



Vehicle Service Equipment Buyer's Guide

Fluid Handling Equipment for Industrial and Commercial Applications



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

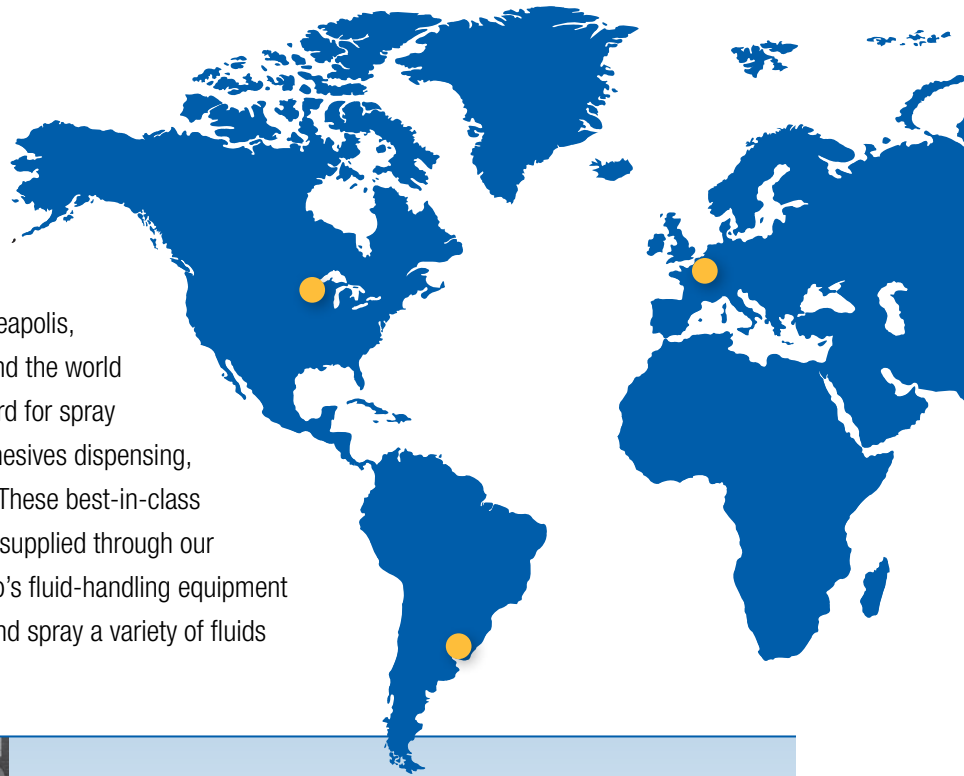
PROVEN QUALITY. LEADING TECHNOLOGY.

Table of Contents

	Page		Page
About Graco	4-6	▶ Diesel Exhaust Fluid (DEF) Systems	
Graco Resources	6	How to Choose Your Graco DEF Solution	168
▶ Fluid Management Systems		LD Blue Electric Pumps and Packages	169-171
Fluid Management System Selection Guide	9	SD Blue AODD Pumps and Packages	172-174
Benefits of Pulse™ Pro Fluid Management	10	LD Blue Manual Pumps	175
Steps to Build Your Pulse Pro System	11	DEF Meters	176-177
Pulse Hub	12-13	DEF Dispense Nozzles	178-179
Pulse Dispense Meter	14-15	DEF Hose Reels	180-181
Pulse Tank Level Monitor (TLM)	16	DEF System Accessories	182-186
Pulse Pump Air Control (PAC)	17	▶ Specialty Pumps	
Pulse Extender and Remote Extender	18	Diaphragm Pump Selector	188
Pulse Roll Around Package and Accessories	19	Husky 1050 AODD Pump	189-190
Steps to Build Your Pulse FC System	20	Husky 307 AODD Pump	191
Pulse FC Software	21	Husky 515 AODD Pump	192
Pulse FC Starter Kit	22	Husky 716 AODD Pump	193
SD™ Preset Dispense Meters	23-24	Husky 1590 AODD Pump	194
Pulse FC Packages and Accessories	25	Husky 2150 AODD Pump	195
Pulse Level Fluid Management	26-28	Husky 3300 AODD Pump	196
Traditional Box – Wired Fluid Control Components	29	Diaphragm Pump Packages	197-198
▶ Oil Pumps		Diaphragm Pump Accessories	199-200
Oil Pump Selection Guide	32-33	Undercoating and Rustproofing Pumps	201-202
LD Series™ Oil Pumps	34-49	Undercoating and Rustproofing Pump Packages	203-204
LD Series™ Oil Pump Accessories	50-51	Undercoating and Rustproofing Accessories	205
Mini Fire-Ball® 225 Oil Pumps	52-55	Bulldog® 43:1 Oil Pump	206-207
Fire-Ball® 300 Oil Pumps	56-60	Fast-Flo® 1:1 Pumps	208-209
Fire-Ball® 425 Oil Pumps	61-64	Fast-Flo 1:1 Pump Accessories	210-211
Fast-Ball® Oil Pumps	65-66	EGP™ Transfer and EGP™ On-Demand Pumps	212-214
Oil Pump Accessories	67-72	▶ Hose and Cord Reels	
NXT™ High-Flo® Oil Pumps	73-75	Hose Reel Selection Guide	216
NXT Dura-Flo® Oil Pumps	76-79	LD™ Series Enclosed Hose Reels	218-220
Dyna-Star® Hydraulic Oil Pumps	80-81	LDX™ Series Hose Reels	221-222
Power-Star™ Hydraulic Oil Pumps	82-83	SDX™ Series Hose Reels	223-228
Manually Operated Oil Pumps	84-85	SD™ Series Cord and Light Reels	229-232
▶ Oil Meters		XDX™ Series 10/20 Hose Reels	233-237
Graco Dispense Meters	88	XD™ Series 30 Hose Reels	238-242
LDP5 Electronic Preset Meters	89-91	XD™ Series 40/50 Hose Reels	243-248
EM® Series Electronic Meters	92-94	XD™ Series 60/70/80 Powered Hose Reels	250-259
PM® Series Electronic Meters	95-97	Hose Reel Accessories	260-261
SD Series™ Electronic Meters	98-100	▶ Fluid Reclaim Equipment	
IM20 In-Line Electronic Meter	101	Oil King™	264
IM20P In-Line Electronic Meter	102	Coolant King™	265
SDI15 In-Line Electronic Meter	103	Oil Ace™	266-268
Mechanical Meters	104-106	16-Gallon Mobile Receiver	269
SDV15 Control Valve	107-108	Big Hauler™ Truck Drain	270
XDV20 Control Valve	109-110	Track Receivers	270
Dispense Consoles	111-112	Diaphragm Evacuation Pumps	271
▶ Grease Pumps		Evacuation Pump Packages	272-274
Grease Pump Selection Guide	114-115	Fluid Reclaim Accessories	275-277
LD Series™ Grease Pumps	116-120	▶ Accessories	
LD Series™ Grease Pump Accessories	121-122	Air Regulators and Valves	280
Mini Fire-Ball® 225 Grease Pumps	123-126	Air Valves	281
Fire-Ball® 300 Grease Pumps	127-134	Hose Fittings	282
Fire-Ball® 425 Grease Pumps	135-141	Lubrication Hoses	283
Grease Pump Accessories	142-145	Air/Water Hoses	284
GT 750 36:1 Grease Pumps	146-147	Quick Connect Fittings	285
NXT™ Check-Mate® Grease Pumps	148-152	Adapters and Fittings	286-287
Dyna-Star® Hydraulic Grease Pumps	153-154	▶ Warranty Information	288-290
Viscount® II Grease Pumps	155-156	▶ Index	291-298
Manually-Operated Grease Pumps	157		
▶ Grease Dispense Valves and Guns			
Dispense Valve and Gun Selection Guide	158		
Accu Shot™ Metered Grease Valve	159		
Pro Shot™ Non-Metered Valve	160		
Power Shot™ Booster Valve	161		
Heavy-Duty Grease Guns	162		
Accessories	163-165		

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.



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.

Start shopping today at
gracogear.com



FLUID MANAGEMENT SYSTEMS

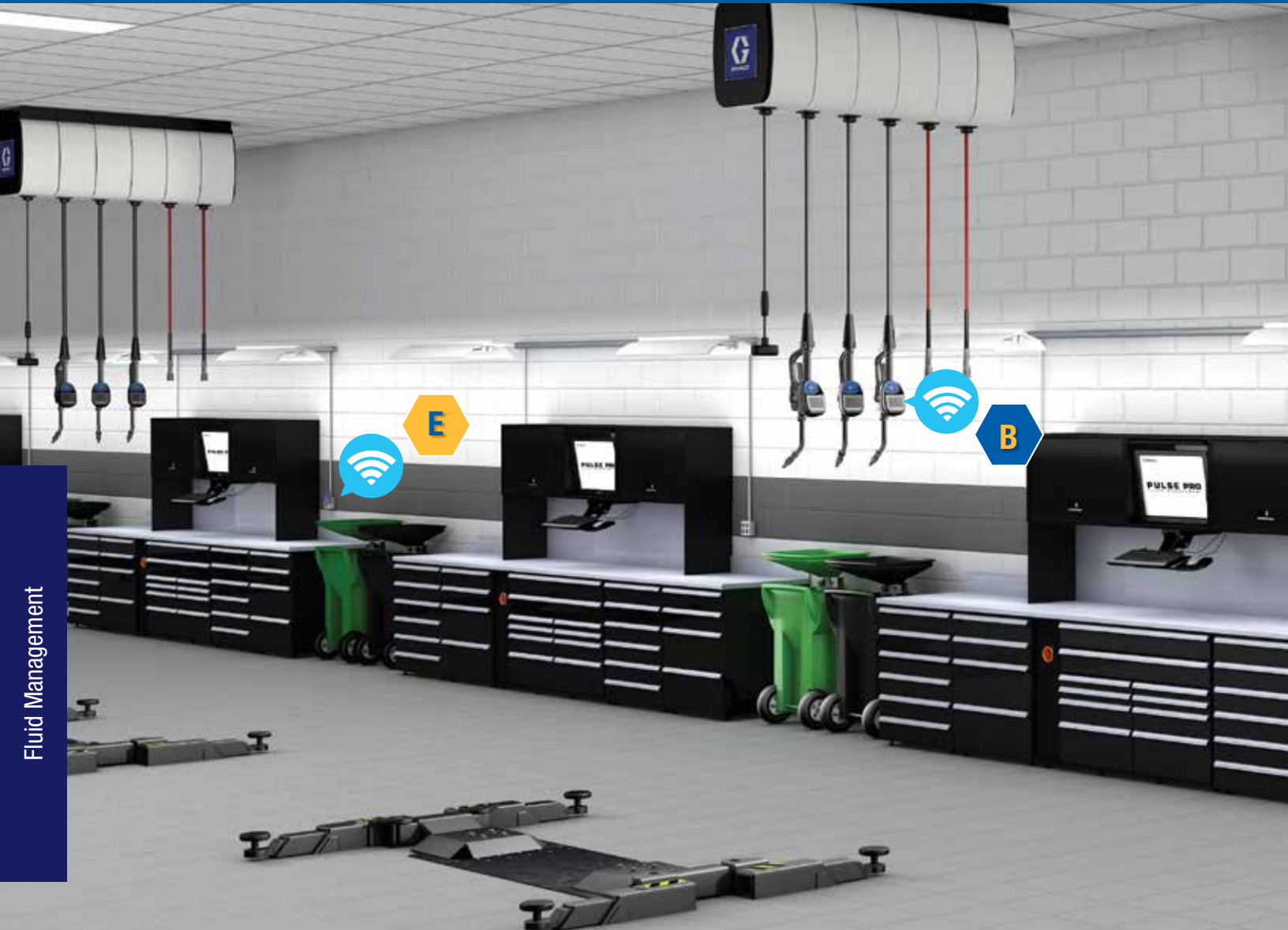
	Page
Fluid Management System Selection Guide	9
Benefits of Pulse® Pro Fluid Management	10
Steps to Build Your Pulse Pro System	11
Pulse Hub	12-13
Pulse Dispense Meter	14-15
Pulse Tank Level Monitor (TLM).	16
Pulse Pump Air Control (PAC).	17
Pulse Extender and Remote Extender	18
Pulse Roll Around Package and Accessories	19
Steps to Build Your Pulse FC System.	20
Pulse FC Software	21
Pulse FC Starter Kit	22
SD™ Preset Dispense Meters	23-24
Pulse FC Packages and Accessories	25
Pulse Level Fluid Management	26-28
Traditional Box – Wired Fluid Control Components. . .	29



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		✓	✓

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.



Fluid Management



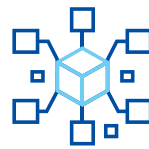
Benefits of Pulse Pro Fluid Management



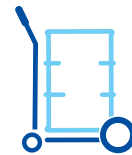
Transparency. Monitor every drop, every time – automatically – and minimize shrinkage, rounding and discrepancies.



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.



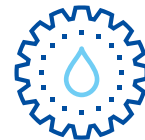
Scalability. Add Pulse into almost any environment quickly, and even retrofit applications or multiple buildings within the same facility.



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.








Fluid Management

Steps to Build Your Pulse Pro System:



Add Accessories

<p>C Tank Level Monitor (TLM) Tank Level Monitor can be used as a standalone product.</p>  <p>OPTIONAL</p>	<p>D Pump Air Controller (PAC)</p>  <p>OPTIONAL</p>	<p>E Pulse Extender and Pulse Remote Extender</p>  <p>OPTIONAL</p>	<p>F Roll Around Package</p>  <p>OPTIONAL</p>	<p>G Oil Bar Dispenser</p>  <p>OPTIONAL</p>
---	--	---	--	--



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.

No PC Software to Install

Pulse software delivered via web pages to any PC, tablet or phone.

Status Lights

Quickly verify Hub status.

Ethernet and Wi-Fi

LAN connection for flexible installations.

Built-In Backup

Includes SD card for database backup and restore.

Wireless Communication

Communicates with Pulse devices.

Built-In Computer

Runs custom operating system to eliminate common PC operating system issues.

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	1.0 lb (454 gm)
Power Supply	
Input Power	100–240 VAC line voltage (0.05 A)
To Hub	5 VDC (0.5 amps)
Warranty	Two years electronics



Ordering Information

Part Number	Description
24Z978	Hub for non-European installation with global power adapter

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.

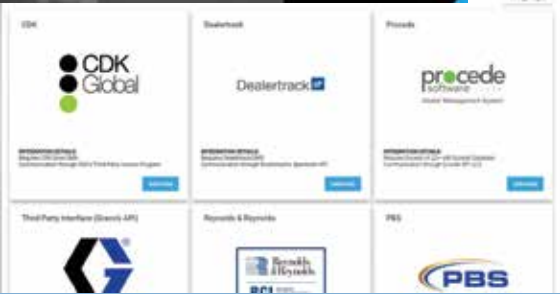
Option 1 – Partner Integrations

- 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 RCI**
 - Requires ERA
 - Communication through RCI Web Service

Option 2 – Communication through Graco Third Party Interface



- Requires End-user developed integration for non-supported DMS



Fluid Management

How It Works

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



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



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.



B Ordering Information

8 gpm (30 lpm) Meters

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

18 gpm (68 lpm) Meters

Fluid	Extension	Nozzle	Size (in)	Part Number
Oil / Antifreeze	Flexible	Manual High-Flow	1/2	25M324
	Rigid			25M323
	Flexible	Manual High-Flow	3/4	25M330
	Rigid			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
		Antifreeze	Non-drip, quick-close	26C267	Pulse 8 gpm
		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
		Antifreeze	Non-drip, quick-close	26C268	Pulse 8 gpm
		Oil/Antifreeze	High-flow, non-drip, quick-close	255858	Pulse 18 gpm
	Nozzle Only	Oil	Automatic, non-drip, quick-close	17R220	Pulse 8 gpm
		Antifreeze	Non-drip, quick-close	17T207	Pulse 8 gpm
		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

Fluid Management

NFC Tags

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

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

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

Pulse Meter Filter Kits

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



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.

Tough Exterior

Sealed enclosure to accommodate outdoor usage.

Long Battery Life

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

Compact Design

Easily fits into more spaces.

Built-In Display

Real-time level visible from built-in display.

On-Demand Readings

Ability to take reading at any time.

Supports Multiple Tank Shapes

Ability to input strapping table for any tank shape.



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

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.

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 m ³ /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

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

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.



**2 Year
Warranty!**

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	24G576	16F878	24F915	24H420	24H865
25D952	8 GPM, Flexible	25M319					
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 (17F885), Pulse Remote Extender (17F878), Pulse NFC Tag, case and protective foam

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.



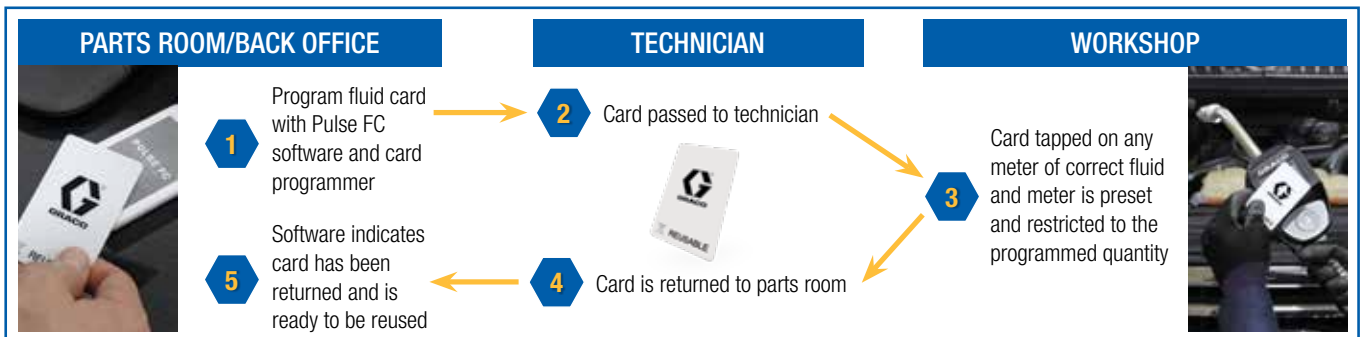
Fluid Management

Steps to Build Your Pulse FC System:



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.





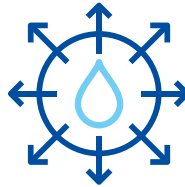
GAIN INSIGHT INTO AND CONTROL OF YOUR BULK FLUIDS



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.



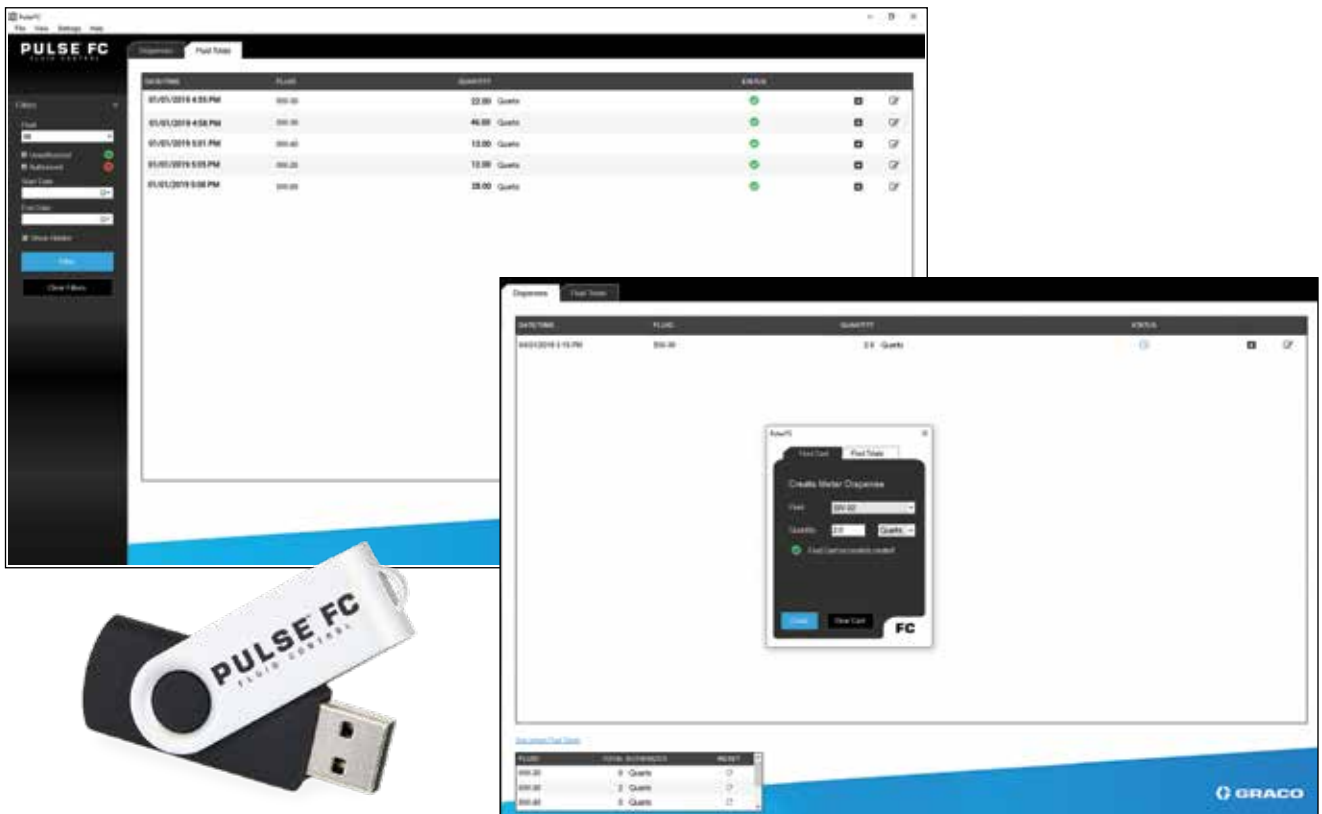
Scalability. Add Pulse FC into almost any environment quickly, even retrofit applications and avoid excessive installation costs and delays. You can also easily upgrade to Graco's Pulse Pro.



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.



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.

Fluid Management

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



B

SD™ Preset Dispense Meters

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.

Up to
18 gpm
(68 lpm)

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.

B Ordering Information

SD™ Preset Electronic Meters



	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
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

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

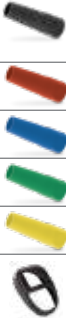
Pulse FC Demo Kit

	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

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

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

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.



25T461

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.



25T462

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			•

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.



Technical Specifications

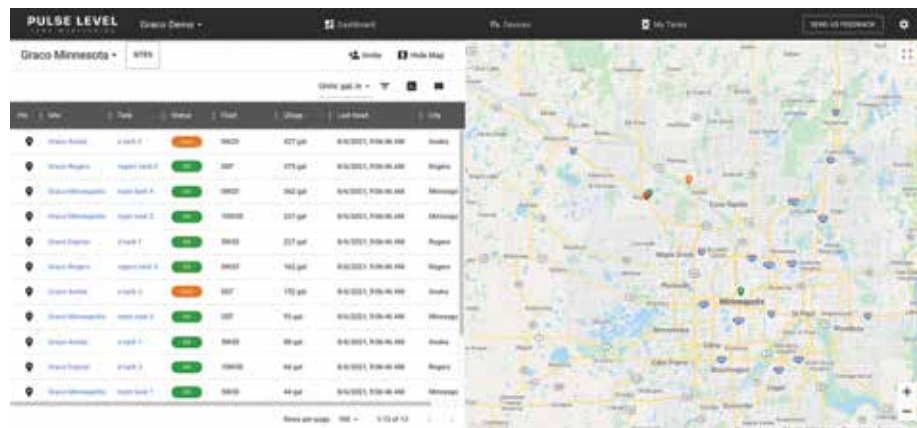
	Ultrasonic Wi-Fi TLM	Ultrasonic Cellular TLM	Pressure Cellular TLM
Compatible Fluids	Oil, kerosene, diesel, lubricants, additives, DEF/AdBlue, coolants, water, waste oil, waste water	Oil, kerosene, diesel, lubricants, additives, DEF/AdBlue, coolants, water, waste oil, waste water	Oil, kerosene, diesel, 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

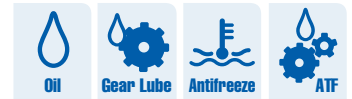
*The battery life is based upon four (4) measurements per day and one (1) data drop per day from a location with adequate coverage, and a normal distribution over the operating temperature range centered at +25°C (77°F).

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





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

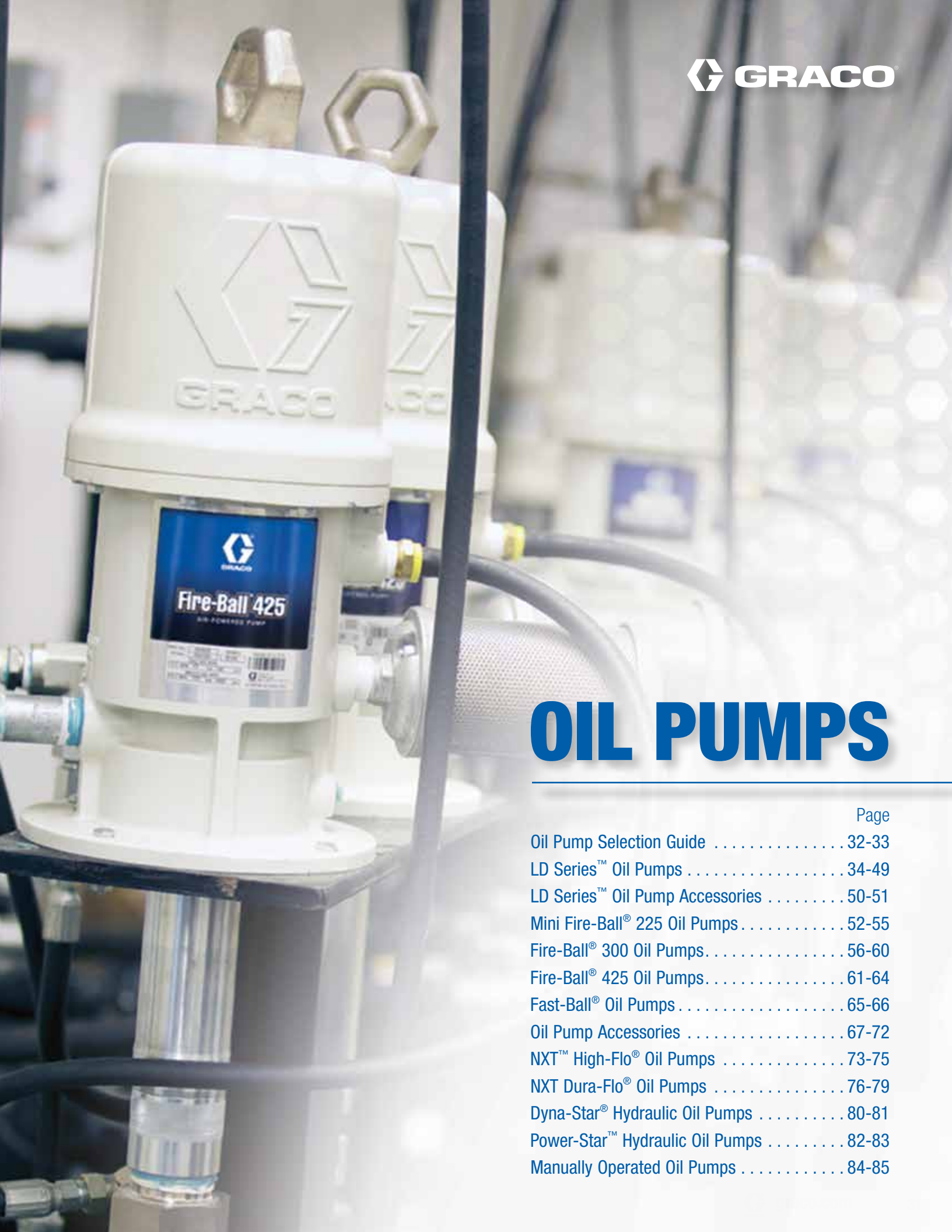
Part Number	Description
218588	Ready-light kit, signals operator when dispensing can begin. Includes "ready to dispense" indicator light (239019), strainer (240417), fluid solenoid valve (215487) and hardware.
238996	Ready-light with junction box (no solenoid or strainer)
239019	Ready-to-dispense indicator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













OIL PUMPS

	Page
Oil Pump Selection Guide	32-33
LD Series™ Oil Pumps	34-49
LD Series™ Oil Pump Accessories	50-51
Mini Fire-Ball® 225 Oil Pumps	52-55
Fire-Ball® 300 Oil Pumps	56-60
Fire-Ball® 425 Oil Pumps	61-64
Fast-Ball® Oil Pumps	65-66
Oil Pump Accessories	67-72
NXT™ High-Flo® Oil Pumps	73-75
NXT Dura-Flo® Oil Pumps	76-79
Dyna-Star® Hydraulic Oil Pumps	80-81
Power-Star™ Hydraulic Oil Pumps	82-83
Manually Operated Oil Pumps	84-85

Oil Pump Selection Guide

Pump Family and Fluid Pressure Ratio	Typical Applications	Annual Usage	Line Length	Simultaneous Dispense Points	Approx. Free Flow Rate @ 100 psi	Air Inlet	Fluid Inlet	Fluid Outlet	Air Operation Range	Reference Page
Fast-Ball, 1:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	5,000 gal (19,00 l)	< 100 ft (30 m)	1 (no reels)	5 gpm (19 lpm)	1/4 NPT(F)	1-1/2 NPT(F)	3/4 NPT(F)	40-80 psi (2.7-12.5 bar)	66
LD, 3:1 	<ul style="list-style-type: none"> 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)	34
LD, 5:1 	<ul style="list-style-type: none"> 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)	34
Mini Fire-Ball 225, 3:1 	<ul style="list-style-type: none"> 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)	52
Fire-Ball 300, 5:1 	<ul style="list-style-type: none"> 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)	56
Fire-Ball 425, 3:1 	<ul style="list-style-type: none"> 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)	61
Fire-Ball 425, 6:1 	<ul style="list-style-type: none"> 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)	61
Fire-Ball 425, 10:1 	<ul style="list-style-type: none"> 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)	61

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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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)	73
 NXT Dura-Flo, 6:1	<ul style="list-style-type: none"> 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)	75
 NXT Dura-Flo, 10:1	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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



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.

Typical Applications

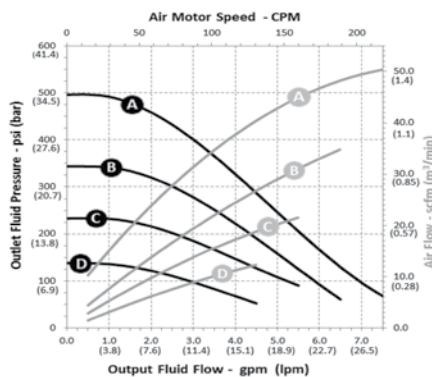
- Automotive dealerships
- Fast lube centers
- Service shops

Typical Fluids Handled

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

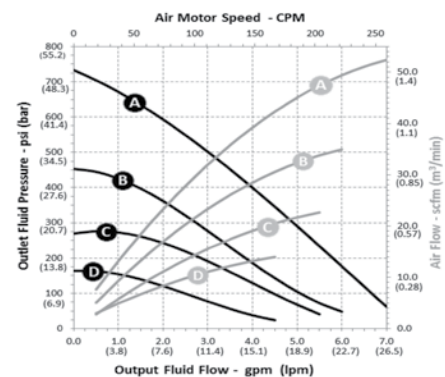
Pump Performance

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 m ³ /min @ 10.6 lpm)	18 scfm @ 2.1 gpm (0.51 m ³ /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)

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	LD	LD	LD	LD	-	-	-	-
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	-	-	-	-
Hose Reel	24H662	24H662	24H662	24H662	-	-	-	-
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

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.



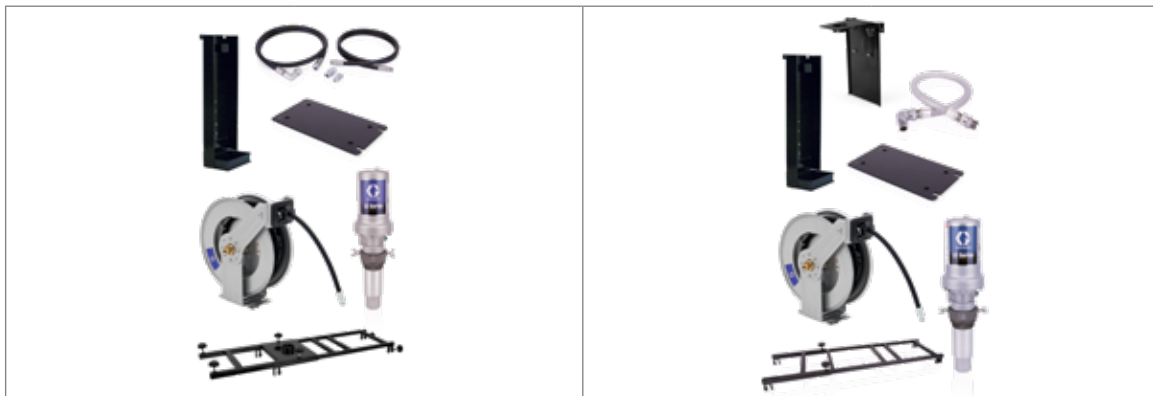
Package Number	24H800	24H799	24H802	24H801
Ratio	3:1	3:1	3:1	3:1
Pump Part Number	24G576	24G576	24G576	24G576
Suction Tube Size	Universal	Universal	Universal	Universal
Pump Downtube	16F878	16F878	16F878	16F878
Meter Type	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277
Meter Extension	Rigid	Flexible	Rigid	Flexible
Hose Kit	24H859	24H859	24H859	24H859
Instruction Manual	3A1335	3A1335	3A1335	3A1335



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

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

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

LD Series 3:1 Oil Pump 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	LD	LD	LD	LD	-	-	-	-
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	-	-	-	-
Hose Reel	24H662	24H662	24H662	24H662	-	-	-	-
55 gal Cart	24F915	24F915	24F915	24F915	24F915	24F915	24F915	24F915
Instruction Manual	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335

Oil Pumps and Packages



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

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



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).

Oil Pumps and Packages

Stationary Oil Packages

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



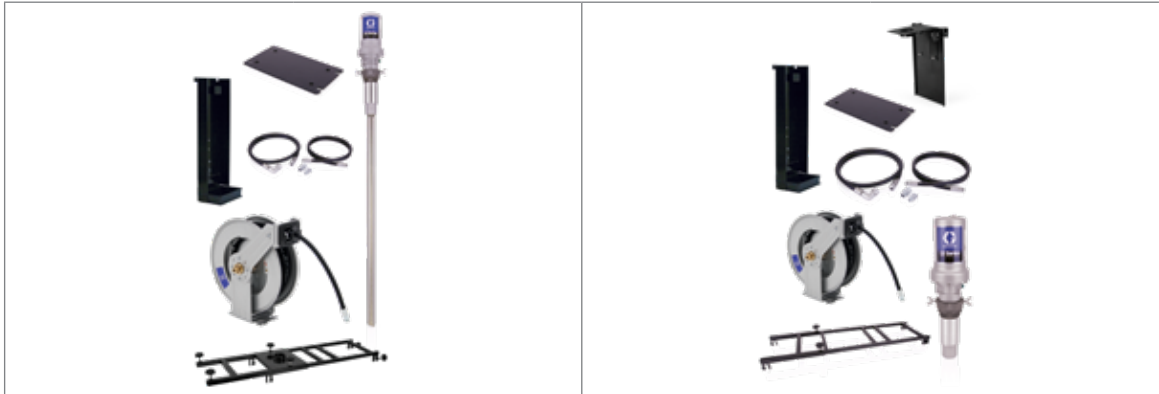
Package Number	24H965	24H964	24H967	24H966
Ratio	5:1	5:1	5:1	5:1
Pump Part Number	24G588	24G588	24G588	24G588
Suction Tube Size	Universal	Universal	Universal	Universal
Pump Downtube	16F878	16F878	16F878	16F878
Meter Type	Manual	Manual	Preset	Preset
Meter Part Number	25C903	25C904	256216	255277
Meter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



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



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 Pumps and Packages

LD Series 5:1 Oil Pump Packages



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



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

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





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)



**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.

Oil Pumps and Packages

Typical Applications

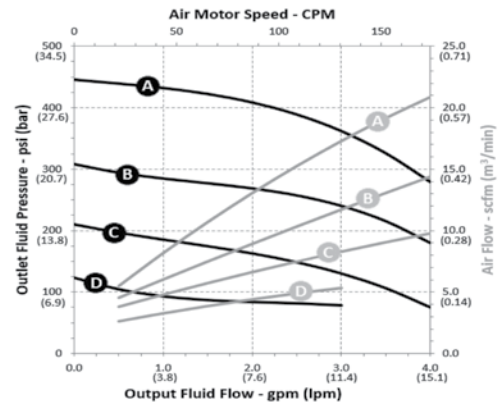
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

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

Pump Performance

Mini Fire-Ball 225 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



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 m ³ /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)

Mini Fire-Ball 225 3:1 Oil Pump Packages



Ordering Information

Oil Packages



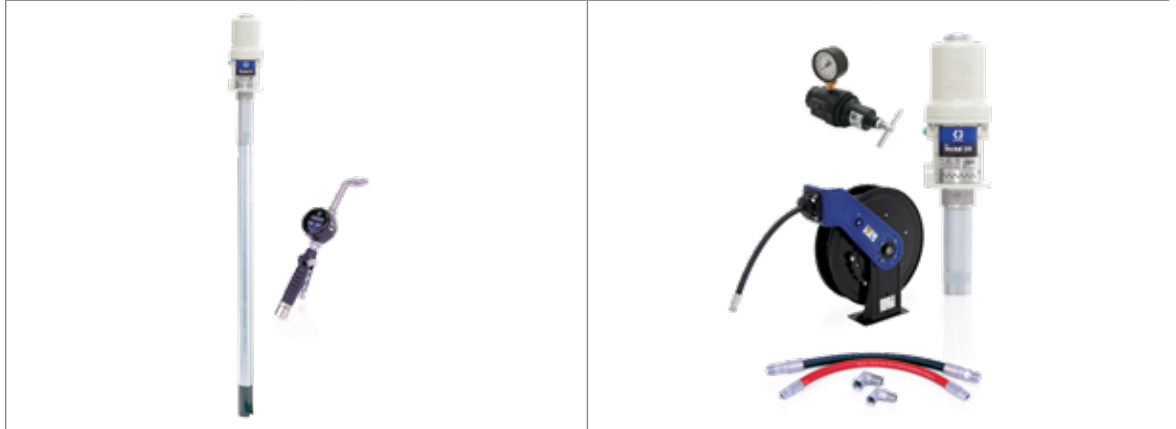
Package Number	246903*	246904*	246906*	246907**	248230**
Ratio	3:1	3:1	3:1	3:1	3:1
Package Type	Portable	Cover-mounted	Cover-mounted	Bung-mounted	Bung-mounted
Maximum Container Size	16 gal (60 l)	16 gal (60 l)	55 gal (200 l)	55 gal (200 l)	275 gal (1,040 l)
Pump	248097	248097	248097	248097	246775
Meter 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.

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.

Oil Pumps and Packages

Typical Applications

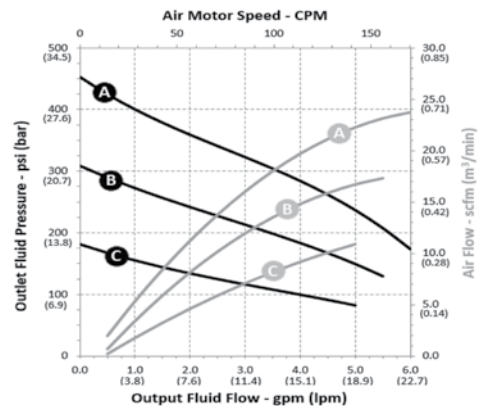
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

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

Pump Performance

Fire-Ball 300 5:1 Pumps



Inlet Air Pressures:

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

Test Fluid : ISO 46 Oil



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 m ³ /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

Fire-Ball 300 5:1 Oil Pump Packages



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 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.



Ordering Information

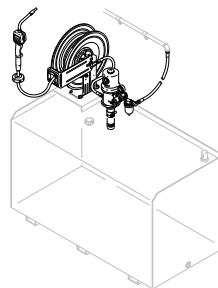
Bulk Oil Dispensing Packages



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).



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.



**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.

Typical Applications

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

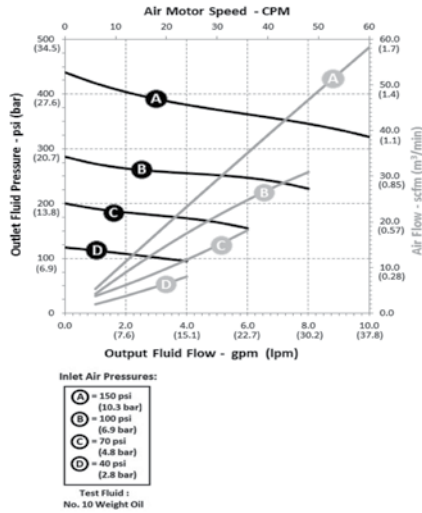
Typical Fluids Handled

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

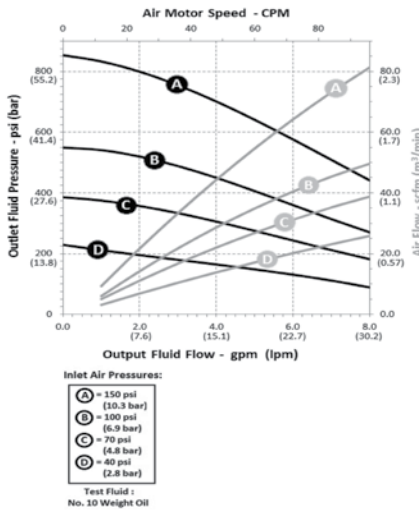


Pump Performance

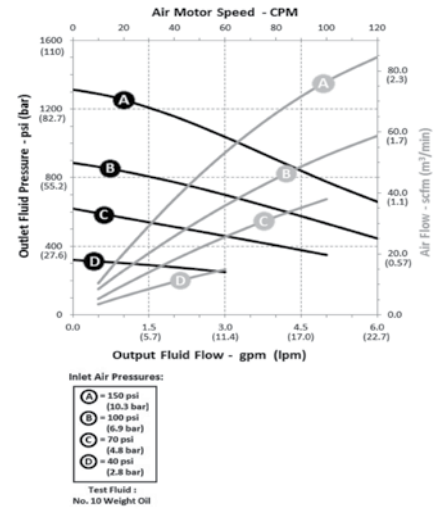
Fire-Ball 425 3:1 Pumps



Fire-Ball 425 6:1 Pumps



Fire-Ball 425 10:1 Pumps



Technical Specifications

	3:1	6:1	10:1
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 m ³ /min @ 50.6 lpm)	44 scfm @ 6.7 gpm (1.25 m ³ /min @ 25.4 lpm)	45 scfm @ 4.0 gpm (1.27 m ³ /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



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.

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.



5 Year
Warranty!

Used for Low-Volume Transfer of Petroleum-Base Lubricants

This air-operated piston pump is ideal for pumping petroleum and synthetic-based oils and provides a continuous duty flow rate of up to 5 gpm.



High-Quality Air Motor

Differential air motor ensures smooth pumping.

Fewer Repairs

In-line design with fewer moving parts in the air motor assembly means less downtime and low repair cost.

Reliable Fluid Flow

Double-acting pump provides reliable fluid flow.

Durable

Rated for continuous duty in challenging applications.

Typical Applications

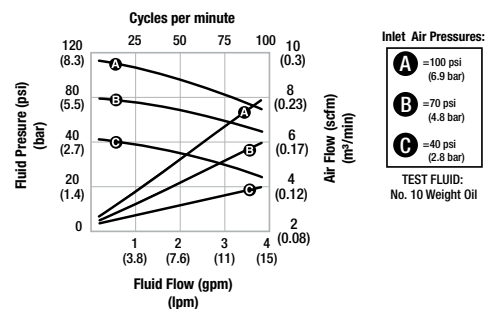
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

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

Pump Performance

Fast-Ball 1:1 Pumps



Technical Specifications

Fluid Pressure Ratio	1:1
Air Motor Effective Diameter	1.4 in (35.6 mm)
Maximum Fluid Working Pressure	180 psi (12.5 bar / 1.25 MPa)
Approximate Free Flow Rate @ 100 psi	5 gal/min (19 liters/min)
Output per Cycle	151 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	7 scfm @ 3.1 gpm (0.20 m ³ /min @ 11.7 lpm)
Air Inlet	1/4 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)
Fluid Outlet	3/4 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12.4 bar)
Maximum Recommended Pump Speed	100 cpm
Cycles per Gallon	25 cpg
Cycles per Liter	6.6 cpl
Wetted Parts	CS, polyurethane
Sound Pressure Level	74.9 dB(A)
Sound Power Level	83.5 dB(A)
Approximate Weight	8 lb to 14 lb (3 kg to 7 kg)
Instruction Manual	307906

Ordering Information

Pumps



Pump Number	222103	222104	222051
Ratio	1:1	1:1	1:1
Type of Package	Bung-mounted	Bung-mounted	Universal
Container Size	55 gal (200 l)	275 gal (1,040 l)	Universal
Bung Adapter	222308	222308	—
Instruction Manual	307906	307906	307906

Pump Packages



Package Number	222602	239702
Ratio	1:1	1:1
Type of Package	Non-metered dispense	Metered dispense
Container Size	55 gal (200 l)	55 gal (200 l)
Pump	222103	222103
Dispense Kit	218115	239703
Regulator Assembly	218316	218316
Hose	109125	—
Hose Length	6 ft (1.8 m)	—
Bung Adapter	222308	222308
Instruction Manual	307637	307637

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 1:1	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 Pump Accessories

Ordering Information


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 1:1 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 1:1 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		
	237075	Use with portable lubricators powered by Fire-Ball 300 Pump	6 ft	Fluid Hose	Manual SD Gear Lube Valve	Manual
				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 1:1 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 1:1 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 Pump Accessories

Ordering Information


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
	180199	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

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	Includes		
			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

Ordering Information


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 1:1 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

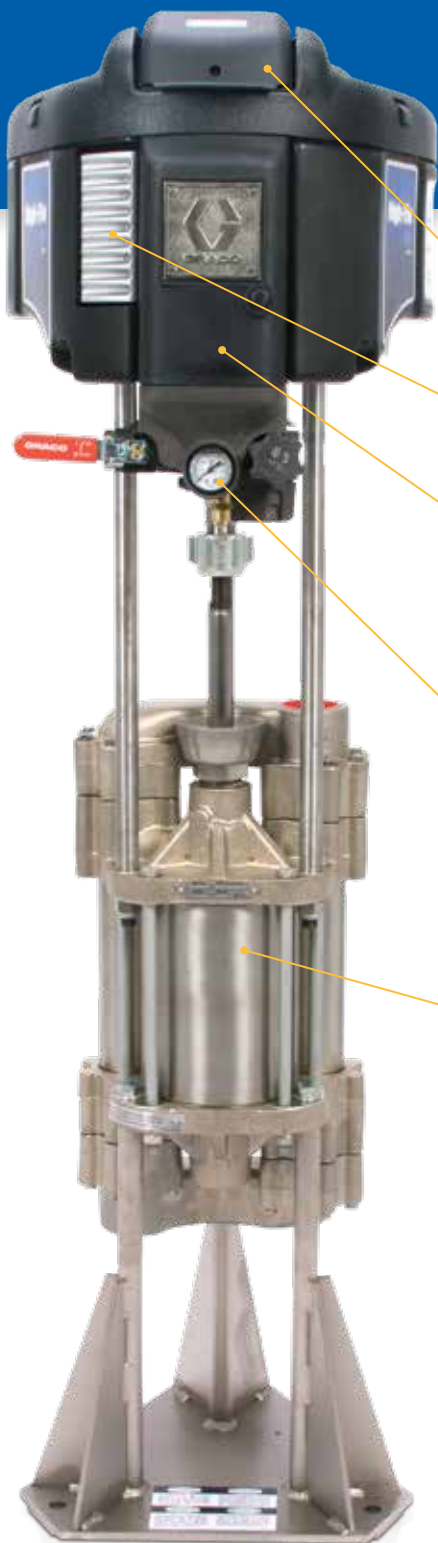
	Part Number	Pressure Rating	Compatible Pumps	Includes			
				Valve	Bung Adapter	Swivel	6 ft Hose
	235998	600 psi (41 bar)	Mini Fire-Ball 225 3:1	112174	191075	155494	238370
	237893	900 psi (62 bar)	Fire-Ball 300 5:1 Fire-Ball 425 6:1	102527	191075	155494	238370
	248296	900 psi (62 bar)	Fire-Ball 300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



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.

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

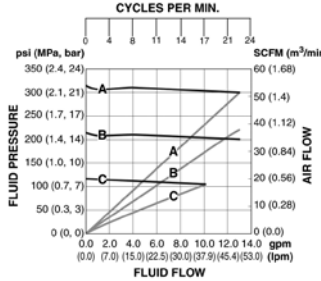
- Fleet service facilities
- In-plant
- Mining

Typical Fluids Handled

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

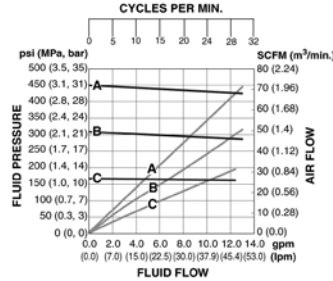
Pump Performance

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

Ordering Information

Oil Pump Packages with DataTrak

Package Number with DataTrak	247888	247889
Ratio	3.5:1	4.5:1
Mounting	255143 (Wall)	255143 (Wall)
Pump with DataTrak and Thermal Relief Kit	24D590	24D591
Output per Cycle	2,000 cc	1,500 cc
Output at 60 CPM	31.5 gpm (119.2 lpm)	23.2 gpm (87.8 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

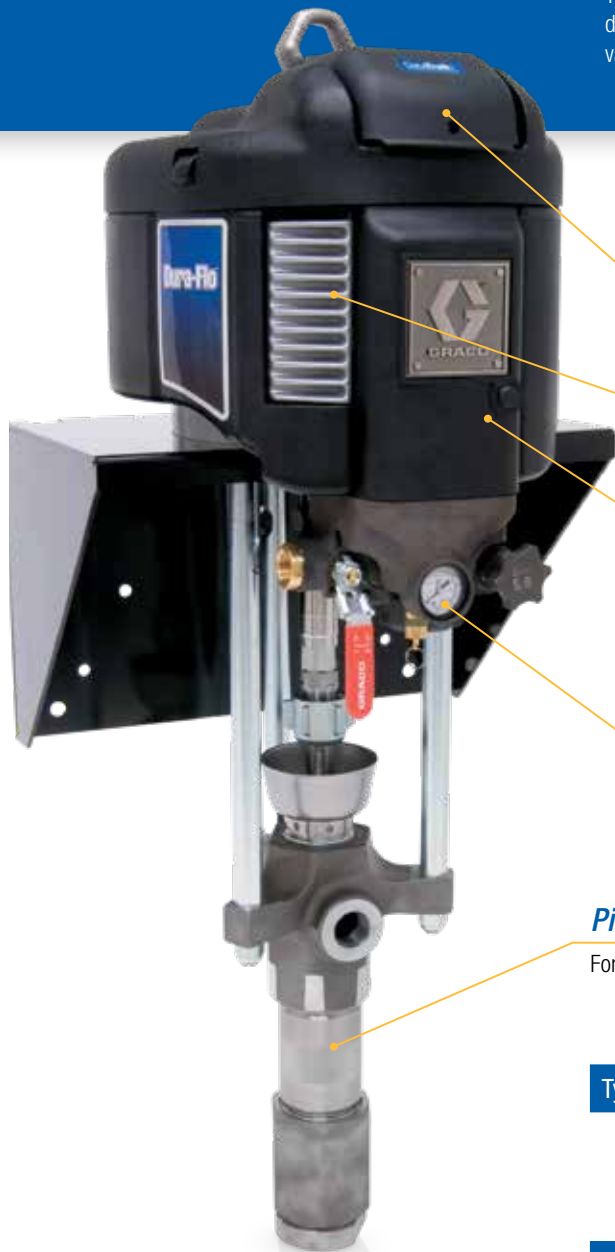
Oil Pump Packages without DataTrak

Package Number without DataTrak	24D602	24D603
Ratio	3.5:1	4.5:1
Mounting	255143 (Wall)	255143 (Wall)
Pump without DataTrak and Thermal Relief Kit	24D596	24D597
Output per Cycle	2,000 cc	1,500 cc
Output at 60 CPM	31.5 gpm (119.2 lpm)	23.2 gpm (87.8 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



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)



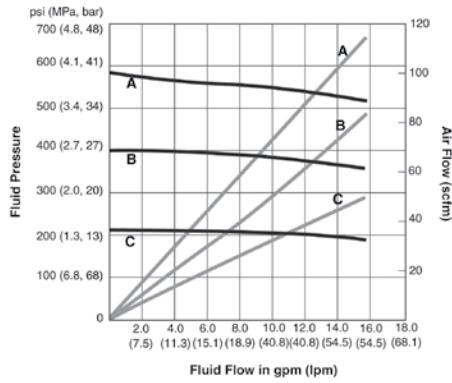
Pump Performance

Inlet Pressures:

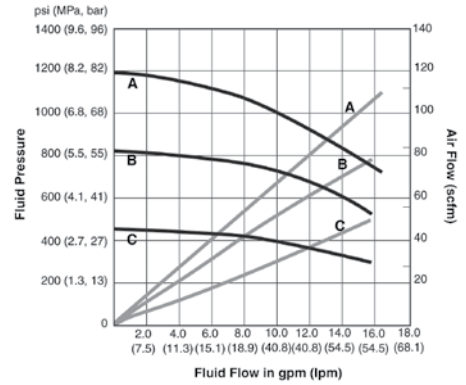
- A** = 100 psi (6.9 bar) air pressure or 1500 (103 bar) hydraulic oil pressure
- B** = 70 psi (4.8 bar) air pressure or 1050 (72 bar) hydraulic oil pressure
- C** = 40 psi (2.8 bar) air pressure or 600 (41 bar) hydraulic oil pressure

TEST FLUID: No. 10 Weight Oil

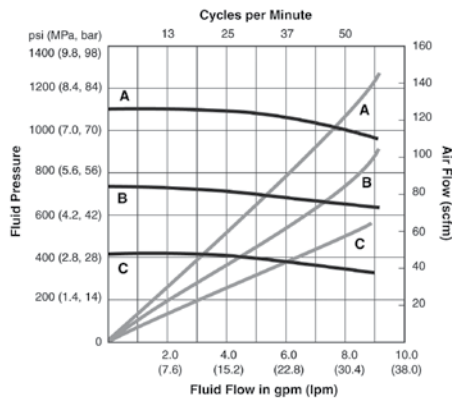
NXT Dura-Flo 6:1 Pumps



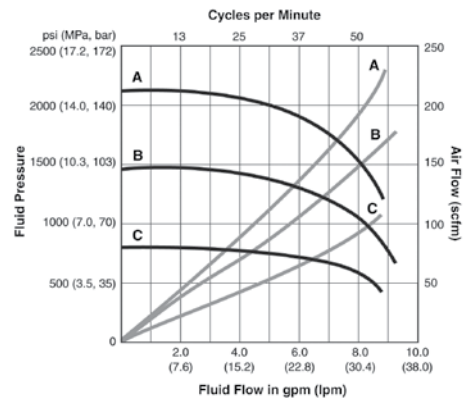
NXT Dura-Flo 10:1 Pumps



NXT Dura-Flo 12:1 Pumps



NXT Dura-Flo 23:1 Pumps





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



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





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




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

Field Proven, Energy Efficient

Hydraulic Power-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
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




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

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.

Ordering Information

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

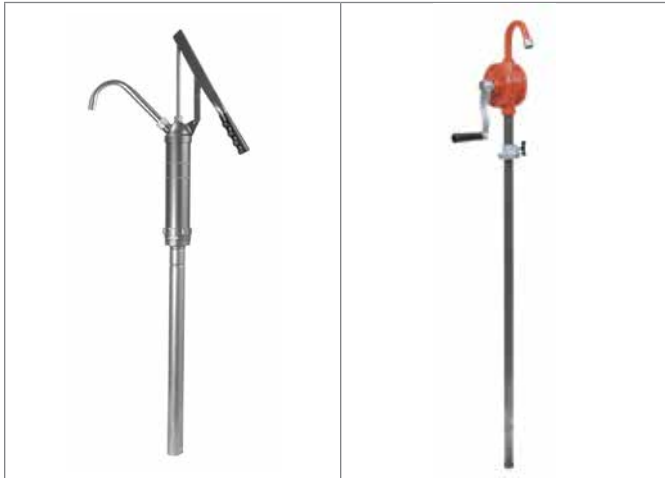
Mounts on top of standard 5 gal (20 l) pail (pail not included). Dispenses 1.6 oz to 1.9 oz. (47.3 ml to 56.2 ml) per stroke.



