

PMG Buyer's Guide

Innovative Product Solutions for the Lubrication Marketplace



PROVEN QUALITY. LEADING TECHNOLOGY.

Go online at www.graco.com/lubrication for:

- Literature
- Instruction Manuals
- Buyer's Guide
- Product Knowledge Exchange
- Distributor Locator
- What's New
- GEDI®

GEDI is the "Graco Extranet Distributor Information" area on our web site where distributors have access to up-to-the-minute pricing, product order and shipping status and order entry. Information is accessed by an account number and a confidential password.

To Find Your Nearest Authorized Graco Lubrication Equipment Distributor

Call: **1-800-533-9655** *(toll free North America)*

Fax: **1-800-533-9656**








Literature Index | Service Manuals | Literature

Table of Contents

Air-Powered Oil Pumps and Packages	
Oil Pumps Quick Reference	5-6
Fast-Ball®	7
LD Series Oil Pumps and Packages	8-11
LD Series Oil Pump Accessories	12
Mini Fire-Ball® 225, Fire-Ball 300, Fire-Ball 425, and Packages	13-19
Fire-Ball® and Oil Pump Accessories	20-22
NXT™ High-Flo® and NXT Dura-Flo®	23-24
Air-Powered Grease Pumps and Packages	
Grease Pumps Quick Reference	25-26
LD Series Pumps, Packages, and Accessories	27-28
Mini Fire-Ball 225	29
Fire-Ball 300	30-31
Fire-Ball 425	32-34
Grease Pump Packages and Accessories	35-40
NXT Check-Mate®	41
Air-Powered Specialty Pumps Packages	
Lube Truck Oil and Grease Packages	42
Undercoating/Rust-Proofing Packages	43
Bulldog Hydraulic Supply Pump	44
Transfer Pumps	
Air-Operated Double-Diaphragm Pumps	45
Windshield Wash and Coolant Dispense Packages	46
Fast-Flo® (Stainless Steel)	47-48
APEX™ Electric Dispense Systems	49-50
GTP10 and GTP12 Fuel Transfer Pumps	51
Diesel Exhaust Fluid (DEF) Dispense Systems	52-55
Hydraulic-Powered Oil and Grease Pumps	
Dyna-Star®, Power-Star™, and Viscount® II Pumps	56-57
Manually-Operated Oil and Grease Pumps and Packages	
Oil and Grease Dispense	58
Windshield Wash and Coolant Transfer	59
Reels and Packages	
SD Cord and Light Reels and Accessories	60-62
LD, SD and XD Hose Reels and Accessories	63-81
Dispense Consoles	
Multi-Station Consoles and Oil Bar	82
Dispense Meters and Control Valves	
LD, SD, XDM6, XDM12™, and In-Line Electronic Meters	83-87
Mechanical Meters	88
Accessories	89
SDV15, XDV20, Pro-Shot™, and Accu-Shot™ Control and Dispense Valves	90-92
Fluid Management Systems	
Matrix™	93-96
Horizon™	97-98
Fluid Commander™	99-100
Manual Grease Guns	
Grease Guns, Accessories, and Fittings	101-103
Fluid Reclaim Packages	
Oil King™, Coolant King™, Oil Ace™, and Accessories	104-107
Hoses, Fittings, and Accessories	108-113
Ordering and Warranty Information	114-115
Index	116-122

Oil Pumps Quick Reference

Technical Specifications and Selection Chart

	Annual Usage	Line Length [‡]	Dispense Points	Fluids	Air Inlet	Fluid Inlet	Fluid Outlet
	Fast-Ball, 1:1						
	5,000 gal (19,000 l)	< 100 ft (30 m)	1 (no reels)	Motor Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1-1/2 in npt(f)	3/4 in npt(f)
	LD Series, 3:1						
	20,000 gal (75,000 l)	300 ft (91 m)	1 to 2	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1 in npt(f)	1/2 in npt(f)
	LD Series, 5:1						
	20,000 gal (75,000 l)	300 ft (91 m)	1 to 2	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1 in npt(f)	1/2 in npt(f)
	Mini Fire-Ball 225, 3:1						
	30,000 gal (113,500 l)	250 ft (76 m)	1 to 2	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	3/8 in npt(f)	1-1/2 in npt(f)	1/2 in npt(f)
	Fire-Ball 300, 5:1						
	35,000 gal (132,000 l)	500 ft (152 m)	1 to 3	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	3/8 in npt(f)	1-1/2 in npt(f)	1/2 in npt(f)
	Fire-Ball 425, 3:1						
	>35,000 gal (132,000 l)	Up to 250 ft (76 m)	3 to 4	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1-1/2 in npt(f)	3/4 in npt(f)
	Fire-Ball 425, 6:1						
	>35,000 gal (132,000 l)	Up to 500 ft (152 m)	3 to 4	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1-1/2 in npt(f)	3/4 in npt(f)
	Fire-Ball 425, 10:1						
	>35,000 gal (132,000 l)	Up to 750 ft (228.6 m)	3 to 4	Motor Oil, Gear Oil, ATF, Hydraulic Fluid	1/4 in npt(f)	1-1/2 in npt(f)	3/4 in npt(f)

[‡] Consult your local authorized Graco representative for line or pipe sizing

Oil Pumps Quick Reference

Technical Specifications and Selection Chart



Annual Usage	Line Length [‡]	Dispense Points	Pump Ratio(s)	Output Per Cycle	Fluids
Dura-Flo, 6:1					
>35,000 gal (132,000 l)	Up to 500 ft (152 m)	2 to 4	6:1	1000 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid
Dura-Flo, 10:1					
>35,000 gal (132,000 l)	Up to 750 ft (228.6 m)	2 to 4	10:1	1000 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid
Dura-Flo, 12:1 Carbon Steel or Dura-Flo, 12:1 Stainless Steel					
>35,000 gal (132,000 l)	Up to 1000 ft (305 m)	2 to 4	12:1	580 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid
Dura-Flo, 23:1					
>35,000 gal (132,000 l)	Up to 1000 ft (305 m)	2 to 4	23:1	580 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid



Annual Usage	Line Length	Dispense Points	Pump Ratio(s)	Output Per Cycle	Fluids
High-Flo, 3.5:1					
>35,000 gal (132,000 l)	Up to 250 ft (76 m)	4 to 5	3.5:1	2000 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid
High-Flo, 4.5:1					
>35,000 gal (132,000 l)	Up to 450 ft (137.1 m)	4 to 5	4.5:1	1500 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid
High-Flo, 6:1					
>35,000 gal (132,000 l)	Up to 500 ft (152.5 m)	4 to 5	6:1	2000 cc	Motor Oil, Gear Oil, ATF, Hydraulic Fluid

[‡] Consult your local authorized Graco representative for line or pipe sizing

Fast-Ball® 1:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

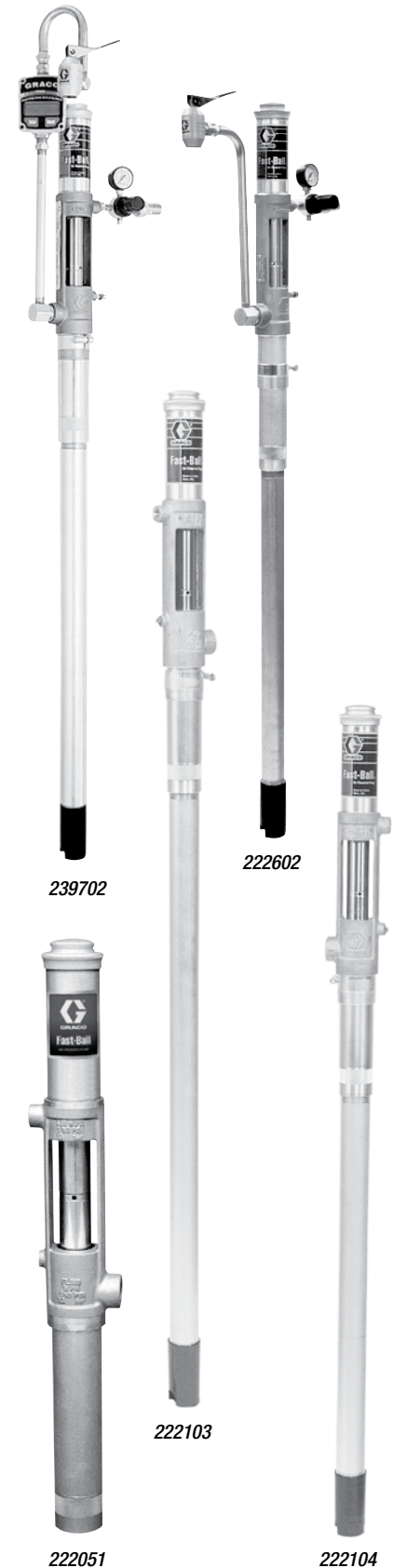
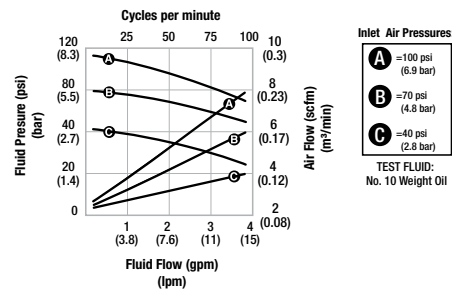
Technical Specifications

Cycles per Gallon.....	10 (45.5 liters)
Fluid Flow gal/min @ 80 cpm5 (19 liters)
Maximum Fluid Pressure	180 psi (12.5 bar)
Air Motor Effective Diameter.....	1.4 in (35.6 mm)
Air Operating Range	40-180 psi (2.7-12.5 bar)
Approx. Air Use and Flow @ 100 psi and 80 cpm5 scfm
Wetted Materials	CS, Polyurethane
Air Inlet Port Size	1/4 in npt(f)
Fluid Inlet Port Size	1-1/2 in npt(f)
Fluid Outlet Port Size.....	3/4 in npt(f)
Line Length‡	Up to 100 ft (30.5 m)
Dispense Points1 (not recommended with hose reel)
Annual Usage	Up to 5,000 gal (19,000 l)
Typical Applications.....	Continuous duty, maintenance facility dispensing motor oil, automatic transmission fluid, hydraulic fluid

Ordering Information

Package	Non-Metered Dispense	U.S./Metric Metered Dispense	Bung-Mounted	Bung-Mounted	Universal
Container Size	55 gal (200 l)			275 gal (1040 l)	Universal
Package No.	222602	239702	222103	222104	222051
Pump	222103			222104	222051
Dispense Kit	218115	239703	—	—	—
Regulator Assembly	218316		—	—	—
Hose	109125	—	—	—	—
Hose Length	6 ft (1.8 m)	—	—	—	—
Bung Adapter	222308				—
Instruction Manual	307637		307906		

Pump Performance



Air-Powered Oil Pumps and Packages

‡ Consult your local authorized Graco representative for line or pipe sizing

LD Series 3:1 Pump

Air-Powered Oil Pumps and Packages

Features and Benefits

- Built-in thermal relief protects your equipment from thermal expansion
- Three inch air motor provides more power to create better flow
- Cup and plate design eliminates the need for O-rings that wear out faster

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

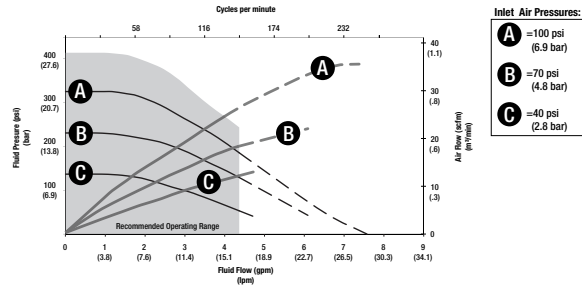
Technical Specifications

Maximum Fluid Working Pressure	450 psi (31 bar, 3.10 MPa)
Fluid Pressure Ratio	3:1
Suction Lift (feet of oil).....	10
Air Operation Range.....	20 to 150 psi (1.37 to 10.3 bar)
Recommended Air Pressure (for optimum life).....	<125 psi (8.6 bar, 0.86 MPa)
Max Recommended Pump Speed	120 cycles per minute
Cycles Per Gallon/pound (l/kg)	29 cycles per gallon (7 cycles per liter)
Recommended Pump Speed (for maximum life).....	75 cycles per minute or lower
Wetted Parts.....	Zinc plated carbon, steel, aluminum, nitrile, polyurethane, nickel plated aluminum
Sound Pressure Level.....	72.9 dB(a)
Sound Power Level	82 dB(a)
Approximate Weight.....	7 pounds (3.2 kg)
Air Inlet	1/4 in
Fluid Inlet	1 in
Fluid Outlet.....	1/2 in
Free Flow	7.8 gpm
Annual Usage	Up to 20,000 gal (76,000 l)

Ordering Information

LD Series 3:1 Pumps	
24G576	3:1 Universal Oil Pump with bung adapter (24F918)
24G579	3:1 Oil Pump with cut-to-length down tube, and bung adapter (24F918)
24G582	3:1 Oil Pump with 55 gal (200 liter) down tube and bung adapter (24F918)
24G585	3:1 Oil Pump with 275 gal (1040 liter) down tube and bung adapter (24F918)

Pump Performance



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



LD Series 3:1 Pump

LD Series 5:1 Pump

Air-Powered Oil Pumps and Packages

Features and Benefits

- Built-in thermal relief protects your equipment from thermal expansion
- Three inch air motor provides more power to create better flow
- Cup and plate design eliminates the need for O-rings that wear out faster

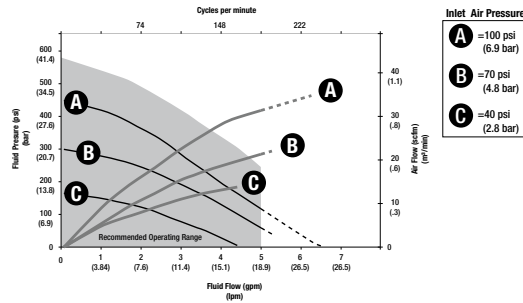
Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

Pump Performance



LD Series 5:1 Pump

Technical Specifications

Maximum Fluid Working Pressure	750 psi (51.7 bar, 5.17 MPa)
Fluid Pressure Ratio	5:1
Suction Lift (feet of oil)	10
Air Operation Range	20 to 150 psi (1.37 to 10.3 bar)
Recommended Air Pressure (for optimum life)	<125 psi (8.6 bar, 0.86 MPa)
Max Recommended Pump Speed	180 cycles per minute
Cycles Per Gallon/pound (l/kg)	37 cycles per gallon (10 cycles per liter)
Recommended Pump Speed (for maximum life)	75 cycles per minute or lower
Wetted Parts	Zinc plated carbon, steel, aluminum, nitrile, polyurethane, nickel plated aluminum
Sound Pressure Level	72.9 dB(a)
Sound Power Level	82 dB(a)
Approximate Weight	7.7 pounds (3.5 kg)
Air Inlet	1/4 in
Fluid Inlet	1 in
Fluid Outlet	1/2 in
Free Flow	6.7 gpm
Annual Usage	Up to 20,000 gal (76,000 l)

Ordering Information

LD Series 5:1 Pumps	
24G588	5:1 Universal Oil Pump with bung adapter (24F918)
24G591	5:1 Oil Pump with cut-to-length down tube and bung adapter (24F918)
24G594	5:1 Oil Pump with 55 gal (200 liter) down tube and bung adapter (24F918)
24G597	5:1 Oil Pump with 275 gal (1040 liter) down tube and bung adapter (24F918)

LD Series Oil Pump Packages

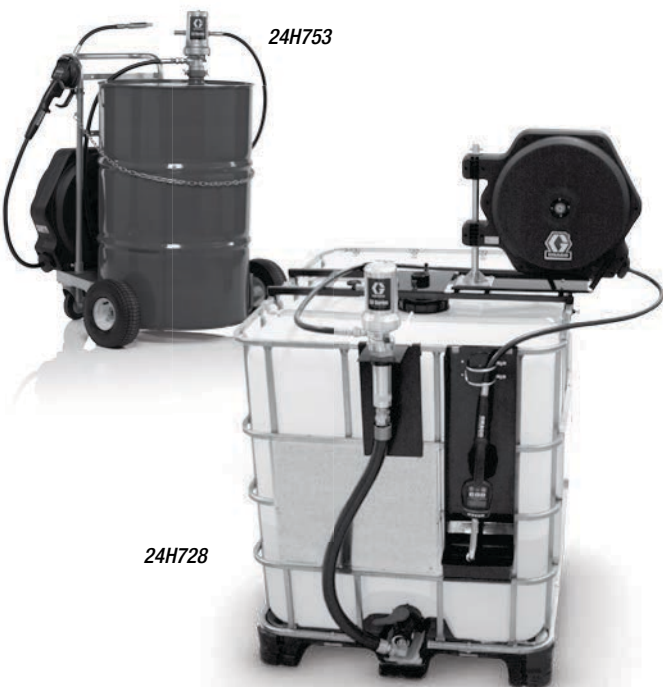
Air-Powered Oil Pumps and Packages

Air-Powered Oil Pumps and Packages

Ordering Information

3:1 Tank Packages with LD Reel	
24J776	3:1 LD Tank Package. Includes: 3:1 Universal oil pump (24G576), LDM5 Manual meter (256215), 1/2" x 35' LD oil hose reel (24H662), 1/2" Oil inlet kit (24C538), LD swivel mount bracket (24C772)
3:1 Tank Packages with SD Reel	
24J733	3:1 Tank Package – Manual. Includes: 3:1 Universal Oil pump (24G576), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 50' (HPM65B), SD Reel Inlet Kit (218549)
24J734	3:1 Tank Package – Preset. Includes: 3:1 Universal Oil pump (24G576), LDP5 Preset meter with rigid extension (256216), SD oil reel, 1/2" x 50' (HPM65B), SD Reel Inlet kit (218549)
24K836	3:1 Tank Package – Manual Flex: 3:1 Universal Oil pump (24G576), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), SD Reel Inlet Kit (218549)
3:1 Deluxe Tank Packages with SD Reel	
24K777	3:1 Deluxe Tank Package – Preset Rigid: 3:1 Universal Oil Pump (24G576), LDP5 Preset meter with rigid extension (256216), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" mini air regulator with valve (24H420)
24K797	3:1 Deluxe Tank Package – Manual Rigid: 3:1 Universal Oil Pump (24G576), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K799	3:1 Deluxe Tank Package – Manual Flex: 3:1 Universal Oil Pump (24G576), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K832	3:1 Deluxe Tank Package – Manual Flex: 3:1 Universal Oil Pump (24G576), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 35' (HPM33B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K834	3:1 Deluxe Tank Package – Manual Rigid: 3:1 Universal Oil Pump (24G576), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 35' (HPM33B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
3:1 Tote Mount Packages with SD Reel	
24K838	3:1 Oil Tote Mount with SD Reel – Preset Rigid. Includes: 3:1 Oil pump with 275 gal (1040 liter) steel down tube (24G585), LDP5 Preset meter with rigid extension (256216), SD oil reel, 1/2"x50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
24K840	3:1 Oil Tote Mount with SD Reel – Manual Rigid. Includes: 3:1 Oil pump with 275 gal (1040 liter) steel down tube (24G585), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2"x50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
24K842	3:1 Oil Tote Mount with SD Reel – Manual Flex. Includes: 3:1 Oil pump with 275 gal (1040 liter) steel down tube (24G585), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
3:1 Tote Mount Packages with LD Reel	
24H702	3:1 Oil Tote Mount Package – Top. Includes: 3:1 275 gal (1040L) Oil pump (24G585), 6 ft Oil hose kit (24J495), Top mount tote bracket (24F930), LD Reel bracket kit (24F932), Meter tray (24F914), LDM5 Rigid Meter (256215), 1/2" x 35' LD oil hose reel (24H662)
24H704	3:1 Oil Tote Mount Package – Top. Includes: 3:1 275 gal (1040L) Oil pump (24G585), 6 ft Oil hose kit (24J495), Top mount tote bracket (24F930), LD Reel bracket kit (24F932), Meter tray (24F914), LDP5 Rigid Meter (256216), 1/2" x 35' LD oil hose reel (24H662)

24H726	3:1 Oil Tote Mount Package – Drain. Includes: 3:1 Universal oil pump (24G576), 6 ft Oil hose kit (24J495), 6 ft Suction hose kit (24H669), Tote mount pump bracket (24F920), Top mount tote bracket (24F931), LD Reel bracket kit (24F932), Meter tray (24F914), LDM5 Rigid meter (256215), LD oil hose reel, 1/2" x 35' (24H662)
24H728	3:1 Oil Tote Mount Package – Drain. Includes: 3:1 Universal oil pump (24G576), 6 ft Oil hose kit (24J495), 6 ft Suction hose kit (24H669), Tote mount pump bracket (24F920), Top mount tote bracket (24F931), LD Reel bracket kit (24F932), Meter tray (24F914), LDP5 Rigid meter (256216), LD oil hose reel, 1/2" x 35' (24H662)
3:1 Wall Mount Packages	
24H689	3:1 Oil Wall Mount Package – Drum. Includes: 3:1 Universal oil pump (24G576), 6 ft LD oil pump suction hose kit for 55 gal drum (24F935), Wall mount bracket (24F910)
24H695	3:1 Oil Wall Mount Package – Tote. Includes: 3:1 Universal oil pump (24G576), 6 ft LD Oil pump section hose kit for 275 gal tote (24H666), Oil hose kit (24H859), Wall mount bracket (24F910)
3:1 Mobile Packages	
24H751	3:1 Oil Mobile Package with LD Reel. Includes: 3:1 200L Oil pump (24G582), 6 ft Oil hose kit (24J495), LDM5 Rigid meter (256215), 55 gal Cart (24F915), LD oil hose reel, 1/2" x 35' (24H662)
24H753	3:1 Oil Mobile Package with LD Reel. Includes: 3:1 200L Oil pump (24G582), 6 ft Oil hose kit (24J495), LDP5 Rigid meter (256216), 55 gal Cart (24F915), LD oil hose reel, 1/2" x 35' (24H662)
24H775	3:1 Oil Mobile Package. Includes: 3:1 200L Oil pump (24G582), Fluid hose kit, 5 M (24H865), LDM5 Rigid meter (256215), 55 gal Cart (24F915)
24H777	3:1 Oil Mobile Package. Includes: 3:1 200L Oil pump (24G582), Fluid hose kit, 5 M (24H865), LDP5 Rigid meter (256216), 55 gal Cart (24F915)
3:1 Stationary Packages	
24H800	3:1 Oil Stationary Package. Includes: 3:1 Multi-length oil pump (24G579), 6 ft Oil hose kit (24H859), LDM5 Rigid meter (256215)
24H802	3:1 Oil Stationary Package. Includes: 3:1 Multi-length oil pump (24G579), 6 ft Oil hose kit (24H859), LDP5 Rigid meter (256216)



5:1 LD Series Pump Packages

Air-Powered Oil Pumps and Packages

Ordering Information

5:1 Tank Packages with LD Reel	
24J777	5:1 LD Tank Package. Includes: 5:1 Universal oil pump (24G588), LDM5 Manual meter (256215), 1/2" x 35' LD oil hose reel (24H662), 1/2" Oil inlet kit (24C538), LD swivel mount bracket (24C772)
5:1 Tank Packages with SD Reel	
24J735	5:1 Tank Package – Manual. Includes: 5:1 Multi-length oil pump (24G588), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 50' (HPM65B), SD Reel Inlet kit (218549)
24J736	5:1 Tank Package – Preset. Includes: 5:1 Multi-length oil pump (24G588), LDP5 Preset meter with rigid extension (256216), SD reel, 1/2" x 50' (HPM65B), SD Reel Inlet Kit (218549)
24K837	5:1 Tank Package – Manual Flex: 5:1 Universal Oil pump (24G588), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), SD Reel Inlet Kit (218549)
5:1 Deluxe Tank Packages with SD Reel	
24K796	5:1 Deluxe Tank Package – Preset Rigid: 5:1 Universal Oil Pump (24G588), LDP5 Preset meter with rigid extension (256216), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K798	5:1 Deluxe Tank Package – Manual Rigid: 5:1 Universal Oil Pump (24G588), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K800	5:1 Deluxe Tank Package – Manual Flex: 5:1 Universal Oil Pump (24G588), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K833	5:1 Deluxe Tank Package – Manual Flex: 5:1 Universal Oil Pump (24G588), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 35' (HPM33B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
24K835	5:1 Deluxe Tank Package – Manual Rigid: 5:1 Universal Oil Pump (24G588), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 35' (HPM33B), 6 ft Air and Fluid hoses with fittings (24J495), 1/4" x 3/8" Mini air regulator with valve (24H420)
5:1 Tote Mount Packages with SD Reel	
24K839	5:1 Oil Tote Mount with SD Reel – Preset Rigid. Includes: 5:1 Oil pump with 275 gal (1040 liter) steel down tube (24G597), LDP5 Preset meter with rigid extension (256216), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
24K841	5:1 Oil Tote Mount with SD Reel – Preset Rigid. Includes: 5:1 Oil pump with 275 gal (1040 liter) steel down tube (24G597), LDM5 Manual meter with rigid extension (256215), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
24K843	5:1 Oil Tote Mount with SD Reel – Preset Rigid. Includes: 5:1 Oil pump with 275 gal (1040 liter) steel down tube (24G597), LDM5 Manual meter with flex extension (258693), SD oil reel, 1/2" x 50' (HPM65B), 6 ft Air and Fluid hoses with fittings (24J495), Pump tote mount bracket (24F930), SD reel bracket for tote mount, Meter tray (24F914)
5:1 Tote Mount Packages with LD Reel	
24H868	5:1 Oil Tote Mount Package – Top. Includes: 5:1 1040L Oil pump (24G597), 6 ft Oil hose kit (24J495), Tote top mount bracket (24F930), LD Reel bracket (24F932), Meter tray (24F914), LDM5 rigid meter (256215), 1/2" x 35' LD oil hose reel (24H662)
24H870	5:1 Oil Tote Mount Package – Top. Includes: 5:1 1040L Oil pump (24G597), 6 ft Oil hose kit (24J495), Tote top mount bracket (24F930), LD Reel bracket (24F932), Meter tray (24F914), LDP5 Rigid meter (256216), 1/2" x 35' LD oil hose reel (24H662)

24H892	5:1 Oil Tote Mount Package – Drain. Includes: 5:1 Oil universal pump (24G588), 6 ft Oil hose kit (24J495), Suction hose kit tote (24H669), Tote mount pump bracket (24F920), Tote top mount bracket (24F931), LD reel bracket kit (24F932), Meter tray (24F914), LDM5 Rigid meter (256215), LD oil hose reel, 1/2" x 35' (24H662)
24H894	5:1 Oil Tote Mount Package – Drain. Includes: 5:1 Oil universal pump (24G588), 6 ft Oil hose kit (24J495), Suction hose kit tote (24H669), Tote mount pump bracket (24F920), Tote top mount bracket (24F931), LD reel bracket kit (24F932), Meter tray (23F914), LDP5 Rigid meter (256216), LD oil hose reel, 1/2" x 35' (24H662)
5:1 Wall Mount Packages	
24H836	5:1 Oil Wall Mount Package – Drum. Includes: 5:1 Oil universal pump (24G588), 6 ft LD oil pump suction hose kit for 55 gal drum (24F935), Wall mount bracket (24F910)
24H842	5:1 Oil Wall Mount Package – Tote. Includes: 5:1 Oil universal pump (24G588), 6 ft Oil hose kit (24H859), 6 ft LD Oil pump section hose kit for 275 gal tote (24H666), Wall mount bracket (24F910)
5:1 Mobile Packages	
24H916	5:1 Oil Mobile Package with LD Reel. Includes: 5:1 55 gal (200 L) Oil pump (24G594), 6 ft Oil hose kit (24J495), LDM5 Rigid meter (256215), 55 gal Cart (24F915), LD oil hose reel, 1/2" x 35' (24H662)
24H918	5:1 Oil Mobile Package with LD Reel. Includes: 5:1 55 gal (200 L) Oil pump (24G594), 6 ft Oil hose kit (24J495), LDP5 Rigid meter (256216), 55 gal Cart (24F915), LD oil hose reel, 1/2" x 35' (24H662)
24H941	5:1 Oil Mobile Package. Includes: 5:1 55 gal (200 L) oil pump (24G594), Fluid hose kit, 5M (24H865), LDM5 Rigid meter (256215), 55 gal Cart (24F915)
24H943	5:1 Oil Mobile Package. Includes: 5:1 55 gal (200 L) oil pump (24G594), Fluid hose kit, 5M (24H865), LDP5 Rigid meter (256216), 55 gal Cart (24F915)
5:1 Stationary Packages	
24H965	5:1 Oil Stationary Package. Includes: 5:1 Oil multi-length pump (24G591), Fluid oil hose kit (24H859), LDM5 Rigid meter (256215)
24H967	5:1 Oil Stationary Package. Includes: 5:1 Oil multi-length pump (24G591), Fluid oil hose kit (24H859), LDP5 Rigid meter (256216)



LD Series Oil Pump Accessories

Air-Powered Oil Pumps and Packages

Ordering Information

Down Tubes	
16F878	Universal cut to length pvc down tube for LD 3:1 and 5:1 pumps
16F886	Drum length steel down tube for LD 3:1 and 5:1 pumps
16F885	Tote length steel down tube for LD 3:1 and 5:1 pumps
Drum Covers	
24F904	Cover for 35 lb (16 kg) pails
24F905	Cover for open-head 120 lb drums
24F906	Cover for open-head 400 lb drums
Suction Kits	
24F935	LD Oil Pump Suction hose kit for 55 gal (200 L) drum. Includes: 55 gal (200 L) drum length metal down tube, bung adapter, foot valve, and 6 ft of 1" suction hose
24H666	LD Oil Pump Suction hose kit for 275 gal (1040 L) drum. Includes: 275 gal (1040 L) tote length metal down tube, bung adapter, foot valve, and 6 ft of 1" 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" x 3' Suction hose, 1" Elbow fitting, and union fitting (160022)
Hose and Fitting Kits	
24H865	15 ft LD pump fluid hose kit. Includes 1/2" x 15 ft fluid hose, 3/8" x 6 ft Air hose, Swivel (157705), and union fitting (156684)
24H859	6 ft LD pump fluid hose kit. Includes 1/2" x 6 ft fluid hose, 3/8" x 6 ft Air hose, Swivel (157705), and union fitting (156684)
Air Regulators	
24H420	Mini air pressure regulator with valve, 1/4 inch NPT x 3/8 inch NPT
Tote Mount Accessories	
24F914	Meter drip tray for mounting to the side of IBC tote
24F932	LD 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 pump in top of IBC tote
24F920	Bracket for mounting LD pump on the side of IBC tote
24K285	Bracket for mounting SD hose reel to IBC tote mounting bracket 24F930 (24F930 bracket sold separately)
Mounting Hardware	
24F910	LD pump wall mounting bracket. For use with LD 3:1 and 5:1 pumps
24F918	Bung adapter for LD 3:1 and 5:1 pumps
Carts	
24F915	Drum cart with pneumatic wheels for 400 lb drums, includes chain for securing drum to cart
24H422	Drum cart with pneumatic wheels for 120 lb drums, includes chain for securing drum to cart



Mini Fire-Ball® 225 3:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

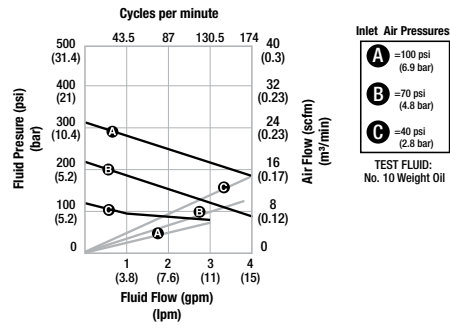
Technical Specifications

Cycles per Gallon.....	43.5 (11.4 liters)
Fluid Flow gal/min @ 80 cpm	1.84 (7.0 liters)
Maximum Fluid Pressure	540 psi (37 bar)
Air Motor Effective Diameter.....	2.25 in (57.2 mm)
Air Operating Range	40-180 psi (2.8-12 bar)
Approx. Air Use and Flow @ 100 psi and 80 cpm	8.5 scfm @ 2.1 gpm, (0.241 m ³ /min @ 7.9 lpm)
Wetted Materials	Steel, Buna-N, Polyurethane, Aluminum, Rulon®
Air Inlet Port Size	3/8 in npt(f)
Fluid Inlet Port Size	1-1/2 in npt(f)
Fluid Outlet Port Size.....	1/2 in npt(f)
Line Length‡	Up to 250 ft (76.2 m)
Dispense Points	1 to 2
Annual Usage	Up to 35,500 gal (132,000 l)
Typical Applications.....	Continuous duty, maintenance facility dispensing motor oil, gear oil, automatic transmission fluid, hydraulic fluid

Ordering Information

Mini Fire-Ball 225 3:1 Pump	
248097	3:1 Universal Oil Pump with suction tube (15C502) and bung adapter (222308)
246775	3:1 Universal Oil Pump

Pump Performance



246775

‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 300 5:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- Large air-porting design provides efficient use of compressed air supply for continuous pump operation without icing
- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

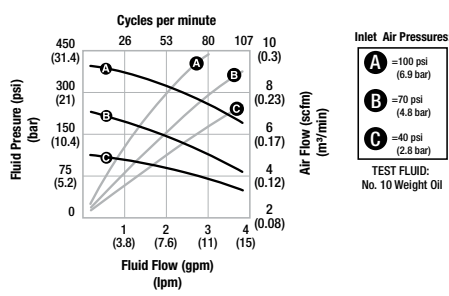
Technical Specifications

Cycles per Gallon.....	28.4 (8.6 liters)
Fluid Flow gal/min @ 80 cpm	2.8 (9.3 liters)
Maximum Fluid Pressure	900 psi (62 bar)
Air Motor Effective Diameter.....	3 in (76.2 mm)
Air Operating Range	40-180 psi (2.8-12 bar)
Approx. Air Use and Flow @ 100 psi and 80 cpm	27 scfm @ 3 gpm (0.765 m ³ /min @ 11.5 lpm)
Wetted Materials	Steel, Polyurethane, Aluminum, Buna-N
Air Inlet Port Size	3/8 npt(f)
Fluid Inlet Port Size	1-1/2 npt(f)
Fluid Outlet Port Size.....	1/2 npt(f)
Line Length‡	Up to 500 ft (152.5 m)
Dispense Points	1 to 3
Annual Usage	Up to 35,500 gal (132,000 l)
Typical Applications.....	Continuous duty, maintenance facility dispensing motor oil, gear oil, automatic transmission fluid, hydraulic fluid

Ordering Information

Fire-Ball 300 5:1 Pump	
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 (1040 lb) tank size, bung mount

Pump Performance



203876

‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425 3:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

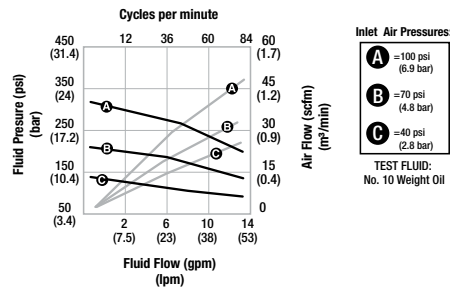
Technical Specifications

Cycles per Gallon.....	6 (1.6 liters)
Fluid Flow gal/min @ 80 cpm	13.4 (50.6 liters)
Maximum Fluid Pressure	540 psi (37 bar)
Air Motor Effective Diameter.....	4.25 in (107.9 mm)
Air Operating Range	40-180 psi (2.8-12 bar)
Approx. Air Use and Flow @ 100 psi and 80 cpm	58 scfm @ 13.4 gpm (1.64 m ³ /min @ 50.6 lpm)
Wetted Materials	Steel, Polyurethane, Aluminum, Nitrile
Air Inlet Port Size	1/2 in npt(f)
Fluid Inlet Port Size	1-1/2 in npt(f)
Fluid Outlet Port Size.....	3/4 in npt(f)
Line Length‡	Up to 250 ft (76.2 m)
Dispense Points	3 to 4
Annual Usage	Over 35,500 gal (132,000 l)
Typical Applications.....	High flow, low pressure maintenance facility dispensing motor oil, gear oil, automatic transmission fluid, hydraulic fluid

Ordering Information

Fire-Ball 425 3:1 Pump	
237526	3:1 Universal Oil Pump

Pump Performance



237526

‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425 6:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

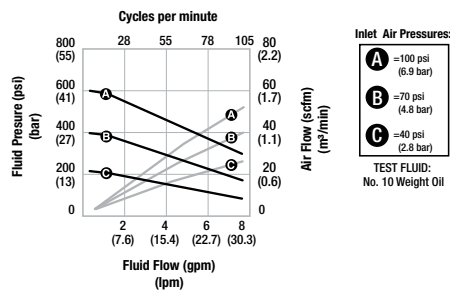
Typical Fluids Handled

- Petroleum- and synthetic-based oils

Technical Specifications

Cycles per Gallon.....	12 (3.2 liters)
Fluid Flow gal/min @ 80 cpm	6.6 (25.3 liters)
Maximum Fluid Pressure	1100 psi (76 bar)
Air Motor Effective Diameter.....	4.25 in (107.9 mm)
Air Operating Range	40-180 psi 2.8-12 bar
Approx. Air Use and Flow @ 100 psi and 80 cpm	49.5 scfm @ 6.8 gpm (.334 m ³ /min @ 25.7 lpm)
Wetted Materials	Steel, Polyurethane, Aluminum, Nitrile
Air Inlet Port Size	1/2 in npt(f)
Fluid Inlet Port Size	1-1/2 in npt(f)
Fluid Outlet Port Size.....	3/4 in npt(f)
Line Length‡	Up to 500 ft (152.5 m)
Dispense Points	3 to 4
Annual Usage	Up to 35,500 gal (132,000 l)
Typical Applications.....	High flow, medium pressure, maintenance facility dispensing motor oil, gear oil, automatic transmission fluid, hydraulic fluid

Pump Performance



238108

Ordering Information

Fire-Ball 425 6:1 Pump	
238108	6:1 Universal Oil Pump

‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425 10:1

Air-Powered Oil Pumps and Packages

Features and Benefits

- In-line design with fewer parts for less pump wear
- Differential air motor ensures smooth pumping
- Double-acting pump provides reliable fluid flow

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils

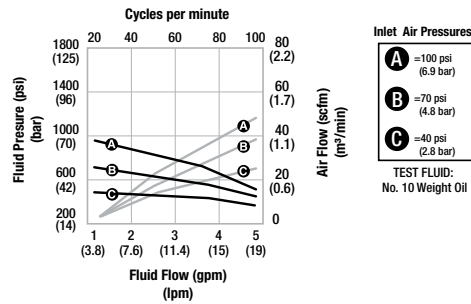
Technical Specifications

Cycles per Gallon.....	19.6 (5.2 liters)
Fluid Flow gal/min @ 80 cpm	4.1 (15.4 liters)
Maximum Fluid Pressure	1800 psi (124 bar)
Air Motor Effective Diameter.....	4.25 in (107.9 mm)
Air Operating Range	40-180 psi (2.8-12 bar)
Approx. Air Use and Flow @ 100 psi and 80 cpm	32 scfm @ 4.1 gpm (.555 m ³ /min @ 15.4 lpm)
Wetted Materials	Steel, Polyurethane, Aluminum, Nitrile
Air Inlet Port Size	1/2 in npt(f)
Fluid Inlet Port Size	1-1/2 in npt(f)
Fluid Outlet Port Size.....	3/4 in npt(f)
Line Length‡	Up to 750 ft (228.6 m)
Dispense Points	3 to 4
Annual Usage	Over 35,500 gal (132,000 l)
Typical Applications.....	Long distance, maintenance facility dispensing motor oil, gear oil, automatic transmission fluid, hydraulic fluid

Ordering Information

Fire-Ball 425 10:1 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

Pump Performance



205626

‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® Oil Pump Packages

Air-Powered Oil Pumps and Packages

Mini Fire-Ball 225 and Fire-Ball 300 Ordering Information

Packages	Portable	Cover-Mounted	Bung-Mounted		Universal
Container Size	16 gal (60 l)	55 gal (200 l)	275 gal (1040 l)	Universal	
Mini Fire-Ball 225, 3:1 Package	246903 ⁽⁴⁾	246904 ⁽⁴⁾	246906 ⁽⁴⁾	246907 ^{(3), (4)}	248230 ^{(3), (4)}
Mini Fire-Ball, 225 3:1 Pump	248097 ^{(1), (3)}				246775
Fire-Ball 300, 5:1 package	225728 ^{(2), (4)}	225094 ^{(3), (4)}	225642 ^{(3), (4)}	225640 ^{(3), (4)}	225931 ^{(3), (4)}
Fire-Ball 300 Pump	203872	203857	204254	222087	203876
Dispense/Hose Fitting Kit	237075	222063			222062
Fluid Hose	6 ft x 1/2 in (1.8 m x 12.7 mm)				1.5 ft x 1/2 in (0.5 m x 9.5 mm)
Air Hose	—	6 ft x 3/8 in (1.8 m x 9.5 mm)			1.5 ft x 3/8 in (0.5 m x 9.5 mm)
Air Regulator	224512		—	—	—
Cover	24R350	200326	—	—	—
Caster Base	203622	—	—	—	—
Bung Adapter for 300, 5:1	—	—	222308		—
225, 3:1 Manual	309868				—
300, 5:1 Manual	307884	307883			306520

⁽¹⁾ 248097 includes suction tube (15C502) and bung adapter (222308)
⁽²⁾ Use 3/8 in (9.5 mm) installation kit (224512) as required
⁽³⁾ Use 3/8 in (9.5 mm) air regulator 109075 as required; must be ordered separately
⁽⁴⁾ Order low-level cut-off 203688 (1 1/2 inch NPT) separately for metered dispense systems

Fire-Ball 425 Package Ordering Information

Packages	Cover-Mounted	Bung-Mounted	Universal Supply	Wall-Mounted
Container Size	55 gal (200 l)		Universal	
Fire-Ball 425, 3:1 Package	—	—	—	244846 ⁽³⁾
Fire-Ball 425, 3:1 Pump	—	—	—	237526
Fire-Ball 425, 6:1 Package	—	—	—	244628 ⁽³⁾
Fire-Ball 425, 6:1 Pump	—	—	—	238108
Fire-Ball 425, 10:1 Package	225782 ^{(1), (2)}	225786 ^{(1), (2)}	225853 ^{(1), (2)}	244847
Fire-Ball 425, 10:1 Pump	222065	222095	205626	205626
Hose/Fitting Kit	222066		222068	
Fluid Hose	6 ft x 3/4 in (1.8 m x 19.05 mm)		1.5 ft x 3/4 in (0.5 m x 19.05 mm)	
Air Hose	6 ft x 1/2 in (1.8 m x 12.7 mm)		1.5 ft x 1/2 in (0.5 m x 12.7 mm)	
Cover	200326	—	—	—
Filter Regulator	—	—	—	217072
Air Shutoff Valve	—	—	—	110225
Fluid Shutoff Valve	—	—	—	108537
Wall Mount Bracket	—	—	—	238245
Instruction Manual	307883		306520	309351

⁽¹⁾ Use 1/2 in (12.7 mm) air regulator (104266) and air pressure gauge (100960) as required; must be ordered separately—see mounting accessories section
⁽²⁾ Order low-level cut off (203688) separately for metered dispense systems—see mounting accessories section
⁽³⁾ Includes pump plus: Filter Regulator (217072), Hose and Fitting Kit (222068), Air Shutoff Valve (110225), Fluid Shutoff (108537), Wall Mount Bracket, (238245)

Cover-mounted



Bung-mounted



Universal Supply



Portable

Fluid Dispense Packages

Air-Powered Oil Pumps and Packages

Mini Fire-Ball® 225, 3:1 Bulk-Oil Dispensing Packages

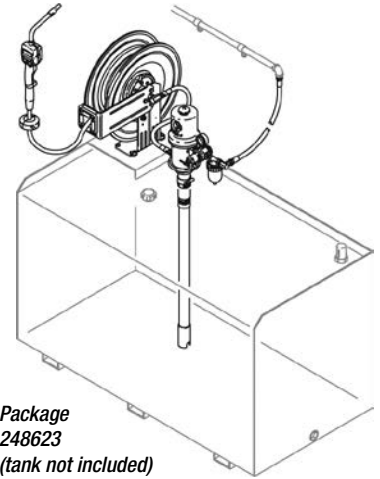
Mini Fire-Ball 225, 3:1 Pump Package	
248623*	Includes: Mini Fire-Ball 225, 3:1 Universal pump with bung adapter and down tube (248097), SD Series reel with 50 ft (15.2 m) x 1/2 in (12.7 mm) fluid hose (HPM65B), LDM5 meter (256215)
248622*	Includes: Mini Fire-Ball 225, 3:1 Universal pump with bung adapter and down tube (248097), SD Series reel with 35 ft (11 m) x 1/2 in (12.7 m) fluid hose (HPM33B), LDM5 meter (256215)

*Order 218549 (1/2 in x 24 in) hose reel inlet kit separately NOTE: Tanks not included

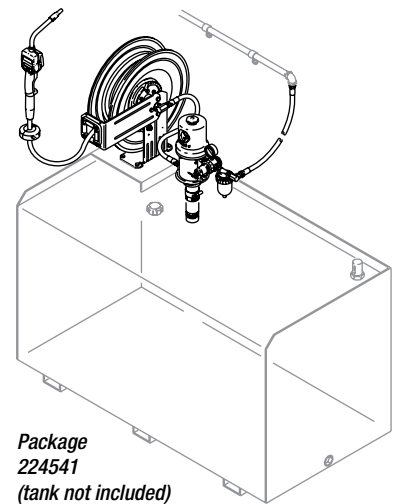
Fire-Ball 300, 5:1 Deluxe Bulk-Oil Dispensing Packages

