainless steel, CS, chrome, zinc, nickel, tungsten carbide, ductile iron, acetal	Stainless steel, CS, chrome, zinc, nickel, tungsten carbide, ductile iron, acetal
Sound Pressure Level	77 dB(A)	80 dB(A)	77 dB(A)	80 dB(A)
Sound Power Level	87 dB(A)	90 dB(A)	87 dB(A)	90 dB(A)
Approximate Weight	113 lb (51.3 kg)	132 lb (59.9 kg)	92 lb (41.7 kg)	102 lb (46.3 kg)
Instruction Manuals	System – 312862 Pump – 311833 Pump Lower – 311717 Motor – 311238	System – 312862 Pump – 311833 Pump Lower – 311717 Motor – 311238	System – 312862 Pump – 311826 Pump Lower – 311825 Motor – 311238	System – 312862 Pump – 311826 Pump Lower – 311825 Motor – 311238

Oil Pumps and Packages

Ordering Information

Oil Pump Packages with DataTrak

Package Number with DataTrak	247890	247894	247891	247895
Ratio	6:1	10:1	12:1	23:1
Mounting	255143 (Wall)	255143 (Wall)	255143 (Wall)	255143 (Wall)
Pump with DataTrak and Thermal Relief Kit	24D592	24D595	24D593	–
Output per Cycle	1,000 cc	1,000 cc	580 cc	580 cc
Output at 60 CPM	17.4 gpm (65.9 lpm)	17.4 gpm (65.9 lpm)	9.2 gpm (34.8 lpm)	9.2 gpm (34.8 lpm)
Motor Size	NXT 3400	NXT 6500	NXT 3400	NXT 6500
Maximum Fluid Pressure	620 psi (42.7 bar)	1,180 psi (81.3 bar)	1,190 psi (82.1 bar)	1,725 psi (118.9 bar)
Maximum Air Input Pressure	100 psi (6.9 bar)	100 psi (6.9 bar)	100 psi (6.9 bar)	75 psi (5.2 bar)
System Manual	312862	312862	312862	312862
Pump Manual	311833	311833	311826	311826
Pump Lower Manual	311717	311717	311825	311825
Air Motor Manual	311238	311238	311238	311238
Pump Inlet Size	2 in NPT	2 in NPT	2 in NPT	2 in NPT
Pump Outlet Size	1-1/2 in NPT	1-1/2 in NPT	1-1/2 in NPT	1-1/2 in NPT
4 ft x 3/4 in Air Hose	110048	110048	110048	110048
6 ft x 1 in Fluid Hose	115042	115042	115042	115042
Instruction Manual	312862	312862	312862	312862

Oil Pump Packages without DataTrak

Package Number without DataTrak	24D604	24D608	24D605
Ratio	6:1	10:1	12:1
Mounting	255143 (Wall)	255143 (Wall)	255143 (Wall)
Pump without DataTrak and Thermal Relief Kit	24D598	24D601	24D599
Output per Cycle	1,000 cc	1,000 cc	580 cc
Output at 60 CPM	17.4 gpm (65.9 lpm)	17.4 gpm (65.9 lpm)	9.2 gpm (34.8 lpm)
Motor Size	NXT 3400	NXT 6500	NXT 3400
Maximum Fluid Pressure	620 psi (42.7 bar)	1,180 psi (81.3 bar)	1,190 psi (82.1 bar)
Maximum Air Input Pressure	100 psi (6.9 bar)	100 psi (6.9 bar)	100 psi (6.9 bar)
System Manual	312862	312862	312862
Pump Manual	311833	311833	311826
Pump Lower Manual	311717	311717	311825
Air Motor Manual	311238	311238	311238
Pump Inlet Size	2 in NPT	2 in NPT	2 in NPT
Pump Outlet Size	1-1/2 in NPT	1-1/2 in NPT	1-1/2 in NPT
4 ft x 3/4 in Air Hose	110048	110048	110048
6 ft x 1 in Fluid Hose	115042	115042	115042
Instruction Manual	312862	312862	312862

Oil Pumps and Packages

Dyna-Star® Hydraulic Pumps

Field-Proven, Energy-Efficient

Hydraulic Dyna-Star pumps provide reliable, quiet, ice-free performance at maximum pressure and low-flow rates and are up to three times more energy efficient than comparable compressed-air systems.