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 DISPENSE METERS



	Page
Graco Dispense Meters	88
LDP5 Electronic Preset Meters . . .	89-91
EM Series® Electronic Meters . . .	92-94
PM Series® Electronic Meters . . .	95-97
SD Series™ Electronic Meters . . .	98-100
IM20 In-Line Electronic Meter	101
IM20P In-Line Electronic Meter . . .	102
SDI15 In-Line Electronic Meter . . .	103
Mechanical Meters	104-106
SDV15 Control Valve	107-108
XDV20 Control Valve	109-110
Dispense Consoles	111-112



Graco Dispense Meters

	Fluid	Manual/ Preset	Maximum Working Pressure	Maximum Flow Rate	Intended Use	Warranty	Reference Pages
LDP5 Electronic Preset Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	Preset	1,000 psi (69 bar)	5 gpm (19 lpm)	Indoor	5 years overall (2 years electronics)	89-91
EM Series Electronic Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	Manual	1,500 psi (103.4 bar)	20 gpm (76 lpm)	Indoor/ Outdoor	5 years overall (3 years electronics)	92-94
PM Series Electronic Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	Preset	1,500 psi (103.4 bar)	20 gpm (76 lpm)	Indoor/ Outdoor	5 years overall (3 years electronics)	95-97
SD Series Electronic Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	Manual/ Preset	1,500 psi (103.4 bar)	14 gpm (53 lpm)	Indoor/ Limited Outdoor	7 years overall (3 years electronics)	98-100
IM20 In-Line Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	In-Line	1,500 psi (103.4 bar)	20 gpm (76 lpm)	Indoor/ Outdoor	5 years overall (3 years electronics)	101
IM20P In-Line Meter 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	In-Line	1,500 psi (103.4 bar)	20 gpm (76 lpm)	Indoor/ Outdoor	1 year	102
SDI15 In-Line Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze Diesel exhaust fluid 	In-Line	1,500 psi (103.4 bar)	15 gpm (56.8 lpm)	Indoor	7 years overall (3 years electronics)	103
Mechanical Meters 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	Manual/ Preset	1,500 psi (103.4 bar)	8 gpm (30 lpm)	Indoor/ Outdoor	5 years	104-106
SDV15 Control Valves 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	N/A	1,500 psi (103.4 bar)	15 gpm (56.8 lpm)	Indoor/ Outdoor	7 years	107-108
XDV20 Control Valves 	<ul style="list-style-type: none"> Petroleum- and synthetic-based oils (motor, gear and ATF) Antifreeze 	N/A	1,500 psi (103.4 bar)	20 gpm (76 lpm)	Indoor/ Outdoor	7 years	109-110



Perfect for Lower-Volume Service Applications

For use in small service shops, fast lubes and low-volume in-plant applications.

Up to
5 gpm
(19 lpm)

Easy-to-Read LCD Screen

Keeps dispenses precise.

Operator Controls

Displays in quarts, pint, gallons or liters. Durable switches for long life.

Fluid Extension Kits

Choose from rigid or flexible extensions with automatic thermal compensating nozzle.

Rugged Meter Body

Superior impact resistance and long life.

Comfortable Handle

Ergonomically designed for operator comfort. Two-finger trigger with latching on preset models.

Fluid Swivel

1/2 inch fluid inlet.



Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Fleet services facilities
- In-plant

Typical Fluids Handled

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

Technical Specifications

Flow Range*	0.1 gpm to 5 gpm (0.4 lpm to 19 lpm)
Maximum Working Pressure	1,000 psi (69 bar)
Units of Measure	Quarts, pints, gallons, liters (factory set to quarts)
Accuracy**	+/- 0.5%
Inlet	1/2 in NPT
Outlet	1/2 in NPT
Maximum Totalizer	999,999 gallons or liters
Maximum Recorded Dispense	999.9 units
Maximum Preset Volume	999.9 units (LDP5 only)
Operating Temperature Range	32°F to 120°F (0°C to 48.8°C)
Storage Temperature Range	-30°F to 120°F (-34.4°C to 48.8°C)
Outdoor Use	No
Battery	9 volt alkaline
Battery Life	One year
Wetted Parts	SST, nitrile rubber, zinc, CS, LCP
Meter Pressure Loss*	90 psi (6.2 bar) @ 5 gpm (19 lpm)
Dimensions (without extension)	11 in L x 3.25 in W x 3.25 H (28 cm L x 8.3 cm W x 8.3 cm H)
Weight	3 lb (1.36 kg)
Warranty	Five years overall, two years electronics
Instruction Manual	312668




*Tested in 10W oil at 70°F. Flow rates vary with fluid pressure, temperature, viscosity, inlet and nozzle type.

**At 2.5 gpm (9.5 lpm) @ 70°F (21°C) with 10 wt. oil and 1 gal (3.8 l) dispensed. May require recalibration. Out-of-box accuracy ±1.25%. Not recommended for in-line installation.







Ordering Information

LDP5 Electronic Preset Meters

Automatic nozzle included



	Extension	Inlet in (mm)	Part Number	Package Includes	
				Trigger Guard	Swivel Cover
	Flexible	1/2 (13)	258694	Yes	Yes
	Rigid		256216	Yes	Yes
	Flexible		255277	No	No

Nozzle Extension Kits




	Extension	Fluid	Nozzle Description	Part Number
	Rigid	Oil/Antifreeze	Automatic, thermally compensating	239949
		Gear lube	Automatic, thermally compensating	239950
		Gear lube	Automatic	238887
	Flexible	Oil/Antifreeze	Automatic, thermally compensating	239951
	Nozzle Only	Oil/Antifreeze/Gear lube	Automatic, thermally compensating	239829
		Oil/Antifreeze/Gear lube	Automatic	238371

Ordering Information






EM5/PM5 to LD Series Upgrade Kits

	Part Number	Description
	257350	EM5 to LDM5
	257351	PM5 to LDP5






Accessories

	Part Number	Description
	240416	Inlet swivel
	114017	Inlet filter, 80 mesh
	240453	Valve repair kit

Protective Boots with Trigger Guards






	Part Number	Description
	247759	Black
	243835	Red
	243836	Blue
	243837	Green
	247760	Yellow

Swivel Covers

	Part Number	Description
	191294	Black
	191287	Red
	191288	Blue
	191289	Green
	191295	Yellow

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White



**Up to
20 gpm**
(76 lpm)

Low-Flow and High-Flow Manual Meters

Building on the heritage of Graco's first electronic meter, the EM Series features a robust design at an affordable price. Our legacy valve handle features a long-life valve design for years of dependable service. These meters are weather-rated and impact-resistant to withstand the harshest shop conditions.

Twist-Close Nozzle Prevents Leaking

Multiple extensions available including rigid, flexible and gear lube.

High-Flow Rates

Capable of up to 20 gpm.

Long Battery Life

Features upgraded electronics and easily replaceable AAA batteries.

Prevent Accidental Dispenes

Easy-to-hold locking handle.

Proven in Harsh Conditions

Sealed electronics (IP69K) are protected against direct pressure washing and dust.

Legacy Valve

1/2 and 3/4 inch inlets, compatible with oil, ATF, antifreeze and gear lube.



Typical Applications

- Automotive dealerships
- Service and fast lube centers
- Lube trucks
- Mining
- Heavy-duty dealerships
- Fleet service facilities
- In-plant

Typical Fluids Handled

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

Technical Specifications






Technical Specifications	EM8	EM20
Flow Range	0.25 to 8 gpm (0.95 to 30.3 lpm)	0.25 to 20 gpm (0.95 to 75.7 lpm)
Maximum Operating Pressure	1,500 psi (102 bar)	
Unit of Measure	Quarts, gallons, pints, liters	
Accuracy/Repeatability	±0.5%	
Inlet	1/2 NPT	1/2 NPT or 3/4 NPT
Outlet	3/4 straight thread O-ring boss	7/8 straight thread O-ring boss
Maximum Totalizer	19,999 units	
Maximum Recorded Dispense	19,999 units	
Operating Temperature Range	-22°F to 180°F (-30°C to 82°C)	
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)	
Outdoor Use	Yes – IP69k as per DIN 40050-9	
Battery	2 (AAA) alkaline or 2 (AAA) lithium	
Wetted Parts	Aluminum, stainless steel, carbon steel, acetal, nitrile rubber, Geolast™	
Meter Pressure Loss*	30 psi @ 6 gpm	85 psi @ 12 gpm
Dimensions	13 in L x 3.5 in W x 5.25 in H (33 cm L x 9 cm W x 13.3 cm H)	
Weight	3 lbs (1.36 kg)	3.1 lbs (1.39 kg)
Warranty	Five years overall, three years electronics and 1 year wear parts	
Instruction Manual	3A5588	

* Tested in 10W oil at 70°F (21°C). Flow rate varies with fluid pressure, temperature, viscosity, inlet fitting size and nozzle type. Geolast is a registered trademark of Advanced Elastomer Systems.



EM[®] Series Electronic Manual Dispense Meters

Ordering Information

		Extension	Inlet in (mm)	Nozzle Type	Part Number
EM8		Flexible	1/2 (13)	Non-drip, manual open/close	25C904
				Automatic, non-drip, quick-close	26C526
		Rigid		Non-drip, manual open/close	25C903
				Automatic, non-drip, quick-close	26C525
		Gear		Non-drip, quick-close	25C905
	EM20			Flexible	1/2 (13)
3/4 (19)			25C918		
		Rigid	1/2 (13)	High-flow, non-drip, quick-close	25C916
			3/4 (19)		25C919

		Inlet in (mm)	Part Number
EM8		1/2 (13)	25D433
EM20		1/2 (13)	25D436
		3/4 (19)	25D437

Oil Dispense Meters and Control Valves

Ordering Information

Nozzle and Extension Kits

	Extension	Fluid	Nozzle Description	Part Number	Compatible Meters
	Rigid	Oil	Non-drip, manual open/close	26C267	EM8
			Automatic, non-drip, quick-close	255852	EM8
			Non-drip, quick-close	255921	EM20
	Rigid	Gear lube	Non-drip, quick-close	255854	EM8
	Flexible	Oil	Non-drip, manual open/close	26C268	EM8
			Automatic, non-drip, quick-close	255853	EM8
			Non-drip, quick-close	255859	EM20
	Nozzle Only	Oil/Antifreeze	Non-drip, manual open/close	17T207	EM8
	Nozzle Only	Oil/Antifreeze	Non-drip, quick-close	255793	EM20
	Nozzle Only	Gear lube	Non-drip, quick-close	255470	EM8
	Flexible	Oil/Antifreeze	Extension only, 2 ft length	131733	EM8

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

Accessories

Part Number	Description
25D934	Electronic control replacement
129876	Black impact guard for EM8 or EM20
25D936	Battery kit: includes AAA batteries, Torx screws and bezel seal
100896	3/4 NPT(M) x 1/2 NPT(F) adapter



**5-Year
Warranty!**

Heavy-Duty Preset Meters for the Toughest Jobs

Use Graco's PM8 and PM20 electronic preset meters to dispense fluids quickly, reliably and accurately to vehicles, trucks, yellow iron machines and more in the most challenging, extreme environments. Designed with high-quality robust materials to protect key components, these powerful meters can take a beating without fail for optimal productivity.

Proven in Harsh Conditions

Sealed electronics (IP69K) are protected against direct pressure washing and dust.

Long Battery Life

Features four easily-replaceable AA batteries.

High Flow Rates

Capable of up to 20 gpm (75.7 lpm).



Twist-Close Nozzle Prevents Leaking

Multiple extensions available including rigid, flexible and gear lube.

Long-Life Valve Design

Poppet design offers exceptional valve life for heavy-usage applications.

Easy Valve Operation

Ergonomic four-finger trigger for user comfort protected by a robust full-length trigger guard.

Durable Cast Body

Designed for heavy-duty and harsh applications.

Typical Applications

- Lube trucks
- Mining
- Heavy-duty dealerships
- Fleet service facilities
- Automotive dealerships
- Service and fast lube centers
- In-plant

Typical Fluids Handled

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

Technical Specifications

	PM8	PM20
Flow Range	0.25 to 8 gpm (0.95 to 30.3 lpm)	0.25 to 20 gpm (0.95 to 75.7 lpm)
Maximum Operating Pressure	1,500 psi (102 bar)	
Unit of Measure	Quarts, gallons, pints, liters	
Accuracy/Repeatability	±0.5%	
Inlet	1/2 NPT	1/2 NPT or 3/4 NPT
Outlet	3/4 straight thread O-ring boss	
Maximum Dispense	19,999.9 units	
Maximum Preset Dispense	19,999 units	
Operating Temperature Range*	-20°F to 125°F (-29°C to 52°C)	
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)	
Outdoor Use	Yes – IP69k as per IEC 60529	
Battery	4 (AA) alkaline or 4 (AA) lithium	
Wetted Parts	Aluminum, stainless steel, carbon steel, acetal, nitrile rubber, Geolast™	
Meter Pressure Loss**	60 psi @ 6 gpm	150 psi @ 12 gpm
Dimensions	14.25 in L x 4.1 in W x 7.2 in H (36.2 cm L x 10.4 cm W x 18.3 cm H)	
Weight	5.2 lbs (2.4 kg)	
Warranty	Five years overall, three years electronics and 1 year wear parts	
Instruction Manual	3A8307	

*Lithium ion batteries are required if operating below 0°F (-18°C). **Tested in 10W oil at 70°F (21°C). Flow rate varies with fluid pressure, temperature, viscosity, inlet fitting size and nozzle type. Geolast is a registered trademark of Advanced Elastomer Systems.

PM™ Series Electronic Preset Dispense Meters



Ordering Information

		Fluid	Extension	Flow Range gpm (lpm)	Inlet in (mm)	Part Number	
PM8		Oil	Flexible	0.25-8 (1-30)	1/2 (13)	273157	
		Antifreeze				25U086	
		Oil	Rigid			273156	
		Antifreeze				25U085	
		Gear Lube	Rigid			0.25-5 (1-19)	273158
	PM20		Oil			Flexible	0.25-20 (1-76)
3/4 (19)				273168			
Rigid		1/2 (13)		273165			
		3/4 (19)		273167			

Oil Dispense Meters and Control Valves



Ordering Information

Nozzle and Extension Kits

	Extension	Fluid	Nozzle Description	Part Number	Compatible Meters
	Rigid	Oil	Non-drip, manual open/close	26C267	PM8
			Automatic, non-drip, quick-close	255852	PM8
			Non-drip, quick-close	255857	PM20
	Rigid	Gear lube	Non-drip, quick-close	255854	PM8
	Flexible	Oil	Non-drip, manual open/close	26C268	PM8
			Automatic, non-drip, quick-close	255853	PM8
			Non-drip, quick-close	255858	PM20
	Nozzle Only	Oil/Antifreeze	Non-drip, manual open/close	17T207	PM8
	Nozzle Only	Oil/Antifreeze	Non-drip, quick-close	255461	PM20
	Nozzle Only	Gear lube	Non-drip, quick-close	255470	PM8
	Flexible	Oil/Antifreeze	Extension only, 2 ft length	131733	PM8

Oil Dispense Meters and Control Valves

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

Accessories

Part Number	Description
18F169	Electronic control replacement
273181	Black impact guard for PM8 or PM20
25D906	Replacement inlet screen for oil/gear lube
25U000	Replacement inlet screen for antifreeze
18F174	Valve replacement for oil/gear lube
18F175	Valve replacement for antifreeze
18F170	Replacement gasket seals for electronics



Premium Quality and Performance with Ergonomic Design

Graco's premium SD meters were designed from the ground up to provide the best user experience. These robust meters feature high flow, improved ergonomics and a large high-contrast LCD screen to make viewing dispense amounts easy in all lighting conditions.

Up to
18 gpm
(68 lpm)

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.

Available in Two Models

Manual or preset options. Preset is 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
- Windshield wash

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)
Battery Life***	6 months
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.



Ordering Information

SD Electronic Meters



	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
SDP18	Preset (Pulse FC-enabled)	0.25–18 (1–68)	Oil	Flexible	1/2	26C357
				Flexible	3/4	26C361
				Rigid	3/4	26C360
				Rigid	1/2	26C356
SDM8	Manual	0.25–8 (1–30)	Oil	Flexible	1/2	25M406
				Rigid	1/2	25M404
			Antifreeze	Flexible	1/2	25M407
				Rigid	1/2	25M405
			Gear Lube	Rigid	1/2	25M413
Windshield Wash	Rigid	1/2	25M415			
SDM18	Manual	0.25–18 (1–68)	Oil	Flexible	3/4	25M417
				Rigid	3/4	25M416
				Flexible	1/2	25M411
				Rigid	1/2	25M410

Nozzle and Extension Kits

	Extension	Fluid	Nozzle Description	Part Number	Compatible Meters
	Rigid	Oil	Automatic, non-drip, quick-close	255852	SDM8/SDP8
		Antifreeze	Non-drip, manual open/close	26C267	SDM8/SDP8
		Oil/Antifreeze	High-flow, non-drip, quick-close	255857	SDM18/SDP18
	Rigid	Gear lube	Non-drip, quick-close	255854	SDM8/SDP8
	Flexible	Oil	Automatic, non-drip, quick-close	255853	SDM8/SDP8
		Antifreeze	Non-drip, manual open/close	26C268	SDM8/SDP8
		Oil/Antifreeze	High-flow, non-drip, quick-close	255858	SDM18/SDP18
	Nozzle Only	Oil	Automatic, non-drip, quick-close	17R220	SDM8/SDP8
	Nozzle Only	Gear lube	Non-drip, quick-close	255470	SDM8/SDP8
	Nozzle Only	Oil/Antifreeze	Non-drip, manual open/close	17T207	SDM8/SDP8
	Flexible	Oil/Antifreeze	Extension only, 2 ft length	131733	SDM8/SDP8
	Rigid	Windshield wash	Extension, nozzle	273079	SDM8

Oil Dispense Meters and Control Valves

Ordering Information

Filter Kits for SD Series Meters

	Part Number	Description
	255885	Kit includes filters/strainers, spacers and O-rings

Impact Protection

	Part Number	Description
	131226	Pulse/SD meter boot

Swivel Covers

	Part Number	Description
	15T366	Black
	15T367	Red
	15T368	Blue
	15T369	Green
	15T370	Yellow

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White



High-Flow In-Line Meter

Graco's IM20 in-line meter is weather-rated and shock-resistant, protecting the electronics from intense, high-pressure cleaning and mechanical vibration common in industrial applications.

Up to
20 gpm
(76 lpm)

Easy-to-Read LCD

Simple operator control. Measures in quarts, gallons, pints and liters.

Easy Battery Replacement

Long-lasting, replaceable AAA batteries.



Sealed Electronics

IP69K-rated meter. Electronics are safe from pressure washing and dusty environments.

Tracks Totals in Two Modes

Reset total for a periodic dispense history and non-reset total for the meter's total dispense history.

Typical Applications

- Automotive dealerships
- Service and fast lube centers
- Lube trucks
- Mining
- Heavy-duty dealerships
- Fleet service facilities
- In-plant

Typical Fluids Handled

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

Technical Specifications

Flow Range*	0.25 to 20 gpm (0.95 to 75.7 lpm)
Maximum Working Pressure	1,500 psi (102 bar)
Unit of Measure	Quarts, pints, gallons, liters (factory set to quarts)
Accuracy/Repeatability	±0.5%
Inlet/Outlet	3/4 NPT
Maximum Totalizer	19,999 units
Maximum Recorded Dispense	19,999 units
Operating Temperature Range	-22°F to 180°F (-30°C to 82°C)
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)
Outdoor Use	Yes – IP69K as per DIN 40050-9
Battery	2 (AAA) alkaline or (2) AAA lithium
Wetted Parts	Aluminum, stainless steel, carbon steel, acetal, nitrile rubber, Geolast™
Meter Pressure Loss*	35 psi @ 12 gpm
Dimensions	4.2 in L x 3.4 in W x 3.2 in H (10.7 cm L x 8. cm W x 8.1 cm H)
Weight	1 lb. 4 oz. (0.57 kg)
Warranty	Five years overall, three years electronics
Instruction Manual	3A5588

*Tested in 10W oil at 70°F (21°C). Flow rate varies with fluid pressure, temperature, viscosity, inlet fitting size and nozzle type. Geolast is a registered trademark of Advanced Elastomer Systems.

Ordering Information

Part Number	Description
25C841	IM20 high-flow, high-pressure in-line meter



Robust Electric In-Line Meter for Wired Indoor and Outdoor Applications

The IM20P wired electronic meter delivers precise in-line dispenses for in-plant, industrial and other applications. Its heavy-duty aluminum exterior and sealed electronics protect against corrosion inside or outside the plant. Designed and manufactured by a proven leader in meter technology, it's capable of flow rates up to 20 gpm (75.7 lpm) for optimal performance.

High Flow

Flow rates up to 20 gpm (75.7 lpm) for faster dispense.

Sealed Electronics

Meters are suitable for indoor or outdoor use. IP69K rated.

Rugged Aluminum Body

Remains corrosion free in harsh environments for years of trouble-free service.

Wired Convenience

Easily integrated with PLC (programmable logic controller).

Large Inlet and Outlet Porting

Minimal pressure drop to increase production.



Typical Applications

- Heavy-duty mobile service trucks
- Mining
- In-plant

Typical Fluids Handled

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

Ordering Information

Part Number	Description
133480	IM20P high-flow, high-pressure in-line pulser meter

Technical Specifications

Flow Range*	0.25 gpm to 20 gpm (0.95 lpm to 75.7 lpm)
Maximum Working Pressure	1,500 psi (10 MPa, 102 bar)
Units of Measure	User-defined based on pulse output
Accuracy	+/- 0.5%
Inlet/Outlet	3/4 in NPT
Operating Temperature Range	-22°F to 180°F (-30°C to 82°C)
Storage Temperature Range	-40°F to 185°F (-40°C to 85°C)
Outdoor Use	Yes – IP69K as per DIN 40050-9
Operating Voltage	12–24 VDC
Operating Current	26–51 mA
Wire Connection	2-wire (18 ga) PNP or NPN
Wetted Parts	Aluminum, acetal, nitrile, rubber
Meter Pressure Loss*	35 psi (2.41 bar) @ 12 gpm (45.4 lpm)
Dimensions	5.8 in L x 3.4 in W x 2.9 in H (14.7 cm L x 8.6 cm W x 7.4 cm H)
Weight	1.3 lb (0.59 kg)
Warranty	One year
Instruction Manual	3A8625

*Tested in 10W oil at 70°F. Flow rate varies with fluid pressure, temperature, viscosity, inlet fitting size and nozzle type.



SDI15 In-Line Electronic Meter

Up to
15 gpm
(57 lpm)



Energy Efficient

Powered by two AA alkaline batteries.

Tracks Totals in Two Modes

Reset total for a periodic dispense history and non-reset total for the meter's total dispense history.

Rugged Stainless Steel Body

Remains corrosion free in hard environments for years of trouble-free service.

Large, Easy-to-Read LCD

Simple operator controls and measures in pints, quarts, liters or gallons.

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Antifreeze
- Windshield washer fluid
- Diesel exhaust fluid

Technical Specifications

Flow Range*	0.5 gpm to 15 gpm (1.9 lpm to 57 lpm)
Maximum Working Pressure	1,500 psi (103 bar)
Units of Measure	Quarts, pints, gallons, liters (factory-set to quarts)
Accuracy	± 0.5%
Inlet/Outlet	1/2 NPT
Maximum Totalizer	99,999
Maximum Recorded Dispense	999.99
Operating Temperature Range	-4°F to 122°F (-20°C to 50°C)
Storage Temperature Range	-13°F to 122°F (-25°C to 50°C)
Outdoor Use	No
Battery	2AA alkaline
Wetted Parts	Nitrile rubber, SST and Geolast
Meter Pressure Loss*	22 psi (1.5 bar) @ 14 gpm (53 lpm)
Dimensions	5 in L x 3 in W x 2.75 in H (12.7 cm L x 7.6 cm W x 7 cm H)
Weight	1.8 lb (0.8 kg)
Warranty	Seven years overall, three years electronics
Instruction Manual	313048

*Tested in 10W oil at 70°F. Flow rates vary with fluid pressure, temperature and viscosity.

Ordering Information

Meters

Part Number	Description
247453	SDI15 medium/high pressure – medium-/high-flow in-line meter for petroleum- and synthetic-based oils, antifreeze and windshield washer fluid
246738	SDI15 medium/high pressure – medium-/high-flow in-line meter for diesel exhaust fluid applications (BSPF)

Accessories

	Part Number	Description
	108458	Shutoff ball valve 1/2 NPT(F)
	223179	Strainer kit 1/2 NPT(F) 1/2 NPT(M)



Accurate Dispensing for a Wide Variety of Vehicle or Machine Service Applications

Ideal for indoor or outdoor use in all size shops.

Up to
8 gpm
(30.2 lpm)



Impact-Resistant Shroud

Resists scratches and protects knob and dial from damage.

Simple, Easy Design

Dial and face design is easy to read and set.

Fluid Swivel

1/2 inch fluid inlet.

Fluid Extension Kits

Choose from rigid or flexible with automatic thermal compensating nozzle.

Built-In Totalizer

Helps manage material usage.

Durable Cast Housing

Durable aluminum body is balanced and lightweight with comfortable grip.

Oil Dispense Meters and Control Valves

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)
- Antifreeze

Technical Specifications


Flow Range*	0.28 gpm (1.0 lpm) to 8 gpm (30.2 lpm)
Maximum Working Pressure	1,500 psi (103 bar)
Units of Measure	Quarts, gallons, liters
Accuracy	± 1%
Inlet	1/2 in NPT
Outlet	3/4-16 straight thread O-ring boss
Maximum Totalizer	99,999 units
Maximum Recorded Dispense	60 gallons
Operating Temperature Range	-50°F to 160°F (-45°C to 70°C)
Outdoor Use	Yes
Wetted Parts	Brass, aluminum, SST, TPE
Meter Pressure Loss*	30 psi (2.1 bar) @ 4 gpm (15 lpm)
Dimensions	11.5 in L x 5 in W x 6.3 in H (29.2 cm L x 12.7 cm W x 16 cm H)
Weight	3.5 lb (1.6 kg)
Warranty	Five years
Instruction Manual	333492

*Tested with 10W motor oil. Minimum/maximum flow rates will vary with fluid viscosity.






Ordering Information

Manual Meters


	Extension	Model Description	Part Number
	Bare	4/16 Liter	24U956
		4/16 Quart	24U959

Manual Meter Packages

	Extension	Model Description	Part Number	Replacement Nozzle/Extension Kit
	Flexible	4/16 Liter	24V043	255853
		4/16 Quart	24V034	255853
	Rigid	4/16 Liter	24V046	255852
		4/16 Quart	24V037	255852
	Gear Lube	4/16 Liter	24V049	255854
		4/16 Quart	24V040	255854

Oil Dispense Meters and Control Valves

Preset Meters








	Extension	Model Description	Part Number
	Bare	60 Gallon	24U950
		60 Liter	24U953
60 Quart		24U947	

Ordering Information


Preset Meter Packages

	Extension	Model Description	Part Number	Package Includes
				Nozzle Extension
	Flexible	60 Gallon	24Z129	255853
		60 Liter	24Z132	255853
		60 Quart	24Z126	255853
	Rigid	60 Gallon	24Z128	255852
		60 Liter	24Z131	255852
		60 Quart	24Z125	255852
	Short Rigid	60 Gallon	24V055	24W641
		60 Liter	24V058	24W641
		60 Quart	24V052	24W641
	Gear Lube	60 Gallon	24Z130	255854
		60 Liter	24Z133	255854
		60 Quart	24Z127	255854

Nozzle Extensions

	Fluid	Extension	Compatible Meter	Part Number
	Oil	Flexible	Manual	255853
		Rigid	Manual	255852
		Short Rigid	Preset	24W641
	Antifreeze	Flexible	Manual/Preset	24W306
		Rigid	Manual/Preset	255855
	Oil/Antifreeze	Flexible (extension only – 2 ft)	Manual/Preset	131733
	Gear lube	Rigid	Manual	255854

Accessories

	Part Number	Description
	256164	Strainer filter kit, 10-pack

Oil Dispense Meters and Control Valves



Up to
15 gpm
(76 lpm)

For Standard and Heavier-Duty Applications

Designed to perform in larger dealerships, fleet maintenance shops, municipal garages and higher-volume in-plant applications with longer plumbing runs and larger fluid usage.

Fluid Extension Kits

Choose from rigid or flexible extensions.

Lock-On/Lock-Off Trigger

For hands-free operation.

Sturdy Cast Body

Designed for use in tough environments.

Fluid Swivel

1/2 inch fluid inlet.



Typical Applications

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

Typical Fluids Handled

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






Technical Specifications

Flow Range*	15 gpm (56.8 lpm)
Maximum Working Pressure	1,500 psi (103 bar)
Inlet	1/2 in NPT
Outlet	3/4-16 straight thread O-ring boss
Operating Temperature Range	-40°F to 180°F (-40°C to 82°C)
Outdoor Use	Yes
Wetted Parts	Aluminum, SST, CS, acetal, nitrile rubber, tpe
Dimensions	12 in L x 8.4 in W x 2.4 in H (30.5 cm L x 21.3 cm W x 6.1 cm H)
Weight	0.4 lb (0.18 kg)
Warranty	Seven years
Instruction Manual	312789


*Tested in 10W oil at 70°F. Flow rates vary with fluid pressure, temperature, viscosity, inlet fitting and nozzle type.

Ordering Information

SDV15 Control Valve





	Fluid	Extension	Inlet in (mm)	Part Number
	Oil	Rigid	1/2 (13)	247712
		Flexible		247713
	Antifreeze	Rigid		247715
		Flexible		247716
	Gear	Gear		247714

SDV15 Bare Control Valve



	Inlet in (mm)	Part Number
	1/2 (13)	247717

Quick Close Nozzle


Extension sold separately.

	Fluid	Part Number
	Oil	17R220
	Antifreeze	255460
	Gear lube	255470
	Oil/Antifreeze (high-flow)	255461

High Flow Nozzles with Extension

	Extension	Part Number
	Rigid	255857
	Flexible	255858

Filter Kit

	Description	Part Number
	Strainer filter kit	256164



For Standard and Heavier-Duty Applications

Designed to perform in larger dealerships, fleet maintenance shops, municipal garages and higher-volume in-plant applications with longer plumbing runs and larger fluid usage.

Up to
20 gpm
(76 lpm)

Fluid Extension Kits

Choose from rigid or flexible extensions with automatic flush-mount nozzle design that re-seats after each dispense to prevent dirt contamination.

Lock-On/Lock-Off Trigger

For hands-free operation.

Sturdy Cast Body

Designed for use in tough environments.

1/2 and 3/4 Inch Inlet with Swivel Options

Meets standard and high flow requirements.



Typical Applications

- High-flow, non-metered oil dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

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

Technical Specifications

Flow Range*	Up to 20 gpm (75.7 lpm)
Maximum Working Pressure	1,500 psi (103 bar)
Inlet	1/2 in or 3/4 in NPT
Outlet	7/8-14 straight thread O-ring boss
Operating Temperature Range	-40°F to 180°F (-40°C to 82°C)
Outdoor Use	Yes
Wetted Parts	Aluminum, SST, CS, acetal, nitrile rubber, Geolast
Dimensions	12 in L x 8.4 in W x 2.4 in H (30.5 cm L x 21.3 cm W x 6.1 cm H)
Weight	0.4 lb (0.18 kg)
Warranty	Seven years
Instruction Manual	308642

*Tested in 10W oil at 70°F. Flow rates vary with fluid pressure, temperature, viscosity, inlet fitting and nozzle type.



XDV20 Control Valve




Ordering Information

XDV20 Control Valve




Includes high flow, quick-close nozzle.

	Extension	Inlet in (mm)	Part Number
	Rigid	1/2 (13)	247718
		3/4 (19)	247722
	Flexible	1/2 (13)	247721
		3/4 (19)	247723

XDV20 Bare Control Valve

	Inlet in (mm)	Part Number
	1/2 (13)	247724
	3/4 (19)	247725


Accessories

	Part Number	Description
	255793	Quick-close high-flow nozzle for oil, ATF and antifreeze
	255859	Flexible extension with quick-close nozzle (255793)
	255921	Rigid extension with quick-close nozzle (255793)

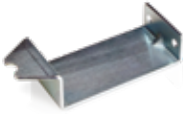




Ordering Information

Lubricant Dispense Consoles

Includes upper and lower plates with roller guides and brackets. Hoses not included.

	Part Number	Description	Package Includes	
			Dispense Valve Brackets (qty)	Water Bib Brackets (qty)
	222629	Six-station console	196471 (5)	110236 (1)
	223448	Four-station console	196471 (3)	110236 (1)
	222645	Single add-on fluid module	196471 (1)	—


Lubricant Dispense Consoles Accessories

	Part Number	Description
	110236	Water bib bracket
	110237	Dispense valve bracket for XD meters
	110285	Pistol-grip dispense valve bracket
	196471	Dispense valve bracket for LDP5, EM8 and EM20 meters
	249440	Dispense valve bracket for SD/Matrix meters



Dispense Consoles

Ordering Information

Oil Dispense Bar

	Part Number	Description
	220107	Modular oil dispense bar supports up to 3 dispense taps (1 included) and optional meters. Add up to two additional dispense valves with tap kit 220112.

Accessories for Oil Dispense Bar

	Part Number	Description
	220112	Dispenser valve kit for adding dispense valves to modular oil dispense bar.
	239706	Meter kit for adding IM5 electronic totalizing meter to dispense valve. Reads in gallons, quarts, pints and liters.

GREASE PUMPS

	Page
Grease Pump Selection Guide	114-115
LD Series™ Grease Pumps	116-120
LD Series™ Grease Pump Accessories	121-122
Mini Fire-Ball® 225 Grease Pumps	123-126
Fire-Ball® 300 Grease Pumps	127-134
Fire-Ball® 425 Grease Pumps	135-141
Grease Pump Accessories	142-145
GT 750 36:1 Grease Pumps	146-147
NXT™ Check-Mate® Grease Pumps	148-152
Dyna-Star® Hydraulic Grease Pumps	153-154
Viscount® II Grease Pumps	155-156
Manually-Operated Grease Pumps	157



GRACO
Mini
Fire-Ball 225
AIR-POWERED PUMP







PART NO.	246781	SERIES	Made in U.S.A.
SERIAL	K01465	A17D	
MAX AIR WPR			
1.8 MPA	10 bar	140 psi	
MAX FLUID WPR			
38 MPA	550 bar	8400 psi	




GRACO Inc.
P.O. Box 1461
Mishawaka, IN 46545-1461 U.S.A.
ARTWORK NO. 092967 REV. C

Grease Pump Selection Guide

Pump Family and Fluid Pressure Ratio	Typical Applications	Annual Usage	Line Length	Simultaneous Dispense Points	Approx. Free Flow Rate @ 100 psi	Air Inlet	Fluid Outlet	Air Operation Range	Reference Page
LD, 50:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Lube trucks Lubricant transfer Service shops 	Up to 7,000 lbs (3,175 kg)	Up to 100 (30.5 m)	1	4.5 lbs/min (2 kg/min)	1/4 in NPT(F)	1/4 in NPT(F)	20-150 psi (1.37-10.3 bar)	116-122
Mini Fire-Ball 225, 50:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	Up to 10,000 lbs (4,535 kg)	Up to 100 (30.5 m)	1	1.5 lbs/min (0.7 kg/min)	3/8 in NPT(F)	1/4 in NPT(F)	40-140 psi (2.8-10 bar)	123-126 141-144
Fire-Ball 300, 15:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	Up to 10,000 lbs (4,535 kg)	Up to 250 ft (76 m)	1-2	7.5 lbs/min (3.4 kg/min)	3/8 in NPT(F)	1/4 in NPT(F)	40-180 psi (2.8-12.5 bar)	127-129 141-144
Fire-Ball 300, 50:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	Up to 10,000 lbs (4,535 kg)	Up to 250 ft (76 m)	1-2	7.5 lbs/min (3.4 kg/min)	3/8 in NPT(F)	1/4 in NPT(F)	30-140 psi (2.1-9.7 bar)	127-138 130-134 141-144
Fireball 425, 10:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	> 20,000 lbs (9,072 kg)	Up to 500 ft (152 m)	4 or more	29 lbs/min (13.1 kg/min)	1/2 in NPT(F)	1 in NPT(F)	40-180 psi (2.8-12.5 bar)	135-136 142-144
Fire-Ball 425, 50:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	> 20,000 lbs (9,072 kg)	Up to 250 ft (76 m)	4 or more	9 lbs/min (4.1 kg/min)	1/2 in NPT(F)	3/8 in NPT(F)	40-150 psi (2.8-10.3 bar)	135-137 139-145
Fire-Ball 425, 75:1 	<ul style="list-style-type: none"> Automotive dealerships Fast lube centers Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	> 20,000 lbs (9,072 kg)	Up to 500 ft (152 m)	4 or more	6.5 lbs/min (2.9 kg/min)	1/2 in NPT(F)	3/8 in NPT(F)	40-100 psi (2.8-7 bar)	134-136 138-145
GT 750, 36:1 	<ul style="list-style-type: none"> Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Mining 	> 20,000 lbs (9,072 kg)	Up to 250 ft (76 m)	4 or more	32 lbs/min (14.5 kg/min)	1/2 in NPT(F)	1 in NPT(F)	40-100 psi (2.8-7 bar)	146-147

Grease Pump Selection Guide

Pump Family and Fluid Pressure Ratio	Typical Applications	Annual Usage	Air Inlet	Fluid Outlet	Air Operation Range	Reference Page
 Check-Mate 14:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 in NPT(F)	1-1/2 in NPT(M)	0-100 psi (0-7 bar)	148-149 151-152
 Check-Mate 26:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 NPT(F)	1-1/2 in NPT(M)	0-100 psi (0-7 bar)	148-149 152
 Check-Mate 29:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 NPT(F)	1 in NPT(F)	0-100 psi (0-7 bar)	148-149 152
 Check-Mate 55:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 NPT(F)	1 in NPT(F)	0-100 psi (0-7 bar)	148 150-152
 Check-Mate 63:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 NPT(F)	3/4 in NPT(M)	0-72 psi (0-4.9 bar)	148 150-152
 Check-Mate 68:1	<ul style="list-style-type: none"> Fleet service facilities In-plant large runs Large volume lubricant transfer Mining remote fill 	> 20,000 lbs (9,072 kg)	3/4 NPT(F)	1 in NPT(F)	0-78 psi (0-5.4 bar)	148 150-152

Pump Family and Fluid Pressure Ratio	Typical Applications	Maximum Grease Output Flow Rate	Maximum Grease Output Pressure	Hydraulic Inlet (Supply)	Hydraulic Outlet (Return)	Grease Outlet	Maximum Hydraulic Inlet Pressure	Reference Page
 Dyna-Star 5:1	<ul style="list-style-type: none"> Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	4 lb/min (1.8 kg/min)	7,500 psi (517 bar)	3/8 in NPT(F)	3/4 in NPT(F)	1/2 in NPT(F)	1,500 psi (102 bar)	153-154
 Dyna-Star 10:1	<ul style="list-style-type: none"> Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	1.1 lb/min (0.5 kg/min)	7,500 psi (517 bar)	3/4 in -16 JIC (37° Flare)	3/4 in NPT(F)	1/2 in NPT(F)	600 psi (41 bar)	153-154
 Viscount II 2.4:1	<ul style="list-style-type: none"> Fleet service facilities Heavy-duty dealerships In-plant Lube trucks Lubricant transfer Mining Service shops 	54 lb/min (20.4 kg/min)	2,300 psi (159 bar)	3/4 in NPT(F)	1 in NPT(F)	1-1/2 in NPT(F)	1,500 psi (102 bar)	155-156



**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 (up to 7,000 lb/year) 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.

Grease Pumps and Packages

Typical Applications

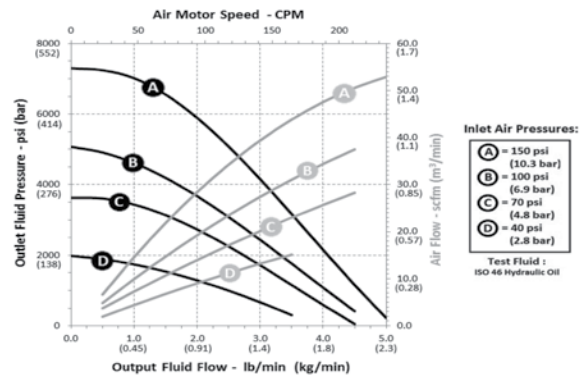
- Automotive dealerships
- Fast lube centers
- Service shops
- Lube trucks

Typical Fluids Handled

- Grease up to NLGI #2

Pump Performance

LD Series 50:1 Pumps





Technical Specifications

Fluid Pressure Ratio	50:1
Air Motor Effective Diameter	3 in (76.2 mm)
Annual Usage	Up to 7,000 lb (3,175 kg)
Maximum Fluid Working Pressure	7,500 psi (517 bar / 51.7 MPa)
Approximate Free Flow Rate @ 100 psi	4.5 lb/min (2 kg/min)
Output per Cycle	0.34 oz (9.7 g)
Approximate Air Use and Flow @ 100 psi (80 cpm)	16 @ 1.7 lb/min (0.45 @ 0.77 kg/min)
Air Inlet	1/4 in NPT(F)
Fluid Outlet	1/4 in NPT(F)
Air Operation Range	20 psi to 150 psi (1.37 bar to 10.3 bar)
Max Recommended Pump Speed	120 cpm
Cycles per Pound (Kg)	47 cpp (103 cpk)
Wetted Parts	Steel, brass, nitrile rubber, polyurethane, UHMWPE, acetal
Sound Pressure Level	72.9 dB(A)
Sound Power Level	82 dB(A)
Approximate Weight	35 lb drum – 11.2 lb (5.1 kg) 120 lb drum – 15.0 lb (6.8 kg) 400 lb drum – 17.0 lb (7.7 kg)
Instruction Manual	3A1334

Ordering Information

LD Series 50:1 Pumps

Part Number	Description
24G600	For 35 lb (16 kg) pail
24G603	For 120 lb (55 kg) drum
24G606	For 400 lb (180 kg) drum

Ordering Information

35 lb Grease Packages



Package Number	24J030	26C169	25C549
Ratio	50:1	50:1	50:1
Type of Package	Stationary	Stationary	Mobile
Container Size	35 lb (16 kg)	35 lb (16 kg)	35 lb (16 kg)
Pump Part Number	24G600	24G600	24G600
Hose Kit	24H862	–	24H862
Hose Sizes	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease – Whip 1/8 in x 1/8 in x 30 in (0.8 m) Grease 1/4 in x 3/8 in x 20 ft (6.1 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)
Follower Plate	24F901	24F901	24F901
Drum Cover	24F904	24F904	24F904
Grease Valve	129581	129581	129581
Z-Swivel	129591	129591	129591
Fitting(s)	–	157705	–
Air Regulator	–	24H420	–
Air Filter	–	106148	–
Portable Base	–	–	131183
Instruction Manual	3A1335	3A1335	3A1335

Ordering Information

120 lb Grease Packages



Package Number	24J036	26C170	25C548	24J048	24J060	25N618
Ratio	50:1	50:1	50:1	50:1	50:1	50:1
Type of Package	Stationary	Stationary	Mobile	Mobile	Mobile	Mobile
Container Size	120 lb (54 kg)	120 lb (54 kg)	120 lb (54 kg)	120 lb (54 kg)	120 lb (54 kg)	120 lb (54 kg)
Pump Part Number	24G603	24G603	24G603	24G603	24G603	24G603
Hose Kit	24H862	–	24H862	24H862	24J501	–
Hose Sizes	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease – Whip 1/8 in x 1/8 in x 30 in (0.8 m) Grease 1/4 in x 3/8 in x 20 ft (6.1 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease 1/4 in ID x 12 ft (3.7 m)
Follower Plate	24F902	24F902	24F902	24F902	24F902	24F902
Drum Cover	24F905	24F905	24F905	24F905	24F905	24F905
Grease Valve	129581	129581	129581	129581	129581	129581
Z-Swivel	129591	129591	129591	129591	129591	129591
Fitting(s)	–	157705	–	–	–	165198 / 169970
Air Regulator	–	24H420	–	–	–	24H420
Air Filter	–	106148	–	–	–	–
Portable Base	–	–	131184	24H422	24H422	131184
Hose Reel	–	–	–	–	LD	–
Hose Size	–	–	–	–	1/4 in x 35 ft	–
Hose Reel Part Number	–	–	–	–	24H663	–
Instruction Manual	3A1335	3A1335	3A1335	3A1335	3A1335	3A1335

Ordering Information

400 lb Grease Packages



Package Number	24J042	26C171	24J054	24J066
Ratio	50:1	50:1	50:1	50:1
Type of Package	Stationary	Stationary	Mobile	Mobile
Container Size	400 lb (180 kg)	400 lb (180 kg)	400 lb (180 kg)	400 lb (180 kg)
Pump Part Number	24G606	24G606	24G606	24G606
Hose Kit	24H862	–	24H862	24J501
Hose Sizes	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease – Whip 1/8 in x 1/8 in x 30 in (0.8 m) Grease 1/4 in x 3/8 in x 20 ft (6.1 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)	Grease 1/4 in ID x 6 ft (1.8 m) Air/Water 3/8 in ID x 6 ft (1.8 m)
Follower Plate	24F903	24F902	24F903	24F903
Drum Cover	24F906	24F905	24F906	24F906
Grease Valve	129581	129581	129581	129581
Z-Swivel	129591	129591	129591	129591
Fitting(s)	–	157705	–	–
Air Regulator	–	24H420	–	–
Air Filter	–	106148	–	–
Type of Reel	–	–	–	LD
Reel Size	–	–	–	1/4 in x 35 ft
Reel Part Number	–	–	–	24H663
Portable Base	–	–	24F915	24F915
Instruction Manual	3A1335	3A1335	3A1335	3A1335

LD Pro-Shot™ Non-Metered Grease Valves



- Rugged design for harsh environments
- Pressure-assisted trigger for ease of operation
- Easy adjustment with top locking nut
- 6 in steel extension with heavy-duty coupler

Technical Specifications

Pressure	7,500 psi (517 bar / 51.7 MPa)
Wetted Parts	Steel, nitrile rubber, PTFE
Inlet Size	1/4 in

Ordering Information

Part Number	Description
129581	LD Pro Shot Grease Valve, 1/4 in NPT

LD Z-Swivel



- Swivels to prevent twist damage to hoses
- Constructed of heavy-duty steel and ball bearings for smooth and unrestricted movement

Technical Specifications


Pressure	6,000 psi (413 bar / 41.3 MPa)
Inlet Size	1/4 in

Ordering Information



Part Number	Description
129591	Z-swivel, 1/4 in NPT

Ordering Information


Adjustable Bung Adapter

	Part Number	Description
	24P623	Adjustable bung adapter for LD pumps


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
	24H422	Drum cart with pneumatic wheels for 120 lb drums; includes chain for securing drum to cart
	24F915	Drum cart with pneumatic wheels for 400 lb drums; includes chain for securing drum to cart


Drum Covers

	Part Number	Description
	24F904	Cover for 35 lb (16 kg) pails
	24F905	Cover for open-head 120 lb (54 kg) drums
	24F906	Cover for open-head 400 lb (182 kg) drums



LD Drum Dollies

	Part Number	Description
	131183	Drum Dolly, 35 lb (16 kg)
	131184	Drum Dolly, 120 lb (54 kg)
	129645	Drum Dolly, 400 lb (182 kg)

Follower Plates

	Part Number	Description
	24F901	Follower plate for 35 lb (16 kg) pails
	24F902	Follower plate for 120 lb (54 kg) drums
	24F903	Follower plate for 400 lb (182 kg) drums

Hose and Fitting Kits

	Part Number	Description	Includes				
			Grease Hose	Grease Hose Size	Air Hose	Air Hose Size	Fitting
	24H862	6 ft LD grease pump hose kit	24H606	1/4 in NPT(M) x 1/4 in NPT(M) x 6 ft	24H858	3/8 in x 6 ft	156823
	24J501	6 ft LD grease pump hose kit	24J487	1/4 in NPT(M) x 1/4 in NPT(M) (with 90° swivel) x 6 ft	24H858	3/8 in x 6 ft	156823



**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

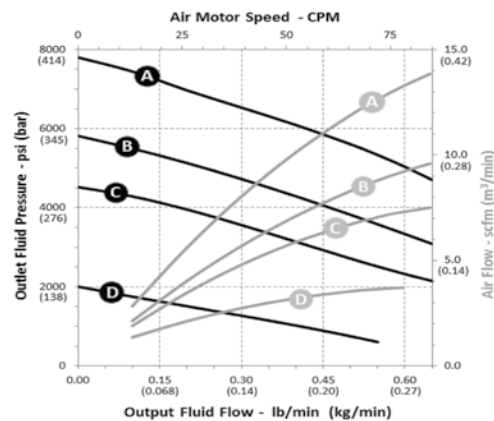
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Grease up to NLGI #2

Pump Performance

Mini Fire-Ball 225 Pumps



Inlet Air Pressures:
 (A) = 140 psi (9.7 bar)
 (B) = 100 psi (6.9 bar)
 (C) = 80 psi (5.5 bar)
 (D) = 40 psi (2.8 bar)

Test Fluid : NLGI #2 Grease



Technical Specifications

Fluid Pressure Ratio	50:1
Air Motor Effective Diameter	2.25 in (57.2 mm)
Annual Usage	Up to 10,000 lb (4,535 kg)
Maximum Fluid Working Pressure	8,400 psi (578 bar / 57.8 MPa)
Approximate Free Flow Rate @ 100 psi	1.5 lb/min (0.7 kg/min)
Output per Cycle	0.12 oz (3.5 g)
Continuous Duty Flow Rate	0.32 lb/min (0.15 kg/min)
Approximate Air Use and Flow @ 100 psi (80 cpm)	9.3 @ 0.62 lb/min (0.26 @ 0.28 kg/min)
Air Inlet	3/8 in NPT(F)
Fluid Outlet	1/4 in NPT(F)
Air Operation Range	40 psi to 140 psi (3 bar to 10 bar)
Max Recommended Pump Speed	100 cpm
Cycles per Pound (Kg)	130 cpp (287 cpk)
Wetted Parts	Carbon steel, zinc plating, brass, polyurethane, ultra-high molecular weight polyethylene, Buna-N
Sound Pressure Level	77.8 dB(A)
Sound Power Level	85.6 dB(A)
Approximate Weight	15 lb (6.8 kg)
Instruction Manual	309966

Ordering Information

Mini Fire-Ball 50:1 Pumps

Part Number	Description
246909	For 35 lb (16 kg) pail
253361	For 35 lb (16 kg) pail, without handle
246780	For 120 lb (55 kg) drum
246781	For 400 lb (180 kg) drum



Ordering Information

35 lb and 50 lb Grease Packages



Package Number	246910*	246911*	246913*
Ratio	50:1	50:1	50:1
Type of Package	Portable pail dispenser	Stationary pail dispenser	Cart-mounted pail dispenser
Container Size	35 lb to 50 lb (16 kg to 23 kg)	35 lb to 50 lb (16 kg to 23 kg)	35 lb to 50 lb (16 kg to 23 kg)
Container	—	204134	204134
Pump Part Number	246909	246909	246909
Fluid Hose Size	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft
Dispense Hose Kit	236058	236058	236058
Dispense Kit Includes	12 ft Hose	109151	109151
	Air Coupler	114558	114558
	Air Fitting	169971	169971
	Z-Swivel	202577	202577
	Pro-Shot Valve	242056	242056
Follower Plate	24F901	**	**
Drum Cover	222059	24R350	24R350
Portable Base	—	—	203650
Instruction Manual	309967	309967	309967

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

**Order follower plate (220653) separately for 35 lb (16 kg) pails or (220654) for 70 lb (32 kg) bulk.



246911

Ordering Information

120 lb and 400 lb Grease Packages



Package Number	246914*	246915*	246916*	246917*
Ratio	50:1	50:1	50:1	50:1
Type of Package	Stationary supply package	Portable package with caster base	Portable package with 2-wheel cart	Stationary supply package
Container Size	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)	400 lb (180 kg)
Pump Part Number	246780	246780	246780	246781
Fluid Hose Size	1/4 in x 6 ft	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 6 ft
Dispense Hose Kit	222072	236058	236058	222072
Dispense Kit Includes	12 ft Hose	–	109151	–
	6 ft Hose	109150	–	–
	6 ft Coupled Hose	203320	–	–
	Air Coupler	–	114558	114558
	Air Fitting	–	169971	169971
	Z-Swivel	–	202577	202577
	90° Fitting(s)	155494 / 155541	–	–
	Pro-Shot Valve	–	242056	242056
Follower Plate	24F902	24F902	24F902	24F903
Drum Cover	24R350	24R350	24R350	200326
Portable Base	–	203622	203650	–
Instruction Manual	309967	309967	309967	309967

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

**7 Year
Warranty!**

Ideal for Shops with Grease Transfer

Install the Fire-Ball 300 in grease dispense applications. A differential air motor ensures smooth the double-acting pump design provides reliable grease flow and accurate dispense.