Fire-Ball 300, 5:1 Pump Packages	
241633*	Includes: Fire-Ball 300, 5:1 pump universal (203876), 3/8 in (9.5 mm) regulator/gauge (109075), 3/8 in (9.5 mm) x 3/8 in (9.5 mm) nipple (156849), 2 in (50.8 mm) bung adapter (222308), SD Series reel with 35 ft (11 m) x 1/2 in (12.7 mm) hose (HPM33B), SDM5 meter (255350)
224541*	Includes: Fire-Ball 300, 5:1 pump universal (203876), 3/8 in (9.5 mm) regulator/gauge (109075), 3/8 in (9.5 mm) x 3/8 in (9.5 mm) nipple (156849), 2 in (50.8 mm) bung adapter (222308), SD Series reel with 50 ft (15.3 m) x 1/2 in (12.7 mm) hose (HPM65B), 18 in (45.7 cm) hose (220598), 90° swivel (inlet on hose reel) (157416), SDM5 meter (255350)
244038*	Includes: Fire-Ball 300, 5:1 pump universal (203876), 3/8 in (9.5 mm) regulator/gauge (109075), 3/8 in (9.5 mm) x 3/8 in (9.5 mm) nipple (156849), 2 in (50.8 mm) bung adapter (222308), SD Series reel with 50 ft (15.3 m) x 1/2 in (12.7 mm) hose (HPM65B), 18 in (45.7 cm) hose (220598), 90° swivel (157416), SDP5 meter (255200)
224534*	Dispensing from Bench-Top Tanks with Fire-Ball 300, 5:1 Pump Package. Includes: Fire-Ball 300, 5:1 pump, Universal (203876), 3/8 in (9.5 mm) regulator/gauge (109075), Air filter (106148), 3/8 in (9.5 mm) x 3/8 in (9.5 mm) nipple (156849), SD Series reel with 50 ft (15.3 m) x 1/2 in (12.7 mm) hose (HPM65B), Drain valve (106151), 72 in (182.9 cm) hose kit (222063), Thermal relief valve (237893), 90° swivel (157416), SDM5 Meter (255350)

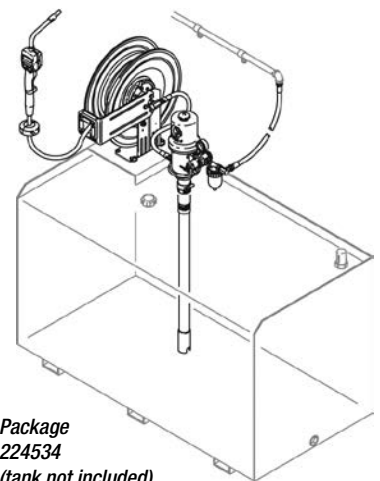
*Order 218549 (1/2 in x 24 in) hose reel inlet kit separately NOTE: Tanks not included



Package
248623
(tank not included)



Package
224541
(tank not included)



Package
224534
(tank not included)

Fire-Ball® and Oil Pump Accessories

Air-Powered Oil Pumps and Packages

Hose and Fittings Kits for Mini Fire-Ball 225, 3:1 and Fire-Ball 300, 5:1 Pumps	
222062	18 in (0.5 m) for connecting wall-mounted Mini Fire-Ball 225, 3:1 and Fire-Ball 300, 5:1 pumps to piping. Includes air hose (204560) with swivel elbow (155494), fluid hose (220598) with swivel elbow (155470). Instruction manual 306520
222063	6 ft (1.8 m) for use with drum-mounted Mini Fire-Ball 225, 3:1 and Fire-Ball 300, 5:1 pumps. Includes air hose (203320) with swivel elbow (155494), fluid hose (220591) with swivel elbow (155470). Instruction manual 307883
Dispense Kits for Mini Fire-Ball 225, 3:1 and Fire-Ball 300, 5:1 Pumps	
237075	6 ft (1.8 m) for use with portable lubricators powered by the Fire-Ball 300, 5:1. Includes fluid hose (220591) and SDM5 gear lube valve (255349). Instruction manual: 307884
Hose and Fittings Kits for Fire-Ball 425, 3:1, 6:1 and 10:1	
222068	18 in (0.5 m) for connecting wall-mounted Fire-Ball 425, 10:1 pumps to piping. Includes air hose (218093) with swivel elbow (155470), fluid hose (109108) with swivel elbow (160327). Instruction manual: 306520
238246	24 in (0.6 m) for use with Fire-Ball 425, 3:1 and 6:1 wall-mounted pumps to piping. Includes air hose (218093) with swivel elbow (155470), fluid hose (238247) with swivel elbow (160327)
222066	6 ft (1.8 m) for use with drum-mounted Fire-Ball 425, 10:1 pumps. Includes air hose (205418) with swivel elbow (155470), fluid hose (109105) with swivel elbow (160327). Instruction manual: 307883
Suction Kits	
236054	6 ft (1.8 m) Suction Kit for 55 gal. (200 l) drums. Includes: 55 gal. (200 l) drum tube, bung adapter and 6 ft (1.8 m) of 3/4 in fluid hose with 3/4 in ID x 1-1/2 in bushing to adapt to any universal Graco oil pump. Allows use of Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 or Fire-Ball 425, 10:1 universal pumps with barrels. Order wall brackets separately. Use with low-level cut-off (203688) when metering fluids. Instruction manual: 308335
Drum Covers	
200326	Cover for open-head 55 gal (200 l) drums. Use with Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 or Fire-Ball 425, 10:1 pump. Use adapter 160754 for cover-mounting bung-style pumps
24R350	Cover for open-head 16 gal (60 l) or 70 lb (32 kg) drums. Mounts Fast-Ball 1:1, Mini-Fire-Ball or Fire-Ball pumps
222058	Cover for 5 gal (20 l) pails. Mounts Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 and 15:1 pumps. Bung adapter (222308) and bung adapter plate (160754) sold separately
160754	Bung-adapter plate for 55 gal (200 l) or 16 gal (60 l) covers. Mounts to 55 gallon (400 lb; 200 l), 16 gal (120 lb; 60 l) drum or 5 gal (20 l) pail covers and converts mounting to standard 2 npt bung opening. Allows use of bung-mounted pumps with drum covers
Wall-Mounting Brackets	
203987	For universal Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 and Fire-Ball 425, 10:1 pumps. Clamps onto universal pump tube
238245	For use with Fire-Ball 425, 3:1, 6:1 and 10:1 pumps. Mounts directly to pump flange
236778	For use with Fire-Ball 425, 3:1, Dyna-Star 1/4:1 and Power-Star 1:1 pumps. Clamps to pump tube and provides mounting to wall surface by flange
Clamps	
203156	Open-drum pump clamp. Attaches to side of open-head drum and mounts on any size pump except Fire-Ball 425, 3:1
210880	Open-drum pump clamp for Fire-Ball 300, 5:1 and Fire-Ball 425, 10:1 pumps. Clamps onto pump tube and attaches to open-drum lip
Tools for Working on Fire-Ball Air Motors	
207579	Padded pliers
171818	Poppet gauge
168085	Insert tool
Carts	
203650	Cart for 5, 10 and 16 gal (20, 40, and 60 l) drums. Drums fit into recess on formed base. Rim clamps secure drum to cart. Use with pail clamp (159952) when using cart with 5 gal (20 l) pails
222243	Heavy-Duty Cart with Pneumatic Wheels for 120 lb (55 kg) drums. Used for moving lubrication equipment over rough terrain. Requires: Hold down kit (222061)
111470	55 gal (200 l) Drum Truck. Heavy-duty drum truck secures 55 gal (200 l) drum on roll-around base



200326



204574



160754



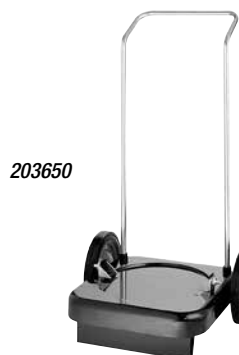
203987



203156



210880



203650



111470

Fire-Ball® and Oil Pump Accessories

Air-Powered Oil Pumps and Packages

Ordering Information

Portable Bases	
205054	Band Dolly for 5 gal (20 l) pails (11-1/2 in ID)
204144	Band Dolly for 10 and 16 gal (40 and 60 l) drums (14 in ID)
203622	Caster Base for 5, 10 and 16 gal (20, 40 and 60 l) drums
Drum Elevator	
241663	Air-powered elevator to speed-up 55 gal (200 l) drum changes. Maximum raised height is 39.5 in (100.3 cm). Includes cover support (207562), drum elevator (204385), and air control kit (207561)
Suction Tubes For Pumps	
238592	For 16 gal (60 l) cover-mounted Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 and Fire-Ball 425, 10:1. Use bung adapter 222308 on all current production models. Includes (191126) 14-1/2 in (0.36 m) extension (110127) foot spacer
238593	For 55 gal (200 l) cover-mounts. Includes (191128) 21-3/4 in (0.55 m) extension (110127) foot spacer
238595	For 55 gal (200 l) bung-mounted Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 and Fire-Ball 425, 10:1. Use bung adapter 222308 on all current production models. Includes (191130) 26 in (0.66 m) extension (110127) foot spacer
238596	For 275 gal (1100 l) bung-mounts. Includes (191131) 36 in (0.91 m) extension (110127) foot spacer
15C502	Universal Down Tube 1-1/2 in tube marked for standard container lengths from 20-41 in (0.51-1.04 m)
Bung Adapters	
222308	For Fast-Ball 1:1; Mini Fire-Ball 225, 3:1; Fire-Ball 300, 5:1; and Fire-Ball 425, 10:1 Pumps. Allows direct mounting of all universal length and extended Fast-Ball 1:1, Mini Fire-Ball 225, 3:1, Fire-Ball 300, 5:1 and Fire-Ball 425, 10:1 pumps into standard 2 npt drum bung
238125	For Mini Fire-Ball 225, 3:1; Fire-Ball 300, 5:1; and the Fire-Ball 425, 10:1. Includes double tap bushing (191075), 1 ft 3/8 in hose (238370), and 90° 3/8 in adapter (155494) for mounting universal pumps to tanks (see 308403 for details)
214583	For Fast-Flo 1:1 Pumps, allows direct mounting of full-length pump into standard 2 npt drum bung. Comes with bushing sleeve (172405)
187754	Acetal Bung Adapter includes (100220) thumbscrew (for Fire-Ball 300, 15:1 SST undercoating pump)
176684	Bung Adapter for Suction Kit (203992). Includes (100220) thumbscrew
Sealed Bung Adapters (prevents rain water and other fluids from entering drum when pump is outdoors.)	
204076	Sealed bung adapter for full-length Fire-Ball with 2-1/8 in (53.9 mm) bung and Mini Fire-Ball 225, 3:1 (2.140 inch diameter)
224579	Sealed bung adapter for universal length Fire-Ball pumps, 2.159 inch diameter (will not fit Mini Fire-Ball 225, 3:1 or old style pumps with bottom foot valve)
217359	Sealed bung adapter for Fast-Flo pumps; can be used with suction kit 236054
Low-Level Cut-Offs (Prevents air from entering pump by closing intake when fluid supply to pump is exhausted. Can be used with suction hose kit or standard suction tube without changing tube length.)	
203688	Low-level cut-offs for Fast-Ball and Fire-Ball pumps that have a universal design with suction tube extension supplying metered outlets; replaces stand-off suction tube; 1.5 npt (f) inlet. 3 in (76 mm) h
Thermal Relief Valve Kits (includes valve, hose and fittings)	
235998	Mini Fire-Ball 225, 3:1 thermal relief valve rated to 600 psi (41 bar)
237893	Fire-Ball 300, 5:1 and Fire-Ball 425, 6:1 thermal relief valve rated to 900 psi (62 bar)
248296	Fire-Ball 300, 5:1 and Fire-Ball 425, 6:1 thermal relief valve rated to 900 psi (62 bar) (same as 237893 minus bung adapter and swivel. Includes 6 foot hose)
237601	Fire-Ball 425, 3:1 thermal relief valve rated to 600 psi (41 bar)
240429	Fire-Ball 425, 10:1 thermal relief valve rated to 1600 psi (110 bar)
248324	Fire-Ball 425, 10:1 thermal relief valve rated to 1600 psi (110 bar) (same as 240429 minus bung adapter and swivel. Includes 6 foot hose)
238899	Diaphragm pump thermal relief valve rated to 150 psi (10.4 bar)
112353	Diaphragm pump thermal relief valve for fuel dispense; rated to 50 psi (3.4 bar), valve only



204144



203622



241663



203688

Fire-Ball® and Oil Pump Accessories

Air-Powered Oil Pumps and Packages

Ordering Information

Bleed-Type Air Shut-Off Valves (rated to 250 psi [17.4 bar]) Female ends						
110223	1/4 in (6.4 mm)					
110224	3/8 in (9.5 mm)					
110225	1/2 in (12.7 mm)					
110226	3/4 in (19.1 mm)					
Fluid Shut-Off Valves (rated to 2,000 psi [138 bar]) For isolating oil dispense lines.						
108458	1/2 in (12.7 mm)					
108537	3/4 in (19.1 mm)					
110314	1 in (25.4 mm)					
Fluid T-Strainers 60 Mesh Strainer, 1,500 psi (103 bar) working pressure. Prevents foreign material from entering dispense lines. Not for use with grease lines.						
240417	1/2 in npt(f) swivel x 1/2 in npt(m) ports					
240418	3/8 in npt(f) x 3/8 in npt(m) ports					
Mesh Strainer Replacement for 240417						
3 replacement Elements	25 replacement Elements		Mesh			
238433	238434		40 mesh			
238431	238432		60 mesh (standard)			
238429	n/a		100 mesh			
Y-Strainers 400 psi (28 bar) max. working pressure filters material before it enters the pump. 20 mesh screen.						
Y-Strainer	Replacement Screens		Inlet/Outlet			
101078	180199		3/4 npt(f) both ends			
110877	110906		1/2 npt(f) both ends			
110878	110907		1 npt(f) both ends			
Mounting Accessories						
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			N/A‡	N/A‡	222308
Connection Hose Kit	222118 18 inch (45.7 cm)	222062 18 inch (45.7 cm)	238246 24 inch (60.9 cm)		222068 18 inch (45.7 cm)	
	222119 72 inch (182.8 cm)	222063 72 inch (182.8 cm)			222066 72 inch (182.8 cm)	
Wall Mounting Bracket	203987			238245		203987
Thermal Relief Kit	—	235998	237893	237601	240429	
Air Regulator and Gauge	110147	109075		104266/100960		
Air Filter	110146	106148		106149		
Air Lubricator	110148	214847		214848		
FRL*	110149	110150		217072		
Airline Shutoff Valve	110223	110224		110225		
Fluid Shutoff Valve	108537	108458		108537		
Fluid Outlet Filter	240417			101078	—	
Low-Level Cutoff	203688					
Suction Hose Kit	236054			N/A**	N/A**	



108458



240417



101078

*Filter, Regulator, Lubricator and Gauge
 **Recommend 1-1/2 in, 6 ft hose assembly as suction kit
 ‡Must be wall-mounted or flange-mounted

NXT™ High-Flo®

Air-Powered Oil Pumps and Packages



Features and Benefits

- Move large amounts of oil fast—dispenses up to 31 gallons of oil per minute
- Tested to outperform and outlast all other pumps on the market with its long-life packing design
- Models available with intuitive, easy-to-use DataTrak™ controls—gives you pump diagnostics, material usage tracking and pump runaway protection
- Reduces icing and noise—new NXT air motor is up to 50% quieter than previous models

Typical Applications

- In-plant to supply long-pipe runs or large volume header systems with multiple dispense locations
- Fill remote reservoirs or feed an automated lubrication system
- Transfer and dispense large amounts of lubricant to supply a production process
- Mines/construction for rapid refill of lube trucks and to service off-road equipment

Package Number with DataTrak	247888	247889	247892	247893	
Package Number without DataTrak	24D602	24D603	24D606	24D607	
Pump Specifications	Ratio	3.5:1	4.5:1	6:1	6:1
	Mounting	Wall (255143)	Wall (255143)	Wall (255143)	Stand (218742)
	Pump with thermal relief and DataTrak	24D590	24D591	24D594	24D594
	Pump with thermal relief w/o DataTrak	24D596	24D597	24D600	24D600
	Output per Cycle	2000cc	1500 cc	2000 cc	2000 cc
	Output at 60 CPM*	31.5 gpm (119.2 lpm)	23.2 gpm (87.8 lpm)	31.5 gpm (119.2 lpm)	31.5 gpm (119.2 lpm)
	Motor Size	NXT 3400		NXT 6500	
	Maximum Fluid Pressure	350 psi (24.1 bar)	450 psi (31.0 bar)	500 psi (35.2 bar)	
	Maximum Air Input Pressure	100 psi (6.9 bar)		75 psi (5.2 bar)	
Manuals	System Manual	312862			
	Pump Manual	311211		311831	
	Pump Lower Manual	311690		311832	
	Motor Manual	311238			
Inlet/Outlet	Pump Inlet Size	1 1/2 in npt (f)		2 in npt (f)	
	Pump Outlet Size	1 in npt (f)		2 in npt (f)	
Hoses	3/4 in x 4 ft Air Hose	110048			
	1 in x 6 ft Fluid Hose	115042	247969		

*Graco recommends 20 CPM or less for supply applications

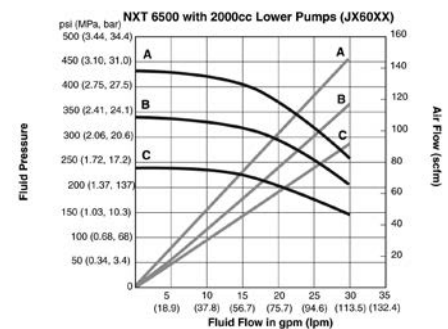
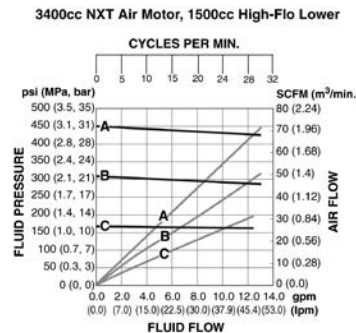
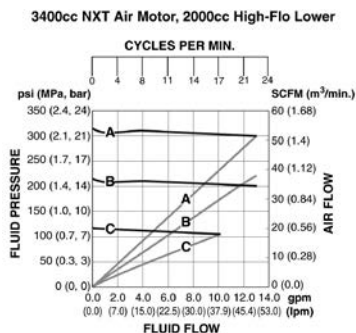
Performance Charts

A = 100 psi (7.0 bar) air pressure
 B = 70 psi (4.9 bar) air pressure
 C = 40 psi (2.8 bar) air pressure

A = 100 psi (7.0 bar) air pressure
 B = 70 psi (4.9 bar) air pressure
 C = 40 psi (2.8 bar) air pressure

Test Fluid is No. 10 Weight Oil for all pumps

A = 70 psi (4.9 bar) air pressure
 B = 55 psi (3.7 bar) air pressure
 C = 40 psi (2.8 bar) air pressure



NXT™ Dura-Flo®

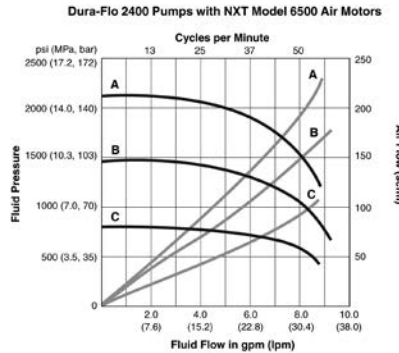
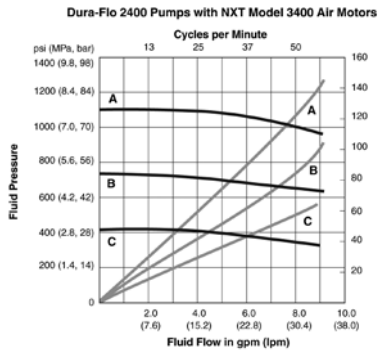
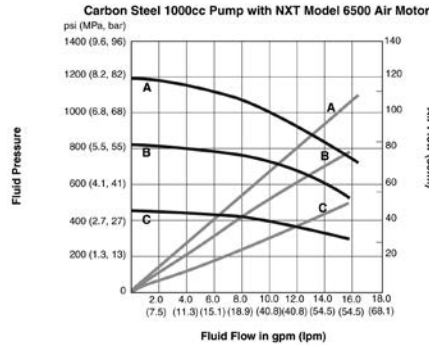
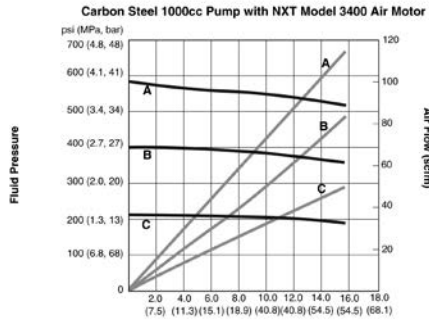
Air-Powered Oil Pumps and Packages

Air-Powered Oil Pumps and Packages

Performance Charts

A = 7 bar (100 psi) air pressure or 105 bar (1500 psi) hydraulic oil pressure
 B = 4.9 bar (70 psi) air pressure or 75 bar (1050 psi) hydraulic oil pressure
 C = 2.8 bar (40 psi) air pressure or 42 bar (600 psi) hydraulic oil pressure

Test Fluid is No. 10 Weight Oil for all pumps










Package Number with DataTrak		247890	247894	247891	247895
Package Number without DataTrak		24D604	24D608	24D605	—
Pump Specifications	Ratio	6:1	10:1	12:1	23:1
	Mounting	Wall (255143)			
	Pump with DataTrak and thermal relief kit	24D592	24D595	24D593	—
	Pump w/o DataTrak and thermal relief kit	24D598	24D601	24D599	—
	Output per Cycle	1000cc		580cc	
	Output at 60 CPM*	17.4 gpm (65.9 lpm)		9.2 gpm (34.8 lpm)	
	Motor Size	NXT 3400	NXT 6500	NXT 3400	NXT 6500
	Max. Fluid Pressure	620 psi (42.7, 4.3 bar)	1180 psi (81.3 bar)	1190 psi (82.1 bar)	1725 psi (118.9 bar)
	Max. Air Input Pressure	100 psi (6.9 bar)			75 psi (5.2 bar)
Manuals	System Manual	312862			
	Pump Manual	311833		311826	
	Pump Lower Manual	311717		311825	
	Motor Manual	311238			
Inlet/Outlet	Pump Inlet Size	2 in npt(f)			
	Pump Outlet Size	1 1/2 in npt(m)			
Hoses	3/4 in x 4 ft Air Hose	110048			
	1 in x 6 ft Fluid Hose	115042			

*Graco recommends 20 CPM or less for supply applications

Grease Pumps Quick Reference

Technical Specifications and Selection Chart

	Annual Usage	Line Length [‡]	Dispense Points	Air Inlet	Material Inlet	Material Outlet
	LD Series, 50:1					
	7,000 lb (3,125 kg)	300 ft (91 m)	1 to 2	1/4 in npt(f)	Priming Piston	1/4 in npt(f)
	Mini Fire-Ball 225, 50:1					
	10,000 lb (4,535 kg)	100 ft (30 m)	1	3/8 in npt(f)	Slotted	1/4 in npt(f)
	Fire-Ball 300, 50:1					
	10,000 lb (4,535 kg)	250 ft (76 m)	1 to 2	3/8 in npt(f)	Slotted	1/4 in npt(f)
	Fire-Ball 425, 50:1					
	20,000 lb (9,072 kg)	250-500 ft (76-152 m)	4 or more	1/2 in npt(f)	Slotted	3/8 in npt(f)
	Fire-Ball 425, 75:1					
	20,000 lb (9,072 kg)	250-500 ft (76-152 m)	4 or more	1/2 in npt(f)	Slotted	3/8 in npt(f)
	Fire-Ball 300, 15:1					
	10,000 lb (4,535 kg)	250 ft (76 m)	1 to 2	3/8 in npt(f)	Slotted	1/4 in npt(f)
	Fire-Ball 425, 10:1					
	20,000 lb (9,072 kg)	250-500 ft (76-152 m)	4 or more	1/2 in npt(f)	Slotted	1 in npt(f)

[‡] Consult your local authorized Graco representative for line or pipe sizing

Grease Pumps Quick Reference

Technical Specifications and Selection Chart



Annual Usage	Line Length [‡]	Dispense Points	Pump Ratio(s)	Output Per Cycle	Fluids
Check-Mate, 14:1**					
20,000 lb (9,072 kg)	Up to 100 ft (76 m)	1	14:1	500 cc	Grease
Check-Mate, 26:1					
20,000 lb (9,072 kg)	Up to 250 ft (76 m)	1-2	26:1	500 cc	Grease
Check-Mate, 29:1					
20,000 lb (9,072 kg)	Up to 250 ft (76 m)	4 or more	29:1	250 cc	Grease
Check-Mate, 55:1					
20,000 lb (9,072 kg)	Up to 250 ft (76 m)	1-2	55:1	250 cc	Grease
Check-Mate, 63:1**					
20,000 lb (9,072 kg)	Up to 250 ft (76 m)	1-2	63:1	100 cc	Grease
Check-Mate, 68:1**					
20,000 lb (9,072 kg)	Up to 500 ft (152 m)	1-2	68:1	200 cc	Grease

[‡] Consult your local authorized Graco representative for line or pipe sizing
 **NXT Check-Mate pump is available in floor stand or RAM Package.

LD Series 50:1 Pump

Air-Powered Grease Pumps and Packages

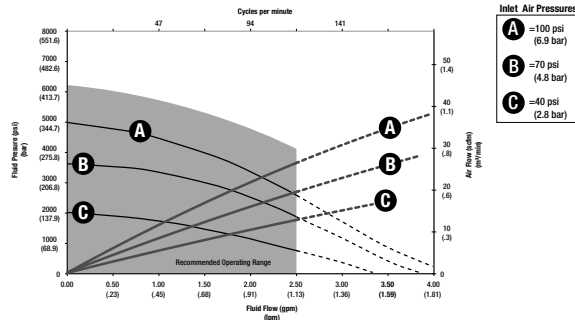
Features and Benefits

- Three inch air motor provides more power to create better flow
- Cup and plate design eliminates the need for O-rings that wear out faster

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Fast lube centers
- Service shops
- Lube trucks

Pump Performance



Technical Specifications

Maximum Fluid Working Pressure	7500 psi (517 bar, 51.7 MPa)
Fluid Pressure Ratio	50:1
Air Operation Range	20 to 150 psi (1.37 to 10.3 bar)
Recommended Air Pressure (for optimum life)	<125 psi (8.6 bar, 0.86 MPa)
Max Recommended Pump Speed	120 cycles per minute
Cycles Per Gallon/pound (l/kg)	247 cycles per pound (103 cycles per kg)
Recommended Pump Speed (for maximum life)60 cycles per minute or lower
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 pound drum—11.2 pounds (5.1 kg), 120 pound drum—15.0 pounds (6.8 kg), 400 pound drum— 17.0 pounds (7.7 kg)
Air Inlet	1/4 in
Fluid Inlet	Priming Piston
Fluid Outlet	1/4 in
Free Flow*	5 lb/min
Annual Usage	Up to 7,000 lb (3175 kg)

Ordering Information

LD Series 50:1 Pumps	
24G600	35 lb (16 kg) Grease Pump - 50:1
24G603	120 lb (55 kg) Grease Pump - 50:1
24G606	400 lb (180 kg) Grease Pump - 50:1



LD Series 50:1 Pump

Air-Powered Grease Pumps and Packages

LD Series Pump Packages and Accessories

Air-Powered Grease Pumps and Packages

Ordering Information

50:1 Grease Packages (drums not included)	
24J030	35# Portable Grease package includes: 50:1 35# (16 kg) Grease pump (24G600), 6 ft Grease hose kit (24H862), 35# follower plate (24F901), 35# Drum cover (24F904), Grease valve (242056), Z-swivel (202577)
24J036	120# Stationary Grease Package includes: 50:1 120# Grease pump (24G603), 6 ft Grease hose kit (24H862), 120# follower plate (24F902), 120# Drum cover (24F905), Grease valve (242056), Z-swivel (202577)
24J048	120# Mobile Grease Package includes: 50:1 120# pump (24G603), 6 ft hose kit (24H862), 120# follower plate (24F902), 120# Drum cover (24F905), 120# Cart (24H422), Grease valve (242056), Z-swivel (202577)
24J060	120# Mobile Grease Package with LD Reel. Includes: 50:1 120# Grease pump (24G603), 6 ft Grease hose kit (24J501), 120# follower plate (24F902), 120# Drum cover (24F905), 120# Cart (24H422), LD grease hose reel, 1/4" x 35" (24H663), Grease valve (242056), Z-swivel (202577)
24J042	400# Stationary Grease Package includes: 50:1 400# Grease pump (24G606), hose kit (24H862), 400# follower plate (24F903), 400# Drum cover (24F906), Grease valve (242056), Z-swivel (202577)
24J054	400# Mobile Grease Package. Includes: 50:1 400# Grease pump (24G606), 6 ft hose kit (24H862), 400# follower plate (24F903), 400# Drum cover (24F906), 400# Cart (24F915), Grease valve (242056), Z-swivel (202577)
24J066	400# Mobile Grease Package with and LD Reel. Includes: 50:1 400# Grease pump (24G606), 6 ft Grease hose kit (24J501), 400# follower plate (24F903), 400# Drum cover (24F906), 400# Cart (24F915), LD grease hose reel, 1/4" x 35" (24H663), Grease valve (242056), Z-swivel (202577)
Drum Covers	
24F904	Cover for 35 lb (16 kg) pails
24F905	Cover for open-head 120 lb drums
24F906	Cover for open-head 400 lb drums
24P623	Adjustable bung adapter for LD grease pumps
Follower Plates	
24F901	For 35 lb (16 kg) pails with LD 50:1 pumps
24F902	For 120 lb drum with LD 50:1 pumps
24F903	For 400 lb drums with LD 50:1 pumps
Hose and Fitting Kits	
24H862	6 ft LD pump grease hose kit. Includes 1/4" x 6' grease hose, 3/8" x 6 ft air hose, and fittings
Air Regulators	
24H420	Mini air pressure regulator with valve, 1/4 inch NPT x 3/8 inch NPT
Carts	
24F915	Drum cart with pneumatic wheels for 400 lb drums, includes chain for securing drum to cart
24H422	Drum cart with pneumatic wheels for 120 lb drums, includes chain for securing drum to cart



24J030



24J048



24J060



24J054



24J066



24F915



24H422



24F904



24F901



24P623



24J042

Mini Fire-Ball® 225, 50:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

- Grease up to NLGI #2

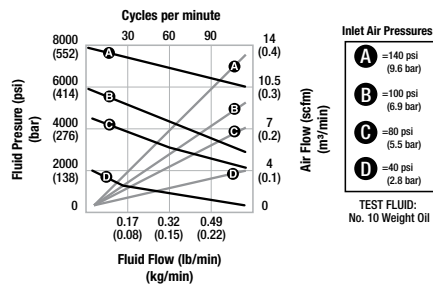
Technical Specifications

Continuous-Duty Flow Rate.....	0.32 lb/min (0.15 kg/min)
Maximum Fluid Pressure.....	8400 psi (578 bar)
Air Motor Effective Diameter.....	2.25 in (57.2 mm)
Operating Range.....	40-140 psi (3-10 bar)
Approximate Air Use.....	7.3 scfm @ 0.41 lb/min. (.18 kg/min) @ 100 psi @ 80 cpm
Wetted Materials.....	Steel, Urethane, Aluminum, Buna-N, Brass, Ethylene, Delrin®
Air Inlet Port Size.....	3/8 in npt(f)
Material Inlet.....	Slotted
Material Outlet.....	1/4 in npt(f)
Line Length‡.....	Up to 100 ft (30.5 m)
Dispense Points.....	1
Annual Usage.....	Up to 10,000 lb (4,535 kg)

Ordering Information

Mini Fire-Ball 225 50:1 Pumps	
246909	35 lb (16 kg) Grease Pump - 50:1
246780	120 lb (55 kg) Grease Pump - 50:1
246781	400 lb (180 kg) Grease Pump - 50:1

Pump Performance



Air-Powered Grease Pumps and Packages

Fire-Ball® 300, 15:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

- Grease up to NLGI #0

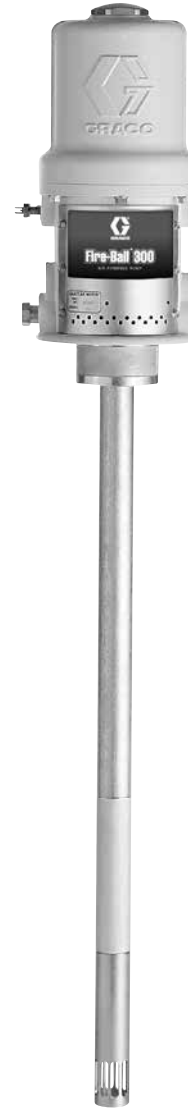
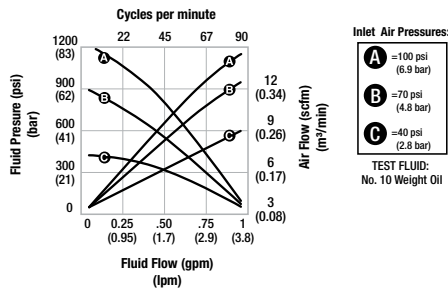
Technical Specifications

Continuous-Duty Flow Rate.....	0.7 gpm
Maximum Fluid Pressure.....	2700 psi (186 bar)
Air Motor Effective Diameter.....	3 in (7.6 cm)
Operating Range.....	40-180 psi (2.8-12.5 bar)
Approximate Air Use.....	17 cfm@ 100 psi (7 bar)
Wetted Materials.....	CS, AL, Leather, PTFE, Rubber
Air Inlet Port Size.....	3/8 in npt(f)
Material Inlet.....	1 in npt(f) Straight Inlet
Material Outlet.....	1/4 in npt(f)
Line Length‡.....	Up to 250 ft (76.2 m)
Dispense Points.....	1 to 2
Annual Usage.....	Up to 10,000 lb (4,535 kg)

Ordering Information

Fire-Ball 300 15:1 Pumps	
206405	35 lb (16 kg) Grease Pump - 15:1
206699	120 lb (55 kg) Grease Pump - 15:1
206700	400 lb (180 kg) Grease Pump - 15:1

Pump Performance



‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 300, 50:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

- Grease up to NLGI #2

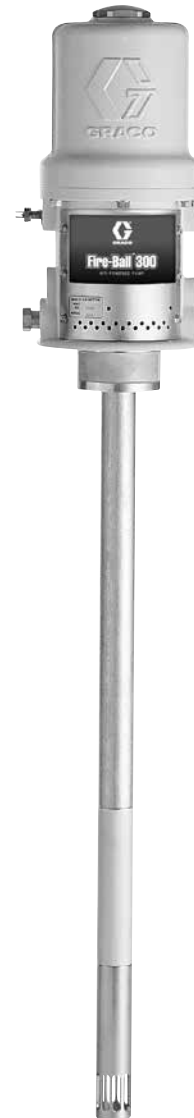
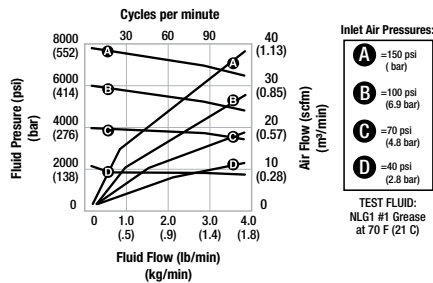
Technical Specifications

Continuous-Duty Flow Rate	1.19 lb/min. (.54 kg/min.)
Maximum Fluid Pressure	8400 psi (580 bar)
Air Motor Effective Diameter	3 in (76.2 cm)
Operating Range	30-140 psi (3.0-9.7 bar)
Approximate Air Use	22.8 cfm @ 100 psi (7 bar)
Wetted Materials	CS, Delrin®, Buna-N, Polyurethane
Air Inlet Port Size	3/8 in npt(f)
Material Inlet	Slotted
Material Outlet	1/4 in npt(f)
Line Length ‡	Up to 250 ft (76.2 m)
Dispense Points	1 to 2
Annual Usage	Up to 10,000 lb (4,535 kg)

Ordering Information

Fire-Ball 300 50:1 Pumps	
239877	35 lb or 70 lb (16 kg or 32 kg) Grease Pump - 50:1
239887	120 lb (55 kg) Grease Pump - 50:1
239888	400 lb (180 kg) Grease Pump - 50:1

Pump Performance



‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425, 10:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

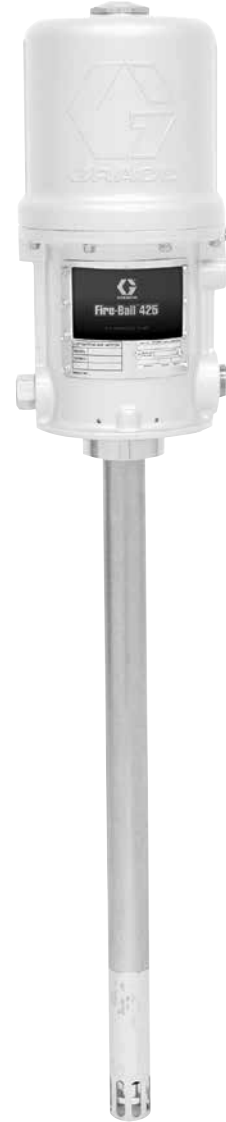
- Grease up to NLGI #2

Technical Specifications

Continuous-Duty Flow Rate.....	3.5 gpm
Maximum Fluid Pressure	1800 psi (124 bar)
Air Motor Effective Diameter.....	4.25 in (10.8 cm)
Operating Range	40-180 psi (2.8-12.5 bar)
Approximate Air Use	13 cfm @ 100 psi (7 bar)
Wetted Materials	Steel, Brass, Aluminum, Leather, Buna-N
Air Inlet Port Size	1/2 in npt(f)
Material Inlet	Slotted
Material Outlet.....	1 in npt(f)
Line Length‡	Up to 500 ft (152.4 m)
Dispense Points	4 or more
Annual Usage	20,000 lb or more (9,072 kg)

Ordering Information

Fire-Ball 425 10:1 Pumps	
965129	Fire-Ball 425, 10:1 pump complete with bung adapter. For open head drum, remove bung adapter and mount to 200326, 400 lb (180 kg) drum cover. Ideal for transferring grease from 400 lb (180 kg) drum or side pocket of tote tank. Can be modified for stubby horizontal mount on tote tanks. For more information contact Lubrication Equipment Technical Assistance
965124	Stubby mount Fire-Ball 425, 10:1 pump only



‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425, 50:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

- Grease up to NLGI #2

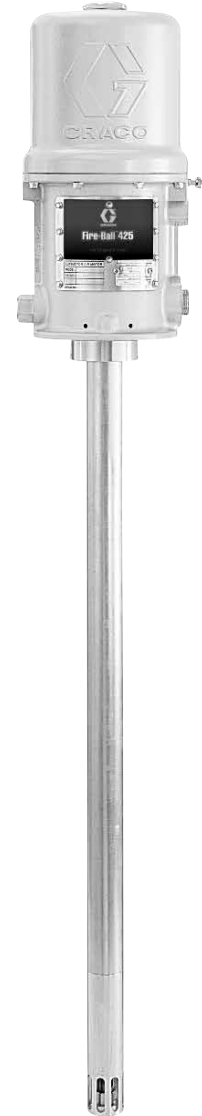
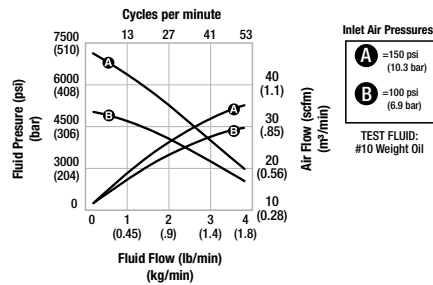
Technical Specifications

Continuous-Duty Flow Rate.....	3.35 lb/min (1.5 kg/min.)
Maximum Fluid Pressure.....	7500 psi (517 bar)
Air Motor Effective Diameter.....	4.25 in (10.8 cm)
Operating Range.....	40-150 psi (2.8-10.4 bar)
Approximate Air Use.....	19 cfm @ 70 psi (4.8 bar)
Wetted Materials.....	CS, Leather
Air Inlet Port Size.....	1/2 in npt(f)
Material Inlet.....	Slotted
Material Outlet.....	3/8 in npt(f)
Line Length‡.....	Up to 250 ft (76.2 m)
Dispense Points.....	4 or more
Annual Usage.....	20,000 lb or more (9,072 kg)

Ordering Information

Fire-Ball 425 50:1 Pumps	
205394	120 lb (55 kg) Grease Pump - 50:1
205395	400 lb (180 kg) Grease Pump - 50:1

Pump Performance



‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® 425, 75:1

Air-Powered Grease Pumps and Packages

Features and Benefits

- Priming piston pump in combination with the appropriate feeding technology provides positive pump feeding, even with viscous and/or tacky greases
- Non-corrosive air motor design for long life
- Double-acting pump ensures smooth fluid flow
- Robust grease inlet cage withstands the most abusive handling

Typical Applications

- Medium pressure, low to medium volume grease dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube and service centers
- Fleet service facilities
- Lube trucks
- Mining
- In-plant

Typical Fluids Handled

- Grease up to NLGI #2

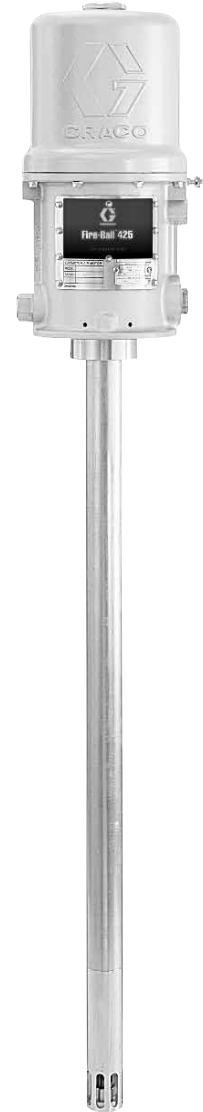
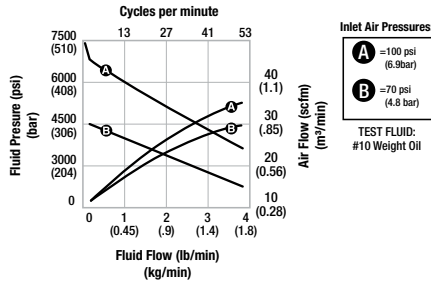
Technical Specifications

Continuous-Duty Flow Rate.....	1.95 lb/min (0.88 kg/min)
Maximum Fluid Pressure.....	7500 psi (517 bar)
Air Motor Effective Diameter.....	4.25 in (10.8 cm)
Operating Range.....	40-100 psi (2.8-7 bar)
Approximate Air Use.....	.26 cfm @ 100 psi (7 bar)
Wetted Materials.....	CS, Leather
Air Inlet Port Size.....	1/2 in npt(f)
Material Inlet.....	Slotted
Material Outlet.....	3/8 in npt(f)
Line Length‡.....	Up to 500 ft (152.5 m)
Dispense Points.....	4 or more
Annual Usage.....	20,000 lb or more (9,072 kg)

Ordering Information

Fire-Ball 425 75:1 Pumps	
239729	120 lb (55 kg) Grease Pump - 75:1
239730	400 lb (180 kg) Grease Pump - 75:1
239731	35/70 lb (16/32 kg) Grease Pump - 75:1

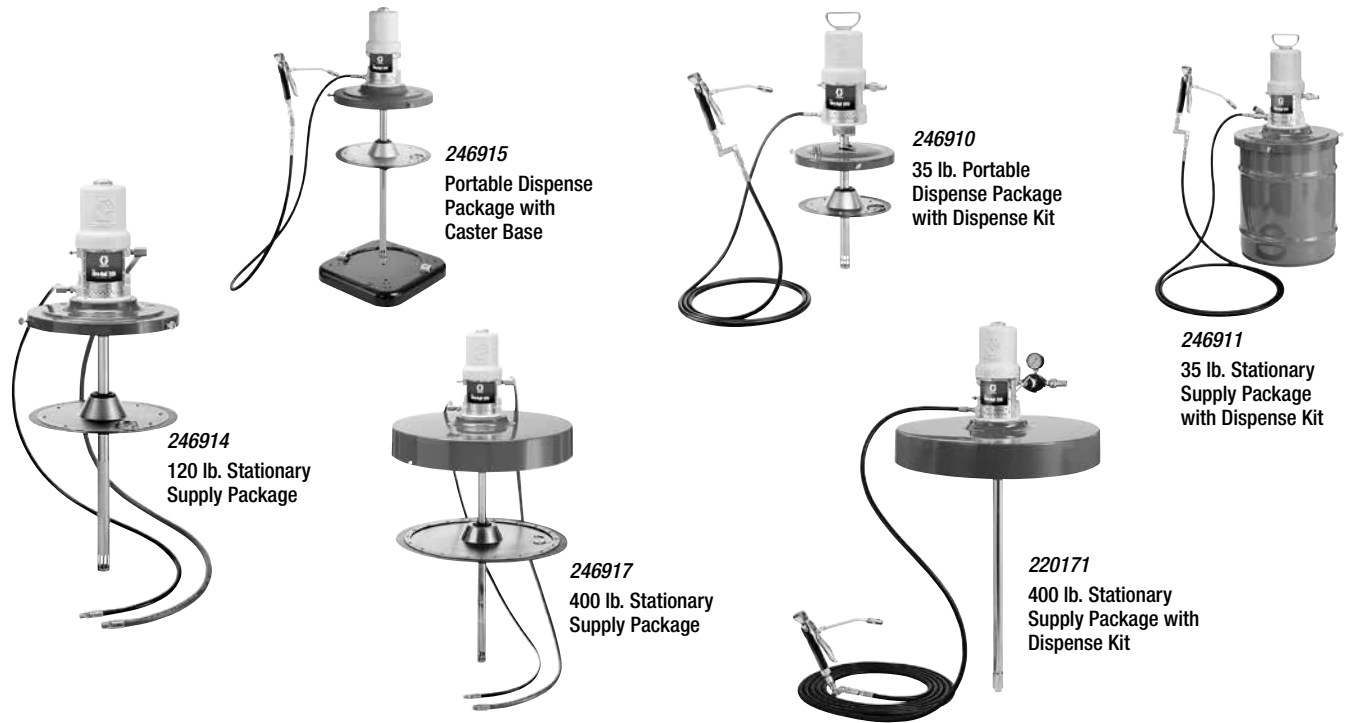
Pump Performance



‡ Consult your local authorized Graco representative for line or pipe sizing

Fire-Ball® Grease Pump Packages

Air-Powered Grease Pumps and Packages



Air-Powered Grease Pumps and Packages

Mini Fire-Ball® 225, 50:1 Grease Pumps and Packages

	Portable Pail Dispenser	Stationary Pail Dispenser	Cart-Mounted Pail Dispenser	Stationary Supply Package	Portable Package w/Caster Base	Portable Package w/2-Wheel Cart	Stationary Supply Package
Container Size	35 lb (16 kg) pail	35 lb (16 kg) pail or 70 lb (32 kg) bulk	35 lb (16 kg) pail or 70 lb (32 kg) bulk	120 lb (55 kg)	120 lb (55 kg)	120 lb (55 kg)	400 lb (180 kg)
Package No.	246910*	246911*	246913*	246914*	246915*	246916*	246917*
Pump	246909	246909	246909	246780	246780	246780	246781
Container	—	204134	204134	—	—	—	—
Follower Plate	24F901	**	**	24F902	24F902	24F902	24F903
Dispense Kit	236058***	236058***	236058***	—	236058***	236058***	—
Hose and Fitting Kit	—	—	—	222072†	—	—	222072†
Cover	222059	24R350	24R350	24R350	24R350	24R350	200326
Cart	—	—	203650	—	203622	203650	—
Manual	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.