Built-In Reliability

Self-lubricating vertical design for long life and reliable operation in high vibration environments.

Quiet Hydraulic Motor

No need for add-on mufflers.

High-Efficiency Motor

Uses less hydraulic oil.

Typical Applications

- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Technical Specifications

Fluid Pressure Ratio	1:1	1:1	1/4:1	1:1 Stainless Steel
Pump Number	224741	224742	236753	237653
Applications	Oil dispensing	Oil dispensing	Bulk oil transfer	Antifreeze dispensing
Drum Size	Universal	55 gal (200 l) Bung- or cover-mounted	Universal	Universal
Maximum Input Pressure	1,500 psi (102 bar)	1,500 psi (102 bar)	1,500 psi (102 bar)	1,000 psi (70 bar)
Maximum Fluid Input Volume	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)
Maximum Output Flow Rate	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	10 gpm (37.9 lpm)	3 gpm (11.4 lpm)
Maximum Recommended CPM	60	60	60	60
Maximum Fluid Output Pressure	1,500 psi (102 bar)	1,500 psi (102 bar)	375 psi (25.1 bar)	1,500 psi (102 bar)
Hydraulic Supply Inlet	3/8 in NPT	3/8 in NPT	3/8 in NPT	3/8 in NPT
Hydraulic Return Outlet	3/4 in NPT	3/4 in NPT	3/4 in NPT	3/4 in NPT
Fluid Outlet	1/2 in NPT	1/2 in NPT	1/2 in NPT	1/2 in NPT
Fluid Inlet	1-1/2 in NPT	1-1/2 in NPT	1-1/2 in NPT	3/4 in NPT
Maximum Incoming Fluid Temp.	130°F (54°C)	130°F (54°°C)	130°F (54°C)	130°F (54°C)
Wetted Parts	Steel, copper, leather	Steel, copper, leather	Aluminum, steel, nitrile, polyurethane	Steel, copper, leather
Sound Pressure Level	77 dB(A)	77 dB(A)	77 dB(A)	77 dB(A)
Approximate Weight	24 lb (10.9 kg)	24 lb (10.9 kg)	48 lb (21.8 kg)	24 lb (10.9 kg)
Instruction Manual	308155	308155	308390	308155

Oil Pumps and Packages

Ordering Information

Dyna-Star Hydraulic Pumps

Part Number	Description
224741	1:1 Universal oil pump
224742	1:1 Oil pump for 55 gal (400 lb) drum size, bung- or cover- mounted
236753	1/4:1 Universal oil pump
237653	1:1 Universal stainless steel oil pump

Accessories

Drum Covers

Part Number	Description
200326	For 55 gal (200 l) drums
204574	For 16 gal (60 l) drums
222058	For 5 gal (20 l) pails
160754	For 5 gal (20 l), 16 gal (60 l) and 55 gal (200 l) bung-mounted pumps

Hydraulic Fluid Controls

Required for each pump.

Part Number	Description
236864	Dyna-Star fluid controls [1,500 psi (102 bar); 3 gpm (11.4 lpm)]. Includes manifold with pressure-reducing valve, flow-control valve, pressure gauge, shut-off ball valves, and 3 ft (0.9 m) supply and return hoses. Instruction manual 308395.
237904	1:1 Dyna-Star thermal relief valve, 1,600 psi (110 bar)

Wall-Mounting Brackets

Part Number	Description
203987	For stubby/universal 1:1 Dyna-Star pump
236778	For stubby/universal 1/4:1 Dyna-Star pump

Oil Pumps and Packages

Power-Star™ Hydraulic Pumps

Field Proven, Energy Efficient

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Built-In Reliability

Self-lubricating vertical design for long life and reliable operation in high vibration environments.

Quiet Hydraulic Motor

No need for add-on mufflers.

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Uses less hydraulic oil.