Durable

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

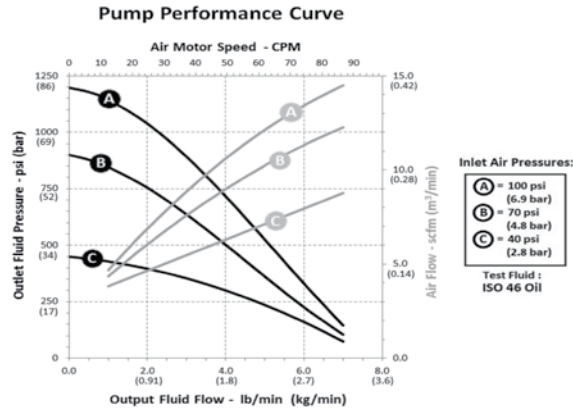
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

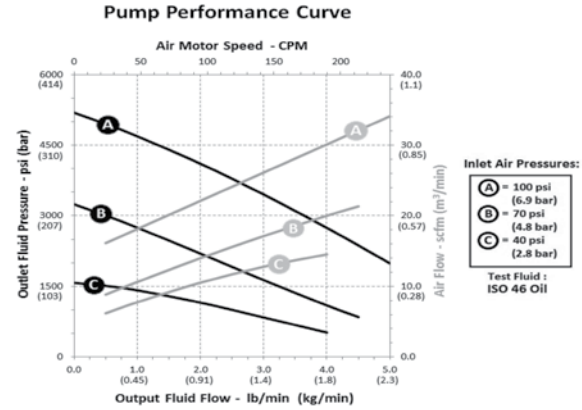
- Grease up to NLGI #2

Pump Performance

Fire-Ball 300 15:1 Pumps



Fire-Ball 300 50:1 Pumps



Technical Specifications

	Fire-Ball 300 15:1	Fire-Ball 300 50:1
Fluid Pressure Ratio	15:1	50:1
Air Motor Effective Diameter	3 in (76.2 mm)	3 in (76.2 mm)
Annual Usage	Up to 10,000 lb (4,535 kg)	Up to 10,000 lb (4,535 kg)
Maximum Fluid Working Pressure	2,700 psi (186 bar / 18.6 MPa)	8,400 psi (579 bar / 57.9 MPa)
Approximate Free Flow Rate @ 100 psi	7.5 lb/min (3.4 kg/min)	7.5 lb/min (3.4 kg/min)
Output per Cycle	1.29 oz (36.6 g)	0.34 oz (9.5 g)
Continuous Duty Flow Rate	0.7 lb/min (0.32 kg/min)	1.19 lb/min (0.54 kg/min)
Approximate Air Use and Flow @ 100 psi (80 cpm)	14 @ 6.5 lb/min (0.40 @ 2.9 kg/min)	21 @ 1.7 lb/min (0.59 @ 0.77 kg/min)
Air Inlet	3/8 in NPT(F)	3/8 in NPT(F)
Fluid Outlet	1/4 in NPT(F)	1/4 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12.5 bar)	30 psi to 140 psi (3.0 bar to 9.7 bar)
Max Recommended Pump Speed	66 cpm	76 cpm
Cycles per Pound (Kg)	12.4 cpp (27 cpk)	47.4 cpp (105 cpk)
Wetted Parts	Carbon steel, brass, copper, aluminum, PTFE, nitrile rubber, leather	Steel, brass, aluminum, acetal, nitrile rubber, polyurethane
Sound Pressure Level	77.8 dB(A)	77.8 dB(A)
Sound Power Level	85.6 dB(A)	85.6 dB(A)
Approximate Weight	22 lb (10 kg)	22 lb (10 kg)
Instruction Manual	306531	308883

Ordering Information

Fire-Ball 300 Grease Pumps

Part Number	Ratio	Description
206405	15:1	For 35 lb (16 kg) pail
206699	15:1	For 120 lb (55 kg) drum
206700	15:1	For 400 lb (180 kg) drum
239877	50:1	For 35 lb or 70 lb (16 kg or 32 kg) pail
239887	50:1	For 120 lb (55 kg) drum
239888	50:1	For 400 lb (180 kg) drum

Ordering Information

15:1 Grease Pump Packages



Package Number	222078	220170	220171	
Type of Package	Stationary Pail Dispenser	Stationary Drum Dispenser	Cover-Mounted Drum Dispenser	
Ratio	15:1	15:1	15:1	
Container Size	35 lb (16 kg)	120 lb (55 kg)	400 lb (180 kg)	
Pump Part Number	206405	206699	206700	
Dispense Kit	222080	222081	222081	
Dispense Kit Includes	Fluid Hose	1/4 in x 15 ft	1/4 in x 25 ft	1/4 in x 25 ft
	Hose Part Number	109165	109167	109167
	Air Coupler	110198	110198	110198
	Air Fitting	–	169971	169971
	Closed Nipple	156849	156849	156849
	Z-Swivel	202577	202577	202577
	Fitting(s)	169971	–	–
	Dispenser	Pro-Shot	Pro-Shot	Pro-Shot
	Dispenser Part Number	242056	242056	242056
	Air Regulator	110234	110234	110234
	Air Pressure Gauge	100960	100960	100960
Drum Cover	222058	204574	200326	
Instruction Manual	307882	307882	307882	

Ordering Information

50:1 25 to 50 lb Grease Pump Packages



Package Number	222069*	245694*	225827*	225773*	245695*	226012*
Type of Package	Portable pail dispenser	Portable pail dispenser	Stationary pail dispenser	Cart-mounted pail dispenser	Cart-mounted pail dispenser	Cart-mounted pail topper
Ratio	50:1	50:1	50:1	50:1	50:1	50:1
Container Size	25 lb to 50 lb (11 kb to 23 kg)	25 lb to 50 lb (11 kb to 23 kg)	35 lb to 50 lb (16 kg to 23 kg)	35 lb to 50 lb (16 kg to 23 kg)	35 lb to 50 lb (16 kg to 23 kg)	50 lb (23 kg)
Pump Part Number	239877	239877	239877	239877	239877	239877
Dispense Kit	222070	245697	222070	222070	245697	222070
Dispense Kit Includes	Fluid Hose	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft
	Hose Part Number	109151	109151	109151	109151	109151
	Air Coupler	114558	114558	114558	114558	114558
	Air Fitting	169971	169971	169971	169971	169971
	Z-Swivel	202577	202577	202577	202577	202577
	Dispenser	Pro-Shot	Accu-Shot	Pro-Shot	Pro-Shot	Accu-Shot
Dispenser Part Number	242056	233807	242056	242056	233807	242056
Follower Plate	24F901	220653	**	**	**	-
Drum Cover	222059	222059	24R350	24R350	204574	-
Holster	-	-	203976	203976	203976	203976
Container	-	-	204134	204134	204134	-
Portable Base	-	-	-	203650	203650	203650
Elevator	-	-	-	-	-	203664
Inductor Plate	-	-	-	-	-	204351
Instruction Manual	307878	307878	307878	307878	307878	307878

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

**Order follower plate 220654 separately, if needed.



Ordering Information

50:1 120 lb Grease Pump Packages



Package Number	225006*	225026*	26C185*	26C186*	245696*	222245*
Type of Package	Portable with caster base	Portable with 2-wheel cart	Portable with caster base	Portable with 2-wheel cart	Portable with 2-wheel cart	Portable with heavy duty cart
Ratio	50:1	50:1	50:1	50:1	50:1	50:1
Container Size	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)
Pump Part Number	239887	239887	239887	239887	239887	239887
Dispense Kits	222070	222070	26C183	26C183	245697	222383
Dispense Kit Includes	Fluid Hose	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 12 ft	1/4 in x 25 ft
	Hose Part Number	109151	109151	109151	109151	109154
	6 ft Coupled Hose	-	-	-	-	-
	Air Coupler	114558	114558	114558	114558	114558
	Air Fitting	169971	169971	169971	169971	169971
	Z-swivel	202577	202577	202577	202577	202577
	Fitting(s)	-	-	-	-	-
	Dispenser	Pro-Shot	Pro-Shot	Pro-Shot	Pro-Shot	Accu-Shot
Dispenser Part Number	242056	242056	26C184	26C184	233807	242056
Fluid Hose Size	See kit above	See kit above	See kit above	See kit above	See kit above	See kit above
Air Hose Size	-	-	-	-	-	-
Meter	See kit above	See kit above	See kit above	See kit above	See kit above	See kit above
Meter Part Number	See kit above	See kit above	See kit above	See kit above	See kit above	See kit above
Follower Plate	24F902	24F902	24F902	24F902	220654	24F902
Drum Cover	24R350	24R350	24R350	24R350	204574	222060
Holster	203976	203976	203976	203976	203976	-
Portable Base	203622	203650	203622	203650	203650	222243
Elevator	-	-	-	-	-	-
Pump Support	-	-	-	-	-	-
Hold Down Kit	-	-	-	-	-	222061
Instruction Manual	307878	307878	307878	307878	307878	307878

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

Grease Pumps and Packages

Ordering Information

50:1 120 lb Grease Pump Packages (Cont.)



Package Number	225014*	222073*	
Type of Package	Stationary supply	Stationary supply topper-inductor	
Ratio	50:1	50:1	
Container Size	120 lb (55 kg)	120 lb (55 kg)	
Pump Part Number	239887	239887	
Dispense Kits	222072	–	
Dispense Kit Includes	Fluid Hose	1/4 in x 6 ft	–
	Hose Part Number	109150	–
	6 ft Coupled Hose	203320	–
	Air Coupler	–	–
	Air Fitting	–	–
	Z-swivel	–	–
	Fitting(s)	155494/155541	–
	Dispenser	–	–
	Dispenser Part Number	–	–
Fluid Hose Size	See kit above	–	
Air Hose Size	See kit above	–	
Follower Plate	24F902	–	
Drum Cover	24R350	–	
Holster	–	–	
Portable Base	–	–	
Elevator	–	204121	
Pump Support	–	222074	
Hold Down Kit	–	–	
Instruction Manual	307880	306523	

50:1 400 lb Grease Pump Packages



Package Number	225016*	226013*	
Type of Package	Stationary supply	Stationary supply topper-inductor	
Ratio	50:1	50:1	
Container Size	400 lb (180 kg)	400 lb (180 kg)	
Pump Part Number	239888	239888	
Hose and Fitting Kits	222072	204467	
Dispense Kit Includes	Fluid Hose	1/4 in x 6 ft	1/4 in x 6 ft
	Hose Part Number	109150	109150
	6 ft Coupled Hose	203320	–
	Fitting(s)	155494/155541	100206/156971/205528
Air Hose Size	3/8 in x 6 ft	3/8 in x 6 ft	
Follower Plate	24F903	–	
Drum Cover	200326	–	
Elevator	–	204385	
Pump Support	–	204461	
Inductor Plate	–	204353	
Base	–	205339	
Instruction Manual	307880	306556	

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.



Ordering Information

50:1 Grease Pump Lube Truck Packages



Package Number	222085*	222071*
Type of Package	Lube truck	Lube truck
Ratio	50:1	50:1
Container Size	120 lb (55 kg)	400 lb (180 kg)
Pump Part Number	239887	239888
Dispense Kits	222072	222072
Dispense Kit Includes	Fluid Hose	1/4 in x 6 ft
	Hose Part Number	109150
	6 ft Coupled Hose	203320
	Fitting(s)	155494/155541
Air Hose Size	3/8 in x 6 ft	3/8 in x 6 ft
Follower Plate	220654	223845
Drum Cover	222060	207366
Hold Down Kit	222061	207361
Instruction Manual	307880	307880

*Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

Ordering Information

50:1 Grease Pump Side Pocket and Horizontal Mount Packages



Package Number	244644	244645
Type of Package	Side Pocket Mount	Horizontal Mount
Ratio	50:1	50:1
Pump Part Number	239888	239877
Dispense Kits	222072	222072
Dispense Kit Includes	Fluid Hose	1/4 in x 6 ft
	Hose Part Number	109150
	6 ft Coupled Hose	203320
	Fitting(s)	155494/155541
Air Hose Size	3/8 in x 6 ft	3/8 in x 6 ft
Pump Mount Bracket	3 in (f) Coupler – 512874	3 in (f) Coupler – 512874
Air Regulator	109075	109075
Air Shut-Off Valve	110224	110224
Installation Kit	948393	948393
Instruction Manual	309350	309350



**10 Year
Warranty!**

The Pump of Choice for Your Most Demanding Applications!

The Fire-Ball 425 features a large 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.

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

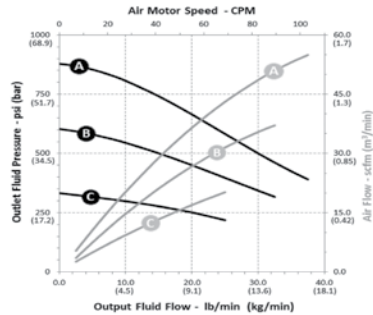
- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Grease up to NLGI #2

Pump Performance

Fire-Ball 425 10:1 Pumps

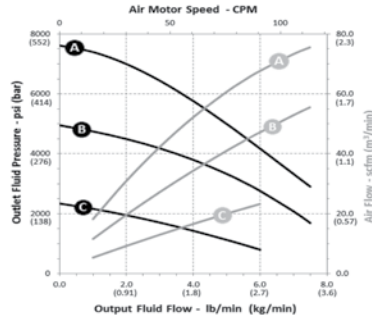


Inlet Air Pressures:

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

Test Fluid:
ISO 32 Oil

Fire-Ball 425 50:1 Pumps

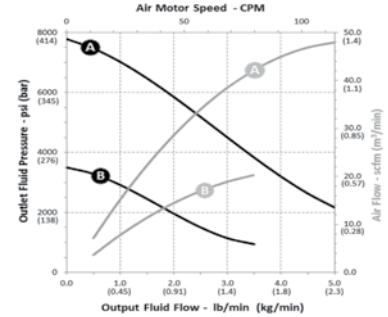


Inlet Air Pressures:

- A = 150 psi (10.3 bar)
- B = 100 psi (6.9 bar)
- C = 50 psi (3.4 bar)

Test Fluid:
NLGI #2 Grease

Fire-Ball 425 75:1 Pumps



Inlet Air Pressures:

- A = 100 psi (6.9 bar)
- B = 50 psi (3.4 bar)

Test Fluid:
NLGI #2 Grease

Technical Specifications

	Fire-Ball 425 10:1	Fire-Ball 425 50:1	Fire-Ball 425 75:1
Fluid Pressure Ratio	10:1	50:1	75:1
Air Motor Effective Diameter	4.25 in (108 mm)	4.25 in (108 mm)	4.25 in (108 mm)
Annual Usage	20,000+ lb (9,072+ kg)	20,000+ lb (9,072+ kg)	20,000+ lb (9,072+ kg)
Maximum Fluid Working Pressure	1,800 psi (124 bar / 12.4 MPa)	7,500 psi (517 bar / 51.7 MPa)	7,500 psi (517 bar / 51.7 MPa)
Approximate Free Flow Rate @ 100 psi	29 lb/min (13.1 kg/min)	9 lb/min (4.1 kg/min)	6.5 lb/min (2.9 kg/min)
Output per Cycle	5.82 oz (164.7 g)	1.06 oz (30 g)	0.71 oz (20 g)
Continuous Duty Flow Rate	3.5 lb/min (1.59 kg/min)	3.35 lb/min (1.52 kg/min)	1.95 lb/min (0.88 kg/min)
Approximate Air Use and Flow @ 100 psi (80 cpm)	45 @ 29 lb/min (1.3 @ 13 kg/min)	43 @ 5.3 lb/min (1.2 @ 2.4 kg/min)	43 @ 3.5 lb/min (1.2 @ 1.6 kg/min)
Air Inlet	1/2 in NPT(F)	1/2 in NPT(F)	1/2 in NPT(F)
Fluid Outlet	1 in NPT(F)	3/8 in NPT(F)	3/8 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12.5 bar)	40 psi to 150 psi (2.8 bar to 10.4 bar)	40 psi to 100 psi (2.8 bar to 7 bar)
Max Recommended Pump Speed	60 cpm	60 cpm	60 cpm
Cycles per Pound	2.75 cpp	15.1 cpp	22.7 cpp
Cycles per Kg	6 cpk	33 cpk	50 cpk
Wetted Parts	Steel, brass, aluminum, leather, Buna-N	CS, brass, aluminum, leather	CS, brass, aluminum, leather
Sound Pressure Level	80.9 dB(A)	80.9 dB(A)	80.9 dB(A)
Sound Power Level	94.6 dB(A)	94.6 dB(A)	94.6 dB(A)
Approximate Weight	38 lb (17.2 kg)	34 lb to 37 lb (15 kg to 17 kg)	30 lb to 37 lb (14 kg to 17 kg)
Instruction Manual	309407	306674	308777

Ordering Information

Fire-Ball 425 Grease Pumps

Part Number	Ratio	Description
965124	10:1	Stubby pump
965129*	10:1	For 400 lb (180 kg) drum
205394	50:1	For 120 lb (55 kg) drum
205395	50:1	For 400 lb (180 kg) drum

Part Number	Ratio	Description
239731	75:1	For 35 or 70 lb (16 or 32 kg) pail
239729	75:1	For 120 lb (55 kg) drum
239730	75:1	For 400 lb (180 kg) drum

*Includes 2 in NPT Bung Adapter (part number 222308).

Ordering Information

50:1 120 lb and 400 lb Grease Pump Packages



Package Number	223108*	225781*	226018*
Type of Package	Stationary Supply	Stationary Supply	Stationary Supply Topper-Inductor
Ratio	50:1	50:1	50:1
Container Size	120 lb (55 kg)	400 lb (180 kg)	400 lb (180 kg)
Pump Part Number	205394	205395	205395
Dispense Kits	222076	222076	205102
Dispense Kit Includes	Fluid Hose	3/8 in x 6 ft	3/8 in x 6 ft
	Hose Part Number	109163	109163
	6 ft Coupled Hose	205418	–
	Fitting(s)	155470/155494	155470/155494
Air Hose Size	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 6 ft
Drum Cover	204574	200326	–
Follower Plate	223344	223846	–
Pump Support	–	–	204461
Elevator	–	–	204385
Inductor Plate	–	–	205699
Base	–	–	205339
Instruction Manual	307880	307880	306556

*Use 1/2 in (12.7 mm) air regulator (104266) and gauge (100960); must be ordered separately.

Ordering Information

75:1 120 lb and 400 lb Grease Pump Packages



Package Number	244635*	244636*	244637*
Type of Package	Stationary Cover-Mount	Stationary Cover-Mount	Stationary Inductor
Ratio	75:1	75:1	75:1
Container Size	120 lb (55 kg)	400 lb (180 kg)	400 lb (180 kg)
Pump Part Number	239729	239730	239730
Dispense Kits	222076	222076	205102
Dispense Kit Includes	Fluid Hose	3/8 in x 6 ft	3/8 in x 6 ft
	Hose Part Number	109163	109163
	6 ft Coupled Hose	205418	205418
	Fitting(s)	155470/155494	155470/155494
Air Hose Size	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 6 ft
Drum Cover	204574	200326	–
Follower Plate	223344	223846	–
Pump Support	–	–	204461
Elevator	–	–	204385
Inductor Plate	–	–	205699
Base	–	–	205339
Instruction Manual	307880	307880	306556

*Use 1/2 in (12.7 mm) air regulator (104266) and gauge (100960); must be ordered separately.

Ordering Information

50:1 and 75:1 Grease Pump Lube Truck Packages



Package Number	223107*	222075*	243817*	243818**
Type of Package	Lube Truck	Lube Truck	Lube Truck	Lube Truck
Ratio	50:1	50:1	75:1	75:1
Container Size	120 lb (55 kg)	400 lb (180 kg)	120 lb (55 kg)	400 lb (180 kg)
Pump Part Number	205394	205395	239729	239730
Dispense Kits	222076	222076	222076	222076
Dispense Kit Includes	Fluid Hose	3/8 in x 6 ft	3/8 in x 6 ft	3/8 in x 6 ft
	Hose Part Number	109163	109163	109163
	6 ft Coupled Hose	205418	205418	205418
	Fitting(s)	155470/155494	155470/155494	155470/155494
Air Hose Size	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 6 ft
Drum Cover	222060	207366	222060	207366
Follower Plate	223344	223846	223344	223846
Hold Down Kit	222061	207361	222061	207361
Instruction Manual	307880	307880	307880	307880

*Use 1/2 in (12.7 mm) air regulator (104266) and gauge (100960); must be ordered separately.

**Use 3/8 in (9.5 mm) air regulator (109075); must be ordered separately.

Ordering Information

Grease Pump RAM Packages



Part 257435 (Ram Assembly) not shown

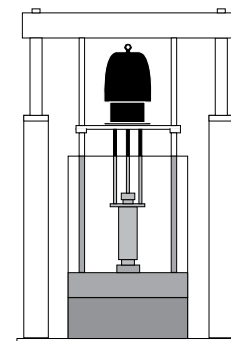
Part 257435 (Ram Assembly) not shown

Package Number	244905	244906
Type of Package	Stationary Ram	Stationary Ram
Ratio	50:1	75:1
Container Size	400 lb (180 kg)	400 lb (180 kg)
Pump Part Number	Fire-Ball 425 – 205395	Fire-Ball 425 – 239730
Dispense Kits	222076	222076
Dispense Kit Includes	Fluid Hose	3/8 in x 6 ft
	Hose Part Number	109163
	6 ft Coupled Hose	205418
	Fitting(s)	155470/155494
Air Hose Size	1/2 in x 6 ft	1/2 in x 6 ft
Ram	257435	257435
Adapter Kit	224266	224266
Air Regulator and Gauge	*	244844
Ram Plate Seal Kit	247335	247335
Pump Mount Kit	247337	247337
Instruction Manual	309345	309345

*Air gauge included with RAM controller.

RAM-Mount

- Force feed high volume pumps
- Extreme viscous grease
- Reduce waste
- Clean and convenient method of drum change



Ordering Information


50:1 and 75:1 Grease Pump Side Pocket and Horizontal Mount Packages




Package Number	244646	244647	244648	
Type of Package	Side Pocket Mount	Side Pocket Mount	Horizontal Mount	
Ratio	50:1	75:1	75:1	
Pump Part Number	205395	239730	239731	
Dispense Kits	222076	222076	222076	
Dispense Kit Includes	Fluid Hose	3/8 in x 6 ft	3/8 in x 6 ft	3/8 in x 6 ft
	Hose Part Number	109163	109163	109163
	6 ft Coupled Hose	205418	205418	205418
	Fitting(s)	155470/155494	155470/155494	155470/155494
Air Hose Size	1/2 in x 6 ft	1/2 in x 6 ft	1/2 in x 6 ft	
Pump Mount Bracket	3 in (f) Coupler – 512874	3 in (f) Coupler – 512874	3 in (f) Coupler – 512874	
Air Regulator	244844	244844	244844	
Air Shut-Off Valve	110225	110225	110225	
Installation Kit	948392	948392	948392	
Instruction Manual	309350	309350	309350	

Ordering Information


Air Regulators

	Part Number	Description
	109075	3/8 in NPT (fbc) with gauge
	244844	1/2 in NPT (fbc) with gauge


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	Dimensions	Compatible Pumps
	239965	1.65 in ID	Fire-Ball 425, 50:1 Fire-Ball 425, 75:1
	239966	1.29 in ID	Fire-Ball 300, 15:1 Fire-Ball 300, 50:1

Dispense Hose and Fitting Kits


	Part Number	Compatible Pump(s)	Includes							
			Fluid Hose Size	Fluid Hose	Grease Dispense Valve	Z-Swivel	3/8 in Closed Nipple	Quick-Disconnect Nipple	Quick-Disconnect Coupler	3/8 in Air Regulator
	222080	Fire-Ball 300, 15:1	1/4 in x 15 ft	109165	242056	202577	156849	169971	110198	110234
	222081	Fire-Ball 300, 15:1	1/4 in x 25 ft	109167	242056	202577	156849	169971	110198	110234
	236058	Mini Fire-Ball 225, 50:1	1/4 in x 12 ft	109151	242056	202577	–	169971	114558	–
	222070	Fire-Ball 300, 50:1	1/4 in x 12 ft	109151	242056	202577	–	169971	114558	–
	26C183	Fire-Ball 300, 50:1	1/4 in x 12 ft	109151	26C184	202577	–	169971	114558	–
	222383	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 50:1	1/4 in x 25 ft	109154	242056	202577	–	169971	114558	–

Hose and Fitting Kits


	Part Number	Pressure Rating	Compatible Pumps	Includes			
				6 ft Air Hose	Air Hose Swivel Elbow	6 ft Fluid Hose	Fluid Hose Swivel Elbow
	222072	5,000 psi (345 bar)	Fire-Ball 300, 50:1	203320	155494	109150	155541
	222076	4,000 psi (276 bar)	Fire-Ball 425, 50:1	205418	155470	109163	155494

Ordering Information




Drum Covers

	Part Number	Description	Compatible Pumps
	222059	Cover for 35 lb (16 kg) pails	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 50:1
	24R350	LD Cover for open-head 35 lb (16 kg), 70 lb (32 kg) or 120 lb (55 kg) drums	Mini Fire-Ball 225, 50:1 Fire-Ball Pumps
	204574	SD Cover for open-head 70 lb (32 kg) or 120 lb (55 kg)	Mini Fire-Ball 225, 50:1 Fire-Ball Pumps
	200326	Cover for open-head 400 lb (180 kg) drums	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1 Fire-Ball 425, 10:1 and 50:1
	160754	Bung-adapter plate for mounting pump to 120 lb (55 kg) or 400 lb (180 kg) drum covers	Fire-Ball Pumps

Drum Elevator

	Part Number	Description	Includes		
			Cover Support	Drum Elevator	Air Control Kit
	241663	Air-powered elevator to speed up 400 lb (180 kg) drum changes	207562	204385	207561

Mounting Accessories for Fire-Ball Pumps

	Part Number	Description
	948393	Flange Adapter (male) for Fire-Ball 300 Pumps
	948392	Flange Adapter (male) for Fire-Ball 425 Pumps
	512874	Coupler (female), 3 in thread


Ordering Information

Follower Plates




Part Number	Container Size	Flexible Wiper	Compatible Pumps
24F901	35 lb (16 kg)	16F769	LD 50:1 Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
24F902	70 lb (32 kg) 120 lb (55 kg)	16F781	LD 50:1 Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
24F903	400 lb (180 kg)	16F784	LD 50:1 Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
220653	35 lb (16 kg)	183241	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
220654	70 lb (32 kg) 120 lb (55 kg)	183243	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
223845	400 lb (180 kg)	186463	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
204130	400 lb (180 kg)	-	Mini Fire-Ball 225, 50:1 Fire-Ball 300, 15:1 Fire-Ball 300, 50:1
223344	120 lb (55 kg)	183243	Fire-Ball 425, 50:1 Fire-Ball 425, 75:1
223700	120 lb (55 kg)	183243	Dyna-Star 5:1
223701	400 lb (180 kg)	186463	Dyna-Star 5:1 Fire-Ball 425 10:1
223846	400 lb (180 kg)	186463	Fire-Ball 425, 50:1 Fire-Ball 425, 75:1
205337	400 lb (180 kg)	-	Fire-Ball 425, 50:1 Fire-Ball 425, 75:1

High-Pressure Grease Shut-Off Valve



Part Number	Description	Pressure Rating	Inlet
202869	High-pressure needle valve	5,000 psi (345 bar)	1/2 in





Lincoln-to-Graco Adapter Kit






Part Number	Description	Compatible Pump
241246	For replacing a Series 20 Lincoln	Fire-Ball 300, 50:1

Ordering Information


Portable Bases

	Part Number	Description
	131183	Drum dolly, 35 lb (16 kg)
	131184	Drum dolly, 120 lb (54 kg)
	129645	Drum dolly, 400 lb (182 kg)
	203622	Caster base for 120 lb (54 kg) drums


Carts

	Part Number	Description	Compatible Container Size
	203650	Drums fit onto recess on formed base. Rim clamps secure drum onto cart.	35 lb (16 kg) 70 lb (32 kg) 120 lb (55 kg)
	222243	Heavy-duty drum cart with pneumatic wheels	120 lb (55 kg)
	111470	Heavy-duty drum truck on roll-around base	400 lb (180 kg)

Pro-Shot Dispense Valves

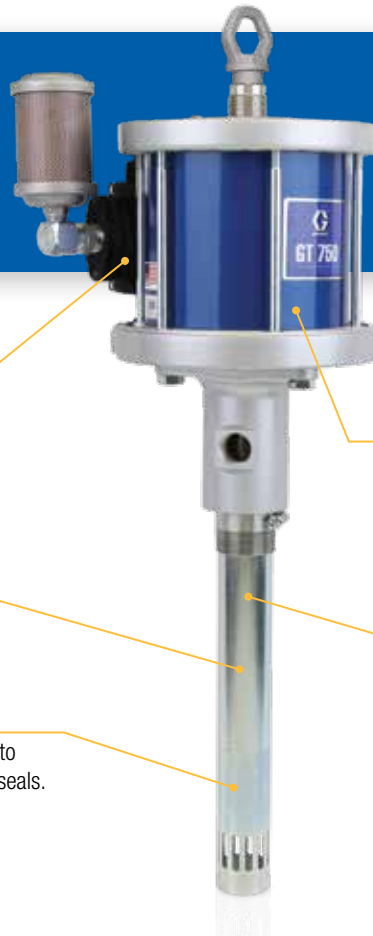
	Part Number	Description
	242055	1/4 in NPT(F) inlet without coupler or extension
	242056	1/4 in NPT(F) inlet with coupler and extension 200389
	242057	3/8 in NPT(F) inlet without coupler or extension
	242058	3/8 in NPT(F) inlet with coupler and extension 200389
	224872	Includes 30 in (76.2 cm) whip hose (109148), Z-Swivel (202577), and grease valve (242056)

Swivel

	Part Number	Description
	202577	Z-Swivel allows non-binding movement for hard-to-reach locations, 1/4-18 NPT

Fewer Strokes and Longer Pump Life

The GT 750 pump was engineered to perform in challenging applications and changing environments. The large 7.5-inch air motor and pump lower combination allows the GT 750 pump to move the same amount of grease with up to four times fewer pump strokes.



Up to
32 lb/min
(13.6 kg/min)

Efficient Air Motor

Use less air to move more grease.

Proven Pump Technology

Based on Graco NXT™ pump technology.

High Flow Rates

Up to 32 lb/min of grease.

Multiple Tank Options

Available in 35, 120 and 400 lb down tube lengths.

High Volume Per Stroke

Pump more grease without having to drive pump too quickly to damage seals.

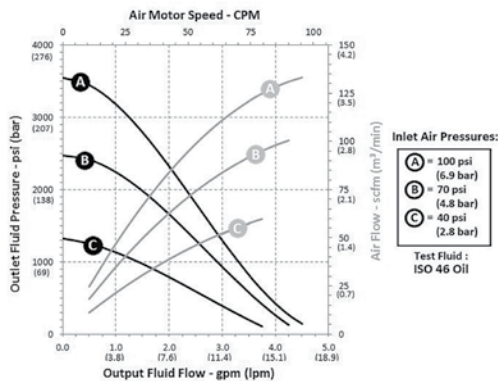
Typical Applications

- Lube trucks
- Mining
- Heavy-duty dealerships
- Fleet service facilities
- In-plant

Typical Fluids Handled

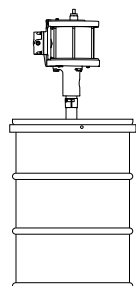
- Grease up to NLGI #2

Pump Performance



Technical Specifications

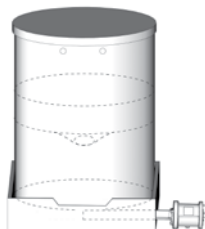
Fluid Pressure Ratio	36:1
Air Pressure Operating Range	40-100 psi (3-7 bar)
Maximum Working Pressure	3,600 psi (248 bar)
Maximum Recommended Continuous Pump Speed	60 cycles per minute
Air Motor Effective Diameter	7.5 in (190 mm)
Stroke	4.75 in (121 mm)
Air Inlet	1/2 in NPT
Fluid Outlet	1 in NPT
Maximum Delivery	32 lb/min (13.6 kg/min)
Pump Weight	59 lb (26.8 kg)
Wetted Parts	Steel, brass, Buna-N, urethane, ductile iron, aluminum
Sound Power (measured at 70 psi [4.8 bar], 20 CPM per ISO-9414-2)	77.2 dBA
Sound Pressure (tested at 3.28 ft [1 m] from equipment)	70.5 dBA
Pump Cycles Per Pound	3 cycles
Pump Cycles Per KG	6 cycles
Warranty	Five years overall and 1 year wear parts
Instruction Manual	3A5363



Drum Mount



Side Pocket Mount







Horizontal Mount



Top Mount


Ordering Information

GT 750 36:1 Grease Pumps


	Part Number	Description
	24W498	GT 750, 36:1 Grease Pump, stubby length
	25D116	GT 750, 36:1 Grease Pump, 120 lb length
	24W337	GT 750, 36:1 Grease Pump, 400 lb length
	25P544	GT 750, 36:1 Grease Pump, 400 lb length inductor

Accessories


Cam Lock Adapters

	Part Number	Description
	131380	Male Cam Lock Adapter – 3 in
	131394	Female Cam Lock Adapter – 3 in

Drum Covers

	Part Number	Description
	204574	Cover for 120 lb (54 kg) drums
	200326	Cover for 400 lb (182 kg) drums
	160754	Bung Adapter Plate (used to mount pump to drum cover) – 2 in

Follower Plates

	Part Number	Description
	223700	Follower plate for 120 lb (54 kg) drums
	223701	Follower plate for 400 lb (182 kg) drums



Move Large Amounts of Grease Fast

Tested to outperform and outlast all other pumps on the market – with its long-life packing 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.

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 deicing 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 services facilities
- In-plant
- Mining

Typical Fluids Handled

- Grease up to NLGI #2



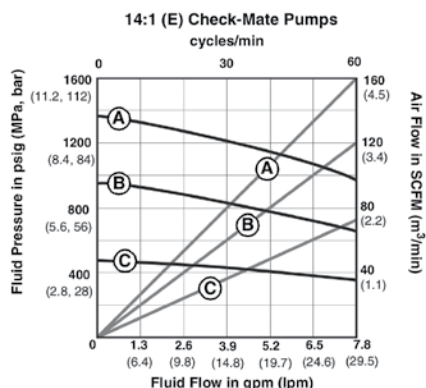
Pump Performance

Inlet Pressures:

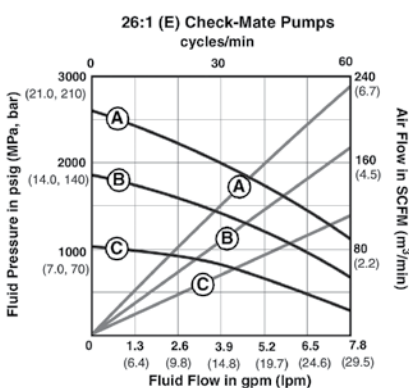
A = 100 psi (6.9 bar) air pressure **B** = 70 psi (4.8 bar) air pressure **C** = 40 psi (2.8 bar) air pressure

TEST FLUID: No. 10 Weight Oil

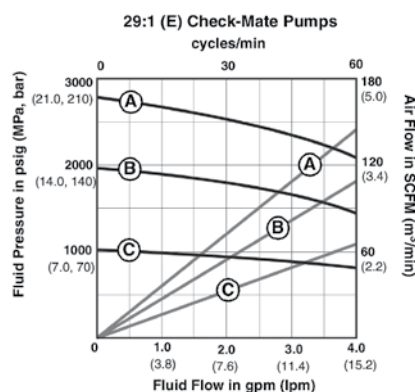
NXT 14:1 Check-Mate Pumps



NXT 26:1 Check-Mate Pumps



NXT 29:1 Check-Mate Pumps



Technical Specifications

	NXT Check-Mate 14:1	NXT Check-Mate 26:1	NXT Check-Mate 29:1
Fluid Pressure Ratio	14:1	26:1	29:1
Air Motor	NXT 3400	NXT 6500	NXT 3400
Air Motor Effective Diameter	7.5 in (191 mm)	10.4 in (264 mm)	7.5 in (191 mm)
Pump Lower	L500CS	L500CS	L250CS
Maximum Fluid Working Pressure	1,400 psi (97 bar / 9.7 MPa)	2,600 psi (179 bar / 17.9 MPa)	2,900 psi (200 bar / 20 MPa)
Output per Cycle	15.4 oz (435 g)	15.4 oz (435 g)	7.7 oz (218 g)
Air Inlet	3/4 in NPT(F)	3/4 in NPT(F)	3/4 in NPT(F)
Fluid Outlet	1-1/2 in NPT(M)	1-1/2 in NPT(M)	1 in NPT(F)
Air Operation Range	0 psi to 100 psi (0 bar to 7 bar)	0 psi to 100 psi (0 bar to 7 bar)	0 psi to 100 psi (0 bar to 7 bar)
Max Recommended Pump Speed	20 cpm	20 cpm	20 cpm
Cycles per Pound	1.0 cpp	1.0 cpp	2.1 cpp
Cycles per Kg	2 cpk	2 cpk	5 cpk
Wetted Parts	303, 304, 316 and 17-4PH grades of stainless steel; ductile iron and carbon steel, electroless nickel plated; carbon steel, zinc and electroless nickel plated; E52100 and ETD 150 alloy steel; PTFE; UHMWPE; carbon-filled PTFE; acetal	303, 304, 316 and 17-4PH grades of stainless steel; ductile iron and carbon steel, electroless nickel plated; carbon steel, zinc and electroless nickel plated; E52100 and ETD 150 alloy steel; PTFE; UHMWPE; carbon-filled PTFE; acetal	ETD 150, 41L40, and 4140 alloy steel; 304, 316, 17-4PH and 440C grades of stainless steel; acetal; carbon-filled PTFE; carbon steel; ductile iron; electroless nickel, zinc and chrome plating; PTFE; UHMWPE
Sound Pressure Level	77 dB(A)	80 dB(A)	77 dB(A)
Sound Power Level	87 dB(A)	90 dB(A)	87 dB(A)
Approximate Weight	152 lb (69 kg)	169 lb (77 kg)	128 lb (58 kg)
Instruction Manual	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238

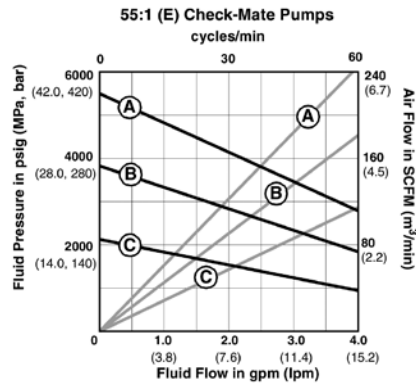
Pump Performance

Inlet Pressures:

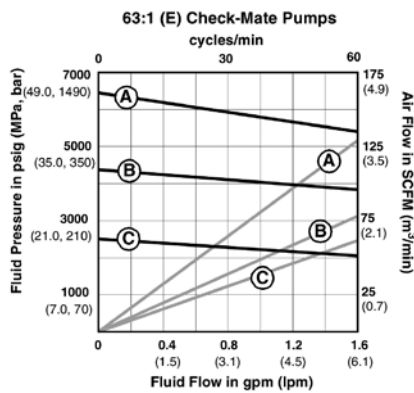
A = 100 psi (6.9 bar) air pressure **B** = 70 psi (4.8 bar) air pressure **C** = 40 psi (2.8 bar) air pressure

TEST FLUID: No. 10 Weight Oil

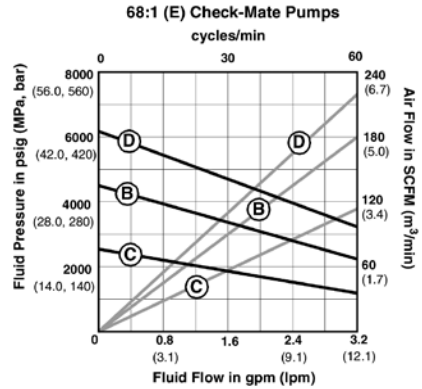
NXT 55:1 Check-Mate Pumps



NXT 63:1 Check-Mate Pumps



NXT 68:1 Check-Mate Pumps



Technical Specifications

	NXT Check-Mate 55:1	NXT Check-Mate 63:1	NXT Check-Mate 68:1
Fluid Pressure Ratio	55:1	63:1	68:1
Air Motor Effective Diameter	10.4 in (264 mm)	7.5 in (191 mm)	10.4 in (264 mm)
Maximum Fluid Working Pressure	5,500 psi (379 bar / 37.9 MPa)	4,500 psi (310 bar / 31 MPa)	5,300 psi (366 bar / 36.6 MPa)
Output per Cycle	7.7 oz (218 g)	3.1 oz (87 g)	6.1 oz (174 g)
Air Inlet	3/4 in NPT(F)	3/4 in NPT(F)	3/4 in NPT(F)
Fluid Outlet	1 in NPT(F)	3/4 in NPT(M)	1 in NPT(F)
Air Operation Range	0 psi to 100 psi (0 bar to 7 bar)	0 psi to 72 psi (0 bar to 4.9 bar)	0 psi to 78 psi (0 bar to 5.4 bar)
Max Recommended Pump Speed	20 cpm	20 cpm	20 cpm
Cycles per Pound	2.1 cpp	5.2 cpp	2.6 cpp
Cycles per Kg	5 cpk	11 cpk	6 cpk
Wetted Parts	ETD 150, 41L40 and 4140 alloy steel; 304 and 17-4PH grades of stainless steel; acetal; carbon-filled PTFE; CS; ductile iron; eNi, Zn and chrome plating; UHMWPE	ETD 150, 41L40 and 4140 alloy steel; 304 and 17-4PH grades of stainless steel; acetal; carbon-filled PTFE; CS; ductile iron; eNi, Zn and chrome plating; UHMWPE	ETD 150, 41L40 and 4140 alloy steel; 304, 316 and 17-4PH grades of stainless steel; acetal; carbon-filled PTFE; CS; ductile iron; eNi, Zn and chrome plating; UHMWPE
Sound Pressure Level	80 dB(A)	87 dB(A)	80 dB(A)
Sound Power Level	90 dB(A)	87 dB(A)	90 dB(A)
Approximate Weight	145 lb (66 kg)	101 lb (46 kg)	145 lb (66 kg)
Instruction Manual	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238	System – 312863 Pump – 312376 Pump Lower – 312375 Air Motor – 311238

Ordering Information

Pump Packages with DataTrak

Package Number	247973	247976	247974	247977	247975	247978
Ratio	14:1	26:1	29:1	55:1	63:1	68:1
Pump with DataTrak	P14MCS	P26MCS	P29MCS	P55MCS	P63MCS	P68MCS
Mounting Type	Floor Standing	Floor Standing	Floor Standing	Floor Standing	Floor Standing	Floor Standing
Mounting Number	223952	223952	223952	223952	223952	223952
3/4 in x 6 ft Air Hose	208610	208610	208610	208610	208610	208610
1 in x 6 ft Fluid Hose	115042	244657	244657	244657	244657	244657

Pump Packages without DataTrak

Package Number	24E006	24E007	24E008	24E009	24E010	24E011
Ratio	14:1	26:1	29:1	55:1	63:1	68:1
Pump without DataTrak	P14DCS	P26DCS	P29DCS	P55DCS	P63DCS	P68DCS
Mounting Type	Floor Standing	Floor Standing	Floor Standing	Floor Standing	Floor Standing	Floor Standing
Mounting Number	223952	223952	223952	223952	223952	223952
3/4 in x 6 ft Air Hose	208610	208610	208610	208610	208610	208610
1 in x 6 ft Fluid Hose	115042	244657	244657	244657	244657	244657



Ordering Information

RAM Pump Packages with DataTrak

Package Number	247979	247980	247981
Ratio	14:1	63:1	68:1
RAM System	CM53BN	CM17BN	CM2RBN
3/4 in x 6 ft Air Hose	208610	208610	208610
1 in x 6 ft Fluid Hose	115042	244657	244657


RAM Pump Packages without DataTrak

Package Number	24E780	24E781	24E782
Ratio	14:1	63:1	68:1
RAM System	CM515N	CM155N	CM2L5N
3/4 in x 6 ft Air Hose	208610	208610	208610
1 in x 6 ft Fluid Hose	115042	244657	244657



Accessory Ordering Information

Drum Covers

	Part Number	Description
	200326	Cover for open-head 400 lb (180 kg) drums
	204574	SD Cover for open-head 70 lb (32 kg) or 120 lb (55 kg)
	24R350	LD Cover for open-head 35 lb (16 kg), 70 lb (32 kg) or 120 lb (55 kg) drums



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

- Grease up to NLGI #2

Technical Specifications

Fluid Pressure Ratio	5:1	10:1
Pump Number	224912 – 35 lb (16 kg) 224751 – 120 lb (55 kg) 224752 – 400 lb (180 kg)	247540 – 60 lb (27 kg) 247443 – 120 lb (55 kg) 247450 – 400 lb (180 kg)
Applications	Grease Dispensing	Grease Dispensing
Maximum Input Pressure	1,500 psi (102 bar)	600 psi (41 bar)
Maximum Fluid Input Volume	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)
Maximum Output Flow Rate	4 lb/min (1.8 kg)	1.1 lb/min (0.5 kg)
Maximum Recommended CPM	60	60
Maximum Fluid Output Pressure	7,500 psi (517 bar)	7,500 psi (517 bar)
Hydraulic Supply Inlet	3/8 in NPT	3/4 to 16 in JIC (37° Flare)
Hydraulic Return Outlet	3/4 in NPT	3/4 in NPT
Fluid Outlet	1/2 in NPT	1/2 in NPT
Maximum Incoming Fluid Temp.	130°F (54°C)	200°F (93°C)
Wetted Parts	Steel, copper, polyurethane, Buna-N, polyester elastomer	Steel, copper, polyurethane, Buna-N, polyester elastomer
Sound Pressure Level	77 dB(A)	77 dB(A)
Approximate Weight	224912 – 32.5 lb (14.7 kg) 224751 – 37.5 lb (17 kg) 224752 – 42 lb (19.1 kg)	247540 – 41 lb (18.6 kg) 247443 – 43.5 lb (19.7 kg) 247450 – 48 lb (21.8 kg)
Instruction Manual	308156	312350


Ordering Information

Dyna-Star Hydraulic Pumps


Part Number	Description
224912	5:1 Grease pump for 35 lb (16 kg) pails
224751	5:1 Grease pump for 120 lb (55 kg) drum
224752	5:1 Grease pump for 400 lb (180 kg) drum
247450	10:1 Grease pump for 35 lb (16 kg) pails
247443	10:1 Grease pump for 120 lb (55 kg) drum
247450	10:1 Grease pump for 400 lb (180 kg) drum

Accessories

Drum Covers


	Part Number	Description
	224915	Cover for 35 lb (16 kg) pail
	204574	Cover for 120 lb (55 kg) drum
	200326	Cover for 400 lb (180 kg) drum

Follower Plates


	Part Number	Description
	224916	Follower plate for 35 lb (16 kg)
	223700	Follower plate for 120 lb (55 kg)
	223701	Follower plate for 400 lb (180 kg)

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.

Tie-Down Covers

	Part Number	Description
	222060*	Dyna-Star, 5:1 tie-down cover for 120 lb (55 kg)
	207366**	Dyna-Star, 5:1 tie-down cover for 400 lb (180 kg)

*Use with hold-down kit 222061. **Use with hold-down kit 207361.

Field-Proven, Energy-Efficient

When paired with any of Graco's priming piston pumps, the Viscount II hydraulic motor offers exceptional cost savings by operating on 20% of the energy used by a pneumatic motor.



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

- Grease up to NLGI #2

Technical Specifications

Fluid Pressure Ratio	2.4:1
Pump Number	222902 – 400 lb (180 kg)
Applications	Grease Dispensing
Maximum Input Pressure	1,500 psi (103.5 bar)
Maximum Fluid Input Volume	12 gpm (45.4 lpm)
Maximum Output Flow Rate	7.5 gpm (28.5 lpm)
Maximum Recommended CPM	60
Maximum Fluid Output Pressure	2,300 psi (159 bar)
Hydraulic Supply Inlet	3/4 in NPT
Hydraulic Return Outlet	1 in NPT
Fluid Outlet	1-1/2 in NPT
Maximum Incoming Fluid Temp.	130°F (54°C)
Wetted Parts	Carbon steel; chrome, zinc and electroless nickel plating; 304 and 17-4 PH grades of stainless steel; E52100 alloy steel; ductile iron; acetal; PTFE; ultra-high-molecular weight polyethylene
Sound Pressure Level	< 70 dB(A)
Approximate Weight	196 lb (89 kg)
Instruction Manual	308149

Ordering Information


Viscount II Pumps

Part Number	Description
222902	2.4:1 Grease Pump for 400 lb (180 kg) drum

Accessories

Hydraulic Fluid Controls

Required for each pump

	Part Number	Description
	236865	Viscount II 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.

Ordering Information

Manual Dispense from Bulk Containers



Package Number	225914*	225844*	112197**	112198**
Fluids Handled	Grease	Grease	Grease	Grease
Container Size	35 lb (16 kg)	35 lb (16 kg)	35 lb (16 kg)	120 lb (55 kg)
Pump Part Number	203702	203702	–	–
Dispense Kit	203703	203703	Filler Adapter***	Filler Adapter***
Booster Gun	203697	–	–	–
Cover and Follower Plate	203701	203701	–	–
Instruction Manual	306436	306436	306436	306436




* Delivers 1/4 oz (0.7 grams) of grease per stroke at pressures to 3,000 psi (207 bar). Can service fittings directly or be used to charge a booster gun for more efficiency at higher pressures.

** Fills all three-way loading grease guns equipped with filler fittings.




*** Dispense kit 203703 can be used for direct greasing applications (must be ordered separately).



Grease Valves

	Fluid	Type	Maximum Working Pressure	Maximum Flow Rate	Intended Use	Warranty	Reference Pages
Accu-Shot™ 	NLGI #2	Metered	8,000 psi (552 bar)	2 lb/min 1 kg/min	Indoor/ Outdoor	1 year	159
Pro Shot™ 	Grease up to NLGI #2	Non-Metered	8,000 psi (552 bar)	2 lb/min 1 kg/min	Indoor/ Outdoor	1 year	160
Power Shot™ 	Grease up to NLGI #2	Booster	Supply 5,000 psi (345 bar) Output 18,000 psi (1,242 bar)	N/A	Indoor/ Outdoor	1 year	161

Grease Guns

	Fluid	Style	Maximum Working Pressure	Loading	Intended Use	Warranty	Reference Pages
Manual 	Grease up to NLGI #2	Lever	6,000 psi to 10,000 psi (414 bar to 690 bar)	Cartridge/ bulk fill/ loader fill/ suction	Indoor/ Outdoor	1 year	162
Pneumatic 	Grease up to NLGI #2	Pistol	6,000 psi (414 bar)	Bulk fill/ loader fill	Indoor/ Outdoor	1 year	162
Booster 	Grease up to NLGI #2	Pistol	10,000 psi (690 bar)	Loader fill	Indoor/ Outdoor	1 year	162

**1 Year
Warranty**

For Heavy-Duty Applications

Designed to perform in heavy-equipment shops, fleet maintenance shops, municipal garages and higher-volume in-plant applications with longer plumbing runs and larger fluid usage.



Easy-to-Read LCD

Easily reset electronic display.

Accurate Grease Metering

± 3% accuracy with ± 1% repeatability.

Battery Powered

Utilizes two standard AA alkaline batteries.

Handles Pressure Up to 5,000 psi (345 bar)

Flow up to 36 oz/min (1 kg/min).

Typical Applications

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

Typical Fluids Handled

- Grease up to NLGI #2

Technical Specifications

Maximum Working Pressure	5,000 psi (345 bar)
Metering System	Oval gears
Accuracy	± 3% with grease consistency (grade NLGI) 2/3
Repeatability (typical)	± 1% with grease consistency (grade NLGI) 2/3
Storage Temperature Range	-4°F to 158°F (-20°C to 170°C)
Operating Temperature Maximum	95 (%RU)
Battery	Standard alkaline batteries 2 x 1.5 Volt Size AA
Battery Life	18 to 24 months (depends on usage)
Dimensions (without extension)	8.8 in L x 1.8 in W x 4.4 H (22.4 cm L x 4.6 cm W x 11.2 cm H)
Weight	2.2 lb (1.0 kg)
Warranty	One year
Instruction Manual	309454

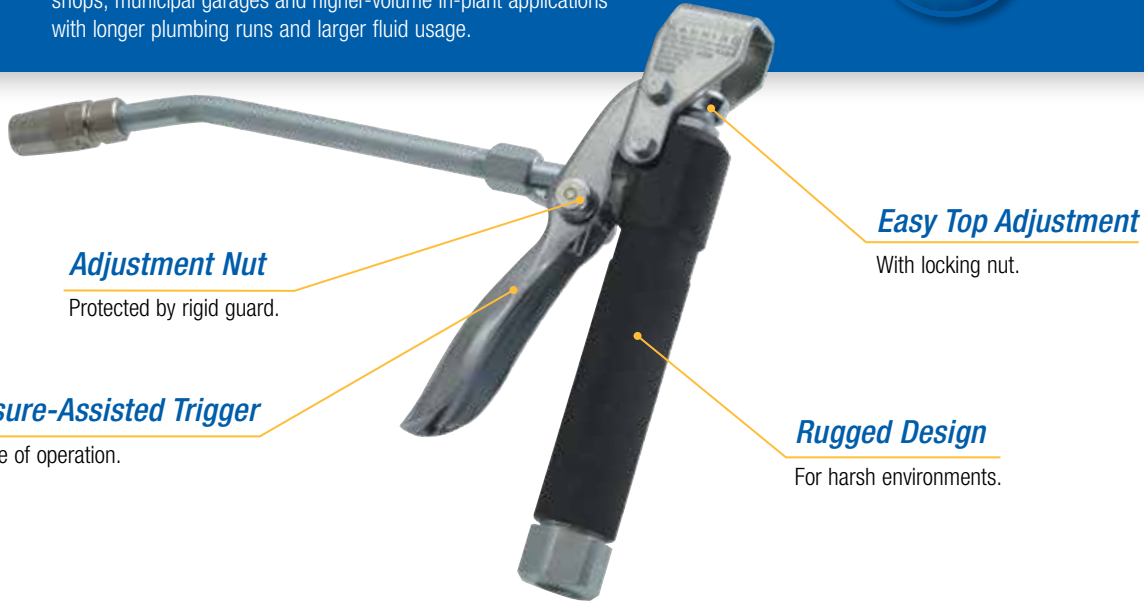
Ordering Information

Part Number	Description	Includes
233807	U.S. measurement, includes extension and hydraulic coupler	Standard nozzle extension (200389) and 1/4 in NPT inlet
233933	Metric measurement, includes extension and hydraulic coupler	

For Heavy-Duty Applications

Designed to perform in heavy-equipment shops, fleet maintenance shops, municipal garages and higher-volume in-plant applications with longer plumbing runs and larger fluid usage.

**1 Year
Warranty**



Adjustment Nut

Protected by rigid guard.

Easy Top Adjustment

With locking nut.

Pressure-Assisted Trigger

For ease of operation.

Rugged Design

For harsh environments.

Typical Applications

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





Technical Specifications

Maximum Working Pressure	8,000 psi (552 bar)
Inlet Size	1/4 in or 3/8 in
Wetted Parts	Chrome vanadium, polyurethane, brass, carbon steel, alloy steel
Warranty	One year
Instruction Manual	309032

Typical Fluids Handled

- Grease up to NLGI #2

Ordering Information

	Description	NPT	
		1/4 in	3/8 in
	Non-metered grease valve with standard nozzle extension (200389)	242056	242058
	Bare non-metered grease valve only	242055	242057
	Non-metered grease valve package. Includes Grease Valve (242056), Z-Swivel (202577) and Whip Hose (109148).	224872	—
	Non-metered grease valve package. Includes Grease Valve (242055), coupler (200325) and Whip Hose (109145).	26C184	—

For Heavy-Duty Applications

Designed to perform in heavy-equipment shops, fleet maintenance shops, municipal garages and higher-volume in-plant applications with longer plumbing runs and larger fluid usage.

**1 Year
Warranty**



**Boosts Incoming Pressure
Up to 18,000 psi (1,242 bar)**

**Maximum Inlet Pressure
of 5,000 psi (345 bar)**

Typical Applications

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

Typical Fluids Handled

- Grease up to NLGI #2

Technical Specifications

Maximum Input Pressure	5,000 psi (34 MPa, 345 bar)
Maximum Delivery Pressure	Up to 18,000 psi (124 MPa, 1241 bar)
Inlet Size	1/8 NPT female
Wetted Parts	Alloy steel, carbon steel, chrome alloy, copper, leather
Weight	3 lb (1.4 kg)
Height	7 in (178 mm)
Length	11.675 in (296 mm)
Warranty	One year
Instruction Manual	306271

Ordering Information

Part Number	Description
202600	1/8 NPT(F) Power Shot booster Valve. Includes nozzle (200389)

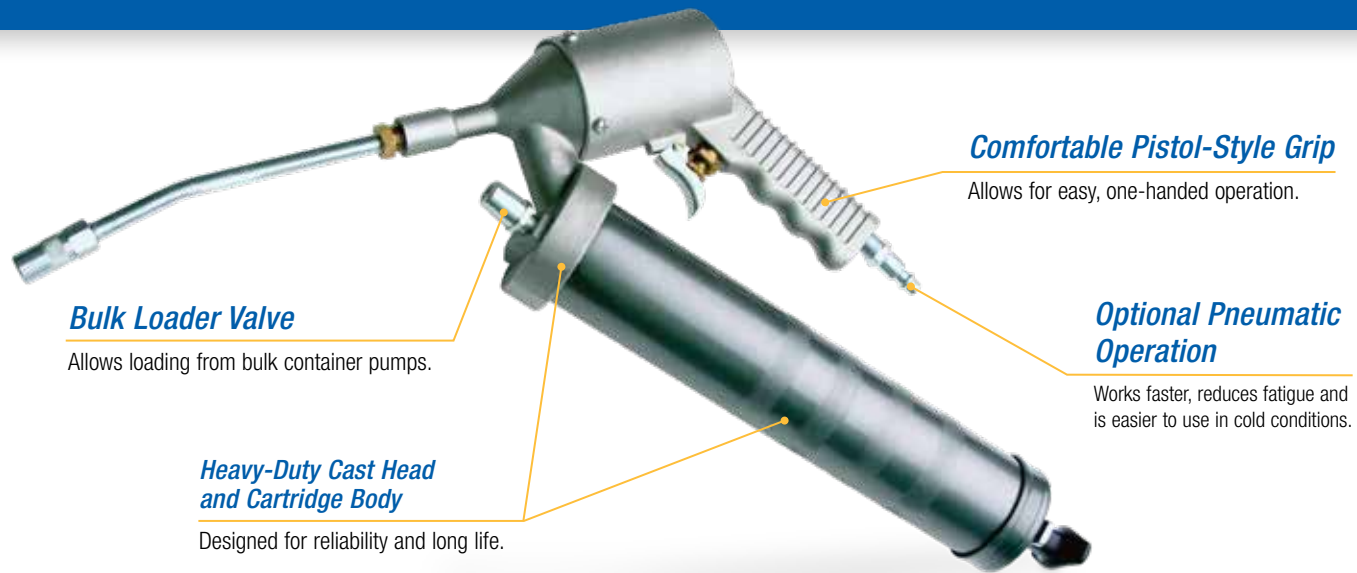
Accessories

Part Number	Description
202579	Hose swivel (must be ordered separately)








**1 Year
Warranty**

Lever-Action and Pistol-Style Grease Dispensing Guns

Durable design for years of trouble-free use in demanding environments. Reduces downtime and is easy to load – two- or three-way loading capability makes it easy to keep on greasing.



Ordering Information


	Part Number	Style	Gun Type	Pressure psi (bar)	Loading	Includes
	112196	Pneumatic	Pistol	6,000 (414)	Bulk fill/ loader fill	Rigid extension and hydraulic coupler
	203697	Booster	Pistol	10,000 (690)	Loader fill	Rigid extension
	110218	Manual	Lever	6,000 (414)	Cartridge/ bulk fill	Rigid extension and hydraulic coupler
	110216					Rigid extension, hydraulic coupler and air bleeder valve
	110203	Manual	Pistol	10,000 (690)	Cartridge/ bulk fill/ loader fill	Rigid extension, hydraulic coupler and air bleeder valve
	110202					12 in (30.4 cm) flexible extension, hydraulic coupler and air bleeder valve
	110201		Suction	–	Suction	12 in (30.4 cm) clear plastic hose

Accessories


Part Number	Description
109145	12 in (30.4 cm) clear plastic hose without coupler
112255	18 in (45.8 cm) clear plastic hose without coupler

Ordering Information


Z-Swivels

	Maximum Working Pressure psi (bar)	Inlet	Outlet	Thread	Part Number
	6,500 (450)	1/8 in	1/4 in	NPT	202579
	6,500 (450)	1/4 in	1/4 in	NPT	202577
	6,500 (450)	3/8 in	3/8 in	NPT	224569
	6,000 (414)	1/2 in	1/2 in	NPT	207948

Straight Swivels

	Maximum Working Pressure psi (bar)	NPT		Part Number
		Inlet	Outlet	
	8,000 (500)	1/8 in	1/8 in	204082
	8,000 (500)	1/4 in	1/8 in	204083
	8,000 (500)	1/4 in	1/4 in	204084
	6,000 (414)	1/2 in	1/2 in	207947
	5,000 (345)	3/8 in	1/2 in	214926
5,000 (345)	1/2 in	1/2 in	207946	

360° Swivels

	Part Number	Includes	
		Fitting	Coupler
	203597	203198	200325
203198	203198	—	

Nozzles

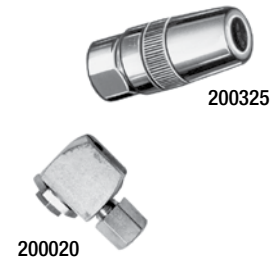
Part Number	Description
200389	Standard nozzle. Includes straight 6 in (15.2 cm), 1/8 NPT(M) extension tube (197471) and tapered nose coupler (200325).
204072	Swivel nozzle. Includes straight 6 in (15.2 cm), 1/8 NPT(M) extension tube (197471) and tapered nose coupler (200325). Coupler has 360° swivel adapter (203198) for added convenience.
204897	Swivel nozzle. Includes straight 12 in (30.4 cm), 1/8 NPT(M) extension tube (155836) and tapered nose coupler (200325). Coupler has 360° swivel adapter (203198) for added convenience.
204204*	Flexible 12 in (30.4 cm) hose nozzle. 1/8 NPT(M) includes tapered-nose coupler (200325).
203504*	Flexible 12 in (30.4 cm) hose nozzle. 1/8 NPT(M) includes tapered-nose coupler (200325) and lock-sleeve connector (203497) for quick connection to any grease nozzle having tapered-nose coupler.
109145	12 in (30.4 cm) hose nozzle without coupler.
112255	18 in (45.8 cm) hose nozzle without coupler.
109148*	30 in (76.2 cm) hose nozzle without coupler, has 1/8 NPT(M) both ends. Use as alternate for rigid nozzle with tapered-nose coupler 200325.