***Kit 236058 includes: 12 ft (3.6 m) fluid hose (109151), air coupler (208536), air nipple (169971), grease dispense valve (242056), and z-swivel (202577).

†Kit 222072 includes: 6 ft (1.8 m) air hose (203320) with swivel elbow (155494) and 6 ft (1.8 m) fluid hose (109150) with swivel elbow (155541).

Fire-Ball® 300, 15:1 Grease Pumps and Packages

	Stationary Pail Dispenser	Stationary Drum Dispenser	Cover-Mounted Drum Dispenser
Container Size	35 lb (16 kg)	120 lb (55 kg)	400 lb (180 kg)
Package No.	222078	220170	220171
Pump	206405	206699	206700
Dispense Kit	222080†	222081§	222081§
Cover	222058	204574	200326
Manual	307882		

†Kit 222080 includes: 15 ft (4.6 m) fluid hose (109165), grease dispense valve (242056), z-swivel (202577), closed nipple (156849), quick-disconnect nipple (169971), quick-disconnect air coupler (110198), and air regulator (110234).

§Kit 222081 includes: 25 ft (7.6 m) fluid hose (109167), grease dispense valve (242056), z-swivel (202577), closed nipple (156849), quick-disconnect nipple (169971), quick-disconnect air coupler (110198), and air regulator (110234).

Fire-Ball® Grease Pump Packages

Air-Powered Grease Pumps and Packages

Air-Powered Grease Pumps and Packages

Fire-Ball® 300, 50:1 35-70 lb (16-32 kg) Grease Pumps and Packages

	Portable Pail Dispenser	Stationary Pail Dispenser	Cart-Mounted Pail Dispenser	Cart-Mounted Pail Topper
Container Size	35 lb (16 kg)	35 lb or 70 lb (16 kg or 32 kg)	35 lb or 70 lb (16 kg or 32 kg)	35 lb (16 kg)
Package No.	222069*	225827*	225773*	226012*
Metered Package**	245694	—	245695	—
Pump No.	239877			
Dispense Kit	222070			
Fluid Hose	12 ft x 1/4 in (3.7 m x 6.4 mm)			
Follower Plate	24F901	†	†	—
Cover	222059	24R350		—
Holster	—	203976		
Container	—	204134	204134	—
Cart	—	—	203650	
Elevator	—	—	—	203664
Inductor Plate	—	—	—	204351
Instruction Manual	307878			

*Use 3/8 in (9.5 mm) air regulator 109075; must be ordered separately **Metered grease package includes 233807 Accu-Shot instead of 242056 Pro-Shot. †Order follower plate 220653 for 35 lb (16 kg) containers, and follower plate 220654 for 70 lb (32 kg) containers; must be ordered separately



Fire-Ball® 300, 50:1 Packages For 120 lb (55 kg) Containers

	Portable with Caster Base	Portable with Two-Wheel Cart	Portable with Heavy-Duty Cart	Stationary Supply	Stationary Supply Topper-Inductor
Container Size lb (kg)	120 (55)	120 (55)	120 (55)	120 (55)	120 (55)
Package Number	225006 *	225026 *	222245 *	225014 *	222073 *
Metered Package	—	245696 **	—	—	—
Pump Only	239887	239887	239887	239887	239887
Dispense Kits	222070	222070	222383	222072	-
Fluid Hose	12 ft x 1/4 in (3.7 m x 6.4 mm)	—	25 ft x 1/4 in (7.6 m x 6.4 mm)	6 ft x 1/4 in (1.8 m x 6.4 mm)	6 ft x 1/4 in (1.8 m x 6.4 mm)
Air Hose	—	—	—	6 ft x 3/8 in (1.8 m x 9.5 mm)	6 ft x 3/8 in (1.8 m x 9.5 mm)
Follower Plate	24F902	24F902	24F902	24F902	—
Cover	24R350	24R350	222060	24R350	—
Holster	203976	203976	—	—	—
Caster Base	203622	—	—	—	—
Cart	—	203650	222243	—	—
Elevator	—	—	—	—	204121
Pump Support	—	—	—	—	222074†
Hold Down Kit	—	—	222061	—	—
Instruction Manual	307878	307878	307878	307880	306523

* Use 3/8 in (9.5 mm) air regulator 109075; must be ordered separately ** Metered grease package includes 233807 Accu-Shot instead of 242056 Pro-Shot † Pump support assembly includes dust cover, base, inductor plate and 6 ft (1.8 m) fluid and air hose

Fire-Ball® Grease Pump Packages

Air-Powered Grease Pumps and Packages

Fire-Ball® 300, 50:1 Packages for 400 lb (180 kg) Containers

	Stationary	Topper-Inductor
Container Size lb (kg)	400 (180)	400 (180)
Package Number	225016*	226013*
Pump Only	239888	239888
Hose and Fitting Kit	222072	204467
Fluid Hose	6 ft (1.8 m) x 1/4 in (6.4 mm)	6 ft (1.8 m) x 1/4 in (6.4 mm)
Air Hose	6 ft (1.8 m) x 3/8 in (9.5 mm)	6 ft (1.8 m) x 3/8 in (9.5 mm)
Follower Plate	24F903	—
Cover	200326	—
Carriage	—	204461
Elevator	—	204385
Inductor Plate	—	204353
Base	—	205339
Instruction Manual	307880	306556

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



225016
400 lb. Stationary
Supply Package



226013
400 lb. Stationary
Supply with
Topper-Inductor



223108
Stationary Supply
Package



226018
400 lb. Stationary
Supply with
Topper-Inductor

Fire-Ball® 425, 10:1 Packages

10:1 Pump for Closed Head Drum for 400 lb (180 kg)

965129	Fire-Ball 425, 10:1 pump complete with bung adapter. For open head drum, remove bung adapter and mount to 200326, 400 lb (180 kg) drum cover. Ideal for transferring grease from 400 lb (180 kg) drum or side pocket of tote tank. Can be modified for stubby horizontal mount on tote tanks. For more information contact Lubrication Equipment Technical Assistance
--------	---

Fire-Ball 425, 10:1 Pump Only

965124	Fire-Ball 425, 10:1 pump only, Stubby Universal Mount
--------	---

Fire-Ball® 425, 50:1; Bulldog® 3:1 Packages for 120-400 lb (56-180 kg) Containers

Description	Stationary Supply	Stationary Supply	Stationary Supply Topper-Inductor	Ram	Bulldog 3:1 (Sinker)
Container Size lb (kg)	120 (55)	400 (180)	400 (180)	400 (180)	400 (180)
Package Number	223108*	225781*	226018*	244905	244848
Pump Only	205394	205395	205395	205395	205148
Air Hose Kit	222076	222076	205102	222076	208610
Fluid Hose	6 ft x 3/8 in (1.8 m x 9.5 mm)				
Air Hose	6 ft x 1/2 in (1.8 m x 12.7 mm)				
Cover	204574	200326	—	—	—
Follower Plate	223344	223846	—	—	—
Carriage	—	—	204461	—	—
Elevator	—	—	204385	—	—
Inductor Plate	—	—	205699	—	222404
Base	—	—	205339	—	—
Ram	—	—	—	257435	—
Air Regulator	—	—	—	**	207651
Adapter Plate	—	—	—	162225	—
Adapter Kit	—	—	—	224266	—
Manual	307880	307880	306556	309345	309345

* Use 1/2 in (12.7 mm) air regulator 104266 and gauge 100960; must be ordered separately For Fire-Ball 425, 50:1 Lube Truck Packages, see the Specialty Pump Section. **Regulator included in Ram air control for 244905.

Fire-Ball® Grease Pump Packages

Air-Powered Grease Pumps and Packages

Fire-Ball® 425, 75:1 Packages for 35-400 lb (16-180 kg) Containers

Description	Cover-Mount	Cover-Mount	Inductor	Ram	Pail Length	Bung or Cover
Container Size lb (kg)	120 (55)	400 (180)	400 (180)	400 (180)	35/70 lb (16/32 kg)	400 (180)
Package Number	244635*	244636*	244637*	244906	—	—
Pump Only	239729	239730	239730	239730	239731	239730
Hose and Fitting Kit	222076	222076	205102	222076		—
Drum Cover	204574	200326	—	—	204574	—
Follower Plate	223344	223846	—	—	**	—
Carriage	—	—	204461	—	—	—
Elevator	—	—	204385	—	—	—
Base	—	—	205339	—	—	—
Inductor	—	—	205699	—	—	—
Ram	—	—	—	—	—	—
Air Regulator	—	—	—	244844	—	—
Adapter Plate	—	—	—	162225	—	—
Adapter Kit	—	—	—	224266	—	—
Manual	307880	307880	306556	309345	—	—

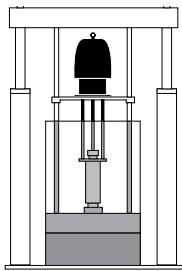
* Use 1/2 in (12.7 mm) air regulator (104266) and gauge (100960); must be ordered separately ** 35 lb: 220653/ 70 lb: 223344 • For Lube Truck Packages, see the Specialty Pumps and Packages Solution Section

RAM Assemblies

Description	Fire-Ball 300, 50:1	Fire-Ball 425, 75:1	Fire-Ball 425, 50:1	Fire-Ball 425, 10:1	Bull Dog, 3:1†
System Package	*	244906	244905	*	244641
Bare Pump	239888	239730	205395	965129	205148
Ram	257435	—	257435	—	—
Pump Mount Kit	247336	247337	247337	247337	—
Adapter Kit	224267	224266	224266	not needed	—
Air Regulator and Gauge	203716	244844	**	207468	207651
Ram Plate Seal Kit	247335	247335	247335	247335	224829
Air Hose 3/4 in x 6 ft	—	—	—	—	208610

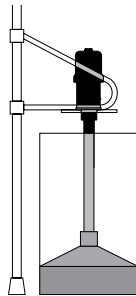
*Order individual components. **Regulator included in Ram air control for 244905. †Drum clamp when required 206537.

Drum Systems



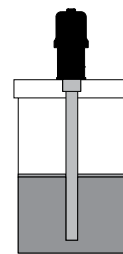
Ram-Mount

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



Inductor-Mount

- Reduce waste
- Clean and convenient method of drum change



Cover-Mount with Follower Plate

- Economical

Fire-Ball® Grease Pump Accessories

Air-Powered Grease Pumps and Packages

Dispense, Hose and Fitting Kits		
Rated to 4,000-5,000 psi (345 bar) for Portable Fire-Ball 300, 50:1 or Mini Fire-Ball 225, 50:1 Pumps		
222080	For Fire-Ball 300, 15:1. Includes: 15 ft (4.6 m) of 4,000 psi, 3/8 in (9.5 mm) fluid hose (109165), grease dispense valve (242056), z-swivel (202577), 3/8 in (9.5 mm) closed nipple (156849), quick-disconnect nipple (169971), quick-disconnect air coupler (110198) and 3/8 in (9.5 mm) air regulator (110234)	
222081	For Fire-Ball 300, 15:1. Includes: 25 ft (7.6 m) of 4,000 psi, 3/8 in (9.5 mm) fluid hose (109167), grease dispense valve (242056), z-swivel (202577), 3/8 in (9.5 mm) closed nipple (156849), quick-disconnect nipple (169971), quick-disconnect air coupler (110198) and 3/8 in (9.5 mm) air regulator (110234)	
236058	For Mini Fire-Ball 225, 50:1. Includes: 12 ft (3.6 m) fluid hose (109151), air coupler (208536), air nipple (169971), grease dispense valve (242056) and z-swivel (202577)	
222070	For Fire-Ball 300, 50:1. Includes: 12 ft (3.6 m) fluid hose (109151), air coupler (208536), air nipple (169971), grease dispense valve (242056) and z-swivel (202577). Instruction manual 307878	
222383	For Portable Units Powered by the Mini Fire-Ball 225, 50:1 or Fire-Ball 300, 50:1 pumps. Includes dispense kit: grease dispense valve (242056), 25 ft (7.6 m) fluid hose (109154), air coupler (208536), air nipple (169971) and z-swivel (202577). Instruction manual 307878	
Hose and Fitting Kits		
Rated to 5000 psi (345 bar) for Stationary Drum-Mounted Fire-Ball 300, 50:1 Pumps		
222072	Hose and Fittings Kit. Includes 6 ft (1.8 m) air hose (203320) with swivel elbow (155494) and 6 ft (1.8 m) fluid hose (109150) with swivel elbow (155541). Instruction manual 307880	
Rated to 4000 psi (276 bar) for Stationary Drum-Mounted Fire-Ball 425, 50:1 Pumps		
222076	Hose and Fittings Kit. Includes 6 ft (1.8 m) air hose (205418) with swivel elbow (155470) and 6 ft (1.8 m) fluid hose (109163) with swivel elbow (155494). Instruction manual 307880	
Bung Adapters		
239965	For Fire-Ball 425, 50:1 and 75:1 Pumps, 1.65 in ID	
239966	For Fire-Ball 300, 15:1 and 50:1 Pumps	
Lincoln-to-Graco Adapter Kit		
241246	For Fire-Ball 300, 50:1 when replacing a Series 20 Lincoln	
Flange Mounting Accessories for Fire-Ball Pumps		
948393	Flange adapter (male) Fire-Ball 300	
948392	Flange adapter (male) Fire-Ball 425	
512874	Coupler (female)	
Follower Plates		
24F901	LD	For 35 lb (16 kg) pails with LD 50:1; Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps
24F902		For 70 and 120 lb (32/55 kg) drum with LD 50:1; Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps
24F903		For 400 lb (180 kg) drum with LD 50:1; Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps, 1.19 in ID
220653	SD	For 35 lb (16 kg) pails with Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps
220654		For 70 and 120 lb (32/55 kg) drum, Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps
223845		For 400 lb (180 kg) drum, Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1 pumps, 1.19 in ID
204130		Follower plate same as 223845, but without flexible wiper
223344	D	For 120 lb (55 kg) drums with Fire-Ball 425, 50:1 and 75:1 pumps
223700		For 120 lb (55 kg) drums with Dyna-Star 5:1 pumps
223701		For 400 lb (180 kg) drums with Dyna-Star 5:1 and Fire-Ball 425, 10:1 pumps, 2.1 in ID
223846		For 400 lb (180 kg) drums with Fire-Ball 425, 50:1 and 75:1 pumps, 1-13/32 in ID
205337		Follower plate same as 223846, but without flexible wiper
Drum Covers		
200326	Cover for open-head 400 lb (180 kg) drums. Use with any Mini Fire-Ball 225, 50:1; Fire-Ball 300, 15:1 and 50:1; Fire-Ball 425, 10:1; or Dyna-Star 5:1 pump. Use adapter 160754 for bung mounted pumps	
204574	SD Cover for open-head 120 lb (55 kg) or 70 lb (32 kg) drums. Mounts Mini Fire-Ball 225, Fire-Ball grease pumps or Dyna-Star 5:1 pump. Use adapter 160754 for bung mounted pumps	
24R350	LD Cover for open-head 120 lb (55 kg) or 70 lb (32 kg) drums. Mounts Mini Fire-Ball 225, Fire-Ball grease pumps or Dyna-Star 5:1 pump. Use adapter 160754 for bung mounted pumps	
222059	Cover for 35 lb (16 kg) pails. Mounts Mini Fire-Ball 225, 50:1 and Fire-Ball 300, 50:1 pumps using friction-style clutch lock. Allows use of 70 lb (32 kg) length pump with 35 lb (16 kg) pail	
160754	Bung-adapter plate. Mounts to standard 400 lb (180 kg) or 120 lb (55 kg) drum cover and converts mounting to standard 2 npt bung opening. Allows use of bung-mounted pumps with drum covers	



24F901



204574



200326



222059



160754

Fire-Ball® Grease Pump Accessories

Air-Powered Grease Pumps and Packages

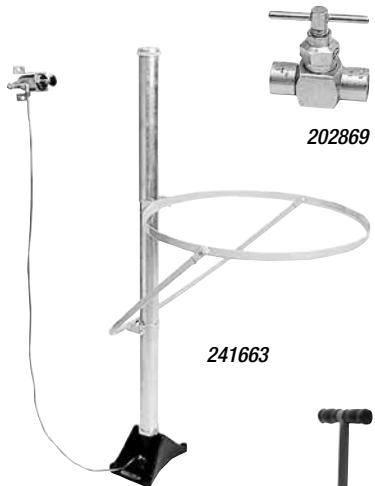
Portable Bases	
205054	Band Dolly for 35 lb (16 kg) pails
204144	Band Dolly Base for 70 lb (32 kg) or 120 lb (55 kg) drums
203622	Caster Base for 35 lb (16 kg), 70 lb (32 kg) or 120 lb (55 kg) drums
Carts	
203650	For 35 lb (16 kg), 70 lb (32 kg) and 120 lb (55 kg) drums. Drums fit onto recess on formed base. Rim clamps secure drum onto cart. Use with pail clamp 159952 when using cart with 35 lb (16 kg) pails
222243	For 120 lb (55 kg) drums with pneumatic wheels for rough terrain
111470	Heavy-duty drum truck for 400 lb (180 kg) drums secures drum onto roll-around base
Drum Elevators	
241663	Air-Powered Elevator to speed drum changes. Maximum raised height: 39.5 in (100.33 cm). Includes: Cover Support (207562), Drum Elevator, (204385), Air Control Kit (207561)
Air Shut-Off Valves, Bleed-type, rated to 250 psi (17.4 bar)	
110223	1/4 in (6.4 mm)
110224	3/8 in (9.5 mm)
110225	1/2 in (12.7 mm)
110226	3/4 in (19.1 mm)
High-Pressure Grease Shut-Off Valves	
202869	5000 psi (345 bar) high-pressure needle valve, 1/2 npt(f) ported valve for drop-line isolation



204144



203622



241663



202869



111470



203650

NXT™ Check-Mate® Packages

Air-Powered Grease Pumps and Packages

Ordering Information

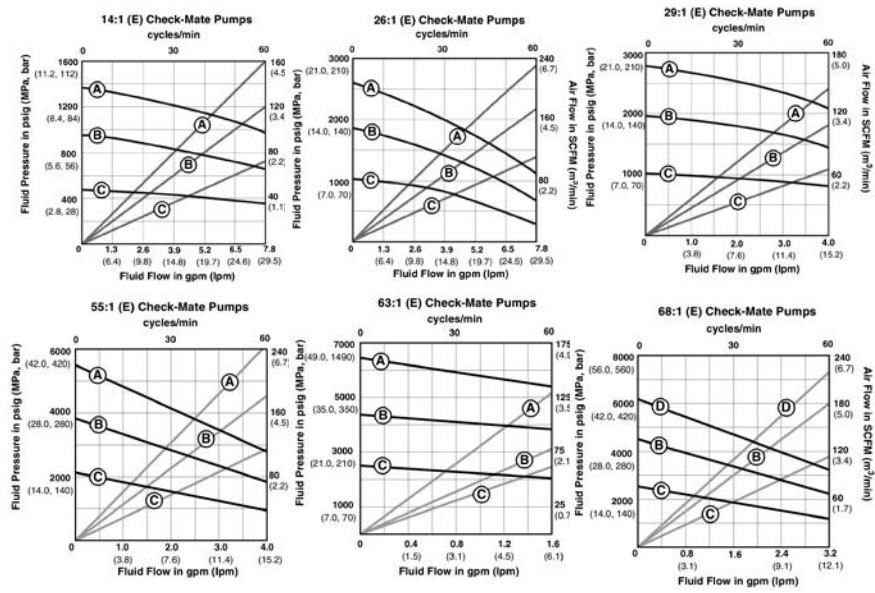
Package Number with DataTrak	247973	247976	247974	247977	247975	247978
Package Number without DataTrak	24E006	24E007	24E008	24E009	24E010	24E011
Ratio	14:1	26:1	29:1	55:1	63:1	68:1
Pump with DataTrak	P14MCS	P26MCS	P29MCS	P55MCS	P63MCS	P68MCS
Pump w/o DataTrak	P14DCS	P26DCS	P29DCS	P55DCS	P63DCS	P68DCS
Mounting	Floor Stand (223952)					
3/4 in x 6 ft Air Hose	208610					
1 in x 6 ft Fluid Hose	115042	244657				
System Manual	312863					
Pump Manual	312376					
Pump Lower Manual	312375					
Motor Manual	311238					

Note: Graco recommends 20 cpm or less for supply applications

Performance Charts

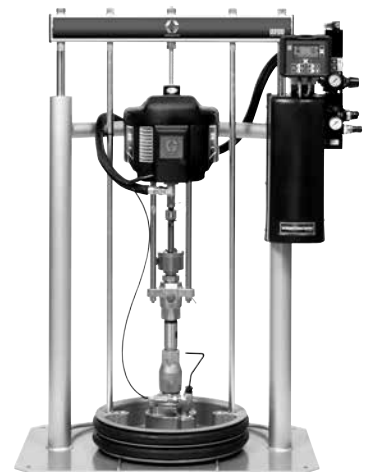
A = 100 psi (7 bar) C = 40 psi (2.8 bar)
 B = 70 psi (5.0 bar) D = 90 psi (6.3 bar)

Test Fluid : #10 Weight Oil for all pumps



Ordering Information

NXT Check-Mate RAM Packages			
Ratio	14:1	63:1	68:1
Package Number with DataTrak	247979	247980	247981
Package Number without DataTrak	24E780	24E781	24E782
Mounting	RAM System		
Operation Manual	312863		



Air-Powered Grease Pumps and Packages

Fire-Ball® Lube Truck Oil and Grease Packages

Air-Powered Specialty Pumps and Packages

Air-Powered Specialty Pumps and Packages

Oil Package Selection and Ordering Information

	Fire-Ball 300 Cover-Mounted Package	Fire-Ball 300 Cover-Mounted Package	Fire-Ball 300 Bung-Mounted Package	Fire-Ball 425 Cover-Mounted Package	Fire-Ball 425 Bung-Mounted Package	
Ratio	5:1			10:1		
Container Size	16 gal (60 l) Open-head	55 gal (200 l) Closed-head*			55 gal (200 l) Closed-head*	
Package Number	222086	206655	204264	206656	222067	
Pump Only	203872	203857	204254	222065	222095	
Hose/Fitting Kit	222063			222066		
Hose Length	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	6 ft (1.8 m)	
Air Regulator	(1)	(1)	(1)	(2)	(2)	
Hold-Down Kit	222061	207361				
Drum Cover	222060	207367	-	207367 ⁽³⁾	-	
Bung Adapter	-	-	204076 (2.140 in Dia.)	-	224579 (2.159 in Dia.)	
Pump Clamp	-	-	204095	-	204095	
Instruction Manual	307883					

* For closed-head drums, pump mounts off-center on drum cover. Pump draws through standard 2 npt bung opening and is equipped with grommet for rain-tight seal to the drum cover.

⁽¹⁾ Order 3/8 in (9.5 mm) air regulator and gauge separately, (109075).

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

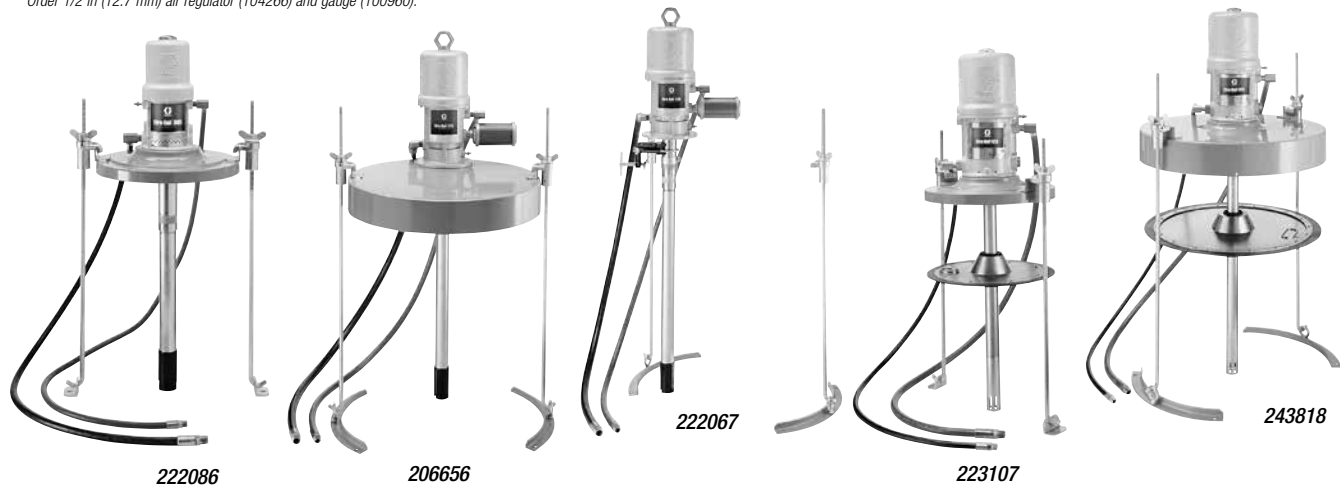
⁽³⁾ Off set drum cover

Grease Package Selection and Ordering Information

	Fire-Ball 300 Cover-Mounted Package	Fire-Ball 300 Cover-Mounted Package	Fire-Ball 425 Cover-Mounted Package	Fire-Ball 425 Cover-Mounted Package	Fire-Ball 425 Cover-Mounted Package	Fire-Ball 425 Cover-Mounted Package
Ratio	50:1				75:1	
Container Size	120 lb (55 kg) Open-head	400 lb (180kg) Open-head	120 lb (55 kg) Open-head	400 lb (180 kg) Open-head	120 lb (55 kg) Open-head	400 lb (180 kg) Open-head
Package Number	222085	222071	223107	222075	243817	243818
Pump Only	239887	239888	205394	205395	239729	239730
Hose/Fitting Kit	222072			222076		
Hose Length	6 ft (1.8 m)					
Air Regulator	*		**			*
Hold-Down Kit	222061	207361	222061	207361	222061	207361
Drum Cover	222060	207366	222060	207366	222060	207366
Follower Plate	220654	223845	223344	223846	223344	223846
Instruction Manual	307880					

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

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



Fire-Ball® 300, 15:1 Undercoating/Rust-Proofing Packages

Air-Powered Specialty Pumps and Packages

Features and Benefits

- Available in carbon steel for petroleum-based or SST for water-based materials
- Durable air motor provides trouble-free operation

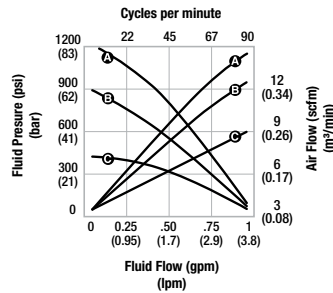
Typical Applications

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

Typical Fluids Handled

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

Pump Performance



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

Maximum Fluid Pressure.....	2700 psi (186 bar)
Effective Air Motor Diameter	3 in (76.2 mm)
Operating Range.....	40-180 psi (2.8-12.5 bar)
Continuous-Duty Flow Rate.....	0.7 gpm (2.7 lpm)
Approx. Air Consumption @ 100 psi (7 bar).....	17 cfm
Air Inlet	3/8 npt(f)
Material Outlet.....	1/4 npt(f)
Material Inlet for Non-SST Pump	1 npt (straight inlet)
Material Inlet for 224825 (SST Pump)	1 npt (barbed inlet)
Wetted Parts for Non-SST Pump	CS, Aluminum, PTFE, Rubber
Wetted Parts for SST pump	SST, Aluminum, Leather, PTFE, Rubber
Instruction Manual for non-SST Pump	306531
Instruction Manual for SST Pump.....	308069

Ordering Information

Style	Undercoating			Spray Masking
	Portable	Portable Dolly-Mounted	Stationary	Bung-Mounted Stationary
Container Size	35 lb (16 kg)	120 lb (54 kg)	400 lb (180 kg)	400 lb (180 kg)
Package Number	222077	226342	226269	224826*
Pump Only	206405	206699	206700	224825 (SST pump)
Dispense Kit	222079	222079	222082	224023
Tip	286517			286211 / 286621
Hose Length	15 ft (4.6 m)	15 ft (4.6 m)	25 ft (7.6 m)	25 ft (7.6 m)
Cover	222058	204574	200326	-
Caster Base	-	204144	-	-
Instruction Manual	307879/306531			308069

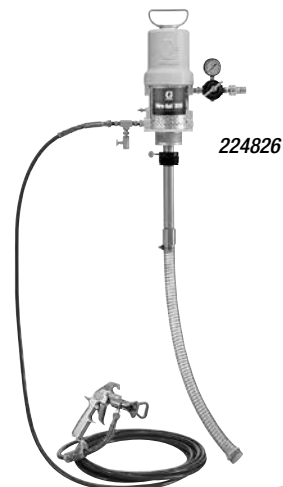
* Package 224826 includes flexible short tube (224022) long enough for 400 lb (180 kg) container, but can be trimmed to accommodate smaller containers.

214570	60-mesh Aluminum filter (3/8 npt(f) inlet; 1/4 npt(f) outlet). Max. working pressure: 3000 psi (210 bar)
--------	--

Replacement Screen Elements (SST) 3-pack/25-pack

224458/238436 30-mesh | 224459/238438 60-mesh | 224468/238440 100-mesh

202577	Z-Swivel allows non-binding movement for hard-to-reach spots. Order 155570 adapter separately to accommodate 234237 gun
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
234237	4 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" (mbe) hose
239966	Bung Adapter



Bulldog® 43:1 Hydraulic Supply Pump

Air-Powered Specialty Pumps and Packages

Features and Benefits

- Compact, low-profile design makes installation easier
- Corrosion resistant – lightweight aluminum construction
- Reliable – tested to 10 million cycles without failure
- Added safety – grounded lug prevents static build-up

Typical Applications

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

Typical Fluids Handled

- Hydraulic oil

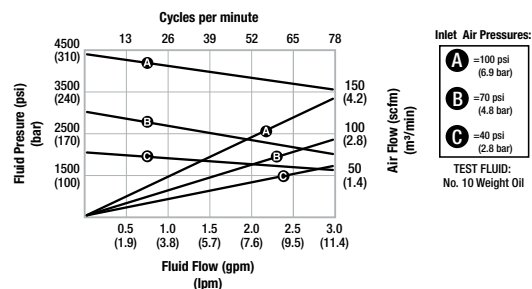
Technical Specifications

Maximum Operating Pressure.....	4300 psi (301 bar)
Maximum Air Input Pressure.....	100 psi (7 bar)
Air Inlet	3/4 npsm(f)
Fluid Inlet	1 npt(f)
Fluid Outlet.....	3/4 npt(f)
Wetted Parts.....	CS, SST, Chrome Plating, Zinc Plating, Nickel Plating, Brass, Buna-N
Instruction Manual	307714



218334

Pump Performance

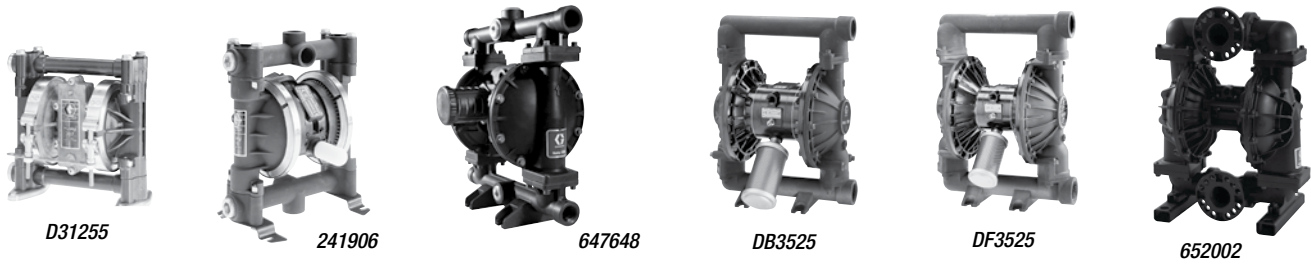


Ordering Information

218334	43:1 Bulldog Hydraulic Supply Pump
Air Pressure Regulators	
206197	1/2 inch npt inlet and outlet
207755	3/4 inch npt inlet and outlet
Air Line Filters	
106149	1/2 inch npt inlet and outlet
106150	3/4 inch npt inlet and outlet
Bleed-Type Master Air Valve	
107142	1/2 inch npt inlet and outlet
Grounding Clamp and Wire	
103538	Grounding clamp
222011	Ground wire
Air Line Lubricator	
214848	1/2 inch npt inlet and outlet
214849	3/4 inch npt inlet and outlet

Diaphragm Pumps and Accessories

Air-Operated Double Diaphragm Transfer Pumps



Ordering Information and Technical Specifications

Key	OT = Oil Transfer	OE = Oil Evacuation	WA = Water, Anti-Freeze	FD = Fuel Dispense (with 50 psi relief valve)	FT = Fuel Transfer	WWS = Windshield Wash Solution						
Body/Diaphragm Description	Part Number	Typical Application	Max. Air SCFM	Air Inlet NPT	Max. psi (bar)	Fluid Inlet/Outlet	Free Flow gpm (lpm)	Air Valve Replacement Kit	Kits (Seats, Balls, Diaphragms)	Diaphragm Kit	Manual	
307 3/8 in Diaphragm Pump Acetal/TPE	D31255	OT, WA, WWS	7 ⁽¹⁾	1/4	100 (7.0)	3/8	7 (31.8)	239952	D03255	D03005	308553	
515 1/2 in Diaphragm Pump Acetal/Buna Dual Inlet	243669	50/50 WWS, WA	28 ⁽¹⁾	1/4	100 (7.0)	3/4 / 1/2	15 (57)	241657	D05277	D05007	309204	
716 3/4 in Diaphragm Pump Aluminum/Buna N	241906	OT, OE, WA, WWS	28 ⁽¹⁾	1/4	100 (7.0)	3/4	16 (61)	241657	D05277	D05007	308573	
1 in Diaphragm Pumps 1050A Aluminum/TPE (UL)	647016	WA, FT <i>(leaded fuel only)</i>	64 ⁽¹⁾	1/2	100 (7.0)	1	50 (189)	24B766	Seats-24B634 and Balls-24B639	24B624	313597	
1050A Aluminum/TPE (UL)	647648	FD	25 ⁽⁴⁾	1/2	50 (3.4)	1	38 (144)				313597	
1050A Aluminum/Buna N (UL)	647731	OT, OE, WA	64 ⁽¹⁾	1/2	100 (7.0)	1	50 (189)				Seats-24B632 Balls-24B639	313597
1590 1-1/2 in Diaphragm Pump Aluminum/TPE	DB3525	OT, OE, WA	125 ⁽³⁾	1/2	120 (8.3)	1 1/2	100 (378.5)	236273	D0B525	D0B005	308441	
2150 2 in Diaphragm Pump Aluminum/TPE	DF3525	OT, OE, WA	175 ⁽³⁾	1/2	120 (8.3)	2	150 (567)	236273	D0F525	D0F005	308368	
3300 3 in Diaphragm Pump Aluminum/TPE	652002	OT, OE, WA	335 ⁽²⁾	3/4	125 (8.6)	3	300 (1,135)	24K855	Seats-24K932 Balls-24K937	24K901	3A0410	

NOTE: All pumps are 1:1 ratio ⁽¹⁾Max air use at 100 psi (7.0 bar) ⁽²⁾Max air use at 125 psi (8.6 bar) ⁽³⁾Max air use at 120 psi (7.0 bar) ⁽⁴⁾Max air use at 50 psi (3.5 bar)

Mounting Accessories

Pump	307	515/716	1050	1590	2150	3275
Air Line Filter	110146		106148	106149	106150	106150
Air Regulator and Gauge	110147	110147	244844	202858	206199	207651
Air Quick-Connect Coupler	208536, 1/4 npt(f)		110199, 1/2 npt(f)			N/A
Air Quick-Connect Nipple	169970, 1/4 npt(m)		110196, 1/2 npt(f)			N/A
Bleed Type Air Valve	110223		110224	110225		110226
Wall Bracket	224835		24C637	N/A	N/A	N/A
Thermal Relief Kit	238899	238428		N/A	N/A	N/A
Thermal Relief Valves 150 psi (10.3 bar)	113497 al/bn, 112119 ss/ft		113497 al/bn, 112119 ss/ft			
Grounding Wire and Clamp	222011					
Suction Hose Kit	236054			N/A	N/A	N/A
Flange Adapter Kit	N/A	N/A	N/A	N/A	N/A	N/A
Dual Inlet Manifold	N/A	243669*	24D205	N/A	N/A	N/A
Instruction Manual	308553	308573 and 308981	308326 and 308479	308441	308368	308639

*Includes the dual inlet manifold.

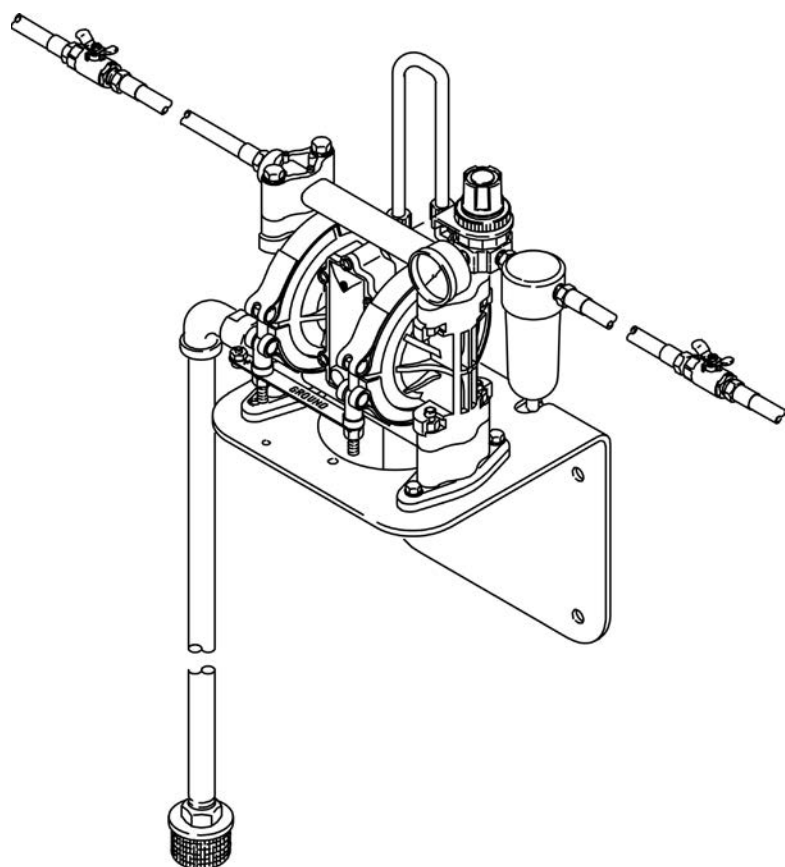
Windshield Wash and Coolant Dispense

Diaphragm Pump Specialty Packages

Packages for Pre-Mixed Windshield Wash Solvent and Coolant Dispense

307 Air-Operated Double-Diaphragm Pump

237161	Complete package includes the following: 307 Diaphragm Pump (D31255), 6 ft (1.8 m) air hose (109125), 4 ft (1.2 m) coupled nitrile fluid hose (220596), air filter (110146), air gauge (108190), air line fitting (111511), 1/4 npt air regulator (110318), elbow (100611), 15 in (381 mm) 3/8 in ID tube, (187479), mounting bracket (190125), adapter (156022), 1/4-18 npt nipple (156971), suction hose kit (223888), 6 ft (1.8 m) coupled PVC hose and 304 SST 16 mesh strainer, wall bracket (224835)
237160	Includes all items listed above except diaphragm pump and wall bracket



Bulk Anti-Freeze and Windshield Solvent Transfer Packages

Description	1050 AODD	1050 AODD	515 AODD	716 AODD
	Dual Inlet	Single Inlet	Dual Inlet	Single Inlet
Package Number	244679	244680	244681	244682
Pump	647731	647731	243669	241906
Air Regulator	109075	109075	110147	110147
Fluid Connect Hose	115042	115042	109105	109105
Air Connect Hose	205418	205418	109125	109125
Air Shut-off Valve	110224	110224	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	113497	113497
Instruction Manual	309353	309353	309353	309353

Fast-Flo® 1:1

Transfer Pumps and Accessories

Features and Benefits

- Differential air motor for smooth operation and reliability
- Stainless steel models available for corrosion resistance

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
- Anti-freeze
- Windshield wash fluid
- Used oil
- Used anti-freeze

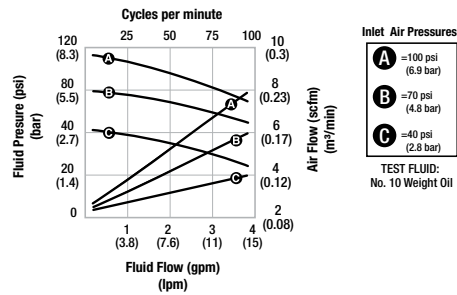
NOTE: Use Fast-Ball 1:1 for petroleum-based products.

Technical Specifications

Flow Rate gpm (lpm)	5 (19)
Maximum Fluid Pressure psi (bar)	180 (12.4)
Operating Range ⁽¹⁾ psi (bar)	40-180 (2.8-12)
Wetted Materials	See Ordering Info
Air Inlet Size	1/4 npt(f)
Material Inlet ⁽²⁾	1-1/2 npt(f)
Material Outlet	3/4 npt(f)
Line Length ‡	Up to 100 ft (30 m)
Dispense Points	1
Annual Usage	Up to 5000 gal (18921 l)

(1) Max Operating Air Pressure for 226951 is 60 psi (4.2 bar)
 (2) For universal pumps
 ‡ Consult your local authorized Graco representative for line or pipe sizing

Pump Performance



Transfer Pumps and Accessories

Fast-Flo® 1:1

Transfer Pumps and Accessories

Ordering Information

Universal-Length Pumps (includes motor and pump-lower assembly)									
Part Number	226948	226952	237130	237131	237132	226943 *	226944 **	226945 **	
Material	CS	SST	CS	CS	SST	CS	CS	SST	
Std. Seal Repair Kits	218112	218112	213012	213013	213013	213012	215964	215964	
Material	Rubber	Rubber	Leather	PTFE	PTFE	Leather	Polyethylene	Polyethylene	
Typical Fluids	Motor Oil							Anti-Freeze, Windshield Wash	

Note: All seal repair kits are interchangeable with other Fast-Flo pumps.

Drum-Length Pumps (includes motor and pump-lower assembly)										
Part Number	226947	226951 †	226953	237133	237134	237129	226940	226941	226942	
Wetted Parts	CS	CS	SST	CS	CS	SST	CS	CS	SST	
Std. Seal Repair Kits	218112			213012	213013		213012	215964		
Material	Rubber			Leather	PTFE		Leather, PTFE, Leather	Polyethylene, UHMWPE		
Typical Fluids	Motor Oil								A/W	

Note: All seal repair kits are interchangeable with other Fast-Flo pumps.