Typical Applications

- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)

Technical Specifications

Fluid Pressure Ratio	1:1
Pump Number	236754
Applications	Bulk oil transfer
Drum Size	Universal
Maximum Input Pressure	1,500 psi (102 bar)
Maximum Fluid Input Volume	12 gpm (45.4 lpm)
Maximum Output Flow Rate	12 gpm (45.4 lpm)
Maximum Recommended CPM	60
Maximum Fluid Output Pressure	1,500 psi (102 bar)
Hydraulic Supply Inlet	3/4 in NPT
Hydraulic Return Outlet	1-1/4 in NPT
Fluid Outlet	1/2 in NPT
Fluid Inlet	1-1/2 in NPT
Maximum Incoming Fluid Temp.	130°F (54°C)
Wetted Parts	Iron, steel, stainless steel, nitrile, polyurethane
Sound Pressure Level	78 dB(A)
Approximate Weight	100 lb (45.4 kg)
Instruction Manual	308391

Oil | Gear Lube | ATF

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Ordering Information

Power-Star Hydraulic Pumps

Part Number	Description
236754	1:1 Universal oil pump

Accessories

Drum Covers

Part Number	Description
200326	For 55 gal (200 l) drums
204574	For 16 gal (60 l) drums
222058	For 5 gal (20 l) pails
160754	For 5 gal (20 l), 16 gal (60 l) and 55 gal (200 l) bung-mounted pumps

Hydraulic Fluid Controls
Required for each pump.

Part Number	Description
236865	Power-Star fluid controls [1,500 psi (102 bar); 12 gpm (45.4 lpm)]. Includes manifold with pressure-reducing valve, flow-control valve, pressure gauge, shut-off ball valves, and 3 ft (0.9 m) supply and return hoses. Instruction manual 308395.

Wall-Mounting Bracket

Part Number	Description
236778	For stubby/universal 1/4:1 Power-Star pump

Oil Pumps and Packages

Oil | **Gear Lube** | **ATF**

Ordering Information

16 Gallon (60 l) Metered and Non-Metered Dispensing Packages

Designed for manual dispensing of fluid oil from bulk containers to point of application.

Package Number	225880	225376	225384	225380	225378*
Fluids Handled	ATF	Gear lube	Gear lube	Gear lube	Gear lube
Package Type	Portable	Portable	Portable	Stationary	Portable
Pump Part Number	204867	204867	204867	204867	204867
Meter Dispense Kit	239707	239705	239705	–	–
Dispense Kit	–	–	–	214658	214658
Fluid Hose	–	–	6 ft x 1/2 in	6 ft x 1/2 in	6 ft x 1/2 in
Drum Cover	204574	204574	204574	204574	204574
Portable Base	203622	203622	–	–	203622
Cart	–	–	203650	–	–
Instruction Manual	306436	306436	306436	306436	306436

*Hydraulic; can be used for gear oil dispensing.

Oil Pumps and Packages

>> Ordering Information

Pail-Dispensing Package for 5 gal (20 l) Pails

Mounts on top of standard 5 gal (20 l) pail (pail not included). Dispenses 1.6 oz to 1.9 oz. (47.3 ml to 56.2 ml) per stroke.
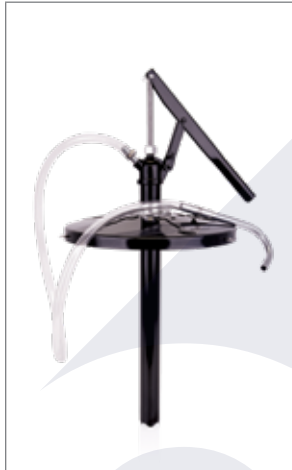
Package Number	226289
Fluids Handled	Gear lube
Fluid Hose	4 ft (1.2 m)
Instruction Manual	306875

Pumping Bulk Lubricants from 16 gal (60 l) or 55 gal (200 l) Drums*

All pumps come with suction tube and bung adapter.

Package Number	114829	226290
Type of Pump	Lever[1]	Rotary[2]
Fluids Handled	Petroleum-based products, antifreeze	Petroleum-based products
Delivery Rate	0.1 gal (0.4 l) per downstroke	1 gal (3.7 l) per 18 cycles
Fluid Hose	–	–
Instruction Manual	–	306876

*Drums not included.
1 Telescopic suction tube mounts 2 in NPT bung opening of 16 gal (60 l) or 55 gal (200 l) drum. Package includes bung adapter and spout outlet
2 Package has adjustable 2 in NPT bung mounting to allow use with either 16 gal (60 l) or 55 gal (200 l) drum. Package includes bung adapter and spout outlet

Oil Pumps and Packages

Notes

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