Ordering Information

Couplers

Part Number	Description
200325	1/8 NPT(F) inlet standard tapered-nose coupler. Hardened jaws grip grease fittings through wide-sealing angle, but release easily. Maximum working pressure 8,000 psi (551 bar).
202650	1/8 NPT(F) inlet standard straight-nose grease coupler for manual operated grease guns only. Maximum working pressure 3,000 psi (206 bar).
200020	1/8 NPT(F) inlet standard button-head coupler. Gives fast, positive seal on button-head fittings.
200021	1/8 NPT(F) inlet giant button-head coupler. Gives fast, positive seal on larger button-head fittings.



Adapters

Adapters have lock-sleeve quick-connector; works with any grease nozzle with a tapered-nose coupler.

Part Number	Description
201881	Hydraulic-to-push adapter. Used for U-joints and low-pressure service.
205532	Hydraulic-to-steel needle adapter. Used for flush fittings. 250 psi (17 bar) max. Not for air grease applications or guns.
205582	Hydraulic-to-nylon needle adapter. Used for removable plugs. 250 psi (17 bar) max. Not for air grease applications or guns.
223187	90° hydraulic-to-push adapter (K-car). Refer to instruction manual 306708.
203497	Lock-sleeve connector. 1/8 NPT(F) outlet. Allows for quick connection to tapered-nose coupler. Inlet is standard grease fitting with sleeve to lock connector in place.
236171	Easy-fill valve. For faster loading of Graco hand grease guns with gun loaders. Replaces hydraulic fittings on all grease guns with 1/8 NPT(F).
204929	Grease loader valve. For use with lever-operated, high-volume grease pumps. Permits quick bulk filling of hand-operated grease lever guns equipped with easy-fill valve 236171.
205592	Hydraulic adapter assortment package. Contains needle adapter (205568), plug adapter (205554), push adapter (201881), nylon needle adapter (205582), hydraulic-to-steel needle adapter (205532) and whip hose nozzle connector (203504).



Tapered Thread Grease Fittings, 10,000 psi (690 bar) (steel; ball check)

Part Number	Shank	Description
100054	9/32	1/8 NPT straight
101277	1-9/32	1/8 NPT straight
100970	9/32	1/8 NPT 30° angle
100834	9/32	1/8 NPT 45° angle
100971	9/32	1/8 NPT 65° angle
100833	9/32	1/8 NPT 90° angle
100848	3/8	1/4 NPT 67° angle
100846	3/16	1/4-28 tapered SAE-LT straight
100847	13/64	1/4-28 tapered SAE-LT 45° angle
101283	3/16	1/4-28 tapered SAE-LT 90° angle
101281	11/32	1/4-28 tapered SAE-LT straight
110702	19/64	1/4-28 tapered SAE-LT 65° angle
100835	12/32	1/4 NPT straight



Ordering Information

1/4 in Tapered Thread-Forming Grease Fittings, 10,000 psi (690 bar) (steel; ball check)

Part Number	Shank	Description
110703	13/64	1/4-28 straight
110705	13/64	1/4-28 90° angle

Drive-Type Grease Fittings (steel)

Part Number	Shank	Description
110706	3/32	3/16 drill straight
110709	7/32	3/16 drill 65° angle
110713	1/4	3/16 drill straight without ball check
101312	7/32	3/16 drill straight with ball check
110710	1/4	5/16 drill straight with ball check
101287	17/64	1/4 drill straight without ball check



101287

Standard Button-Head Grease Fitting (steel)

1/4 in Tapered Thread Grease Fittings (steel; ball check)

Part Number	Shank	Description
100837	7/16	1/4 NPT straight
101297	33/64	3/8 NPT straight
110711	35/64	1/2 NPT straight



101297

Giant Button-Head Grease Fitting (steel)

Part Number	Shank	Description
110712	9/16	3/8 NPT straight
100854	1/2	1/4 NPT straight



110712

Easy-Outs

Part Number	Description
101604	3/8 NPT straight
101605	1/4 NPT straight



101604

Grease Accessory Packages

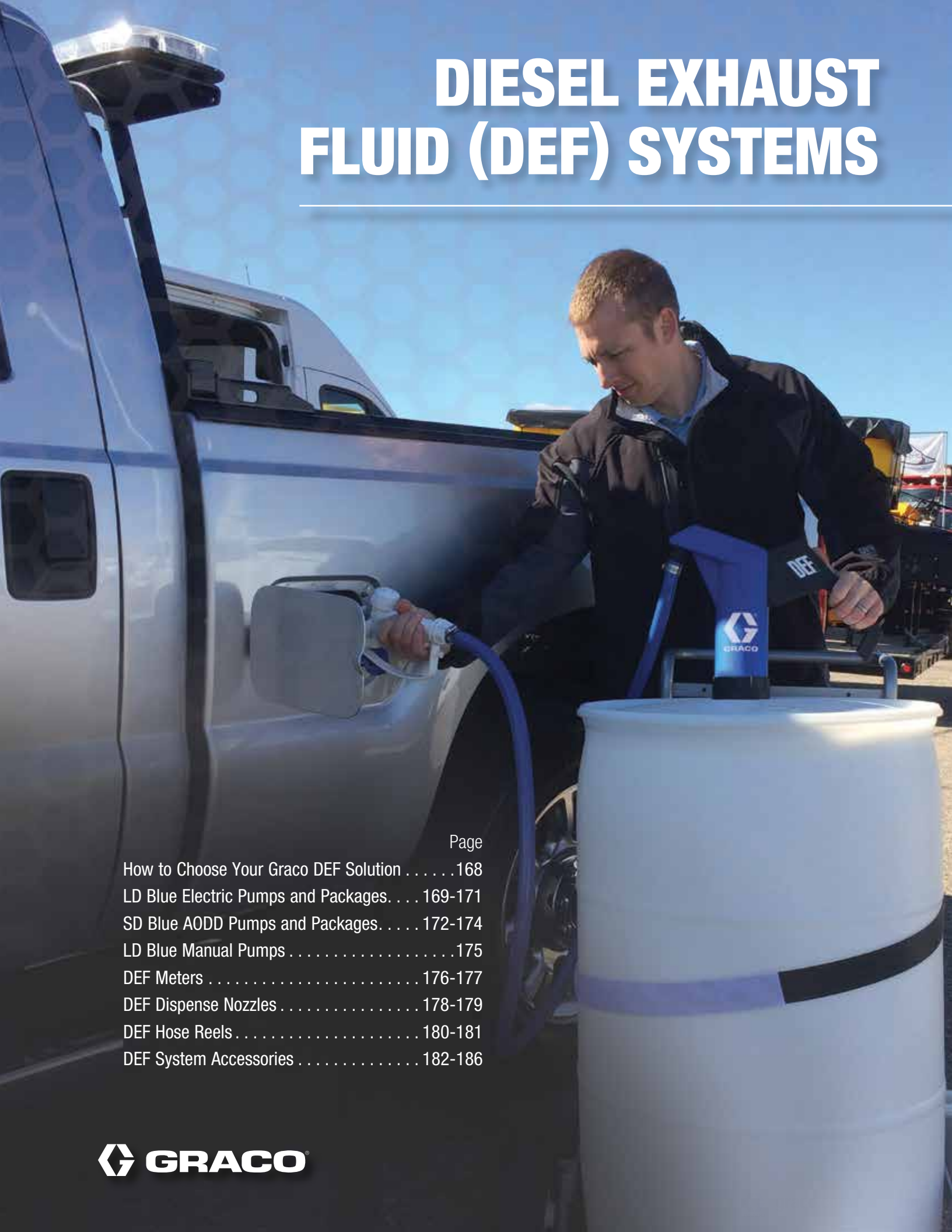
Convenient storage box contains the following threaded fittings in the quantities listed:

Part Number	Package Includes			
	Quantity	Grease Fitting No.	Shank	Description
202654	30	100054	9/32	1/8 NPT straight
	10	100970	9/32	1/8 NPT 30° angle
	10	100833	9/32	1/8 NPT 90° angle
	20	100846	3/16	1/4-28 straight
	10	100847	13/64	1/4-28 45° angle



202654

DIESEL EXHAUST FLUID (DEF) SYSTEMS



	Page
How to Choose Your Graco DEF Solution	168
LD Blue Electric Pumps and Packages.	169-171
SD Blue AODD Pumps and Packages.	172-174
LD Blue Manual Pumps	175
DEF Meters	176-177
DEF Dispense Nozzles	178-179
DEF Hose Reels	180-181
DEF System Accessories	182-186

Flexible Installation – Solutions for Every Application

Choose from configured packages or build a custom DEF system specific to your application with individual pumps and components. From the economical hand pumps to the high-performance electric or air-operated double diaphragm (AODD) packages, Graco has you covered. Every solution is designed with the highest-quality components for trouble-free operation.

Tote Mount



Drum Mount



Wall Mount



How to Choose Your Graco DEF Solution:

A

Identify your power supply

Choose the pump that's right for your application. Choose the lightweight and reliable manual hand pump for small applications. The LD Blue electric pumps are recommended for applications up to 50 ft, or upgrade to the SD Blue AODD pump for longer applications, up to 200 ft.



B

Determine your container size*

Whether dispensing from a drum or a tote container, Graco has the package that fits your needs. Fifty-five gallon drums are ideal for one or two truck operations, and for larger fleets choose 275 or 330 gallon IBC totes.

*Tote and drum not for sale from Graco

C

Choose your accessories

Graco offers a full line of high-quality DEF accessories to complement your installation. Select from automatic or manual dispense nozzles, closed-system couplers, in-line meters, hose reels, mounting brackets, fittings, and dispense and suction hoses.



A Reliable Industrial Pump with Self-Priming Capabilities

Whether you own a small garage, large dealership or heavy equipment maintenance facility, Graco has a complete line of diesel exhaust fluid (DEF) products for every application. Our electric, pneumatic or manual products are engineered specifically for the advanced needs of DEF fluid and are designed to minimize downtime and dispense materials quickly without compromising chemical integrity.

**2 Year
Warranty!**

Built-In Safety and Reliability

Automatic shut-off timer (6.5 min) incorporated into the 120V pump. Prevents the pump from running past the duty cycle and maximizes the life of the pump.

Stay Up and Running Longer

Reduce downtime and get more work done with the LD Blue systems – up to twice the life of competitive pumps.



Reduced Maintenance

Features a self-priming membrane pump that has no need for a dynamic seal, reducing the need for maintenance.

Typical Applications

- Automotive and heavy-duty dealerships
- Agriculture
- Service and fast lube centers
- Fleet service facilities

Typical Fluids Handled

- Diesel exhaust fluid

Technical Specifications

	120V	12V
Maximum Flow Rate	9 gpm	9.5 gpm
Maximum Fluid Pressure	50 psi	50 psi
RPM	1,750	2,600
Watts	500	260
Voltage	120V / 60hz	12V
Maximum Amperage	4.5A	22A
Duty Cycle	20 min ON/OFF	20 min ON/OFF
Listings	CRU US	CE

Ordering Information

Pump Only

Part Number	Description
127642	120V AC electric pump, 3/4 in barbed hose tail
127643	12V DC electric pump, 3/4 in barbed hose tail

Ordering Information

LD Blue Electric Pump Packages



Package Number	26C172	26C175	26C173	26C174
Mount Type	Tote	Tote	Tote	Tote
Voltage	12 VDC	120 VAC	12 VDC	120 VAC
Type of Nozzle	Automatic	Automatic	Automatic	Automatic
Nozzle	127655	127655	127655	127655
Pump	127643	127642	127643	127642
Bracket	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Meter	127873	127873	-	-
1 in Elbow Fitting	127656	127656	-	-
Dispense Hose	127680	127680	127680	127680
Dispense Hose Length	20 ft	20 ft	20 ft	20 ft
Suction Hose	127679	127679	127679	127679
Suction Hose Length	5 ft	5 ft	5 ft	2 ft
Fittings (2)	SST clamps	SST clamps	SST clamps	SST clamps

Ordering Information

LD Blue Electric Pump Packages



Package Number	24V641	24V644	24V645	24V656	24V646
Mount Type	Tote	Tote	Tote	Drum	Tote
Voltage	120V	120V	120V	120V	12V
Type of Nozzle	Automatic	Manual	Automatic	Automatic	Automatic
Nozzle	127649	125078	127649	127649	127649
Pump	127642	127642	127642	127642	127643
Bracket	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Meter	127663	-	-	-	127663
1 in Elbow Fitting	127656	-	-	-	127656
Dispense Hose	24W161	24W161	24W161	24W161	24W161
Dispense Hose Length	20 ft	20 ft	20 ft	20 ft	20 ft
Suction Hose Length	5 ft	5 ft	5 ft	5 ft	5 ft
Fittings (2)	SST clamps	SST clamps	SST clamps	SST clamps	SST clamps

Diesel Exhaust Fluid (DEF) Systems



Package 24V646 installed on tote (not included in package).



Package 24V656 installed on 55 gallon drum (not included in package).

Superior-Performing AODD Pump Capable of Higher Output Over Longer Runs

Whether for a small garage, large dealership or heavy equipment maintenance facility, our pneumatic pumps are engineered specifically for the advanced needs of DE fluid and are designed to minimize downtime and dispense materials quickly without compromising chemical integrity.

**5 Year
Warranty!**

Modular Air Valve

Stall-free, low-pulsation air valve provides smooth and rapid changeover for increased efficiency and minimizes downtime.

Robust Design

Bolt-through fluid cover design eliminates leaks and provides better safety and more reliability.

Versatility

The Husky 515 pump delivers up to 15 gpm and works on as little as 30 psi.

Rugged Construction

Resists corrosion for reliable performance and long life.



Typical Applications

- Automotive and heavy-duty dealerships
- Mining
- Service and fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks

Typical Fluids Handled

- Diesel exhaust fluid

Technical Specifications

Maximum Flow Rate	15 gpm
Maximum Fluid Pressure	50 psi
Air Operating Range	30-50 psi
Air Inlet	1/4 in NPT(F)
Pump Inlet	3/4 in BSPP(F)
Hose Inlet	3/4 in BSPP(F)
Pump Outlet	3/4 in BSPP(F)
Maximum Air Consumption	28 scfm

Ordering Information

Part Number	Description	Inlet/Outlet
24G745	SD Blue Husky 515 pump	3/4 in BSPP

Ordering Information

SD Blue Pump Tote Packages



	Deluxe		Standard	
Package Number	24F531	24F878	24V677	24V678
Mount Type	Tote/Wall	Tote/Wall	Tote/Wall	Tote/Wall
Type of Nozzle	Automatic	Automatic	Automatic	Automatic
Air-Operated Pump	24G745	24G745	24G745	24G745
Mounting Bracket	24F870	24F870	24W186	24W186
Valve/Nozzle	24F529	24F529	127649	127649
Meter	24G738	-	127663	-
Drum Quick Connect Kit	24F532	24F532	-	-
Air Regulator and Gauge	110147	110147	-	-
Air Shut-Off Ball Valve, Vented	110223	110223	-	-
50 psi Air Safety Valve	124963	124963	116306	116306
Dispense Hose	124603	124603	24W161	24W161
Dispense Hose Length	20 ft	20 ft	20 ft	20 ft
Suction Hose	124581	124581	24W149	24W149
Suction Hose Length	6 ft	6 ft	5 ft	5 ft
Fittings (2)	3/4 in BSPP(MBE)	3/4 in BSPP(MBE)	SST Clamps	SST Clamps

Package 24V677 installed on a 275 gallon tote (tote and coupler not included in package).



Ordering Information

SD Blue Pump Drum Packages



	Deluxe		Standard	
Package Number	24F947	24M499	24V679	24V686
Mount Type	Drum	Drum	Drum	Drum
Type of Nozzle	Manual	Automatic	Manual	Automatic
Air-Operated Pump	24G745	24G745	24G745	24G745
Mounting Bracket	24F679	24F679	24W185	24W185
Valve/Nozzle	125078	24F529	125078	127649
Meter	–	24H293	–	127663
Drum Quick Connect Kit	24F532	24F532	–	–
Air Regulator and Gauge	110147	110147	–	–
Air Shut-Off Ball Valve, Vented	110223	110223	–	–
50 psi Air Safety Valve	124963	124963	116306	116306
Dispense Hose	125079	124671	24W154	24W154
Dispense Hose Length	12 ft	12 ft	12 ft	12 ft
Suction Hose	124875	124875	24W148	24W148
Suction Hose Length	2 ft	2 ft	2 ft	2 ft
Fittings (2)	3/4 in BSPP(M)	3/4 in BSPP(M)	SST Clamps	SST Clamps

Package 24V686 installed on 55 gallon drum (not included in package).





Features and Benefits

- Lightweight, reliable and cost-effective solution for dispensing DEF from 55 gallon drums
- Quick drum installation and change-out with integrated 2 inch bung adapter
- Fast delivery capable of 11 oz per stroke
- Adjustable telescoping downtube

Typical Applications

- Automotive and heavy-duty dealerships
- Agriculture
- Service and fast lube centers
- Fleet service facilities
- In-plant

Typical Fluids Handled

- Diesel exhaust fluid

Technical Specifications

Maximum Flow Rate	11 oz per stroke
-------------------	------------------

Ordering Information

Part Number	Description
127647	DEF hand pump with drum-length adjustable downtube (125479)
24G636	DEF hand pump (127647), 6 ft dispense hose with ball valve (125478), drum length adjustable downtube (125479)
127875	DEF hand pump (127647), 6 ft dispense hose with ball valve (125478), drum length adjustable downtube (125479), LD manual nozzle (125078)

Accessories

Part Number	Description
125479	Drum length adjustable downtube for hand pump
125478	6 ft dispense hose with ball valve

**7 Year
Warranty!**



Features and Benefits

- Tracks totals in two modes – reset for periodic history and non-reset for meter life
- Durable design for rugged use
- Easy to use – dispenses pints, quarts, liters or gallons
- 0.5 gpm to 15 gpm flow rate
- 1500 psi maximum pressure, 1/2 in NPT inlet

Technical Specifications

Flow Range	0.5 gpm to 15 gpm (1.9 lpm to 57 lpm)
Maximum Working Pressure	1,500 psi (103 bar)
Units of Measure	Quarts, pints, gallons, liters (factory-set to quarts)
Weight	1.8 lb (0.8 kg)
Accuracy	± 2.5%
Inlet/Outlet	1/2 in BSPP
Maximum Totalizer	99,999
Maximum Recorded Dispense	999.99
Operating Temperature Range	-4°F to 122°F (-20°C to 50°C)
Storage Temperature Range	-13°F to 122°F (-25°C to 50°C)
Outdoor Use	No
Battery	2 AA alkaline
Wetted Parts	Stainless steel, PBT (polybutylene terephthalate), nickel, fluoroelastomer
Meter Pressure Loss	22 psi (1.5 bar) @ 14 gpm (53 lpm)
Instruction Manual	313048

Typical Applications

- Automotive and heavy-duty dealerships
- Mining
- Service and fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks

Typical Fluids Handled

- Diesel exhaust fluid

Ordering Information

Part Number	Description
24G738	SDI15 DEF meter, 1/2 in BSPP(F/F), 1,500 psi, 0.5 to 15 gpm
24H293	SDI15 meter kit with fittings for SST auto nozzle. Includes SDI15 Meter (24G738), Swivel (124964), Nipple Fitting (24H292), Adapter Fitting (16G760) and Elastomeric Seal (124965).



Features and Benefits

- Easy to install – use in-line or at the end of the dispense hose
- Impulse signals – single channel or reed switch
- 1.3 gpm to 26.4 gpm flow rate
- Rotatable display – 4 positions
- 1 in BSPP(M) inlet and outlet. Includes 1 in BSPP(F) coupler.

Typical Applications

- Automotive and heavy-duty dealerships
- Service and fast lube centers
- Fleet service facilities
- In-plant

Typical Fluids Handled

- Diesel exhaust fluid


Technical Specifications

Flow Range	1.3 gpm to 26.4 gpm (4.9 lpm to 100 lpm)
Maximum Working Pressure	145 psi (10 bar)
Units of Measure	Quarts, pints, gallons, liters (factory-set to quarts)
Weight	0.6 lb (0.25 kg)
Accuracy	± 1.0%
Inlet/Outlet	1 in BSPP(M)
Maximum Totalizer	99,999
Maximum Recorded Dispense	999.99
Operating Temperature Range	14°F to 122°F (-10°C to 50°C)
Storage Temperature Range	-4°F to 158°F (-20°C to 70°C)
Outdoor Use	No
Battery	2AAA alkaline
Wetted Parts	SST, plastic, rubber
Meter Pressure Loss	5 psi (0.3 bar) @ 26.4 gpm (100 lpm)
Instruction Manual	333467

Ordering Information

Part Number	Description
127663	LD digital in-line turbine meter, LCD display

Accessories

	Part Number	Description
	127800	Adapter – SD auto nozzle connection to LD meter



**2 Year
Warranty!**

Features and Benefits

- Easy break-away system for low-cost repairs if the spout becomes detached
- Choose with or without built-in meter
- 4 gpm to 12 gpm flow rate
- 50 psi maximum pressure
- Optional mis-filling system to prevent mis-fills
- Stainless steel spout

Technical Specifications

	Automatic Shut-Off Nozzle	Automatic Shut-Off Nozzle with Meter
Flow Range	4 gpm to 12 gpm (15 lpm to 45 lpm)	4 gpm to 12 gpm (15 lpm to 45 lpm)
Maximum Working Pressure	50 psi (3.5 bar)	50 psi (3.5 bar)
Units of Measure	–	Quarts, pints, gallons, liters (factory-set to quarts)
Weight	1.3 lb (0.6 kg)	1.8 lb (0.8 kg)
Accuracy	–	± 1%
Inlet	1 in BSP or 3/4 in hose barb	1 in BSP or 3/4 in hose barb
Maximum Totalizer	–	999,999
Maximum Recorded Dispense	–	99,999
Operating Temperature Range	-4°F to 130°F (-20°C to 55°C)	14°F to 122°F (-10°C to 50°C)
Storage Temperature Range	-40°F to 140°F (-40°C to 60°C)	-4°F to 158°F (-20°C to 70°C)
Outdoor Use	Yes	No
Battery	–	2AA alkaline
Wetted Parts	SST, rubber, plastic	SST, rubber, plastic
Meter Pressure Loss	13 psi (0.9 bar) @ 9.3 gpm (35 lpm)	13 psi (0.9 bar) @ 9.3 gpm (35 lpm)
Instruction Manual	333468	333469

Typical Applications

- Automotive and heavy-duty dealerships
- Service and fast lube centers
- Fleet service facilities
- In-plant

Typical Fluids Handled

- Diesel exhaust fluid

Ordering Information

Part Number	Description
127649	LD automatic nozzle with stainless steel breakaway spout
127650	LD automatic nozzle with built-in electronic turbine meter, with stainless steel breakaway spout

Accessories

	Part Number	Description
	127651	Spout replacement kit for LD nozzles 127649 and 127650
	127652	Magnetic mis-fill spout kit for LD automatic nozzles
	127654	Magnetic adapter for mis-fill kit



Features and Benefits

- Heavy-duty design
- Automatic shut-off valve with stainless steel nozzle
- 11 gpm flow rate
- 50 psi maximum pressure
- 3/4 in BSPP inlet

Typical Applications

- Automotive and heavy-duty dealerships
- Mining
- Service and fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks

Typical Fluids Handled

- Diesel exhaust fluid

Ordering Information

Part Number	Description
124398	SD automatic shut-off SST nozzle without swivel, 3/4 in BSPP(F)
24F529	SD automatic shut-off SST nozzle with swivel, 3/4 in BSPP(F)
127655	SD automatic shut-off SST nozzle, 3/4 in hose barb

LD Blue Manual Nozzle

Typical Applications

- Automotive and heavy-duty dealerships
- Service and fast lube centers
- Fleet service facilities
- In-plant

Typical Fluids Handled

- Diesel exhaust fluid

Features and Benefits

- Manual shut-off valve with stainless steel nozzle
- High 20 gpm flow rate
- 50 psi maximum pressure
- 3/4 in BSPP inlet
- Lightweight – under 1 lb



Ordering Information

Part Number	Description
125078	LD manual DEF nozzle with SST spout



Features and Benefits

- For use with SD and LD pumps (LD pump with manual nozzle only)
- Stainless steel fluid section with open porting ensures high fluid flow with minimal pressure loss
- Flexible positioning of guide arm for mounting on bench, overhead, wall, tote or utility truck
- 150 psi maximum pressure
- 1/2 in x 45 ft inlet hose with 1/2 in BSPT(M) swivel connection to provide leak-free connection

Typical Applications

- Small maintenance shops
- Tire maintenance shops
- Small fast lubes
- Independent repair facilities
- Industrial manufacturing facilities

Technical Specifications

Operating Temperature Range	-40°F to 158°F (-40°C to 70°C)
Wetted Parts	Hybrid polymer, brass, nitrile rubber
Sound Pressure Level	80 dB(A)
Sound Power Level	87 dB(A)
Instruction Manual	3A8216

Typical Fluids Handled

- Diesel exhaust fluid

Ordering Information

Hose Reels

Part Number	Description
HEL015	LDX Series, DEF, 1/2 in (13 mm) inlet, 1/2 in x 45 ft (13 mm x 14 m) hose, BSPT

Accessories

Part Number	Description
25U370	Inlet kit
18F444	1/2 in BSPT to 3/4 in hose barb adapter
18F445	1/2 in to 3/4 in adapter, BSPT



Features and Benefits

- For use with SD and LD pumps (LD pump with manual nozzle only)
- Stainless steel fluid section with open porting ensures high fluid flow with minimal pressure loss
- Flexible positioning of guide arm for mounting on bench, overhead, wall, tote or utility truck
- 50 psi maximum pressure
- 3/4 in x 50 ft inlet hose with 3/4 in BSPP(M) swivel connection to provide leak-free connection

Typical Applications

- Automotive and heavy-duty dealerships
- Mining
- Service and fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks

Typical Fluids Handled

- Diesel exhaust fluid

Technical Specifications

Operating Temperature Range	12°F to 140°F (-11°C to 60°C)
Maximum Working Pressure	50 psi (3.5 bar)
Wetted Parts (Bare Reel Only)	Zinc plated steel, polyurethane, steel
Weight (Without hose)	98 lb (44.5 kg)
Sound Pressure Level	85.8 dB (A)
Sound Power Level	94.9 dB (A)
Instruction Manual	3A1767

Ordering Information

Hose Reels

Part Number	Description
HSDD5A	XD 30 DEF hose reel, 3/4 in x 50 ft, white, BSPP
HSDD5B	XD 30 DEF hose reel, 3/4 in x 50 ft, blue, BSPP
HSDD5F	XD 30 DEF hose reel, 3/4 in x 50 ft, yellow, BSPP
HSDDDA	XD 30 DEF hose reel, bare, white, BSPP
HSDDDB	XD 30 DEF hose reel, bare, blue, BSPP
HSDDDF	XD 30 DEF hose reel, bare, yellow, BSPP


Hose Reel Inlet Kits

A hose inlet kit is required when ordering an XD reel.


Part Number	Description
24W250	2 ft DEF inlet hose kit for XD 30 reels. 3/4 in BSPP(F) x cut end and 90° elbow.
24W251	6 ft DEF inlet hose kit for XD 30 reels. 3/4 in BSPP(F) x cut end and 90° elbow.
124875	2 ft DEF hose, 3/4 in BSPP(M) x cut end (inlet hose)
124581	6 ft DEF hose, 3/4 in BSPP(M) x cut end (inlet hose)

Ordering Information


Mounting Brackets

	Part Number	Description
	24F870	AODD tote/wall mounting bracket with nozzle holder
	24F679	AODD drum mounting bracket with nozzle holder
	124541	AODD nozzle bath holder

Dispense and Suction Hoses

	Standard	Part Number	Description
		24W148	2 ft suction hose kit with (2) hose clamps
		24W149	5 ft suction hose kit with (2) hose clamps
		24W190	6 ft dispense hose kit with (2) hose clamps
		24W154	12 ft dispense hose kit with (2) hose clamps
	24W161	20 ft dispense hose kit with (2) hose clamps	
	Deluxe	124875	2 ft suction hose, 3/4 in BSPP(M) x cut end (inlet hose)
		124581	6 ft suction hose, 3/4 in BSPP(M) x cut end (inlet hose)
		124671	12 ft dispense hose, 3/4 in BSPP x 3/4 in BSPP
		125079	12 ft dispense hose, 3/4 in BSPP x cut end
		124603	20 ft dispense hose, 3/4 in BSPP x 3/4 in BSPP
		125074	20 ft dispense hose, 3/4 in BSPP x cut end
		125242	50 ft dispense hose, 3/4 in BSPP x 3/4 in BSPP

Pump Handle

	Part Number	Description
	127646	Black handle for 12V DC pump

Ordering Information

Fittings




	Part Number	Description
	127656	1 in BSP(F) elbow fitting, black
	127657	1 in BSP(F) x 3/4 in barb hose tail, black
	127720	1 in BSP(F) x 1 in BSP(F) linear socket, black
	127804	3/4 in x 1 in BSPP(F) swivel fitting with seals
	127805	1 in BSPP(F) x 1 in BSPP(F) coupler
	127806	1 in BSPP(M/F) swivel, white
	127815	3/4 in BSP x 3/4 in barb SST swivel hose tail
	127823	1 in BSP x 3/4 in barb elbow, white
	116306	1/4 in NPT, 50 psi air safety valve for Standard AODD pump packages
	124963	1/8 in NPT, 50 psi air safety valve for Deluxe AODD pump packages
	24F524	3/4 in BSPP(M) x 3/4 in BSPP(F) SST swivel

Ordering Information

Maintaining fluid purity is essential to the longevity of your equipment and maintaining selective catalytic reduction (SCR) engines. With a closed-system design you can minimize fluid contamination and prevent spills. Choose from a variety of industry-accepted closed-system inlet kits to best suit your needs.

Colder

DrumQuick® PRO Quick Connect Coupler System. Economical polypropylene assembly can withstand thousands of quick and fast connections.

	Part Number	Description
	24F532	Colder closed-system coupler kit – includes drum coupler (124548), drum insert (124549) and downtube (124550)
	124548	Colder closed-system drum coupler
	124549	Colder closed-system drum insert
	125014	Colder closed-system drum insert with buttress thread
	124550	Colder closed-system 47 in downtube












DrumQuick® is a registered trademark of Colder Products Company.

Ordering Information

Micro Matic

Reusable Stainless Valve (RSV) is ideal for multi-use applications and is simple to integrate with drums, totes and custom packages.

Economic Plastic Valve (EPV™) is designed for one-way, single-use applications. Engineered for use when operations require the container package to be used once, emptied and recycled.

	Part Number	Description
	17C907	Micro Matic EPV dispense coupler, 3A orange, 3/4 in barbed outlet, EPDM seals
	127634	Micro Matic EPV container valve, 3A orange, 2.5 in x 5 buttress, EPDM Seals
	127793	Micro Matic EPV downtube for 55 gal drum
	127794	Micro Matic EPV center downtube for 275 gal IBC tote
	127635	Micro Matic EPV center downtube for 330 gal IBC tote
	17C908	Micro Matic RSV dispense coupler, 3/4 in barbed outlet, 4 pin, stainless steel
	127637	Micro Matic RSV container valve, 2.5 in x 5 in, 4 cam, stainless steel valve, EPDM seals
	127795	Micro Matic RSV downtube for 55 gal drum
	127796	Micro Matic RSV center downtube for 275 gal IBC tote
	127639	Micro Matic RSV center downtube for 330 gal IBC tote
	127640	Micro Matic RSV fill coupler, 1 in NPT(M) inlet x 1/4 in NPT(F) outlet, 4 pin, stainless steel

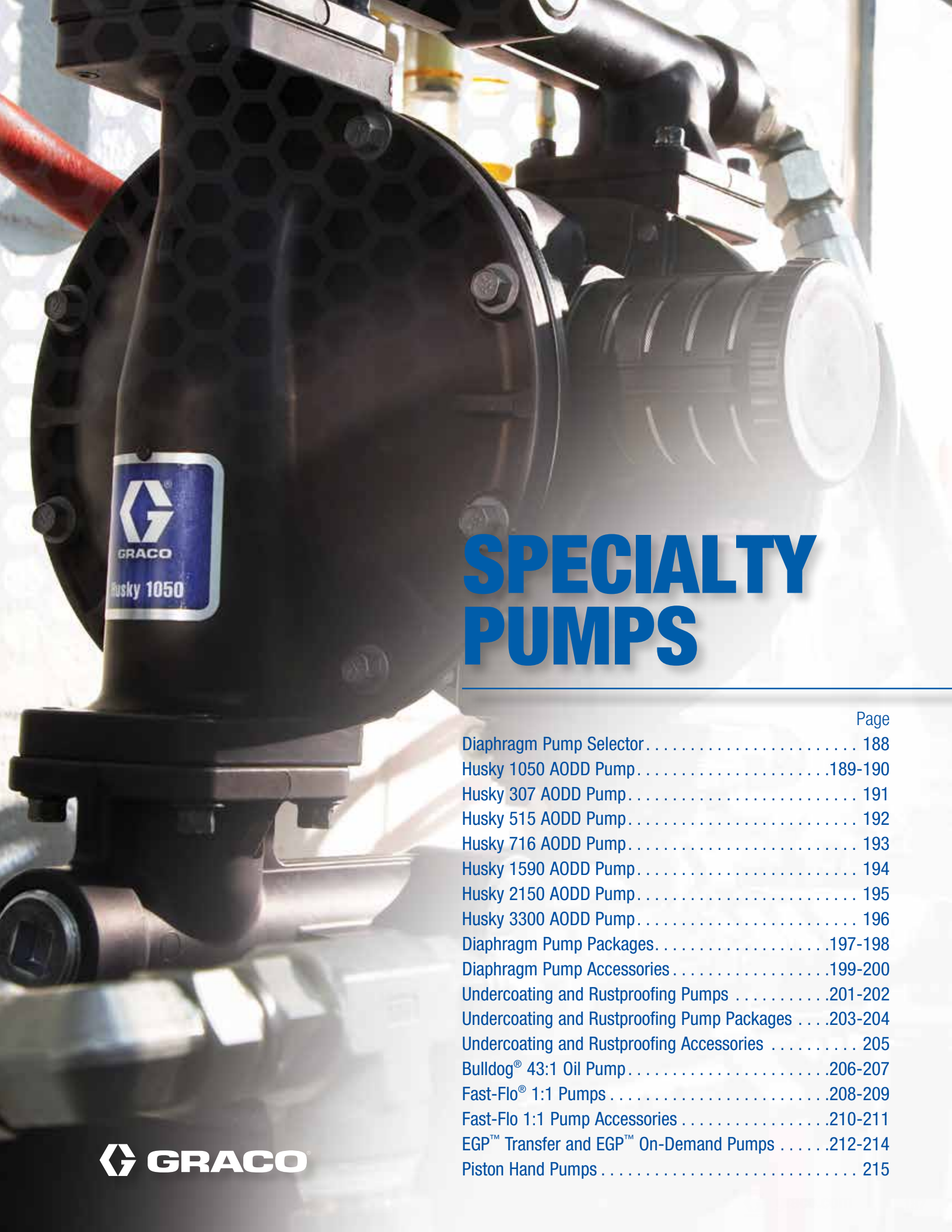
EPV™ is a trademark of Micro Matic USA, Inc.

Ordering Information

Micro Matic Packages

Includes coupler, valve and downtube.

	Part Number	Description
	24W142	Micro Matic EPV suction package – coupler (17C907), container valve (127634), 55 gal downtube (127793)
	24W141	Micro Matic EPV suction package – coupler (17C907), container valve (127634), 275 gal downtube (127794)
	24W140	Micro Matic EPV suction package – coupler (17C907), container valve (127634), 330 gal downtube (127635)
	24W145	Micro Matic RSV suction package – coupler (17C908), container valve (127637), 55 gal downtube (127795)
	24W144	Micro Matic RSV suction package – coupler (17C908), container valve (127637), 275 gal downtube (127796)
	24W143	Micro Matic RSV suction package – coupler (17C908), container valve (127637), 330 gal downtube (127639)












SPECIALTY PUMPS

	Page
Diaphragm Pump Selector.....	188
Husky 1050 AODD Pump.....	189-190
Husky 307 AODD Pump.....	191
Husky 515 AODD Pump.....	192
Husky 716 AODD Pump.....	193
Husky 1590 AODD Pump.....	194
Husky 2150 AODD Pump.....	195
Husky 3300 AODD Pump.....	196
Diaphragm Pump Packages.....	197-198
Diaphragm Pump Accessories.....	199-200
Undercoating and Rustproofing Pumps.....	201-202
Undercoating and Rustproofing Pump Packages.....	203-204
Undercoating and Rustproofing Accessories.....	205
Bulldog® 43:1 Oil Pump.....	206-207
Fast-Flo® 1:1 Pumps.....	208-209
Fast-Flo 1:1 Pump Accessories.....	210-211
EGP™ Transfer and EGP™ On-Demand Pumps.....	212-214
Piston Hand Pumps.....	215

Diaphragm Pump Selection Guide



Specialty Pumps

Husky Series	Part Number	Pump Description	Fluids	Listings	Max PSI	Reference Pages
 Husky 307	D31255	Husky 307 Acetal – 3/8 in Acetal/TPE	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer • Water • Antifreeze • Windshield wash fluid 	–	100 psi (6.9 bar)	193
 Husky 515	243669	Husky 515 Acetal Split Inlet – 3/4 in Acetal/Buna Dual Inlet	<ul style="list-style-type: none"> • 50/50 windshield wash solution • Water • Antifreeze 	–	100 psi (6.9 bar)	194
 Husky 716	241906	Husky 716 Aluminum – 3/4 in Aluminum/Buna-N	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer • Water • Antifreeze • Windshield wash fluid 	–	100 psi (6.9 bar)	195
 Husky 1050	647016	Husky 1050 Aluminum – 1 in Aluminum/TPE	<ul style="list-style-type: none"> • Water • Antifreeze • Fuel transfer • Gasoline (up to 10% ethanol) 	UL	100 psi (6.9 bar)	191-192
 Husky 1050	647731	Husky 1050 Aluminum – 1 in Aluminum/Buna-N	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer 	UL	100 psi (6.9 bar)	191-192
 Husky 1050	647648	Husky 1050 Aluminum – 1 in Aluminum/TPE	<ul style="list-style-type: none"> • Fuel dispense • Gasoline (up to 10% ethanol) 	UL	50 psi (3.5 bar)	191-192
 Husky 1590	DB3525	Husky 1590 Aluminum – 1.5 in Aluminum/TPE	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer • Water • Antifreeze 	–	120 psi (8.3 bar)	196
 Husky 2150	DF3525	Husky 2150 Aluminum – 2 in Aluminum/TPE	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer • Water • Antifreeze 	–	120 psi (8.3 bar)	197
 Husky 3300	652002	Husky 3300 Aluminum – 3 in Aluminum/TPE	<ul style="list-style-type: none"> • Oil evacuation • Oil transfer • Water • Antifreeze 	–	125 psi (8.6 bar)	198



**UL
Listed!**

Efficiency, Performance and Best-in-Class Engineering

Husky pneumatic double-diaphragm pumps feature a stall-free, low-pulsation air valve, which provides a smooth and rapid changeover. Typical applications include oil transfer and evacuation, fuel dispense and transfer, windshield wash solution dispense, and water and antifreeze dispense. Some models UL-approved for use in pumping gasoline and gasoline/alcohol blends up to 10% ethanol, diesel fuel, fuel oil and lubricating oil.



Modular Air Valve

Stall-free, low-pulsation operation provides smooth and rapid changeover

One-Piece Center Section

Eliminates air leaks for more efficient operation

Longer Diaphragm Life

Up to 5x longer diaphragm life for less maintenance and downtime

Four-Bolt Joint Design

Bolted design provides even sealing pressure for leak-free operation

Multiple Ports

Increased number of ports for installation flexibility

Specialty Pumps

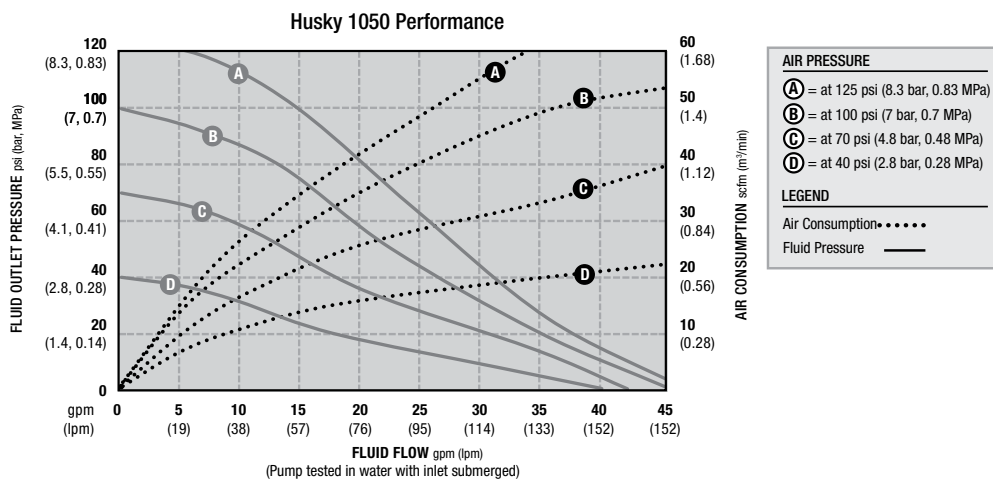
Typical Applications

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

Typical Fluids Handled

- Oil
- Fuel
- Water
- Antifreeze
- Washer fluid

Pump Performance



Husky 1050 AODD Pump



Technical Specifications

Maximum fluid working pressure	
Transfer Pump	100 psi (6.9 bar, 0.69 MPa)
Fuel Dispense Pump	50 psi (3.5 bar, 0.35 MPa)
Air pressure operating range	
Transfer Pump	20 psi to 100 psi (1.4 bar to 6.9 bar, 0.14 MPa to 0.69 MPa)
Fuel Dispense Pump	0 psi to 50 psi (1.4 bar to 3.5 bar, 0.14 MPa to 0.35 MPa)
Air consumption at 70 psi (0.48 MPa, 4.8 bar), 20 gpm (76 lpm)	25 scfm
Air consumption at 50 psi (0.35 MPa, 3.5 bar), full flow	25 scfm
Fluid displacement per cycle	0.17 gal (0.64 l)
Maximum values with water as media under submerged inlet conditions at ambient temperature:	
Maximum air consumption	64 scfm
Maximum free-flow delivery	
Transfer Pump	50 gpm (189 lpm)
Fuel Dispense Pump	38 gpm (144 lpm)
Maximum pump speed	
Transfer Pump	275 cpm
Fuel Dispense Pump	210 cpm
Maximum suction lift (varies widely based on ball/seat selection and wear, operating speed, material properties and other variables)	16 ft (4.9 m) dry, 29 ft (8.8 m) wet
Maximum-size pumpable solids	1/8 in (3.2 mm)
Recommended cycle rate for continuous use	93 cpm to 140 cpm
Recommended cycle rate for circulation systems	20 cpm
Sound Power*	
at 70 psi (0.48 MPa, 4.8 bar) and 50 cpm	78 dB(A)
at 100 psi (0.7 MPa, 7.0 bar) and full flow	90 dB(A)
Sound Pressure**	
at 70 psi (0.48 MPa, 4.8 bar) and 50 cpm	84 dB(A)
at 100 psi (0.7 MPa, 7.0 bar) and full flow	96 dB(A)
Operating temperature range	10°F to 150°F (-12°C to 65°C)
Air inlet size	1/2 in NPT(F)
Fluid inlet size	1 in NPT(F)
Fluid outlet size	1 in NPT(F)
Weight	23 lb (10.5 kg)
Wetted parts	Aluminum, TPC-ET, acetal, PTFE, Buna-N
Non-wetted external parts	Aluminum, coated carbon steel
Instruction manual	313597

*Sound power measured per ISO-9614-2.

**Sound pressure was tested 3.28 ft (1 m) from equipment.

Ordering Information

Husky 1050 AODD Pumps

Part Number	Description	Maximum Fluid Working Pressure	Fluids Handled
647016	Husky 1050 Aluminum Pump – 1 in, Aluminum/TPE	100 psi (6.9 bar)	Water / antifreeze / fuel transfer
647731	Husky 1050 Aluminum Pump – 1 in, Aluminum/Buna-N	100 psi (6.9 bar)	Oil evacuation / oil transfer
647648	Husky 1050 Aluminum Pump – 1 in, Aluminum/TPE	50 psi (3.5 bar)	Fuel dispense



Husky 307 AODD Pump

- 3/8 in fluid connections
- Fluid delivery up to 7 gpm (26.5 lpm)
- Operate as low as 20 psi up to 100 psi for max flow
- Maximum working pressure of 100 psi for long line runs
- End porting available
- High-efficiency air valve operates at maximum of 6 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	100 psi (6.9 bar, 0.69 MPa)
Maximum free-flow delivery*	7.0 gpm (26.5 lpm)
Maximum pump speed	330 cpm
Fluid displacement per cycle**	0.02 gal (0.076 l)
Maximum suction lift	12 ft (3.7 m) dry
Maximum-size pumpable solids	0.06 in (1.5 mm)
Maximum ambient operating temperature***	180°F (82.2°C)
Maximum diaphragm operating temperature***	150°F (65.6°C)
Typical sound level at 50 psi (3.5 bar, 0.35 MPa) air @ 50 cpm	75 dB(A)
Maximum air consumption	6 scfm (0.17 m ³ /min)
Air pressure operating range	20 psi to 100 psi (1.4 bar to 6.9 bar, 0.14 MPa to 0.69 MPa)
Air inlet size	1/4 NPT(F) or BSPT(F)
Fluid inlet size	3/8 NPT(F)
Fluid outlet size	3/8 NPT(F)
Weight	5.2 lb (2.4 kg)
Wetted parts	Acetal with stainless steel fibers, PTFE
Instruction manual	308553

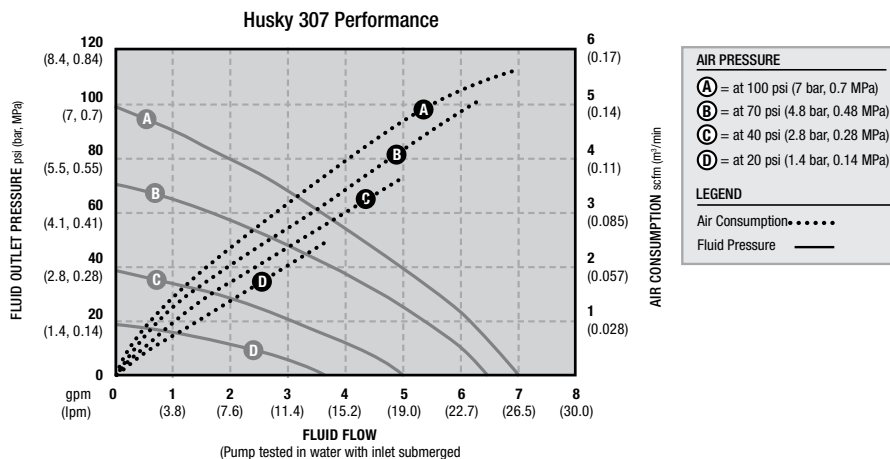
*Flow rates are with muffler and do not vary based on diaphragm material. **Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type. ***Actual pump performance may be affected by prolonged usage at temperature.

Ordering Information

Husky 307 AODD Pump

Part Number	Description
D31255	Husky 307 Acetal Pump – 3/8 in, Acetal/TPE

Pump Performance





Husky 515 AODD Pump

- 1/2 in fluid connections
- Fluid delivery up to 15 gpm (56.7 lpm)
- Operate as low as 30 psi up to 100 psi for max flow
- Maximum working pressure of 100 psi for long line runs
- Center and end porting options available
- High-efficiency air valve operates at maximum of 28 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	100 psi (6.9 bar, 0.69 MPa)
Maximum free-flow delivery*	15 gpm (57 l/min)
Maximum pump speed	400 cpm
Fluid displacement per cycle**	0.04 gal (0.15 l)
Maximum suction lift	15 ft (4.5 m) dry, 25 ft (7.6 m) wet
Maximum-size pumpable solids	3/32 in (2.5 mm)
Maximum ambient operating temperature***	180°F (82.2°C)
Maximum diaphragm operating temperature***	180°F (82.2°C)
Typical sound level at 70 psi (4.8 bar, 0.48 MPa) air @ 50 cpm	77 dB(A)
Maximum air consumption	28 scfm (0.672 m ³ /min)
Air pressure operating range	30 psi to 100 psi (2.1 bar to 6.9 bar, 0.21 MPa to 0.69 MPa)
Air inlet size	1/4 NPT(F)
Fluid inlet size	3/4 in NPT(F)
Fluid outlet size	1/2 and 3/4 in NPT(F)
Weight	7.8 lb (3.5 kg)
Wetted parts	Groundable acetal, Buna-N, PTFE
Instruction manual	309204

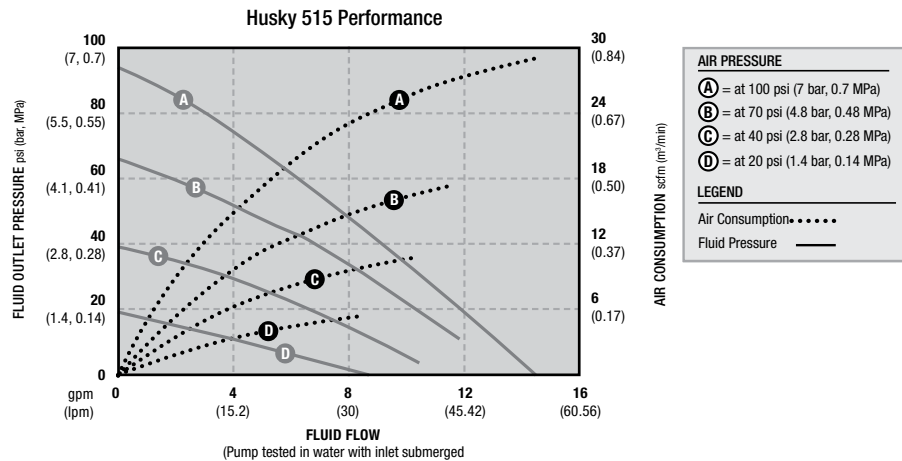
*Flow rates are with muffler and do not vary based on diaphragm material. **Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type. ***Actual pump performance may be affected by prolonged usage at temperature.

Ordering Information

Husky 515 AODD Pump

Part Number	Description
243669	Husky 515 Acetal Split Inlet – 3/4 in, Acetal/Buna Dual Inlet

Pump Performance





Husky 716 AODD Pump

- 3/4 in fluid connections
- Fluid delivery up to 16 gpm (60.6 lpm)
- Operate as low as 30 psi up to 100 psi for max flow
- Maximum working pressure of 100 psi for long line runs
- Center and end porting options available
- High-efficiency air valve operates at maximum of 28 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	100 psi (6.9 bar, 0.69 MPa)
Maximum free-flow delivery*	16 gpm (61 l/min)
Maximum pump speed	400 cpm
Fluid displacement per cycle**	0.04 gal (0.15 l)
Maximum suction lift	15 ft (4.5 m) dry, 25 ft (7.6 m) wet
Maximum-size pumpable solids	3/32 in (2.5 mm)
Maximum ambient operating temperature***	180°F (82.2°C)
Maximum diaphragm operating temperature***	180°F (82.2°C)
Typical sound level at 70 psi (4.8 bar, 0.48 MPa) air @ 50 cpm	77 dB(A)
Maximum air consumption	28 scfm (0.672 m ³ /min)
Air pressure operating range	25 psi to 100 psi (1.8 bar to 6.9 bar, 0.18 MPa to 0.69 MPa)
Air inlet size	1/4 NPT(F)
Fluid inlet size	3/4 in NPT(F)
Fluid outlet size	3/4 in NPT(F)
Weight	8.5 lb (3.9 kg)
Wetted parts	Buna-N, acetal, aluminum, stainless steel, PTFE, zinc-plated steel
Instruction manual	308573

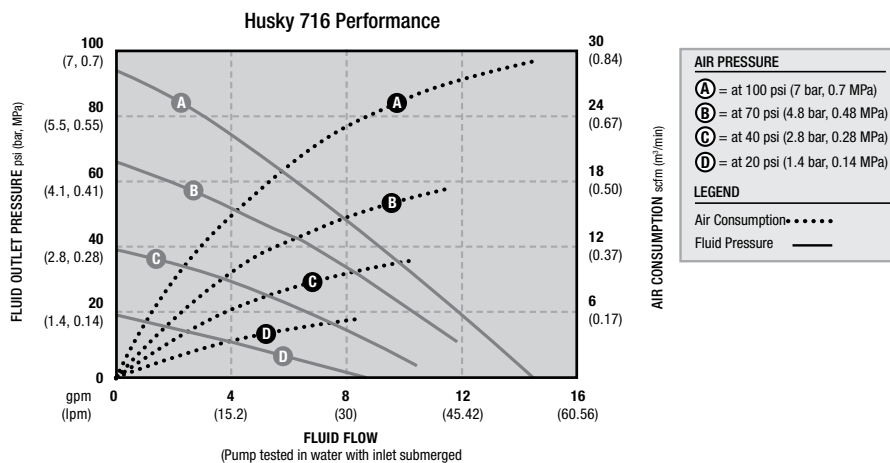
*Flow rates are with muffler and do not vary based on diaphragm material. **Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type. ***Actual pump performance may be affected by prolonged usage at temperature.

Ordering Information

Husky 716 AODD Pump

Part Number	Description
241906	Husky 716 Aluminum – 3/4 in, Aluminum/Buna-N

Pump Performance





Husky 1590 AODD Pump

- 1-1/2 in fluid connections
- Fluid delivery up to 90 gpm (340.7 lpm)
- Operate as low as 20 psi up to 120 psi for max flow
- Maximum working pressure of 120 psi for long line runs
- End porting available
- High-efficiency air valve operates at maximum of 125 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	120 psi (8.4 bar, 0.84 MPa)
Maximum free-flow delivery*	100 gpm (378.5 l/min)
Maximum pump speed	200 cpm
Fluid displacement per cycle**	0.5 gal (1.96 l)
Maximum suction lift	20 ft (6.1 m) dry
Maximum-size pumpable solids	0.19 in (4.8 mm)
Maximum ambient operating temperature***	150°F (65.5°C)
Maximum diaphragm operating temperature***	150°F (65.5°C)
Typical sound level at 70 psi (4.8 bar, 0.48 MPa) air @ 125 cpm	77 dB(A)
Maximum air consumption	125 scfm (3.5 m ³ /min)
Air pressure operating range	20 psi to 100 psi (1.4 bar to 6.9 bar, 0.14 MPa to 0.69 MPa)
Air inlet size	1/2 NPT(F)
Fluid inlet size	1-1/2 NPT(F) or BSPT(F)
Fluid outlet size	1-1/2 NPT(F) or BSPT(F)
Weight	33.5 lb (15.2 kg)
Wetted parts	Acetal, aluminum, TPE, PTFE
Instruction manual	308441

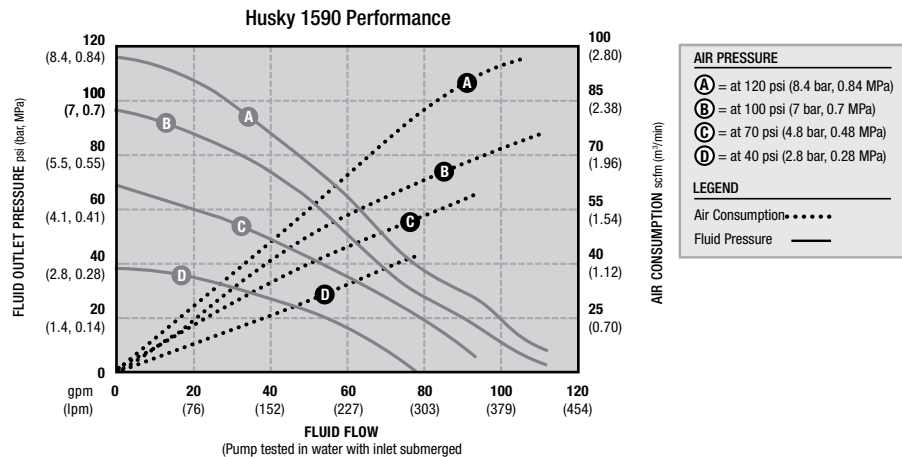
*Flow rates are with muffler and do not vary based on diaphragm material. **Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type. ***Actual pump performance may be affected by prolonged usage at temperature.