* UL-listed

** UL-listed and CE-marked

† Adjustable down tube length between 18 in (457 mm) to 46.4 in (1180 mm)

Accessories

Motor Service Kits for all Fast-Flo 1:1 Pumps	
220168	Motor Service Kits for all Fast-Flo 1:1 Air Valve Piston Assembly (used with repair kit 214584, which must be ordered separately)
Hose and Fittings Kits	
222118	18 in (0.5 m) for connecting wall-mounted Fast-Flo 1:1 pumps to piping. Includes: air hose (109123) with swivel elbow (155541), fluid hose (109108) with swivel elbow (160327)
222119	6 ft (1.8 m) for use with drum-mounted Fast-Flo 1:1 pumps. Includes: air hose (109125) with swivel elbow (155541), fluid hose (109105) with swivel elbow (160327)
Bung Adapters	
214583	Allows direct mounting of full-length Fast-Flo 1:1 pumps into standard 2 npt drum bung
217359	Sealed bung adapter for Fast-Flo pumps; can be used with suction kit 236054
Installation Kits	
218316	Includes shut-off valve, regulators, gauges and fittings as necessary for normal installation

APEX™ and APEX On-Demand Transfer Pumps and Accessories

APEX Transfer Pumps

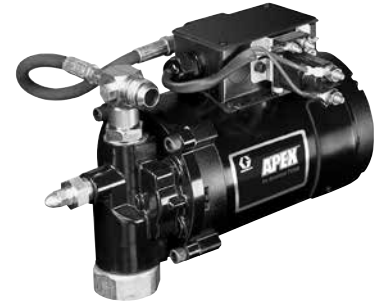
- Available with 12 VDC, 115 VAC and 230 VAC electric motors
- Self-priming, positive displacement design
- Pumps petroleum- and synthetic-based lubricants up to 8 gpm (30 lpm)
- Built-in bypass valve
- Transfer used oil with inlet suction screen (260306)
- TENV electric motor for demanding environments, models 260105, 260106, 260108 and 260109
- System includes suction tube, fluid hose, dispense valve and bung adapter for models 260100, 260101, 260102 and 260104



APEX 115 VAC oil transfer system

APEX On-Demand Dispensing Pumps

- On-demand sensing system automatically starts and stops the pump
- Low operating and installation costs
- Available in 12 VDC and 115 VAC
- TENV electric motor for demanding environments
- Extremely quiet pump operation
- Output flow is continuous and non-pulsating
- Inlet and outlet check valves with thermal relief valves included



APEX On-Demand
12 volt DC dispensing pump

Typical Applications

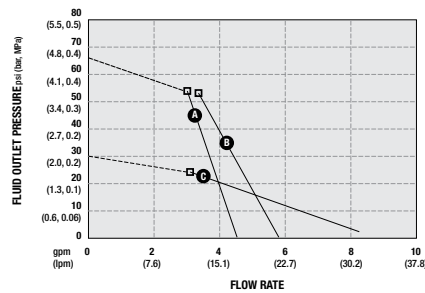
- Filling bulk tanks from drums
- Agricultural equipment
- Lubricant transfer from remote locations
- Filling in-plant machinery
- Construction equipment
- Evacuating used oil receivers
- Automotive and truck service garages
- Fleet marine and personal boat service

Typical Fluids Handled

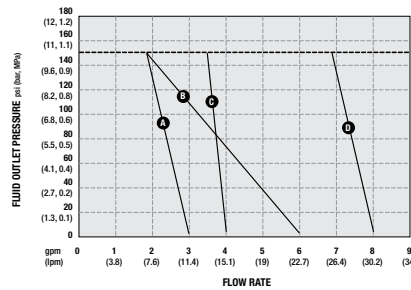
- Synthetic oil
- Petroleum oil*
- Used oil*
- Anti-freeze
- Hydraulic fluids
- Cutting oils
- Liquid soap
- Non-flammable oil based solvents
- Oil-based herbicide carriers

*Not for food grade use

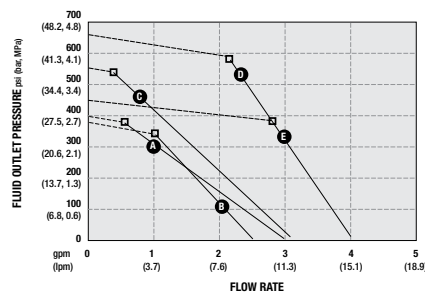
Pump Performance



PART NUMBERS	LEGEND
Ⓐ - 260101, 260104	Relief valve opens
Ⓑ - 260100	
Ⓒ - 260102	



PART NUMBERS	LEGEND
Ⓐ - 260105, 260106	Relief valve setting at 150 psi (10.3 bar, 1.0 MPa)
Ⓑ - 260108	
Ⓒ - 260240	
Ⓓ - 260109	



PART NUMBERS	LEGEND
Ⓐ - 260112	Pressure switch opens
Ⓑ - 260110	
Ⓒ - 260111	
Ⓓ - 260114	
Ⓔ - 260113	

APEX™ and APEX On-Demand Transfer Pumps and Accessories

APEX Transfer System

Part Number	260100	260101	260102*	260104
Motor	12 VDC	115 VAC	115 VAC	230 VAC
Hertz	NA	60 Hz		50/60 Hz
Horsepower	0.75	0.50	0.75	0.50
Maximum Current	35 amps	9.2 amps	9.0 amps	3.9 amps
Maximum Flow Rate	5.8 gpm (22 lpm)	4.25 gpm (16 lpm)	8.0 gpm (30 lpm)	4.25 gpm (16 lpm)
Maximum Pressure	65 psi (4.5 bar)		30 psi (2.1 bar)	65 psi (4.5 bar)
Inlet Port	1 npt(f)			
Outlet Port	3/4 npt(f)			
Weight	34 lbs (15 kg)	25 lbs (11 kg)		
Instruction manual	311305			

Note: All oil transfer systems come with 3/4 in x 8 ft hose, 1 in x 34 in suction tube and 3/4 in outlet dispense valve
*Designed for fluid viscosities of 1000 centistokes or less. If fluid viscosity is greater than 1000 centistokes use part 260101.



APEX 115 VAC oil transfer system

APEX Transfer Pumps

Part Number	260105*	260106	260108	260109
Motor	115 VAC			
Hertz	60 Hz			
Horsepower	1.00			
Maximum Current	7.5 amps	9.0 amps		11.0 amps
Maximum Flow Rate	3.0 gpm (11 lpm)	4.0 gpm (15 lpm)	8.0 gpm (30 lpm)	
Maximum Pressure	150 psi (10 bar)			
Inlet Port	1 npt			
Outlet Port	3/4 npt			
Weight	25 lb (11 kg)			30 lb (14 kg)
Instruction Manual	311306			

Note: All oil transfer pumps come with bung adapter.
*Part no. 260105 is a wall mount unit

APEX On-Demand Pumps

Part Number	260110	260111	260113	260114	260112
Voltage	115 VAC				12 VDC
Hertz	60 Hz				N/A
Horsepower	0.75	1.00	1.50	2.00	0.75
Maximum Current	10 amps	13 amps	18 amps	21 amps	75 amps
Maximum Flow Rate	2.3 gpm (9 lpm)	3 gpm (11 lpm)	4.0 gpm (15 lpm)		3 gpm (11 lpm)
Maximum Pressure	370 psi (25 bar)	550 psi (38 bar)	470 psi (32 bar)	650 psi (45 bar)	400 psi (28 bar)
Inlet Port	3/4 npt				
Outlet Port	1/2 in NPT				
Weight	27 lb (12 kg)	32 lb (15 kg)	41 lb (19 kg)	52 lb (24 kg)	27 lb (12 kg)
Instruction Manual	311307				

Note: All on-demand pumps come with bung adapter

Accessories

260145	Wall Mounting Bracket, fits all models
260238	"Y" Strainer with 3/4" npt female in-line strainer for used oil transfer
260306	Inlet Suction Screen Assembly, required for used oil applications, 20 mesh screen
260124	55 in (1.3 m) PVC Suction Tube With inlet check valve



APEX On-Demand
12 volt DC dispensing pump

GTP10 and GTP12

Transfer Pumps and Accessories

Features and Benefits

- Heavy-duty, die-cast aluminum
- CSA listed motor
- Built-in relief valve and filter strainer
- Easy-to-lock security
- High quality, UV resistant automotive finish
- Rain proof for extreme weather conditions
- Two year warranty

Typical Applications

- Fuel transfer for the construction, agriculture, manufacturing and marine industries

Typical Fluids Handled

- Gasoline
- Diesel fuel
- Kerosene
- Bio-fuels



Ordering Information

Kit Number	260000	260020	260025
Voltage	12 VDC	24 VDC	115 VAC
Inlet Port		1 npt	
Outlet Port		3/4 npt	
Current	12 amps	6 amps	1.7 amps
Power Cord	18 ft (5.5 m)		N/A
Hose	3/4 in x 12 ft (19 mm x 3.7 m)		
Suction Tube	1 in x 34 in (25 mm x 0.9 m)		
Weight	20 lbs (9 kg)		
Max Fluid Flow	10 gpm (38 lpm)		12 gpm (45 lpm)
Instruction Manual	311304		

Fuel Transfer Kit: Includes pump, fuel nozzle, bung adapter, 34 in (0.9 m) suction tube, 12 ft (3.7 m) grounded hose, elbow fitting, 18 ft (5.5 m) power cable, wire nuts and strain relief

NOTE: AC units do not include power cable, wire nuts or strain relief

Accessories

260078	Unleaded nozzle
260083	Unleaded nozzle with auto shut-off
260082	Regular/diesel nozzle with auto shut-off
260079	Regular/diesel nozzle
260523	8 ft x 3/4 in (2.4 m) npt UL Listed hose
260521	12 ft x 3/4 in (3.7 m) npt UL Listed hose



Diesel Exhaust Fluid (DEF) Dispense Systems Pumps and Packages

Features and Benefits

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.


Choose from configured packages or build a custom DEF system specific for your application with individual pumps and components – from the economical Graco LD Blue hand pump to the high-performance Graco LD Blue electric or Graco SD Blue Air-Operated Double Diaphragm (AODD) packages.

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

Graco LD Blue Electric Pump Technical Specifications	120V c  us Approved	12V
Maximum Flow Rate	9 gpm	9.5 gpm
Maximum Fluid Pressure	50 psi	50 psi
RPM	1750	2600
Watts	500	260
Voltage	120V / 60hz	12V
Maximum Amperage	4.5A	22A
Duty Cycle	20 min ON/OFF	20 min ON/OFF

Graco SD Blue Pneumatic Pump Technical Specifications	Husky 515 AODD
Maximum Flow Rate	15 gpm
Maximum Fluid Pressure	50 psi
Air Operating Range	30-50 psi
Air Inlet	1/4" NPT(f)
Pump Inlet	1/2" BSPP(f) and 3/4" BSPP(f)
Hose Inlet	3/4" BSPP(f)
Pump Outlet	1/2" BSPP(f) and 3/4" BSPP(f)
Maximum Air Consumption	28 scfm



Diesel Exhaust Fluid (DEF) Dispense Systems Pumps and Packages

LD Blue – Electric DEF Tote Packages

24V641	120V LD Blue Tote Package, LD Auto Nozzle, LD Meter
24V644	120V LD Blue Tote Package, LD Manual Nozzle
24V645	120V LD Blue Tote Package, LD Auto Nozzle
24V646	12V LD Blue Tote Package, LD Auto Nozzle, LD Meter

LD Blue – Electric DEF Drum Packages

24V656	120V LD Blue Drum Package, LD Auto Nozzle
--------	---

LD Blue – Electric Pumps Only

127642	120V AC Electric pump, 3/4" barbed hose tail
127643	12V DC Electric pump, 3/4" barbed hose tail
127646	Handle for 12V DC pump, Black

SD Blue – AODD DEF Tote Packages

24V677	SD Blue Standard Tote Package, LD Auto Nozzle, LD Meter
24V678	SD Blue Standard Tote Package, LD Auto Nozzle
24F531	SD Blue Deluxe Tote Package, SD Auto Nozzle, SD Meter Kit, Coupler Kit
24F878	SD Blue Deluxe Tote Package, SD Auto Nozzle, Coupler Kit

SD Blue – AODD DEF Drum Packages

24V679	SD Blue Standard Drum Package, LD Manual Nozzle
24V686	SD Blue Standard Drum Package, LD Auto Nozzle, LD Meter
24F947	SD Blue Deluxe Drum Package, LD Manual Nozzle, Coupler Kit
24M499	SD Blue Deluxe Drum Package, SD Auto Nozzle, SD Meter Kit, Coupler Kit

SD Blue – AODD Pumps Only

24G745	Husky 515 Air Operated Diaphragm pump, 3/4" BSPP(f)
--------	---

LD Hand Pumps

127647	DEF hand pump, drum length down tube
24G636	DEF hand pump with 6' dispense hose, ball valve, drum length down tube
127875	DEF hand pump with 6' dispense hose, drum length down tube, manual LD nozzle (125078)
125479	Drum length adjustable down tube for hand pump
125478	6' Dispense hose for DEF hand pump

LD Blue Nozzles

127649	LD Automatic nozzle with stainless steel breakaway tip, 3/4" hose barb
127650	LD Automatic nozzle with built-in electronic turbine meter, with stainless steel breakaway tip, 3/4" hose barb
125078	LD Manual DEF nozzle with SST tip, 3/4" hose barb
127651	Nozzle replacement kit for LD nozzles 127649 and 127650
127652	Mis-filling nozzle kit for LD Automatic nozzles
127654	Magnetic Adaptor for Mis-fill kit



24V656



24V677



127649



127650

Diesel Exhaust Fluid (DEF) Dispense Systems Pumps and Packages

Diesel Exhaust Fluid (DEF)

SD Blue Nozzles	
124398	SD Automatic shut off SST nozzle without swivel, 3/4" BSPP(f)
24F529	SD Automatic shut off SST nozzle with swivel, 3/4" BSPP(f)
127655	SD Automatic shut off SST nozzle, 3/4" hose barb
Meters	
127663	LD Blue digital in-line turbine meter. LCD display
24G738	SDI15 DEF meter, 1/2" BSPP(f/f), 1500psi, .01 to 14gpm
24H293	SDI15 meter kit with fittings for SST auto nozzle
XD 30 DEF Hose Reels	
HSDD5A	XD 30 DEF hose reel, 3/4" x 50', white
HSDD5B	XD 30 DEF hose reel, 3/4" x 50', blue
HSDD5F	XD 30 DEF hose reel, 3/4" x 50', yellow
HSDDDA	XD 30 DEF hose reel, bare, white
HSDDDB	XD 30 DEF hose reel, bare, blue
HSDDDF	XD 30 DEF hose reel, bare, yellow
Hose Reel Inlet Kits	
24W250	2' DEF inlet hose kit for XD 30 reels. 3/4" BSPP(f) x cut end. Includes 90 degree elbow
24W251	6' DEF inlet hose kit for XD 30 reels. 3/4" BSPP(f) x cut end. Includes 90 degree elbow
124875	2' DEF inlet hose, 3/4" BSPP(m) x cut end (inlet hose)
124581	6' DEF inlet hose, 3/4" BSPP(m) x cut end (inlet hose)
Dispense and Suction Hoses	
24W148	2' DEF suction hose kit with (2) hose clamps
24W149	5' DEF suction hose kit with (2) hose clamps
24W190	6' DEF dispense hose kit with (2) hose clamps
24W154	12' DEF dispense hose kit with (2) hose clamps
24W161	20' DEF dispense hose kit with (2) hose clamps
124875	2' DEF hose, 3/4" BSPP(m) x cut end (inlet hose)
124581	6' DEF hose, 3/4" BSPP(m) x cut end (inlet hose)
125079	12' DEF hose, 3/4" BSPP x cut end
124671	12' DEF hose, 3/4" BSPP x 3/4" BSPP
124603	20' DEF hose, 3/4" BSPP x 3/4" BSPP
125074	20' DEF hose, 3/4" BSPP x cut end
125242	50' DEF hose, 3/4" BSPP x 3/4" BSPP



24F529



127663



HSDD5B



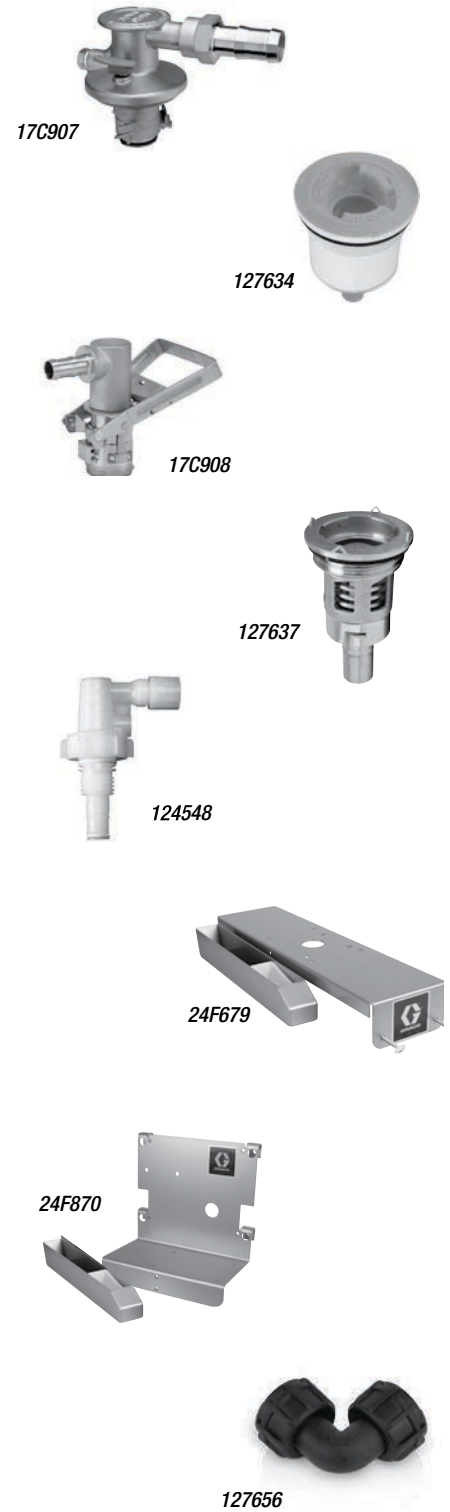
24W149



Diesel Exhaust Fluid (DEF) Dispense Systems

Pumps and Packages

Suction Line Components	
17C907	Micro Matic EPV dispense coupler, 3A orange, 3/4" barbed outlet, EPDM seals
127634	Micro Matic EPV container valve, 3A orange, 2.5" x 5 buttress, EPDM Seals
127793	Micro Matic EPV down tube for 55 gal drum
127794	Micro Matic EPV center down tube for 275 gal IBC tote
127635	Micro Matic EPV center down tube for 330 gal IBC tote
17C908	Micro Matic RSV dispense coupler, 3/4" barbed outlet, 4 pin, stainless steel
127637	Micro Matic RSV container valve, 2.5" x 5, 4 cam, stainless steel valve, EPDM seals
127795	Micro Matic RSV down tube for 55 gal drum
127796	Micro Matic RSV center down tube for 275 gal IBC tote
127639	Micro Matic RSV center down tube for 330 gal IBC tote
127640	Micro Matic RSV fill coupler, 1" NPT(m) inlet x 1/4" NPT(f) outlet, 4 pin, stainless steel
24W142	Micro Matic EPV package: coupler (17C907), container valve (127634), 55 gal down tube (127793)
24W141	Micro Matic EPV package: coupler (17C907), container valve (127634), 275 gal down tube (127794)
24W140	Micro Matic EPV package: coupler (17C907), container valve (127634), 330 gal down tube (127635)
24W145	Micro Matic RSV package: coupler (17C908), container valve (127637), 55 gal down tube (127795)
24W144	Micro Matic RSV package: coupler (17C908), container valve (127637), 275 gal down tube (127796)
24W143	Micro Matic RSV package: coupler (17C908), container valve (127637), 330 gal down tube (127639)
24F532	Colder Coupler kit: drum coupler (124548), drum insert (124549), and down tube (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" down tube
Accessories	
24F870	AODD SD tote/wall mounting bracket with nozzle holder
24F679	AODD SD drum mounting bracket with nozzle holder
124541	Nozzle bath holder for AODD brackets
110147	Air Regulator for AODD pump (24G745), 1/4" npt(fbe) with gauge
124963	50 psi air safety valve for AODD pumps
Fittings	
127656	1" BSP(f) Elbow fitting, black
127657	1" BSP(f) x 3/4" Barb hose tail, black
127720	1" BSP(f) x 1" BSP(f) Linear socket, black
127804	3/4" x 1" BSPP(f) swivel fitting with seals, black
127805	1" BSPP(f) x 1" BSPP(f) coupler
127806	1" BSPP(m/f) swivel, white
127815	3/4" BSP x 3/4" barb SST swivel hose tail
127823	1" BSP x 3/4" barb elbow, white
24F524	3/4" BSPP(m) x 3/4" BSPP(f) SST swivel
127884	Adapter for connecting the LD manual nozzle to the LD meter
127800	Adapter for connecting the SD Automatic nozzle to the LD meter



Diesel Exhaust Fluid (DEF)

Dyna-Star® and Power-Star™ Pumps

Hydraulic-Powered Pumps and Packages

Features and Benefits

- Ties into existing hydraulic systems on mobile equipment
- Operates quieter than air driven pumps and doesn't require mufflers
- Eliminates the need for air compressors
- Provides self-lubrication for long life and reliability
- Hydraulic changeover is faster with less pulsation allowing smoother output pressure, even with long plumbing runs

Typical Applications

- Low pressure, high volume oil transfer
- High pressure, high volume grease dispense
- Heavy-duty dealerships
- Fleet service facilities
- Service shops
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease up to NLGI #2

Ordering Information for Oil Packages

Oil Applications	Power-Star, 1:1	Dyna-Star®, 1:1	Dyna-Star, 1:1	Dyna-Star, 1/4:1	Stainless Steel Dyna-Star, 1:1
Drum Size	Universal	Universal	55 gal (200 l) Bung- or Cover-Mounted	Universal	Universal
Pump Number	236754	224741	224742	236753	237653
Max. Input Pressure	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	1000 psi (70 bar)
Max. Fluid Input Volume	12 gpm (45.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)
Max. Output Flow Rate	12 gpm (45.4 lpm)	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	10 gpm (37.9 lpm)	3 gpm (11.4 lpm)
Maximum CPM	60	60	60	60	60
Max. Fluid Output Pressure	1500 psi (102 bar)	1500 psi (102 bar)	1500 psi (102 bar)	375 psi (25.1 bar)	1500 psi (102 bar)
Hydraulic Supply Inlet	3/4 npt	3/8 npt	3/8 npt	3/8 npt	3/8 npt(f)
Hydraulic Return Outlet	1-1/4 npt	3/4 npt	3/4 npt	3/4 npt	3/4 npt(f)
Fluid Outlet	1/2 npt	1/2 npt	1/2 npt	1/2 npt	1/2 npt(f)
Fluid Inlet	1-1/2 npt	1-1/2 npt	1-1/2 npt	1-1/2 npt	3/4 npt
Max. Incoming Fluid Temp.	130° F (54° C)	130° F (54° C)	130° F (54° C)	130° F (54° C)	130° F (54° C)
Instruction Manual	308391	308155	308155	308390	308155
Applications	Bulk oil transfer	Oil dispensing	Oil dispensing	Bulk oil transfer	Anti-freeze dispensing



Dyna-Star® and Viscount® II Pumps

Hydraulic-Powered Pumps and Packages

Ordering Information for Grease Packages

Grease Applications	Dyna-Star, 5:1	Dyna-Star, 10:1	Viscount II, 2.4:1
Part No. – Drum Size	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)	222902 – 400 lb (180 kg)
Max. Input Pressure	1500 psi (102 bar)	600 psi (41 bar)	1500 psi (102 bar)
Max. Hydraulic Fluid Input Vol.	3 gpm (11.4 lpm)	3 gpm (11.4 lpm)	12 gpm (45.4 lpm)
Max Grease Flow Output Rate	4 lb/min (1.8 kg)	1.1 lb/min (0.5 kg)	54 lb/min (20.4 kg)
Maximum CPM	60	60	60
Max. Fluid Output Pressure	7,500 psi (517 bar)	7,500 psi (517 bar)	2,300 psi (159 bar)
Hydraulic Supply Inlet	3/8 npt	3/4-16 in. JIC (37° Flare)	3/4 npt
Hydraulic Return Outlet	3/4 npt	3/4 npt	1 npt
Fluid Outlet	1/2 npt	1/2 npt	1-1/2 npt
Maximum Incoming Hydraulic Fluid Temp.	130° F (54° C)	200° F (93° C)	130° F (54° C)
Instruction Manual	308156	312350	308149

Hydraulic Fluid Controls (Required for each pump)

236864	Dyna-Star Fluid Controls [1500 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.
236865	Power-Star and Viscount II Fluid Controls [1500 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.
237904	1:1 Dyna-Star Thermal Relief Valve, 1600 psi (110 bar)
235998	Mini Fire-Ball 225, 3:1 thermal relief valve rated to 600 psi (41 bar)

Accessories

Followers Plates

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

Covers

224915	Cover for 35 lb (16 kg)
204574	Cover for 120 lb (55 kg)
200326	Cover for 400 lb (180 kg)

Tie-Down Covers

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



222902



236754



224741



247540

Oil and Grease Dispensing Packages

Manually-Operated Pumps

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

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

Description	Portable Metered ATF Dispenser	Portable Metered Gear Lube Dispenser	Cart-Mounted Metered Gear Lube Dispenser	Stationary Non-Metered Gear Lube Dispenser	Portable Non-Metered Gear Lube Dispenser
Package Number	225880	225376	225384	225380	225378 *
Pump Only	204867				
Metered Dispense Kit	239707	239705		-	-
Dispense Kit	-	-	-	214658	214658
Hose Diameter	-	-	1/2 in (12.7 mm)		
Hose Length	-	-	6 ft (1.8 m)		
Drum Cover	204574				
Caster Base	203622		-	-	203622
Cart	-	-	203650	-	-
Instruction Manual	306436				

* Hydraulic; can be used for gear oil dispensing.

Pail Dispensing Package for 5 gal (20 l) Pails

Mounts on top of a standard 5 gal (20 l) pail (pail not included).
Delivery hose has curved nozzle that stores in cover port.

Description	Economy Gear-Lube Dispenser (Dispenses 1.6 to 1.9 oz. [47.3 to 56.2 ml] per stroke)
Package No.	226289
Hose length	4 ft (1.2 m)
Instruction manual	306875



225880



225380



225376



226289



225384



225378

Lubricant and Coolant Transfer

Manually-Operated Pumps

Pumping Bulk Lubricants out of 16 gal (60 l) or 55 gal (200 l) Drums⁽¹⁾

All pumps come with suction tube and bung adapter.

Description	Lever Pump ⁽²⁾	Rotary Pump ⁽³⁾	Hand-Lever Diaphragm Pump ⁽⁴⁾
Pump Number	114829	226290	112202
Delivery rate	0.1 gal (0.4 l) per downstroke	1 gal (3.7 l) per 18 cycles	1 gal (3.7 l) per 9 cycles
Fluids Handled	Petroleum-based products, Anti-freeze	Petroleum-based products	Petroleum-based products ⁽⁵⁾
Hose Length	-	-	8 ft (2.5 m)
Instruction manual	-	306876	-

⁽¹⁾ Drums not included

⁽²⁾ Telescopic suction tube mounts 2 npt bung opening of 16 gal (60 l) or 55 gal (200 l) drum. Package includes bung adapter and spout outlet.

⁽³⁾ Package has adjustable 2 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.

⁽⁴⁾ A double-action high volume pump for gasoline and similar petroleum products. Fits 30 gal (113 l) to 55 gal (200 l) drum. Complete with an 8 ft (2.4 m) hose with 3/4 in fittings and aluminum telescoping suction pipe. Delivers approximately one gallon per nine strokes.

⁽⁵⁾ This package is recommended for gasoline, diesel, heating oil and petroleum products, but NOT recommended for water-based fluids, solvents or weak acids.



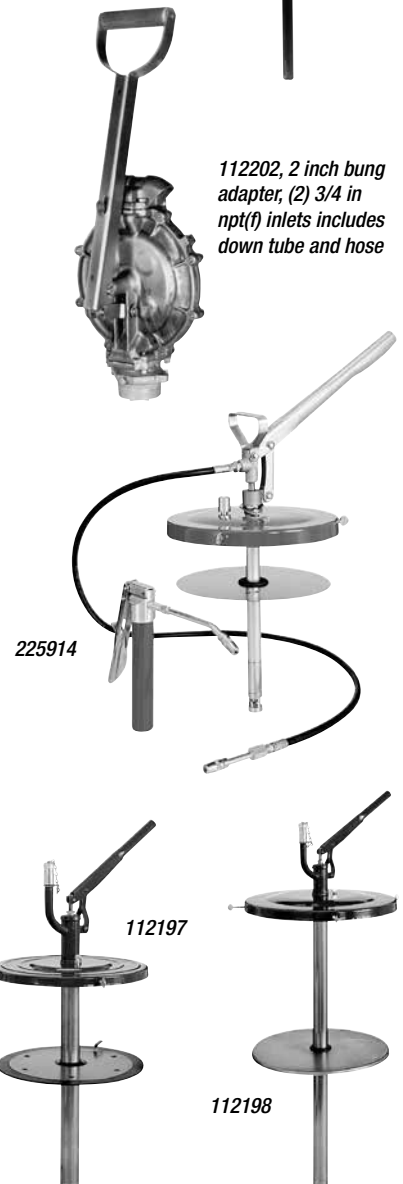
Manual Dispense from Bulk Containers

Description	Buckshot Luber with Booster Gun	Buckshot Luber without Booster Gun	Grease Gun Fill Pump	Grease Gun Fill Pump
Container Size	35 lb (16 kg)		120 lb (55 kg)	
Package No.	225914 ⁽¹⁾	225844 ⁽¹⁾	112197 ⁽²⁾	112198 ⁽²⁾
Pump	203702		-	-
Dispense Kit	203703		Filler Adapter ⁽³⁾	
Booster Gun	203697	-	-	-
Cover and Follower Plate	203701		-	-
Instruction Manual	306455		-	-

⁽¹⁾ 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.

⁽²⁾ Fills all three-way loading grease guns equipped with filler fittings.

⁽³⁾ Dispense kit 203703 can be used for direct greasing applications (must be ordered separately).



Manually-Operated Pumps

SD Series™ Cord and Light Reels

Electric Cord Reels, Light Reels and Accessories

Features and Benefits

- Durable, heavy gauge steel frame won't flex or bend for long lasting performance
- Strong spring has the capacity to take on more load than the competition and is easy to pull down and retract so you don't have to fight to get it to operate
- One source for your entire automotive or industrial reel bank so you get everything you want including expert help when you need it
- Meets UL355*, CSA22.2 No. 21 and IP44 standards for general, commercial and industrial grade use
- Enclosed spring and components are protected from harmful elements for longer lasting, dependable operation
- Easy to install, maintain, and repair

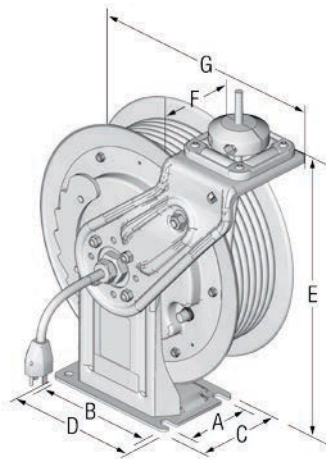
* Rated for light outdoor use



24Y862

Dimensions

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



† Measurement taken from base to top of bolts.
 * Measurement taken from edge of spool to front of arm.
 ** Measurement taken from end of wire-nut to top surface of cover.

Technical Specifications

Operating Temperature:

Part numbers 24Y865, 24Y866, 24Y868-24Y872, 24Y877, 24Y878, 24Y884, 24Y886, 24Y887, 24Y890.....
 -22° F to 122° F (-30° C to 50° C)
 Part numbers 24Y859, 24Y861-24Y864, 24Y873-24Y876, 24Y880, 24Y882, 24Y883, 24Y888, 24Y889.....
 -4° F to 104° F (-20° C to 40° C)

Weight without accessories:

Size 5: 16AWG, Cord Length - 35 Feet25.4 lbs
 Size 5: 16AWG, Cord Length - 50 Feet27.6 lbs
 Size 10: 16 AWG, Cord Length - 95 Feet46.3 lbs
 Size 5: 12AWG, Cord Length - 35 Feet28.2 lbs
 Size 5: 12AWG, Cord Length - 50 Feet32.0 lbs
 Size 10: 12 AWG, Cord Length - 95 Feet51.8 lbs
 Sound Pressure(1) 80 dB(A)
 Sound Power(2) 87 dB(A)
 Manual 3A2592

SD Series™ Cord and Light Reels

Electric Cord Reel and Accessories

Ordering Information with Specifications

All Graco cord and light reels have a black finish and are 120 volt with UL/CSA approved.

Part Number	Size	Accessory	AWG	Amp	Cord Length	Insulation
24Y859	5	No Accessory – Cord Only	12	20	50 ft (15 m)	SJ00W
24Y880	10		12	18	95 ft (29 m)	SJ00W
24Y861	5	Single Industrial Receptacle	16	13	50 ft (15 m)	SJTOW
24Y862	5		12	20	35 ft (10 m)	SJ00W
24Y863	5		12	20	50 ft (15 m)	SJ00W
24Y882	10		12	18	95 ft (29 m)	SJ00W
24Y864	5	Tri-Plug GFCI Industrial Receptacle	12	15	50 ft (15 m)	SJ00W
24Y883	10		12	15	95 ft (29 m)	SJ00W
24Y865	5	Fluorescent Light	16	<1	35 ft (10 m)	SJTOW
24Y866	5		16	<1	50 ft (15 m)	SJTOW
24Y884	10		16	<1	95 ft (29 m)	SJTOW
24Y868	5	Fluorescent Light with Single Tool Tap Plug	16	10	50 ft (15 m)	SJTOW
24Y869	5	LED Light	16	<1	35 ft (10 m)	SJTOW
24Y870	5		16	<1	50 ft (15 m)	SJTOW
24Y886	10		16	<1	95 ft (29 m)	SJTOW
24Y871	5	LED Light with In-line Tool Tap	16	12	35 ft (10 m)	SJTOW
24Y872	5		16	12	50 ft (15 m)	SJTOW
24Y887	10		16	10	95 ft (29 m)	SJTOW

Mounting Channel For Ceiling

For use when mounting reels without an enclosure. Available to accommodate one to six reels. Refer to manual for longer channels.

24N674	For mounting one SD Series Size 5 reel
24A934	For mounting one SD Series Size 10 reel**
24N675	For mounting two SD Series Size 5 reels
24A935	For mounting two SD Series Size 10 reels**

**Design is the same as SD Series size 10 hose reels.

Enclosed Reel Mounting Channel For Ceiling or Wall

For use with enclosure kits only. Available to accommodate one to six reels. Refer to the manual for longer channels.

203521	For mounting one Size 5 and 10 reel
203522	For mounting two Size 5 and 10 reels



SD Series™ Cord and Light Reels

Electric Cord Reel and Accessories

Ordering Information with Specifications

All Graco cord and light reels have a black finish and are 120 volt with UL/CSA approved.

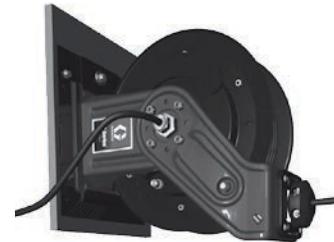
Cord Reel Enclosure Kits

Enclosure kit for one reel provides protection to extend the life of reel, while giving your shop a professional look.

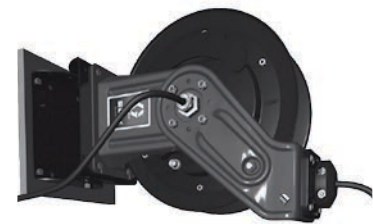
Size 5 Enclosure and spacer bracket	
24N690	White
24N682	Metallic Blue
24N683	Red
24N684	Black
24N691	Dark Blue
24N685	Yellow
Size 10 Enclosure kit for one reel	
24A217	White
24A940	Metallic Blue
24A941	Red
24A942	Black
24A943	Dark Blue
24A944	Yellow
End Panel Kits	
24A950	Black only (Same kit as Size 10 hose reels)
Retrofit Mounting Bracket	
24P164	Size 5 spacer bracket only, for mounting in existing size 10 enclosure.
24P880	Size 5 spacer bracket only, for mounting in existing size 20 enclosure.
24P881	Size 10 spacer bracket only, for mounting in existing size 20 enclosure.
16N883	Clamping plate to mount size 5 reel to existing SD Series open channel.
Swivel Mount Bracket For Wall	
Allows reel to swivel 120° with two lockable positions	
24N814	SD Series size 5
24N444	SD Series size 10
Easy Slide-in Mount For Ceiling or Wall	
Allows you to slide the reel in and out for easy installation	
24N686	SD Series size 5
24H193	SD Series size 10
I Beam Mounting Kit For Ceiling	
Secures mounting channel to I-beam without drilling	
204741	Fits SD Series size 5 and 10 reels (Two brackets are required for one to three reels)
Hands-free Magnetic Clip	
16P999	Magnetic clip with non-marring cover won't scratch vehicle finish. Snap onto light tube for hands-free operation. Spin the fixture to direct light where you need it.
Retrofit Mounting Bracket	
For Competitive reel replacement	
24N688	Fits size 5 reel
24N689	Fits size 10 reel



24N690



24N686



24N814



16P999

LD Series Enclosed Hose Reels

Hose Reels and Packages

Features and Benefits

- Designed for light-duty applications
- Enclosed for safety and protection, extends hose life
- Flexible mounting options—hang on wall or ceiling; bench, table or tank top-mount options are available
- Full-flow swivel maximizes fluid flow with minimal pressure drop
- Easy spring tension adjustment—increase or decrease pressure spring tension while reel is pressurized

Typical Applications

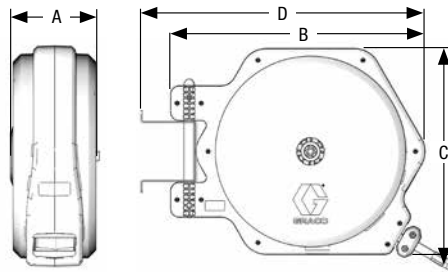
- Small maintenance shops
- Tire/muffler shops
- Small fast lubes
- Independent repair facilities
- Industrial manufacturing facilities

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease
- Air only
- Air/water
- Anti-freeze
- Windshield washer

Dimensions

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



Enclosed hose reel comes with ceiling/wall mounting swivel bracket. Required inlet hose kit sold separately.



Hose Inlet Kit for LD enclosed reels

NPT Replacement Reels* Ordering Information

Part Number	Application	Hose Size Id x Length		Pressure psi (bar)	Connection Size Inlet NPT(m) x Outlet NPT(m)
24H655	Air Only	6 mm x 11 m	1/4 in x 35 ft	250 (17.2)	1/2 in x 1/4 in
24H656	Air Only	6 mm x 15 m	1/4 in x 50 ft	250 (17.2)	1/2 in x 1/4 in
24H657	Air/Water/Anti-Freeze/Windshield Washer Fluid	10 mm x 11 m	3/8 in x 35 ft	250 (17.2)	1/2 in x 3/8 in
24H658	Air/Water/Anti-Freeze/Windshield Washer Fluid	10 mm x 15 m	3/8 in x 50 ft	250 (17.2)	1/2 in x 3/8 in
24H659	Air/Water/Anti-Freeze/Windshield Washer Fluid	12 mm x 11 m	1/2 in x 35 ft	250 (17.2)	1/2 in x 1/2 in
24H660	Air/Water/Anti-Freeze/Windshield Washer Fluid	12 mm x 14 m	1/2 in x 45 ft	250 (17.2)	1/2 in x 1/2 in
24H661	Oil	10 mm x 11 m	3/8 in x 35 ft	1800 (124)	1/2 in x 3/8 in
24H662	Oil	12 mm x 11 m	1/2 in x 35 ft	1800 (124)	1/2 in x 1/2 in
24H663	Grease	6 mm x 11 m	1/4 in x 35 ft	5000 (345)	3/8 in x 1/4 in

*Reel only. Mounting Hardware is not included

Hose Inlet Kits for LD Enclosed Hose Reel

	Part Number	Hose Inlet Description	Fits Reel	Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet in	Hose Outlet in
For NPT connections	24C443	Air	24H655	250 (17.2)	1/4 (6)	36 in (915)	1/4 npt(m)*	1/4 npt(m)*
			24H656					
	24C444	Air/Water/Anti-Freeze/Windshield Washer Fluid	24H657 / 24H658 24H659 / 24H660	3/8 (10)	1/2 npt(m)*		3/8 npt(m)*	
	24C537	Oil	24H661	1,800 (124)	3/8 (10)		3/8 npt(m)*	
	24C538		24H662		1/2 (12)		1/2 npt(m)*	
24C539	Grease	24H663	5,000 (345)	1/4 (6)	1/4 npt(m)*	1/4 npt(m)*		

*NPT hose connection when using BSP to NPT adapter (included)

LD Series Enclosed Hose Reels

Hose Reels and Packages

Wall Mount Package* (NPT)

Package Part Number	Application	Hose Size Id x Length	Reel (NPT)	Wall Mount Kit	Inlet Kit
24F735	Air	1/4 in x 35 ft	24H655	24G866	24C443
24F736	Air	1/4 in x 50 ft	24H656	24G866	24C443
24F737	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 35 ft	24H657	24G866	24C444
24F738	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 50 ft	24H658	24G866	24C444
24F739	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 35 ft	24H659	24G866	24C444
24F740	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 45 ft	24H660	24G866	24C444
24F741	Oil	3/8 in x 35 ft	24H661	24G866	24C537
24F742	Oil	1/2 in x 35 ft	24H662	24G866	24C538
24F743	Grease	1/4 in x 35 ft	24H663	24G866	24C539

*Hose Reel, Inlet Kit, and Wall Mount Bracket Kit included.

Fixed/Ceiling Mount Package* (NPT)

Package Part Number	Application	Hose Size Id x Length	Reel (NPT)	Fixed Mount Kit	Inlet Kit
24F753	Air	1/4 in x 35 ft	24H655	24G865	24C443
24F754	Air	1/4 in x 50 ft	24H656	24G865	24C443
24F755	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 35 ft	24H657	24G865	24C444
24F756	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 50 ft	24H658	24G865	24C444
24F757	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 35 ft	24H659	24G865	24C444
24F758	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 45 ft	24H660	24G865	24C444
24F759	Oil	3/8 in x 35 ft	24H661	24G865	24C537
24F760	Oil	1/2 in x 35 ft	24H662	24G865	24C538
24F761	Grease	1/4 in x 35 ft	24H663	24G865	24C539

*Reel, Inlet kit, and Fixed Bracket Kit included.

Swivel/Bench Mount Package* (NPT)

Package Part Number	Application	Hose Size Id x Length	Reel (NPT)	Swivel Mount Kit	Inlet Kit
24F771	Air	1/4 in x 35 ft	24H655	24C772	24C443
24F772	Air	1/4 in x 50 ft	24H656	24C772	24C443
24F773	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 35 ft	24H657	24C772	24C444
24F774	Air/Water/Anti-Freeze/Windshield Washer Fluid	3/8 in x 50 ft	24H658	24C772	24C444
24F775	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 35 ft	24H659	24C772	24C444
24F776	Air/Water/Anti-Freeze/Windshield Washer Fluid	1/2 in x 45 ft	24H660	24C772	24C444
24F777	Oil	3/8 in x 35 ft	24H661	24C772	24C537
25A113	Oil	1/2 in x 35 ft	24H662	24C772	24C538
24F779	Grease	1/4 in x 35 ft	24H663	24C772	24C539

*Hose Reel, Inlet Kit, and Swivel Bracket Kit included.

Mounting Kits Ordering Information

Part Number	Description
24G866	Wall Mount Kit
24G865	Fixed Bracket New Installation Kit
24E506	Fixed Bracket Replacement Kit
24C772	Swivel Bracket Kit



24E506



24C772

SD 10™ and SD 20™ Hose Reels

Hose Reels and Packages

Features and Benefits

- Designed for daily use applications such as dealerships, fleet service, maintenance facilities, in-plant applications
- Structurally engineered frame made from high strength steel won't bend or flex
- Long-lasting spring provides constant spring torque through the entire range of motion
- Flexible positioning of guide arm for mounting on bench or ceiling, wall, or utility truck
- Steel spool for demanding applications
- Open swivel ports ensure high fluid flow with minimal pressure loss
- Enclosure kits available—ideal when appearance and protection is important
- Available in six colors. Metallic blue is standard.

Typical Applications

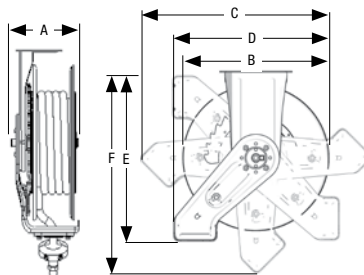
- Car dealerships
- Light/medium-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Light-utility service trucks
- In-plant

Dimensions

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease
- Air
- Water
- Anti-freeze
- Windshield washer



Single pedestal with metal spool. Inlet Hose Kit sold separately.



HPM6HB

Ordering Information

Technical Specifications

Applications	Model numbers by color						Pressure psi (bar)	Hose		Connection Size		Operating Temp.	
	Metallic Blue	White	Red	Black	Dark Blue	Yellow		id (in)	Length ft (m)	Inlet npsm(m)	Outlet		
Air, Water, Anti-Freeze, Windshield Washer Fluid	SD 10	HPL23B	HPL23A	HPL23C	HPL23D	HPL23E	HPL23F	300 (20.7)	3/8	35 (11)	1/2	3/8 npt (m)	-20°–190° F (-28°–87° C)
		HPL25B	HPL25A	HPL25C	HPL25D	HPL25E	HPL25F	300 (20.7)	3/8	50 (15)	1/2	3/8 npt (m)	
		HPL2DB*	HPL2DA*	HPL2DC*	HPL2DD*	HPL2DE*	HPL2DF*	300 (20.7)	3/8	50 (15)	3/8	1/2 npt (m)	
		HPL33B	HPL33A	HPL33C	HPL33D	HPL33E	HPL33F	300 (20.7)	1/2	35 (11)	1/2	1/2 npt (m)	
	SD 20	HPL56B	HPL56A	HPL56C	HPL56D	HPL56E	HPL56F	300 (20.7)	3/8	65 (20)	1/2	3/8 npt (m)	
		HPL5JB**	HPL5JA**	HPL5JC**	HPL5JD**	HPL5JE**	HPL5JF**	300 (20.7)	3/8	65 (20)	1/2	3/8 npt (m)	
		HPL65B	HPL65A	HPL65C	HPL65D	HPL65E	HPL65F	300 (20.7)	1/2	50 (15)	1/2	1/2 npt (m)	
		HPL6DB*	HPL6DA*	HPL6DC*	HPL6DD*	HPL6DE*	HPL6DF*	300 (20.7)	1/2	50 (15)	1/2	1/2 npt (m)	
Petroleum- or Synthetic-Based Oils	SD 10	HPM33B	HPM33A	HPM33C	HPM33D	HPM33E	HPM33F	2,000 (138)	1/2	35 (11)	1/2	1/2 npt (m)	
		HPM3BB*	HPM3BA*	HPM3BC*	HPM3BD*	HPM3BE*	HPM3BF*	2,000 (138)	1/2	35 (11)	1/2	1/2 npsm (f)	
	SD 20	HPM65B	HPM65A	HPM65C	HPM65D	HPM65E	HPM65F	2,000 (138)	1/2	50 (15)	1/2	1/2 npt (m)	
		HPM6DB*	HPM6DA*	HPM6DC*	HPM6DD*	HPM6DE*	HPM6DF*	2,000 (138)	1/2	50 (15)	1/2	1/2 npsm (f)	
		HPM6HB**	HPM6HA**	HPM6HC**	HPM6HD**	HPM6HE**	HPM6HF**	2,000 (138)	1/2	50 (15)	1/2	1/2 npsm (f)	
		HPM65B	HPM65A	HPM65C	HPM65D	HPM65E	HPM65F	2,000 (138)	1/2	50 (15)	1/2	1/2 npsm (f)	
Grease	SD 10	HPH15B	HPH15A	HPH15C	HPH15D	HPH15E	HPH15F	5,000 (345)	1/4	50 (15)	3/8	1/4 npt (m)	
		HPH23B	HPH23A	HPH23C	HPH23D	HPH23E	HPH23F	4,000 (276)	3/8	35 (11)	3/8	1/4 npt (m)	
		HPH1DB*	HPH1DA*	HPH1DC*	HPH1DD*	HPH1DE*	HPH1DF*	5,000 (345)	3/8	35 (11)	3/8	1/4 npt (f)	
	SD 20	HPH55B	HPH55A	HPH55C	HPH55D	HPH55E	HPH55F	4,000 (276)	3/8	50 (15)	3/8	1/4 npt (m)	
		HPH5DB*	HPH5DA*	HPH5DC*	HPH5DD*	HPH5DE*	HPH5DF*	4,000 (276)	3/8	50 (15)	3/8	1/4 npt (f)	
		HPH5HB**	HPH5HA**	HPH5HC**	HPH5HD**	HPH5HE**	HPH5HF**	4,800 (331)	3/8	50 (15)	3/8	1/4 npt (f)	

*Bare reel-hose sold separately. **Arm in tank/bench mount position.

SD 10™ and SD 20™ Hose Reel Packages and Accessories

Hose Reels and Packages

SD Reel Packages with Enclosure Kit

	Application	SD Packages	Hose Reel	Hose Inlet Kit	White Enclosure	Valve/Meter	Fitting
Steel Spool	Air/Water	24D989	HPL23B	218549	24A217	—	—
	Air/Water	24D990	HPL25B	218549	24A217	—	—
	Air/Water	24D991	HPL33B	218549	24A217	—	—
	Air	24D992	HPL23B	218549	24A217	218545	—
	Water	24D993	HPL23B	218549	24A217	180685	150287
	Water	24D994	HPL33B	218549	24A217	180685	159842
	Motor Oil	24D995	HPM33B	218549	24A217	—	—
	Motor Oil	24D996	HPM33B	218549	24A217	255350	—
	Motor Oil	24D997	HPM33B	218549	24A217	255348	—

SD Reel Packages without Enclosure Kit

	Application	SD Packages	Hose Reel	Hose Inlet Kit	Enclosure	Valve/Meter	Fitting
Steel Spool	Air	24D998	HPL23B	218549	—	218545	—
	Water	24D999	HPL23B	218549	—	180685	150287
	Motor Oil	24E001	HPM33B	218549	—	255350	—
	Motor Oil	24E002	HPM33B	218549	—	255348	—

SD Hose Inlet Kits		Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet
218549	Low/medium pressure	2000 (137)	1/2 (12)	24 (610)	npt(m)
218550	High pressure	4000 (276)	3/8 (10)	24 (610)	npt(m)
224417	High pressure	5000 (345)	1/4 (6)	24 (610)	npt(m)

Reel Enclose Kits for One Reel	Provides protection to extend the life of hoses and bearings for SD single pedestal reels					
	White*	Metallic Blue	Red	Black	Dark Blue	Yellow
SD 10 Enclosure	24A217	24A940	24A941	24A942	24A943	24A944
SD 20 Enclosure	24A218	24A945	24A946	24A947	24A948	24A949
SD 10 End Caps (2)	—	—	—	24A950	—	—
SD 20 End Caps (2)	—	—	—	24A951	—	—

Enclosed Reel Mounting Channel	Enclosure mounting channel kits include all parts for mounting hose reels to walls or ceilings					
--------------------------------	--	--	--	--	--	--

Description	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
SD Enclosed	203521	203522	203523	203524	203525	203526

Open Reel Mounting Channel	Accommodates one, two, three, four, five or six reels (includes all parts for wall or ceiling mounts)					
	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
SD 10/SD 20 Open	24A934	24A935	24A936	24A937	24A938	24A939

Retrofit Adapter Kits

24A224	Includes all parts to mount hose reel to existing 500 series mounting pattern
24C100	Includes all parts to convert SD10 hose reels to fit existing 250 series enclosures

Mounting Bracket (Secures mounting channel to I-beam without drilling)

204741	Two brackets are required for 1-3 hose reels; three brackets for 4-6 hose reels
--------	---

Swivel Mounting Bracket

24N444	Swivel mounting bracket for installing SD and XD hose reel and SD10 electric cord reel
24N814	Swivel mounting bracket for installing SD5 electric cord reel

Ball Stop Kits

222225	For 1/4 in (6.4 mm) i.d. hose (Not for use with XD30, 700 or 750)
218340	For 1/4-3/8 in (6.4-9.5 mm) i.d. hose (Not for use with XD30, 700 or 750)
218341	.782 ID used for 3/8 in and 1/2 in (9.5 mm and 12.7 mm) hose (Not for use with XD30, 700 or 750)
237872	1.0 ID used for 5/8 in (15.9 mm) hose
237873	1.123 ID used for 3/4 in (19.1 mm) hose
237874	1.374 ID used for 1 in (25.4 mm) hose
24D132	For 3/8 in (9.5 mm) o.d. hose
24D133	For 1/2 in (12.7 mm) o.d. hose



Hose Reel Enclosure



Mounting Channel



Mounting Bracket



Swivel Mounting Bracket



Hose Inlet Kit for SD open reels

*Bare Reel—hose sold separately. Wetted parts—bare hose reel only: zinc plated steel, steel, nitrile rubber. Dry Weight: 52 lbs (23.5 kg). Instruction Manual: 313431

XD 10™, XD 20™ and XD 30™ Hose Reels

Hose Reels and Packages

Features and Benefits

- Designed for robust/heavy-duty applications such as mobile lube trucks or large equipment service, yet with a narrow footprint to fit more reels into small spaces
- Dual pedestal frame provides increased strength for extreme-duty applications
- Long lasting spring is sealed for protection against the weather
- Durable steel spool rides on sealed roller bearings to ensure trouble-free performance
- Available in four colors. Metallic blue is standard.
- Available with arms removed for bulkhead mounting

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease
- Fuel
- Pressure wash
- Air
- Water
- Anti-freeze
- Windshield washer
- Waste oil

Note: Hose Inlet Kit for all XD Reels sold separately.

Dimensions

XD 10	
A	7.5 in (196 mm)
B	16.2 in (412 mm)
C	21.0 in (533 mm)
D	18.0 in (457 mm)
E	18.5 in (470 mm)
F	22.5 in (571 mm)

XD 20	
A	7.5 in (196 mm)
B	18.1 in (460 mm)
C	23.4 in (594 mm)
D	20.0 in (508 mm)
E	21.0 in (533 mm)
F	25.2 in (640 mm)

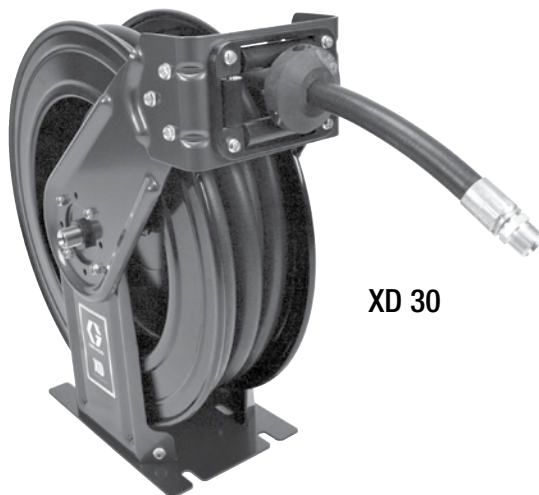
XD 30	
A	9.0 in (229 mm)
B	21.50 in (546.00 mm)
C	25.96 in (659.45 mm)
D	22.12 in (561.73 mm)
E	23.10 in (588.00 mm)
F	27.60 in (700.82 mm)



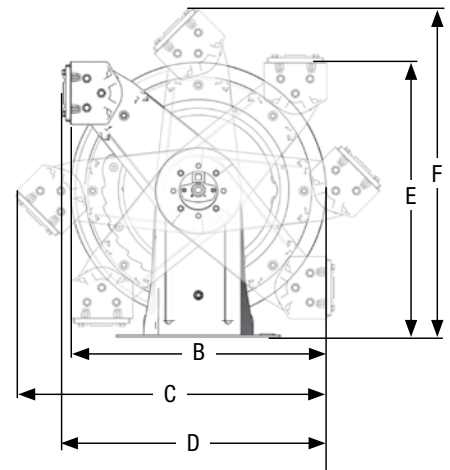
XD 10



XD 20



XD 30



XD 10™, XD 20™ and XD 30™ Hose Reels

Hose Reels and Packages

Ordering Information

Technical Specifications

Applications	Model numbers by color				Pressure psi (bar)	Hose		Connection Size		Operating Temp.	
	Metallic Blue	White	Yellow	Desert Sand		id in	Length ft (m)	Inlet in	Outlet in		
Air, Water, Anti-Freeze, Windshield Washer Fluid	XD 10	HSL25B	HSL25A	HSL25F	HSL25G	300 (20.7)	3/8	50 (15)	1/2 npsm(m)	3/8 npt(m)	-20–190° F (-28–87° C)
		HSL2DB*	HSL2DA*	HSL2DF*	HSL2DG*		3/8	50 (15)		3/8 npt(m)	
		HSL33B	HSL33A	HSL33F	HSL33G		1/2	35 (11)		1/2 npt(m)	
	XD 20	HSL56B	HSL56A	HSL56F	HSL56G		3/8	65 (20)		3/8 npt(m)	
		HSL65B	HSL65A	HSL65F	HSL65G		1/2	50 (15)		1/2 npt(m)	
		HSL6DB*	HSL6DA*	HSL6DF*	HSL6DG*		1/2	50 (15)		1/2 npt(m)	
	XD 30	HSLC8B	HSLC8A	HSLC8F	HSLC8G		1/2	75 (23)	3/4 npsm(m)	1/2 npt(m)	-40–180° F (-40–82° C)
		HSLD5B	HSLD5A	HSLD5F	HSLD5G		3/4	50 (15)		3/4 npt(m)	
Petroleum– and Synthetic– Based Oils	XD 10	HSM33B	HSM33A	HSM33F	HSM33G	2,000 (138)	1/2	1/2 npsm(m)	1/2 npt(m)	-20–190° F (-28–87° C)	
		HSM3BB*	HSM3BA*	HSM3BF	HSM3BG				1/2 npt(f)		
	XD 20	HSM65B	HSM65A	HSM65F	HSM65G				50 (15)		1/2 npt(m)
		HSM6DB*	HSM6DA*	HSM6DF*	HSM6DG				50 (15)		1/2 npt(f)
	XD 30	HSMC8B	HSMC8A	HSMC8F	HSMC8G	1,500 (103)	75 (23)	1/2 npt(m)	-40–180° F (-40–82° C)		
		HSMCFB*	HSMCFA*	HSMCF*	HSMCFG*	2,000 (138)	75 (23)	1/2 npsm(f)			
		HSM5B	HSM5A	HSM5F	HSM5G	1,250 (86)	3/4	3/4 npsm(m)		3/4 npt(m)	
		HSM5DB*	HSM5DA*	HSM5DF*	HSM5DG*	2,000 (138)	3/4	3/4 npsm(f)			
Grease	XD 10	HS115B	HS115A	HS115F	HS115G	8,000 (552)	1/4	50 (15)	3/8 npsm(m)	1/4 npt(m)	-40–200° F (-40°–93° C)
		HS11DB*	HS11DA*	HS11DF*	HS11DG*		3/8	35 (11)		3/8 npt(f)	
	XD 20	HS155B	HS155A	HS155F	HS155G	4,000 (276)	3/8	50 (15)	1/4 npt(m)		
		HS15DB*	HS15DA*	HS15DF*	HS15DG*	8,000 (552)			3/8 npsm(f)		
	XD 30	HS155B	HS155A	HS155F	HS155G	5,000 (345)	1/2	50 (15)	1/2 npt(m)	-40–180° F (-40–82° C)	
		HS15DB*	HS15DA*	HS15DF*	HS15DG*				1/2 npsm(f)		
HS157B		HS157A	HS157F	HS157G	3/8				75 (23)		3/8 npt(f)
Pressure Wash	XD 30	HSPB8B	HSPB8A	HSPB8F	HSPB8G	4,000 (276)	3/8	75 (23)	3/8 npt(m)	-20–225° F (-28–107° C)	
		HSHFFB*	HSHFFA*	HSHFFF*	HSHFFG*				3/8 npsm(f)		
		HSPC5B	HSPC5A	HSPC5F	HSPC5G	4,500 (310)	1/2	50 (15)	1/2 npt(m)		
Fuel/Evacuation	XD 30	HSLE3B	HSLE3A	HSLE3F	HSLE3G	125 (8.6)	1	30 (9)	3/4 npsm(m)	1 npt(m)	-40–120° F (-40–49° C)
DEF	XD 30	HSDD5B	HSDD5A	HSDD5F	NA	50 (3.4)	3/4	50 (15)	3/4 bspp(m)	3/4 bspp ORB	12–140° F (-11–60° C)
		HSDDDB*	HSDDDA	HSDDDF	NA						

Maximum dry weight with hose: XD10 = 54 lbs (24.5 kg), XD20 = 59 lbs (27 kg), XD30 = 98 lbs (44.5 kg)

Wetted parts–Bare hose reel only: zinc plated steel, anodized aluminum, nitrile rubber

Instruction Manuals: XD10 and XD20: 313431, XD30: 3A0138

*Bare reel–hose sold separately.

XD Series HN Model Hose Reels

Hose Reels and Packages

Features and Benefits

Ideally suited for lube truck installations where space is a premium. Structurally engineered frame and spool is made from high strength steel that won't bend or flex. Long-lasting spring provides constant spring torque through the entire range of motion. Open swivel ports ensure high fluid flow with minimal pressure loss.

Typical Applications

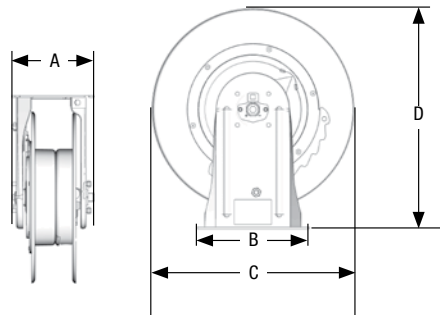
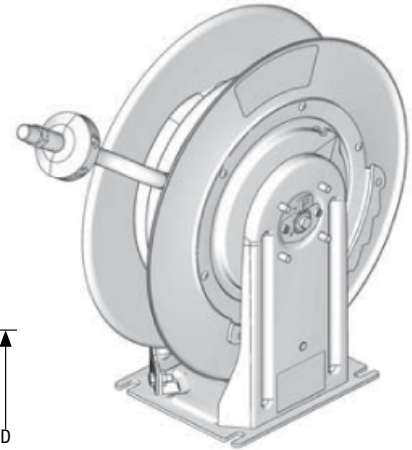
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Light-utility service trucks

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Grease
- Air
- Water
- Anti-freeze
- Fuel evacuation
- Windshield washer
- Waste oil

Dimensions

XD 30 Hose Reels HN Model	
A	9.0" (229 mm)
B	13.77" (350.00 mm)
C	21.50" (546.00 mm)
D	23.10" (588.00 mm)



Ordering Information

Technical Specifications

Applications	Model numbers by color			Pressure psi (bar)	Hose		Connection Size		Operating Temp.		
	Metallic Blue	White	Yellow		id in. (mm)	Length ft (m)	Inlet npsm(m)	Outlet			
Air, Water, Anti-Freeze, Windshield Washer Fluid	XD 20 HN	HNL56B	HNL56A	HNL56F	300 (20.7)	3/8	65	1/2 npsm(m)	3/8npt(m)	-20° F to 190° F (-28° C to 87° C)	
		24C246^	24C245^	24C247^	300 (20.7)	3/8	65	1/2 npsm(m)	3/8npt(m)		
		HNL65B	HNL65A	HNL65F	300 (20.7)	1/2	50	1/2 npsm(m)	1/2 npt(m)		
	XD 30 HN	24C249^	24C248^	24C250^	300 (20.7)	1/2	50	1/2 npsm(m)	1/2 npt(m)		
		HNLC8B	HNLC8A	HNLC8F	300 (20.7)	1/2	75	1/2 npsm(m)	1/2 npt(m)		-40° F to 180° F (-40° C to 82° C)
		HNLD5B	HNLD5A	HNLD5F	300 (20.7)	3/4	50	3/4 npsm(m)	3/4 npt(m)		
Petroleum- and Synthetic-Based Oils	XD 20 HN	HNM65B	HNM65A	HNM65F	2000 (138)	1/2	50	1/2 npsm(m)	1/2 npt(m)	-20° F to 190° F (-28° C to 87° C)	
		24C252^	24C251^	24C253^	2000 (138)	1/2	50	1/2 npsm(m)	1/2 npt(m)		
	XD 30 HN	HNMC8B	HNMC8A	HNMC8F	1500 (103)	1/2	75	1/2 npsm(m)	1/2 npt(m)	-40° F to 180° F (-40° C to 82° C)	
		HNMD5B	HNMD5A	HNMD5F	1250 (86)	3/4	50	3/4 npsm(m)	3/4 npt(m)		
		HNMDDB*	HNMDDA*	HNMDDF*	2000 (138)	3/4	50	3/4 npsm(m)	3/4 npt(m)		
		HNH55B	HNH55A	HNH55F	4800 (331)	3/8	50	3/8 npsm(m)	1/4 npt(m)		
Grease	XD 20 HN	24C255^	24C254^	24C256^	4800 (331)	3/8	50	3/8 npsm(m)	1/4 npt(m)	-40° F to 200° F (-40° C to 93° C)	
		HNHC5B	HNHC5A	HNHC5F	5000 (345)	1/2	50	1/2 npsm(m)	1/2 npt(m)		
	XD 30 HN	HNHCDB*	HNHCDA*	HNHCDF*	5000 (345)	1/2	50	1/2 npsm(m)	1/2 npt(m)	-40° F to 180° F (-40° C to 82° C)	
		HNHB7B	HNHB7A	HNHB7F	5000 (345)	3/8	75	1/2 npsm(m)	3/8 npt(m)		
		XD 30 HN	HNPB8B	HNPB8A	HNPB8F	4000 (276)	3/8	75	1/2 npsm(m)		3/8 npt(m)
HNHFFB*	HNHFFA*		HNHFFF*	4000 (276)	3/8	75	1/2 npsm(m)	3/8 npsm(f)			
HNPC5B	HNPC5A		HNPC5F	4500 (310)	1/2	50	1/2 npsm(m)	1/2 npt(m)			
Fuel/Evacuation		HNLE3B	HNLE3A	HNLE3F	125 (86)	1	30	3/4 npsm(m)	1 npt(m)	-40° F to 100° F (-40° C to 49° C)	

*Bare reel hose sold separately ^ Reel package includes hose guide kit 15Y478

Wetted parts—bare hose reel only: zinc-plated steel, steel, nitrile rubber HN Dry Weight: 64 pounds (29.0 kg) Instruction Manual: 3A0138

Wetted parts—HSL, HSM, HNL, and HNM Models are Nickel Plated Carbon Steel, Aluminum, Buna N Rubber, UHMWPE. HSH, HSP, HNH, and HNP Models are Nickel Plated Stainless Steel, Buna N Rubber, UHMWPE

XD 10™, XD 20™ and XD 30™ Hose Reel Accessories

Hose Reels and Packages

Ordering Information

XD Enclosure Kits	Provides protection to extend the life of hose and bearings for XD reels					
Reel Enclose kits for One Reel	White	Metallic Blue	Red	Black	Dark Blue	Yellow
XD 10 Enclosure	24N331	24N332	24N333	24N334	24N335	24N336
XD 20 Enclosure	24N337	24N339	24N340	24N341	24N342	24N343
XD 10 End Caps (2)	—	—	—	24A950	—	—
XD 20 End Caps (2)	—	—	—	24A951	—	—
Enclosed Reel Mounting Channel	Enclosure mounting channel kits include all parts for mounting hose reels to walls or ceilings					
Description	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
XD Enclosed	24N323	24N324	24N325	24N326	24N327	24N328
Open Reel Mounting Channel	Accommodates one, two, three, four, five or six reels (includes all parts for wall or ceiling mounts)					
	1 Reel	2 Reels	3 Reels	4 Reels	5 Reels	6 Reels
XD 10/XD 20 Open	24A219	24A220	24A221	—	—	24A222
Retrofit Adapter Kits						
24A224	Includes all parts to mount hose reel to existing 500 series mounting pattern					
24C100	Includes all parts to convert SD10 hose reels to fit existing 250 series enclosures					
24P914	Includes all parts to convert XD20 hose reels to fit existing 500 series enclosures					
Mounting Bracket						
204741	Secures mounting channel to I-beam without drilling. Two brackets are required for 1-3 hose reels; three brackets for 4-6 hose reels					
Ball Stop Kits						
	Typical Hose I.D.					
222225	For 1/4 in (6.4 mm) I.D. hose <i>(Not for use with XD30, 700 or 750)</i>					
218340	For 1/4-3/8 in (6.4-9.5 mm) I.D. hose <i>(Not for use with XD30, 700 or 750)</i>					
218341	.782 I.D. used for 3/8 in and 1/2 in (9.5 mm and 12.7 mm) hose <i>(Not for use with XD 30, 700 or 750)</i>					
237872	1.0 I.D. used for 5/8 in (15.9 mm) hose					
237873	1.123 I.D. used for 3/4 in (19.1 mm) hose					
237874	1.374 I.D. used for 1 in (25.4 mm) hose					
24D132	For 3/8 in (9.5 mm) O.D. hose					
24D133	For 1/2 in (12.7 mm) O.D. hose					
Hose Inlet Kits for XD 10 and XD 20		Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet	
218549	Low/medium pressure	2000 (137)	1/2 (12)	24 (610)	npt(m)	
218550	High pressure	4000 (276)	3/8 (10)	24 (610)	npt(m)	
224417	High pressure	5000 (345)	1/4 (6)	24 (610)	npt(m)	
Hose Inlet Kits for XD 30		Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet	
24E283	High pressure	5000 (345)	1/2 (12)	24 (610)	npt(m)	
24E284	Low/medium pressure	1250 (86)	3/4 (19)	24 (610)	npt(m)	
218549	Low/medium pressure	2000 (137)	1/2 (12)	24 (610)	npt(m)	
24E285	Low pressure (for fuel)	125 (8.6)	1/2 (12)	24 (610)	npt(m)	
DEF Hoses						
124875	DEF hose, 2 ft, 3/4 in BSPP (M) x cut end (inlet hose)					
124581	DEF hose, 6 ft, 3/4 in BSPP (M) x cut end (inlet hose)					
Valve Hanger Kit						
224444	Mounts to side of reel to allow hanging of non-metered and high flow dispensing valves					
Metal Label Kits (includes one 3/4 in x 4-1/4 in (1.9 cm x 10.8 cm) metal label and mount)						
218670	Motor oil	218675	Air	218674	Hydraulic Oil	
218671	Grease	218676	Water	218673	ATF	
218672	Gear lube	218677	Anti-Freeze	218678	Evacuation	
Self Adhesive Identification Label Set						
180698	Set includes: 1 in x 5 in (25.4 mm x 127 mm) hose reels labels for Anti-Freeze, Water, SAE 5-40, SAE 10-40, SAE 20W, Hydraulic, Gear, SAE 10W, SAE 10-30, SAE 30W, Dexron, Air, Chassis, ATF					

Mounting Channel



Retrofit Bracket to fit 500 Series



Mounting Bracket



Ball Stop Kit



Hose Reel Enclosure

XD 40™ and XD 50™ Hose Reels

Hose Reels and Packages

Features and Benefits

- More hoses to choose from. Standard models come complete with factory installed hoses on the reel.
- Rotatable inlet position makes mounting easier in more applications.
- A Graco exclusive—breakthrough swivel design allows better flow to get work done faster. Materials are corrosion resistant and strong for long lasting performance.
- Improved ratchet design has one set of teeth instead of two to avoid reel lockout.
- Heavy-duty welded spool is stronger than bolted frames that can loosen with use. Ribs add extra strength for toughness over the long haul.
- Meets worldwide standards. Built with NPT, BSPP or BSPT threads means accessories screw right on without the need for adapters. 1.5" models also include 2" Victaulic*-style groove.

*Victaulic is a trademark of Victaulic Company of America.



XD 40



XD 50

Typical Applications

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

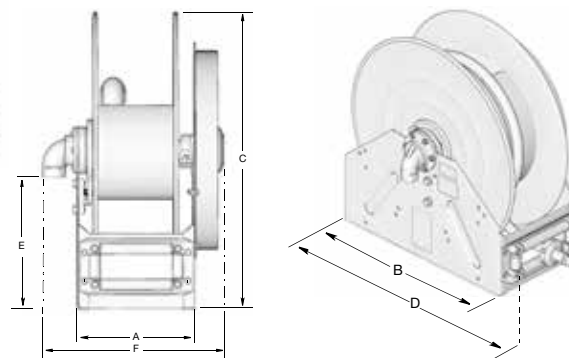
Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Diesel fuel
- Air
- Water
- Anti-freeze
- Waste oil

Dimensions

XD 40 REELS	
A	11.83 in (300 mm)
B	24 in (610 mm)
C	26.13 in (664 mm)
D	26.4 in (671 mm)
E	10.91 in (277 mm)
F: Model 1	16.54 in (420 mm)
F: Model 2	17.47 in (444 mm)

XD 50 REELS	
A	11.83 in (300 mm)
B	28.5 in (724 mm)
C	30.13 in (765 mm)
D	29.4 in (747 mm)
E	10.91 in (277 mm)
F: Model 3	17.47 in (444 mm)
F: Model 4	18.24 in (463 mm)



XD 40™ and XD 50™ Hose Reels

Hose Reels and Packages

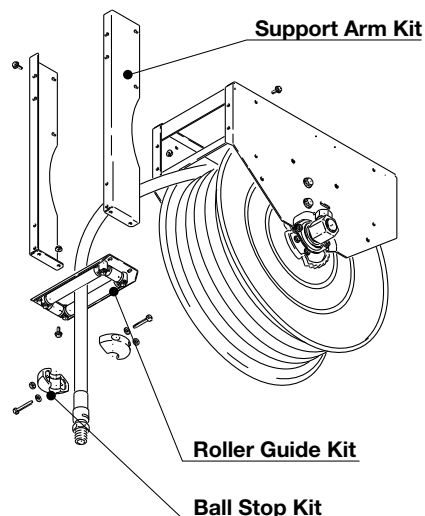
Reel with Hose Ordering Information | Technical Specifications

Applications		Model numbers by color			Pressure psi (bar)	Hose		Dimension "F"	Connection Size		Operating Temperature
		Blue	Yellow	White		id in	Length ft (m)		Inlet npt (f)	Outlet npt (m)	
Air/Water/ Anti-Freeze	XD 40	24P327	24P328	24P329	300 (21)	1/2	100 (30)	Model 1	1	1/2	-20°-180° F (-28°-82° C)
		24P330	24P331	24P332	300 (21)	3/4	75 (23)		1	3/4	
		24P333	24P334	24P335	300 (21)	3/4	100 (30)		1	3/4	
		24P336	24P337	24P338	300 (21)	1	50 (15)		1	1	
	XD 50	24P470	24P471	24P472	300 (21)	1	75 (23)	Model 3	1	1	
		24P473	24P474	24P475	300 (21)	1	100 (30)		1	1	
Oil	XD 40	24P339	24P340	24P341	2000 (138)	1/2	100 (30)	Model 2	1	1/2	-40°-180° F (-40°-82° C)
		24P342*	24P343*	24P344*	1500 (103)	3/4	75 (23)	Model 1	1	3/4	
		24R857**	24R859**	24R860**	1500 (103)	3/4	75 (23)	Model 2	1	3/4	
		24P345	24P346	24P347	1500 (103)	3/4	100 (30)		1	3/4	
		24P348*	24P349*	24P350*	1275 (88)	1	50 (15)	Model 1	1	1	
		24R861**	24R862**	24R863**	1275 (88)	1	50 (15)	Model 2	1	1	
	XD 50	24P476	24P477	24P478	1275 (88)	1	75 (23)	Model 3	1	1	
Waste Oil Evacuation	XD 40	24P351	24P352	24P353	250 (17)	1	50 (15)	Model 1	1	1	
	XD 50	24P479†	24P480†	24P481†	200 (14)	1 1/4	35 (11)	Model 4	1 1/2†	1 1/4	
		24P482†	24P483†	24P484†	200 (14)	1 1/4	50 (15)		1 1/2†	1 1/4	
Diesel Fuel	XD 40	24P354	24P355	24P356	250 (17)	1	50 (15)	Model 1	1	1	
	XD 50	24P485	24P486	24P487	250 (17)	1	75 (23)	Model 3	1	1	
		24P488	24P489	24P490	250 (17)	1	100 (30)		1	1	
		24P491†	24P492†	24P493†	250 (17)	1 1/4	35 (11)		Model 4	1 1/2†	1 1/4
	24P494†	24P495†	24P496†	250 (17)	1 1/4	50 (15)	1 1/2†	1 1/4			
	24P497†	24P498†	24P499†	150 (10)	1 1/2	50 (15)	1 1/2†	1 1/2			

*Truck/bench mount only. **Overhead or truck mount. †Standard 2" Victaulic††-style groove on inlet. ††Victaulic is a trademark of Victaulic Company of America. See manual 3A2990 on graco.com for more dimensional information.

Accessories

Inlet Hose Kits		Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet
24R111	Inlet kit for Air/Water and Oil	1275 (88)	1 (25)	28 (711)	npt(m)
24R112	Inlet kit for Waste Oil Evacuation	250 (17)	1 (25)	28 (711)	npt(m)
24R115	Inlet kit for Diesel Fuel	250 (17)	1 (25)	28 (711)	npt(m)
24R117	Inlet kit for Diesel Fuel	150 (10)	1.5 (38)	28 (711)	npt(m)
Ball Stop Kits					
237873	Ball stop kit used for 3/4 in (19.1 mm) hose				
237874	Ball stop kit used for 1 in (25.4 mm) hose				
24R060	Ball stop kit used for a 1.25 in (31.75 mm) hose				
24R061	Ball stop kit used for a 1.5 in (38.1 mm) hose				
Arm Kits and Roller Guides					
24R076	Support Arm Kit for XD 40				
24R077	Support Arm Kit for XD 50				
24R072	Roller Guide Kit with Bracket for XD 40				
24R074	Roller Guide Kit with Bracket for XD 50				
237932	Overhead mounting kit for XD 40. Includes all parts needed for ceiling mounting 1 reel				



XD 40™ and XD 50™ Hose Reels

Hose Reels and Packages

Bare Reel Ordering Information

Technical Specifications

Applications		Model numbers by color			Pressure psi (bar)	Hose Length Capacity		Dimension "F"	Connection Size		Operating Temperature
		Blue	Yellow	White		id in	Length ft (m)		Inlet npt (f)	Outlet npt (f)	
Air/Water/ Anti-Freeze	XD 40	24P313	24P315	24P316	600 (41)	1/2	100 (30)	Model 1	1	1	-40°-180° F (-40°-82° C)
		24P317	24P318	24P319		3/4	75 (23)				
		24P317	24P318	24P319		1	50 (15)				
	XD 50	24P455	24P456	24P457		3/4	100 (30)	Model 3			
		24P455	24P456	24P457		1	75 (23)	Model 3			
		24P455	24P456	24P457		1	100 (30)	Model 3			
Oil	XD 40	24P320*	24P322*	24P323*	2000 (138)	1	50 (15)	Model 1	1	1	
		24R854**	24R855**	24R856**		3/4	75 (23)				
		24P324	24P325	24P326		1	50 (15)	Model 2			
		24P324	24P325	24P326		3/4	75 (23)				
	XD 50	24P458	24P459	24P460		1/2	100 (30)	Model 3			
		24P458	24P459	24P460		3/4	100 (30)				
Waste Oil Evacuation	XD 40	24P317	24P318	24P319	600 (41)	1	50 (15)	Model 1	1	1	
	XD 50	24P461†	24P462†	24P463†		1 1/4	35 (11) 50 (15)	Model 4	1 1/2†	1 1/2	
Diesel Fuel	XD 40	24P317	24P318	24P319	600 (41)	1	50 (15)	Model 1	1	1	
		24P455	24P456	24P457		1	100 (30)	Model 3	1	1	
	XD 50	24P461†	24P462†	24P463†		1 1/4	35 (11) 50 (15)	Model 4	1 1/2†	1 1/2	
		24P464	24P465	24P466		1	75 (23)	Model 3	1	1	
		24P467†	24P468†	24P469†		1 1/2	50 (15)	Model 4	1 1/2†	1 1/2	
		24P467†	24P468†	24P469†		1 1/2	50 (15)	Model 4	1 1/2†	1 1/2	

*Truck/bench mount only. **Overhead or truck mount. †Standard 2" Victaulic†-style groove on inlet. ††Victaulic is a trademark of Victaulic Company of America. See manual 3A2990 on graco.com for more dimensional information.

Accessories

Inlet Hose Kits		Pressure psi (bar)	Hose id in (mm)	Length in (mm)	Hose Inlet
24R111	Inlet kit for Air/Water and Oil	1275 (88)	1 (25)	28 (711)	npt(m)
24R112	Inlet kit for Waste Oil Evacuation	250 (17)	1 (25)	28 (711)	npt(m)
24R115	Inlet kit for Diesel Fuel	250 (17)	1 (25)	28 (711)	npt(m)
24R117	Inlet kit for Diesel Fuel	150 (10)	1.5 (38)	28 (711)	npt(m)
Ball Stop Kits					
237873	Ball stop kit used for 3/4 in (19.1 mm) hose				
237874	Ball stop kit used for 1 in (25.4 mm) hose				
24R060	Ball stop kit used for a 1.25 in (31.75 mm) hose				
24R061	Ball stop kit used for a 1.5 in (38.1 mm) hose				
Mounting Kits, Arms and Roller Guides					
24R076	Support Arm Kit for XD 40				
24R077	Support Arm Kit for XD 50				
24R072	Roller Guide Kit with Bracket for XD 40				
24R074	Roller Guide Kit with Bracket for XD 50				
237932	Overhead mounting kit for XD 40. Includes all parts needed for ceiling mounting 1 reel				

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Features and Benefits

Choose from multiple frame and motor combinations—mix and match to make quick work of configuring the reel for your application. Reels can easily be configured for left or right inlet orientation by switching the outlet direction and motor rotation to suit your needs. Order reels assembled, or choose frames and motor modules to maximize uptime for on-site installations.

- Drive unit is clean and lubricated for life, so there's no need to worry about greasy, exposed drive chains that need maintenance and can be dangerous to operators
- A Graco exclusive—breakthrough swivel design allows better flow to get work done faster
- Materials are corrosion resistant and strong for long lasting performance
- Direct drive hydraulic, and enclosed gear drive pneumatic and electric with 12, 24, 115, and 230 VAC motor options
- Electric motors are UL listed for use in hazardous locations
- 600 psi (41 bar) low pressure and 3,000 psi (207 bar) medium pressure models
- Operating temperature range of -40 to 180° F (-40 to 82° C)*
- Adjustable band clamp brake used to slow and stop reel
- Optional roller guides and arms available as accessories

Not all options available in every configuration. Please see ordering guide for available sizes.

**Grease reels are rated for 0° to 180° F (-18 to 82° C)*

Typical Fluids

- Air
- Water
- Petroleum- and sythetic-based oils
- Grease
- Diesel fuel
- Waste oil evacuation
- Anti-freeze

Top Quality Solutions for:

- Mining operations
- Oil and gas industry
- Heavy-duty construction
- Agriculture
- Sewer and waste water
- Transportation



XD 60

Hose Capacity	Up to ½ in x 100 ft, ¾ in x 100 ft, 1 in x 50 ft
Swivel Size	1 inch npt inlet and outlet



XD 70

Hose Capacity	Up to 1 in x 100 ft, 1.5 in x 65 ft, 2 in x 33 ft
Swivel Size	1, 1.5 or 2 inch npt inlet and outlet

*1.5" models include 2" Victaulic** style groove on inlet*



XD 80

Hose Capacity	Up to 1 in x 150 ft, 1.5 in x 100 ft, 2 in x 50 ft
Swivel Size	1, 1.5 or 2 inch npt inlet and outlet

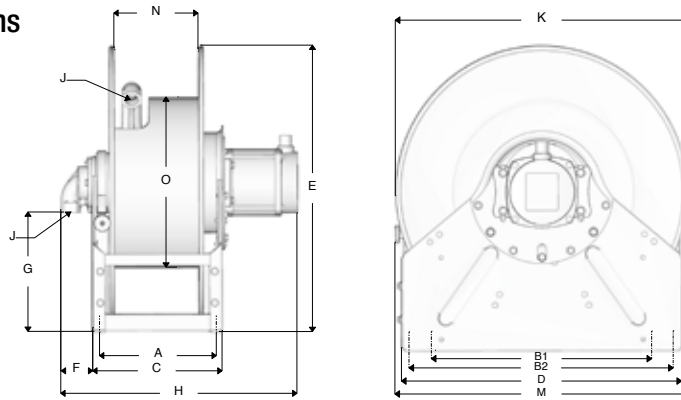
*1.5" models include 2" Victaulic** style groove on inlet*

** Victaulic is a trademark of Victaulic Company of America

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Dimensions



Model	Power Source	A	B1	B2	C	D	E	F	G	H	J	K	M	N	O	P
		(inches)														
XD6010	Pneumatic	10.45	22.25	na	11.8	24.0	26.1	2.8	10.9	20.4	1" npt	25.0	26.0	7.8	15.5	0.437
XD6010	Hydraulic	10.45	22.25	na	11.8	24.0	26.1	2.8	10.9	15.7	1" npt	25.0	26.0	7.8	15.5	0.437
XD6010	Electric	10.45	22.25	na	11.8	24.0	26.1	2.8	10.9	21.6	1" npt	25.0	26.0	7.8	15.5	0.437
XD7010	Pneumatic	12.95	22.25	na	14.3	24.0	26.1	2.8	10.9	22.9	1" npt	25.0	26.0	10.0	10.0	0.437
XD7010	Hydraulic	12.95	22.25	na	14.3	24.0	26.1	2.8	10.9	18.2	1" npt	25.0	26.0	10.0	10.0	0.437
XD7010	Electric	12.95	22.25	na	14.3	24.0	26.1	2.8	10.9	24.1	1" npt	25.0	26.0	10.0	10.0	0.437
XD7015	Pneumatic	12.95	22.25	na	14.3	24.0	26.1	3.6	10.9	23.7	1.5" npt	25.0	26.0	10.0	10.0	0.437
XD7015	Hydraulic	12.95	22.25	na	14.3	24.0	26.1	3.6	10.9	19.0	1.5" npt	25.0	26.0	10.0	10.0	0.437
XD7015	Electric	12.95	22.25	na	14.3	24.0	26.1	3.6	10.9	24.8	1.5" npt	25.0	26.0	10.0	10.0	0.437
XD7020	Pneumatic	12.95	22.25	na	14.3	24.0	26.1	4.0	10.2	24.1	2" npt	25.0	26.0	10.0	10.0	0.437
XD7020	Hydraulic	12.95	22.25	na	14.3	24.0	26.1	4.0	10.2	19.4	2" npt	25.0	26.0	10.0	10.0	0.437
XD7020	Electric	12.95	22.25	na	14.3	24.0	26.1	4.0	10.2	25.2	2" npt	25.0	26.0	10.0	10.0	0.437
XD8010	Pneumatic	20.68	22.25	26.73	22.1	28.5	30.1	2.8	13.4	30.7	1" npt	28.0	30.4	18.0	15.5	0.437
XD8010	Hydraulic	20.68	22.25	26.73	22.1	28.5	30.1	2.8	13.4	26.0	1" npt	28.0	30.4	18.0	15.5	0.437
XD8010	Electric	20.68	22.25	26.73	22.1	28.5	30.1	2.8	13.4	31.8	1" npt	28.0	30.4	18.0	15.5	0.437
XD8015	Pneumatic	20.68	22.25	26.73	22.1	28.5	30.1	3.6	13.4	31.4	1.5" npt	28.0	30.4	18.0	15.5	0.437
XD8015	Hydraulic	20.68	22.25	26.73	22.1	28.5	30.1	3.6	13.4	26.7	1.5" npt	28.0	30.4	18.0	15.5	0.437
XD8015	Electric	20.68	22.25	26.73	22.1	28.5	30.1	3.6	13.4	32.5	1.5" npt	28.0	30.4	18.0	15.5	0.437
XD8020	Pneumatic	20.68	22.25	26.73	22.1	28.5	30.1	4.0	12.7	31.9	2" npt	28.0	30.4	18.0	15.5	0.437
XD8020	Hydraulic	20.68	22.25	26.73	22.1	28.5	30.1	4.0	12.7	27.1	2" npt	28.0	30.4	18.0	15.5	0.437
XD8020	Electric	20.68	22.25	26.73	22.1	28.5	30.1	4.0	12.7	33.0	2" npt	28.0	30.4	18.0	15.5	0.437
		(mm)														
XD6010	Pneumatic	265	565	na	300	610	663	71	277	519	1" npt	635	660	198	394	11
XD6010	Hydraulic	265	565	na	300	610	663	71	277	400	1" npt	635	660	198	394	11
XD6010	Electric	265	565	na	300	610	663	71	277	547	1" npt	635	660	198	394	11
XD7010	Pneumatic	329	565	na	363	610	663	71	277	583	1" npt	635	660	254	254	11
XD7010	Hydraulic	329	565	na	363	610	663	71	277	463	1" npt	635	660	254	254	11
XD7010	Electric	329	565	na	363	610	663	71	277	611	1" npt	635	660	254	254	11
XD7015	Pneumatic	329	565	na	363	610	663	91	277	603	1.5" npt	635	660	254	254	11
XD7015	Hydraulic	329	565	na	363	610	663	91	277	483	1.5" npt	635	660	254	254	11
XD7015	Electric	329	565	na	363	610	663	91	277	631	1.5" npt	635	660	254	254	11
XD7020	Pneumatic	329	565	na	363	610	663	102	259	613	2" npt	635	660	254	254	11
XD7020	Hydraulic	329	565	na	363	610	663	102	259	493	2" npt	635	660	254	254	11
XD7020	Electric	329	565	na	363	610	663	102	259	641	2" npt	635	660	254	254	11
XD8010	Pneumatic	525	565	679	561	724	765	71	340	779	1" npt	711	772	457	394	11
XD8010	Hydraulic	525	565	679	561	724	765	71	340	659	1" npt	711	772	457	394	11
XD8010	Electric	525	565	679	561	724	765	71	340	807	1" npt	711	772	457	394	11
XD8015	Pneumatic	525	565	679	561	724	765	91	340	799	1.5" npt	711	772	457	394	11
XD8015	Hydraulic	525	565	679	561	724	765	91	340	679	1.5" npt	711	772	457	394	11
XD8015	Electric	525	565	679	561	724	765	91	340	827	1.5" npt	711	772	457	394	11
XD8020	Pneumatic	525	565	679	561	724	765	102	323	809	2" npt	711	772	457	394	11
XD8020	Hydraulic	525	565	679	561	724	765	102	323	689	2" npt	711	772	457	394	11
XD8020	Electric	525	565	679	561	724	765	102	323	837	2" npt	711	772	457	394	11

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Hose Reel Ordering Information				Technical Specifications							
Applications	Model numbers by color			Description	Weight lbs (kg)	Pressure psi (bar)	Recommended Hose Capacity			Inlet/Outlet Size npt (f)	
	Blue	Yellow	White				Hose Diameter	x Length	ft (m)		
Air/Water/ Anti-Freeze	XD 60	24R419	24R420	24R421	XD6010, Pneumatic Motor	123 (56)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	1 in/1 in
		24R414	24R415	24R416	XD6010, Hydraulic Motor	101 (45)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R404	24R405	24R406	XD6010, 12 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R407	24R408	24R409	XD6010, 24 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R410	24R412	24R413	XD6010, 115 VAC Electric Motor	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24T207	24T208	24T209	XD6010, 230 VAC Electric Motor	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
	XD 70	24R449	24R450	24R451	XD7010, Pneumatic Motor	122 (55)	600 (41)	1"x75' (23)	1"x100' (30)		1 in/1 in
		24R446	24R447	24R448	XD7010, Hydraulic Motor	100 (45)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R437	24R438	24R439	XD7010, 12 VDC Electric Motor, 1/2 HP	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R440	24R441	24R442	XD7010, 24 VDC Electric Motor, 1/2 HP	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R443	24R444	24R445	XD7010, 115 VAC Electric Motor	132 (60)	600 (41)	1"x75' (23)	1"x100' (50)		
		24T213	24T215	24T216	XD7010, 230 VAC Electric Motor	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
	XD 80	24R531	24R532	24R533	XD8010, Pneumatic Motor	164 (74)	600 (41)	1"x150' (46)			1 in/1 in
		24R528	24R529	24R530	XD8010, Hydraulic Motor	142 (64)	600 (41)	1"x150' (46)			
		24R519	24R520	24R521	XD8010, 12 VDC Electric Motor, 1/2 HP	173 (78)	600 (41)	1"x150' (46)			
		24R522	24R523	24R524	XD8010, 24 VDC Electric Motor, 1/2 HP	173 (78)	600 (41)	1"x150' (46)			
		24R525	24R526	24R527	XD8010, 115 VAC Electric Motor	173 (78)	600 (41)	1"x150' (46)			
		24T227	24T228	24T229	XD8010, 230 VAC Electric Motor	173 (78)	600 (41)	1"x150' (46)			
Oil	XD 60	24R434	24R435	24R436	XD6010, Pneumatic Motor	125 (56)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	1 in/1 in
		24R431	24R432	24R433	XD6010, Hydraulic Motor	103 (47)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R422	24R423	24R424	XD6010, 12 VDC Electric Motor, 1/2 HP	134 (61)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R425	24R426	24R427	XD6010, 24 VDC Electric Motor, 1/2 HP	134 (61)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R428	24R429	24R430	XD6010, 115 VAC Electric Motor	134 (61)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24T210	24T211	24T212	XD6010, 230 VAC Electric Motor	134 (61)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	

Reels and Packages

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Hose Reel Ordering Information				Technical Specifications							
Applications	Model numbers by color			Description	Weight	Pressure psi (bar)	Recommended Hose Capacity			Inlet/Outlet Size npt (f)	
	Blue	Yellow	White				Hose Diameter	x Length	ft (m)		
Oil	XD 70	24R464	24R465	24R466	XD7010 Pneumatic Motor	100 (56)	3000 (207)	1"x75' (23)	1"x100' (30)		1 in/1 in
		24R461	24R462	24R463	XD7010 Hydraulic Motor	102 (46)	3000 (207)	1"x75' (23)	1"x100' (30)		
		24R452	24R453	24R454	XD7010 12 VDC Elec. Motor, 1/2 HP	133 (60)	3000 (207)	1"x75' (23)	1"x100' (30)		
		24R455	24R456	24R457	XD7010 24 VDC Elec. Motor, 1/2 HP	133 (60)	3000 (207)	1"x75' (23)	1"x100' (30)		
		24R458	24R459	24R460	XD7010 115 VAC Electric Motor	133 (60)	3000 (207)	1"x75' (23)	1"x100' (30)		
		24T218	24T219	24T220	XD7010 230 VAC Electric Motor	133 (60)	3000 (207)	1"x75' (23)	1"x100' (30)		
	XD 80	24R546	24R547	24R548	XD8010 Pneumatic Motor	165 (75)	3000 (207)	1"x150' (46)			1 in/1 in
		24R543	24R544	24R545	XD8010 Hydraulic Motor	143 (65)	3000 (207)	1"x150' (46)			
		24R534	24R535	24R536	XD8010 12 VDC Elec. Motor, 1/2 HP	175 (79)	3000 (207)	1"x150' (46)			
		24R537	24R538	24R539	XD8010 24 VDC Elec Motor, 1/2 HP	175 (79)	3000 (207)	1"x150' (46)			
		24R540	24R541	24R542	XD8010 115 VAC Electric Motor	175 (79)	3000 (207)	1"x150' (46)			
		24T230	24T231	24T232	XD8010 230 VAC Electric Motor	175 (79)	3000 (207)	1"x150' (46)			
Waste Oil Evac.	XD 60	24R419	24R420	24R421	XD6010 Pneumatic Motor	123 (56)	600 (41)	1'x50" (15)			1 in/1 in
		24R414	24R415	24R416	XD6010 Hydraulic Motor	101 (45)	600 (41)	1'x50" (15)			
		24R404	24R405	24R406	XD6010 12 VDC Elec. Motor, 1/2 HP	133 (60)	600 (41)	1'x50" (15)			
		24R407	24R408	24R409	XD6010 24 VDC Elec Motor, 1/2 HP	133 (60)	600 (41)	1'x50" (15)			
		24R410	24R412	24R413	XD6010 115 VAC Electric Motor	133 (60)	600 (41)	1'x50" (15)			
		24T207	24T208	24T209	XD6010 230 VAC Electric Motor	133 (60)	600 (41)	1'x50" (15)			
	XD 70	24R516*	24R517*	24R518*	XD7015, Pneumatic Motor	100 (56)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	1.5 in/1.5 in*
		24R512*	24R513*	24R515*	XD7015 Hydraulic Motor	102 (46)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	
		24R503*	24R504*	24R505*	XD7015 12 VDC Elec. Motor, 1/2 HP	133 (60)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	
		24R506*	24R507*	24R508*	XD7015 24 VDC Elec. Motor, 1/2 HP	133 (60)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	
		24R509*	24R510*	24R511*	XD7015 115 VAC Electric Motor	133 (60)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	
		24T221*	24T222*	24T223*	XD7015 230 VAC Electric Motor	133 (60)	600 (41)	1.25"x35' (10.5)	1.25"x50' (15)	1.5"x50' (15)	

*Standard 2" Victaulic** style groove on inlet. **Victaulic is a trademark of Victaulic Company of America.