Ordering Information

Husky 1590 AODD Pump

Part Number	Description
DB3525	Husky 1590 Aluminum – 1.5 in, Aluminum/TPE

Pump Performance





Husky 2150 AODD Pump

- 2 in fluid connections
- Fluid delivery up to 150 gpm (567.8 lpm)
- Operate as low as 20 psi up to 120 psi for max flow
- Maximum working pressure of 120 psi for long line runs
- End porting available
- High-efficiency air valve operates at maximum of 175 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	120 psi (8.4 bar, 0.84 MPa)
Maximum free-flow delivery*	150 gpm (568 l/min)
Maximum pump speed	145 cpm
Fluid displacement per cycle**	1.03 gal (3.9 l)
Maximum suction lift	20 ft (6.1 m) dry
Maximum-size pumpable solids	0.25 in (6.3 mm)
Maximum ambient operating temperature***	150°F (65.5°C)
Maximum diaphragm operating temperature***	150°F (65.5°C)
Typical sound level at 70 psi (4.8 bar, 0.48 MPa) air @ 125 cpm	78 dB(A)
Maximum air consumption	175 scfm (4.9 m ³ /min)
Air pressure operating range	20 psi to 120 psi (1.4 bar to 8.4 bar, 0.14 MPa to 0.84 MPa)
Air inlet size	1/2 NPT(F)
Fluid inlet size	2 in NPT(F)
Fluid outlet size	2 in NPT(F)
Weight	58 lb (26.3 kg), 62 lb (28.1 kg) – Extended
Wetted parts	Acetal, aluminum, TPE, PTFE
Instruction manual	308368

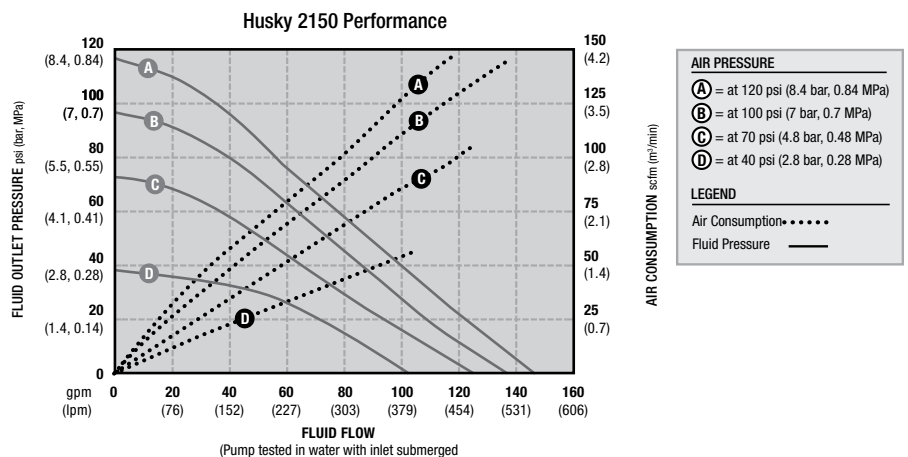
*Flow rates are with muffler and do not vary based on diaphragm material. **Displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type. ***Actual pump performance may be affected by prolonged usage at temperature.

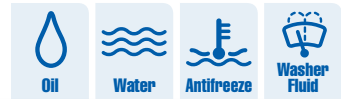
Ordering Information

Husky 2150 AODD Pump

Part Number	Description
DF3525	Husky 2150 Aluminum – 2 in, Aluminum/TPE

Pump Performance





Husky 3300 AODD Pump

- 3 in fluid connection
- Fluid delivery up to 300 gpm (1,135.6 lpm)
- Operate as low as 20 psi up to 125 psi for max flow
- Maximum working pressure of 125 psi for long line runs
- Rotatable center porting available
- High-efficiency air valve operates at maximum of 335 scfm
- Groundable to reduce risk of static and electric shock

Technical Specifications

Maximum fluid working pressure	125 psi (8.4 bar, 0.84 MPa)
Maximum free-flow delivery*	300 gpm (1,135 l/min)
Maximum pump speed	103 cpm
Fluid displacement per cycle**	2.9 gal (11 l)
Maximum suction lift	8 ft (2.4 m) dry, 28 ft (8.5 m) wet
Maximum-size pumpable solids	0.5 in (13 mm)
Maximum ambient operating temperature***	150°F (65.5°C)
Maximum diaphragm operating temperature***	150°F (65.5°C)
Typical sound level at 50 psi (3.4 bar, 0.34 MPa) air @ 50 cpm	92 dB(A)
Maximum air consumption	335 scfm (9.5 m ³ /min)
Air pressure operating range	20 psi to 125 psi (1.4 bar to 8.6 bar, 0.14 MPa to 0.86 MPa)
Air inlet size	3/4 NPT(F)
Fluid inlet size	3 in (76.2 mm) NPT or BSPT with ANSI/DIN flange
Fluid outlet size	3 in NPT(F) or BSPT(F)
Weight	150 lb (68 kg)
Wetted parts	Acetal, aluminum, carbon-coated steel, TPE
Instruction manual	3A0410

*Maximum values with water as media at ambient temperature. Water level is approximately 3 ft above pump inlet.

**Startup pressures and displacement per cycle may vary based on suction condition, discharge head, air pressure and fluid type.

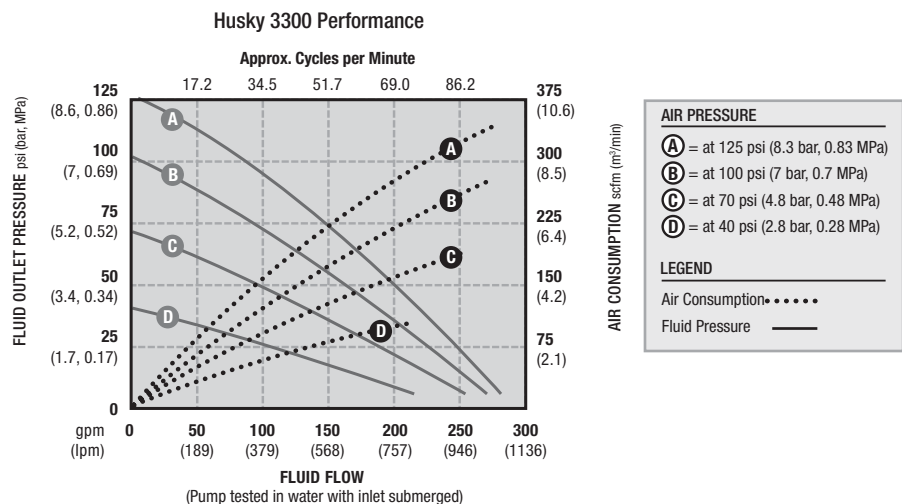
***Sound power measured per ISO-9614-2. Sound pressure was tested 3.28 ft (1 m) from equipment.

Ordering Information

Husky 3300 AODD Pump

Part Number	Description
652002	Husky 3300 Aluminum – 3 in, Aluminum/TPE

Pump Performance





Ordering Information

Pre-Mixed Windshield Wash Solvent and Coolant Dispense



Package Number	237161	
Pump Type	Husky 307	
Pump	D31255	
Installation Kit	237160	
Installation Kit Includes	Air Filter	110146
	Air Gauge	108190
	Air Regulator	110318
	Fluid Connect Hose – 4 ft	220596
	Air Connect Hose – 6 ft	109125
	Mounting Bracket	190125
	Suction Kit	223888
Wall Bracket Kit	224835	
Instruction Manual	308426	

Specialty Pumps


Ordering Information

Bulk Antifreeze and Windshield Solvent Transfer Packages




Package Number	244679	244680	244681	244682
Pump Type	Husky 1050 – Dual Inlet	Husky 1050 – Single Inlet	Husky 515 – Dual Inlet	Husky 716 – Single Inlet
Pump	647016	647016	243669	241906
Air Regulator	244844	244844	110147	110147
Fluid Connect Hose	115042	115042	109105	109105
Air Connect Hose	205418	205418	109125	109125
Air Shut-Off Valve	110225	110225	110223	110223
Wall Mount Bracket	24C637	24C637	224835	224835
Dual Inlet Manifold	24D147	–	–	–
Suction Kit	(2) 236054	236054	(2) 236054	236054
Thermal Relief Kit	238428	238428	238428	238428
Instruction Manual	309353	309353	309353	309353


Air Line Filters

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	110146	110146	106148	106149	106150	106150


Air Regulator and Gauge

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	110147	110147	246946	202858	206199	207651


Air Quick-Connect Coupler

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	208536	208536	110199	110199	110199	110200


Air Quick-Connect Nipple

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	169970	169970	110196	110196	110196	110197


Bleed-Type Air Valve

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	110223	110223	110224	110225	110225	110226


Dual-Inlet Manifold

	Husky Pump	307	515	1050	1590	2150	3300
	Part Number	237211	194347	24D205	-	-	-

Grounding Wire and Clamp


	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	222011	222011	238909	222011	238909	238909

Suction Hose Kit


	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	236054	236054	236054	222916	222916	-

Diaphragm Pump Accessories


Thermal Relief Kit

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	238899	238428	238428	–	–	–

Thermal Relief Valves – 150 psi (10.3 bar)

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	113497 al/bn, 112119 ss/ty					

Wall Bracket

	Husky Pump	307	515/716	1050	1590	2150	3300
	Part Number	224835	224835	24C637	–	–	–

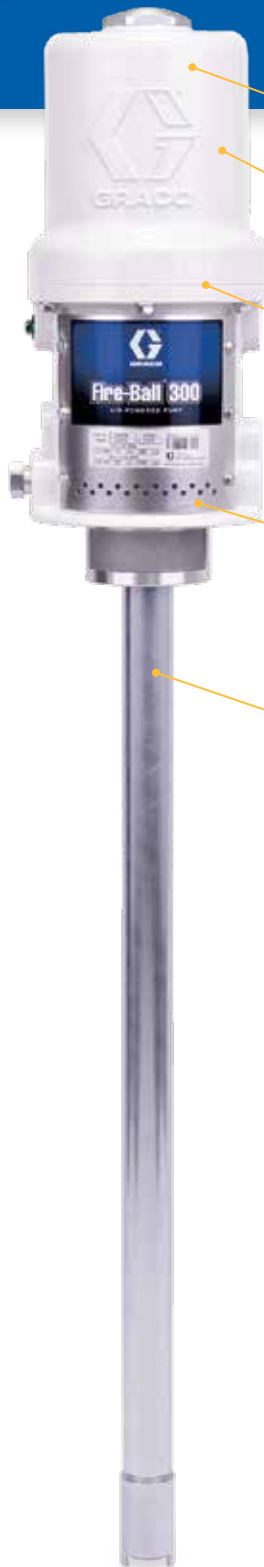
Air-Operated Double-Diaphragm Transfer Pumps Replacement Parts

									
Pump Number	D31255	243669	241906	647016	647731	647648	DB3525	DF3525	652002
Air Valve Replacement Kit	239952	241657	241657	24B768	24B768	24B768	236273	236273	24K860
Seats	D03200	D05200	D05200	24B634	24B632	24B634	D0B500	D0F500	24K932
Balls	D03050	D05070	D05070	24B639	24B639	24B639	D0B020	D0F020	24K937
Diaphragm Kit	D03005	D05007	D05007	24B624	24B624	24B624	D0B005	D0F005	24K901
Fluid Repair Kit (Ball, Seats, Diaphragm)	D03255	D05277	D05277	25A857	–	25A857	D0B525	D0F525	25A874

**7 Year
Warranty!**

Ideal for Undercoating and Rustproofing Application in Medium-Sized Shops

Utilizing the durable Fire-Ball® 300 pump, these kits are designed for use in medium-volume undercoating and rustproofing dispense applications. A three-inch differential air motor ensures smooth pumping, and the double-acting pump design provides reliable material flow and accurate dispense.



Durable

Thick cast aluminum air motor housing offers unmatched durability.

Superior Material Handling

Double-acting pump ensures smooth fluid flow.

Extended Seal Life

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

Wetted-Parts Options

Available in carbon steel for petroleum-based or SST for water-based materials.

Corrosion-Resistant

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

Typical Applications

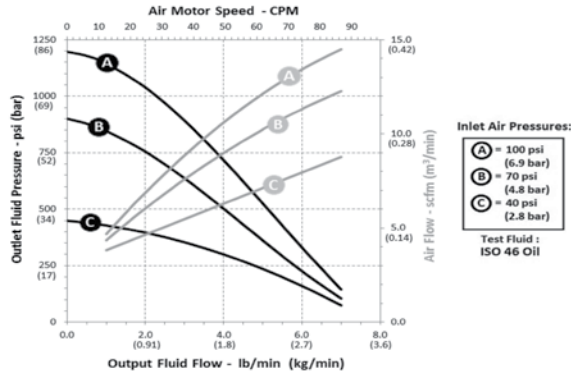
- Undercoating, rustproofing and sound-deadening materials
- Automotive and heavy-duty vehicle dealerships
- Fast lube centers and service shops
- Fleet service facilities

Typical Fluids Handled

- Undercoating and rustproofing (Verify chemical compatibility for pump's wetted components with undercoating material supplier or contact Graco directly at 1-800-533-9655)

Pump Performance

Fire-Ball 300 15:1 Pumps



Technical Specifications

Fluid Pressure Ratio	15:1
Air Motor Effective Diameter	3 in (76.2 mm)
Annual Usage	Up to 10,000 lb (4,535 kg)
Maximum Fluid Working Pressure	2,700 psi (186 bar / 18.6 MPa)
Approximate Free-Flow Rate @ 100 psi	7.5 lb/min (3.4 kg/min)
Output per Cycle	1.29 oz (36.6 g)
Continuous-Duty Flow Rate	0.7 lb/min (0.32 kg/min)
Approximate Air Use and Flow @ 100 psi (80 cpm)	14 @ 6.5 lb/min (0.40 @ 2.9 kg/min)
Air Inlet	3/8 in NPT(F)
Fluid Outlet	1/4 in NPT(F)
Air Operation Range	40 psi to 180 psi (2.8 bar to 12.5 bar)
Max Recommended Pump Speed	66 cpm
Cycles per Pound	12.4 cpp
Cycles per Kg	27 cpk
Wetted Parts	CS, AL, leather, PTFE, rubber
Sound Pressure Level	77.8 dB(A)
Sound Power Level	85.6 dB(A)
Approximate Weight	22 lb (10 kg)
Instruction Manual	306531

Ordering Information

Undercoating Packages



Package Number	222077	226342	226269
Type of Package	Stationary	Portable Dolly-Mounted	Stationary
Ratio	15:1	15:1	15:1
Container Size	35 lb (16 kg)	120 lb (54 kg)	400 lb (180 kg)
Pump Part Number	206405	206699	206700
Dispense Kit*	222079	222079	222082
Tip	286517	286517	286517
Hose Length	15 ft (4.6 m)	15 ft (4.6 m)	25 ft (7.6 m)
Drum Cover	222058	204574	200326
Portable Base	–	204144	–
Instruction Manual	307879	307879	307879

*Dispense kit includes Air Regulator (110234), Air Gauge (100960), Spray Gun (234237)

Ordering Information

Spray Masking Package




Package Number	224826
Type of Package	Bung Mounted Stationary
Ratio	15:1
Container Size	400 lb (180 kg)
Pump Part Number	224825 (SST pump)
Flexible Downtube	224022*
Dispense Kit**	224023
Tip	286211/286621
Hose Length	25 ft (7.6 m)
Instruction Manual	308069


*224022 is long enough for 400 lb (180 kg) container, but can be trimmed to accommodate smaller containers. **Dispense kit includes Flex Plus™ spray gun (235457).

Ordering Information


Application Gun

	Part Number	Description
	234237	Four-finger silver gun with tip guard 243161 and tip 286517. 4,500 psi (310 bar) x 3/8 NPT(f) inlet. Must order 155570 adapter and 239663 straight swivel to accommodate gun to 1/4 in (mbe) hose.


Bung Adapter

	Part Number	Description
	239966	Bung adapter compatible with Fire-Ball 300, 15:1 pump


Filter

	Part Number	Description
	214570	60-mesh aluminum filter, 3/8 NPT(F) inlet, 1/4 NPT(F) outlet. Maximum working pressure 3,000 psi (210 bar).

Nozzle Extension

	Part Number	Description
	206496	Nozzle extension delivers 360° coating fan into blind areas. Length 30-3/4 in (99 cm) x 7/8-14(f) end. Tip 206502, size .043.

Replacement Screen Elements (SST)

		Part Number		
		30 Mesh	60 Mesh	100 Mesh
	3-Pack	224458	224459	224469
	25-Pack	238436	238438	238440

Swivel

	Part Number	Description
	202577	Z-swivel allows non-binding movement for hard-to-reach locations. Order 155570 adapter separately to accommodate 234237 gun.



1 Year
Warranty

Reliable Operation in the Harshest Environments

With its efficient, large-ported air valve, the Bulldog 43:1 air-powered pump is the highest-performing in its class. Downtime is minimized by an air motor design that has been developed and tested for more than 10 million cycles of operation.



Added Safety

Grounded lug prevents static buildup.

Easy Installation

Compact, low-profile design makes installation easier.

Corrosion-Resistant

Lightweight aluminum construction.

Built-In Reliability

Tested to 10 million cycles without failure.

Specialty Pumps

Typical Applications

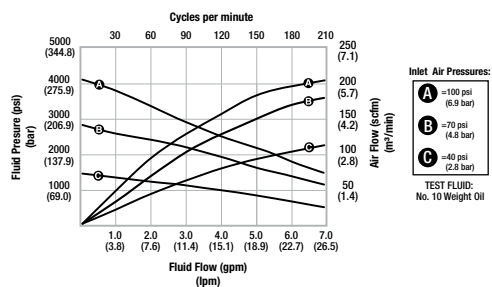
- Supplies hydraulic oil to accumulators in oil rig blow-out prevention systems.

Typical Fluids Handled

- Hydraulic oil

Pump Performance

Bulldog 43:1 Pumps





Technical Specifications

Fluid Pressure Ratio	43:1
Maximum Fluid Working Pressure	4,300 psi (301 bar / 30.1 MPa)
Maximum Air Input Pressure	100 psi (7 bar)
Air Inlet	3/4 in NPSM(F)
Fluid Inlet	1 in NPT(F)
Fluid Outlet	3/4 in NPT(F)
Wetted Parts	Carbon steel, stainless steel, chrome plating, zinc plating, nickel plating, brass, Buna-N
Instruction Manual	309966

Ordering Information

Bulldog 43:1 Pumps

Part Number	Description
218334	43:1 Bulldog hydraulic supply pump

Accessories

Air Pressure Regulators

Part Number	Description
206197	1/2 in NPT inlet and outlet
207755	3/4 in NPT inlet and outlet

Air Line Filters

Part Number	Description
106149	1/2 in NPT inlet and outlet
106150	3/4 in NPT inlet and outlet

Air Line Lubricators

Part Number	Description
214848	1/2 in NPT inlet and outlet
214849	3/4 in NPT inlet and outlet

Grounding Clamp and Wire

Part Number	Description
103538	Grounding clamp
222011	Ground wire

Bleed-Type Master Air Valve

Part Number	Description
107142	1/2 in NPT inlet and outlet

Repair Kits

Part Number	Description
24U227	Pump lower repair kit
24U228	Air motor repair kit
24W515	Pump and air motor repair kit

Specialty Pumps



Used for Low-Volume Dispense of a Variety of Fluids

This air-operated piston pump is ideal for pumping various fluids and provides a continuous-duty flow rate of up to 5 gpm.



Specialty Pumps

High-Quality Air Motor

Differential air motor ensures smooth pumping.

Lightweight Design

Allows for easy transport and drum insertion.

Easily Controlled Flow Rate

Simple regulation of air supply controls flow rate.

Submersible Suction Tube

Stubby and drum length suction tubes eliminate the need for suction pipe or tube.

Corrosion Resistance

Available stainless steel models offer protection in harsh environments.

Typical Applications

- Low-pressure, high-volume transfer of low viscosity fluids
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- Service shops
- In-plant
- Lube trucks
- Mining

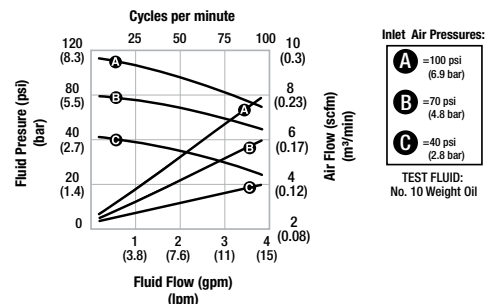
Typical Fluids Handled

- Water
- Antifreeze
- Windshield wash fluid
- Used oil
- Used antifreeze

NOTE: Use Fast-Ball® 1:1 for petroleum-based products.

Pump Performance

Fast-Flo 1:1 Pumps





Technical Specifications

Fluid Pressure Ratio	1:1
Air Motor Effective Diameter	1.4 in (35.6 mm)
Maximum Fluid Working Pressure	180 psi (12 bar/1.2 Mpa)
Approximate Free-Flow Rate @ 100 psi (80 cpm)	5 gal/min (19 liters/min)
Output per Cycle	151 cc
Approximate Air Use and Flow @ 100 psi (80 cpm)	7 csfm @ 3.1 gpm (0.2 m ³ /mm @ 11.71 lpm)
Air inlet	1/4 in NPT(F)
Fluid Inlet	1-1/2 in NPT(F)
Fluid Outlet	3/4 in NPT(F)
Air Operations Range	40 psi to 180 psi (2.8 bar to 12 bar)
Maximum Pump Speed	100 cpm
Cycles per Gallon	25 cpg
Cycles per Liter	6.6 cpl
Wetted Parts	See ordering info
Sound Pressure Level	72 dB(A)
Sound Power Level	82 dB(A)
Instruction Manual	307427

Ordering Information

Fast-Flo 1:1 Pumps

Includes motor and pump lower assembly.



Fluid	Length	Tube Material	Seal Material	Approvals	Part Number
Antifreeze, Windshield Washer Solvent, ATF, Oil	Drum	Stainless Steel	Polyethylene	ETL, CE, EX	226942
	Universal	Stainless Steel	Polyethylene	ETL, CE, EX	226945
Oil	Drum	Carbon Steel	Buna-N	CE	226947
			Buna-N	CE	226951*
			Leather	CE, EX	237133
			PTFE	CE, EX	237134
			Leather	ETL, CE, EX	226940
			Polyethylene	ETL, CE, EX	226941
	Stainless Steel	Buna-N	CE	226953	
		PTFE	CE, EX	237129	
	Universal	Carbon Steel	Buna-N	CE	226948
			Leather	CE, EX	237130
			PTFE	CE, EX	237131
			Leather	ETL, CE, EX	226943
			Polyethylene	ETL, CE, EX	226944
			Stainless Steel	Buna-N	CE
PTFE	CE, EX	237132			

*Adjustable downtube length between 18 in (457 mm) and 46.4 in (1,180 mm)



Fast-Flo 1:1 Pump Accessories

Ordering Information



Hose and Fitting Kits

	Part Number	Description	Includes	
			Air Hose / Swivel Elbow	Fluid Hose / Swivel Elbow
	222118	18 in (0.5 m) for connecting wall-mounted Fast-Flo 1:1 pumps to piping	109123 / 155541	109108 / 160327
	222119	6 ft (1.8 m) for use with drum-mounted Fast-Flo 1:1 pumps	109125 / 155541	109105 / 160327


Bung Adapters

	Part Number	Description
	214583	Allows direct mounting of full-length Fast-Flo 1:1 pumps into standard 2 in NPT drum bung (included).
	217359	Sealed bung adapter for Fast-Flo pumps; can be used with suction kit 236054.

Installation Kits



	Part Number	Description
	218316	Includes regulator (104815), gauge (104655) and fittings (169969/114558) as necessary for normal installation.
	210881	Wall mounting bracket for Fast-Flow 1:1 Pumps

Suction Kit


	Part Number	Description	Includes		
			Bung Adapter	Bushing Pipe	6 ft Hose
	236054	6 ft (1.8 m) suction kit for 55 gal (200 l) drums. For use with Fast-Ball, Mini Fire-Ball and Fire-Ball universal pumps.	188845	101496	109105

Ordering Information


Drum Covers

	Part Number	Description
	204574	Drum cover for 10 gal (40 l) and 16 gal (60 l) sized containers. Drum cover mounts on top of an open drum with mounting house for a 1:1 pump. Includes thumb screws and a rubber gasket.
	200326	Drum cover for a 55 gal (200 l) container. Drum cover mounts on top of an open drum, with mounting for a 1:1 pump.

Air Line Filter

	Part Number	Description
	106149	1/2 in NPT inlet and outlet

Air Line Lubricator

	Part Number	Description
	214848	1/2 in NPT inlet and outlet



Electric Convenience

There's an easier, more efficient way to pump fluid to your critical equipment. Graco's all-electric EGP pumps reduce operating costs without compromising the durability you expect from the industry leader in pumping solutions. Add convenience and peace of mind to your everyday operations.

EGP Transfer Pumps

Use the EGP Transfer Pump in locations where compressed air is unavailable or too cumbersome for short-distance fluid transfer.



EGP On-Demand Pumps

Install the EGP On-Demand Pump in a variety of applications including workshops, mobile trucks and industrial plants. Use it as an energy-efficient option to standard pneumatic pumps.



Electrical Flexibility

Available in 12 VDC and 115 VAC power options.

Smooth Fluid Flow 8 gpm (30 lpm)

Output flow is continuous and non-pulsating up to 8 gpm (30 lpm).

Heavy-Duty Motor with Long Life

Industrial-grade electric motors with over-temperature protection on 115 VAC models.

Consistent Pressure

Built-in fluid bypass valve protects pump and downstream components.

Pump Protection

Includes inlet strainer to keep larger debris out of pump housing and extend pump life.

Plug and Play

Self-priming, precision-machined pump design.

Electrical Flexibility

Available in 12 VDC and 115 VAC power options.

Smooth Fluid Flow 4 gpm (15 lpm)

Output flow is continuous and non-pulsating up to 4 gpm (15 lpm).

Heavy-Duty Motor with Long Life

Industrial-grade electric motor with over-temperature protection on 115 VAC model.

Fluid Flow When Needed

On-demand pressure sensing technology starts and stops the pump during the dispense.

Pump Reliability

Internal inlet and outlet checks keep pump section flooded to maintain prime for reliable performance.

Simultaneous Dispenses

Pump long distances and supply fluid to multiple dispense points.

Typical Applications

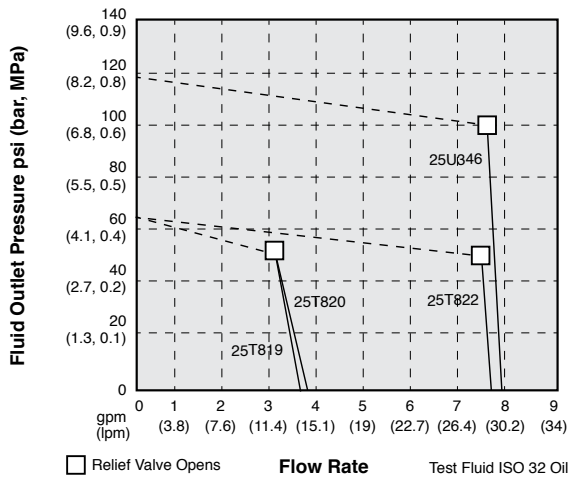
- Filling bulk tanks from drums
- Lubricant transfer from remote locations
- Construction equipment
- Agricultural equipment
- Filling in-plant machinery
- Evacuating used oil receivers
- Filling shop oil furnaces with new or used oil
- Automotive and truck service garages
- Fleet marine and personal boat service
- Aircraft maintenance

Typical Fluids Handled

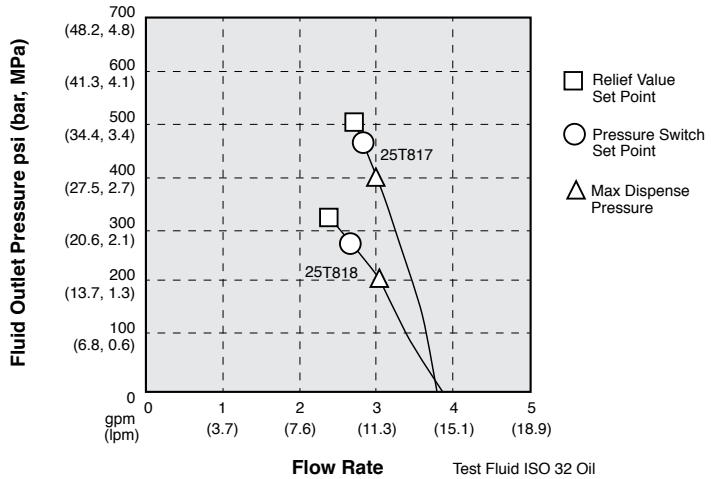
- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Waste oil
- Antifreeze
- Hydraulic fluids
- Cutting oils
- Non-flammable oil-based solvents
- Oil-based herbicide carriers



EGP Transfer Pumps Performance Chart



EGP On-Demand Pumps Performance Chart






Ordering Information

	EGP Transfer Pump Models				EGP On-Demand Pump Models	
Package Part Number	25T819	25T820	25T822	–	–	–
Pump Part Number	–	–	–	25U346	25T817	25T818
Voltage	12 VDC	115 VAC	115 VAC	115 VAC	115 VAC	12 VDC
Hertz	–	60 Hz	60 Hz	60 Hz	60 Hz	–
Motor Type	TENV	ODP	ODP	TENV – IP55	TENV – IP55	TENV
Horsepower	1/2	1/2	3/4	1.0	1.5	3/4
Maximum Current (Amps)	30	8.7	9.9	9.1	14.4	60
Maximum Free Flow Rate gpm (lpm)	3.8 (14.4)	3.9 (14.8)	7.7 (29.1)	8.0 (30.3)	3.7 (14.0)	3.8 (14.4)
Maximum Pressure psi (bar)	65 (4.5)	65 (4.5)	65 (4.5)	120 (8.3)	500 (34.5)	325 (22.4)
Automatic Relief Setting psi (bar)	65 (4.5)	65 (4.5)	65 (4.5)	120 (8.3)	500 (34.5)	325 (22.4)
Inlet	1 in NPT	1 in NPT	1 in NPT	1 in NPT	3/4 in NPT	3/4 in NPT
Outlet	3/4 in NPT	3/4 in NPT	3/4 in NPT	3/4 in NPT	1/2 in NPT	1/2 in NPT
Bung Adapter	260061					
Dispense Kit	133376			–	–	–
Suction Kit	133375			–	–	–
Wetted Parts	Carbon steel with zinc plating, stainless steel, galvanized steel, aluminum, nitrile, rubber, PVC, PVC cement				Carbon steel with zinc plating, stainless steel, galvanized steel, aluminum, nitrile, rubber	
Weight lb (kg)	25 (11)	22 (10)	25 (11)	25 (11)	36 (16.3)	36 (16.3)
Manual	3A8569	3A8568	3A8568	3A8568	3A8570	3A8571

Ordering Information

Accessories

	Part Number	Description
	133412	Wall mounting bracket, fits all transfer models
	260238	"Y" strainer with 3/4 in NPT female in-line strainer for used oil transfer
	133377	Suction filter
	260124	55 in (1.3 m) PVC suction tube with inlet check valve
	133376	Dispense valve kit
	133375	Suction tube kit, 3/4 in PVC



HOSE AND CORD REELS

	Page
Hose Reel Selection Guide	216
LD™ Series Enclosed Hose Reels	218-220
LDX™ Series Hose Reels	221-222
SDX™ Series Hose Reels	223-228
SD™ Series Cord and Light Reels	229-232
XDX™ Series 10/20 Hose Reels	233-237
XD™ Series 30 Hose Reels	238-242
XD™ Series 40/50 Hose Reels	243-248
XD™ Series 60/70/80 Powered Hose Reels	250-259
Hose Reel Accessories	260-261

Graco Hose and Cord Reel Selection Guide

	Typical Application	Typical Fluid	Hose/Cord Length Options	Enclosed	Reference Pages
LD™ Series 	<ul style="list-style-type: none"> • Small maintenance shops • Tire maintenance shops • Small fast lubes • Independent repair facilities • Industrial manufacturing facilities 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Air • Water • Grease • Antifreeze • Windshield washer fluid 	<ul style="list-style-type: none"> • 35 ft (11 m) • 45 ft (14 m) • 50 ft (15 m) 	Yes	218-220
LDX™ Series 	<ul style="list-style-type: none"> • Small maintenance shops • Tire maintenance shops • Small fast lubes • Independent repair facilities • Industrial manufacturing facilities 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Air • Water • Grease • Antifreeze • Windshield washer fluid • Diesel exhaust fluid (DEF) 	<ul style="list-style-type: none"> • 45 ft (14 m) – DEF only • 50 ft (15 m) 	No	221-222
SDX™ 10 / 20 Series 	<ul style="list-style-type: none"> • Car dealerships • Light-/medium-duty truck dealers • Fleet maintenance • Public works garages • Construction vehicle maintenance • Light-utility service trucks 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Air • Water • Grease • Antifreeze • Windshield washer fluid 	<ul style="list-style-type: none"> • 35 ft (11 m) • 50 ft (15 m) • 65 ft (20 m) 	Optional	223-228
SD™ Series Cord Reels 	<ul style="list-style-type: none"> • Automotive dealerships • Fast lube centers • Service shops • Heavy-duty dealerships • Fleet services facilities • In-plant • Lube trucks • Mining 	–	<ul style="list-style-type: none"> • 35 ft (11 m) • 50 ft (15 m) • 95 ft (29 m) 	Optional	229-232
XD™ 10 / 20 Series 	<ul style="list-style-type: none"> • Heavy-duty truck dealers • Fleet maintenance • Mining maintenance • Public works garage • Construction vehicle maintenance • Heavy-duty mobile service trucks • Mining • Lube trucks 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Air • Water • Grease • Antifreeze • Windshield washer fluid 	<ul style="list-style-type: none"> • 35 ft (11 m) • 50 ft (15 m) • 65 ft (20 m) 	Optional	233-237
XD™ 30 Series 	<ul style="list-style-type: none"> • Heavy-duty truck dealers • Fleet maintenance • Mining maintenance • Public works garage • Construction vehicle maintenance • Heavy-duty mobile service trucks • Mining • Lube trucks 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Diesel fuel • Air • Water • Grease • Antifreeze • Windshield washer fluid • Pressure wash • Waste oil evacuation • Diesel exhaust fluid (DEF) 	<ul style="list-style-type: none"> • 35 ft (11 m) • 50 ft (15 m) • 65 ft (20 m) • 75 ft (23 m) 	No	238-242
XD™ 40 / 50 Series 	<ul style="list-style-type: none"> • Heavy-duty truck dealers • Fleet maintenance • Mining maintenance • Public works garages • Construction vehicle maintenance • Heavy-duty mobile service trucks • Agriculture • Lube trucks 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Diesel fuel • Air • Water • Antifreeze • Waste oil evacuation 	<ul style="list-style-type: none"> • 35 ft (11 m) • 50 ft (15 m) • 75 ft (23 m) • 100 ft (30 m) 	No	243-248
XD™ 60 / 70 / 80 Series 	<ul style="list-style-type: none"> • Heavy-duty truck dealers • Fleet maintenance • Mining maintenance • Public works garages • Construction vehicle maintenance • Heavy-duty mobile service trucks • Agriculture • Lube trucks 	<ul style="list-style-type: none"> • Petroleum- and synthetic-based oils • Diesel fuel • Air • Water • Grease • Waste oil evacuation 	<ul style="list-style-type: none"> • 50 ft (15 m) • 75 ft (23 m) • 100 ft (30 m) • 150 ft (46 m) 	No	250-259



Hose and Cord Reels

LD Series Enclosed Hose Reels



**5 Year
Warranty!**

Economical Enclosed Hose Reels Get You Up and Running Fast

Reduce clutter and increase workplace safety with a Graco one-piece enclosed hose reel. Designed for light-duty applications in dealerships, service garages, collision repair and industrial manufacturing facilities.



Large Fluid Porting

Maximizes fluid flow with minimal pressure drop

Simple Spring Tension Adjustment

Ability to increase or decrease spring tension while reel is pressurized

Full Enclosure

Tough, dent-proof, corrosion-resistant enclosure

Multiple Mounting Options

Wall, overhead, bench, or tank configurations (wall mount pictured)

Hose and Cord Reels

Typical Applications

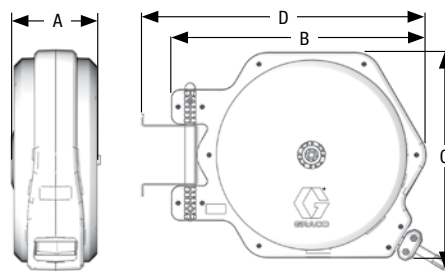
- Small maintenance shops
- Tire maintenance shops
- Small fast lubes
- Independent repair facilities
- Industrial manufacturing facilities

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Air
- Water
- Grease
- Antifreeze
- Windshield washer fluid

Dimensions

A	7.1 in (180 mm)
B	23.0 in (585 mm)
C	18.5 in (470 mm)
D	25.6 in (650 mm)



Technical Specifications

Operating Temperature Range	
Air-Only Reels	14°F to 140°F (-10°C to 60°C)
Water Applications	32°F to 140°F (0°C to 60°C)
All-Other Applications	0°F to 140°F (-18°C to 60°C)
Wetted Parts	
Air Only Reels	Aluminum, Buna-N rubber, PVC
Air/Water/Antifreeze/Windshield Washer Fluid Reels	Aluminum, Buna-N rubber
Oil Reels	Carbon steel, Buna-N rubber, PTFE
Grease Reels	Carbon steel, Buna-N rubber
Sound Pressure Level	69.3 dB(A)
Sound Power Level	75.3 dB(A)
Instruction Manual	313938






LD Series Enclosed Hose Reels

Ordering Information

LD Series Reel Packages

Includes hose with ball stop kit and hose guide, mounting bracket and hose inlet kit.

Type of Mount	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Package Part Number	Package Includes		
		ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			Reel Assembly	Mount Kit	Inlet Kit
 <p><i>Overhead/Wall Swivel Mount</i></p>	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	250 (17.2)	24F737	24H657	24G866	24C444
		3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	250 (17.2)	24F738	24H658		
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	250 (17.2)	24F739	24H659		
		1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	250 (17.2)	24F740	24H660		
	Oil	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	1,800 (124)	24F741	24H661		24C537
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	1,800 (124)	24F742	24H662		24C538
	Grease	1/4 (6)	35 (11)	3/8 (10)	1/4 (6)	5,000 (345)	24F743	24H663		24C539
 <p><i>Overhead/Wall Stationary Mount</i></p>	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	250 (17.2)	24F755	24H657	24G865	24C444
		3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	250 (17.2)	24F756	24H658		
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	250 (17.2)	24F757	24H659		
		1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	250 (17.2)	24F758	24H660		
	Oil	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	1,800 (124)	24F759	24H661		24C537
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	1,800 (124)	24F760	24H662		24C538
	Grease	1/4 (6)	35 (11)	3/8 (10)	1/4 (6)	5,000 (345)	24F761	24H663		24C539
 <p><i>Bench Swivel Mount</i></p>	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	250 (17.2)	24F773	24H657	24C772	24C444
		3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	250 (17.2)	24F774	24H658		
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	250 (17.2)	24F775	24H659		
		1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	250 (17.2)	24F776	24H660		
	Oil	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	1,800 (124)	24F777	24H661		24C537
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	1,800 (124)	24F778	24H662		24C538
	Grease	1/4 (6)	35 (11)	3/8 (10)	1/4 (6)	5,000 (345)	24F779	24H663		24C539

Hose and Cord Reels


LD Series Enclosed Hose Reels



Ordering Information


LD Series Reel

Includes hose. Mounting hardware and hose inlet kit sold separately.

	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Part Number	Hose Inlet Kit (order separately)
		ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			
	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	250 (17.2)	24H657	24C444
		3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	250 (17.2)	24H658	24C444
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	250 (17.2)	24H659	24C444
		1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	250 (17.2)	24H660	24C444
	Oil	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	1,800 (124)	24H661	24C537
		1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	1,800 (124)	24H662	24C538
	Grease	1/4 (6)	35 (11)	3/8 (10)	1/4 (6)	5,000 (345)	24H663	24C539

Hose Inlet Kits

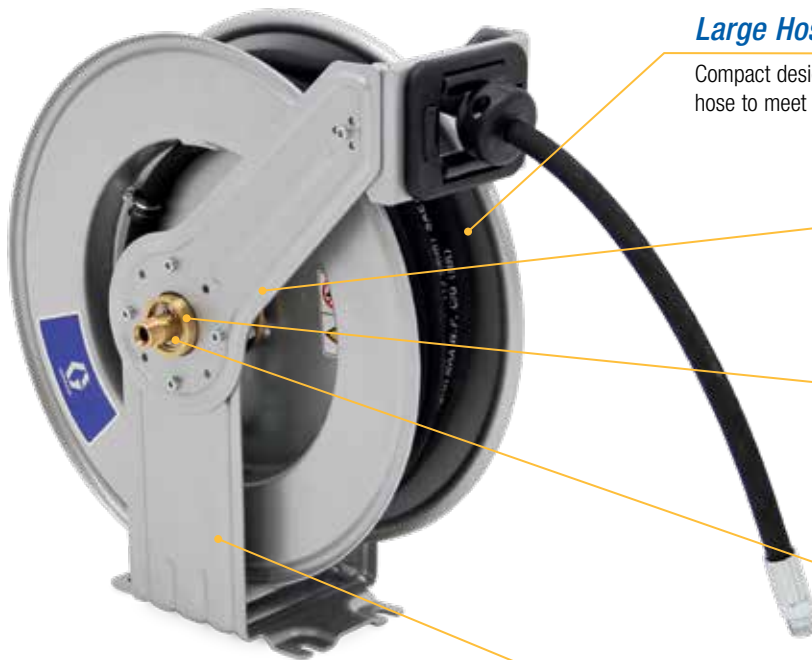
A hose inlet kit is included in LD reel packages but must be ordered separately with standalone LD reel assemblies.

	Fluid Type	Maximum Working Pressure psi (bar)	Size In (mm)	Inlet Configuration	Outlet Configuration	Part Number	Used with Hose Reel Model
	Air Only	250 (17.2)	1/4 (6)	1/4 NPT(M)	1/4 NPT(M)	24C443	24H655 / 24H656
	Air/Water		3/8 (10)	1/2 NPT(M)	3/8 NPT(M)	24C444	24H657 / 24H658
			1/2 (13)	1/2 NPT(M)	1/2 NPT(M)		24H659 / 24H660
	Oil	1,800 (124)	3/8 (10)	1/2 NPT(M)	1/2 NPT(M)	24C537	24H661
			1/2 (13)	1/2 NPT(M)	1/2 NPT(M)	24C538	24H662
	Grease	5,000 (345)	1/4 (6)	1/4 NPT(M)	1/4 NPT(M)	24C539	24H663



The Ultimate Industrial-Grade Hose Reel

Designed with an all-metal frame and specially crafted components; Graco LDX hose reels ensure smooth release and retraction to optimize confidence in cost-conscious smaller garages, independent repair facilities and industrial manufacturing environments.



Large Hose Capacity with Small Profile

Compact design accommodates up to a 50 foot (15 meter) hose to meet a wide variety of application requirements.

Adjustable Arm

Easily change to one of six arm positions to fit your application.

Ball Bearing Swivel

Swivel designed with internal ball bearings reduces friction and ensures smooth operation.

External Swivel Housing

Quickly access swivel seal for faster repairs.

Dual Pedestal Frame

Ribbed metal for increased stability and robustness.

Typical Applications

- Industrial manufacturing facilities
- Small maintenance shops
- Tire maintenance shops
- Small fast lubes
- Independent repair facilities

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Air
- Water
- Grease
- Antifreeze
- Windshield washer fluid
- Diesel exhaust fluid (DEF)

Technical Specifications

Operating Temperature Range

Air/Water/Antifreeze/Windshield Washer Fluid	14.5°F to 149°F (-26°C to 65°C)
DEF	-40°F to 158°F (-40°C to 70°C)
Oil	-40°F to 212°F (-40°C to 100°C)
Grease	-40°F to 212°F (-40°C to 100°C)

Wetted Parts

Air/Water/Antifreeze/Windshield Washer Fluid Reels	EPDM, stainless steel, fluorocarbon (FKM)
DEF Reels	Hybrid polymer, brass, nitrile rubber
Oil Reels	Zinc-plated steel, brass, polyurethane, nitrile rubber
Grease Reels	Zinc-plated steel, brass, nitrile rubber

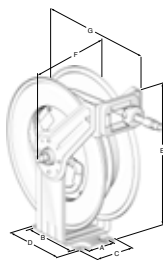
Sound Pressure Level	80 dB(A)
Sound Power Level	87 dB(A)
Instruction Manual	3A8216

LDX Series Hose Reels

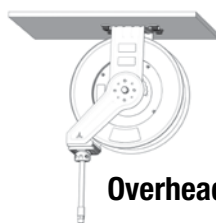


Dimensions

A	3.5 in (89 mm)
B	7.5 in (191 mm)
C	4.9 in (125 mm)
D	8.7 in (221 mm)
E	19.0 in (483 mm)
F	9.4 in (239 mm)
G	17.5 in (445 mm)

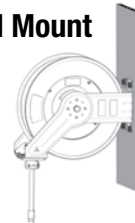


Typical Mounting Configurations

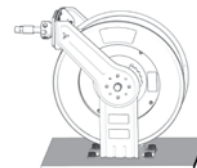


Overhead Mount

Wall Mount



Bench Mount



Ordering Information

LDX Reels

Part Number	Fluid	Hose		Connection Size		Maximum Pressure PSI
		ID (in)	Length (ft)	Inlet (in)	Outlet (in)	
HEL010	Air/Water/Antifreeze/Windshield Washer Fluid	3/8	50	3/8 NPT	3/8 NPT	300
HEL015	DEF	1/2	45	1/2 BSPT	1/2 BSPT	150
HEM004	Oil	1/2	50	1/2 NPT	1/2 NPT	1,500
HEH006	Grease	3/8	50	3/8 NPT	3/8 NPT	4,060

Inlet Kits

Part Number	Fluid
25U369	Air/Water/Antifreeze/Windshield Washer Fluid
25U370	DEF
25U371	Oil
25U372	Grease

Accessories

Part Number	Description
18F444	1/2 in BSPT to 3/4 in hose barb adapter
18F445	1/2 in to 3/4 in adapter, BSPT



**7 Year
Warranty!**

High-Quality Performance and Versatility

Improve performance along with the look of any environment with Graco's flagship SDX hose reel. Built with specially crafted components, including a rigid metal frame and spool and effortless retraction swivels, it's available in five colors. An easy-to-service swivel cartridge design simplifies maintenance. Retraction and recoil are uniform and consistent every time.



Reel arm shown in tank/bench mount position.

Adjustable Arm

Easily change to one of six arm positions to fit your application.

Durable Finish

Baked-on enamel finish (five colors available) protects reel from corrosion.

Large Hose Capacity with Small Profile

Compact pedestal and spool fits into tight spaces and can accommodate 35-65 foot (10.7-19.8 meters) hose (NPT air/water) capacity for a wide variety of applications.

Heavy-Duty Spring

Powerful retraction performance ensures recoils are uniform and consistent every time.

Full-Flow Swivel

Maximize material flow with minimal pressure drop for faster fills to get more vehicles through your shop.

Low-Friction Cartridge Swivel

Provides smooth reel performance with an easy-to-replace swivel cartridge, simplifying repairs.

Hose and Cord Reels

Typical Applications

- Car dealerships
- Light-/medium-duty truck dealers
- Fleet maintenance
- Public works garages
- Construction vehicle maintenance
- Light-utility service trucks

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Air
- Water
- Grease
- Antifreeze/coolant
- Windshield washer fluid

Technical Specifications

Operating Temperature Range

Air/Water/Antifreeze/Windshield Washer Fluid Reels	-20°F to 190°F (-28°C to 87°C)
Oil Reels	-20°F to 190°F (-28°C to 87°C)
Grease Reels	-40°F to 200°F (-40°C to 93°C)

Wetted Parts

Air/Water/Antifreeze/Windshield Washer Fluid Reels	Zinc-plated steel, stainless steel, anodized aluminum, nitrile rubber
Oil Reels	Zinc-plated steel, anodized aluminum, nitrile rubber
Grease Reels	Zinc-plated steel, nitrile rubber, steel

Weight 52 lb (23.5 kg)

Sound Pressure Level 80 dB(A)

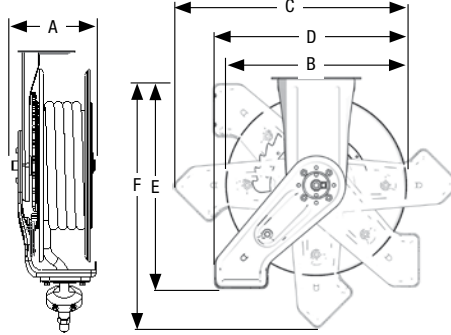
Sound Power Level 87 dB(A)

Instruction Manual 3A8626

SDX Series Hose Reels

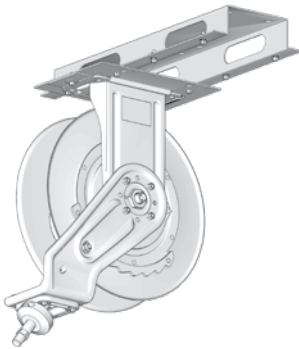


Dimensions		
	SDX 10	SDX 20
A	7.0 in (177 mm)	7.0 in (177 mm)
B	16.2 in (412 mm)	18.1 in (460 mm)
C	21.0 in (533 mm)	23.4 in (594 mm)
D	17.1 in (435 mm)	19.2 in (488 mm)
E	19.5 in (495 mm)	21.8 in (554 mm)
F	22.5 in (571 mm)	25.2 in (640 mm)

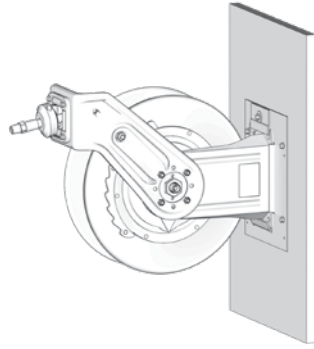


Typical Mounting Configurations

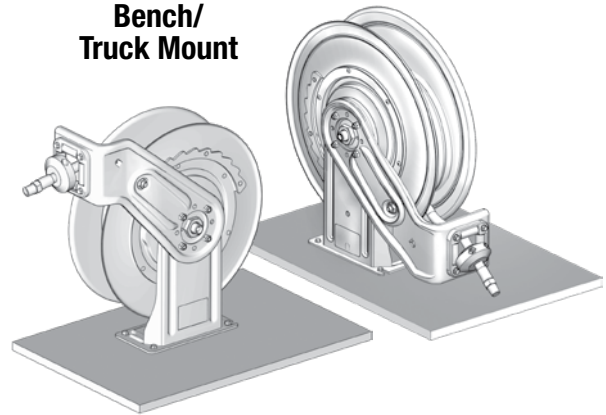
Overhead Mount



Wall Mount



Bench/ Truck Mount



Metallic Blue (B)



Yellow (F)



Black (D)



Red (C)



White (A)



Available in
5 Colors
Consult factory for
lead times.



Ordering Information

SDX 10/20 Reel Assembly Ordering Guide

SDX Series reels are available in five colors. Use the chart below to determine the correct part number to order. The last character of each part number indicates the hose reel color.

Reel Color	Identifier
White	A
Metallic Blue	B
Red	C
Black	D
Yellow	F

Order Example:

Arm in overhead mount position, SDX 20, oil, 1/2 in ID hose, 50 ft hose length

1 Select your reel position: SDM65#

2 Select your reel color: Metallic Blue = "B"
(from Reel Assembly Ordering Guide – opposite)

Order Part Number:

SDM65B



Arm in Overhead Mount Position

Assembled with hose, ball stop kit and roller guide. *Required hose inlet kit sold separately.*

	Reel Size	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Assembly Part Number	Recommended Hose Inlet Kit
			ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			
	SDX 10	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	35 (11)	1/2 (13)	3/8 (10)	300 (20.7)	SDL23#	218549
			3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	300 (20.7)	SDL25#	
			1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	300 (20.7)	SDL33#	
	SDX 20		3/8 (10)	65 (20)	1/2 (13)	3/8 (10)	300 (20.7)	SDL56#	
			1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	300 (20.7)	SDL65#	
			SDX 10	Oil	1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	
SDX 20	1/2 (13)	50 (15)			1/2 (13)	1/2 (13)	2,000 (138)	SDM65#	
SDX 10	Grease	1/4 (6)	50 (15)	3/8 (10)	1/4 (6)	5,000 (345)	SDH15#	218550	
		3/8 (10)	35 (11)	3/8 (10)	1/4 (6)	4,800 (331)	SDH23#		
		SDX 20	3/8 (10)	50 (15)	3/8 (10)	1/4 (6)	4,800 (331)		SDH55#

Arm in Tank/Bench Mount Position

Assembled with hose, ball stop kit and roller guide. *Required hose inlet kit sold separately.*

	Reel Size	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Assembly Part Number	Recommended Hose Inlet Kit
			ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			
	SDX 20	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	65 (20)	1/2 (13)	3/8 (10)	300 (20.7)	SDL5J#	218549
			1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	300 (20.7)	SDL6H#	
		Oil	1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	2,000 (138)	SDM6H#	218550
		Grease	3/8 (10)	50 (15)	3/8 (10)	1/4 (6)	4,800 (331)	SDH5H#	

SDX Series Hose Reels




Ordering Information




Bare Reels

Arm in Overhead Mount Position

Required hose inlet kit sold separately. Fluid hose not included.

	Reel Size	Fluid	Hose (Not Included)		Connection Size		Maximum Pressure psi (bar)	Assembly Part Number	Recommended Hose Inlet Kit	
			ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)				
	SDX 10	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	50 (15)	1/2 (13)	3/8 (10)	300 (20.7)	SDL2D#	218549	
			1/2 (13)	35 (11)	1/2 (13)	3/8 (10)	300 (20.7)	SDL2D#		
	SDX 20		3/8 (10)	65 (20)	1/2 (13)	1/2 (13)	300 (20.7)	SDL6D#		
			1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	300 (20.7)	SDL6D#		
	SDX 10	Oil	1/2 (13)	35 (11)	1/2 (13)	1/2 (13)	2,000 (138)	SDM3B#		218550
			SDX 20	1/2 (13)	50 (15)	1/2 (13)	1/2 (13)	2,000 (138)		
SDX 10	Grease	1/4 (6)	50 (15)	3/8 (10)	3/8 (10)	5,000 (345)	SDH1D#			
		SDX 20	3/8 (10)	35 (11)	3/8 (10)	3/8 (10)	5,000 (345)	SDH1D#		
		SDX 20	3/8 (10)	50 (15)	3/8 (10)	3/8 (10)	5,000 (345)	SDH5D#		

SDX 10 Oil Reel Packages

	Reel Size	Fluid	Valve Type	Enclosure	Package Number	Package Includes				
						Reel Assembly	Enclosure	Hose Inlet Kit	Meter	
	SDX 10	Oil	SDM8 Manual Meter with Rigid Extension	No	24E001	SDM33B	-	218549	25M404	
				Yes	24D996	SDM33B	24A217	218549	25M404	
			None	SDM8 Manual Meter with Flexible Extension	No	24E002	SDM33B	-	218549	25M406
					Yes	24D997	SDM33B	24A217	218549	25M406
			None	Yes	24D995	SDM33B	24A217	218549	-	



Ordering Information

SDX 10 Air/Water Reel Packages

	Reel Size	Fluid	Valve Type	Enclosure	Package Number	Package Includes				
						Reel Assembly	Enclosure	Hose Inlet Kit	Valve	Fitting
	SDX 10	Water	Water Bib Dispense Valve	No	24D999	SDL23B	-	218549	180685	150287
				Yes	24D993	SDL23B	24A217	218549	180685	150287
					24D994	SDL33B	24A217	218549	180685	159842
	SDX 10	Air	Tire Chuck Valve	No	24D998	SDL23B	-	218549	218545	-
				Yes	24D992	SDL23B	24A217	218549	218545	-
	SDX 10	Air/Water	None	Yes	24D989	SDL23B	24A217	218549	-	-
					24D990	SDL25B	24A217	218549	-	-
					24D991	SDL33B	24A217	218549	-	-

Hose and Cord Reels

Accessories

Enclosure Kits for One Reel

Open mounting accommodates up to six reels. Includes all parts necessary to mount on wall or overhead. Requires mounting channel.

	Reel Size	White	Metallic Blue	Red	Black	Dark Blue	Yellow	Required End-Caps (set of 2)
	SDX 10	24A217	24A940	24A941	24A942	24A943	24A944	24A950
	SDX 20	24A218	24A945	24A946	24A947	24A948	24A949	24A951

Hose Inlet Kits

A hose inlet kit is required when ordering an SDX reel.

	Maximum Working Pressure psi (bar)	Size in (mm)	Length ft (m)	Part Number
	2,000 (137)	1/2 (13)	2 (0.6)	218549
	4,000 (276)	3/8 (10)		218550
	5,000 (345)	1/4 (6)		224417

Ball Stop Kits

SDX reel packages include ball stop kits. Items below are available for bare reels and as replacement parts.

	Hose Inner Diameter (ID) Size	Part Number
	1/4 in (6.4 mm)	222225
	1/4 in to 3/8 in (6.4 mm to 9.5 mm)	218340
	3/8 in to 1/2 in (9.5 mm to 12.7 mm)	218341
	5/8 in (15.9 mm)	237872



Ordering Information

Mounting Channels


Accommodates up to six reels. Includes all parts necessary to mount on wall or overhead.

	Description	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
	Enclosed Reel Mounting Channel	203521	203522	203523	203524	203525	203526
	Open Reel Mounting Channel	24A934	24A935	24A936	24A937	24A938	24A939
	I-Beam Mounting Bracket*	204741 (x 2)			204741 (x 3)		

*Secures mounting channel to I-beam without drilling – 2 are required for 1-3 reels, and 3 are required for 4-6 reels.


Swivel Mounting Bracket

Allows reel to swivel 120° with two lockable positions.


	Part Number	Description
	24N444	Swivel mounting bracket for installing SDX 10 reels

Easy Slide-In Mount

Allows reel to slide in and out of mount for easy installation.

	Part Number	Description
	24H193	Overhead or wall slide-in mount for SDX 10 or SDX 20 reels

Retrofit Adapter Kits

	Part Number	Description
	24C100	Includes all parts to mount an SDX 10 hose reel to an existing 250 series mounting pattern with enclosure

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

Quality Cord and Light Reels

Organize your work space for a safer, more productive work environment. Make Graco your single source for your entire reel bank.

**2 Year
Warranty!**

Durable Frame in Two Sizes

Choose from the heavy-duty steel construction of the SD Series 5 or 10.

Multiple Cord Lengths

Choose from 35, 50 and 95 foot (11, 15, 29 meter) options to fit your shop perfectly. Features a 5 foot lead-in cable.

Adjustable Arm

Easily change the arm position to fit more applications. Works on walls, overhead or bench mounts.

Heavy-Duty Pedestal

High-strength steel construction with rolled edges and ribbed stress points that won't flex or twist.

Multiple Configurations Available

Comes with or without receptacles so you can configure it for your specific needs. Light reels come in your choice of fluorescent or LED with optional tool tap receptacle.



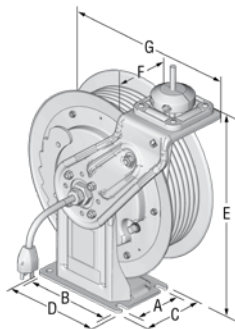
Hose and Cord Reels

Typical Applications

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

Dimensions

	SD Series 5	SD Series 10
A	3.5 in (89 mm)	3.5 in (89 mm)
B	6.38 in (162 mm)	7.5 in (191 mm)
C	4.7 in (120 mm)	4.7 in (120 mm)
D	7.48 in (190 mm)	9 in (229 mm)
E	14.8 in (376 mm)	19.5 in (498 mm)
F	6.6 in (168 mm)	7 in (177 mm)
G	13.84 in (352 mm)	17.5 in (445 mm)



Technical Specifications

Operating Temperature Range

Cord Reels	-22°F to 122°F (-30°C to 50°C)
Light Reels	-4°F to 104°F (-20°C to 40°C)

Weight without Accessories

120V	SD 5	16 AWG, Length 35 ft	25.4 lb
		16 AWG, Length 50 ft	27.6 lb
		12 AWG, Length 35 ft	28.2 lb
SD 10	12 AWG, Length 50 ft	32.0 lb	
	16 AWG, Length 95 ft	46.3 lb	
		12 AWG, Length 95 ft	51.8 lb

Instruction Manual | 3A2592

SD Series Cord and Light Reels

Ordering Information

SD Cord and Light Reels – 120 Volt

120 volt cord and light reels have a black finish and are ETL approved to US and CSA standards.

Accessory	Reel Size	AWG	Amp	Cord Length	Insulation	Part Number
No Accessory – Cord Only	SD 5	12	20	50 ft (15 m)	SJOOW	24Y859
	SD 10	12	18	95 ft (29 m)	SJOOW	24Y880
	SD 5	16	13	50 ft (15 m)	SJTOW	24Y861
Single Industrial Receptacle	SD 5	12	20	35 ft (11 m)	SJOOW	24Y862
	SD 5	12	20	50 ft (15 m)	SJOOW	24Y863
	SD 10	12	18	95 ft (29 m)	SJOOW	24Y882
Tri-Plug GFCI Industrial Receptacle	SD 5	12	15	50 ft (15 m)	SJOOW	24Y864
	SD 10	12	15	95 ft (29 m)	SJOOW	24Y883
Fluorescent Light	SD 5	16	<1	35 ft (11 m)	SJTOW	24Y865
	SD 5	16	<1	50 ft (15 m)	SJTOW	24Y866
	SD 10	16	<1	95 ft (29 m)	SJTOW	24Y884
Fluorescent Light with Single Tool Tap Plug	SD 5	16	10	50 ft (15 m)	SJTOW	24Y868
LED Light	SD 5	16	<1	35 ft (11 m)	SJTOW	24Y869
	SD 5	16	<1	50 ft (15 m)	SJTOW	24Y870
	SD 10	16	<1	95 ft (29 m)	SJTOW	24Y886
LED Light with In-line Tool Tap	SD 5	16	12	35 ft (11 m)	SJTOW	24Y871
	SD 5	16	12	50 ft (15 m)	SJTOW	24Y872
	SD 10	16	10	95 ft (29 m)	SJTOW	24Y887

Accessory Ordering Information


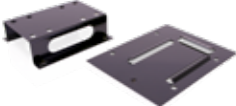

Enclosure Kits

Includes an enclosure for one reel. A set of end-caps are required per single or bank of reels. Requires you to order Enclosed Reel Mounting Channel separately. For mounting SD 5 or SD 10 reels in size 20 enclosures, please see Adapter Kits on page 232.

	Reel Size	White	Metallic Blue	Red	Black	Dark Blue	Yellow	Required End-Caps (set of 2)
	SD 5 with size 10 enclosure	24N690	24N682	24N683	24N684	24N691	24N685	24A950
	SD 10 with size 10 enclosure	24A217	24A940	24A941	24A942	24A943	24A944	24A950

Mounting Channels

Accommodates up to six reels. Includes all parts necessary to mount on wall or overhead.

	Description	Reel Size	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
	Enclosed Reel Mounting Channel	SD 5 and SD 10	203521	203522	203523	203524	203525	203526
	Open Reel Mounting Channel	SD 5	24N674	24N675	–	–	–	–
		SD 10	24A934	24A935	24A936	24A937	24A938	24A939
	I-Beam Mounting Bracket*	SD 5 and SD 10	204741 (x 2)			204741 (x 3)		


*Secures mounting channel to I-beam without drilling – 2 are required for 1-3 reels, and 3 are required for 4-6 reels.

SD Series Cord and Light Reel Accessories

Ordering Information


Swivel Mounting Bracket

Allows reel to swivel 120° with two lockable positions.


	Reel Size	Part Number	Description
	SD 5	24N814	Swivel mounting bracket for installation
	SD 10	24N444	Swivel mounting bracket for installation

Wall/Overhead Mounting Bracket

Allows you to slide the reel in and out for easy installation.


	Reel Size	Part Number	Description
	SD 5	24N686	Wall/overhead easy mount plate kit
	SD 10	24H193	Wall/overhead easy mount plate kit

Adapter Kits

	Part Number	Description
	24P164	Spacer bracket for mounting a size 5 reel to an existing size 10 enclosure
	24P880	Spacer bracket for mounting a size 5 reel to an existing size 20 enclosure
	24P881	Spacer bracket for mounting a size 10 reel to an existing size 20 enclosure
16N883	Clamping plate to mount a size 5 reel to an existing SD Series open channel	

Hands-Free Magnetic Clip

Non-marring cover won't scratch vehicle finish. Snap onto light tube for hands-free operation.

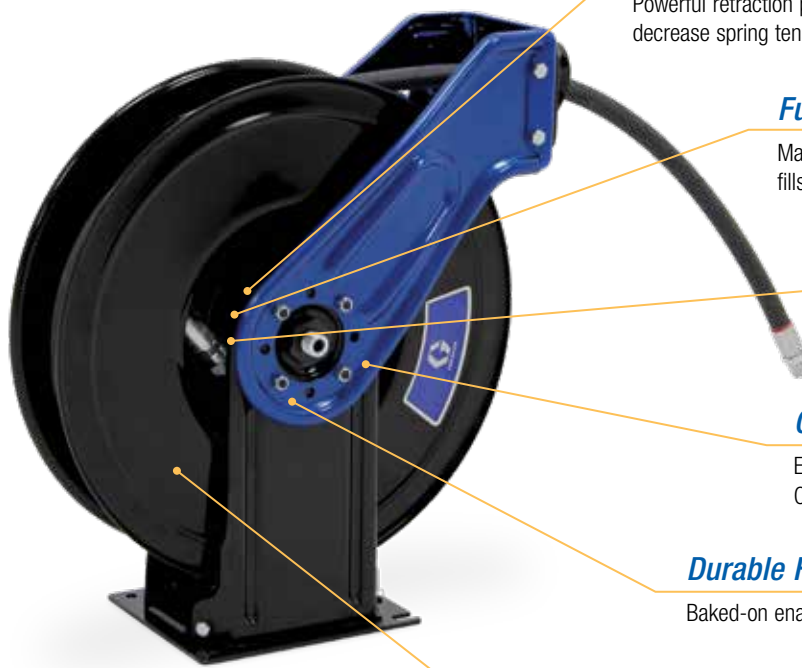
	Part Number	Description
	16P999	Magnetic clip for light tube



**7 Year
Warranty!**

Performance in the Most Demanding Applications

The heavy-duty XDX hose reels are designed to handle fluid delivery tasks in the harshest, most challenging environments. Built with specially crafted components to extend performance for many years, the hose reel includes a robust heavy-gauge, dual-pedestal metal frame; steel spool; sealed components; and unique swivel design to transport fluids consistently and safely without fail.



Heavy-Duty Adjustable Spring

Powerful retraction performance that allows you to easily increase or decrease spring tension while the reel is pressurized with fluid.

Full-Flow Swivel

Maximize material flow with minimal pressure drop for faster fills to get more vehicles through your shop.

Low-Friction Cartridge Swivel

Provides smooth reel performance with an easy-to-replace swivel cartridge, simplifying repairs.

Optional Adjustable Arm

Easily change to one of six arm positions to fit your application. Order with arm (XD models) or without (XN models).

Durable Finish

Baked-on enamel finish (four colors available) protects reel from corrosion.

Large Hose Capacity with Small Profile

Compact pedestal and spool fits into tight spaces and can accommodate 35-65 foot (10.7-19.8 meters) hose capacity for a wide variety of applications.

Hose and Cord Reels

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Air
- Water
- Grease
- Antifreeze/coolant
- Windshield washer fluid

Technical Specifications

Operating Temperature Range

Air/Water/Antifreeze/ Windshield Washer Fluid	-20°F to 190°F (-28°C to 87°C)
Oil	-20°F to 190°F (-28°C to 87°C)
Grease	-40°F to 200°F (-40°C to 93°C)

Wetted Parts

Air/Water/Antifreeze/ Windshield Washer Fluid	Zinc plated steel, stainless steel, anodized aluminum, nitrile rubber
Oil	Zinc plated steel, anodized aluminum, nitrile rubber
Grease	Zinc plated steel, polyurethane, steel

Weight (Without Hose)

HS Models (With Adjustable Arm)	59 lb (26.5 kg)
HN Models (Without Arm)	52 lb (23.5 kg)

Sound Pressure Level	78 dB(A)
Sound Power Level	88 dB(A)
Instruction Manual	3A8626

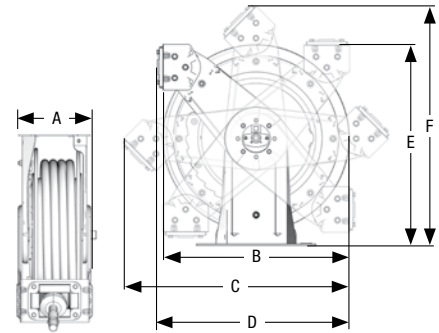
XDX Series Hose Reels



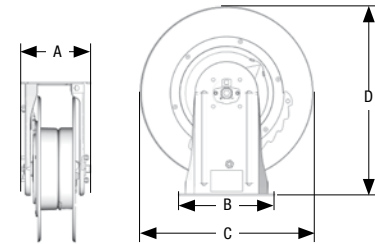
10 / 20 / 20 XN

Dimensions			
	XD Models (With Adjustable Arm)		XN Models (Without Arm)
	XDX 10	XDX 20	XDX 20
A	7.5 in (196 mm)	7.5 in (196 mm)	7.5 in (196 mm)
B	16.2 in (412 mm)	18.1 in (460 mm)	18.1 in (460 mm)
C	21.0 in (533 mm)	23.4 in (594 mm)	23.4 in (594 mm)
D	18.0 in (457 mm)	20.0 in (508 mm)	20.0 in (508 mm)
E	18.5 in (470 mm)	21.0 in (533 mm)	—
F	22.5 in (571 mm)	25.2 in (640 mm)	—

XD Models

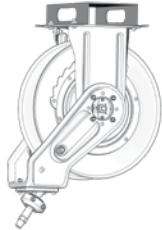


XN Models

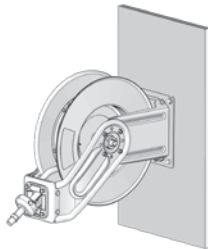


Typical Mounting Configurations

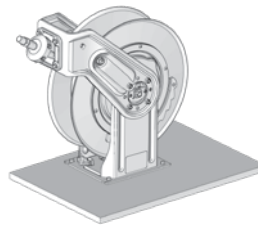
Overhead Mount



Wall Mount



**Bench/
Truck Mount**



**Truck Mount with Remote
Mounted Roller Guide**



Available in
4 Colors
Consult factory for
lead times.

Metallic Blue (B)



Yellow (F)



Black (D)



White (A)





Ordering Information

XDX 10/20 Reel Assembly Ordering Guide

XDX Series reels are available in three colors. Use the chart below to determine the correct part number to order. The last character of each part number indicates the hose reel color.

Reel Color	Identifier
White	A
Metallic Blue	B
Black	D
Yellow	F

Order Example:

Arm in bench/truck mount position,
XDX 20, oil, 1/2 in ID hose, 50 ft hose length

1 Select your reel position: XDM65#

2 Select your reel color: Black = "D"
(from Reel Assembly Ordering Guide – opposite)

Order Part Number:

XDM65D



XD Models (with Adjustable Arm)

Reel Assemblies

Assembly includes hose, ball stop kit and roller guide. *Required hose inlet kit sold separately.*

Reel Size	Fluid	Hose (Included)		Connection Size		Maximum Pressure psi (bar)	Assembly Part Number	Recommended Hose Inlet Kit
		ID in (mm)	Length ft (m)	Inlet	Outlet			
XDX 10	Air/Water/Antifreeze/Windshield Washer Fluid	3/8 (10)	50 (15)	1/2 NPSM(M)	3/8 NPT(M)	300 (20.7)	XDL25#	218549
		1/2 (13)	35 (11)	1/2 NPSM(M)	1/2 NPT(M)	300 (20.7)	XDL33#	
	Oil	1/2 (13)	35 (11)	1/2 NPSM(M)	1/2 NPT(M)	2,000 (138)	XDM33#	
	Grease	1/4 (6)	50 (15)	3/8 NPSM(M)	1/4 NPT(M)	5,000 (552)	XDH15#	
XDX 20	Air/Water/Antifreeze/Windshield Washer Fluid	3/8 (10)	65 (20)	1/2 NPSM(M)	3/8 NPT(M)	300 (20.7)	XDL56#	218549
		1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	300 (20.7)	XDL65#	
	Oil	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	2,000 (138)	XDM65#	
	Grease	3/8 (10)	50 (15)	3/8 NPSM(M)	1/4 NPT(M)	4,800 (331)	XDH55#	

Bare Reels

Required hose inlet kit sold separately. Fluid hose not included.

Reel Size	Fluid	Hose (Not Included)		Connection Size		Maximum Pressure psi (bar)	Part Number	Recommended Hose Inlet Kit
		ID in (mm)	Length ft (m)	Inlet	Outlet			
XDX 10	Air/Water/Antifreeze/Windshield Washer Fluid	3/8 (10)	65 (20)	1/2 NPSM(M)	3/8 NPSM(F)	300 (20.7)	XDL2D#	218549
	Oil	1/2 (13)	35 (11)	1/2 NPSM(M)	1/2 NPSM(F)	2,000 (138)	XDM3B#	
	Grease	3/8 (10)	35 (11)	3/8 NPSM(M)	3/8 NPSM(F)	8,000 (552)	XDH1D#	
XDX 20	Air/Water/Antifreeze/Windshield Washer Fluid	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPSM(F)	300 (20.7)	XDL6D#	218549
	Oil	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPSM(F)	2,000 (138)	XDM6D#	
	Grease	3/8 (10)	50 (15)	3/8 NPSM(M)	3/8 NPSM(F)	8,000 (552)	XDH5D#	

XDX Series Hose Reels




10 / 20 / 20 XN

Ordering Information

XN Models (without Adjustable Arm)

Includes hose guide kit. **Required hose inlet kit sold separately.**

Reel Size	Fluid	Hose (Included)		Connection Size		Maximum Pressure psi (bar)	Part Number	Hose Guide Kit (Included)	Recommended Hose Inlet Kit
		ID in (mm)	Length ft (m)	Inlet	Outlet		Black		
	Air/Water/ Antifreeze/ Windshield Washer Fluid	3/8 (10)	65 (20)	1/2 NPSM(M)	3/8 NPT(M)	300 (20.7)	XNL56D	15Y478	218549
		1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	300 (20.7)	XNL65D		
	Oil	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	2,000 (138)	XNM65D		
	Grease	3/8 (10)	50 (15)	3/8 NPSM(M)	1/4 NPT(M)	4,800 (331)	XNH55D		

Accessories

Ball Stop Kits

XDX HS models include ball stop kits. Order separately if ordering a bare reel or if needed with HN models.

Part Number	Description
222225	For 1/4 in (6 mm) ID hose (not compatible with XD 30, 700 or 750)
218340	For 1/4 in to 3/8 in (6 mm to 10 mm) ID hose (not for use with XD 30, 700 or 750)
218341	0.782 in ID used for 3/8 in and 1/2 in (10 mm and 13 mm) hose (not compatible with XD 30, 700 or 750)
237872	1.0 in ID used for 5/8 in (16 mm) hose
237873	1.123 in ID used for 3/4 in (19 mm) hose
237874	1.374 in ID used for 1 in (25 mm) hose
24D132	For 3/8 in (10 mm) ID hose
24D133	For 1/2 in (13 mm) ID hose

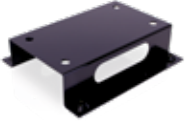


Hose Inlet Kits

A hose inlet kit is required when ordering an XDX reel.

Maximum Working Pressure psi (bar)	Size in (mm)	Length ft (m)	Part Number
2,000 (137)	1/2 (13)	2 (0.6)	218549
4,000 (276)	3/8 (10)		218550
5,000 (345)	1/4 (6)		224417

Mounting Channels

Accommodates up to six reels. Includes all parts necessary to mount on wall or overhead.

Description	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
 Enclosed Reel Mounting Channel	24N323	24N324	24N325	24N326	24N327	24N328
 Open Reel Mounting Channel	24A219	24A220	24A221	24A222	24A222	24A222
 I-Beam Mounting Bracket*	204741 (x 2)			204741 (x 3)		

*Secures mounting channel to I-beam without drilling – 2 are required for 1-3 reels, and 3 are required for 4-6 reels.




Ordering Information

Enclosure Kits for One Reel


Open mounting accommodates up to six reels. Includes all parts necessary to mount on wall or overhead. Requires Enclosed Reel Mounting Channel.

	Reel Size	White	Metallic Blue	Red	Black	Dark Blue	Yellow	Required End-Caps (set of 2)
	XDX 10	24N331	24N332	24N333	24N334	24N335	24N336	24A950
	XDX 20	24N337	24N339	24N340	24N341	24N342	24N343	24A951


Retrofit Adapter Kit

	Part Number	Description
	24A224	Includes all parts to mount hose reel to existing 500 series mounting pattern without enclosure
	24P914	Includes all parts to convert XDX 20 hose reels to fit existing 500 series enclosures

Valve Hanger Kit

	Part Number	Description
	224444	Mounts to side of reel to allow hanging of non-metered and high-flow dispensing valves

Self-Adhesive Identification Label Set

	Part Number	Description
	180698	Set includes: 1 in x 5 in (25.4 mm x 127 mm) hose reels labels for Antifreeze, Water, SAE 5-40, SAE 10-40, SAE 20W, Hydraulic, Gear, SAE 10W, SAE 10-30, SAE 30W, Dexron, Air, Chassis, ATF

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

XD Series Hose Reels



30 / 30 HN

**7 Year
Warranty!**

High Capacity Reel

Used in applications requiring longer-range dispense and higher capacity than the standard XDX 10/20 series. Ideal for use on mobile service trucks, heavy construction and industrial plants.



Spring Adjustment

Increase or decrease spring tension while reel is pressurized with fluid.

Full-Flow Swivel

Maximize material flow with minimal pressure drop for faster fills to get more vehicles through your shop.

Optional Adjustable Arm

Easily change to one of seven arm positions to fit your application. Order with arm (HS models) or without (HN models).

Durable Finish

Baked-on enamel finish (four colors available) protects reel from corrosion.

Large Hose Capacity with Small Profile

Compact pedestal and spool fits into tight spaces and can accommodate 30-75 foot (9.1-22.8 meters) hose capacity for a wide variety of applications.

Hose and Cord Reels

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Diesel fuel
- Air
- Water
- Grease
- Antifreeze
- Windshield washer fluid
- Pressure wash
- Waste oil evacuation
- Diesel exhaust fluid (DEF)

Technical Specifications

Operating Temperature Range

Air/Water/Antifreeze/ Windshield Washer Fluid	-40°F to 180°F (-40°C to 82°C)
Oil	-40°F to 180°F (-40°C to 82°C)
Grease	-40°F to 180°F (-40°C to 82°C)
Pressure Wash	-20°F to 225°F (-28°C to 107°C)
Fuel/Evacuation	-40°F to 120°F (-40°C to 49°C)
Diesel Exhaust Fluid (DEF)	12°F to 140°F (-11°C to 60°C)

Wetted Parts (Bare Reel Only)

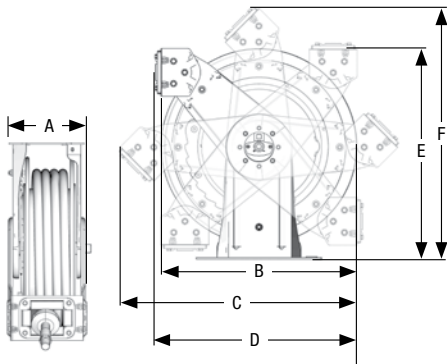
Air/Water/Antifreeze/ Windshield Washer Fluid Reels	Nickel plated carbon steel, aluminum, Buna-N rubber, UHMWPE
Oil	Nickel plated carbon steel, aluminum, Buna-N rubber, UHMWPE
Grease	Nickel plated stainless steel, Buna-N rubber, UHMWPE
Pressure Wash	Nickel plated stainless steel, Buna-N rubber, UHMWPE
Fuel/Evacuation	Nickel plated carbon steel, aluminum, Buna-N rubber, UHMWPE
Diesel Exhaust Fluid (DEF)	Zinc plated steel, polyurethane, steel

Weight (Without Hose)	98 lb (44.5 kg)
Sound Pressure Level	85.8 dB(A)
Sound Power Level	94.9 dB(A)
Instruction Manual	3A0138

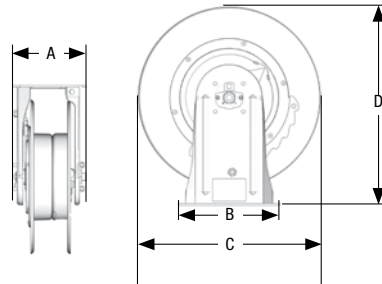
Dimensions

	HS Models (with Adjustable Arm)	HN Models (without Arm)
A	9.0 in (229 mm)	7.5 in (196 mm)
B	21.5 in (546 mm)	18.1 in (460 mm)
C	26.0 in (659 mm)	23.4 in (594 mm)
D	22.1 in (562 mm)	20.0 in (508 mm)
E	23.1 in (588 mm)	21.0 in (533 mm)
F	27.6 in (701 mm)	25.2 in (640 mm)

HS Models

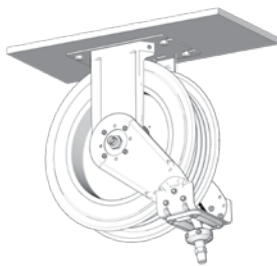


HN Models

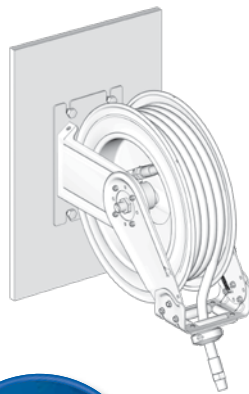


Typical Mounting Configurations

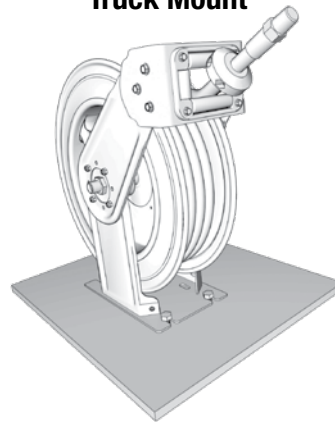
Overhead Mount



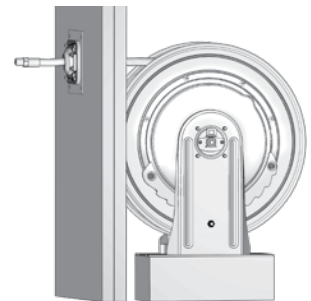
Wall Mount



Bench/ Truck Mount



Truck Mount with Remote Mounted Roller Guide



Metallic Blue (B)
Standard In-Stock Color



Available in 4 Colors
Consult factory for lead times.

Yellow (F)



White (A)



Desert Sand (G)



XD Series Hose Reels



30 / 30 HN

Ordering Information

XD 30 Reel Assembly Ordering Guide

XD Series reels are available in four colors. Use the chart below to determine the correct part number to order. The last character of each part number indicates the hose reel color.

Reel Color	Identifier
White	A
Metallic Blue	B
Yellow	F
Desert Sand*	G

*Desert Sand not available on HN Models.

Order Example:

Arm in overhead mount position, XD 30, oil, 3/4 in ID hose, 50 ft hose length

1 Select your reel position: HSMD5#

2 Select your reel color: Metallic Blue = "B"
(from Reel Assembly Ordering Guide – opposite)

Order Part Number: **HSMD5B**



HS Models (with Adjustable Arm)

Reel Assemblies

Assembly includes hose, ball stop kit and roller guide. **Required hose inlet kit sold separately.**

Fluid	Hose (Included)		Connection Size		Maximum Pressure psi (bar)	Reel, Hose and Ball Stop Assembly Part Number	Recommended Hose Inlet Kit
	ID in (mm)	Length ft (m)	Inlet	Outlet			
Air/Water/Antifreeze/Windshield Washer Fluid	1/2 (13)	75 (23)	1/2 NPSM(M)	1/2 NPT(M)	300 (20.7)	HSLC8#	218549
	3/4 (19)	50 (15)	3/4 NPSM(M)	3/4 NPT(M)	300 (20.7)	HSLD5#	24E284
Oil	1/2 (13)	75 (23)	1/2 NPSM(M)	1/2 NPT(M)	1,500 (103)	HSMC8#	218549
	3/4 (19)	50 (15)	3/4 NPSM(M)	3/4 NPT(M)	1,250 (86)	HSM5#	24E284
Grease	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	5,000 (345)	HSHC5#	24E283
	3/8 (10)	75 (23)	1/2 NPSM(M)	3/8 NPT(F)	5,000 (345)	HSHB7#	24E283
Pressure Wash	3/8 (10)	75 (23)	1/2 NPSM(M)	3/8 NPT(M)	4,000 (276)	HSPB8#	24E283
	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	4,500 (310)	HSPC5#	24E283
Fuel/Oil Evacuation	1 (13)	30 (9)	3/4 NPSM(M)	1 NPT(M)	125 (8.6)	HSLE3#	24E285
DEF	3/4 (19)	50 (15)	3/4 BSPP(M)	3/4 BSPP ORB	50 (3.4)	HSDD5#	24W250 (BSPP)

Bare Reels

Required hose inlet kit sold separately.


Fluid	Hose (Not Included)		Connection Size		Maximum Pressure psi (bar)	Part Number	Recommended Hose Inlet Kit
	ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			
Oil	1/2 (13)	75 (23)	1/2 (13) (m)	1/2 (13) (m)	2,000 (138)	HSMCF#	218549
	3/4 (19)	50 (15)	3/4 (19) (m)	3/4 (19) (m)	2,000 (138)	HSMDD#	24E284
Grease	1/2 (13)	50 (15)	1/2 (13) (m)	1/2 (13) (m)	5,000 (345)	HSHCD#	24E283
Pressure Wash	3/8 (10)	75 (23)	1/2 (13) (m)	3/8 (10) (m)	4,000 (276)	HSHFF#	24E283
DEF	3/4 (19)	50 (15)	3/4 (19) (m)	3/4 (19) ORB	50 (3.4)	HSDDD#	24W250 (BSPP)

Ordering Information

HN Models (without Adjustable Arm)

Reels with Hose


Required hose inlet kit sold separately.



Fluid	Hose (Included)		Connection Size		Maximum Pressure psi (bar)	Reel and Hose Assembly Part Number	Recommended Hose Inlet Kit
	ID in (mm)	Length ft (m)	Inlet	Outlet			
Air/Water/Antifreeze/ Windshield Washer Fluid	1/2 (13)	75 (23)	1/2 NPSM(M)	1/2 NPT(M)	300 (20.7)	HNLC8#	218549
	3/4 (19)	50 (15)	3/4 NPSM(M)	3/4 NPT(M)	300 (20.7)	HNLD5#	24E284
Oil	1/2 (13)	75 (23)	1/2 NPSM(M)	1/2 NPT(M)	1,500 (103)	HNMC8#	218549
	3/4 (19)	50 (15)	3/4 NPSM(M)	3/4 NPT(M)	1,250 (86)	HNMD5#	24E284
Grease	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	5,000 (345)	HNHC5#	24E283
	3/8 (10)	75 (23)	1/2 NPSM(M)	3/8 NPT(F)	5,000 (345)	HNHB7#	24E283
Pressure Wash	3/8 (10)	75 (23)	1/2 NPSM(M)	3/8 NPT(M)	4,000 (276)	HNPB8#	24E283
	1/2 (13)	50 (15)	1/2 NPSM(M)	1/2 NPT(M)	4,500 (310)	HNPC5#	24E283
Fuel/Oil Evacuation	1 (13)	30 (9)	3/4 NPSM(M)	1 NPT(M)	125 (8.6)	HNLE3#	24E285

Bare Reels


Required hose inlet kit sold separately.



Fluid	Hose (Not Included)		Connection Size		Maximum Pressure psi (bar)	Part Number	Recommended Hose Inlet Kit
	ID in (mm)	Length ft (m)	Inlet in (mm)	Outlet in (mm)			
Oil	3/4 (19)	50 (15)	3/4 (19) (m)	3/4 (19) (m)	2,000 (138)	HNMD5#	24E284
Grease	1/2 (13)	50 (15)	1/2 (13) (m)	1/2 (13) (m)	5,000 (345)	HNHC5#	24E283
Pressure Wash	3/8 (10)	75 (23)	1/2 (13) (m)	3/8 (10) (m)	4,000 (276)	HNHB7#	24E283

Ball Stop Kits

XD HS models include ball stop kits. Order separately if ordering a bare reel or if needed with HN models.




Part Number	Description
222225	For 1/4 in (6 mm) ID hose (not compatible with XD 30, 700 or 750)
218340	For 1/4-3/8 in (6-10 mm) ID hose (not for use with XD 30, 700 or 750)
218341	0.782 in ID used for 3/8 in and 1/2 in (10 mm and 13 mm) hose (not compatible with XD 30, 700 or 750)
237872	1.0 in ID used for 5/8 in (16 mm) hose
237873	1.123 in ID used for 3/4 in (19 mm) hose
237874	1.374 in ID used for 1 in (25 mm) hose
24D132	For 3/8 in (10 mm) ID hose
24D133	For 1/2 in (13 mm) ID hose




Ordering Information

Hose Inlet Kits


A hose inlet kit is required when ordering an XD reel.

	Part Number	Description
	218549	1/2 in (13 mm) hose inlet kit for air/water and oil. 2,000 psi (137 bar), 1/2 in NPT hose inlet ID, 24 in (610 mm) long
	24E284	3/4 in (19 mm) hose inlet kit for air/water and oil. 1,250 psi (86 bar), 3/4 in NPT hose inlet ID, 24 in (610 mm) long
	24E283	1/2 in (13 mm) hose inlet kit for grease or pressure wash. 5,000 psi (345 bar), 1/2 in NPT hose inlet ID, 24 in (610 mm) long
	24E285	1/2 in (13 mm) hose inlet kit for fuel. 125 psi (8.6 bar), 1/4 in NPT hose inlet ID, 24 in (610 mm) long
	24W250	2 ft DEF inlet hose kit for XD 30 reels. 3/4 in BSPP(F) x cut end and 90° elbow
	24W251	6 ft DEF inlet hose kit for XD 30 reels. 3/4 in BSPP(F) x cut end and 90° elbow
	124875	2 ft DEF hose, 3/4 in BSPP(M) x cut end (inlet hose)
	124581	6 ft DEF hose, 3/4 in BSPP(M) x cut end (inlet hose)

Valve Hanger Kit

	Part Number	Description
	224444	Mounts to side of reel to allow hanging of non-metered and high-flow dispensing valves

Self-Adhesive Identification Label Set

	Part Number	Description
	180698	Set includes: 1 in x 5 in (25.4 mm x 127 mm) hose reels labels for Antifreeze, Water, SAE 5-40, SAE 10-40, SAE 20W, Hydraulic, Gear, SAE 10W, SAE 10-30, SAE 30W, Dexron, Air, Chassis, ATF

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid.

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
17S663	White	



**7 Year
Warranty!**

Built-In Toughness

Engineered to take a beating and still reliably perform in harsh environments so it's ready when you need it. Choose from more colors, thread types and hoses or choose the bare reel so you can customize it with your hose. You get a professional look, easier fit and better-performing equipment.

Extensive Hose Offering

Standard models come complete with factory-installed hoses on the reel. Large selection of optional reels to fit various applications.

Full-Flow Swivel

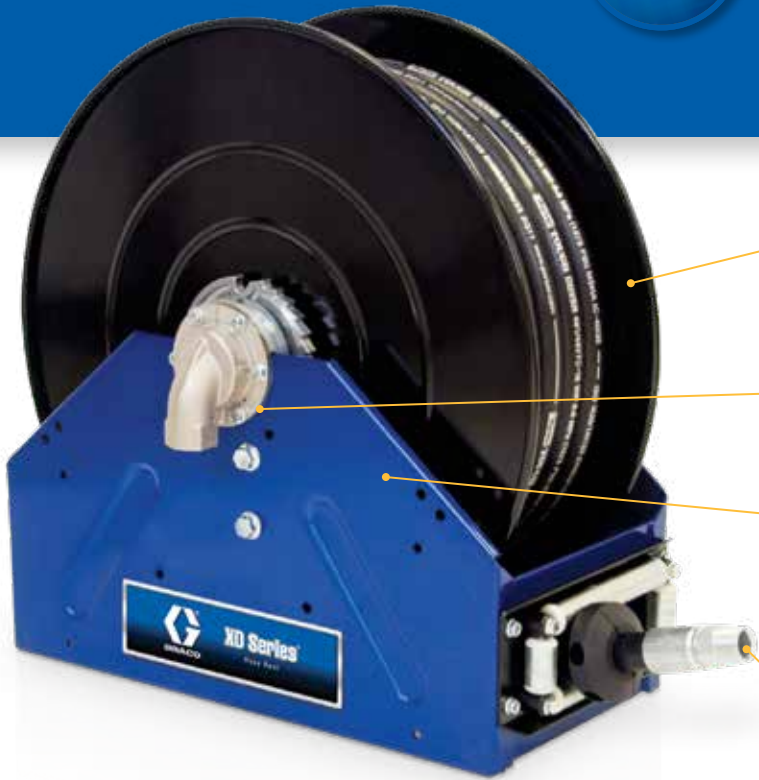
Maximize material flow with minimal pressure drop for faster fills to get more vehicles through your shop.

Rugged and Durable Body

Heavy-duty welded spool and ribbed frame for extra strength and toughness over the long haul.

Meets Worldwide Needs

Built standard with 90° elbow with NPT, BSPP or BSPT threads. 1-1/2 in models also include 2 in Victaulic™*-style groove. Accessories attach without the need for adapters.



Typical Applications

- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Agriculture
- Lube trucks

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Diesel fuel
- Air
- Water
- Antifreeze
- Waste oil evacuation

Technical Specifications

Operating Temperature Range	
Oil Reels – 1 inch	-20°F to 180°F (-28°C to 82°C)
All Other Reels	-40°F to 180°F (-40°C to 82°C)
Wetted Parts	Carbon steel, nickel plated cast iron, Buna-N rubber, FKM UHMWPE
Maximum Recommended Mounting Height	15 ft (4.6 m)
Sound Pressure Level	77.6 dB(A)
Sound Power Level	86.8 dB(A)

*Victaulic is a trademark of Victaulic Company of America.

How to Select an XD 40/50 Hose Reel

2 Ways to Order!

Option 1 – Reel with Hose

(Pages 246-247)

All models include the hose, hose guide and ball stop kit.



Option 2 – Bare Reel

(Pages 246-247)

Bare reel models do not include hose and ball stop kit.



Choose Your Accessories (Pages 248)

Hose Inlet Kit

A hose inlet is required for installation. They are appropriately sized for the hose reels based on type of fluid, hose size and pressure.



Support Arm

For additional support, add arm brackets to the reel. Required for overhead mounting applications.



Mounting Kit

Overhead mounting options available for XD 40 reels.



Hose Kit

Large selection of hoses appropriately sized for the hose reels based on type of fluid, hose size and pressure.



Hose Inlet Kit

A hose inlet is required for installation. They are appropriately sized for the hose reels based on type of fluid, hose size and pressure.



Ball Stop Kit

When the ball stop comes in contact with the hose guide, the hose is prohibited from rewinding.



Support Arm

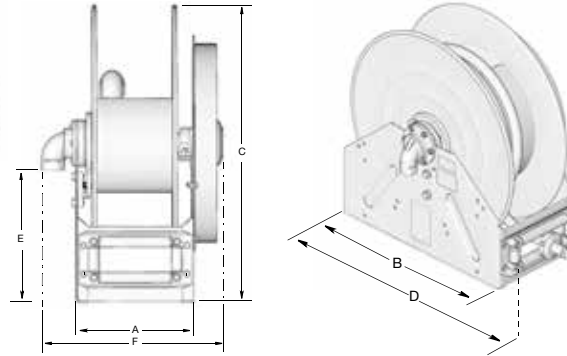
For additional support, add arm brackets to the reel. Required for overhead mounting applications.



Mounting Kit

Overhead mounting options available for XD 40 reels.



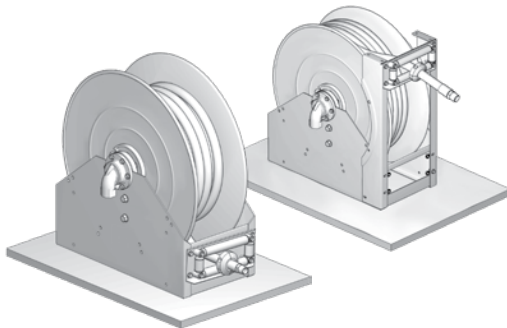


Dimensions		Dimensions in (mm)*					
Model	Inlet/Outlet Size NPT(F)	A	B	C	D	E	F
		XD 4010 – Model 1	1 in/1 in	11.83 (300)	24 (610)	26.13 (664)	26.4 (671)
XD 4010 – Model 2	1 in/1 in	11.83 (300)	24 (610)	26.13 (664)	26.4 (671)	10.91 (277)	17.47 (444)
XD 5010	1 in/1 in	11.83 (300)	28.5 (724)	30.13 (765)	29.4 (747)	10.91 (277)	17.4 (444)
XD 5015	1-1/2 in/ 1-1/2 in	11.83 (300)	28.5 (724)	30.13 (765)	29.4 (747)	10.91 (277)	18.24 (463)

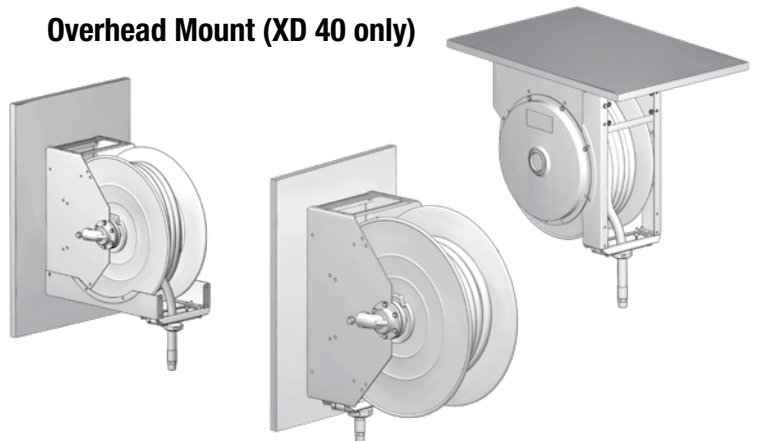
*For complete list of dimensions, see Graco product manual 3A2990.

Typical Mounting Configurations

Truck-Bed or Bench Mount



Overhead Mount (XD 40 only)



Available in
3 Colors
Consult factory for
lead times.

Standard In-Stock Color:
Metallic Blue



Hose and Cord Reels

XD Series Hose Reels




40 / 50


Ordering Information

XD 40 Reels with Hose

Includes hose, ball stop kit and hose guide. *Required hose inlet kit sold separately.*

Reel Size	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Part Number by Reel Color			Hose Inlet Kit (Order Separately)	Truck/Bench Mount Only	
		ID in (mm)	Length ft (m)	Inlet NPT(F)	Outlet NPT(M)		Metallic Blue	Yellow	White			
 XD 4010	Air/Water	1/2 (13)	100 (30)	1	1/2	300 (21)	24P327	24P328	24P329	24R111		
		3/4 (19)	75 (23)	1	3/4	300 (21)	24P330	24P331	24P332			
		3/4 (19)	100 (30)	1	3/4	300 (21)	24P333	24P334	24P335			
		1 (25)	50 (15)	1	1	300 (21)	24P336	24P337	24P338			
	Antifreeze	3/4 (19)	100 (30)	1	3/4	300 (21)	24P984	24P985	24P986			
	Oil	1/2 (13)	100 (30)	1	1/2	2,000 (138)	24P339	24P340	24P341			
		3/4 (19)	75 (23)	1	3/4	1,500 (103)	24P342	24P343	24P344		•	
		3/4 (19)	75 (23)	1	3/4	1,500 (103)	24R857	24R859	24R860			
		3/4 (19)	100 (30)	1	3/4	1,500 (103)	24P345	24P346	24P347			
		1 (25)	50 (15)	1	1	1,275 (88)	24P348	24P349	24P350		•	
	1 (25)	50 (15)	1	1	1,275 (88)	24R861	24R862	24R863				
	Waste Oil Evacuation	1 (25)	50 (15)	1	1	250 (17)	24P351	24P352	24P353		24R112	
	Diesel Fuel	1 (25)	50 (15)	1	1	250 (17)	24P354	24P355	24P356		24R115	

XD 40 Bare Reels

Reel Size	Fluid	Hose Length Capacity (in x ft (m))			Connection Size		Maximum Pressure psi (bar)	Part Number by Reel Color			Hose Inlet Kit (order separately)	Truck/Bench Mount Only	
		1/2	3/4	1	Inlet NPT(F)	Outlet NPT(F)		Metallic Blue	Yellow	White			
 XD 4010	Air/Water	100 (30)	75 (23)	50 (15)	1	1	600 (41)	24P313	24P315	24P316	24R111		
		-	100 (30)	-	1	1	600 (41)	24P317	24P318	24P319			
	Antifreeze	-	100 (30)	50 (15)	1	1	600 (41)	26A140	26A141	26A142			
	Oil	-	75 (23)	50 (15)	1	1	2,000 (138)	24P320	24P322	24P323		•	
		-	75 (23)	50 (15)	1	1	2,000 (138)	24R854	24R855	24R856			
		100 (30)	100 (30)	-	1	1	2,000 (138)	24P324	24P325	24P326			
	Waste Oil Evacuation	-	-	75 (23)	1	1	600 (41)	24P317	24P318	24P319		24R112	
	Diesel Fuel	-	-	50 (15)	1	1	600 (41)	24P317	24P318	24P319		24R115	

Remember to Order!

			
Ball Stop Kit See page 248	Support Arm See page 248	Hose See page 260-261	Hose Inlet See page 248

Hose and Cord Reels

Ordering Information

XD 50 Reels with Hose

Includes hose, ball stop kit and hose guide. **Required hose inlet kit sold separately.**

Reel Size	Fluid	Hose		Connection Size		Maximum Pressure psi (bar)	Part Number by Reel Color			Hose Inlet Kit (Order Separately)	
		ID in (mm)	Length ft (m)	Inlet NPT(F)	Outlet NPT(M)		Metallic Blue	Yellow	White		
		XD 5010	Air/Water	1 (25)	75 (23)		1	1	300 (21)		24P470
1 (25)	100 (30)			1	1	300 (21)	24P473	24P474	24P475		
Antifreeze	1 (25)		100 (30)	1	1	300 (21)	24P987	24P988	24P989		
Oil	1 (25)		75 (23)	1	1	1,275 (88)	24P476	24P477	24P478		
Diesel Fuel	1 (25)		75 (23)	1	1	250 (17)	24P485	24P486	24P487	24R115	
	1 (25)		100 (30)	1	1	250 (17)	24P488	24P489	24P490		
XD 5015**	Waste Oil Evacuation	1-1/4 (32)	35 (11)	1-1/2	1-1/4	200 (14)	24P479	24P480	24P481	-	
		1-1/4 (32)	50 (15)	1-1/2	1-1/4	200 (14)	24P482	24P483	24P484		
	Diesel Fuel	1-1/4 (32)	35 (11)	1-1/2	1-1/4	250 (17)	24P491	24P492	24P493		24R117
		1-1/4 (32)	50 (15)	1-1/2	1-1/4	250 (17)	24P494	24P495	24P496		
		1-1/2 (38)	50 (15)	1-1/2	1-1/2	150 (10)	24P497	24P498	24P499		

**Standard 2 inch Vitaulic™ -style groove on inlet.

XD 50 Bare Reels

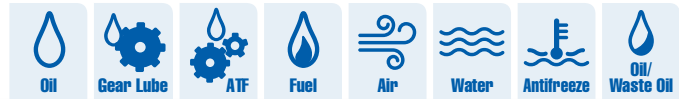
Reel Size	Fluid	Hose Length Capacity (in x ft (m))			Connection Size		Maximum Pressure psi (bar)	Part Number by Reel Color			Hose Inlet Kit (order separately)
		1	1-1/4	1-1/2	Inlet NPT(F)	Outlet NPT(F)		Metallic Blue	Yellow	White	
		XD 5010	Air/Water	100 (30)	-	-		1	1	600 (41)	
Antifreeze	100 (30)		-	-	1	1	600 (41)	26A143	26A144	26A145	
Oil	75 (23)		-	-	1	1	2,000 (138)	24P458	24P459	24P460	
Diesel Fuel	100 (30)		-	-	1	1	600 (41)	24P455	24P456	24P457	24R115
	75 (23)		-	-	1	1	600 (41)	24P464	24P465	24P466	
XD 5015**	Waste Oil Evacuation		-	50 (15)	-	1-1/2	1-1/2	600 (41)	24P461	24P462	24P463
	Diesel Fuel	-	50 (15)	-	1-1/2	1-1/2	600 (41)	24P461	24P462	24P463	24R117
		-	50 (15)	50 (15)	1-1/2	1-1/2	600 (41)	24P467	24P468	24P469	

**Standard 2 inch Vitaulic™ -style groove on inlet.

Remember to Order!

 <p>Ball Stop Kit See page 248</p>	 <p>Support Arm See page 248</p>	 <p>Hose See page 260-261</p>	 <p>Hose Inlet See page 248</p>
--	--	---	--


XD Series Hose Reel Accessories




40 / 50

Ordering Information


Ball Stop Kits

	Part Number	Description
	237873	Ball stop kit used for 3/4 in (19 mm) hose
	237874	Ball stop kit used for 1 in (25 mm) hose
	24R060	Ball stop kit used for a 1-1/4 in (32 mm) hose
	24R061	Ball stop kit used for a 1-1/2 in (38 mm) hose


Hose Guides

	Part Number	Description
	24R072	Roller guide kit with bracket for XD 40 and XD 60
	24R074	Roller guide kit with bracket for XD 50


Support Arm Kits

	Part Number	Description
	24R076	Support arm kit for XD 40
	24R077	Support arm kit for XD 50


Mounting Kit

	Part Number	Description
	237932	Overhead or wall mounting kit for XD 40. Includes all parts needed for overhead mounting one reel.

Hose Inlet Kits


	Part Number	Description
	24R111	1 in (25 mm) hose inlet kit for air/water and oil. 1,275 psi (88 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R112	1 in (25 mm) hose inlet kit for waste oil evacuation. 250 psi (17 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R115	1 in (25 mm) hose inlet kit for diesel fuel. 250 psi (17 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R117	1-1/2 in (38 mm) hose inlet kit for diesel fuel. 150 psi (10 bar), 1.5 in NPT hose inlet ID, 28 in (710 mm) long

Self-Adhesive Identification Label Set

	Part Number	Description
	180698	Set includes: 1 in x 5 in (25.4 mm x 127 mm) hose reels labels for Antifreeze, Water, SAE 5-40, SAE 10-40, SAE 20W, Hydraulic, Gear, SAE 10W, SAE 10-30, SAE 30W, Dexron, Air, Chassis, ATF

Hose Identification Wraps

Vinyl hose wrap for easy identification of meter fluid

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

Hose and Cord Reels

XD Series Powered Bare Hose Reels

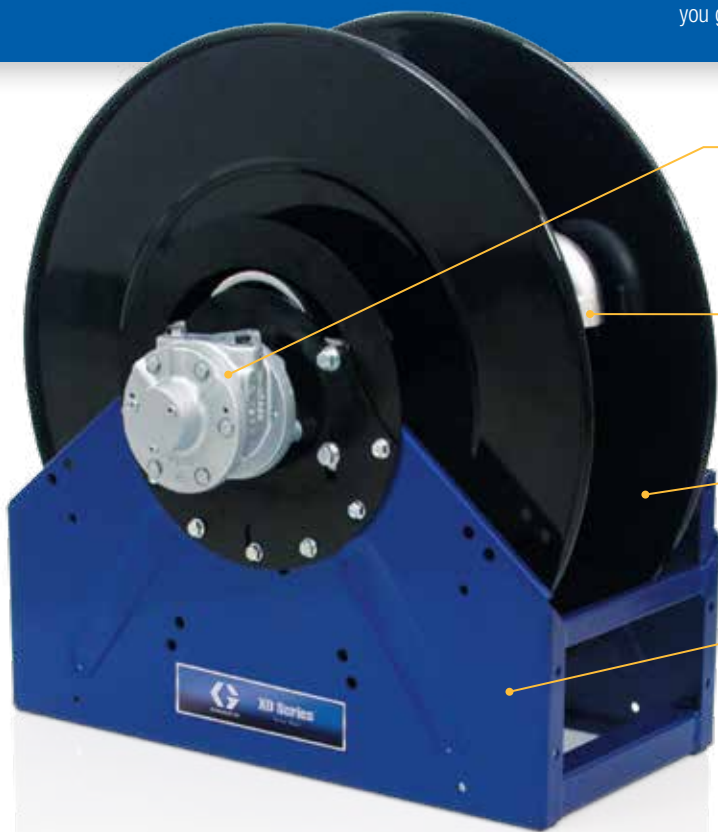


60 / 70 / 80

**7 Year
Warranty!**

Safe, Versatile Powered Hose Reels

We like to think of the XD motor rewind reels as super-powered. The innovative design is packed with features to help you work safer, smarter and faster. We demand extensive product testing, often exceeding industry standards to ensure you get the best product on the market.



Safe, Reliable Direct Drive and Gear Motors

Drive unit is clean and lubricated for life. No need to worry about greasy, exposed drive chains that need maintenance and can be dangerous to operators.

Easy System Integration

Easily change the inlet and motor direction to give you the option of a right- or left-hand flow orientation.

Heavy-duty Welded Spool

Built to handle the weight of heavy hoses. Designed to surround and protect the drive unit from the elements to promote longer-lasting, safer operation.

Rugged and Durable Body

Heavy-duty one piece welded frame is engineered to flex under extreme operating conditions and is stronger than bolted frames that can loosen with use. Individually painted and powder-coated components have superior corrosion resistance over assembled and painted products.

Typical Applications

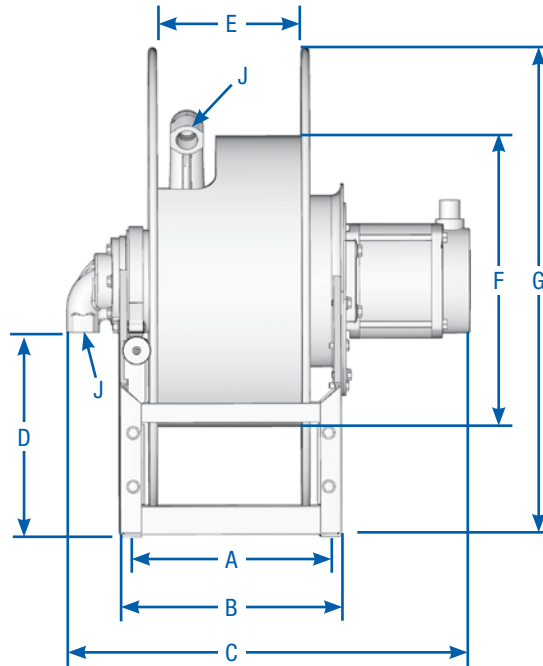
- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Agriculture
- Lube trucks

Typical Fluids Handled

- Petroleum- and synthetic-based oils (motor, gear and ATF)
- Diesel fuel
- Air
- Water
- Grease
- Waste oil evacuation

Technical Specifications

Operating Temperature Range	
Motorless Reels	-40°F to 180°F (-40°C to 82°C)
Air/Water Applications	-40°F to 180°F (-40°C to 82°C)
Waste Oil Evacuation Applications	-40°F to 180°F (-40°C to 82°C)
Oil Applications	-40°F to 180°F (-40°C to 82°C)
Grease Applications	0°F to 180°F (-18°C to 82°C)
Diesel Fuel Applications	-40°F to 140°F (-40°C to 60°C)
Wetted Parts	Nickel plated cast iron, cast iron, Buna-N rubber, polyethylene
Electric and Hydraulic Motors Sound Pressure Level	<80 dB(A)
Pneumatic Motors Sound Pressure Level	84.6 dB(A)
Pneumatic Motors Sound Power Level	89.9 dB(A)
Instruction Manual	332630



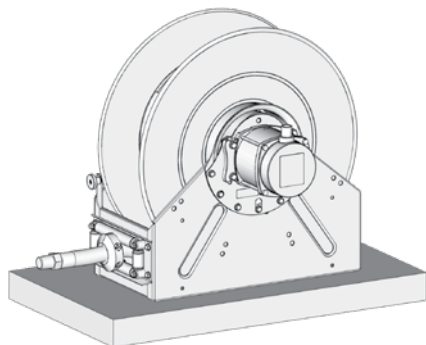
Dimensions

Reference dimension "D" for specific motor type

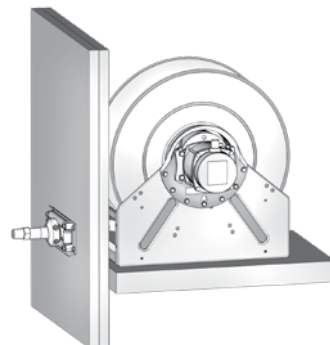
Model	Inlet/Outlet Size (J) NPT(F)	Dimensions in (mm)								
		A (Mounting Holes)	B	C			D	E	F	G
				Pneumatic	Hydraulic	Electric				
XD 6010	1 in/1 in	10.45 (256)	11.8 (300)	20.4 (519)	15.7 (400)	21.6 (547)	10.9 (277)	7.8 (198)	15.5 (394)	26.1 (663)
XD 7010	1 in/1 in	12.95 (329)	14.3 (363)	22.9 (583)	18.2 (463)	24.1 (611)	10.9 (277)	10 (254)	10 (254)	26.1 (663)
XD 7015	1-1/2 in/1-1/2 in	12.95 (329)	14.3 (363)	23.7 (603)	19 (483)	24.8 (631)	10.9 (277)	10 (254)	10 (254)	26.1 (663)
XD 7020	2 in/2 in	12.95 (329)	14.3 (363)	24.1 (613)	19.4 (493)	25.2 (641)	10.2 (259)	10 (254)	10 (254)	26.1 (663)
XD 8010	1 in/1 in	20.68 (525)	22.1 (561)	30.7 (779)	26 (659)	31.8 (807)	13.4 (340)	18 (457)	15.5 (394)	30.1 (765)
XD 8015	1-1/2 in/1-1/2 in	20.68 (525)	22.1 (561)	31.4 (799)	26.7 (679)	32.5 (827)	13.4 (340)	18 (457)	15.5 (394)	30.1 (765)
XD 8020	2 in/2 in	20.68 (525)	22.1 (561)	31.9 (809)	27.1 (689)	33 (837)	12.7 (323)	18 (457)	15.5 (394)	30.1 (765)

Typical Mounting Configurations

Bench/Trunk Mount



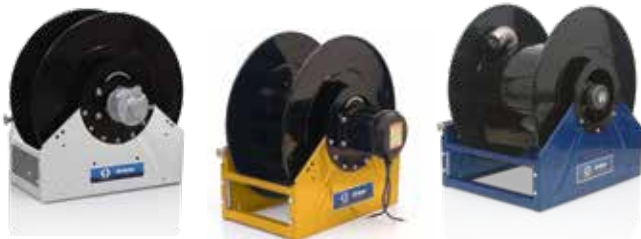
Truck Mount with Remote Mounted Roller Guide



How to Select an XD Powered Bare Hose Reel

A Complete Family of Motor Rewind Hose Reels

The innovative design of the XD reel family is packed with features to help you work safer, smarter and faster. Direct-drive motor options include hydraulic, pneumatic and electric for air, water, oil, grease, fuel dispense and waste oil evacuation applications. Use this selection chart to configure the XD reel to suit your needs.