Reels and Packages

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Hose Reel Ordering Information				Technical Specifications							
Applications	Model numbers by color			Description	Weight	Pressure psi (bar)	Recommended Hose Capacity			Inlet/Outlet Size npt (f)	
	Blue	Yellow	White				Hose Diameter	x Length ft (m)			
Diesel Fuel	XD 60	24R419	24R420	24R421	XD6010 Pneumatic Motor	123 (56)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	1 in/1 in
		24R414	24R415	24R416	XD6010 Hydraulic Motor	101 (45)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R404	24R405	24R406	XD6010 12 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R407	24R408	24R409	XD6010 24 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24R410	24R412	24R413	XD6010 115 VAC Electric Motor	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
		24T207	24T208	24T209	XD 6010 230 VAC Electric Motor	133 (60)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1'x50" (15)	
	XD 70	24R449	24R450	24R451	XD7010 Pneumatic Motor	122 (55)	600 (41)	1"x75' (23)	1"x100' (30)		1 in/1 in
		24R446	24R447	24R448	XD7010 Hydraulic Motor	100 (45)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R437	24R438	24R439	XD7010 12 VDC Electric Motor, 1/2 HP	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R440	24R441	24R442	XD7010 24 VDC Electric Motor, 1/2 HP	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
		24R443	24R444	24R445	XD7010 115 VAC Electric Motor	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
		24T213	24T215	24T216	XD7010 230 VAC Electric Motor	132 (60)	600 (41)	1"x75' (23)	1"x100' (30)		
	XD 70	24R516*	24R517*	24R518*	XD7015 Pneumatic Motor	100 (56)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	1.5 in/1.5 in*
		24R512*	24R513*	24R515*	XD7015 Hydraulic Motor	102 (46)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	
		24R503*	24R504*	24R505*	XD7015 12 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	
		24R506*	24R507*	24R508*	XD7015 24 VDC Electric Motor, 1/2 HP	133 (60)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	
		24R509*	24R510*	24R511*	XD7015 115 VAC Electric Motor	133 (60)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	
		24T221*	24T222*	24T223*	XD7015 230 VAC Electric Motor	133 (60)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	
XD 70	24T023	24T024	24T025	XD7020 Pneumatic Motor	128 (58)	600 (41)	2"x33' (10)			2 in/2 in	
	24T020	24T021	24T022	XD7020 Hydraulic Motor	106 (48)	600 (41)	2"x33' (10)				
	24T011	24T012	24T013	XD7020 12 VDC Electric Motor, 1/2 HP	137 (62)	600 (41)	2"x33' (10)				
	24T014	24T015	24T016	XD7020 24 VDC Electric Motor, 1/2 HP	137 (62)	600 (41)	2"x33' (10)				
	24T017	24T018	24T019	XD7020 115 VAC Electric Motor	137 (62)	600 (41)	2"x33' (10)				
	24T224	24T225	24T226	XD7020 230 VAC Electric Motor	137 (62)	600 (41)	2"x33' (10)				
XD 80	24R531	24R532	24R533	XD8010 Pneumatic Motor	164 (74)	600 (41)	1"x150' (46)			1 in/1 in	
	24R528	24R529	24R530	XD8010 Hydraulic Motor	142 (64)	600 (41)	1"x150' (46)				
	24R519	24R520	24R521	XD8010 12 VDC Electric Motor, 1/2 HP	173 (78)	600 (41)	1"x150' (46)				
	24R522	24R523	24R524	XD8010 24 VDC Elec., Motor, 1/2 HP	173 (78)	600 (41)	1"x150' (46)				
	24R525	24R526	24R527	XD8010 115 VAC Electric, Motor	173 (78)	600 (41)	1"x150' (46)				
	24T227	24T228	24T229	XD8010 230 VAC Electric, Motor	173 (78)	600 (41)	1"x150' (46)				

*Standard 2" Victaulic™--style groove on inlet. **Victaulic is a trademark of Victaulic Company of America.

XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Hose Reel Ordering Information

Technical Specifications

Applications	Model numbers by color			Description	Weight	Pressure psi (bar)	Recommended Hose Capacity		Inlet/Outlet Size npt (f)	
	Blue	Yellow	White				Hose Diameter x Length ft (m)			
Diesel Fuel/ Anti-Freeze	XD 80	24R561*	24R562*	24R563*	XD8015 Pneumatic Motor	165 (75)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	1.5 in/1.5 in*
		24R558*	24R559*	24R560*	XD8015 Hydraulic Motor	143 (65)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	
		24R549*	24R550*	24R551*	XD8015 12 VAC Electric Motor, 1/2 HP	175 (79)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	
		24R552*	24R553*	24R554*	XD8015 24 VAC Electric Motor, 1/2 HP	175 (79)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	
		24R555*	24R556*	24R557*	XD8015 115 VAC Electric Motor	175 (79)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	
		24T233*	24T234*	24T235*	XD8015 230 VAC Electric Motor	175 (79)	600 (41)	1.5"x75' (23)	1.5"x100' (50)	
	XD 80	24R576	24R577	24R578	XD8020 Pneumatic Motor	169 (76)	600 (41)	2"x50' (15)		2 in/2 in
		24R573	24R574	24R575	XD8020 Hydraulic Motor	147 (67)	600 (41)	2"x50' (15)		
		24R564	24R565	24R566	XD8020 12 VDC Electric Motor, 1/2 HP	179 (81)	600 (41)	2"x50' (15)		
		24R567	24R568	24R569	XD8020 24 VDC Electric Motor, 1/2 HP	179 (81)	600 (41)	2"x50' (15)		
24R570		24R571	24R572	XD8020 115 VAC Electric Motor	179 (81)	600 (41)	2"x50' (15)			
24T236	24T237	24T238	XD8020 230 VAC Electric Motor	179 (81)	600 (41)	2"x50' (15)				
Grease- Bulk Transfer	XD 60	24R434	24R435	24R436	XD6010 Pneumatic Motor	125 (75)	3000 (207)	1"x50" (15)		1 in/1 in
		24R431	24R432	24R433	XD6010 Hydraulic Motor	103 (47)	3000 (207)	1"x50" (15)		
		24R422	24R423	24R424	XD6010 12 VDC Electric Motor, 1/2 HP	134 (61)	3000 (207)	1"x50" (15)		
		24R425	24R426	24R427	XD6010 24 VDC Electric Motor, 1/2 HP	134 (61)	3000 (207)	1"x50" (15)		
		24R428	24R429	24R430	XD6010 115 VAC Electric Motor	134 (61)	3000 (207)	1"x50" (15)		
		24T210	24T211	24T212	XD6010 230 VAC Electric Motor	134 (61)	3000 (207)	1"x50" (15)		

Operating temperature for grease reels is 0° F to 180° F (-18° to 82° C), all others are -40° F to 180° F (-40° to 82° C).

*Standard 2" Victaulic** style groove on inlet. **Victaulic is a trademark of Victaulic Company of America.

Modular Component Ordering Information

Reel Frames Only (Pair with Motor Assemblies)											
Air/Water, Diesel Fuel	XD 60	24T104	24T105	24T106	XD6010 Bare Reel, No Motor	87 (39)	600 (41)	1/2"x100' (30)	3/4"x100' (30)	1"x50" (15)	1 in/1 in
	XD 70	24T110	24T111	24T112	XD7010 Bare Reel, No Motor	86 (39)	600 (41)	1"x75' (23)	1"x100' (30)		
	XD 80	24T122	24T123	24T124	XD8010, Bare Reel, No Motor	127 (58)	600 (41)	1"x150' (46)			
Diesel Fuel	XD 70	24T116	24T117	24T118	XD7015, Bare Reel, No Motor	87 (39)	600 (41)	1.25"x50' (15)	1.5"x50' (15)	1.5"x65' (20)	1.5 in/1.5 in†
	XD 70	24T119	24T120	24T121	XD7020, Bare Reel, No Motor	91 (41)	600 (41)	2"x33' (10)			2 in/2 in
	XD 80	24T128	24T129	24T130	XD8015 Bare Reel, No Motor	129 (58)	600 (41)	1.5"x75' (23)	1.5"x100' (30)		1.5 in/1.5 in†
	XD 80	24T131	24T132	24T133	XD8020 Bare Reel, No Motor	133 (60)	600 (41)	2"x50' (15)			2 in/2 in
Waste Oil Evac	XD 60	24T104	24T105	24T106	XD6010 Bare Reel, No Motor	87 (39)	600 (41)	1"x50" (15)			1 in/1 in
	XD 70	24T116	24T117	24T118	XD7015, Bare Reel, No Motor	87 (39)	600 (41)	1.25"x50' (15)	1.5"x50' (15)		1.5 in/1.5 in†
Oil	XD 60	24T107	24T108	24T109	XD6010, Bare Reel, No Motor	88 (40)	3000 (207)	1/2"x100' (30)	3/4"x100' (30)	1"x50" (15)	1 in/1 in
	XD 70	24T113	24T114	24T115	XD7010, Bare Reel, No Motor	87 (39)	3000 (207)	1"x75' (23)	1"x100' (30)		
	XD 80	24T125	24T126	24T127	XD8010, Bare Reel, No Motor	129 (58)	3000 (207)	1"x150' (46)			

Operating temperature for grease reels is 0° F to 180° F (-18° to 82° C), all others are -40° F to 180° F (-40° to 82° C).

†Inlet on modular reels do not come standard with Victaulic** style groove. **Victaulic is a trademark of Victaulic Company of America.

Motor Assemblies (Pair with Frame Only Models)	
24T889	115 VAC, 0.40 HP, motor assembly, reversible type. For installing motor to bare XD frame
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
24T891	Hydraulic motor assembly, reversible type. For installing motor to bare XD reel
24T892	Pneumatic motor assembly, reversible type. For installing motor to bare XD reel
24T890	230 VAC, 1/2 HP, motor assembly, reversible type. For installing motor to bare XD frame

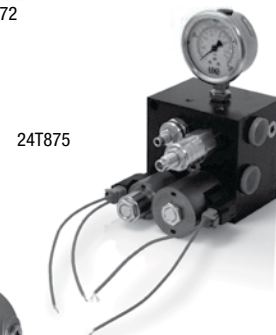
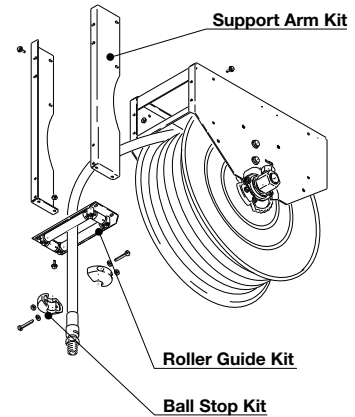


XD 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Accessories

Inlet Hose Kits		Pressure psi (bar)	Hose I.D. in (mm)	Length in (mm)	Hose Inlet
24R111	Inlet kit for air/water and oil	1275 (88)	1 (25)	28 (711)	1 in npt(m)
24R112	Inlet kit for waste oil evacuation	250 (17)	1 (25)	28 (711)	1 in npt(m)
24R115	Inlet kit for diesel fuel	250 (17)	1 (25)	28 (711)	1 in npt(m)
24R117	Inlet kit for diesel fuel	150 (10)	1.5 (38)	28 (711)	1.5 in npt(m)
24R118	Inlet kit for diesel fuel	150 (10)	2 (51)	28 (711)	2 in npt(m)
Ball Stop Kits					
237873	Ball stop kit used for 3/4 in (19.1 mm) hose				
237874	Ball stop kit used for 1 in (25.4 mm) hose				
24R060	Ball stop kit used for 1.25 in (31.75 mm) hose				
24R061	Ball stop kit used for 1.5 in (38.1 mm) hose				
Arm Kits and Hose Guides					
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				
24T332	Arm Kit with Stainless Steel Hose Guide for XD 60				
24T333	Arm Kit with Stainless Steel Hose Guide for XD 70				
24T334	Arm Kit with Stainless Steel Hose Guide for XD 80				
24T335	Arm Kit with Roller Guide for XD 60				
24T336	Arm Kit with Roller Guide for XD 70				
24T337	Arm Kit with Roller Guide for XD 80				
Controls					
24T875	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 12 VDC. Three position, four-way valve				
24T876	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 24 VDC. Three position, four-way valve				
127224	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 12V, includes switch. Three position, four-way valve				
127225	Hydraulic control module for electric over hydraulic control of XD 60/70/80 hydraulic powered hose reels, 24V includes switch. Three position, four-way valve				
127271	Pneumatic valve to control XD 60/70/80 pneumatic powered hose reels. Two position, three-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 60™, XD 70™ and XD 80™ Motor Driven Hose Reels

Hose Reels and Packages

Hoses			Pressure	Hose I.D. in (mm)
Diesel Fuel	24R102	1" x 50 ft (15 m) coupled fuel hose	250 psi (17)	1 (25)
	24R103	1" x 75 ft (23 m) coupled fuel hose	250 psi (17)	1 (25)
	24R106	1" x 100 ft (30 m) coupled fuel hose	250 psi (17)	1 (25)
	24T252	1" x 150 ft (46 m) coupled fuel hose	250 psi (17)	1 (25)
	24R108	1.25" x 35 ft (10.5 m) coupled fuel hose	250 psi (17)	1.25 (31.75)
	24R110	1.25" x 50 ft (15 m) coupled fuel hose	250 psi (17)	1.25 (31.75)
	24R114	1.5" x 50 ft (15 m) coupled fuel hose	150 psi (11)	1.5 (38)
	24T253	1.5" x 100 ft (30 m) coupled fuel hose	150 psi (11)	1.5 (38)
	127167	2" x 33 ft (10 m) coupled fuel hose	150 psi (11)	2 (50.8)
	24T254	2" x 50 ft (15 m) coupled fuel hose	150 psi (11)	2 (50.8)
Air/Water/Anti-Freeze	126359	1/2" x 100 ft (30 m) coupled air/water hose	300 psi (20.6)	1/2 (12.7)
	126360	3/4" x 75 ft (23 m) coupled air/water hose	300 psi (20.6)	3/4 (19)
	126361	3/4" x 100 ft (30 m) coupled air/water hose	300 psi (20.6)	3/4 (19)
	126362	1" x 50 ft (15 m) coupled air/water hose	300 psi (20.6)	1 (25)
	126363	1" x 75 ft (23 m) coupled air/water hose	300 psi (20.6)	1 (25)
	126364	1" x 100 ft (30 m) coupled air/water hose	300 psi (20.6)	1 (25)
Oil	126375	1/2" x 100 ft (30 m) coupled oil hose	2000 psi (138)	1/2 (12.7)
	126376	3/4" x 75 ft (23 m) coupled oil hose	1500 psi (138)	3/4 (19)
	126377	3/4" x 100 ft (30 m) coupled oil hose	1500 psi (103)	3/4 (19)
	126503	1" x 50 ft (15 m) coupled oil hose	1275 psi (88)	1 (25)
	126504	1" x 75 ft (23 m) coupled oil hose	1275 psi (88)	1 (25)
	126505	1" x 100 ft (30 m) coupled oil hose	1275 psi (88)	1 (25)
Waste Oil Evac.	126379	1" x 50 ft (15 m) coupled waste oil evac hose	250 psi (17)	1 (25)
	126688	1.25" x 50 ft (15 m) coupled waste oil evac hose	200 psi (13.8)	1.25 (31.75)
	126380	1.25" x 35 ft (10.5 m) coupled waste oil evac hose	200 psi (13.8)	1.25 (31.75)
	127173	1.5" x 50 ft (15 m) coupled waste oil evac hose	200 psi (13.8)	1 (25)
BSPP/BSPT Conversion Kits				
24T359	BSPP Conversion Kit. To convert a 1" XD 60 or XD 80 reel from NPT to BSPP			
24T361	BSPP Conversion Kit. To convert a 1" XD 70 reel from NPT to BSPP			
24T365	BSPP Conversion Kit. To convert a 1.5" XD 70 from NPT to BSPP			
24T363	BSPP Conversion Kit. To convert a 1.5" XD 80 from NPT to BSPP			
24T360	BSPT Conversion Kit. To convert a 1" XD 60 or XD 80 reel from NPT to BSPT			
24T362	BSPT Conversion Kit. To convert a 1" XD 70 reel from NPT to BSPT			
24T366	BSPT Conversion Kit. To convert a 1.5" XD 70 from NPT to BSPT			
24T364	BSPT Conversion Kit. To convert a 1.5" XD 80 from NPT to BSPT			
24T368	BSPT Conversion Kit. To convert a 2" XD 70 from NPT to BSPT			
24T367	BSPT Conversion Kit. To convert a 2" XD 80 from NPT to BSPT			

Dispense Consoles

Multi-Station Consoles and Accessories

Multi-Station Consoles*

Six-Station Console	
222629	Includes upper and lower floor plates with roller guides and brackets (1-110236; 5-196471) to hold one water bib and five Graco LDM dispense valves. Console dimensions (without brackets): 27 in high x 54 in long x 12 in wide (68.58 cm high x 139.7 cm long x 25.4 cm wide). Console requires a floor opening of 6 in x 51 in (15.2 cm x 122.4 cm)
Four-Station Console	
223448	Includes upper and lower floor plates, roller guides and brackets (1-110236; 3-196471) to hold one water bib and three Graco LDM dispense valves. Console dimensions (without brackets): 27 in high x 36 in long x 12 in wide (68.58 cm high x 139.7 cm long x 25.4 cm wide). Console requires floor opening of 6 in x 33 in (15.2 cm x 83.8 cm)
Single Add-On Fluid Module	
222645	For adding-on to four- or six-station consoles. Includes add-on module, floor plates with roller guides to fit module and one 196471. Console requires floor opening of 6 in x 8-1/2 in (15.2 cm x 21.6 cm). Add-on fluid module dimensions 27 in high x 9 in long x 10 in wide (68.5 cm high x 22.86 cm long x 25.4 cm wide)

*Hoses not included

Lubricant Dispense Consoles Accessories	
110236	Water bib bracket
110237	Em6 mounting bracket
110285	Pistol-grip dispense valve bracket
196471	Universal dispense valve bracket for EM5 and PM5
249440	Matrix dispense valve bracket
222641	Console roller repair kit (upper)
218591	Floor plate roller repair kit (lower)
178670	Roller only
234423	End panel replacement comes with 8 screws

Oil Dispense Bar

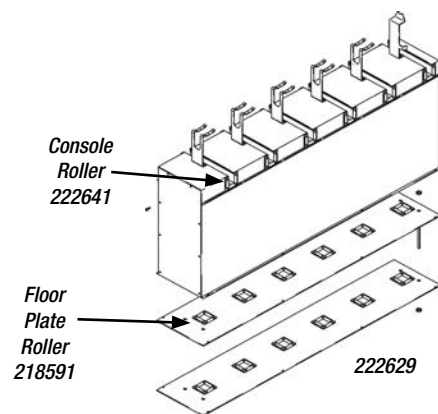
220107	Tough metal cabinet with baked-on enamel finish. Constructed with single-dispense tap and waste pan with plated, perforated metal service area and drain connection. Modular convenient design allows up to 2 oil dispense taps or 3 meters to be added at the time of installation, or later if required. Instruction manual 307742. Maximum working pressure 900 psi (62 bar). 22.6 in H x 13.25 in D x 18.3 in W (57.4 cm H x 33.7 cm D x 46.5 cm W)
Tap Kit	
220112	Add to oil dispense bar to convert into two or three taps, as needed. Kit also includes non-drip dispense valve, manifold and all necessary mounting hardware
Meter Kit	
239706	Any individual tap on the oil dispense bar can be fitted with a fluid meter. Kit includes meter 239824 and all necessary mounting hardware. Maximum working pressure 500 psi (34 bar)
220110	Spigot valve replacement



222629



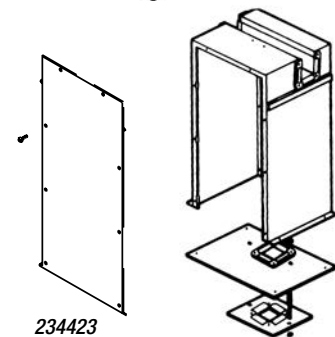
220107



Console Roller
222641

Floor Plate Roller
218591

222629



234423

222645

LD Series Electronic Meters

Dispense Meters and Control Valves

Features and Benefits

- Manual and Preset Dispense
- Dispenses in gallons, quarts, pints and liters
- Easy to read LCD display with durable switches for long life
- Rugged engineered material for superior impact resistance and long life
- Ergonomically-designed handle for optimum comfort
- Standard rigid extension kit and automatic thermal compensating nozzle
- Optional extensions available

Typical Applications

- Metered oil dispense
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- Service shops
- For indoor use only
- In-plant

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze

Technical Specifications

Flow Range ⁽¹⁾	0.1 - 5 gpm (0.4 - 19 lpm)
Maximum Working Pressure	1000 psi (69 bar)
Units of measure.....	Quarts, pints, gallons, liters (factory set to quarts)
Weight	3 lb (1.36 kg)
Inlet	1/2 in npt
Outlet	1/2 in npt
Operating Temperature Range.....	32 - 120° F (0 - 48.8° C)
Storage Temperature Range.....	-30 - 120° F (-34.4 - 48.8° C)
Battery	9 volt alkaline
Battery Life	one year
Wetted Parts.....	sst, nitrile rubber, zinc, cs, lcp
Meter Pressure Loss ⁽¹⁾	90 psi (6.2 bar) @ 5 gpm (19 lpm)
Accuracy ⁽²⁾	±0.5%
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)
Maximum Totalizer	999,999 gallons or liters
Maximum Recorded Dispense.....	999.9 Units (LDP5 only)
Warranty	Two Years
Instruction Manual	312668

⁽¹⁾ Tested in 10W oil at 70°F. Flow rates vary with fluid pressure, temperature, viscosity, inlet fitting and nozzle type.

⁽²⁾ @ 2.5 gpm (9.5 lpm) @ 70° F (21° C) with 10 wt. oil and 1 gal (3.8 l) dispensed.

May require re-calibration. Out-of-box accuracy ±1.25%. Not recommended for in-line installation.

Ordering Information

LDM5 Manual Dispense Meters	
255751	1/2 in npt(f) swivel, flexible extension and automatic nozzle for oil and anti-freeze
256215	1/2 in npt(f) swivel, rigid extension, trigger guard/boot and automatic nozzle for oil and anti-freeze
258693	1/2 in npt(f) swivel, flexible extension, trigger guard/boot and automatic nozzle for oil and anti-freeze
LDP5 Preset Dispense Meters	
255277	1/2 in npt(f) swivel, flexible extension and automatic nozzle for oil and anti-freeze
256216	1/2 in npt(f) swivel, rigid extension, trigger guard/boot and automatic nozzle for oil and anti-freeze
258694	1/2 in npt(f) swivel, flexible extension, trigger guard/boot and automatic nozzle for oil and anti-freeze



Dispense Meters and Control Valves

SD Series Electronic Meters

Dispense Meters and Control Valves

Features and Benefits

- Fluid inlet options (1/2 in and 3/4 in npt) meets standard and high-flow requirements
- Large LCD display and simple operator controls
- Locking trigger (LDP5/LDP15 models) and durable cast guard prevents accidental triggering
- Flush-mount nozzle valve design prevents leaks and contamination

Typical Applications

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

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze

Technical Specifications

Flow Range ⁽¹⁾	0.1–14 gpm (0.4 - 53 lpm)
Maximum Working Pressure	1500 psi (103.4 bar)
Weight	5 lbs (2.3 kg)
Inlet	3/4 in–14 npt or 1/2 in–14 npt
Outlet	3/4 in–16 straight thread O-ring Boss
Maximum Totalizer	999,999 gallons or liters
Maximum Recorded Dispense	999.9 Units
Maximum Pre-Set Volume	999.9 Units
Storage Temperature Range	-40–158° F (-40-70° C)
Operating Temperature Range	4–158° F (-20-70° C)
Battery	4 AA alkaline or 4 AA lithium
Battery Life ⁽³⁾ . . . Preset Models – six months w/alkaline, manual models – one year w/alkaline 4 AA alkaline/lithium	
Wetted Parts	Aluminum, sst, pbt/pc, nitrile rubber, cs
Meter Pressure Loss ⁽¹⁾	180 psi (12 bar) @ 14 gpm (53 lpm)
Accuracy ⁽²⁾	+/- 0.5%
Dimensions (without extension)	13 in L x 3.75 in W x 5.75 in H, (33cm x 9.5cm x 14.6cm)
Warranty	Five years overall, three years electronics
Instruction Manual	312865

⁽¹⁾ Tested in 10W oil at 70° F. Flow rates vary with fluid pressure, temperature, viscosity, inlet and nozzle type.

⁽²⁾ At 2.5 gpm (9.5 lpm) @ 70° F (21° C) with 10 wt. oil and 1 gal (3.8 l) dispensed. May require re-calibration. Out-of-box accuracy ±1.25%.

⁽³⁾ Average shop use with alkaline batteries (included); 30-35% longer life with lithium AA.

Ordering Information

SDM5 MANUAL DISPENSE ELECTRONIC METER, 5 GPM OR LESS	
255350	1/2 in npt(f) swivel, rigid extension with standard automatic non-drip quick-close nozzle for oil
255348	1/2 in npt(f) swivel, flexible extension with standard automatic non-drip quick-close nozzle for oil
255349	1/2 in npt(f) swivel, extension with standard quick-close nozzle for gear lube
255802	1/2 in npt(f) swivel, rigid extension with standard quick-close nozzle for anti-freeze
255803	1/2 in npt(f) swivel, flexible extension with standard quick-close nozzle for anti-freeze
SDM15 MANUAL DISPENSE ELECTRONIC METER, 14 GPM OR LESS	
256836	1/2 in npt(f) swivel, rigid extension with high flow, quick-close nozzle for oil and anti-freeze
256837	1/2 in npt(f) swivel, flexible extension with high flow, quick-close nozzle for oil and anti-freeze
255800	3/4 in npt(f) swivel, rigid extension with high flow, quick-close nozzle for oil and anti-freeze
255801	3/4 in npt(f) swivel, flexible extension with high flow, quick-close nozzle for oil and anti-freeze
SDP5 PRESET DISPENSE ELECTRONIC METER, 5 GPM OR LESS	
255200	1/2 in npt(f) swivel, rigid extension with standard automatic non-drip quick-close nozzle for oil
255351	1/2 in npt(f) swivel, flexible extension with standard automatic non-drip quick-close nozzle for oil
255352	1/2 in npt(f) swivel, extension with standard quick-close nozzle for gear lube
255355	1/2 in npt(f) swivel, rigid extension with standard quick-close nozzle for anti-freeze
255356	1/2 in npt(f) swivel, flexible extension with standard quick-close nozzle for anti-freeze
SDP15 PRESET DISPENSE ELECTRONIC METER, 14 GPM OR LESS	
256838	1/2 in npt(f) swivel, rigid extension with high flow, quick-close nozzle for oil and anti-freeze
256839	1/2 in npt(f) swivel, flexible extension with high flow, quick-close nozzle for oil and anti-freeze
255353	3/4 in npt(f) swivel, rigid extension with high flow, quick-close nozzle for oil and anti-freeze
255354	3/4 in npt(f) swivel, flexible extension with high flow, quick-close nozzle for oil and anti-freeze



255350

XDM6™ Electronic Meter

Dispense Meters and Control Valves

Features and Benefits

- Screw-tight nozzle for positive shut off
- Ball bearing swivel for ease of use
- Durable design ideal for use in harsh environments
- Reset capable for periodic dispense history information

Typical Applications

- Metered oil dispense in demanding environments
- Heavy-duty dealerships
- In-plant
- Service and fast lube centers
- Lube trucks
- Automotive dealerships
- Fleet service facilities
- Mining

Typical Fluids Handled*

- Petroleum- and synthetic-based oils
- * Not recommended for use with anti-freeze or windshield washer fluid

Technical Specifications

Maximum Operating Pressure.....	1500 psi (105 bar, 10.5.)
Operating Temperature Range.....	-4-130° F (-20-55° C)
Storage Temperature Range.....	-40-140° F (-40-60° C)
Inlet	1/2 npt
Outlet.....	1/2 npt
Wetted Parts.....	aluminum, SST, CS, acetal, nitrile rubber, Geolast™
Instruction Manual	308642
Accuracy/Repeatability	+/- 0.6%

Geolast™ is a registered trademark of Advanced Elastomer Systems.

Ordering Information

		Rigid Extension	Flexible Extension	Gear Lube Extension
XDM6 Electronic Meters				
NPT		24V545	24V548	24V547
BSPP	1/2" inlet	24Y238	24Y242	24Y239
BSPT		24Y249	24Y251	24Y250

XDM6 Bare Valves (no meter, trigger lock, or extension)		
NPT		243992
BSPP	1/2" inlet	24Y312
BSPT		24Y314

Accessories	
24V554	Electronic Control Replacement
203655	Twist Lock Nozzle Replacement 1/4 npt(m)
203687	Flex Extension, hose with 203655 tip
201701	Gear Lube Extension with tip
203265	Rigid Extension with tip

Color-coded Impact Guards for Electronic Meters	
Color-code various fluids dispensed to reduce errors, match store colors, or create a customized appearance. For electronic meters only	
191782	Black
191783	Red



24V545



243992



24V554



191782

Dispense Meters and Control Valves

XDM12™ Electronic Meter

Dispense Meters and Control Valves

Features and Benefits

- Reset capable for periodic dispense history information and locking trigger for hands-free operation
- High-flow capability provides up to 12 gpm (45 lpm)
- Rugged design withstands demanding environments

Typical Applications

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

Typical Fluids Handled*

- Petroleum- and synthetic-based oils
- *Not recommended for use with anti-freeze or windshield washer fluid

Technical Specifications

Maximum Recommended Flow Rate	12 gpm (45.4 lpm)
Maximum Operating Pressure	1500 psi (105 bar)
Operating Temperature Range	-4-130° F (-20-55° C)
Storage Temperature Range	-40-140° F (-40-60° C)
Inlet	1/2 npt and 3/4 npt
Outlet	1/2 npt
Wetted Parts	aluminum, SST, CS, acetal, nitrile rubber, Geolast
Instruction Manual	308642

Ordering Information

		Rigid Extension	Flexible Extension
XDM12 Electronic Meters			
NPT	3/4" inlet	24V549	24V550
	1/2" inlet	24V551	24V552
BSPP	3/4" inlet	24Y243	24Y244
	1/2" inlet	24Y246	24Y248
BSPT	3/4" inlet	24Y252	24Y253
	1/2" inlet	24Y254	24Y255

XDM12 Bare Valves with Locking Trigger (no meter or extension)		
NPT	3/4" inlet	238646
	1/2" inlet	238647
BSPP	3/4" inlet	24Y318
	1/2" inlet	24Y315
BSPT	3/4" inlet	24Y319
	1/2" inlet	24Y316

Accessories	
24V554	Electronic control replacement
223920	High flow twist lock nozzle, 1/2 npt(f) with 1 in diameter tip
238400	Automatic nozzle 1/2 npt(f) with 1 in diameter tip
185416	Filter 40 mesh stainless steel

Color-coded Impact Guards for Electronic Meters	
For color-coding fluids dispensed to reduce errors, match store colors, or to protect vehicle's finish. For electronic meters only.	
191782	Black
191783	Red



24V549



238647



191782



223920

In-Line Electronic Meters

Dispense Meters and Control Valves

IM5 Low Pressure Meter

- Heavy-duty construction for outdoor use
- Easy-to-use meter dispenses pints, quarts, liters or gallons
- Compatible with windshield wash solvent or anti-freeze

Typical Applications

- Automotive dealerships
- Fast lube centers
- Service shops
- In-plant

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze
- Windshield wash fluid

XDI12 and SDI15 Medium/High Pressure Meters

- Reset capable for periodic dispense history information
- Shock-resistant durable design ideal for rugged environments
- Easy-to-use meter dispenses pints, quarts, liters or gallons

Typical Applications

- Automotive and large truck dealerships
- Fast lubes and service shops
- Mining
- Fleet service facilities
- Lube trucks (XDI12 only)
- In-plant

Typical Fluids Handled*

- Petroleum- and synthetic-based oils

* Not recommended with anti-freeze or windshield wash

Technical Specifications

	IM5 In-Line Meter	XDI12 In-Line Meter	SDI15 In-Line Meter
Flow Range*	0.5 to 5 gpm (1.9 to 19 lpm)	0.12 to 12.0 gpm (0.46 to 45.6 lpm)	0.5 to 15 gpm (1.9 to 57 lpm)
Max. Working Pressure	500 psi (34 bar)	1500 psi (103 bar)	1500 psi (103 bar)
Weight	1.8 lb (0.8 kg)	1.9 lb (0.95 kg)	1.8 lb (0.82 kg)
Units of Measurement	Quarts, pints, gallons, liters (factory-set to quarts)**		
Accuracy	± 0.5%	± 1.0%	± 0.5%
Inlet/Outlet	1/2 npt*	1/2 npt*	1/2 npt*
Operating Temperature Range	-4 - 122° F (-20 - 50° C)	-4° - 130° F (-20° - 55° C)	-4 - 122° F (-20 - 50° C)
Storage Temperature Range	-13 - 122° F (-25 - 50° C)	-40° - 140° F (-40° - 60° C)	-13 - 122° F (-25 - 50° C)
Outdoor	yes	yes	no
Max Totalizer	99,999	19,999	99,999
Max Recorded Dispense	999.99	199.99	999.99
Meter Pressure Loss*	25 psi (1.7 bar) @ 5 gpm (19 lpm)	150 psi (10.3 bar) @ 12 gpm (45 lpm)	22 psi (1.5 bar) @ 14 gpm (53 lpm)
Battery	9-volt, alkaline	Panasonic® CR2450 3V	2AA alkaline
Wetted Parts	nickel, zinc, zenite, nitrile rubber	aluminum, carbon steel, nitrile rubber, nickel, bronze, SST #304, cast ALNICO 8	nitrile rubber, SST, and Geolast
Instruction Manual	308687	334852	313048

*Tested with number 10 motor oil. Flow rates vary with fluid pressure and viscosity. ** Display shows quantity in 0.01 increments up to 999.99 gallons, quarts, pints, or liters. Totalizes in gallons or liters up to 99,999 units (IM5 only).

Ordering Information

IM5 In-Line Meter	
239824	IM5 In-Line Meter
XDI12 In-Line Electronic Meter	
24V553	In-Line Meter
24V554	Replacement Electronics
SDI15 In-Line Electronic Meter	
247453	In-Line Meter (U.S.)



239824



24V554



247453

Mechanical Meters

Dispense Meters and Control Valves

Features and Benefits

- Balanced, lightweight, rugged construction, and comfortable grip
- Non-resettable totalizing register helps manage material usage
- Ideal for indoor and outdoor use

Typical Applications

- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze

Technical Specifications

Maximum Flow*	8 gpm (30.2 lpm)
Minimum Flow*	0.28 gpm (1.0 lpm)
Maximum Operating Pressure	1500 psi (103 bar)
Operating Temperature Range	-50-160° F (-45-70° C)
Accuracy*	± 1%
Weight	3.5 lb (1.6 kg)
Inlet and outlet connections	1/2 NPT, 1/2 BSPP, 1/2 BSPT

For use with petroleum-based fluids only.

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

Ordering Information

Manual Meters					
		Bare	Rigid	Flexible	Gear Lube
NPT	4/16 liter	24U956	24V046	24V043	24V049
	4/16 quart	24U959	24V037	24V034	24V040
BSPT	4/16 liter	24U957	24V047	24V044	24V050
	4/16 quart	24U960	24V038	24V035	24V041
BSPP	4/16 liter	24U958	24V048	24V045	24V051
	4/16 quart	24U961	24V039	24V036	24V042

Preset Meters			
		Bare	Rigid
NPT	60 quart	24U947	24V052
	60 gallon	24U950	24V055
	60 liter	24U953	24V058
BSPT	60 quart	24U948	24V053
	60 gallon	24U951	24V056
	60 liter	24U954	24V059
BSPP	60 quart	24U949	24V054
	60 gallon	24U952	24V057
	60 liter	24U955	24V060

Accessories	
24V475	Quick close nozzle with flexible extension for oil
255852	Quick close nozzle with rigid extension for oil
24W641	Quick close nozzle with short rigid extension for oil
255854	Quick close nozzle with rigid extension for gear lube
255855	Quick close nozzle with rigid extension for antifreeze
24W306	Quick close nozzle with flexible extension for antifreeze
256164	Strainer filter kit



24V034



24U947



24U959



24V052

Accessories

Dispense Meters and Control Valves

LDM and LDP Accessories

Nozzle Extension Kits	
238887	Automatic nozzle with rigid extension for gear lube
239949	Automatic thermal compensating nozzle with rigid extension for oil and anti-freeze
239951	Automatic thermal compensating nozzle with flexible extension for oil and anti-freeze
239950	Automatic thermal compensating nozzle with rigid extension for gear lube
239829	Automatic thermal compensating nozzle for oil, anti-freeze, and gear lube without extension
238371	Automatic gear lube nozzle without extension

**Economical extension used on model 255751*

Additional LDM5 Accessories	
240416	Inlet Swivel
114017	Inlet Filter, 80 mesh
196471	Valve Bracket for Dispense Console
240453	Valve Repair Kit

Swivel Covers		Protective Boots with Trigger Guard	
191294*	Black	247759*	Black
191287	Red	243835	Red
191288	Blue	243836	Blue
191289	Green	243837	Green
191295	Yellow	247760	Yellow

**Included on meter 256215, 256216, 258693 and 258694*

SDM and SDP Accessories

Nozzle Extension Replacement Kits For SD Series Meters	
255852	Automatic non-drip quick-close nozzle with rigid extension for oil
255853	Automatic non-drip quick-close nozzle with flexible extension for oil
255854	Non-drip quick-close nozzle with rigid extension for gear lube
255855	Non-drip quick-close nozzle with rigid extension for anti-freeze
255856	Non-drip quick-close nozzle with flexible extension for anti-freeze
255459	Automatic non-drip quick-close nozzle only for oil
255460	Quick-close nozzle only for anti-freeze
255470	Quick-close nozzle only for gear oil
255857	Non-drip quick-close high-flow nozzle with rigid extension for oil and anti-freeze
255858	Non-drip quick-close high-flow nozzle with flexible extension for oil and anti-freeze
255461	Quick-close high-flow nozzle only for oil and anti-freeze

Swivel Covers	
15T366	Black swivel cover (standard color with meter)
15T367	Red swivel cover
15T368	Blue swivel cover
15T369	Green swivel cover
15T370	Yellow swivel cover

Filter Kits for SD Series Meters	
255885	Filter kit includes (10) filters/strainers, (10) spacers and (10) O-rings (155332)



239949



239951



238887



191294

247759



255852



255853



255854



255857



15T366

SDV15 Control Valve

Dispense Meters and Control Valves

Features and Benefits

- Moves fluid up to 15 gpm (56.8 lpm) *(15 gpm obtained with high-flow nozzle—purchased separately)*
- Sturdy cast body designed for use in tough environments
- Lock-on trigger
- 1/2 in npt(f) inlet with built-in ball bearing swivel allows for ergonomic operation
- Inlet screen aids in keeping fluids clean

Typical Applications

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

Typical Fluids Handled

- Motor oils
- Transmission fluid
- Anti-freeze

Technical Specifications

Maximum Recommended Flow Rate	15 gpm (56.8 lpm)
Maximum Operating Pressure.....	1500 psi (103 bar)
Weight	0.4 lb (0.18 kg)
Operating Temperature Range.....	-40°–180° F (-40°–82° C)
Inlet	1/2 npt
Outlet.....	3/4 in, 16 straight thread O-ring boss
Wetted Parts.....	Aluminum, sst, cs, acetal, nitrile rubber, tpe
Warranty	Five years
Instruction Manual	312789

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

Ordering Information

SDV15 Control Valves	
247712	1/2 in npt(f) swivel, locking open trigger, rigid extension and standard automatic non-drip quick-close nozzle for oil products
247713	1/2 in npt(f) swivel, locking open trigger, flexible extension and standard automatic non-drip quick-close nozzle for oil products
247714	1/2 in npt(f) swivel locking open trigger, gear lube extension and standard quick-close nozzle
247715	1/2 in npt(f) swivel locking open trigger, rigid extension and standard quick-close nozzle for anti-freeze
247716	1/2 in npt(f) swivel locking open trigger, flexible extension and standard quick-close nozzle for anti-freeze
Bare Valve (no extension)	
247717	1/2 in npt(f) swivel locking open trigger, 3/4 in - 16(f) straight thread O-ring boss outlet, and trigger lock, no extension
Accessories	
256164	Filter kit includes (10) filters/strainers (185416)
255459	Quick-close nozzle only for oil
255460	Quick-close nozzle only for anti-freeze
255470	Quick-close nozzle only for gear lube
255857	Non-drip quick-close high-flow nozzle with rigid extension for oil and anti-freeze
255858	Non-drip quick-close high-flow nozzle with flexible extension for oil and anti-freeze
255461	Quick-close high-flow nozzle only for oil and anti-freeze



247712

XDV20 Control Valve

Dispense Meters and Control Valves

Features and Benefits

- Moves fluid up to 20 gpm (76 lpm)
- Lock-on/lock-off trigger for hands-free operation
- Rugged cast-body design withstands harsh environments
- Built-in ball bearing swivel allows for ergonomic operation
- Inlet screen aids in keeping fluids clean
- Quick close high flow nozzle for high volume dispensing—moves fluids fast!