A

Specify the Hose Fluid Type and Capacity

Determine your fluid type and capacity before selecting your reel.

REQUIRED

Fluid Type	Hose ID in (mm)	Hose Length ft (m)
<input type="checkbox"/> Air/Water	<input type="checkbox"/> 1/2 (13)	<input type="checkbox"/> 50 (15)
<input type="checkbox"/> Antifreeze	<input type="checkbox"/> 1 (25)	<input type="checkbox"/> 75 (23)
<input type="checkbox"/> Petroleum- and Synthetic-Based Oils	<input type="checkbox"/> 1-1/2 (38)	<input type="checkbox"/> 100 (30)
<input type="checkbox"/> Waste Oil	<input type="checkbox"/> 2 (51)	<input type="checkbox"/> 150 (46)
<input type="checkbox"/> Diesel Fuel		

B

Choose Your Reel Size

- XD 60 XD 70 XD 80

C

Choose Your Reel Color

Select from Blue, Yellow or White.

- Blue Yellow White

D

Select Your Drive Type and Frame

Reels can be ordered with a motor or without. If you choose a model without a motor, you must purchase the motor separately.

REQUIRED

- Order Reel with Motor Included (Pages 254-256)
- Order Reel and Motor Separately (Page 257)
 - Pneumatic Motor
 - Hydraulic Motor
 - Electric Motor
 - 12 VDC, 1/2 HP 24 VDC, 2/3 HP
 - 12 VDC, 2/3 HP 115 VAC, 0.40 HP
 - 24 VDC, 1/2 HP

E

Choose Your Controls (Pages 258)

REQUIRED

- Pneumatic Motor**
 - Pneumatic 2-position, 3-way valve
- Hydraulic Motor**
 - 12 VDC electric control of hydraulic motor, 3-position, 4-way valve
 - 12 VDC electric control of hydraulic motor with switch, 3-position, 4-way valve
 - 24 VDC electric control of hydraulic motor, 3-position, 4-way valve
 - 24 VDC electric control of hydraulic motor with switch, 3-position, 4-way valve
- Electric Motor**
 - Hazardous location on/off button
 - 12 VDC intermittent-duty solenoid
 - 24 VDC intermittent-duty solenoid
 - Manual reset button circuit breaker (25 or 50 amp)

F

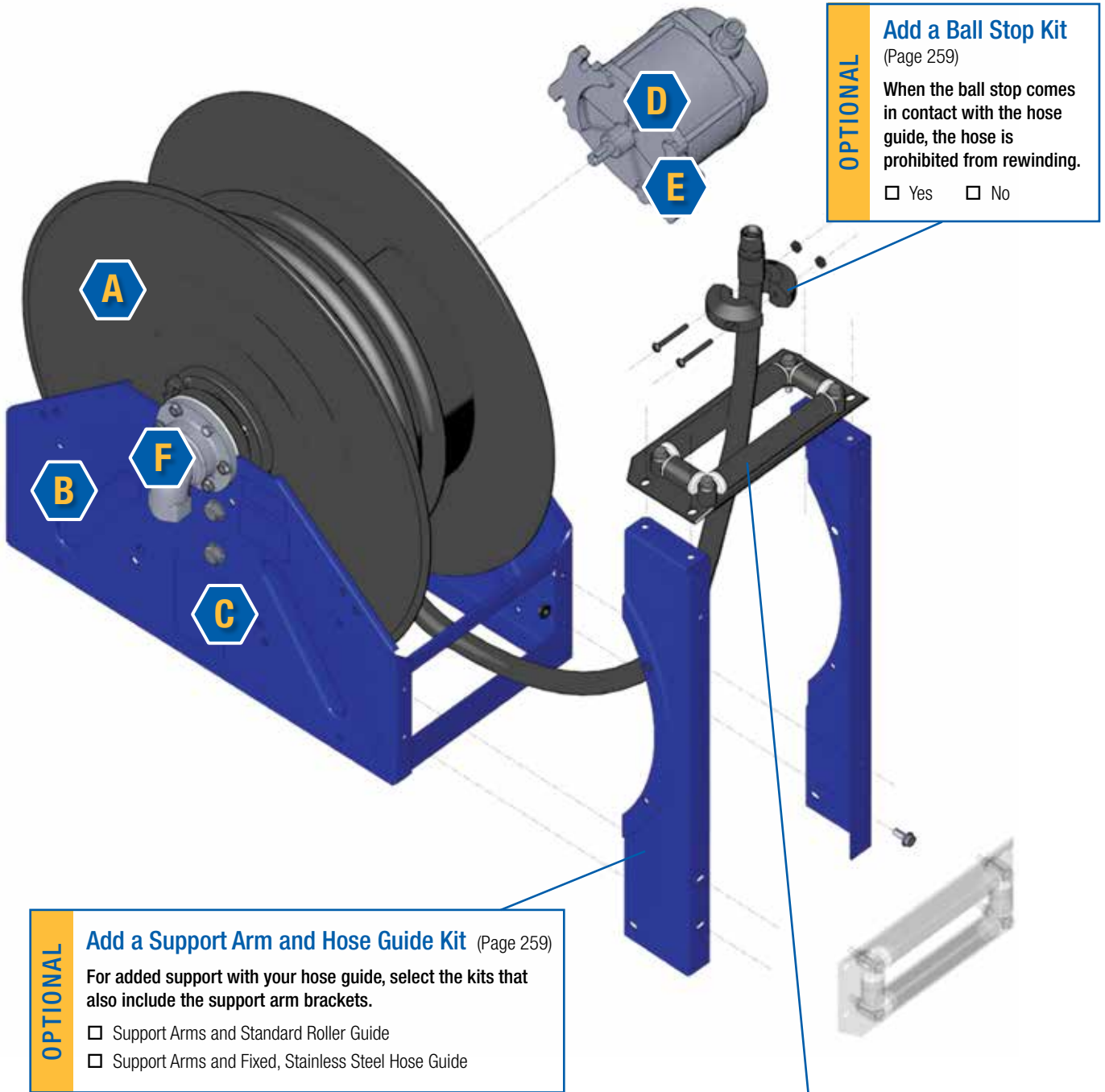
REQUIRED FOR INSTALLATION

Hose Inlet Kit (Page 259)

A hose inlet is required for installation. They are appropriately sized for the hose reels based on type of fluid, hose size and pressure.

Note: All 1-1/2 in (38 mm) hose reels include a 2 in (51 mm) Victaulic-style groove on inlet. If you are using these reels, it is recommended to order an inlet kit from Graco.

- Yes (required for installation)
- No (will supply my own hose inlet kit)



OPTIONAL

Add a Ball Stop Kit
(Page 259)

When the ball stop comes in contact with the hose guide, the hose is prohibited from rewinding.

Yes No

OPTIONAL

Add a Support Arm and Hose Guide Kit (Page 259)

For added support with your hose guide, select the kits that also include the support arm brackets.

Support Arms and Standard Roller Guide
 Support Arms and Fixed, Stainless Steel Hose Guide

OPTIONAL

Add a Hose Guide Kit (Page 259)

Select between a fixed, stainless steel hose guide or a general roller guide.

Hose guide mounts directly to the reel frame or in three different positions on the support arm.

Standard Roller Guide
 Fixed, Stainless Steel Hose Guide

XD Series Bare Hose Reels



60 / 70 / 80

Ordering Information

Reel with Motor – 1 in (25 mm) Inlet/Outlet

XD 60 Reels

Reel Size	Fluid	Motor	Hose Capacity of Reel ft (m)			Maximum Pressure psi (bar)	Weight lb (kg)	Inlet/Outlet Size NPT(F)	Reel Part Number by Color			Hose Accessories (Must be ordered separately)			
			Hose ID in (mm)						Metallic Blue	Yellow	White	Hose Inlet Kit	Hose		
			1/2 (13)	3/4 (19)	1 (25)										
XD 6010	Air/ Water	Pneumatic	100 (30)	100 (30)	50 (15)	600 (41)	123 (56)	1 in/1 in (25 mm/25 mm)	24R419	24R420	24R421	24R111	126359 – 1/2 in x 100 ft (13 mm x 30 m)		
		Hydraulic	100 (30)	100 (30)	50 (15)	600 (41)	101 (45)		24R414	24R415	24R416		126360 – 3/4 in x 75 ft (19 mm x 23 m)		
		12 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R404	24R405	24R406		126361 – 3/4 in x 100 ft (19 mm x 30 m)		
		24 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R407	24R408	24R409		126362 – 1 in x 50 ft (25 mm x 15 m)		
		115 VAC Electric	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R410	24R412	24R413		126375 – 1/2 in x 100 ft (13 mm x 30 m)		
		Pneumatic	100 (30)	100 (30)	50 (15)	3,000 (207)	125 (56)		24R434	24R435	24R436		126376 – 3/4 in x 75 ft (19 mm x 23 m)		
		Hydraulic	100 (30)	100 (30)	50 (15)	3,000 (207)	103 (47)		24R431	24R432	24R433		126377 – 3/4 in x 100 ft (19 mm x 30 m)		
		12 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	3,000 (207)	134 (61)		24R422	24R423	24R424		126503 – 1 in x 50 ft (25 mm x 15 m)		
	24 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	3,000 (207)	134 (61)	24R425	24R426	24R427						
	115 VAC Electric	100 (30)	100 (30)	50 (15)	3,000 (207)	134 (61)	24R428	24R429	24R430						
	Diesel Fuel	Pneumatic	100 (30)	100 (30)	50 (15)	600 (41)	123 (56)	1 in/1 in (25 mm/25 mm)	24R419	24R420	24R421	24R115	24R102 – 1 in x 50 ft (25 mm x 15 m)		
		Hydraulic	100 (30)	100 (30)	50 (15)	600 (41)	101 (45)		24R414	24R415	24R416				
		12 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R404	24R405	24R406				
		24 VDC Electric, 1/2 HP	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R407	24R408	24R409				
		115 VAC Electric	100 (30)	100 (30)	50 (15)	600 (41)	133 (60)		24R410	24R412	24R413				
		Pneumatic	–	–	50 (15)	600 (41)	123 (56)		24R419	24R420	24R421			24R112	126379 – 1 in x 50 ft (25 mm x 15 m)
		Hydraulic	–	–	50 (15)	600 (41)	101 (45)		24R414	24R415	24R416				
		12 VDC Electric, 1/2 HP	–	–	50 (15)	600 (41)	133 (60)		24R404	24R405	24R406				
	24 VDC Electric, 1/2 HP	–	–	50 (15)	600 (41)	133 (60)	24R407	24R408	24R409						
	115 VAC Electric	–	–	50 (15)	600 (41)	133 (60)	24R410	24R412	24R413						
	Grease	Pneumatic	–	–	50 (15)	3,000 (207)	125 (56)	1 in/1 in (25 mm/25 mm)	24R434	24R435	24R436	–	–		
		Hydraulic	–	–	50 (15)	3,000 (207)	103 (47)		24R431	24R432	24R433				
		12 VDC Electric, 1/2 HP	–	–	50 (15)	3,000 (207)	134 (61)		24R422	24R423	24R424				
		24 VDC Electric, 1/2 HP	–	–	50 (15)	3,000 (207)	134 (61)		24R425	24R426	24R427				
115 VAC Electric		–	–	50 (15)	3,000 (207)	134 (61)	24R428		24R429	24R430					



Hose and Cord Reels

Remember to Order!

 <p>Ball Stop Kit See page 259</p>	 <p>Hose Guide See page 259</p>	 <p>Support Arm See page 259</p>	 <p>Hose See page 260-261</p>	 <p>Hose Inlet See page 259</p>
--	---	--	--	---



Ordering Information

Reel with Motor – 1 in (25 mm) Inlet/Outlet

XD 70 / XD 80 Reels

Reel Size	Fluid	Motor	Hose Capacity of Reel ft (m)		Maximum Pressure psi (bar)	Weight lb (kg)	Inlet/Outlet Size NPT(F)	Reel Part Number by Color			Hose Accessories (Must be ordered separately)	
			Hose ID 1 in (25 mm)					Metallic Blue	Yellow	White	Hose Inlet Kit	Hose
XD 7010	Air/Water	Pneumatic	100 (30)	600 (41)	122 (55)	1 in/1 in (25 mm/25 mm)	24R449	24R450	24R451	24R111	126363 – 1 in x 75 ft (25 mm x 23 m) 126364 – 1 in x 100 ft (25 mm x 30 m)	
		Hydraulic	100 (30)	600 (41)	100 (45)		24R446	24R447	24R448			
		12 VDC Electric, 1/2 HP	100 (30)	600 (41)	132 (60)		24R437	24R438	24R439			
		24 VDC Electric, 1/2 HP	100 (30)	600 (41)	132 (60)		24R440	24R441	24R442			
		115 VAC Electric	100 (30)	600 (41)	132 (60)		24R443	24R444	24R445			
	Oil	Pneumatic	100 (30)	3,000 (207)	100 (56)	1 in/1 in (25 mm/25 mm)	24R464	24R465	24R466		126504 – 1 in x 75 ft (25 mm x 23 m) 126505 – 1 in x 100 ft (25 mm x 30 m)	
		Hydraulic	100 (30)	3,000 (207)	102 (46)		24R461	24R462	24R463			
		12 VDC Electric, 1/2 HP	100 (30)	3,000 (207)	133 (60)		24R452	24R453	24R454			
		24 VDC Electric, 1/2 HP	100 (30)	3,000 (207)	133 (60)		24R455	24R456	24R457			
		115 VAC Electric	100 (30)	3,000 (207)	133 (60)		24R458	24R459	24R460			
	Diesel Fuel	Pneumatic	100 (30)	600 (41)	122 (55)	1 in/1 in (25 mm/25 mm)	24R449	24R450	24R451	24R115	24R103 – 1 in x 75 ft (25 mm x 23 m) 24R106 – 1 in x 100 ft (25 mm x 30 m)	
		Hydraulic	100 (30)	600 (41)	100 (45)		24R446	24R447	24R448			
		12 VDC Electric, 1/2 HP	100 (30)	600 (41)	132 (60)		24R437	24R438	24R439			
		24 VDC Electric, 1/2 HP	100 (30)	600 (41)	132 (60)		24R440	24R441	24R442			
		115 VAC Electric	100 (30)	600 (41)	132 (60)		24R443	24R444	24R445			
XD 8010	Air/Water	Pneumatic	150 (46)	600 (41)	164 (74)	1 in/1 in (25 mm/25 mm)	24R531	24R532	24R533	24R111	-	
		Hydraulic	150 (46)	600 (41)	142 (64)		24R528	24R529	24R530			
		12 VDC Electric, 1/2 HP	150 (46)	600 (41)	173 (78)		24R519	24R520	24R521			
		24 VDC Electric, 1/2 HP	150 (46)	600 (41)	173 (78)		24R522	24R523	24R524			
		115 VAC Electric	150 (46)	600 (41)	173 (78)		24R525	24R526	24R527			
	Oil	Pneumatic	150 (46)	3,000 (207)	165 (75)	1 in/1 in (25 mm/25 mm)	24R546	24R547	24R548		-	
		Hydraulic	150 (46)	3,000 (207)	143 (65)		24R543	24R544	24R545			
		12 VDC Electric, 1/2 HP	150 (46)	3,000 (207)	175 (79)		24R534	24R535	24R536			
		24 VDC Electric, 1/2 HP	150 (46)	3,000 (207)	175 (79)		24R537	24R538	24R539			
		115 VAC Electric	150 (46)	3,000 (207)	175 (79)		24R540	24R541	24R542			
	Diesel Fuel	Pneumatic	150 (46)	600 (41)	164 (74)	1 in/1 in (25 mm/25 mm)	24R531	24R532	24R533	24R115	24T252 – 1 in x 150 ft (25 mm x 46 m)	
		Hydraulic	150 (46)	600 (41)	142 (64)		24R528	24R529	24R530			
		12 VDC Electric, 1/2 HP	150 (46)	600 (41)	173 (78)		24R519	24R520	24R521			
		24 VDC Electric, 1/2 HP	150 (46)	600 (41)	173 (78)		24R522	24R523	24R524			
		115 VAC Electric	150 (46)	600 (41)	173 (78)		24R525	24R526	24R527			



Hose and Cord Reels

Remember to Order!

 <p>Ball Stop Kit See page 259</p>	 <p>Hose Guide See page 259</p>	 <p>Support Arm See page 259</p>	 <p>Hose See page 260-261</p>	 <p>Hose Inlet See page 259</p>
--	---	--	---	---

XD Series Bare Hose Reels



60 / 70 / 80

Ordering Information

Reel with Motor – 1-1/2 in (38 mm) Inlet/Outlet

XD 70 / XD 80 Reels

Reel Size	Fluid	Motor	Hose Capacity of Reel ft (m)	Maximum Pressure psi (bar)	Weight lb (kg)	Inlet/Outlet Size NPT(F)	Reel Part Number by Color			Hose Accessories (Must be ordered separately)	
			Hose ID 1-1/2 in (38 mm)				Metallic Blue	Yellow	White	Hose Inlet Kit	Hose
XD 7015	Diesel Fuel	Pneumatic	65 (20)	600 (41)	100 (56)	1-1/2 in / 1-1/2 in (38 mm / 38 mm)	24R516	24R517	24R518	24R117	24R110 – 1-1/4 in x 50 ft (32 mm x 15 m) 24R114 – 1-1/2 in x 50 ft (38 mm x 15 m)
		Hydraulic	65 (20)	600 (41)	102 (46)		24R512	24R513	24R515		
		12 VDC Electric, 1/2 HP	65 (20)	600 (41)	133 (60)		24R503	24R504	24R505		
		24 VDC Electric, 1/2 HP	65 (20)	600 (41)	133 (60)		24R506	24R507	24R508		
		115 VAC Electric	65 (20)	600 (41)	133 (60)		24R509	24R510	24R511		
	Waste Oil Evac.	Pneumatic	50 (15)	600 (41)	100 (56)		24R516	24R517	24R518	-	126380 – 1-1/4 in x 35 ft (32 mm x 11 m) 126688 – 1-1/4 in x 50 ft (32 mm x 15 m) 127173 – 1-1/2 in x 50 ft (38 mm x 15 m)
		Hydraulic	50 (15)	600 (41)	102 (46)		24R512	24R513	24R515		
		12 VDC Electric, 1/2 HP	50 (15)	600 (41)	133 (60)		24R503	24R504	24R505		
		24 VDC Electric, 1/2 HP	50 (15)	600 (41)	133 (60)		24R506	24R507	24R508		
		115 VAC Electric	50 (15)	600 (41)	133 (60)		24R509	24R510	24R511		
XD 8015	Diesel Fuel	Pneumatic	100 (50)	600 (41)	165 (75)	24R561	24R562	24R563	24R117	24T253 – 1-1/2 in x 100 ft (38 mm x 30 m)	
		Hydraulic	100 (50)	600 (41)	143 (65)	24R558	24R559	24R560			
		12 VDC Electric, 1/2 HP	100 (50)	600 (41)	175 (79)	24R549	24R550	24R551			
	24 VDC Electric, 1/2 HP	100 (50)	600 (41)	175 (79)	24R552	24R553	24R554				
	115 VAC Electric	100 (50)	600 (41)	175 (79)	24R555	24R556	24R557				

Reel with Motor – 2 in (51 mm) Inlet/Outlet

XD 70 / XD 80 Reels

Reel Size	Fluid	Motor	Hose Capacity of Reel ft (m)	Maximum Pressure psi (bar)	Weight lb (kg)	Inlet/Outlet Size NPT(F)	Reel Part Number by Color			Hose Accessories (Must be ordered separately)	
			Hose ID 2 in (51 mm)				Metallic Blue	Yellow	White	Hose Inlet Kit	Hose
XD 7020	Diesel Fuel	Pneumatic	33 (10)	600 (41)	128 (58)	2 in/2 in (51 mm / 51 mm)	24T023	24T024	24T025	24R118	127167 – 2 in x 33 ft (51 mm x 10 m)
		Hydraulic	33 (10)	600 (41)	106 (48)		24T020	24T021	24T022		
		12 VDC Electric, 1/2 HP	33 (10)	600 (41)	137 (62)		24T011	24T012	24T013		
		24 VDC Electric, 1/2 HP	33 (10)	600 (41)	137 (62)		24T014	24T015	24T016		
		115 VAC Electric	33 (10)	600 (41)	137 (62)		24T017	24T018	24T019		
XD 8020		Pneumatic	50 (15)	600 (41)	169 (76)		24R576	24R577	24R578		24T254 – 2 in x 50 ft (51 mm x 15 m)
		Hydraulic	50 (15)	600 (41)	147 (67)		24R573	24R574	24R575		
		12 VDC Electric, 1/2 HP	50 (15)	600 (41)	179 (81)		24R564	24R565	24R566		
		24 VDC Electric, 1/2 HP	50 (15)	600 (41)	179 (81)		24R567	24R568	24R569		
		115 VAC Electric	50 (15)	600 (41)	179 (81)		24R570	24R571	24R572		

Remember to Order!

 Ball Stop Kit See page 259	 Hose Guide See page 259	 Support Arm See page 259	 Hose See page 260-261	 Hose Inlet See page 259
---	--	---	---	--



Ordering Information

Reel Frames Only

XD 60 / XD 70 / XD 80 Reels

Motor is not included and must be purchased separately.

Reel Size	Fluid	Hose Capacity of Reel ft (m)					Maximum Pressure psi (bar)	Weight lb (kg)	Inlet/Outlet Size NPT(F)	Reel Part Number by Color				
		Hose ID in (mm)								Metallic Blue	Yellow	White		
		1/2 (13)	3/4 (19)	1 (25)	1-1/2 (38)	2 (51)								
XD 6010	Air/Water/Diesel Fuel	100 (30)	100 (30)	50 (15)	-	-	600 (41)	87 (39)	1 in/1 in (25 mm/25 mm)	24T104	24T105	24T106		
	Oil	100 (30)	100 (30)	50 (15)	-	-	3,000 (207)	88 (40)		24T107	24T108	24T109		
	Waste Oil Evac.	-	-	50 (15)	-	-	600 (41)	87 (39)		24T104	24T105	24T106		
	Grease	-	-	50 (15)	-	-	3,000 (207)	88 (40)		24T107	24T108	24T109		
XD 7010	Air/Water/Diesel Fuel	-	-	100 (30)	-	-	600 (41)	86 (39)		24T110	24T111	24T112		
	Oil	-	-	100 (30)	-	-	3,000 (207)	87 (39)		24T113	24T114	24T115		
XD 8010	Air/Water/Diesel Fuel	-	-	150 (46)	-	-	600 (41)	127 (58)		24T122	24T123	24T124		
	Oil	-	-	150 (46)	-	-	3,000 (207)	129 (58)		24T125	24T126	24T127		
XD 7015	Diesel Fuel	Waste Oil Evac.	-	-	-	50 (15)	-	600 (41)		87 (39)	1-1/2 in/1-1/2 in (38 mm/38 mm)	24T116	24T117	24T118
			-	-	-	65 (20)	-	600 (41)		87 (39)		24T116	24T117	24T118
XD 8015	-	-	-	-	100 (30)	-	600 (41)	129 (58)		24T128		24T129	24T130	
XD 7020	-	-	-	-	-	33 (10)	600 (41)	91 (41)		24T119		24T120	24T121	
XD 8020	-	-	-	-	-	-	600 (41)	133 (60)	2 in/2 in (51 mm/51 mm)	24T131		24T132	24T133	
		-	-	-	-	50 (15)	600 (41)	133 (60)		24T131		24T132	24T133	

Motor Assemblies – Pair with Frame-Only Models

Image	Part Number	Description
	24T892	Pneumatic motor assembly, reversible type. For installing motor to bare XD reel.
	24T891	Hydraulic motor assembly, reversible type. For installing motor to bare XD reel.
	24T886	12 VDC, 1/2 HP motor assembly, reversible type. For installing motor to bare XD frame.
	24T910	12 VDC, 2/3 HP motor assembly, reversible type. For installing motor to bare XD frame.
	24T888	24 VDC, 1/2 HP motor assembly, reversible type. For installing motor to bare XD frame.
	24T911	24 VDC, 2/3 HP motor assembly, reversible type. For installing motor to bare XD frame.
	24T889	115 VAC, 0.40 HP motor assembly, reversible type. For installing motor to bare XD frame.









Remember to Order!

Ball Stop Kit See page 259	Hose Guide See page 259	Support Arm See page 259	Hose See page 260-261	Hose Inlet See page 259



Ordering Information

Motor Controls (Required)


	Part Number	Description
	127271	Pneumatic valve to control XD 60/70/80 pneumatic powered hose reels. 2-position, 3-way valve.
	24T875	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 12 VDC. 3-position, 4-way valve.
	24T876	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 24 VDC. 3-position, 4-way valve.
	127224	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 12V, includes switch. 3-position, 4-way valve.
	127225	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 24V, includes switch. 3-position, 4-way valve.
	127214	Momentary push-button on/off switch with red rubber cap. Use for 12 or 24 VDC.
	127217	Hazardous-location push-button on/off switch. Use for 12 and 24 VDC.
	127223	Hazardous-location push-button on/off switch. Use for 115 and 220 VAC.
	127218	Hazardous-location junction box
	127219	12 VDC intermittent-duty solenoid recommended for activating rewind on 12 VDC motor
	127220	24 VDC intermittent-duty solenoid recommended for activating rewind on 24 VDC motor
	127221	Manual-reset push-button circuit breaker, 50 amp rating
	127222	Manual-reset push-button circuit breaker, 25 amp rating





XD Series Bare Hose Reel Accessories

Ordering Information



Ball Stop Kits

	Part Number	Description
	237873	Ball stop kit used for 3/4 in (19 mm) hose
	237874	Ball stop kit used for 1 in (25 mm) hose
	24R060	Ball stop kit used for 1.25 in (32 mm) hose
	24R061	Ball stop kit used for 1.5 in (38 mm) hose


Hose Guide

	Part Number	Description
	24T327	Stainless steel hose guide for XD 60
	24T328	Stainless steel hose guide for XD 70
	24T329	Stainless steel hose guide for XD 80
	24R072	Roller guide kit with bracket for XD 40 and XD 60
	24T330	Roller guide kit with bracket for XD 70
	24T331	Roller guide kit with bracket for XD 80


Support Arm Kit with Hose Guide

	Part Number	Description
	24T332	Arm kit with stainless steel hose guide for XD 60 (24T327)
	24T333	Arm kit with stainless steel hose guide for XD 70 (24T328)
	24T334	Arm kit with stainless steel hose guide for XD 80 (24T329)
	24T335	Arm kit with roller guide for XD 60 (24R072)
	24T336	Arm kit with roller guide for XD 70 (24T330)
	24T337	Arm kit with roller guide for XD 80 (24T331)

Hose Inlet Kits

	Part Number	Description
	24R111	1 in (25 mm) hose inlet kit for air/water and oil 1,275 psi (88 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R112	1 in (25 mm) hose inlet kit for waste oil evacuation 250 psi (17 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R115	1 in (25 mm) hose inlet kit for diesel fuel 250 psi (17 bar), 1 in NPT hose inlet ID, 28 in (710 mm) long
	24R117	1-1/2 in (38 mm) hose inlet kit for diesel fuel 150 psi (10 bar), 1-1/2 in NPT hose inlet ID, 28 in (710 mm) long
	24R118	2 in (51 mm) hose inlet kit for diesel fuel 150 psi (10 bar), 2 in NPT hose inlet ID, 28 in (710 mm) long
	24T858	1-1/2 in (38 mm) hose inlet kit for waste oil evacuation 150 psi (10 bar), 1-1/2 in NPT hose inlet ID, 28 in (710 mm) long

Self-Adhesive Identification Label Set

	Part Number	Description
	180698	Set includes: 1 in x 5 in (25.4 mm x 127 mm) hose reels labels for Antifreeze, Water, SAE 5-40, SAE 10-40, SAE 20W, Hydraulic, Gear, SAE 10W, SAE 10-30, SAE 30W, Dexron, Air, Chassis, ATF




Ordering Information

Hose Identification Wraps


Vinyl hose wrap for easy identification of meter fluid

	Part Number	Description
	17S659	Red
	17S660	Blue
	17S661	Green
	17S662	Yellow
	17S663	White

Air/Water/Antifreeze Hoses


	Part Number	Description	Compatible Reel Series
	253848	3/8 in x 35 ft (10 mm x 11 m) hose for air/water, 300 psi (20.6 bar)	SDX 10, XDX 10
	253849	3/8 in x 50 ft (10 mm x 15 m) hose for air/water, 300 psi (20.6 bar)	SDX 10, XDX 10
	253850	3/8 in x 65 ft (10 mm x 20 m) hose for air/water, 300 psi (20.6 bar)	SDX 20, XDX 20
	253852	1/2 in x 35 ft (13 mm x 11 m) hose for air/water, 300 psi (20.6 bar)	SDX 10, XDX 10
	253853	1/2 in x 50 ft (13 mm x 15 m) hose for air/water, 300 psi (20.6 bar)	SDX 20, XDX 20
	16A684	1/2 in x 75 ft (13 mm x 23 m) hose for air/water, 300 psi (20.6 bar)	XD 30
	126359	1/2 in x 100 ft (13 mm x 30 m) hose for air/water, 300 psi (20.6 bar)	XD 40, XD 60
	16A707	3/4 in x 50 ft (19 mm x 15 m) hose for air/water, 300 psi (20.6 bar)	XD 30
	126360	3/4 in x 75 ft (19 mm x 23 m) hose for air/water, 300 psi (20.6 bar)	XD 40
	126361	3/4 in x 100 ft (19 mm x 30 m) hose for air/water, 300 psi (20.6 bar)	XD 40, XD 60
	126362	1 in x 50 ft (25 mm x 15 m) hose for air/water, 300 psi (20.6 bar)	XD 40, XD 60
	126363	1 in x 75 ft (25 mm x 23 m) hose for air/water, 300 psi (20.6 bar)	XD 50
	126364	1 in x 100 ft (25 mm x 30 m) hose for air/water, 300 psi (20.6 bar)	XD 50, XD 70

Oil Hoses


	Part Number	Description	Compatible Reel Series
	26C121	1/2 in x 35 ft (13 mm x 11 m) hose for oil, 2,000 psi (138 bar)	SDX 10, XDX 10
	26C122	1/2 in x 50 ft (13 mm x 15 m) hose for oil, 2,000 psi (138 bar)	SDX 20, XDX 20
	26C123	1/2 in x 75 ft (13 mm x 23 m) hose for oil, 2,000 psi (138 bar)	XD 30
	26C124	1/2 in x 100 ft (13 mm x 30 m) hose for oil, 2,000 psi (138 bar)	XD 40, XD 60
	126376	3/4 in x 75 ft (19 mm x 23 m) hose for oil, 1,500 psi (103 bar)	XD 40, XD 60
	126377	3/4 in x 100 ft (19 mm x 30 m) hose for oil, 1,500 psi (103 bar)	XD 40, XD 60
	126503	1 in x 50 ft (25 mm x 15 m) hose for oil, 1,275 psi (88 bar)	XD 40, XD 60
	126504	1 in x 75 ft (25 mm x 23 m) hose for oil, 1,275 psi (88 bar)	XD 50
	126505	1 in x 100 ft (25 mm x 30 m) hose for oil, 1,275 psi (88 bar)	XD 70, XD 80

Ordering Information


Grease Hoses

	Part Number	Description	Compatible Reel Series
	109158	1/4 in x 50 ft (6 mm x 15m) hose for grease, 5,000 psi (345 bar)	SDX 10, XDX 10
	124470	3/8 in x 35 ft (10 mm x 11 m) hose for grease, 4,800 psi (331 bar)	SDX 10, XDX 10
	124461	3/8 in x 50 ft (10 mm x 15 m) hose for grease, 4,800 psi (331 bar)	SDX 20, XDX 20
	126076	3/8 in x 75 ft (10 mm x 23m) hose for grease, 5,000 psi (345 bar)	XD 30
	16A674	1/2 in x 50 ft (13 mm x 15 m) hose for grease, 5,000 psi (345 bar)	XD 30


Waste Oil Evacuation Hoses

	Part Number	Description	Compatible Reel Series
	16A686	1 in x 30 ft (25 mm x 9 m) hose for waste oil or fuel, 125 psi (9 bar)	XD 30
	126379	1 in x 50 ft (25 mm x 15 m) hose for waste oil, 250 psi (17 bar)	XD 40, XD 60
	126380	1 1/4 in x 35 ft (32 mm x 10.5 m) hose for waste oil, 200 psi (13.8 bar)	XD 50
	126688	1 1/4 in x 50 ft (32 mm x 15 m) hose for waste oil, 200 psi (13.8 bar)	XD 50
	127173	1 1/2 in x 50 ft (38 mm x 15 m) hose for waste oil, 200 psi (13.8 bar)	XD 50


Diesel Fuel Hoses

	Part Number	Description	Compatible Reel Series
	16A686	1 in x 30 ft (25 mm x 9 m) hose for waste oil or fuel, 125 psi (9 bar)	XD 30
	24R102	1 in x 50 ft (25 mm x 15 m) hose for diesel fuel, 250 psi (17 bar)	XD 40, XD 60
	24R103	1 in x 75 ft (25 mm x 23 m) hose for diesel fuel, 250 psi (17 bar)	XD 50
	24R106	1 in x 100 ft (25 mm x 30 m) hose for diesel fuel, 250 psi (17 bar)	XD 50, XD 70
	24T252	1 in x 150 ft (25 mm x 46 m) hose for diesel fuel, 250 psi (17 bar)	XD 80
	24R108	1 1/4 in x 35 ft (32 mm x 10.5 m) hose for diesel fuel, 250 psi (17 bar)	XD 50
	24R110	1 1/4 in x 50 ft (32 mm x 15 m) hose for diesel fuel, 250 psi (17 bar)	XD 50
	24R114	1 1/2 in x 50 ft (38 mm x 15 m) hose for diesel fuel, 150 psi (11 bar)	XD 50
	24T253	1 1/2 in x 100 ft (38 mm x 30 m) hose for diesel fuel, 150 psi (11 bar)	XD 80
	127167	2 in x 33 ft (51 mm x 10 m) hose for diesel fuel, 150 psi (11 bar)	XD 80
	24T254	2 in x 50 ft (51 mm x 15 m) hose for diesel fuel, 150 psi (11 bar)	XD 80

Diesel Exhaust Fluid (DEF) Hoses

	Part Number	Description	Compatible Reel Series
	125242	3/4 in x 50 ft (19 mm x 15 m) hose for DEF fluid, 50 psi (3 bar)	XD 30

Pressure Wash Hoses

	Part Number	Description	Compatible Reel Series
	16A688	3/8 in x 75 ft (10 mm x 23m) hose for pressure wash, 4,000 psi (276 bar)	XD 30
	126075	1/2 in x 50 ft (13 mm x 15 m) hose for pressure wash, 4,500 psi (310 bar)	XD 30

FLUID RECLAIM EQUIPMENT



	Page
Oil King™	264
Coolant King™	265
Oil Ace™	266-268
16-Gallon Mobile Receiver	269
Big Hauler™ Truck Drain	270
Track Receivers	270
Diaphragm Evacuation Pumps	271
Evacuation Pump Packages	272-274
Fluid Reclaim Accessories	275-277

Convenient Used-Oil Receiver

Oil King is designed with the busy shop in mind. With oversized tires and push-pull handles it allows for smooth maneuvering. The large funnel can collect fluids from both a drain plug and a filter port at the same time.

**5 Year
Warranty!**

Large Offset Collection Pan

This funnel can be raised to a maximum height of 72 in (183 cm) and is equipped with a filter screen to prevent debris from entering the tank.

Filter Drain Tray

Used filters are able to drain separately from the collection pan.

Convenient Tool Tray

Built-in holding bins for new or used filters, wrenches and rags all at your fingertips.

Liquid Sight Gauge

A full-length liquid level sight gauge lets you know when the tank is full.

Large 25-Gallon (94.6 l) Capacity Receiver

Made from a heavy-duty, durable UV stabilized polymer. Dent-, rust- and corrosion-resistant.

Oversized Tires

Easily maneuver over hose and rough floors.

Two Evacuation Port Options

Choose from the gravity drain valve at the bottom or suction evacuation at the top.



Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used oil

Technical Specifications

Fluid	Used Oil
Fluid Capacity	25 gal (95 l)
Evacuation	Bottom – Gravity / Top – Suction
Receiver Material	Polyethylene
Length	24 in (60 cm)
Width	24 in (60 cm)
Height	45 to 72 in (1.1 to 1.8 m)
Funnel Size	22 x 24 in (50 x 56 cm)
Dry Weight	54 lb
Instruction Manual	308667

Ordering Information

Part Number	Description
238866	25 gal (95 l) used-oil receiver with used-filter tray, tool holders and sight gauge. Must use wall mount package (224873) for topside evacuation.

Must ship via truck.



**5 Year
Warranty!**

Durable Receiver

Coolant King is designed with the busy shop in mind. With oversized tires and push-pull handles it allows for smooth maneuvering. The full-length sight gauge lets you know when the tank is full.

Large Offset Collection Pan

This funnel can be raised to a maximum height of 72 in (183 cm) and is equipped with a filter screen to prevent debris from entering the tank.

Convenient Tool Tray

Built-in holding bins for shop tools at your fingertips.

Liquid Sight Gauge

A full-length liquid-level sight gauge lets you know when the tank is full.

Large 25-Gallon (94.6 l) Capacity Receiver

Made from a heavy-duty, durable UV stabilized polymer. Dent-, rust- and corrosion-resistant. Color specific for easy fluid identification.

Oversized Tires

Easily maneuver over hose and rough floors.

Two Evacuation Port Options

Choose from the gravity drain valve at the bottom or suction-evacuation at the top.

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used antifreeze

Technical Specifications

Fluid	Antifreeze
Fluid Capacity	25 gal (95 l)
Evacuation	Bottom – Gravity / Top – Suction
Receiver Material	Polyethylene
Length	24 in (60 cm)
Width	24 in (60 cm)
Height	45 to 72 in (1.1 to 1.8 m)
Funnel Size	22 x 24 in (50 x 56 cm)
Dry Weight	54 lb
Instruction Manual	308667

Ordering Information

Part Number	Description
248632	25 gal (95 l) used-antifreeze receiver with used-filter tray, tool holders and sight gauge. Must use wall mount package (224873) for topside evacuation.

Must ship via truck.

Pressurized Oil Drain

Drain, evacuate and transfer used oil reliably, quickly and in the most cost-effective manner.

**5 Year
Warranty!**

Large Offset Collection Pan

23 inch (58 cm) diameter offset collection bowl gives you a 31 inch (79 cm) total reach.

Superior Maneuverability

Wider and thicker handle for comfort.

Easy to Drain

Pressurize using shop air for easy oil evacuation.

Large 24-Gallon (90 l) Capacity Receiver

Perfect for small to large shops without an evacuation system.

Liquid Sight Gauge

Easy-to-read tank-level gauge lets you know when the tank is full.

Large Casters

Easily move around rough shop floors.



Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used oil

Technical Specifications

Fluid	Used oil
Fluid Capacity	24 gal (91 l)
Evacuation	Pressurized
Receiver Material	Steel
Length	24 in (60 cm)
Width	16 in (40.6 cm)
Height	56 to 80 in (143.5 to 203 cm)
Funnel Size	24 in (61 cm) diameter
Dry Weight	74 lb
Instruction Manual	310864

Ordering Information

Part Number	Description
119577	24 gal (90 l) steel-tank pressurized oil drain

Vacuum-Assisted Oil Collection System

Large-capacity collection systems make removing drain plugs a thing of the past. Oil Ace models with optional sight chamber offer the technician a visual indication of the waste fluid quantity. This technology reduces the threat of costly damages caused by over- or under-torquing or cross-threading drain plugs.

Large Offset Collection Pan

Wide offset collection bowl prevents splashing.

Vacuum Gauge

Ensure peak performance with easy-to-read vacuum gauge.

Sight Glass

Inspect oil quality via large, clear evacuation chamber and verify amount extracted.

Easy to Drain

Pressurize using shop air for easy oil evacuation.

Vacuum Probes

Variety of flexible suction attachments and adapters included.

Large 24 Gallon (90 l) Capacity Receiver

Perfect for small to large shops without an evacuation system.



26C064

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities





Typical Fluids Handled

- Used oil

Technical Specifications

Fluid	Used oil
Tank Capacity	24 gallon (90 l)
Evacuation	Pressurized
Receiver Material	Steel
Length	24 in (61 cm)
Width	16 in (40.6 cm)
Height	39 to 70.8 in (99 to 180 cm)
Funnel Size	23.8 in (60 cm)
Dry Weight	50.7 to 73.2 lbs (23 to 33.2 kg)
Instruction Manual	310864

Ordering Information

	Part Number	Description
	26C061	24 gal (90 l) steel tank with suction probes and adapters
	26C062	24 gal (90 l) steel tank with suction probes, adapters and sight glass
	26C063	24 gal (90 l) steel tank with suction probes, adapters and oil drain funnel
	26C064	24 gal (90 l) steel tank with suction probes, adapters, sight glass and oil drain funnel



Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used oil

Technical Specifications

Fluid	Used oil
Fluid Capacity	16 gal (61 l)
Evacuation	Gravity
Receiver Material	Steel (239302 does not include drum)
Manual	306449
Length	26 in (66 cm)
Width	23 in (58 cm)
Height	42 to 70 in (107 to 177 cm)
Funnel Size	23 x 23 in (58 x 58 cm)
Dry Weight	40 lb (18 kg)

Ordering Information

Part Number	Description
239301*	16 gal (60 l) Oil receiver with steel drum oil receiver
239302	16 gal (60 l) Oil receiver without drum

*Use with evacuation kit 224873 or 24E166. 240832 can be ordered separately for existing diaphragm pump evacuation systems.

Accessories

Funnel Kit

Part Number	Description
243650	Use with 238866, 239301, 239302 and 248632. Includes tray and pipe.

Wall-Mounted Funnel Drain

Part Number	Description
154616	Use with Pedestal Receiver 225272 to open automatic check-valve and drain used oil through wall to waste tank. Drain has 1-1/4 NPT(F) outlet.

Drum-Mounted Funnel Drain

Part Number	Description
156789	Use with Pedestal Receiver 225272 to open automatic check-valve and drain used oil into standard drum. Funnel drain has 2 in NPT bung fitting for use with 55 gal (210 l) or 16 gal (60 l) drums or 275 gallon (1,100 l) tanks.

ATF Drain Funnel

Part Number	Description
208009	Use with Pedestal Receiver 225272 to extend funnel reach. Use for draining transmissions. Not equipped with drain plug. 16 in x 24-1/2 in.



Technical Specifications

Fluid	Used oil
Fluid Capacity	26 gal (98.4 l)
Evacuation	Gravity
Receiver Material	Steel
Length	42 in (106.7 cm)
Width	30 in (76.2 cm)
Height	9 to 11 in (22.9 to 27.9 cm)
Instruction Manual	309194

Typical Applications

- Truck maintenance facility
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used oil

Ordering Information

Part Number	Description
244055*	Big Hauler truck drain specially designed for truck maintenance facilities

*Use with evacuation kit 224873 or 24E166. 240832 can be ordered separately for existing diaphragm pump evacuation systems.

Track Receivers



Technical Specifications

Part Number	218969	235346
Fluid	Oil	Oil
Fluid Capacity	30 gal (113 l)	27 gal (102 l)
Evacuation	Gravity	Gravity
Receiver Material	Steel	Steel
Extension Range	37.5 to 46 in (0.95 to 1.17 m)	34.1 to 42.6 in (0.87 to 1.08 m)
Instruction Manual	307727	307727

Typical Applications

- Fast lube centers
- Fleet services facilities

Typical Fluids Handled

- Used oil

Ordering Information

Part Number	Description
218969	Specially designed for car and truck fast lube facilities where speed and mobility are important. Adjustable steel rollers fit track widths.
235346	Narrow rolling used-oil receiver, specially designed for car and truck fast lube facilities where speed and mobility are important. Adjustable steel rollers fit track widths. Same as 218969 except track width range.

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities

Typical Fluids Handled

- Used oil



Husky 1050



Husky 716

Technical Specifications

	Husky 716	Husky 1050
Maximum Fluid Working Pressure	100 psi (7.0 bar / 0.7 MPa)	100 psi (7.0 bar / 0.7 MPa)
Approximate Free Flow Rate @ 100 psi	16 gal/min (61 l/min)	50 gal/min (189 l/min)
Output per Cycle	0.04 gal (0.15 l)	0.17 gal (0.64 l)
Air Inlet	1/4 in	1/2 in
Fluid Inlet	3/4 in	1 in
Fluid Outlet	3/4 in	1 in
Maximum Pump Speed	400 cpm	275 cpm
Cycles per Gallon	25 cpg	5.9 cpg
Cycles per Liter	6.7 cpl	1.6 cpl
Wetted Parts	Buna-N, acetal, aluminum, stainless steel, PTFE, zinc-plated steel	Aluminum, TPC-ET, acetal, PTFE, Buna-N
Sound Pressure Level	85 dB(A)	96 dB(A)
Sound Power Level	95 dB(A)	90 dB(A)
Approximate Weight	8.5 lb (3.9 kg)	23 lb (10.5 kg)
Instruction Manual	308573	313597

Ordering Information

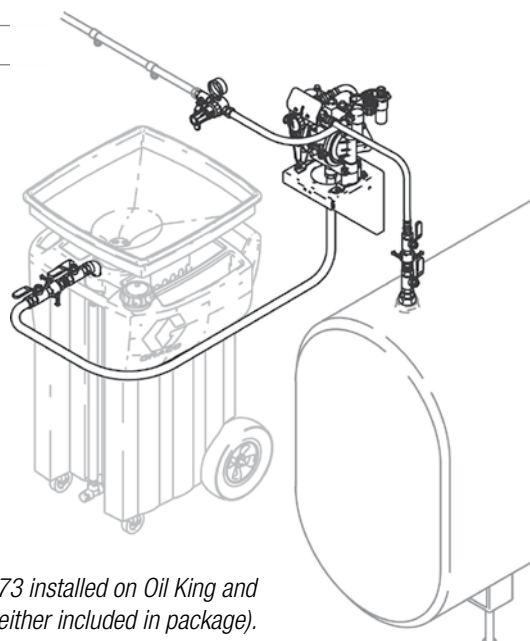
Part Number	Description
241906	Husky 716 Evacuation Pump
647731	Husky 1050 Evacuation Pump

Ordering Information

Wall Mount Packages



Package Number	24E166	224873
Diaphragm Pump	1050A (1 in) UL-listed	716 (3/4 in)
Pump Part Number	647731	241906
Mounting Type	Wall Bracket	Wall Bracket
Mounting Part Number	24C637	224835
Fluid	Oil	Oil
Evacuation	Drum Adapter	Drum Adapter
Evacuation Part Number	240832	240832
Air Installation Kit	240684	240684
Fluid Installation Kit	240685	240685
Instruction Manual	313597	308719
Listings	UL, CE	-



Package 224873 installed on Oil King and tank (neither included in package).

Ordering Information

Base Pump Packages

System evacuates lube from differential case using suction generated by a diaphragm pump. Nylon tubes ranging in size from 3/16 in OD to 1/2 in OD are included to fit through sight plug to completely drain the case. Evacuated gear lube is then pumped to waste tank. Piping and waste tank not included. Systems are fully groundable and bondable for safe transfer of used oil.



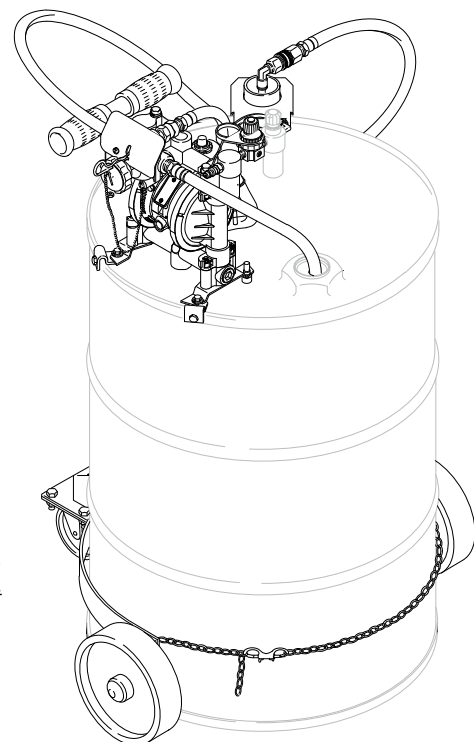
Package Number	224955	24E167	223695
Diaphragm Pump	716 (3/4 in)	1050A (1 in)	716 (3/4 in)
Pump Part Number	241906	647731	241906
Mounting Type	Base	Wall Bracket	Cart Hanger Bracket
Mounting Bracket/Kit	–	24C637	223697
Fluid	Gear Lube	Gear Lube	Gear Lube
Evacuation	Suction Wand	Suction Wand	Suction Wand
Evacuation Part Number	221146	221146	223696
Air Control Kit	110149	221147	–
Instruction Manual	308573	313597	308035 / 308573
Listings	CE	UL, CE	–
Notes	Order additional suction hose/wand (221146) and additional control valve (220969) for each additional suction point. Order grounding clamp (222011) or use locally supplied grounding wires and clamps in accordance with applicable codes.	Order additional suction hose/wand 221146 and additional control valve 220969 for each additional suction point. Order grounding clamp 222011 or use locally supplied grounding wires and clamps in accordance with applicable codes. See instruction manual 313597 for more information.	–

Ordering Information

Fas-Vac Mobile Packages



Package Number	224700	224701
Cart	224665	111470
Compatible Drum Size (Not included)	16 gal (60 l)	55 gal (200 l)
Pump	716 (3/4 in)	716 (3/4 in)
Pump Package	224667	224667
Fluid	Oil, Gear Lube	Oil, Gear Lube
Evacuation Kit	224669 / 224666	224702 / 224666
4-Way Valve	187359	187359
Port Size	1/2 NPT(F)	1/2 NPT(F)
Instruction Manual	308154	308154
Must be ordered separately (Not Included)		
Filter Regulator Lubricator (FRL)	110149	110149
FRL Mounting Kit	224759	224759



*Package 224701 installed on oil drum
(Drum and filter regulator not
included in package)*

Ordering Information

4-Way Evacuation Valve

Directional control valve used to simplify the filling and emptying of tanks

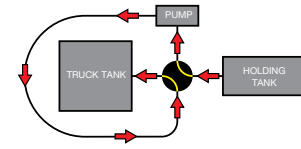


Features and Benefits

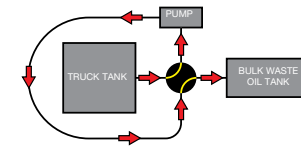
- Simplifies installation by eliminating need for multiple valves
- Unrestricted flow – no pressure or volume loss
- Two-position tank fill and emptying control
- Tapered, self-seating valve spool for superior sealing performance

Part Number	Description
120581	1 in NPT(F) 4-Way Evacuation Valve
120601	1-1/2 in NPT(F) 4-Way Evacuation Valve

Lube Truck/Holding Tank



Lube Truck/Bulk Waste Tank



Air Regulators

Provides precision control of outlet air pressure. Feedback principle provides constant pressure to pump regardless of air demand rate and fluctuations in supply pressure. Additional fittings required (except air regulators with installation kits).







	Part Number	Description
	110318	1/4 NPT(FBE)
	110147	1/4 NPT(FBE) with gauge
	110234	3/8 NPT(FBE)
	109075	3/8 NPT(FBE) with gauge
	202858	3/8 NPT(M) x 1/2 NPSM(F) with gauge
	104266	1/2 NPT(FBE)
	244844	1/2 NPT(FBE) with gauge
	207755	3/4 NPT(FBE)
	244845	3/4 NPT(FBE) with gauge

Fluid Reclaim Accessories

Ordering Information



Air Filters and Drains

Centrifugal action 1/4, 3/8 and 1/2 NPT (with 20 micron filters); 3/4 NPT having 40 micron filters to remove water and foreign particles from air supply.

	Part Number	Description
	110146	1/4 NPT(FBE) Air Filter. Manual drain.
	106148	3/8 NPT(FBE) Air Filter. Auto-drain.
	106149	1/2 NPT(FBE) Air Filter. Manual drain.
	106150	3/4 NPT(FBE) Air Filter. Manual drain.
	106151	Automatic filter drain float-type, 1/4 NPT(M). Use with 106150, 112859 and 217074.
	127711	Automatic filter drain float-type. Use with 106148 and 106149. Sold in NA only.

Installation Kits

Installation kits include shut-off valve, regulators, gauges and fittings as necessary for normal installation.

	Part Number	Description
	218316	Installation kits for Fast-Flo, Fire-Ball or Husky 307, and 716 diaphragm pumps
	224512	Installation kits for Mini Fire-Ball 225 and Fire-Ball

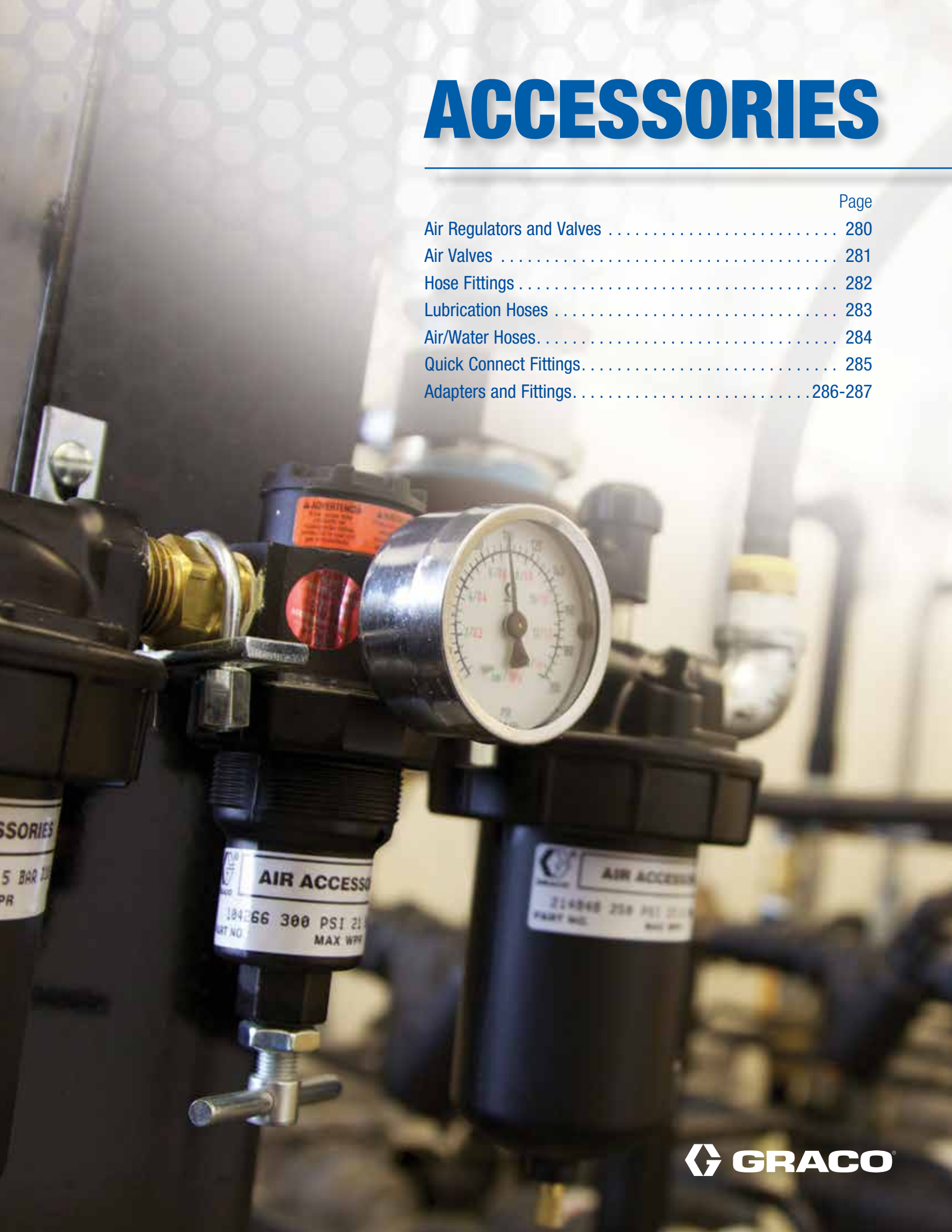
Accessories Ordering Information

Additional Accessories

	Part Number	Description
	221146	10 ft (3.04 m) suction hose and quick coupler with four interchangeable 15 in (38.1 cm) suction wands. OD options: 3/16 in, 1/4 in, 3/8 in, 1/2 in. For use with Husky 716 or 1050 gear oil evacuation systems.
	223696	Four interchangeable 15 in (38.1 cm) suction wands. OD options: 3/16 in, 1/4 in, 3/8 in, 1/2 in. For use with part 223695 evacuation pump.
	224702	32 in suction wand. 1/2 in OD.
	224762	48 in (121.9 cm) suction wand kit with four interchangeable wands. OD options: 3/16 in, 1/4 in, 3/8 in, 1/2 in.
	224666	36 in suction wand storage kit
	218970	Tandem drain kit connects two rolling receivers for flow-through draining operation. Kit includes connector hose, shut-off valve, pipe nipple and quick-connect nipple. Instruction manual 307727.
	108491	Drain hose kit allows rolling used-oil receiver to be drained directly into the used-oil line. Kit is 24 in (0.6 m) in length with camlock coupler on one end.
	221007	Swing-Arm Drain Kit, used for servicing single rolling used-oil receiver (218969). When used with tandem drain kit (218970) it can service two receivers on a single track. Kit includes swivel elbow (108867), connector hose, dust cap (108203) and male adapter (108202).
	116229	Oil Tank Monitor. Shuts off air to the pump when tank is full.
	223888	6 ft (1.8 m) suction hose for ATF and antifreeze. Includes filter screen. Use with 223695.
	222011	Grounding clamp for all used-oil handling systems. Includes 25 ft (7.6 m) grounding wire.
	187359	4-way valve 1/2 NPT(F) ports


ACCESSORIES

	Page
Air Regulators and Valves	280
Air Valves	281
Hose Fittings	282
Lubrication Hoses	283
Air/Water Hoses	284
Quick Connect Fittings	285
Adapters and Fittings	286-287



Ordering Information

Air Filter-Regulator

	Part Number	Inlet	Flow Range	Drain Type	Maximum Working Pressure
	133215	1/4 in NPT(MBE)	20 cfm (550 lpm)	Semi-automatic	140 psi (9.65 bar)
	133216	1/4 in NPT(MBE)	63 cfm (1,800 lpm)	Automatic	
	133217	3/8 in NPT(MBE)	77 cfm (2,200 lpm)	Automatic	

FRL Combination Units


Each includes filter, regulator, pressure gauge, lubricator and connection fittings.

	Part Number	Inlet
	110149	1/4 in NPT(FBE)
	110150	3/8 in NPT(FBE)
	217072	1/2 in NPT(FBE)
	217073	3/4 in NPT(FBE)


Bleed-Type Air Shut-Off Valves

Closes air inlet to pump and relieves trapped air pressure down line from valve. Recommended for each pump drop line.

Note: Be certain to install correctly. If installed backwards air will constantly escape from the valve. Maximum pressure of 250 psi (17 bar).

	Thread	1/4 in	3/8 in	1/2 in	3/4 in
	NPT(FBE)	110223	110224	110225	110226
	NPT(MXF) inlet x outlet	—	—	107142	107141


Ball Valve-Type Air Shut-Off Valve – Non-Pressure Relieving

	Part Number	Inlet	Maximum Working Pressure
	208390	1/4 in NPT(MBE)	500 psi
	208393	3/8 in NPT(MBE)	500 psi
	208630	1/2 in NPT(M) x 3/8 in NPT(F)	500 psi
	109077	3/4 in NPT(FBE)	600 psi
	118464	1 NPT(FBE)	600 psi

Ordering Information


Air Needle Valve

Controls pump speed by restricting air flow to pump or other air-operated equipment.

	Part Number	Inlet	Outlet
	205090	1/4 in NPSM(M)	1/4 in NPSM(F)
	206264	1/4 in NPT(M)	1/8 in NPT(F)


Air Pressure Relief Valve

Prevents pump from operating beyond recommended working pressure by opening at a pre-set maximum air pressure.

	Part Number	Maximum Pressure Rating	Thread
	110065	60 psi (4 bar)	1/4 in NPT(M)
	103347	100 psi (6.9 bar)	1/4 in NPT(M)


Air Pressure Gauge

Allows visual check of air pressure being supplied to the pump. Rated to 200 psi (14 bar)

	Part Number	Inlet	Color
	110319	1/8 in NPT(M)	Black
	100960	1/4 in NPT(M)	Black
	101180	1/4 in NPT(M)	Chrome


Air Manifold

Supply several pumps from one supply line. Larger port delivery ensures adequate air flow to all pumps.

	Part Number	Inlet Ports	Inlet Thread	Outlet Thread	Maximum Pressure Rating
	158990	2	1/2 in NPT(F)	3/8 in NPT(F)	5,000 psi

Runaway Valve


Prevents pump damage by automatically closing the air line to stop the pump when a runaway pump condition occurs.

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




Ordering Information

Blow Guns

Safety Blow Gun tip swivels freely and cannot be removed. Tip pressure will not exceed 30 psi (2 bar), adequate for cleaning. Maximum working pressure 150 psi (10 bar). Use with coupler 208536.


	Part Number	Description	Inlet
	236211	Air blow gun	1/4 in NPT(F)

Tire Inflators

	Part Number	Description	Includes			
			12 in Hose	Swivel Dual-Foot Chuck	Straight-On Chuck	Pop-Out Gauge
	236205	Heavy-Duty Tire-Inflator	Yes	Yes	-	Yes
	236206	Passenger Car Tire Inflator	Yes	-	Yes	Yes
	218545	Tire Chuck with 1/4 in NPT(F) inlet	-	-	-	-

Water Valve

Water/Antifreeze Bib is a durable, full-volume dispense nozzle for water, antifreeze and windshield washer fluid. Nitrile rubber seals.

	Part Number	Inlet	Pressure Rating
	180685	1/4 in NPT(F)	100 psi (7 bar)

Ordering Information

Heavy-Duty Reinforced Lubrication Hoses

For use with grease, oil and undercoating material. Hoses are black, male connections at both ends. Lubrication hoses listed are grounded for static electrical discharge.


	ID Inch (mm)	Max PSI (bar)	Hose Length	Fitting		Part Number		
				End 1 Thread NPT(M)	End 2 Thread NPT(M)			
	1/4 (6.44)	5,000 (345)	12 in (0.3 m)	1/8	1/8	109145		
			30 in (0.8 m)			109148		
			24 in (0.8 m)	3/8	3/8	109147		
			48 in (1.2 m)	1/4	1/4	109149		
			72 in (1.8 m)			109150		
			12 ft (3.6 m)			109151		
			15 ft (4.6 m)			109152		
			20 ft (6.1 m)			1/4	3/8	109153
			25 ft (7.6 m)			1/4	1/4	109154
			35 ft (10.6 m)	3/8	3/8	109156		
			40 ft (12.2 m)			109157		
			50 ft (15.3 m)			109158		
			3/8 (9.5)	4,000 (276)	12 in (0.3 m)	1/4	1/2	109160
	24 in (0.62 m)	3/8			3/8	109161		
	48 in (1.2 m)					109162		
	72 in (1.8 m)					109163		
	15 ft (4.6 m)	1/4			1/4	109165		
	40 ft (12.2 m)				3/8	109169		
	50 ft (15.3 m)				109170			
	1/2 (12.7)	3,000 (207)	15 in (0.4 m)	1/2	1/2	110069		
			18 in (0.5 m)			220598		
			54 in (1.4 m)			220600		
			72 in (1.8 m)			220591		
			10 ft (3.1 m)			220590		
			16 ft (4.9 m)			220592		
			20 ft (6.1 m)			220593		
			25 ft (7.6 m)			220608		
40 ft (12.2 m)			221092					
50 ft (15.3 m)			221093					
75 ft (22.9 m)			3/4	237861				
3/4 (19.1)	2,250 (155)	18 in (0.4 m)	3/4	3/4	109108			
		72 in (1.8 m)			109105			
		10 ft (3.0 m)			111010			
		75 ft (22.9 m)	1/2	1	237865			
		50 ft (15.2 m)		237866				
1 (25.4)	212 (14.6)	50 ft (15.2 m)	1	1	241908			
1 (25.4)	125 (8.7)	50 ft (15.2 m)	1	1	249058			

Accessories

Ordering Information

Air/Water Hoses

For use with low pressure air and water. Hoses are male NPT at both ends.


	ID Inch (mm)	Max PSI (bar)	Hose Length	Fitting		Part Number
				End 1 Thread NPT(M)	End 2 Thread NPT(M)	
	Fabric-Reinforced 1/4 (6.44)	180 (12.4)	18 in (0.5 m)	1/4	1/4	109123
			4 ft (1.2 m)			109124
			6 ft (1.8 m)			109125
			10 ft (3.1 m)			109126
			25 ft (7.6 m)			109127
			40 ft (12.2 m)			109128
			40 ft (12.2 m)	3/8	1/4	218491
	3/8 (9.5)	180 (12.4)	18 in (0.5 m)	3/8	3/8	204560
			4 ft (1.2 m)			109130
			6 ft (1.8 m)			203320
			10 ft (3.1 m)			109131
			16 ft (4.9 m)	1/4	3/8	110326
			25 ft (7.6 m)	3/8	1/2	109132
			40 ft (12.2 m)			109134
	60 ft (18.3 m)	109135				
	1/2 (12.7)	180 (12.4)	22 in (0.56 m)	1/2	1/2	218093
			4 ft (1.2 m)			110046
			6 ft (1.8 m)			205418
			10 ft (3.1 m)			214656
	1/2 (12.7)	300 (20.7)	25 ft (7.6 m)	1/2	1/2	248312
			50 ft (15.2 m)			248313
	3/4 (19.1)	180 (12.4)	18 in (0.5 m)	3/4	3/4	110047
			4 ft (1.2 m)			110048
			6 ft (1.8 m)			208610
			10 ft (3.1 m)			214955
			25 ft (7.6 m)			208611



Ordering Information


Quick-Connect Coupler

Permits quick, convenient attachment of air supply hoses.

	Part Number	Inlet	Body Size
	208536	1/4 in NPT(F)	1/4 in
	110198	3/8 in NPT(F)	1/4 in
	110199	1/2 in NPT(F)	3/8 in
	110200	3/4 in NPT(F)	1/2 in


Quick-Connect Nipple

Allows quick attachment of air supply hoses to pump motor.


	Part Number	Inlet	Body Size
	169967	1/4 in NPT(F)	1/4 in
	169970	1/4 in NPT(M)	1/4 in
	169971	3/8 in NPT(M)	1/4 in
	110196	1/2 in NPT(M)	3/8 in
110197	3/4 in NPT(M)	1/2 in	

Ordering Information


Bushings and Pipe Adapters – Reducing, Standard and Expanding

	Outlet	Inlet					
		1/8 in NPT	1/4 in NPT	3/8 in NPT	1/2 in NPT	3/4 in NPT	1 in NPT
	1/8 in NPT	150171	159840	156580	–	–	–
	1/4 in NPT	100030	–	150287	159842	–	–
	3/8 in NPT	–	159841	150286	156022	–	–
	1/2 in NPT	–	100206	100081	–	168595	–
	3/4 in NPT	–	100615	100505	100896	–	–
	1 in NPT	–	–	–	100380	158586	–


Street Elbows

	Part Number	Inlet/Outlet
	100840	1/4 in NPT
	155699	3/8 in NPT
	158683	1/2 in NPT
	176393	3/4 in NPT

Coupling – Standard


	Part Number	Inlet
	100451	1/8 in NPT
	113093	1/4 in NPT
	162024	3/8 in NPT
	158581	1/2 in NPT
	100385	3/4 in NPT
	100474	1 in NPT

Hex Nipples – Standard and Reducing

	Male End 2	Male End 1				
		1/4 in NPT	3/8 in NPT	1/2 in NPT	3/4 in NPT	1 in NPT
	1/8 in NPT	151519	156296	159239	–	–
	1/4 in NPT	156971	165198	162449	–	–
	3/8 in NPT	–	156849	–	194048	–
	1/2 in NPT	–	–	158491	157191	–
	3/4 in NPT	–	–	–	175013	158555

Ordering Information

Square Head Plug

	Part Number	Inlet
	111697	1/4 in NPT
	100040	3/8 in NPT
	100737	1/2 in NPT
	104663	3/4 in NPT

Swivel Adapters*









Rigid End	Swivel End	Straight Swivel Adapter (m x f)	Straight Swivel Adapter (f x f)	90° Swivel Adapter (f x f)	90° Swivel Adapter (m x f)	45° Swivel Adapter (m x f)
1/8 in	1/4 in	208434	–	–	–	–
1/4 in	1/4 in	156823	155570	157676	155541	–
	3/8 in	157705	–	–	–	–
3/8 in	1/4 in	–	159153	–	155495	–
	3/8 in	155665	156173	155677	155494	161889
	1/2 in	162505	–	159801	217430	–
1/2 in	1/4 in	–	155653	–	–	–
	3/8 in	158256-257	161077	–	161037	–
	1/2 in	156684	155865	157416	155470	–
3/4 in	3/4 in	157785	156172	156589	160327	105281
1 in	3/4 in	202965	–	–	–	–
	1 in	160022	158383	–	–	–

*Not a "live" swivel, position is stationary after tightened.

Tube Fittings

Maximum pressure rating of 3,000 psi (207 bar) with appropriate tubing wall thickness.

	Description	Inlet	Tube OD	
			5/8 in	7/8 in
	Tube Union Flow 90° Elbow	–	101012	101376
	Straight Tube Union	–	101009	101340
	Male Connector	3/4 in NPT	–	101339
	Straight Female Connector	1/2 in NPT	101008	–
	Tube Tee with Female Branch	5/8 in NPT	101013	–

Standard Graco Warranty

1-Year Warranty Policy

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended or limited warranty published by Graco, Graco will, for a period of twelve (12) months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective.

This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations. This warranty does not cover, and Graco shall not be liable for, general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser, transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which may include the costs of parts, labor and transportation.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold but not manufactured by Graco (such as electric motors, switches, hoses, etc.) are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco or otherwise.

Graco Vehicle Service Equipment Group Extended Warranty

Graco warrants all equipment referenced in this document that is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the distributor. Graco will, for a period as defined in the table on the opposite page from the date of sale, repair or replace equipment covered by this warranty and determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for, general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser, transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which may include the costs of parts, labor and transportation.

THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including but not limited to incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within one (1) year post the warranty period.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ANY ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO.

These items sold but not manufactured by Graco (such as electric motors, switches, etc.) are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco or otherwise.

FOR GRACO CANADA CUSTOMERS

The parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English.

Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Vehicle Service Equipment Group Extended Warranty (cont.)

		Warranty Period
	Oil King, Coolant King, and Oil Ace	5 Years
	Pulse Fluid Management Hubs, TLMs, PACs and Extenders	2 Years
REELS	Cord and Light Reels	2 Years
	Electrical Components	1 Year
	LD Series Hose Reels	5 Years
	Wear Parts, including but not limited to hose, seals, swivel seats and roller guides	1 Year
	SDX Series Hose Reels	7 Years
	Power Springs	3 Years
	Wear Parts, including but not limited to hose, seals, swivel seats and roller guides	1 Year
	XD Series Hose Reels	7 Years
	Power Springs	3 Years
	Wear Parts, including but not limited to hose, seals, swivel seats, roller guides and motors	1 Year
METERS	Mechanical Meters	5 years
	Wear parts, including but not limited to o-rings, seals and valves	1 Year
	LD Preset Meters	5 years
	Electronics	2 Years
	Wear parts, including but not limited to o-rings, seals and valves	1 Year
	SD Meters and Valves	5 Years
	Electronics	3 Years
	Wear parts, including but not limited to o-rings, seals and valves	1 Year
	EM Meters and Valves / Pulse Meters and Valves	5 Years
	Electronics	3 Years
Wear parts, including but not limited to o-rings, seals, valves and trigger locks	1 Year	
PUMPS	LD Oil/Grease Pumps	5 Years
	Wear Parts, including but not limited to o-rings, packings and seals	1 Year
	Hoses with pump packages	1 Year
	AODD Pumps	5 Years
	Wear Parts, including but not limited to o-rings, packings and seals	1 Year
	Hoses with pump packages	1 Year
	Mini Fire-Ball 225 and Fire-Ball 300 Oil and Grease Pumps	7 Years
	Wear Parts, including but not limited to o-rings, packings and seals	1 Year
	Hoses with pump packages	1 Year
	Fire-Ball 425 Oil and Grease Pumps	10 Years
	Wear Parts, including but not limited to o-rings, packings and seals	1 Year
	Hoses with pump packages	1 Year
	Fast-Ball and Fast-Flo Oil Pumps	5 Years
	LD Blue and SD Blue Diesel Exhaust Fluid Pumps	2 Years

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
15C502	53, 69	24D205	199	24F905	50, 119, 120, 122
15M308	15, 25	24D590	75	24F906	50, 120, 122
15T366	15, 25, 100	24D591	75	24F910	38, 45, 51
15T367	15, 25, 100	24D592	79	24F914	39, 40, 46, 47, 51
15T368	15, 25, 100	24D593	79	24F915	19, 25, 36, 43, 50, 120, 122
15T369	15, 25, 100	24D595	79	24F918	35, 51, 53
15T370	15, 25, 100	24D596	75	24F920	39, 46, 51
15Y478	236	24D597	75	24F930	39, 40, 46, 47, 51
16A674	261	24D598	79	24F931	39, 46, 51
16A684	260	24D599	79	24F932	51
16A686	261	24D601	79	24F935	38, 45, 51
16A688	261	24D602	75	24F947	174
16A707	260	24D603	75	24G576	19, 25, 35, 37, 38, 39, 41, 42
16F769	144	24D604	79	24G579	35, 38
16F781	144	24D605	79	24G582	35, 36, 43
16F784	144	24D608	79	24G585	35, 40
16F878	19, 25, 35, 37, 38, 44, 45, 50	24D989	227	24G588	35, 44, 45, 46, 47, 48, 49
16F885	35, 39, 40, 46, 47, 50	24D990	227	24G591	35, 45
16F886	35, 36, 37, 43, 50	24D991	227	24G594	35
16G760	176	24D992	227	24G597	35
16N883	232	24D993	227	24G600	117, 118
16P999	232	24D994	227	24G603	117, 119
17C270	54	24D995	226	24G606	117, 120
17C907	185, 186	24D996	226	24G636	175
17C908	185, 186	24D997	226	24G738	103, 173, 176
17F878	18	24D998	227	24G745	172, 173, 174
17R220	15, 24, 99, 108	24D999	227	24G862	120
17S659	15, 25, 91, 94, 97, 100, 228, 237, 242, 248, 260	24E001	226	24G865	219
17S660	15, 25, 91, 94, 97, 100, 228, 237, 242, 248, 260	24E002	226	24G866	219
17S661	15, 25, 91, 94, 97, 100, 228, 237, 242, 248, 260	24E006	151	24H193	228, 232
17S662	15, 25, 91, 94, 97, 100, 228, 237, 242, 248, 260	24E007	151	24H292	176
17S663	15, 25, 91, 94, 97, 100, 228, 237, 242, 248, 260	24E008	151	24H293	174, 176
17T207	15, 24, 94, 97, 99	24E009	151	24H420	19, 25, 36, 37, 38, 39, 40, 41, 42, 43, 46, 47, 48, 49, 50, 118, 119, 120, 122
18F169	97	24E010	151	24H422	119, 122
18F170	97	24E011	151	24H606	122
18F174	97	24E166	269, 270, 272	24H655	220
18F175	97	24E167	273	24H656	220
20A058	18	24E283	240, 241	24H657	219, 220
24A217	227, 231	24E284	240, 241	24H658	219, 220
24A218	227	24E285	240, 241, 242	24H659	219, 220
24A219	236	24E780	152	24H660	219, 220
24A220	236	24E781	152	24H661	219, 220
24A221	236	24E782	152	24H662	36, 43, 219, 220
24A222	236	24E823	242	24H663	119, 120, 219, 220
24A224	237	24E824	242	24H666	38, 45, 51
24A934	228, 231	24F205	55	24H669	39, 46, 51
24A935	228, 231	24F206	55	24H689	38
24A936	228, 231	24F524	183	24H695	38
24A937	228, 231	24F529	173, 174, 179	24H702	39
24A938	228, 231	24F531	173	24H704	39
24A939	228, 231	24F532	173, 174, 184	24H726	39
24A940	227, 231	24F679	174, 182	24H728	39
24A941	227, 231	24F737	219	24H751	36
24A942	227, 231	24F738	219	24H753	36
24A943	227, 231	24F739	219	24H775	36
24A944	227, 231	24F740	219	24H777	36
24A945	227	24F741	219	24H799	38
24A946	227	24F742	219	24H800	38
24A947	227	24F743	219	24H801	38
24A948	227	24F755	219	24H802	38
24A949	227	24F756	219	24H836	45
24A950	227, 231, 237	24F757	219	24H842	45
24A951	227, 237	24F758	219	24H858	122
24B624	200	24F759	219	24H859	38, 45, 50
24B632	200	24F760	219	24H862	118, 119, 120, 122
24B634	200	24F761	219	24H865	19, 25, 36, 37, 43, 44, 50, 122
24B639	200	24F773	219	24H868	46
24B768	200	24F774	219	24H870	46
24C100	228	24F775	219	24H892	46
24C443	220	24F776	219	24H894	46
24C444	219, 220	24F777	219	24H915	43
24C537	219, 220	24F778	219	24H916	43
24C538	219, 220	24F779	219	24H917	43
24C539	219, 220	24F870	173, 182	24H918	43
24C637	198, 200, 272, 273	24F878	173	24H940	43
24C772	219	24F901	118, 122, 125, 130, 144	24H941	43
24D132	236, 241	24F902	119, 120, 122, 126, 131, 132, 144	24H942	43
24D133	236, 241	24F903	120, 122, 126, 132, 144	24H943	43
24D147	198	24F904	50, 118, 122		

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
24H964	45	24P324	246	24P880	232
24H965	45	24P325	246	24P881	232
24H966	45	24P326	246	24P914	237
24H967	45	24P327	246	24P984	246
24J030	118	24P328	246	24P985	246
24J036	119	24P329	246	24P986	246
24J042	120	24P330	246	24P987	247
24J048	119	24P331	246	24P988	247
24J054	120	24P332	246	24P989	247
24J060	119	24P333	246	24R060	248, 259
24J066	120	24P334	246	24R061	248, 259
24J487	122	24P335	246	24R072	248, 259
24J495	36, 39, 40, 42, 43, 47, 49	24P336	246	24R074	248
24J501	119, 120, 122	24P337	246	24R076	248
24J733	41	24P338	246	24R077	248
24J734	41	24P339	246	24R102	254, 261
24J735	48	24P340	246	24R103	255, 261
24J736	48	24P341	246	24R106	255, 261
24J776	41	24P342	246	24R108	261
24J777	48	24P343	246	24R110	256, 261
24K285	39, 40, 46, 51	24P344	246	24R111	246, 247, 248, 254, 255, 259
24K777	42	24P345	246	24R112	246, 248, 254, 259
24K796	49	24P346	246	24R114	256, 261
24K797	42	24P347	246	24R115	246, 247, 248, 254, 255, 259
24K798	49	24P348	246	24R117	247, 248, 256, 259
24K799	42	24P349	246	24R118	256
24K800	49	24P350	246	24R350	54, 58, 69, 125, 126, 130, 131, 132, 143, 152
24K834	42	24P351	246	24R404	254
24K835	49	24P352	246	24R405	254
24K836	41	24P353	246	24R406	254
24K837	48	24P354	246	24R407	254
24K838	40	24P355	246	24R408	254
24K839	47	24P356	246	24R409	254
24K842	40	24P455	247	24R410	254
24K843	47	24P456	247	24R412	254
24K860	200	24P457	247	24R413	254
24K901	200	24P458	247	24R414	254
24K932	200	24P459	247	24R415	254
24K937	200	24P460	247	24R416	254
24M499	174	24P461	247	24R419	254
24N323	236	24P462	247	24R420	254
24N324	236	24P463	247	24R421	254
24N325	236	24P464	247	24R422	254
24N326	236	24P465	247	24R423	254
24N327	236	24P466	247	24R424	254
24N328	236	24P467	247	24R425	254
24N331	237	24P468	247	24R426	254
24N332	237	24P469	247	24R427	254
24N333	237	24P470	247	24R428	254
24N334	237	24P471	247	24R429	254
24N335	237	24P472	247	24R430	254
24N336	237	24P473	247	24R431	254
24N337	237	24P474	247	24R432	254
24N339	237	24P475	247	24R433	254
24N340	237	24P476	247	24R434	254
24N341	237	24P477	247	24R435	254
24N342	237	24P478	247	24R436	254
24N343	237	24P479	247	24R437	255
24N444	228, 232	24P480	247	24R438	255
24N674	231	24P481	247	24R439	255
24N675	231	24P482	247	24R440	255
24N682	231	24P483	247	24R441	255
24N683	231	24P484	247	24R442	255
24N684	231	24P485	247	24R443	255
24N685	231	24P486	247	24R444	255
24N686	232	24P487	247	24R445	255
24N690	231	24P488	247	24R446	255
24N691	231	24P489	247	24R447	255
24N814	232	24P490	247	24R448	255
24P164	232	24P491	247	24R449	255
24P313	246	24P492	247	24R450	255
24P315	246	24P493	247	24R451	255
24P316	246	24P494	247	24R452	255
24P317	246	24P495	247	24R453	255
24P318	246	24P496	247	24R454	255
24P319	246	24P497	247	24R455	255
24P320	246	24P498	247	24R456	255
24P322	246	24P499	247	24R457	255
24P323	246	24P623	122	24R458	255

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
24R459	255	24R575	256	24T910	257
24R460	255	24R576	256	24T911	257
24R461	255	24R577	256	24U227	207
24R462	255	24R578	256	24U228	207
24R463	255	24R854	246	24U947	105
24R464	255	24R855	246	24U950	105
24R465	255	24R856	246	24U953	105
24R466	255	24R857	246	24U956	105
24R503	256	24R859	246	24U959	105
24R504	256	24R860	246	24V034	55, 105
24R505	256	24R861	246	24V037	105
24R506	256	24R862	246	24V040	105
24R507	256	24R863	246	24V043	105
24R508	256	24T011	256	24V046	105
24R509	256	24T012	256	24V049	105
24R510	256	24T013	256	24V052	106
24R511	256	24T014	256	24V055	106
24R512	256	24T015	256	24V058	106
24R513	256	24T016	256	24V641	171
24R515	256	24T017	256	24V644	171
24R516	256	24T018	256	24V645	171
24R517	256	24T019	256	24V646	171
24R518	256	24T020	256	24V656	171
24R519	255	24T021	256	24V677	173
24R520	255	24T022	256	24V678	173
24R521	255	24T023	256	24V679	174
24R522	255	24T024	256	24V686	174
24R523	255	24T025	256	24W140	186
24R524	255	24T104	257	24W141	186
24R525	255	24T105	257	24W142	186
24R526	255	24T106	257	24W143	186
24R527	255	24T107	257	24W144	186
24R528	255	24T108	257	24W145	186
24R529	255	24T109	257	24W148	174, 182
24R530	255	24T110	257	24W149	173, 182
24R531	255	24T111	257	24W154	174, 182
24R532	255	24T112	257	24W161	171, 173, 182
24R533	255	24T113	257	24W185	174
24R534	255	24T114	257	24W186	173
24R535	255	24T115	257	24W190	182
24R536	255	24T116	257	24W250	181, 240, 242
24R537	255	24T117	257	24W251	181, 242
24R538	255	24T118	257	24W306	106
24R539	255	24T119	257	24W337	147
24R540	255	24T120	257	24W498	147
24R541	255	24T121	257	24W515	207
24R542	255	24T122	257	24W641	106
24R543	255	24T123	257	24Y859	230
24R544	255	24T124	257	24Y861	230
24R545	255	24T125	257	24Y862	230
24R546	255	24T126	257	24Y863	230
24R547	255	24T127	257	24Y864	230
24R548	255	24T128	257	24Y865	230
24R549	256	24T129	257	24Y866	230
24R550	256	24T130	257	24Y868	230
24R551	256	24T131	257	24Y869	230
24R552	256	24T132	257	24Y870	230
24R553	256	24T133	257	24Y871	230
24R554	256	24T252	255, 261	24Y872	230
24R555	256	24T253	256, 261	24Y880	230
24R556	256	24T254	256, 261	24Y882	230
24R557	256	24T327	259	24Y883	230
24R558	256	24T328	259	24Y884	230
24R559	256	24T329	259	24Y886	230
24R560	256	24T330	259	24Y887	230
24R561	256	24T331	259	24Z125	106
24R562	256	24T332	259	24Z126	106
24R563	256	24T333	259	24Z127	106
24R564	256	24T334	259	24Z128	106
24R565	256	24T335	259	24Z129	106
24R566	256	24T336	259	24Z130	106
24R567	256	24T337	259	24Z131	106
24R568	256	24T875	258	24Z132	106
24R569	256	24T876	258	24Z133	106
24R570	256	24T886	257	24Z257	19, 25
24R571	256	24T888	257	24Z676	17
24R572	256	24T889	257	24Z677	17
24R573	256	24T891	257	24Z728	17, 19
24R574	256	24T892	257	24Z978	12, 19

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
25A857	200	26A143	247	101496	71, 210
25A874	200	26A144	247	101604	165
25C548	119	26C061	268	101605	165
25C549	118	26C062	268	102527	72
25C550	37	26C063	268	103347	281
25C551	37	26C064	268	103538	207
25C552	37	26C121	260	104266	63, 64, 67, 137, 139, 275
25C553	37	26C122	260	104655	210
25C554	44	26C123	260	104663	287
25C555	44	26C124	260	104815	210
25C556	44	26C169	118	105281	287
25C557	44	26C170	119	105474	29
25C841	101	26C171	120	106148	59, 67, 118, 119, 120, 199, 276
25C903	36, 37, 39, 41, 55, 93	26C172	170	106149	67, 199, 207, 211, 276
25C904	36, 41, 43, 49, 93	26C173	170	106150	199, 207, 276
25C905	93	26C174	170	106151	276
25C915	93	26C175	170	107141	280
25C916	93	26C183	131	107142	207, 280
25C918	93	26C184	131, 142, 160	108190	197
25C919	93	26C185	131	108202	277
25D116	147	26C186	131	108203	277
25D121	19, 25	26C267	15, 24, 94, 97, 99	108458	29, 67, 69, 103
25D130	19, 25	26C268	15, 24, 94, 97, 99	108491	277
25D433	93	26C354	24, 99	108537	63, 67, 69
25D436	93	26C355	24, 99	108867	277
25D437	93	26C356	24, 99	109067	142
25D625	19	26C357	24, 99	109075	54, 55, 58, 59, 60, 67, 125, 126, 130, 131, 132, 133, 134, 138, 139, 142, 275
25D906	15, 25, 97	26C358	24, 99	109077	280
25D934	94	26C360	24, 99	109105	70, 71, 198, 210, 283
25D936	94	26C361	24, 99	109108	70, 210, 283
25M317	15, 19, 25	26C384	24, 59, 99	109123	210, 284
25M318	15	26C385	24, 99	109124	284
25M319	15, 19, 25	26C399	25	109125	66, 197, 198, 210, 284
25M320	15	26C401	22	109126	284
25M323	15	26C409	25	109127	284
25M324	15	26C525	93	109128	284
25M326	15, 19, 25	100030	286	109130	284
25M328	15	100040	287	109131	284
25M329	15	100054	164, 165	109132	284
25M330	15	100081	286	109134	284
25M404	59, 99, 226	100206	132, 286	109135	284
25M405	99	100220	68	109145	142, 160, 162, 163, 283
25M406	99, 226	100380	286	109147	283
25M407	99	100385	286	109148	145, 160, 163, 283
25M410	99	100451	286	109149	283
25M411	99	100474	286	109150	126, 132, 133, 134, 142, 283
25M413	54, 58, 99	100505	286	109151	125, 126, 130, 131, 142, 283
25M415	99	100615	286	109152	283
25M416	99	100737	287	109153	283
25M417	99	100833	164, 165	109154	131, 283
25M449	16, 19	100834	164	109156	283
25N415	19	100835	164	109157	283
25P544	147	100837	165	109158	261, 283
25R975	13	100840	286	109160	283
25R976	13	100846	164, 165	109161	283
25R977	13	100847	164, 165	109162	283
25R978	13	100848	164	109163	72, 137, 138, 139, 140, 141, 142, 283
25R979	13	100854	165	109165	129, 142, 283
25R980	13	100896	94, 286	109167	129
25R981	13	100960	63, 64, 67, 129, 137, 138, 139, 203, 281	109169	283
25T460	26	100961	67	109170	283
25T461	26	100962	67	110025	29
25T462	26	100970	164, 165	110046	284
25T817	213	100971	164	110047	284
25T818	213	101008	287	110048	75, 79, 284
25T819	213	101009	287	110065	281
25T820	213	101012	287	110069	283
25T822	213	101013	287	110127	72
25U000	97	101078	67, 70	110146	67, 197, 199, 276
25U085	96	101180	281	110147	67, 173, 174, 198, 199, 275
25U086	96	101277	164	110148	67
25U346	213	101281	164	110149	67, 273, 274, 280
25U369	222	101283	164	110150	67, 280
25U370	180, 222	101287	165	110196	199, 285
25U371	41, 48, 222	101297	165	110197	199, 285
25U372	222	101312	165	110198	129, 142, 285
26A140	246	101339	287	110199	199, 285
26A141	246	101340	287	110200	199, 285
26A142	246	101376	287		

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
110201.....	162	126360.....	254, 260	133412.....	214
110202.....	162	126361.....	254, 260	133480.....	102
110203.....	162	126362.....	254, 260	150171.....	286
110216.....	162	126363.....	255, 260	150286.....	286
110218.....	162	126364.....	255, 260	150287.....	227, 286
110223.....	67, 68, 142, 173, 174, 198, 199, 280	126375.....	254	150622.....	163
110224.....	67, 68, 134, 142, 199, 280	126376.....	254, 260	151519.....	286
110225.....	63, 67, 68, 141, 142, 198, 199, 280	126377.....	254, 260	154616.....	269
110226.....	68, 142, 199, 280	126379.....	254, 261	155332.....	15, 25
110234.....	129, 142, 203, 275	126380.....	256, 261	155470.....	70, 137, 138, 139, 140, 141, 142, 287
110236.....	111	126503.....	254, 260	155494.....	68, 70, 72, 126, 132, 133, 134, 137, 138, 139, 140, 141, 142, 287
110237.....	111	126504.....	255, 260	155495.....	287
110285.....	111	126505.....	255, 260	155541.....	126, 132, 133, 134, 142, 210, 287
110314.....	69	126688.....	256, 261	155570.....	205, 287
110318.....	197, 275	127167.....	256, 261	155653.....	287
110319.....	281	127173.....	256, 261	155665.....	287
110326.....	284	127214.....	258	155677.....	287
110702.....	164	127217.....	258	155699.....	286
110703.....	165	127218.....	258	155836.....	163
110705.....	165	127219.....	258	155865.....	287
110706.....	165	127220.....	258	156022.....	286
110709.....	165	127221.....	258	156172.....	287
110710.....	165	127222.....	258	156173.....	287
110711.....	165	127223.....	258	156296.....	286
110712.....	165	127224.....	258	156580.....	286
110713.....	165	127225.....	258	156589.....	287
110877.....	70	127271.....	258	156684.....	50, 287
110878.....	70	127634.....	185, 186	156789.....	269
110906.....	70	127635.....	185, 186	156823.....	122, 287
110907.....	70	127637.....	185, 186	156849.....	59, 129, 142, 286
111010.....	283	127639.....	185, 186	156859.....	137, 138
111470.....	68, 145, 274	127640.....	185	156971.....	132, 286
111620.....	29	127642.....	169, 170, 171	157191.....	286
111697.....	287	127643.....	169, 170, 171	157416.....	59, 287
112119.....	200	127646.....	182	157676.....	287
112174.....	72	127647.....	175	157705.....	50, 118, 119, 120, 287
112196.....	162	127649.....	171, 173, 174, 178	157785.....	287
112197.....	157	127650.....	178	158256.....	287
112198.....	157	127651.....	178	158383.....	287
112255.....	162, 163	127652.....	178	158491.....	286
112859.....	276	127654.....	178	158555.....	286
113053.....	72	127655.....	170, 179	158581.....	286
113093.....	286	127656.....	170, 171, 183	158586.....	286
113497.....	200	127657.....	183	158683.....	286
113859.....	29	127663.....	171, 173, 174, 177	158990.....	281
114017.....	91	127679.....	170	159153.....	287
114558.....	125, 126, 130, 131, 142, 210	127680.....	170	159239.....	286
114829.....	85	127711.....	59, 276	159801.....	287
115042.....	75, 79, 151, 152, 198	127720.....	183	159840.....	286
116229.....	277	127793.....	185, 186	159841.....	286
116306.....	173, 174, 183	127794.....	185, 186	159842.....	227, 286
118464.....	280	127795.....	185, 186	160022.....	51, 287
119577.....	266	127796.....	185, 186	160327.....	70, 210, 287
120581.....	275	127800.....	177	160754.....	69, 81, 83, 143, 147
120601.....	275	127804.....	183	161037.....	287
124398.....	179	127805.....	183	161077.....	287
124461.....	261	127806.....	183	161889.....	287
124470.....	261	127815.....	183	162024.....	286
124541.....	182	127823.....	183	162449.....	286
124548.....	184	127873.....	170	162505.....	287
124549.....	184	127875.....	175	165198.....	119, 286
124550.....	184	129581.....	118, 119, 120, 121	168085.....	72
124581.....	173, 181, 182, 242	129591.....	118, 119, 120, 121	168595.....	286
124603.....	173, 182	129645.....	37, 44, 50, 122, 145	169967.....	285
124671.....	174, 182	129876.....	94	169969.....	210
124875.....	174, 181, 182, 242	130783.....	25	169970.....	119, 199, 285
124963.....	173, 174, 183	131183.....	50, 118, 122, 145	169971.....	125, 126, 129, 130, 131, 142, 285
124964.....	176	131184.....	37, 44, 50, 119, 122, 145	171818.....	72
124965.....	176	131226.....	15, 25, 100	172405.....	68
125014.....	184	131380.....	147	175013.....	286
125074.....	182	131394.....	147	176393.....	286
125078.....	171, 174, 175, 179	131462.....	15	176684.....	68
125079.....	174, 182	131733.....	15, 24, 94, 97, 99, 106	180199.....	70
125242.....	182, 261	133215.....	36, 37, 38, 39, 40, 41, 43, 46, 47, 48, 280	180685.....	227, 282
125478.....	175	133216.....	280	180698.....	237, 242, 248, 259
125479.....	175	133217.....	280	183241.....	144
126075.....	261	133375.....	213, 214	183243.....	144
126076.....	261	133376.....	213, 214	186463.....	144
126359.....	254, 260	133377.....	214		

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
186472	29	204574	81, 83, 84, 129, 131, 137, 138, 143, 147, 152, 154, 203, 211	218549	41, 48, 55, 59, 225, 226, 227, 235, 236, 240, 241, 242
187359	274, 277	204741	228, 231, 236	218550	225, 226, 227, 235, 236
187754	68	204867	84	218588	29
188845	71, 210	204897	163	218903	70
190125	197	204929	164	218969	270, 277
191075	68, 72	205054	71	218970	277
191126	72	205090	281	220107	112
191128	72	205102	137	220112	112
191130	72	205337	144	220170	129
191131	72	205339	132, 137, 138	220171	129
191287	91	205394	136, 137, 139	220590	283
191288	91	205395	136, 137, 139, 140, 141	220591	68, 70, 283
191289	91	205418	70, 137, 138, 139, 140, 141, 142, 198, 284	220592	283
191294	91	205528	132, 137, 138	220593	283
191295	91	205532	164	220596	197
194048	286	205554	164	220598	59, 70, 283
194347	199	205568	164	220600	283
196220	137, 138	205582	164	220608	283
196471	111	205592	164	220653	125, 130, 144
200020	164	205626	62, 63	220654	125, 131, 133, 144
200021	164	205699	137, 138	220969	273
200325	160, 163, 164	206197	207	221007	277
200326	54, 58, 63, 69, 81, 83, 126, 129, 132, 137, 138, 143, 147, 152, 154, 203, 211	206199	199	221092	283
200389	145, 159, 160, 161, 163, 164	206264	281	221093	283
201881	164	206405	128, 129, 203	221146	273, 277
202577	125, 126, 129, 130, 131, 142, 145, 160, 205	206496	205	221147	273
202579	161, 163	206502	205	222011	199, 207, 273, 277
202600	161	206655	60	222051	66
202650	164	206656	64	222058	69, 81, 83, 129, 203
202654	165	206699	128, 129, 203	222059	125, 130, 143
202858	199, 275	206700	128, 129, 203	222060	60, 131, 133, 139, 154
202869	144	207361	60, 64, 133, 139, 154	222061	60, 131, 133, 139, 154
202965	287	207366	133, 139, 154	222062	54, 55, 67, 70
203156	68	207367	60, 64	222063	54, 58, 59, 60, 67, 70
203198	163	207561	69, 143	222065	62, 63, 64
203320	70, 126, 132, 133, 134, 142, 284	207562	69, 143	222066	63, 64, 67, 70
203497	163, 164	207579	72	222067	64
203504	163, 164	207651	199	222068	63, 67, 70
203521	228, 231	207755	207, 275	222069	130
203522	228, 231	207946	163	222070	130, 131, 142
203523	228, 231	207947	163	222071*	133
203524	228, 231	207948	163	222072	126, 132, 133, 134, 142
203525	228, 231	208009	269	222073	132, 133
203526	228, 231	208390	280	222074	132
203597	163	208393	280	222075	139
203622	54, 58, 71, 84, 126, 131, 145	208434	287	222076	137, 138, 139, 140, 141, 142
203650	68, 84, 125, 126, 130, 131, 145	208536	199, 282, 285	222077	203
203664	130	208610	151, 152, 284	222078	129
203688	54, 58, 63, 67, 71	208611	284	222079	203
203697	157, 162	208630	280	222080	129, 142
203701	157	210881	210	222081	129, 142
203702	157	214570	205	222082	203
203703	157	214583	210	222086	60
203857	57, 58, 60, 62	214656	284	222087	57, 58, 62
203872	57, 58, 60, 62	214658	84	222095	62, 63, 64
203876	57, 58, 59	214847	67	222103	66
203976	130, 131	214848	67, 207, 211	222104	66
203987	67, 72, 81	214849	207	222118	67, 210
203992	68	214926	163	222119	67, 210
204072	163	214955	284	222225	227, 236, 241
204076	71	215407	29	222243	68, 131, 145
204082	163	215474	29	222245	131
204083	163	215475	29	222308	55, 58, 59, 66, 67, 68, 136
204084	163	215481	29	222383	131, 142
204095	60, 64	215487	29	222602	66
204121	132	217072	63, 67, 280	222629	111
204130	144	217073	280	222645	111
204134	125, 130	217074	276	222902	156
204144	71, 203	217359	210	222916	199
204204	163	217430	287	223107	139
204254	57, 58, 60, 62	218093	70, 284	223108	137
204264	60	218115	66	223179	29, 103
204351	130	218316	66, 210, 276	223187	164
204353	132	218334	207	223344	137, 138, 139, 144
204385	69, 137, 138, 143	218340	227, 236, 241	223448	111
204461	132, 137, 138	218341	227, 236, 241	223695	273, 277
204467	132	218491	284	223696	273, 277
204560	70, 284	218545	227, 282	223697	273

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
223700.....	144, 147, 154	226951.....	209	239730.....	136, 138, 139, 140, 141
223701.....	144, 147, 154	226952.....	209	239731.....	136
223845.....	133, 144	226953.....	209	239829.....	90
223846.....	137, 138, 139, 144	233807.....	130, 131, 159	239877.....	128, 130
223888.....	197, 277	233933.....	159	239887.....	128, 131, 132, 133, 134
223952.....	151	234237.....	203, 205	239888.....	128, 132, 133, 134
224022.....	204	235346.....	270	239949.....	90
224023.....	204	235457.....	204	239950.....	90
224040.....	71, 281	235998.....	67, 72	239951.....	90
224266.....	140	236054.....	67, 71, 198, 199, 210	239952.....	200
224417.....	227, 236	236058.....	125, 126, 142	239965.....	142
224444.....	237, 242	236171.....	164	239966.....	142, 205
224458.....	205	236205.....	282	240416.....	91
224459.....	205	236206.....	282	240417.....	29, 67, 69
224469.....	205	236211.....	282	240429.....	67, 72
224512.....	54, 58, 276	236273.....	200	240453.....	91
224534.....	59	236753.....	80, 81	240684.....	272
224541.....	59	236754.....	82, 83	240685.....	272
224579.....	60, 64, 71	236763.....	29	240718.....	69
224665.....	274	236764.....	29	240832.....	269, 270, 272
224666.....	274, 277	236778.....	72, 81, 83	241246.....	144
224667.....	274	236864.....	81, 83, 154, 156	241633.....	59
224700.....	274	237075.....	54, 58, 68	241657.....	60
224701.....	274	237129.....	209	241663.....	69, 143
224702.....	274, 277	237130.....	209	241906.....	188, 193, 198, 200, 271, 272, 273
224741.....	80, 81	237131.....	209	241908.....	283
224742.....	80, 81	237132.....	209	242055.....	145, 160
224751.....	153, 154	237133.....	209	242056.....	125, 126, 129, 130, 131, 142, 145, 160
224752.....	153, 154	237134.....	209	242057.....	145, 160
224759.....	274	237160.....	197	242058.....	145, 160
224762.....	277	237161.....	197	243161.....	205
224825.....	204	237211.....	199	243650.....	269
224826.....	204	237526.....	62, 63	243669.....	188, 192, 198, 200
224835.....	197, 198, 200, 272	237601.....	67, 72	243817.....	139
224872.....	145, 160	237653.....	80, 81	243835.....	91
224873.....	264, 265, 269, 270, 272	237861.....	283	243836.....	91
224912.....	153, 154	237865.....	283	243837.....	91
224915.....	154	237866.....	283	244038.....	59
224916.....	154	237872.....	227, 236, 241	244055.....	270
224955.....	273	237873.....	236, 241, 248, 259	244342.....	29
225006.....	131	237874.....	236, 241, 248, 259	244628.....	63
225014.....	132	237893.....	29, 59, 67, 72	244635.....	138, 141
225016.....	132	237904.....	81	244636.....	138, 141
225026.....	131	237932.....	248	244637.....	138
225094.....	58	238108.....	62, 63	244644.....	134
225272.....	269	238125.....	68	244645.....	134
225376.....	84	238245.....	63, 67, 72	244657.....	151, 152
225378*.....	84	238246.....	67, 70	244679.....	198
225380.....	84	238247.....	70	244680.....	198
225384.....	84	238370.....	68, 72	244681.....	198
225640.....	58	238371.....	90	244682.....	198
225642.....	58	238428.....	198, 200	244844.....	140, 141, 142, 198, 275
225728.....	58	238429.....	69	244845.....	275
225773.....	130	238431.....	69	244846.....	63
225781.....	137	238432.....	69	244847.....	63
225782.....	63	238433.....	69	244905.....	140
225786.....	63	238434.....	69	244906.....	140, 141
225827.....	130	238436.....	205	245694.....	130
225844.....	157	238438.....	205	245695.....	130
225852.....	58	238440.....	205	245696.....	131
225853.....	63	238592.....	72	245697.....	131
225880.....	84	238593.....	72	246775.....	53, 54, 55
225914.....	157	238595.....	72	246780.....	124, 126
225931.....	58	238596.....	72	246781.....	124, 126
226012.....	130	238866.....	264, 269	246903.....	54
226013.....	132	238887.....	90	246904.....	54
226018.....	137	238899.....	200	246906.....	54
226269.....	203	238909.....	199	246907.....	54
226289.....	85	238996.....	29	246909.....	124, 125
226290.....	85	239019.....	29	246910.....	125
226342.....	203	239301.....	269	246911.....	125
226940.....	209	239302.....	269	246913.....	125
226941.....	209	239663.....	205	246914.....	126
226942.....	209	239702.....	66	246916.....	126
226943.....	209	239703.....	66	246917.....	126
226944.....	209	239705.....	84	246946.....	199
226945.....	209	239706.....	112	247335.....	140
226947.....	209	239707.....	84	247337.....	140
226948.....	209	239729.....	136, 138, 139	247355.....	140

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
247443	153, 154	260124	214	HPL25B	227
247450	153, 154, 155	260238	214	HPL33#	225
247453	103	273079	15, 99	HPL33B	227
247540	153	273156	96	HPL56#	225
247712	108	273157	96	HPL65#	225
247713	108	273158	96	HPM3B#	226
247714	108	273165	96	HPM6D#	226
247715	108	273166	96	HPM6H#	40, 41, 42, 47, 48, 49, 55, 59, 225
247716	108	273167	96	HPM33#	225
247717	108	273168	96	HPM33B	42, 49, 55, 59, 226
247718	110	273181	97	HPM65#	225
247721	110	286211	204	HSDD5#	240
247722	110	286517	203, 205	HSDD5A	181
247723	110	286621	204	HSDD5B	181
247724	110	512874	134, 141, 143	HSDD5F	181
247725	110	514150	29	HSDDD#	240
247759	91	647016	188, 190, 198, 200	HSDDDA	181
247760	91	647648	188, 190, 200	HSDDDB	181
247888	75	647731	188, 190, 200, 271, 272, 273	HSDDDF	181
247889	75	652002	188, 196, 200	HSH1D#	235
247890	79	948392	141, 143	HSH5D#	235
247891	79	948393	134, 143	HSH15#	235
247894	79	965124	136	HSH55#	235
247895	79	965129	136	HSHB7#	240
247973	151	CM2L5N	152	HSHC5#	240
247974	151	CM2RBA	152	HSHCD#	240
247975	151	CM2RBN	152	HSHFF#	240
247976	151	CM17BN	152	HSL2D#	235
247977	151	CM53BN	152	HSL6D#	235
247978	151	CM155N	152	HSL25#	235
247979	152	CM515N	152	HSL33#	235
247980	152	DOB005	200	HSL56#	235
247981	152	DOB020	200	HSL65#	235
248097	53, 54, 55	DOB500	200	HSLC8#	240
248230	54	DOB525	200	HSLD5#	240
248296	72	DOF005	200	HSLE3#	240
248312	284	DOF020	200	HSM3B#	235
248313	284	DOF500	200	HSM6D#	235
248324	72	DOF525	200	HSM33#	235
248622	55	D03005	200	HSM65#	235
248623	55	D03050	200	HSM65B	240
248632	265, 269	D03200	200	HSMC8#	240
249058	283	D03255	200	HSMCF#	240
249440	19, 111	D05007	200	HSMDD#	240
249615	126	D05070	200	HSPB8#	240
253848	260	D05200	200	HSPC5#	240
253849	260	D05277	200	P14DCS	151
253850	260	D31255	188, 191, 197, 200	P14MCS	151
253852	260	DB3525	188, 194, 200	P26DCS	151
253853	260	DF3525	188, 195, 200	P26MCS	151
255143	75, 79	HEH006	222	P29DCS	151
255277	36, 38, 43, 45, 90	HEL010	222	P29MCS	151
255349	68	HEL015	180, 222	P55DCS	151
255460	108	HEM004	39, 41, 46, 48, 222	P55MCS	151
255461	15, 108	HNHB7#	241	P63DCS	151
255470	15, 24, 94, 97, 99, 108	HNHC5#	241	P63MCS	151
255793	94, 97, 110	HNHCD#	241	P68DCS	151
255852	15, 24, 94, 97, 99, 105, 106	HNHFF#	241	P68MCS	151
255853	15, 24, 94, 97, 99, 105, 106	HNLC8#	241	XNH55D	236
255854	15, 24, 94, 97, 99, 105, 106	HNLD5#	241	XNL56D	236
255855	94, 97, 106	HNLE3#	241	XNL65D	236
255856	94, 97	HNMC8#	241	XNM65D	236
255857	15, 24, 99, 108	HNMD5#	241		
255858	15, 24, 99, 108	HNMDD#	241		
255859	110	HNPB8#	241		
255885	100	HNPC5#	241		
255921	110	HPH1D#	226		
256164	106, 108	HPH5D#	226		
256215	38, 42, 43, 44, 45, 46, 48, 49, 55	HPH5H#	225		
256216	36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 90	HPH15#	225		
256719	19, 25	HPH23#	225		
257350	91	HPH55#	225		
257351	91	HPL2D#	226		
257435	140	HPL5J#	225		
257539	19	HPL6D#	226		
258693	40, 45, 47, 48	HPL6H#	225		
258694	90	HPL23#	225		
260061	213	HPL23B	227		
		HPL25#	225		

AMERICAS

MINNESOTA

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

MAILING ADDRESS

P.O. Box 1441
Minneapolis, MN 55440-1441
Tel: 800-275-5574 Fax: 612-623-6777

EUROPE

BELGIUM

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

ASIA PACIFIC

AUSTRALIA

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

CHINA

Graco Fluid Equipment (Shanghai) Co., Ltd.
Building 7, No.1-2
Wenshui Road 299,
Jing'an District
Shanghai 200436
P.R.China
Tel: 86 21 649 50088 Fax: 86 21 649 50077

INDIA

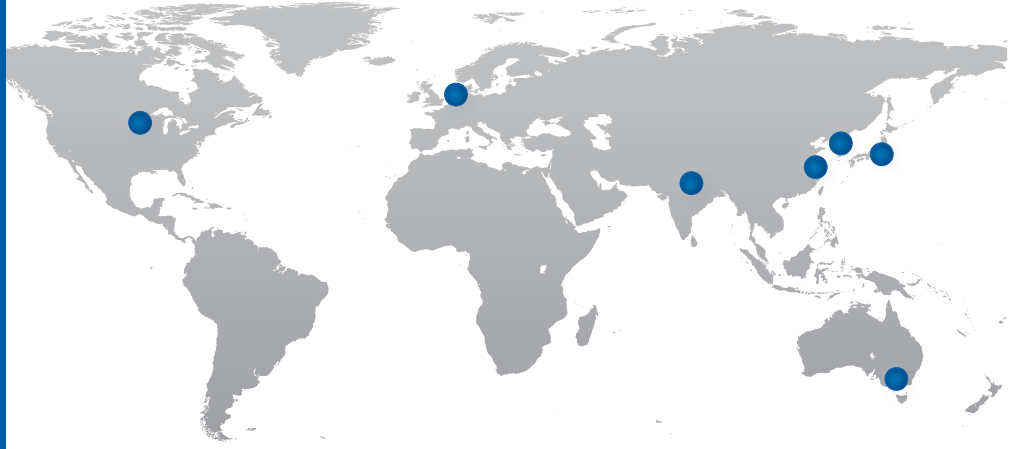
Graco Hong Kong Ltd.
India Liaison Office
Room 443, Level 4
Augusta Point, Golf Course Road
Gurgaon, Haryana, India 122001
Tel: 91 124 435 4208 Fax: 91 124 435 4001

JAPAN

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

KOREA

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



Graco's got you covered

Facilities Worldwide for Global Support



Quality First

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



Global Reach

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



Product Capabilities

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

©2022 Graco Inc. 303245 Rev. AJ 2/22. All other brand names or marks are used for identification purposes and are trademarks of their respective owners. All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice. For more information on Graco's intellectual property, see www.graco.com/patent or www.graco.com/trademarks.

Contact us today!

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