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

- Motor oils
- Transmission fluid
- Anti-freeze

Technical Specifications

Maximum Recommended Flow Rate	20 gpm (76 lpm)
Maximum Operating Pressure.....	1500 psi (105 bar)
Assembly Weight (no meter)	0.4 lb (0.18 kg)
Operating Temperature Range.....	-40°–180° F (-40–82° C)
Inlet	1/2 npt and 3/4 npt
Outlet.....	7/8-14 straight thread o-ring boss
Wetted Parts.....	aluminum, SST, CS, acetal, nitrile rubber, Geolast
Instruction Manual	308642

Ordering Information

XDV20 Control Valves	
247718	1/2 npt(f) swivel inlet, 1/2 in (12.7 mm); rigid extension, high flow, quick-close nozzle
247721	1/2 npt(f) swivel inlet, 1/2 in (12.7 mm); flexible extension, high flow, quick-close nozzle
247722	3/4 npt(f) swivel inlet, 1/2 in (12.7 mm); rigid extension, high flow, quick-close nozzle
247723	3/4 npt(f) swivel inlet, 1/2 in (12.7 mm); flexible extension, high flow, quick-close nozzle
Bare Valves (no extension)	
247724	Has locking trigger and in-line flow through 1/2 npt(f) swivel inlet; 7/8-14 straight thread O-ring boss outlet
247725	Has locking trigger and in-line flow through 3/4 npt(f) swivel inlet; 7/8-14 straight thread O-ring boss outlet
Accessories	
255793	Quick-close high flow nozzle for oil, ATF and anti-freeze; 7/8-14 straight thread O-ring boss inlet (XDV20 only)
255859	Flex extension with quick-close nozzle (255793) for XDV20
255921	Rigid extension with quick-close nozzle (255793) for XDV20



247722



247724

Grease Dispense Valves

Dispense Meters and Control Valves

Pro Shot™ Non-Metered Grease Valves

- Rugged design for harsh environments
- Pressure-assisted trigger for ease of operation
- Easy top adjustment with locking nut
- Pro-Shot adjustment nut protected by rigid guard

Typical Applications

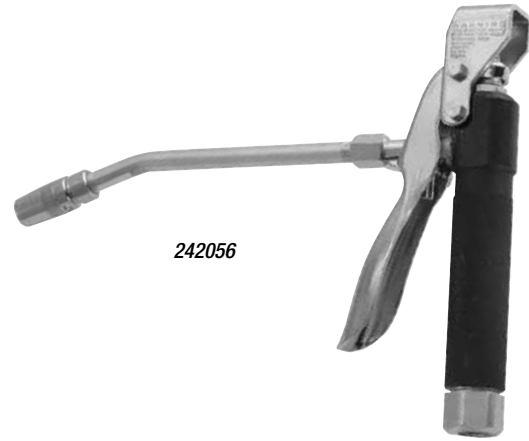
- Service shops
- Heavy-duty dealerships
- Fast lube centers
- Automotive dealerships
- In-plant
- Lube trucks
- Mining

Typical Fluids Handled

- Grease up to NLGI #2

Ordering Information

Pro-Shot Grease Dispense Valve	
242056	1/4 npt(f) inlet with coupler and extension 200389
242055	1/4 npt(f) inlet without coupler or extension
242058	3/8 npt(f) inlet with coupler and extension 200389
242057	3/8 npt(f) inlet without coupler or extension
224872	Includes 30 in (76.2 cm) whip hose (109148), Z-Swivel (202577) and grease valve (242056)



Accu-Shot™ Metered Grease Valves

- Accurate grease metering within $\pm 3\%$
- Easy-to-read LCD display
- Handles pressure up to 5000 psi (345 bar) and flow up to 36 oz/min (1 kg/min)

Typical Applications

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

Typical Fluids Handled

- Grease up to NLGI #2

Ordering Information

Accu-Shot Electronic Metered Grease Valve	
233807	U.S. Measurement, includes extension and hydraulic coupler
233933	Metric Measurement, includes extension and hydraulic coupler



Matrix™

Fluid Management Systems

Features and Benefits

- Wireless transmission and reception of meter and tank level information make it simple to track your entire facility's activities
- Customize to fit your business—three product platforms (Basic, Professional, and Premier) to fit any size facility
- Multi-level security to protect your assets
- Precise measurement and control of fluids ensures profits and eliminates out of stock issues for critical inventory
- ADP and Reynolds & Reynolds interfaces provide secure, reliable, data transfer between the Matrix database and the dealership management software



Premier software
256634

Typical Applications

- Auto dealerships
- Heavy-duty fleet service
- Off-road maintenance shops
- Industrial in-plant lubrication



Transceiver
257464



Matrix Meter
256282

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze
- Gear lube



Tank Level Monitor
256285

Matrix Application Features

Feature	Basic	Professional	Premier
Maximum Number of Transceivers	1	2	8
Maximum Number of Meters	30	100	300
Maximum Number of Tank Monitors	0	12	50
Client PC Networking	0	6	300
Number of users	250	500	1000
Track Dispense by Work Order	X	X	X
Track Dispense by Technician			X
Track Dispense by Vehicle Number			X
Tank Level Email		X	X
Third Party Interface Capable		X	X
ADP® Certified Interface			X
Reynolds® Certified Interface			X

No fluid limitations with any Matrix Platform



Pump Air Control
247436



Matrix Demo Kit

Professional Matrix demo case with everything you need to show your customers how Matrix will save them time, gain them more billable hours, and maximize their fixed-operation's profitability.

Ordering Information

Matrix Demo Kit	
24X077	Includes Matrix Demo Meter (24F318), Matrix Premier Software (256634), Matrix Transceiver (257464), Matrix Tank Level Monitor (256285), Matrix Pump Air Control (247436), USB Cable (15T998), Custom Protective Case

Matrix™

Fluid Management Systems

Software System Operating Requirements

Matrix software can be configured as a stand-alone PC or networked to multiple PC's. This software is not compatible with Apple® Computers, and is not available for the Apple® Operating system. The PC requirements for the Matrix Server and Matrix Client or shop PC's are noted below.

Server PC Hardware Requirements

- Windows® 2003 and Windows® 2008 (R2) server platforms
- Pentium® 4 or better processor
- Processor speed of 3.0 GHz or better
- RAM memory of 1 GB or better
- CD-RW or DVD/RW drive
- Serial port configuration for (1) RS422 and (1) USB connection

PC Clients

- Windows® XP, Vista®, Windows® 7 and Windows® 8 operating system
- Pentium® 4 or better processor with a processor speed of 2.0 GHz or better
- RAM memory of 1 GB or better

Software Instruction Manuals

Basic	Professional	Premier	ADP	Procede	Reynolds & Reynolds
313104	313106	313108	313112	334786	313114

RF Communication (Meters, Transceivers, Tank Level Monitors, Pump Air Control)

Description	Performance
RF Communication	2.4 GHz Direct Sequence Spread Spectrum
RF Communication Range	Unobstructed: 300 to 500 ft (91 to 152 m); Obstructed: 250 to 300 ft (76 to 91 m)
RF Temperature Range	-40° F to 185° F (-40° C to 85° C)
Approvals	FCC, Industry Canada (IC), C-Tick, CE

Ordering Information

System Software	
256634	Premier Software CD (includes 3rd party interface)
256635	Professional Software CD
256636	Basic Software CD
256637	Premier Software with ADP Interface
128160	Premier Software with Procede Excede Interface
256638	Premier Software with Reynolds & Reynolds Interface
Transceiver and Connection Hardware	
257464	Transceiver with Universal Power Adapter
255731	USB/RS422 Converter
15T999	15 ft USB Cable
15T998	3 ft USB Cable
119572	RS422 Bulk Wire (1000 ft roll)



257464

Transceiver and Connection Hardware Technical Specifications

Weight	1.0 lb (454 grams)
Power Supply	100 – 240 V, 50/60 Hz to 12 VDC plug-in transformer
Instruction Manual	313008

Matrix™

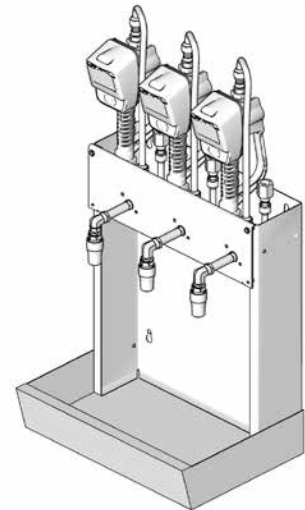
Fluid Management Systems

Matrix Meter and Accessories

Matrix Electronic Meter with Extension, 5 gpm or Less		
256282	1/2 in npt(f) swivel, rigid extension and standard automatic non-drip quick-close nozzle for oil	
256482	1/2 in npt(f) swivel, flexible extension and standard automatic non-drip quick-close nozzle for oil	
256483	1/2 in npt(f) swivel, gear lube extension and standard quick-close nozzle	
256484	1/2 in npt(f) swivel, rigid extension and standard quick-close nozzle for anti-freeze	
256485	1/2 in npt(f) swivel, flexible extension and standard quick-close nozzle for anti-freeze	
Matrix Electronic Meter with Extension, 14 gpm or Less		
256486	1/2 in npt(f) swivel, rigid extension, high flow, quick-close nozzle for oil	
256487	1/2 in npt(f) swivel, flexible extension, high flow, quick-close nozzle for oil	
256488	3/4 in npt(f) swivel, rigid extension, high flow, quick-close nozzle for oil	
257120	3/4 in npt(f) swivel, flexible extension, high flow, quick-close nozzle for oil	
Swivel Covers		
15T366	Black swivel cover (standard color with meter)	
15T367	Red swivel cover	
15T368	Blue swivel cover	
15T369	Green swivel cover	
15T370	Yellow swivel cover	
Accessories		
249440	Console bracket	
257539	Matrix meter for oil bar (swivel and extension removed)	Instruction Manual 313013
256719	Oil bar console—complete cabinet without piping and meters	
255370	Oil bar kit (fittings, nozzles, and piping)	
257556	Retro fit kit—mount Matrix meter in 222107 console	
Filter Kits for Matrix Meters		
255885	Filter kit includes (10) filters/strainers (15M308), (10) spacers (15M309) and (10) O-rings (155332)	



Matrix Meter
256282



Oil Bar
Components ordered separately. For complete unit, order oil bar 256719, kit 255370 (one per meter) and Matrix meters (257539) as needed

Technical Specifications

Flow Range ⁽¹⁾	0.1 to 14 gpm (0.4 to 53 lpm)
Maximum Working Pressure	1500 psi (103.4 bar)
Operating Fluid Pressure Range	100 – 1500 psi (7–103 bar, 0.7–10.3)
Weight (with battery and rigid nozzle extension)	6.07 lbs (2.75 kg)
Units of Measurement	Programmable in pints, quarts, gallons, or liters
Inlet	3/4 in–14 npt or 1/2 in–14 npt
Outlet	3/4 in–16 straight thread O-ring Boss
Maximum Totalizer	999,999 gallons or liters
Maximum Recorded Dispense	999.9 Units
Maximum Pre-Set Volume	999.9 Units
Battery	4 AA alkaline or 4 AA lithium
Battery Life ⁽³⁾	Preset Models—six months, manual models—one year
Wetted Parts	Aluminum, sst, pbt/pc, nitrile rubber, cs
Fluid Compatibility	Petroleum- and synthetic-based oils and anti-freeze mixtures (not compatible with fuel and windshield washer fluid)
Meter Pressure Loss ⁽¹⁾	± 0.5%
Accuracy ⁽²⁾	± 0.5%
Repeatability ⁽²⁾	±0.15 %
Dimension w/o Extension	13 in L x 3.75 in W x 5.75 in H, (33 cm x 9.5 cm x 14.6 cm)
Instruction Manual	313046
1. Tested in 10W oil at 70° F. Flow rates vary with fluid pressure, temperature, viscosity, inlet fitting and nozzle type.	
2. At 2.5 gpm (9.5 lpm) @ 70° F (21° C) with 10 wt. oil and 1 gal (3.8 l) dispensed. May require re-calibration. Out-of-box accuracy ±1.25%.	
3. Average shop use with alkaline batteries (included); 30-35% longer life with lithium AA	

Matrix™ Fluid Management Systems

Tank Level Monitor

Choose one TLM for each bulk fluid tank. Tank readings are automatic for used or new oil and anti-freeze products.

Tank Level Monitor	
256285	Tank Level Monitor

Technical Specifications

Ultrasonic Tank Depth Measurement Range	0 – 30 ft. (0-9 m) (Not recommended for use with pressurized tanks)
Fluid Level Measurement Accuracy*	± 0.5%
Weight	2.34lb (1.06 kg)
Operating Temperature Range	-22° F - 122° F (-30° C - 50° C)
RF Operating Temperature Range	-40° F - 185° F (-40° C - 85° C)
Storage Temperature Range	-40° F - 185° F (-40° C - 85° C)
Ambient temperature range**	-22° F - 122° F (-30° C - 50° C)
Batteries	(2) 9 VDC Alkaline only
Vertical Tanks	Maximum volume: 999,999 gallons or liters, maximum height: 30 ft (360 in.)
Cylindrical Tanks	Maximum volume: 999,999 gallons or liters, maximum diameter: 30 ft (360 in.)
Approvals	FCC, Industry Canada (IC), C-Tick, CE
Instruction Manual	312964

Note: Do NOT use the Matrix Tank Level Monitor with gasoline, diesel fuel, or other flammable liquids, and materials with an auto ignition temperature below 419° F (215° C)

* The difference in air temperature between the inside and outside of the tank may affect the accuracy of fluid levels

** Display will not function below 32° F (0° C)



**Tank Level Monitor
256285**

Pump Air Control

One PAC required for each air pump. For safety and increased security, the PAC is a must have to maximize your fluid management system. Designed to supply air to the pump only when Matrix authorizes the dispense.

Pump Air Control (PAC)	
247436	93 scfm valve

Technical Specifications

Operating Pressure Range	23-145 psi (1.7 - 10 bar)
Maximum Air Flow	247436 - 93 SCFM (2.6m ³ /min)
Power Supply	120-240 VAC line voltage, 24VDC solenoid
Output Power10mW - 100mW
AMPS	1A
Frequency	50/60 Hz
Operating Temperature Range*	32° F - 122° F (0° C - 50° C)
Enclosure Type	NEMA Type 3
Weight	247436 - 3.4 lbs (1.5 kg)
Instruction Manual	312417

Note: Do NOT use the Matrix Tank Level Monitor with gasoline, diesel fuel, or other flammable liquids, and materials with an auto ignition temperature below 419° F (215° C).

* The difference in air temperature between the inside and outside of the tank may affect the accuracy of fluid levels. Display will not function below 32° F (0° C).



**Pump Air Control
247436**

Tank Accessories

CleanLine Filter Assemblies	
248421	900 psi tank mount CleanLine filter assembly (includes thermal relief)
248418	900 psi wall mount CleanLine filter assembly (includes thermal relief)
248419	1800 psi tank mount CleanLine filter assembly
248417	1800 psi wall mount CleanLine filter assembly
Replacement Filters	
15D702	900 psi CleanLine screw-on type filter
119278	1800 psi CleanLine filter element

Horizon™ Fluid Management Systems

Features and Benefits

- Allows multiple technicians to dispense simultaneously
- Easily configured and expandable for any facility
- Increases technician productivity
- Password-protected to prevent unauthorized dispensing
- Tracks inventory levels and alerts operators to low inventory conditions to minimize out-of-stock situations

Typical Applications

- Bulk-dispensing to multiple service bays
- Automotive dealerships
- Heavy-duty dealerships
- Fleet service facilities

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze

Technical Specifications

System Specifications

Control Modules on a System (1 Master only, plus 39 Slaves)	40 maximum
Keypads on a System (1 keypad per Control Module)	40 maximum
Solenoids on a System (40 Control Modules, 6 ports each)	240 maximum
Meters on a System (40 Control Modules, 6 ports each)	240 maximum
Fluids on a System	10 maximum
Dispense Areas (reel banks)	99 maximum
Operator Names / PIN Numbers	100 maximum
Dispense Records Stored	668 maximum
Simultaneous Dispenses (same and/or different fluids):	12 maximum
Jobs Waiting in Queue	12 maximum
Printer per System OR Attached Computer per System	1 maximum
(either must be connected to Master Control Module)	

Accuracy of System

±0.6%

Control Module Ports

Solenoid Ports (air or fluid) per Control Module	6
Pulse Meter Ports per Control Module	6
Port for Keypad per Control Module	1
Port for Printer or Computer per Master Control Module	1

Voltage Input

90-120 Volts AC, 50/60 Hz, single phase, 2 amps maximum draw	
208-240 Volts AC, 50/60 Hz, single phase, 1 amp maximum draw	
Operating Temperature Range	40 - 140° F (4 - 60° C) ambient
Pre-set or Free-flow Options	

Maximum Preset or Free-Flow Dispense	999.9 units
Minimum Preset Dispense	0.5 units

Units of Measure

Dispense	liters, quarts, gallons or pints (configurable for each fluid)
Inventory	liters or gallons (dependent upon dispense units chosen)

Maximum Cable Lengths

From Keypad to Control Module	50 ft (15.3 m)
From Solenoid to Control Module	50 ft (15.3 m)
From Pulse Meter to Control Module	50 ft (15.3 m)
From Printer/Computer to Master Control Module	50 ft (15.3 m)
From one end of the Control Module Network to the other end (daisy-chained)	2000 ft (610 m)

Reference Data

Instruction Manual	308607
--------------------------	--------



Horizon™

Fluid Management Systems

Ordering Information

Control Module drives air and fluid solenoids, and counts pulses from meters. On-board memory contains a map of available system resources, and a power supply that supports both 120 and 240 Volt AC operation. Combine one Master Control Module with up to 39 Slave Control Modules per system

238624 Master Control Module (one per system)

238625 Slave Control Module (up to 39 per system)

Keypads: Basic, Enhanced and Administrative

113551 Basic Keypad for navigating through the Horizon's menus

113553 Administrative Keypad is needed to set up and make changes to the system parameters

191368 Keypad Wall-Mounting Bracket

Air Solenoids open and close the air supply to the fluid pump air motor. Each solenoid can be up to 50 ft (15.3 m) from a Control Module. Up to 6 solenoids (air or fluid) can be connected to each Control Module

215407 For pumps requiring normal air flow (Mini Fire-Ball 225, 3:1 and Fire-Ball 300, 5:1)

512926 For pumps requiring higher air flow (Fire-Ball 425, 6:1 and 3:1)

Fluid Solenoids start and stop the fluid dispense cycles. These must be placed at each dispense point for each fluid being dispensed. Each fluid solenoid can be up to 50 ft (15.3 m) from a control module. Up to 6 solenoids (either air or fluid) can be connected to each control module. The low-flow model is available in a kit with a ready light which alerts the operator when the job is ready to dispense

215487 Low-flow: supports 3 gpm (11.4 lpm)

512927 Higher-flow: supports up to 6 gpm (22.7 lpm)

514150 Anti-Freeze Solenoid

218588 Low-flow Solenoid with Ready Light Kit

238996 Ready Light Kit (only; less the solenoid)

Pulse Meters measure fluid flow to dispense points and send a train of pulses back to the Control Modules which are counted to determine how much fluid has been dispensed. If there are multiple meters for a single fluid, check valves (111620) should be placed in series with each meter to prevent "cross talk" and oscillations. Pulse Meters can be used for either U.S. or metric units

238618 For oils, gear lube, automatic transmission fluid

215474 For anti-freeze

111620 Check Valve, 1/2 in

Thermal Relief Kits

235998 600 psi (41 bar)

102527 Thermal Relief Valve, 900 psi (62 bar)

237893 900 psi (62 bar)

240429 1600 psi (110 bar)

System Printer prints job tickets after each dispense is complete, plus has save function for later analysis

113774 Printer

514037 Printer paper, 1 roll

Keypad or Printer Cables

191393 25 ft (7.6 m) cable with connectors

191394 Cable with connectors. 50 ft (15.3 m)

Control Module Network

113559 500 ft (152.5 m) bulk cable

113560 1000 ft (305 m) bulk cable

Pulse Meter Cable

113555 Length: 500 ft (152.5 m)

113556 Length: 1000 ft (305 m)

Solenoids Cable

113557 Length: 500 ft (152.5 m)

113558 Length: 1000 ft (305 m)

Computer Cable with Connectors

192873 Computer I/O 25 ft (7.6 m)

192874 Computer I/O 50 ft (15.3 m)



238624



113553

113551



215487

215407



113774



238618

Fluid Commander™

Fluid Management Systems

Features and Benefits

- Provides increased accuracy over mechanical counters
- PIN code prevents unauthorized dispensing
- Dispense totals tracked by location
- Easy to read display
- Accurate controlled dispense with parts room authorization

Typical Applications

- Parts room authorized dispensing for inventory control
- Automotive dealerships
- Heavy-duty dealerships
- Fleet service facilities

Typical Fluids Handled

- Petroleum- and synthetic-based oils
- Anti-freeze

Easy to Use

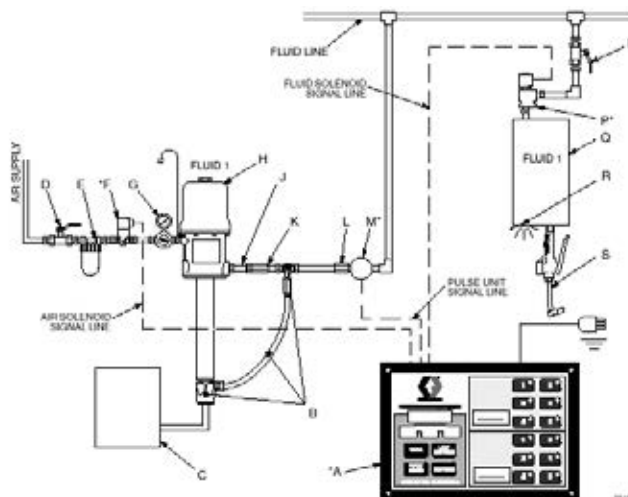
1. Service technician enters the service bay number, type of product, and amount to be dispensed, then activates the dispense button.
2. A “ready” light (located on the hose reel or dispense bar of the target service bay) signals when dispensing can begin.
3. As fluid is dispensed, the Fluid Commander tallies the amount dispensed and shuts-off when the pre-set amount is reached. No further dispensing takes place until new dispensing data is entered.

Technical Specifications

Maximum Number of Fluids	1 or 2
Dispense Stations/Bays	6 or 12
Air Solenoids Required	1 (per pump)
Fluid Solenoids Required	1 (per fluid dispense station)
Electrical Requirements	120 V, 60 Hz, .25 amps
Weight	4 lb, 5 oz. (8.0 kg)
Wiring Requirements	90V; 2-wire
Distance/Gauge	200 ft (61 m) = 18 gauge, 201 to 500 ft (61 m to 152 m) = 16 gauge, 501 ft (152 m) or more = 14 gauge
Instruction Manual	308238



Typical Fluid Commander System Layout



KEY

- A. Control*
- B. Pressure Relief Kit, 237893, 1-1/2 npt (m x f)
- C. Supply Tank
- D. Air Shutoff Valve, bleed-type
- E. Air Filter
- F. Air Solenoid Valve*, 215407
- G. Air Regulator, 202156
- H. Pump
- J. Flexible Hose, 3-6 ft (0.9-1.8 m) long
- K. Check Valve*, 111620 (required)
- L. Fluid Filter, 223179
- M. Pulse Meter*, 236763 or 236764
- N. Fluid Shutoff Valve, 108458, 1/2"
- P. Fluid Solenoid Valve*, 215487
- Q. Hose Reel
- R. Ready Light, 238996
- S. Dispense Valve

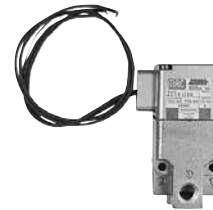
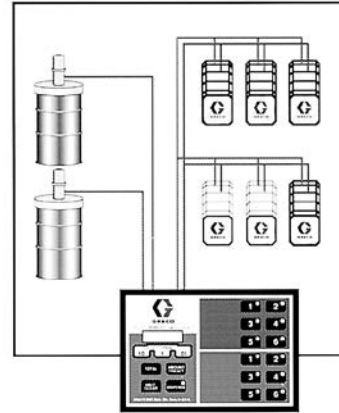
* These parts are included with Model 232076, 240448, or 241905.

Fluid Management Systems

Fluid Commander™

Ordering Information

Fluid Commander Systems	
232076	U.S. Measure Fluid Commander System for 2 products and 6 stations. Includes: One 2-product/6-station Fluid Commander (235532), oil meter (236763), fluid solenoid valve (215487), air solenoid valve (215407), check valve (111620)
241905	U.S. Measure Fluid Commander System for 1 product and 12 stations. Includes: One 1-product/12-station Fluid Commander (235531), Oil Meter (236763), Fluid Solenoid valve (215487), Air Solenoid valve (215407), check valve (111620).
240448	Metric Measure Fluid Commander System for 2 products and 6 stations. Includes: One 2-product/6-station Fluid Commander (232077), oil meter (236764), Fluid Solenoid valve (215487), Air Solenoid valve (215407), check valve (111620)
Accessories	
111620	Check valve
236763	Electronic Pulse Meter (quarts)
236764	Electronic Pulse Meter (liters)
215474	Mechanical Pulse Meter (quarts)
244342	Meter Pulse Converter, used when upgrading old-style modular fluid commander to electronic allows use of 215474/215475 with the EFC. Instruction manual 309276
Air Solenoid Valves	
215407	Air Solenoid Valve, 150 psi (10 bar) (1/2 npsm(f) conduit ports for wiring; 1/4 npt(f) air ports, adapted to 3/8(f) IN, 3/8(m) OUT) operates on 24V DC and 110 VAC. 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 npsm(f) conduit ports for wiring; 1/4 npt(f) air ports. 150 psi (10.3 bar) max. working pressure
Fluid Solenoid Valves	
215487	Fluid Solenoid Valve, 1/2 npt(f) 3000 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 anti-freeze, 150 psi max. (10 bar), 1/2 npt(f), same as features as 215487
110025	Bare Fluid Solenoid Valve, 1/2 npt(f) 3000 psi, same features as 215487 above, but without wiring connectors or adapters
Ready-Light Kits	
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. Manual 307696
238996	Ready-Light with Junction Box (no solenoid or strainer)
239019	Ready-to-Dispense Indicator Light only
113859	Lamp for Indicator Only
Installation Components	
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. Instruction manual 308403
Connecting Cables for Connecting Solenoids and Consoles, 90-volt, 2-wire, 18-gauge	
215481	100 ft (30.5 m) pre-connected at both ends



215407



215487



215481

Manually-Operated Grease Guns

Grease Guns, Accessories and Fittings

Ordering Information

Grease Guns	
202600	1/8 npt(f) Power-Shot Booster Gun boosts incoming pressure up to 18,000 psi (1,242 bar). Use with any high-pressure lubricator. Maximum inlet pressure: 5000 psi (345 bar). Includes nozzle (200389). (Hose swivel 202579 must be ordered separately). Instruction Manual: 306271
110218	Standard Lever-Action Grease Gun: Develops up to 6000 psi (400 bar) working pressure and pumps 1.8 oz (51 g) per 40 strokes. Can be loaded via cartridge or bulk fill. Optional loader fitting available. Equipped with rigid extension and hydraulic coupler
110216	Heavy-Duty Lever-Action Grease Gun with high-pressure variable low-volume. Three-way loading: bulk fill, loader fitting or 14 oz cartridge. Pumps 1.24 oz per 40 strokes. Includes air bleeder valve. Equipped with rigid extension and hydraulic coupler (M IL-G-3859). Can develop up to 10,000 psi (690 bar). Comes with 236171, easy fill valve
110203	Pistol-Matic Grease Gun with three-way loading: bulk fill, loader fitting or cartridge. Pumps .72 oz (28.4 g) per 40 strokes. Includes air bleeder valve. Equipped with rigid extension and hydraulic coupler. Can develop up to 3500 psi (241 bar)
203697	1/8 npt(f) Hot-Shot Portable Booster Gun for portable operation without continuous connection to grease supply. Has 4 oz (113 g) grease reservoir in handle capable of servicing up to 100 fittings before needing a refill. Has grease fitting for recharging from either manual or air-powered luber. Single-hand operation squeeze handle develops up to 10,000 psi (690 bar). Includes grease extension and nozzle 200389. Instruction Manual: 306460
110202	Pistol-Matic Grease Gun is the same as 110203 but with 12 in (30.4 cm) flexible rubber hose and hydraulic coupler
112196	1/4 npt Pistol-Style Air-Operated Grease Gun is a spring-primed, single-shot gun. Three-way loading: bulk fill, loader fitting or 14 oz (400 g) cartridge. Air input range of 75 to 100 psi (5 to 7 bar); working pressure of 6000 psi (414 bar). Pumps 1.2 oz (34 g) per 40 pulls at 100 psi (7 bar). Includes standard gun coupler and bleeder valve, 1/8 in-27 NPT rigid extension. (1/4 npt air input connection)
110201	Suction Gun for evacuating and filling fluids into gear housings, differentials, transmissions and related applications. Holds 1 pint (16 oz/473 cc), comes with red clear plastic 12 in (30.4 cm) hose
Z-Swivels	
202579	1/8 npt(m) x 1/4 npt(f) free-ball bearing
202577	1/4 npt(m) x 1/4 npt(f) free-ball bearing use with dispense valve 242055 and 242056
224569	3/8 npt(m) x 3/8 npt(f) free-ball bearing use with dispense valve 242057 and 242058
207948	1/2 npt(m) x 1/2 npt(f) free-ball bearing
Straight Swivels	
204082	1/8 npt(m) x 1/8 npt(f) 8000 psi (550 bar) free-ball bearing
204083	1/4 npt(m) x 1/8 npt(f) 8000 psi (550 bar) free-ball bearing
204084	1/4 npt(m) x 1/4 npt(f) 8000 psi (550 bar) free-ball bearing
214925	3/8 npt(f) x 1/4 npsm(f-union) 5000 psi (345 bar)
214926	3/8 npt(f) x 1/2 npsm(f-union) 5000 psi (345 bar)
207946	3/8 npt(f) x 1/2 npsm(f-union) 5000 psi (345 bar)
207947	1/2 npt(m) x 1/2 npt(f) 6000 psi (414 bar)
360° Swivels	
Swivels and locks into full 360° angle. Use for maximum coupler adaptability and reach	
203597	360° Grease Swivel with tapered-nose coupler (200325)
203198	360° Grease Swivel, 8,000 psi (552 bar) maximum working pressure (without coupler)



Manually-Operated Grease Guns

Grease Guns, Accessories and Fittings

Grease Nozzles

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

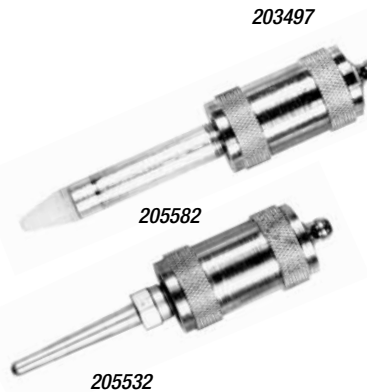
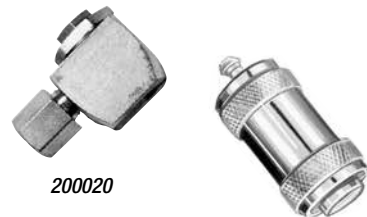
*Warning: potential injection hazard. Not for use above 5000 psi (345 bar).

Grease Couplers

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 8000 psi (551 bar)
202650	1/8 npt(f) inlet standard straight nose grease coupler for manual operated grease guns only. Maximum working pressure 3000 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 have lock-sleeve quick-connector, works with any grease nozzle with a tapered-nose coupler

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)



Grease Gun Fittings

1/8 npt Threaded Grease Fittings (steel; ball-check)

Part No.	Shank	Description	Pressure Rating
100054	9/32	1/8 npt straight	10,000 psi (690 bar)
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	

Manually-Operated Grease Guns

Grease Guns, Accessories and Fittings

1/4 npt Threaded Grease Fittings (steel; ball-check)			
100848	3/8	1/4 npt 67° angle	10,000 psi (690 bar)
100846	3/16	1/4-28 straight	
100847	13/64	1/4-28 45° angle	
101283	3/16	1/4-28 90° angle	
101281	11/32	1/4-28 straight	
110702	19/64	1/4-28 65° angle	
100835	12/32	1/4-28 straight	
1/4 npt Thread-Forming Grease Fittings (steel; ball-check)			
110703	13/64	1/4-28 straight	10,000 psi (690 bar)
110705	13/64	1/4-28 90° angle	
3/16 npt Thread-Forming Grease Fittings (steel; ball-check)			
110706	3/32	3/16 npt straight	10,000 psi (690 bar)
110709	7/32	3/16 npt 65° angle	
Drive-Type Grease Fittings (steel; no check)			
110713	1/4	3/16 npt straight	
101312	1/4	3/16 npt straight	
110710	1/4	5/16 npt straight	
101287	17/64	1/4 npt straight	
Standard Button-Head Grease Fitting (steel)			
100837	7/16	1/4 npt straight	
101297	33/64	3/8 npt straight	
110711	35/64	1/2 npt straight	
Giant Button-Head Grease Fitting (steel)			
110712	9/16	3/8 npt straight	
100854	1/2	1/4 npt straight	
Grease Accessory Packages			
202654	Convenient Storage Box Contains the following threaded fittings in the quantity listed:		
Shank	Description	Grease Fitting No.	Quantity
9/32	1/8 npt straight	100054	30
9/32	1/8 npt 30° angle	100970	10
9/32	1/8 npt 90° angle	100833	10
3/16	1/4-28 straight	100846	20
13/64	1/4-28 45° angle	100847	10
Easy-Outs			
101604	1/8 npt		
101605	1/4-28 unf		



101287



100834



101297



110712



202654



101605



101604

Oil King,[™] Coolant King[™] and Oil Ace[™]

Fluid Reclaim Packages and Accessories

Oil King and Coolant King

- Large 25 gallon capacity with sight gauge
- Convenient tool trays and filter areas
- Large offset collection pan with screen
- Oversized tires to get over hose and rough floors
- Color specific receiver for easy identification

Typical Applications

- Used fluid receiver
- Automotive dealerships
- Heavy-duty dealerships
- Fast lube centers
- Fleet service facilities
- Service shops

Typical Fluids Handled

- Used oil—Oil King
- Used antifreeze—Coolant King

Ordering Information

Oil King Oil Receiver	
238866	25 gal (95 l) Polyethylene tank with used-filter tray, tool holders and sight gauge. Includes all hardware for topside evacuation or bottom drain*. Instruction manual 308667
Coolant King Anti-Freeze Receiver	
248632	25 gal (95 l) Polyethylene tank with used-filter tray, tool holders and sight gauge. Includes all hardware for topside evacuation or bottom drain*

* Must use 224873 for topside evacuation. Must ship via truck.



238866



248632

Oil Ace

- Easy to drain using shop air pressure
- Large 24 gallon capacity
- Large offset collection pan with screen

Typical Applications

- Pressurized used oil receiver
- Automotive dealerships
- Heavy-duty dealerships
- Service shops
- Fast lube centers
- Fleet service facilities

Typical Fluids Handled

- Used oil

Ordering Information

Oil Ace	
119577	24 gal (90 l) Steel-tank Pressurized Oil Drain



119577

Oil Receivers and Drains

Fluid Reclaim Packages and Accessories

Ordering Information

16 gal (60 l) Used-Oil Receiver with drum	
239301	Use with evacuation kit 240832. Instruction manual 306449
16 gal (60 l) Used-Oil Receiver without drum	
239302	Instruction manual 306449
Funnel Kit	
243650	Use with 238866, 239301, 239302 and 248632. Includes tray and pipe
Wall-Mounted Funnel Drain	
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	
156789	Use with Pedestal Receiver (225272) to open automatic check-valve and drain used oil into standard drum. Funnel drain has 2 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	
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
Rolling Used-Oil Receiver	
218969	Specially designed for car and truck fast-lube facilities where speed and mobility are important. Adjustable steel rollers fit track widths of 39 in (99 cm) to 46 inches (117 cm), with a minimum running width of 2-1/2 in (63.5 mm). Front and rear drain fittings allow use of two drains on a single track, permitting two receivers to be drained simultaneously. Instruction manual 307727. Unit includes 30 gal (114 l) steel tank, 1-1/2 npt drain valve (108204), 1-1/2 npt quick coupler (108202) and 1-1/2 npt coupler cap. Dimensions: 24 in (61 cm) wide; 33 in (84 cm) long; 11 in (28 cm) deep; 3 in (7.6 cm) diameter wheels. 1-1/2 in drain hose—see manual provided
Narrow Rolling Used-Oil Receiver	
235346	Same as 218969 above, except track width range is from 34.2 in (87 cm) to 42.2 in (108 cm). 27 gal (102 l) capacity. Instruction manual 307727. See accessories on page 101
Big Hauler™ Truck Drain	
244055	Specially-designed for truck maintenance facilities, the Big Hauler Truck Drain boasts a large capacity and easy maneuverability. Dimensions: 42 in (106.7 cm) long; 30 in (76.2 cm) wide; 9 in (22.9 cm) deep. Capacity: 26 gallons (98 l). Instruction manual 309194. Gravity drain valve at bottom of unit allows for easy drain access. 3/4 in npt outlet can also be used with 224873 for diaphragm evacuation. 240832 can be ordered separately for existing diaphragm pump evacuation systems. Instruction manual 308719



239301



244055



208009



218969

Oil Evacuation

Fluid Reclaim Packages and Accessories

Packages for Used-Oil Evacuation with Air-Operated Diaphragm Pumps

Wall-Mounted Packages	
24E166	Includes: 1050A (1 in) diaphragm pump (647731), wall bracket (24C637), air installation kits (240684), fluid installation kits (240685), drum style adapter kits (240832) <i>NOTE: Used-oil receivers are not included and must be ordered separately. See instruction manual 313597 for more information.</i>
224873	Includes: 716 (3/4 in) diaphragm pump (241906), wall bracket (224835), air installation kits, fluid installation kits (240685), drum style adapter kits (240832) <i>NOTE: Used-oil receivers are not included and must be ordered separately.</i>

Stationary Gear-Oil Evacuation Systems with 716 or 1050 Diaphragm Pump

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

224955	Includes: 716 diaphragm pump (241906), air control kit (110149), mounting kit (224759), swivel union (157785), hose coupler (111474), suction hose/wand** (221146) and control valve** (220969) <i>**Order additional suction hose/wand (221146) and additional control valve (220969) for each additional suction point. Note: Order grounding clamp (222011) or use locally-supplied grounding wires and clamps in accordance with applicable codes.</i>
24E167	Includes: UL-listed 1050A diaphragm pump (647731), air control kit, hose and fitting kit (222149), evacuation, suction hose/wand** (221146) and wall bracket (24C637) <i>**Order additional suction hose/wand 221146 and additional control valve 220969 for each additional suction point. Note: Order grounding clamp 222011 or use locally-supplied grounding wires and clamps in accordance with applicable codes. See instruction manual 313597 for more information.</i>

Port-Evacuation Pump	
223695	Port-Evacuation allows fast, clean withdrawal of gear lube, ATF, anti-freeze, and related fluids. Includes: 716 diaphragm pump (241906), mounting kit with 10 ft (3 m) suction hose (223697) which attaches to wands of four different diameters (suction wand kit, 223696): 1/2 in (12.7 mm); 3/8 in (9.5 mm); 1/4 in (6.4 mm), and 3/16 in (4.7 mm). Instruction manual 308035

Suction Wand Kits	
223696	15 in (38.1 cm)
224762	48 in (121.9 cm)

Used-Oil Handling Accessories

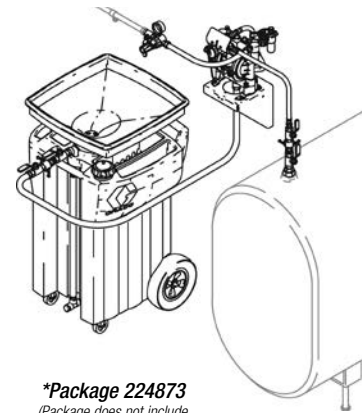
4-Way Evacuation Valve	
120581	1" npt (f) 4-way evacuation valve
120601	1.5" npt (f) 4-way evacuation valve

Tandem Drain 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

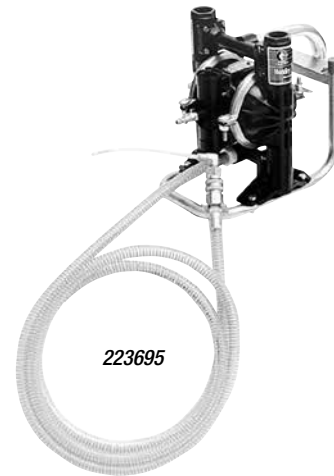
Swing-Arm Drain Kit	
221007	Used for servicing single rolling used-oil receiver (218969). When used with tandem drain kit (218970) it can service two receivers on a single track. Kit includes swivel elbow (108867), connector hose, dust cap (108203) and male adapter (108202)

Oil Tank Monitor	
116229	Shuts off air to the pump when tank is full.

Accessories for Port-Evac Pump (223695)	
223888	6 ft (1.8 m) suction hose for ATF and anti-freeze. Includes filter screen



***Package 224873**
(Package does not include 238866 receiver or tank)



223695



120581



218970



116229



223888

Oil Evacuation

Fluid Reclaim Packages and Accessories

Fluid Reclaim Accessories

243167	U-tube for used-oil drain cart evacuation system. 1/2 npt (mbe)
222011	Grounding clamp for all used-oil handling systems includes 25 ft (7.6 m) grounding wire
Fas-Vac Evacuation Systems	
224667*	Fas-vac evacuation system (without drum) basic system includes 716 diaphragm pump and mounting hardware. Instruction manual 308154
224700*	16 gallon (60 l) system includes pump (224667), dolly (224665), wand storage kit (224666), evacuation hose (224669) and 16 gallon (60 l) drum (111468). Instruction manual 308154
224701*	55 gallon (200 l) system (without drum) includes pump (224667), 55 gallon (200 l) drum truck (111470), wand storage kit (224666) and evacuation hose (224702). Instruction manual 308154
187359	4-way valve 1/2 npt(f) ports

*224759 FLR mounting kit and 110149 FRL must be ordered separately. See instruction manual 308163.



224701

Hoses, Fittings, and Accessories

Air Filters

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

110146	1/4 npt(fbe)	106148	3/8 npt(fbe)
106149	1/2 npt(fbe)	106150	3/4 npt(fbe)

Automatic Filter Drain

106151	Float-type drain for automatic emptying of accumulated fluid in a filter assembly. 1/4 npt(m). Fits air filters 106150, 112859, and 217074.
127711	Float-type drain for automatic emptying of accumulated fluid in a filter assembly. Fits air filter 106148 and 106149.

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.)

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

Installation Kits

Installation kits include: shut-off valve, regulators, gauges and fittings as necessary for normal installation

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

Air Lubricators

Extends pump life and smooths pump movement by applying measured lubricant to all moving parts within the pump air motor. Control knob and sight window allow adjustment of dispensed lubricant

214848	1/2 npt(fbe)
110148	1/4 npt(fbe)
214847	3/8 npt(fbe)
214849	3/4 npt(fbe)



106148



106151



109075



224512



214847

Accessories

Hoses and Fittings

FRL Combination Units

Each includes filter, regulator, pressure gauge, lubricator and connection fittings

110149	1/4 npt (fbe)
110150	3/8 npt (fbe)
217072	1/2 npt (fbe)
217073	3/4 npt (fbe)



110150

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

110223	1/4 npt(fbe)
110224	3/8 npt(fbe)
110225	1/2 npt(fbe)
110226	3/4 npt(fbe)
107142	1/2 npt(mxf)
107141	3/4 npt(mxf)



106151



110223



107142

Air Line Shut-off Valves Ball valve-type air line shut-off valve; non-pressure relieving

208390	1/4 npt(mbe)
208393	3/8 npt(mbe)
208630	1/2 npt(m) x 3/8 npt(f)
109077	3/4 npt(fbe)
118464	1 npt(fbe)

Quick-Connect Coupler

Permits quick, convenient attachment of air supply hoses

208536	1/4 npt(fbe)
110198	3/8 npt(f)
110199	1/2 npt(f)
110200	3/4 npt(f)



208536

Quick-Connect Nipple

Allows quick attachment of air supply hoses to pump motor

169970	1/4 npt(m)
169967	1/4 npt(f)
169971	3/8 npt(m)
110196	1/2 npt(m)
110197	3/4 npt(m)



169970

Air Needle Valve

Controls pump speed by restricting air flow to pump or other air-operated equipment

205090	1/4 npt(f) outlet port; 1/4 npt(m) inlet port
206264	1/8 npt(f) outlet port; 1/4 npt(m) inlet port



205090

Air Pressure Relief Valve

Prevents pump from operating beyond recommended working pressure by opening at a pre-set maximum air pressure

103347	90 psi (6 bar)
110065	60 psi (4 bar)



110065

Accessories

Hoses and Fittings

Air Pressure Gauge

Allows visual check of air pressure being supplied to the pump. Rated to 200 psi (14 bar)

110319	1/8 npt(m) bottom inlet; black
100960	1/4 npt(m) bottom inlet; black
101180	1/4 npt(m) bottom inlet; chrome



100960

Air manifold

Supply several pumps from one supply line. Larger port delivery ensures adequate air flow to all pumps

158990	Four outlet ports; 3/8 npt(f)
601950	Three outlet ports; 1/2 npt(f)

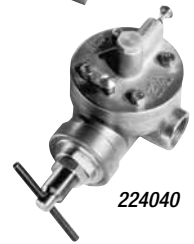


158990

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

224040	3/4 npt(fbe)
--------	--------------



224040

Blow Guns

236211 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

Tire Inflators

236205 Heavy-duty Tire Inflator includes 12 in (30 cm) hose with swivel dual-foot chuck and pop-out gauge. Tapered chuck nut fits wheel-cover holes on cars and light trucks. Gauge ranges from 0-120 psi in 2 psi increments. Maximum working pressure 250 psi (18 bar), 1/4 npt(f) inlet

236206 Passenger Car Tire Inflator includes 12 in (30 cm) hose with straight-on chuck and pop-out gauge. Tapered chuck nut fits wheel cover holes on cars and light trucks. Ideal for use on reels. Gauge ranges from 0-90 psi in 2 psi increments. Maximum working pressure 250 psi (18 bar), 1/4 npt(f) inlet

218545 1/4 npt(f) Tire Chuck, durable, full-volume tool for adding/relieving air pressure



236211

Water Valve

180685 Water/Anti-Freeze Bib is a durable, full-volume dispense nozzle for water, anti-freeze and windshield washer fluid. Nitrile rubber seals with 1/4 npt (f) inlet. Maximum pressure is 100 psi (7 bar)



236206

Heavy-Duty Reinforced Hoses

Heavy-duty reinforced hose for use with grease, oil and undercoating material. Hoses are black, male at both ends. Lubrication hoses listed are grounded for static electrical discharge.

1/4 in ID hoses with maximum pressure rating of 5000 psi (345 bar)

Part No.	Length	Fittings
109145	12 in (0.3 m)	1/8 in x 1/8 in (4.8 mm x 4.8 mm) with bend restrictor
109146	15 in (0.4 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109147	24 in (0.6 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109148	30 in (0.8 m)	1/8 in x 1/8 in (4.8 mm x 4.8 mm) with bend restrictor
109149	48 in (1.2 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109150	72 in (1.8 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109151	12 ft (3.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109152	15 ft (4.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109153	20 ft (6.1 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109154	25 ft (7.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109156	35 ft (10.6 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109157	40 ft (12.2 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109158	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)



180685

Lubrication Hoses

Hoses and Fittings

3/8 in ID hoses with maximum pressure rating of 4000 psi (276 bar)

Part No.	Length	Fittings
109160	12 in (0.3 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
109161	24 in (.62 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109162	48 in (1.2 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109163	72 in (1.8 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109165	15 ft (4.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109170	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109169	40 ft (12.2 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109170	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)

Lubrication Hoses (Oil)

1/2 in ID hoses with maximum pressure rating of 3000 psi (207 bar)

Part No.	Length	Fittings
110069	15 in (0.4 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220598	18 in (0.5 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220600	54 in (1.4 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220591	72 in (1.8 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220590	10 ft (3.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220592	16 ft (4.9 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220593	20 ft (6.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220608	25 ft (7.6 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
221092	40 ft (12.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
221093	50 ft (15.3 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
237861	75 ft (22.9 m)	1/2 in x 3/4 in (12.7 mm x 19.1 mm)
109108	18 in (0.4 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
109105	72 in (1.8 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
111010	10 ft (3.0 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
237865	75 ft (22.9 m)	1/2 in x 1 in (12.7 mm x 25.4 mm)
237866	50 ft (15.2 m)	1/2 in x 1 in (12.7 mm x 25.4 mm)

1 in ID hose rated to maximum pressure of 125 psi (8.7 bar)

Part No.	Length	Fittings
249058	50 ft (15.2)	1 in x 1 in (25.4 mm x 25.4 mm)

1 in ID hose rated to maximum pressure of 212 psi (14.6 bar)

Part No.	Length	Fittings
241908	50 ft (15.2 m)	1 in x 1 in (25.4 mm x 25.4 mm)

Air/Water Hoses

Hoses for air, water, anti-freeze and windshield washer fluid. Hoses are red with male fittings at both ends.

Coiled 1/4 in ID hose with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
205600	50 ft (15.3 m)	1/4 in x 50 ft (6.4 mm x 15.3 m)

Air/Water Hoses

Hoses and Fittings

Fabric-Reinforced 1/4 in ID hoses with maximum pressure rating of 180 psi (12.4 bar)

Part No.	Length	Fittings
109123	18 in (0.5 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109124	4 ft (1.2 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109125	6 ft (1.8 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109126	10 ft (3.1 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109127	25 ft (7.6 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
109128	40 ft (12.2 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
218491	40 ft (12.2 m)	3/8 in x 1/4 in (9.5 mm x 6.4 mm)

3/8 in ID hoses with maximum pressure rating of 180 psi (12.4 bar)

Part No.	Length	Fittings
204560	18 in (0.5 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109130	4 ft (1.2 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
203320	6 ft (1.8 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109131	10 ft (3.1 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
110326	16 ft (4.9 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109132	25 ft (7.6 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109133	30 ft (9.2 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109134	40 ft (12.2 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109135	60 ft (18.3 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)

1/2 in ID hose with maximum pressure rating of 180 psi (12.4 bar)

Part No.	Length	Fittings
218093	22 in (0.56 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
110046	4 ft (1.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
205418	6 ft (1.8 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
214656	10 ft (3.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)

1/2 in ID hose with maximum pressure rating of 300 psi (20.7 bar)

Part No.	Length	Fittings
248312	25 ft (7.6 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
248313	50 ft (15.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)

3/4 in ID hoses with maximum pressure rating of 180 psi (12.4 bar)

Part No.	Length	Fittings
110047	18 in (0.5 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
110048	4 ft (1.2 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
208610	6 ft (1.8 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
214955	10 ft (3.1 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
208611	25 ft (7.6 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)

Pipe Fittings and Swivels

Hoses and Fittings

Bushing – reducing, standard and expanding

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
100030	1/4 in x 1/8 in	159841	3/8 in x 1/4 in	100206	1/2 in x 1/4 in
100081	1/2 in x 3/4 in	100615	3/4 in x 1/4 in	100505	3/4 in x 3/8 in
100896	3/4 in x 1/2 in	100380	1 in x 1/2 in	158586	1 in x 3/4 in

Pipe Adapters

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
150171	1/8 in x 1/8 in	159840	1/8 in x 1/4 in	156580	1/8 in x 3/8 in
150287	1/4 in x 3/8 in	159842	1/4 in x 1/2 in	150286	3/8 in x 3/8 in
156022	3/8 in x 1/2 in	168595	1/2 in x 3/4 in		

Street Elbows

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
100840	1/4 in x 1/4 in	155699	3/8 in x 3/8 in	158683	1/2 in x 1/2 in
176393	3/4 in x 3/4 in				

Coupling (standard)

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
100451	1/8 in	113093	1/4 in	162024	3/8 in
158581	1/2 in	100385	3/4 in	100474	1 in

Hex Nipple (standard and reducing)

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
151519	1/4 in x 1/8 in	156971	1/4 in x 1/4 in	156296	3/8 in x 1/8 in
165198	3/8 in x 1/4 in	156849	3/8 in x 3/8 in	162449	1/2 in x 1/4 in
159239	1/2 in x 3/8 in	158491	1/2 in x 1/2 in	194048	3/4 in x 3/8 in
157191	3/4 in x 1/2 in	175013	3/4 in x 3/4 in	158555	1 in x 3/4 in

Square-Head Plug

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
111697	1/4 in	100040	3/8 in	100737	1/2 in
104663	3/4 in				

Straight Swivel Adapter*

Part No.	Rigid (m) x Swivel (f)	Part No.	Rigid (m) x Swivel (f)	Part No.	Rigid (m) x Swivel (f)
208434	1/8 in x 1/4 in	156823	1/4 in x 1/4 in	157705	1/4 in x 3/8 in
155665	3/8 in x 3/8 in	162505	3/8 in x 1/2 in	156684	1/2 in x 1/2 in
158256	1/2 in x 3/8 in	157785	3/4 in x 3/4 in	202965	1 in x 3/4 in
160022	1 in x 1 in				

90° Swivel Adapter*

Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)
157676	1/4 in x 1/4 in	155677	3/8 in x 3/8 in	159801	3/8 in x 1/2 in
157416	1/2 in x 1/2 in	156589	3/4 in x 3/4 in		

Straight Swivel Adapter*

Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)
155570	1/4 in x 1/4 in	159153	3/8 in x 1/4 in	156173	3/8 in x 3/8 in
155653	1/2 in x 1/4 in	161077	1/2 in x 3/8 in	155865	1/2 in x 1/2 in
156172	3/5 in x 3/4 in	158383	1 in x 1 in		

90° Swivel*

Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)
155541	1/4 in x 1/4 in	155495	3/8 in x 1/4 in	155494	3/8 in x 3/8 in
217430	3/8 in x 1/2 in	161037	1/2 in x 3/8 in	155470	1/2 in x 1/2 in
160327	3/4 in x 3/4 in				

45° Swivel Adapter*

Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)
161889	3/8 in x 3/8 in	105281	3/4 in x 3/4 in		

*Not a "live" swivel, position is stationary after tightened



Tube and Fittings

Hoses and Fittings

Tube Fittings			
Maximum pressure rating of 3000 psi (207 bar) with appropriate tubing wall thickness			
Tube Union Flow 90° Elbow			
Part No.	Tube OD		-
101012	5/8 in		-
101376	7/8 in		-
Tube Union – Straight			
Part No.	Tube OD		-
101009	5/8 in		-
101340	7/8 in		-
Male Connector			
Part No.	Tube OD		Thread
101339	7/8 in		3/4 npt
Female Connector – Straight			
Part No.	Tube OD		Thread
101008	5/8 in		1/2 npt
Tube Tee with Female Branch			
Part No.	Tube OD		Thread
101013	5/8 in		5/8 npt

NOTE: Consult you local distributor for additional tube-fitting requirements (ie: high-pressure, low-pressure, etc.) and fitting recommendations: Parker; AeroQuip; Weatherhead; Lenz; Crawford; or Imperial Eastmand.



Technical Information

Always use a qualified installer and ensure the installer follows the detailed instructions included with every Graco product.

1. Always use new pipe. Make certain that pipes are clean and free of rust and scale.
2. When cutting pipe remove burrs and chips that may damage dispense valves and meters.
3. Always flush the system with oil before attaching dispense valves and meters.

Air Lines

Main Line	Branch Line	Pump Model
3/4 in or 1 in ID pipe	3/8 in or 1/2 in ID pipe	Fast-Ball; Mini Fire-Ball 225
3/4 in or 1 in ID pipe	1/2 in ID pipe	Fire-Ball

Fluid Lines

This information applies to typical automotive flow rate service requirements

Chassis Grease Lubricant Supply Lines (based upon 5000 psi [345 bar] maximum working pressure)			
Supply Line Length	Supply Pump	Hydraulic Supply Line Tubing	ASTM A53 or A106 Grade "B" – Seamless Pipe (6000 psi [414 bar] forged steel fittings)
Up to 50 feet	50:1 Fire-Ball 300, 425	5/8" OD x .109" Wall Tube	1/2" Schedule 80
50 to 100 feet	50:1 Fire-Ball 300, 425	5/8" OD x .109" Wall Tube	1" Schedule 160
100 to 200 feet	50:1 Fire-Ball 300	N/A	1-1/4" Schedule 160
100 to 200 feet	50:1 Fire-Ball 425	N/A	1-1/2" Schedule 160
200 feet and up	50:1 Fire-Ball 300, 425	N/A	1-1/2" Schedule 160
Motor Oil, Gear Lube, or ATF Lubricant Supply Lines (based upon 1000 psi [69 bar] maximum working pressure)			
Supply Line Length	Supply Pump	Hydraulic Supply Line Tubing	ASTM A53 Butt-Welded Pipe (Class 300 malleable fittings)
Up to 50 feet	5:1 Fire-Ball 300	5/8" OD x .049" Wall Tube	1/2" Schedule 40
Up to 50 feet	10:1 Fire-Ball 425	3/4" OD x .049" Wall Tube	3/4" Schedule 40
50 to 100 feet	5:1 Fire-Ball 300	3/4" OD x .049" Wall Tube	3/4" Schedule 40
50 to 100 feet	10:1 Fire-Ball 425	1" OD x .049" Wall Tube	1" Schedule 40
100 to 200 feet	5:1 Fire-Ball 300	1" OD x .049" Wall Tube	1" Schedule 40
100 to 200 feet	10:1 Fire-Ball 425	1-1/2" OD x .095" Wall Tube	1-1/4" Schedule 40
200 feet and up	5:1 Fire-Ball 300	1-1/2" OD x .095" Wall Tube	1-1/4" Schedule 40
200 feet and up	10:1 Fire-Ball 425	1-1/2" OD x .095" Wall Tube	1-1/4" Schedule 40

Petroleum Management Group

Ordering and Warranty Information

This Price List supersedes all previous price lists dated prior to January 2, 2011.

Prices, discount codes, and family codes subject to change without notice.

\$50.00 U.S. net minimum billing, exclusive of application taxes and transportation.

The goods are sold to Distributor EX Works (Incoterms 2000) Graco's premises or the premises of Graco's Supplier. All freight charges, handling, insurance, duty, taxes and other charges are at Distributor's expense, with the following exception: for single orders and/or shipments to USD \$2,500 net value or more, Graco will prepay surface freight charges to the U.S. port of exit or the U.S. freight forwarder of Distributor's choice.

All prices are F.O.B. shipping point.

Returns will not be accepted on configured or low demand products built to special customer order. These orders are subject to a cancellation fee.

Graco strives to ship all orders within 48 hours. If you have need for an emergency shipment and your order is received before 2:30 p.m. Central Time, you may request same day shipment.

Graco Inc. reserves the right to correct any typographical errors in this price list.

Possession of this list does not permit any party to purchase any or all of the items listed herein.

Prices, as shown herein, do not include any sales tax, excise tax, or other similar tax which must be added when, as, and if applicable.

This price list does not list parts that are obsolete or discontinued. Always refer to the most recent lists and instruction forms.

GEDI® Website

GEDI stands for Graco Extranet for Distributor Information and is for use exclusively by authorized Graco distributors. This online tool features up-to-the-minute list price, net price, order/product information, product availability and shipping information. Access to this portion of the www.graco.com website requires your Graco account number and the assignment of a GEDI password.

If you would like to access GEDI, visit www.graco.com for easy online instructions.

Product Orders and Inquiries

- Order entry
- Product availability
- List and net prices
- Literature orders
- Order status
- Shipping charges
- Tracking information
- Same day shipping*

**All orders entered and credit approved by noon qualify for same day shipping*

Fax Order Line *(orders only please)*

Toll Free: 800-533-9656

(In Minnesota Twin Cities Metro Area, dial 612-378-3590)

Free-up phone lines. Fax your orders day or night. You will receive a fax conformation of your order, which includes:

- Shipping location
- Graco sales release number
- Total net order entry value
- Line item pricing
- Quantity available by line item
- Part description

Customer Service and Technical Assistance

Toll Free: 800-533-9655

(In Minnesota Twin Cities Metro Area, dial 612-623-6928)

- Product information
- Product application questions
- Delivery date changes
- Product availability dates
- Maintenance and repair advice
- Correct order and invoice errors
- Product pre-return authorization (RGA)
- Resolves shipping and traffic questions

For additional information visit www.graco.com

- Product search
- Product photos
- Product listing
- Literature information
(service manuals, catalogs, etc.)
- Sales rep location
- GEDI access

EZ Fax* Document Ordering System

Get the documents you need 24-hours-a-day

- Service Manual
- Data Sheets
- Literature Index

Petroleum Management Group

Ordering and Warranty Information

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 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 charges 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, hose, 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 Petroleum Management Group Equipment 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 original purchaser for use. Graco will, for a period as defined in the table below 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.

	5 Year Warranty	7 Year Warranty	10 Year Warranty
Oil/Grease Pumps and Packages	LD Pumps	Mini-Fireball 225	Fireball 425
	Fastball / Fast-Flo	Fireball 300	NXT Pumps
	AODD		
Electronic Meters and Valves LD Meter Electronics (2 years) All other meter series electronics (3 years)	LD Meters	Matrix Meters	
		SD Electronic Meters	
		EM6/EM12 Electronic Meters	
		IM5/IM6 Electronic Meters	
		SDI15 Electronic Meters	
		SDV15 Valve XDV20 Valve	
Hose Reels and Packages All reel series wear parts, including but not limited to: hose, swivel seats, roller guides (12 months); springs (36 months). All bare hose reels, all components (12 months).	LD Series Reels and Packages	SD Series Reels and Packages	
		XD Series Reels and Packages	
Accessories	Oil King		
	Coolant King		
	Oil Ace		

Equipment or components not identified are not covered by this warranty. Complete part number list available by request.

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
15C502	13, 18, 21	24D593	24	24F904	12, 28	24J042	28
15D702	96	24D594	23	24F905	12, 28	24J048	28
15M308	95	24D595	24	24F906	12, 28	24J054	28
15M309	95	24D596	23	24F910	10, 11, 12	24J060	28
15T366	89, 95	24D597	23	24F914	10, 11, 12	24J066	28
15T367	89, 95	24D598	24	24F915	10, 11, 12, 28	24J495	10, 11
15T368	89, 95	24D599	24	24F918	8, 9, 12	24J501	28
15T369	89, 95	24D600	23	24F920	10, 11, 12	24J733	10
15T370	89, 95	24D601	24	24F930	10, 11, 12	24J734	10
15T998	94	24D602	23	24F931	10, 11, 12	24J735	11
15T999	94	24D603	23	24F932	10, 11, 12	24J736	11
15Y478	69	24D604	24	24F935	10, 11, 12	24J776	10
16F886	12	24D605	24	24F947	53	24J777	11
16N883	62	24D606	23	24G576	8, 10	24K285	12
16P999	62	24D607	23	24G579	8, 10	24K777	10
17C907	55	24D608	24	24G582	8, 10	24K796	11
17C908	55	24D989	66	24G585	8, 10	24K797	10
23F914	11	24D990	66	24G588	9, 11	24K798	11
24A217	62, 66	24D991	66	24G591	9, 11	24K799	10
24A218	66	24D992	66	24G594	9, 11	24K800	11
24A219	70	24D993	66	24G597	9, 11	24K832	10
24A220	66, 70	24D994	66	24G600	27, 28	24K833	11
24A221	70	24D995	66	24G603	27, 28	24K834	10
24A224	66, 70	24D996	66	24G606	27, 28	24K835	11
24A934	61, 66	24D997	66	24G636	52, 53	24K836	10
24A935	61, 66	24D998	66	24G738	54	24K837	11
24A936	66	24D999	66	24G745	52, 53	24K838	10
24A937	66	24E001	66	24G865	64	24K839	11
24A938	66	24E002	66	24G866	64	24K840	10
24A939	66	24E006	41	24H193	62	24K841	11
24A940	62, 66	24E007	41	24H293	54	24K842	10
24A941	62, 66	24E008	41	24H420	10, 11, 12, 28	24K843	11
24A942	62, 66	24E009	41	24H422	12, 28	24K855	45
24A943	62, 66	24E010	41	24H655	63, 64	24K901	45
24A944	62, 66	24E011	41	24H656	63, 64	24K932	45
24A945	66	24E166	106	24H657	63, 64	24K937	45
24A946	66	24E167	106	24H658	63, 64	24M499	53
24A947	66	24F524	55	24H659	63, 64	24N323	70
24A948	66	24F529	54	24H660	63, 64	24N325	70
24A949	66	24F531	53	24H661	63, 64	24N327	70
24A950	62, 66, 70	24F532	55	24H662	10, 11, 63, 64	24N328	66, 70
24A951	66, 70	24F679	55	24H663	28, 63, 64	24N331	70
24B624	45	24F735	64	24H666	10, 11, 12	24N332	70
24B632	45	24F736	64	24H669	10, 11, 12	24N333	70
24B634	45	24F737	64	24H689	10	24N334	70
24B639	45	24F738	64	24H695	10	24N335	70
24B766	45	24F739	64	24H702	10	24N336	66, 70
24C100	66, 70	24F740	64	24H704	10	24N337	70
24C245	69	24F741	64	24H726	10	24N339	70
24C246	69	24F742	64	24H728	10	24N340	70
24C247	69	24F743	64	24H751	10	24N341	70
24C248	69	24F753	64	24H753	10, 11	24N342	70
24C249	69	24F754	64	24H775	10	24N343	70
24C250	69	24F755	64	24H777	10	24N444	62, 66
24C251	69	24F756	64	24H800	10	24N674	61
24C252	69	24F757	64	24H802	10	24N675	61
24C253	69	24F758	64	24H836	11	24N682	62
24C254	69	24F759	64	24H842	11	24N683	62
24C255	69	24F760	64	24H859	10, 11, 12	24N684	62
24C256	69	24F761	64	24H862	28	24N685	62
24C443	63, 64	24F771	64	24H865	10, 11, 12	24N686	62
24C444	63, 64	24F772	64	24H868	11	24N688	62
24C537	63, 64	24F773	64	24H870	11	24N689	62
24C538	10, 11, 63, 64	24F774	64	24H892	11	24N690	62
24C539	63, 64	24F775	64	24H894	11	24N691	62
24C637	45, 46, 106	24F776	64	24H916	11	24N814	62, 66
24C772	10, 11, 64	24F777	64	24H918	11	24P164	62
24C793	64	24F778	64	24H941	11	24P880	62
24D132	66, 70	24F779	64	24H943	11	24P881	62
24D133	66, 70	24F870	55	24H965	11	24R060	72, 73, 80
24D205	45, 46	24F878	53	24H967	11	24R061	72, 73, 80
24D590	23	24F901	12, 28, 36, 39	24HJ495	11	24R072	72, 73, 80
24D591	23	24F902	28, 35, 36	24J030	28	24R074	72, 73
24D592	24	24F903	28, 35	24J036	28	24R076	72, 73

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
24R077	72, 73	24R505	77, 78	24T011	78	24T238	79
24R102	81	24R506	77, 78	24T012	78	24T252	81
24R103	81	24R507	77, 78	24T013	78	24T253	81
24R106	81	24R508	77, 78	24T014	78	24T254	81
24R108	81	24R509	77, 78	24T015	78	24T327	80
24R110	81	24R510	77, 78	24T016	78	24T328	80
24R111	72, 73, 80	24R511	77, 78	24T017	78	24T329	80
24R114	81	24R512	77, 78	24T018	78	24T330	80
24R115	72	24R513	77, 78	24T019	78	24T331	80
24R117	72, 73, 80	24R515	77, 78	24T020	78	24T332	80
24R118	80	24R516	77, 78	24T021	78	24T333	80
24R350	20, 35, 36	24R517	77, 78	24T022	78	24T334	80
24R404	76, 77, 78	24R518	77, 78	24T023	78	24T335	80
24R405	76, 77, 78	24R519	76, 78	24T024	78	24T336	80
24R406	76, 77, 78	24R520	76, 78	24T025	78	24T337	80
24R407	76, 77, 78	24R521	76, 78	24T104	79	24T359	81
24R408	76, 77, 78	24R522	76, 78	24T105	79	24T360	81
24R409	76, 77, 78	24R523	76, 78	24T106	79	24T361	81
24R410	76, 77, 78	24R524	76, 78	24T107	79	24T362	81
24R412	76, 77, 78	24R525	76, 78	24T108	79	24T363	81
24R413	76, 77, 78	24R526	76, 78	24T109	79	24T364	81
24R414	76, 77, 78	24R527	76, 78	24T110	79	24T365	81
24R415	76, 77, 78	24R528	76, 78	24T111	79	24T366	81
24R416	76, 77, 78	24R529	76, 78	24T112	79	24T367	81
24R419	76, 77, 78	24R530	76, 78	24T113	79	24T368	81
24R420	76, 77, 78	24R531	76, 78	24T114	79	24T875	80
24R421	76, 77, 78	24R532	76, 78	24T115	79	24T876	80
24R422	76, 79	24R533	76, 78	24T116	79	24T886	79
24R423	76, 79	24R534	77	24T117	79	24T888	79
24R424	76, 79	24R535	77	24T118	79	24T889	79
24R425	76, 79	24R536	77	24T119	79	24T890	79
24R426	76, 79	24R537	77	24T120	79	24T891	79
24R427	76, 79	24R538	77	24T121	79	24T892	79
24R428	76, 79	24R539	77	24T122	79	24T910	79
24R429	76, 79	24R540	77	24T123	79	24T911	79
24R430	76, 79	24R541	77	24T124	79	24U703	87
24R431	76, 79	24R542	77	24T125	79	24U947	88
24R432	76, 79	24R543	77	24T126	79	24U948	88
24R433	76, 79	24R544	77	24T127	79	24U949	88
24R434	76, 79	24R545	77	24T128	79	24U950	88
24R435	76, 79	24R546	77	24T129	79	24U951	88
24R436	76, 79	24R547	77	24T130	79	24U952	88
24R437	76, 78	24R548	77	24T131	79	24U953	88
24R438	76, 78	24R549	79	24T132	79	24U954	88
24R439	76, 78	24R550	79	24T133	79	24U955	88
24R440	76, 78	24R551	79	24T207	76, 77, 78	24U956	88
24R441	76, 78	24R552	79	24T208	76, 77, 78	24U957	88
24R442	76, 78	24R553	79	24T209	76, 77, 78	24U958	88
24R443	76, 78	24R554	79	24T210	76, 79	24U959	88
24R444	76, 78	24R555	79	24T211	76, 79	24U960	88
24R445	76, 78	24R556	79	24T212	76, 79	24U961	88
24R446	76, 78	24R557	79	24T213	76, 78	24V034	88
24R447	76, 78	24R558	79	24T215	76, 78	24V035	88
24R448	76, 78	24R559	79	24T216	76, 78	24V036	88
24R449	76, 78	24R560	79	24T218	77	24V037	88
24R450	76, 78	24R561	79	24T219	77	24V038	88
24R451	76, 78	24R562	79	24T220	77	24V039	88
24R452	77	24R563	79	24T221	77, 78	24V040	88
24R453	77	24R564	79	24T222	77, 78	24V041	88
24R454	77	24R565	79	24T223	77, 78	24V042	88
24R455	77	24R566	79	24T224	78	24V043	88
24R456	77	24R567	79	24T225	78	24V044	88
24R457	77	24R568	79	24T226	78	24V045	88
24R458	77	24R569	79	24T227	76, 78	24V046	88
24R459	77	24R570	79	24T228	76, 78	24V047	88
24R460	77	24R571	79	24T229	76, 78	24V048	88
24R461	77	24R572	79	24T230	77	24V049	88
24R462	77	24R573	79	24T231	77	24V050	88
24R463	77	24R574	79	24T232	77	24V051	88
24R464	77	24R575	79	24T233	79	24V052	88
24R465	77	24R576	79	24T234	79	24V053	88
24R466	77	24R577	79	24T235	79	24V054	88
24R503	77, 78	24R578	79	24T236	79	24V055	88
24R504	77, 78	24R902	36	24T237	79	24V056	88

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
24V057	88	100054	102, 103	109130	111	111010	110
24V058	88	100081	112	109131	111	111468	107
24V059	88	100206	112	109132	111	111470	20, 40, 107
24V060	88	100220	21	109133	111	111474	106
24V475	88	100380	112	109134	111	111511	46
24V549	86	100385	112	109135	111	111620	98, 99, 100
24V550	86	100451	112	109145	102, 109	111697	112
24V551	86	100474	112	109146	109	112119	45
24V552	86	100505	112	109147	109	112196	101
24V553	85, 86, 87	100611	46	109148	92, 102, 109	112197	59
24V641	53	100615	112	109149	109	112198	59
24V644	53	100737	112	109150	35, 39, 109	112202	59
24V645	53	100833	102, 103	109151	35, 39, 109	112255	102
24V646	53	100834	102, 103	109152	109	112353	21
24V656	53	100835	103	109153	109	112859	107
24V677	53	100837	103	109154	109	113093	112
24V678	53	100840	112	109156	109	113497	45, 46
24V679	53	100846	103	109157	109	113551	98
24V686	53	100847	103	109158	109	113553	98
24W140	55	100848	103	109160	110	113555	98
24W141	55	100854	103	109161	110	113556	98
24W142	55	100896	112	109162	110	113557	98
24W143	55	100960	18, 22, 37, 38, 42, 109	109163	39, 110	113558	98
24W144	55	100970	102, 103	109165	35, 39, 110	113559	98
24W145	55	100971	102	109167	35, 39	113560	98
24W148	54	101008	113	109169	110	113774	98
24W149	54	101009	113	109170	110	113859	100
24W154	54	101012	113	110025	100	114017	89
24W161	54	101013	113	110046	111	114829	59
24W190	54	101078	22	110047	111	115042	23, 24, 41, 46
24W250	54	101180	109	110048	23, 24, 111	116229	106
24W251	54	101277	102	110065	108	118464	108
24W306	88	101281	103	110069	110	119278	96
24W641	88	101283	103	110127	21	119572	94
24Y243	86	101287	103	110146	22, 45, 46, 107	119577	104
24Y244	86	101297	103	110147	22, 45, 46, 55, 107	120581	106
24Y246	86	101312	103	110148	22, 107	124398	54
24Y248	86	101339	113	110149	22, 106, 107, 108	124541	55
24Y252	86	101340	113	110150	22, 108	124548	55
24Y253	86	101376	113	110196	45, 108	124549	55
24Y254	86	101604	103	110197	108	124550	55
24Y255	86	101605	103	110198	35, 39, 108	124581	54, 70
24Y315	86	102527	98	110199	45, 108	124603	54
24Y316	86	103347	108	110200	108	124671	54
24Y318	86	103538	44	110201	101	124875	54, 70
24Y319	86	104266	18, 22, 37, 38, 42, 107	110202	101	124963	55
24Y859	60, 61	104663	112	110203	101	125014	55
24Y861	60, 61	105281	112	110216	101	125074	54
24Y862	60, 61	105474	100	110218	101	125078	53
24Y863	61	106148	19, 22, 45, 107	110223	22, 40, 45, 46, 108	125079	54
24Y864	60, 61	106149	22, 44, 45, 107	110224	22, 40, 45, 46, 108	125242	54
24Y865	60, 61	106150	44, 45, 107	110225	18, 22, 40, 45, 108	125478	53
24Y866	60, 61	106151	19, 107, 108	110226	22, 40, 45, 108	125479	53
24Y868	60, 61	107141	108	110234	35, 39, 107	126359	81
24Y869	61	107142	44, 108	110236	82	126360	81
24Y870	61	108190	46	110237	82	126361	81
24Y871	61	108202	105, 106	110285	82	126362	81
24Y872	60, 61	108203	106	110314	22	126363	81
24Y873	60	108204	105	110318	46, 107	126364	81
24Y876	60	108458	22, 99, 100	110319	109	126375	81
24Y877	60	108491	106	110326	111	126376	81
24Y878	60	108537	18, 22	110702	103	126377	81
24Y880	60, 61	108867	106	110703	103	126379	81
24Y882	60, 61	109054	39	110705	103	126380	81
24Y883	60, 61	109075	18, 19, 22, 35, 36, 37, 42, 46, 107	110706	103	126503	81
24Y884	60, 61	109077	108	110709	103	126504	81
24Y886	60, 61	109105	20, 46, 48, 110	110710	103	126505	81
24Y887	60, 61	109108	20, 48, 110	110711	103	126688	81
24Y888	60	109123	48, 111	110712	103	127167	81
24Y889	60	109124	111	110713	103	127173	81
24Y890	60	109125	7, 46, 48, 111	110877	22	127214	80
38439	43	109126	111	110878	22	127217	80
100030	112	109127	111	110906	22	127218	80
100040	112	109128	111	110907	22	127219	80

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
127220	80	157785	106, 112	202156	99	205568	102
127221	80	158256	112	202577	28, 35, 39, 43, 92, 101	205582	102
127222	80	158383	112	202579	101	205592	102
127223	80	158491	112	202600	101	205600	110
127224	80	158555	112	202650	102	205626	17, 18
127225	80	158581	112	202654	103	205699	37, 38
127271	80	158586	112	202858	45, 107	206197	44
127634	55	158683	112	202869	40	206199	45
127635	55	158990	109	202965	112	206264	108
127637	55	159153	112	203156	20	206405	30, 35, 43
127639	55	159239	112	203198	101, 102	206496	43
127640	55	159801	112	203265	85	206502	43
127642	52, 53	159840	112	203320	20, 35, 39, 111	206537	38
127643	53	159841	112	203497	102	206655	42
127646	53	159842	66, 112	203504	102	206656	42
127647	53	159952	20, 40	203521	61, 66	206699	30, 35, 43
127649	53	160022	12, 112	203522	61, 66	206700	30, 35, 43
127650	53	160327	20, 48, 112	203523	66	207279	38
127651	53	160754	20, 39	203524	66, 70	207361	42, 57
127652	53	161037	112	203525	66	207366	42, 57
127654	53	161077	112	203597	101	207367	42
127655	54	161889	112	203622	18, 21, 35, 36, 40, 58	207468	38
127656	55	162024	112	203650	20, 35, 36, 40, 58	207561	21, 40
127657	55	162225	37, 38	203655	85	207562	21, 40
127663	54	162449	112	203664	36	207579	20
127711	107	162505	112	203687	85	207651	37, 38, 45
127720	55	165198	112	203688	18, 20, 21, 22	207755	44, 107
127793	55	168085	20	203697	59, 101	207946	101
127794	55	168595	112	203701	59	207947	101
127795	55	169967	108	203702	59	207948	101
127796	55	169970	45, 108	203703	59	208009	105
127800	55	169971	35, 39, 108	203716	38	208390	108
127804	55	171818	20	203857	14, 18, 42	208393	108
127805	55	172405	21	203872	14, 18, 42	208434	112
127806	55	175013	112	203876	14, 18, 19	208536	35, 39, 45, 108, 109
127815	55	176393	112	203976	36	208610	37, 38, 41, 111
127823	55	176684	21	203987	20, 22	208611	111
127875	53	178670	82	203992	21	208630	108
127884	55	180199	22	204072	102	210880	20
128160	94	180685	66, 109	204076	21, 42	213012	48
150171	112	180698	70	204082	101	213013	48
150286	112	185416	86, 90	204083	101	214570	43
150287	66, 112	186472	100	204084	101	214583	21, 48
150622	102	187359	107	204095	42	214584	48
151519	112	187479	46	204121	36	214656	111
154616	105	187754	21	204130	39	214658	58
155332	89, 95	190125	46	204134	35, 36	214847	22, 107
155470	20, 39, 112	191075	21	204144	21, 40, 43	214848	22, 44, 107
155494	20, 21, 35, 39, 112	191126	21	204204	102	214849	44, 107
155495	112	191128	21	204254	14, 18, 42	214925	101
155541	35, 39, 48, 112	191130	21	204264	42	214926	101
155570	43, 112	191131	21	204351	36	214955	111
155653	112	191287	89	204353	37	215407	98, 99, 100
155665	112	191288	89	204385	21, 37, 38, 40	215474	98, 100
155677	112	191289	89	204461	37, 38	215475	100
155699	112	191294	89	204467	37	215481	100
155836	102	191295	89	204560	20, 111	215487	98, 99, 100
155865	112	191368	98	204574	18, 20, 35, 36, 37, 38, 39, 43, 57, 58	215964	48
156022	46, 112	191393	98	204741	62, 66, 70	217072	18, 22, 108
156172	112	191394	98	204867	58	217073	108
156173	112	191782	85, 86	204897	102	217074	107
156296	112	191783	85, 86	204929	102	217359	21, 48
156580	112	192873	98	205054	21, 40	217430	112
156589	112	192874	98	205090	108	218093	20, 111
156684	12, 112	194048	112	205102	37, 38	218112	48
156789	105	196471	82, 89	205148	37, 38	218115	7
156823	112	200020	102	205337	39	218316	7, 48, 107
156849	19, 35, 39, 112	200021	102	205339	37, 38	218334	44
156971	46, 112	200325	101, 102	205394	33, 37, 42	218340	66, 70
157191	112	200326	18, 20, 32, 35, 37, 38, 39, 43, 57	205395	33, 37, 38, 42	218341	66, 70
157416	19, 112	200389	92, 101, 102	205418	20, 39, 46, 111	218491	111
157676	112	201701	85	205532	102	218545	66, 109
157705	12, 112	201881	102	205554	102	218549	10, 11, 19, 66, 70

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
218550.....	66, 70, 72, 73, 80	222308.....	7, 13, 18, 19, 20, 21, 22	225781.....	37	237932.....	72, 73
218588.....	98, 100	222383.....	36, 39	225782.....	18	238108.....	16, 18
218591.....	82	222404.....	37	225786.....	18	238125.....	21
218670.....	70	222417.....	66, 70, 72, 73, 80	225827.....	36	238245.....	18, 20, 22
218671.....	70	222602.....	7	225844.....	59	238246.....	20, 22
218672.....	70	222629.....	82	225852.....	18	238247.....	20
218673.....	70	222641.....	82	225853.....	18	238370.....	21
218674.....	70	222645.....	82	225880.....	58	238371.....	89
218675.....	70	222902.....	57	225914.....	59	238400.....	86
218676.....	70	223107.....	42	225931.....	18	238428.....	45, 46
218677.....	70	223108.....	37	226012.....	36	238429.....	22
218678.....	70	223179.....	99, 100	226013.....	37	238431.....	22
218969.....	105, 106	223187.....	102	226018.....	37	238432.....	22
218970.....	106	223344.....	37, 38, 39, 42	226269.....	43	238433.....	22
220107.....	82	223448.....	82	226289.....	58	238434.....	22
220110.....	82	223695.....	106	226290.....	59	238436.....	43
220112.....	82	223696.....	106	226342.....	43	238437.....	43
220168.....	48	223697.....	106	226940.....	48	238438.....	43
220170.....	35	223700.....	39, 57	226941.....	48	238440.....	43
220171.....	35	223701.....	39, 57	226942.....	48	238592.....	21
220590.....	110	223845.....	37, 39, 42	226943.....	48	238593.....	21
220591.....	20, 110	223846.....	37, 38, 39, 42	226944.....	48	238595.....	21
220592.....	110	223888.....	46, 106	226945.....	48	238596.....	21
220593.....	110	223920.....	86	226947.....	47, 48	238618.....	98
220596.....	46	223952.....	41	226948.....	47, 48	238624.....	98
220598.....	19, 20, 110	223965.....	106	226951.....	47, 48	238625.....	98
220600.....	110	224023.....	43	226952.....	48	238646.....	86
220608.....	110	224040.....	109	226953.....	48	238647.....	86
220653.....	35, 36, 38, 39	224266.....	37, 38	232076.....	99, 100	238866.....	104, 105, 106
220654.....	35, 36, 39, 42	224267.....	38	232077.....	100	238899.....	21, 45
220969.....	106	224444.....	70	233807.....	36, 92	238996.....	98, 99, 100
221007.....	106	224458.....	43	233933.....	92	239019.....	100
221092.....	110	224512.....	18, 107	234237.....	43	239301.....	105
221093.....	110	224534.....	19	234423.....	82	239302.....	105
221146.....	106	224541.....	19	235346.....	105	239663.....	43
222011.....	44, 45, 106, 107	224569.....	101	235531.....	100	239702.....	7
222051.....	7	224579.....	21, 42	235532.....	100	239703.....	7
222058.....	20, 35, 43	224665.....	107	235878.....	85	239705.....	58
222059.....	35, 36, 39	224666.....	107	235998.....	21, 22, 57, 98	239706.....	82
222060.....	36, 42, 57	224667.....	107	236054.....	20, 21, 22, 45, 46, 48	239707.....	58
222061.....	20, 36, 42, 57	224669.....	107	236058.....	35, 39	239729.....	34, 38, 42
222062.....	18, 20, 22	224700.....	107	236171.....	101, 102	239730.....	34, 38, 42
222063.....	18, 19, 20, 22, 42	224701.....	107	236205.....	109	239731.....	34, 38
222065.....	17, 18, 42	224702.....	107	236206.....	109	239824.....	82, 87
222066.....	18, 20, 22, 42	224741.....	56, 57	236211.....	109	239829.....	89
222067.....	42	224742.....	56	236267.....	45	239877.....	31, 36
222068.....	18, 20, 22	224751.....	57	236273.....	45	239887.....	31, 36, 42
222069.....	36	224752.....	57	236753.....	56	239888.....	31, 37, 38, 42
222070.....	36, 39	224759.....	106, 107	236754.....	56, 57	239949.....	89
222071.....	42	224762.....	106	236763.....	99, 100	239950.....	89
222072.....	35, 36, 37, 39, 42	224825.....	43	236764.....	99, 100	239951.....	89
222073.....	36	224826.....	43	236778.....	20	239952.....	45
222074.....	36	224829.....	38	236864.....	57	239965.....	39
222075.....	42	224835.....	45, 46, 106	236865.....	57	239966.....	39, 43
222076.....	37, 38, 39, 42	224872.....	92, 93	237075.....	18, 20	240416.....	89
222077.....	43	224873.....	105, 106	237129.....	48	240417.....	22, 100
222078.....	35	224912.....	57	237130.....	48	240418.....	22
222079.....	43	224915.....	57	237131.....	48	240429.....	21, 22, 98
222080.....	35, 39	224916.....	57	237132.....	48	240448.....	99, 100
222081.....	35, 39	224955.....	106	237133.....	48	240453.....	89
222082.....	43	225006.....	36	237134.....	48	240684.....	106
222085.....	42	225014.....	36	237160.....	46	240685.....	106
222086.....	42	225016.....	37	237161.....	46	240832.....	105, 106
222087.....	14, 18	225026.....	36	237526.....	15, 18	241246.....	39
222090.....	104	225094.....	18	237601.....	21, 22	241633.....	19
222095.....	17, 18, 42	225272.....	105	237653.....	56	241657.....	45
222103.....	7	225376.....	58	237861.....	110	241663.....	21, 40
222104.....	7	225378.....	58	237865.....	110	241905.....	99, 100
222118.....	22, 48	225380.....	58	237866.....	110	241906.....	45, 46, 106
222119.....	22, 48	225384.....	58	237872.....	66, 70	241908.....	110
222149.....	106	225640.....	18	237873.....	66, 70, 72, 73, 80	242055.....	92, 101
222225.....	66, 70	225642.....	18	237874.....	66, 70, 72, 73, 80	242056.....	28, 35, 36, 39, 92, 101
222243.....	20, 36, 40	225728.....	18	237893.....	19, 21, 22, 98, 99, 100	242057.....	92, 101
222245.....	36	225773.....	36	237904.....	57	242058.....	92, 101

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
243161.....	43	247890.....	24	256484.....	95	965129.....	32, 37, 38
243167.....	107	247891.....	24	256485.....	95	DOB005.....	45
243392.....	85	247892.....	23	256486.....	95	DOB525.....	45
243599.....	85	247893.....	23	256487.....	95	DOF005.....	45
243650.....	105	247894.....	24	256488.....	95	DOF525.....	45
243669.....	45, 46	247895.....	24	256634.....	93, 94	D03005.....	45
243817.....	42	247969.....	23	256635.....	94	D03255.....	45
243818.....	42	247973.....	41	256636.....	94	D05007.....	45
243835.....	89	247974.....	41	256637.....	94	D05277.....	45
243836.....	89	247975.....	41	256638.....	94	D31255.....	45, 46
243837.....	89	247976.....	41	256719.....	95	DB3525.....	45
244038.....	19	247977.....	41	256836.....	84	DF3525.....	45
244055.....	105	247978.....	41	256837.....	84	HNH55A.....	69
244342.....	100	247979.....	41	256838.....	84	HNH55B.....	69
244628.....	18	247980.....	41	256839.....	84	HNH55F.....	69
244635.....	38	247981.....	41	257120.....	95	HNHB7A.....	69
244636.....	38	248097.....	13, 18, 19	257435.....	37, 38	HNHB7B.....	69
244637.....	38	248230.....	18	257539.....	95	HNHB7F.....	69
244641.....	38	248296.....	21	257556.....	95	HNHC5A.....	69
244657.....	41	248312.....	111	258693.....	10, 11, 83, 89	HNHC5B.....	69
244679.....	46	248313.....	111	258694.....	83, 89	HNHC5F.....	69
244680.....	46	248324.....	21	260000.....	51	HNHCDA.....	69
244681.....	46	248417.....	96	260020.....	51	HNHCDB.....	69
244682.....	46	248418.....	96	260025.....	51	HNHCDF.....	69
244844.....	38, 45, 107	248419.....	96	260078.....	51	HNHFFA.....	69
244845.....	107	248421.....	96	260079.....	51	HNHFFB.....	69
244846.....	18	248622.....	19	260082.....	51	HNHFFF.....	69
244847.....	18	248623.....	19	260083.....	51	HNL56A.....	69
244905.....	37, 38	248632.....	104, 105	260100.....	49, 50	HNL56B.....	69
244906.....	38	249058.....	110	260101.....	49, 50	HNL56F.....	69
245694.....	36	249440.....	82, 95	260102.....	49, 50	HNL65A.....	69
245695.....	36	255143.....	24	260104.....	49, 50	HNL65B.....	69
245696.....	36	255200.....	19, 84, 93, 95	260105.....	49, 50	HNL65F.....	69
246775.....	13, 14, 18	255231.....	93, 94	260106.....	49, 50	HNLC8A.....	69
246780.....	29, 35	255277.....	83	260108.....	49, 50	HNLC8B.....	69
246781.....	29, 35	255348.....	66, 84	260109.....	49, 50	HNLC8F.....	69
246903.....	18	255349.....	84	260110.....	50	HNLD5A.....	69
246904.....	18	255350.....	19, 66, 84	260111.....	50	HNLD5B.....	69
246906.....	18	255351.....	84	260112.....	50	HNLD5F.....	69
246907.....	18	255352.....	84	260113.....	50	HNLE3A.....	69
246909.....	29, 35	255353.....	84	260114.....	50	HNLE3B.....	69
246910.....	35	255354.....	84	260124.....	50	HNLE3F.....	69
246911.....	35	255355.....	84	260145.....	50	HNM65A.....	69
246913.....	35	255356.....	84	260238.....	50	HNM65B.....	69
246914.....	35	255370.....	95	260306.....	49, 50	HNM65F.....	69
246915.....	35	255459.....	89, 90	260521.....	51	HNMC8A.....	69
246916.....	35	255460.....	89, 90	260523.....	51	HNMC8B.....	69
246917.....	35	255461.....	89, 90	263265.....	45	HNMC8F.....	69
247335.....	38	255470.....	89, 90	286211.....	43	HNMD5A.....	69
247336.....	38	255731.....	94	286517.....	43	HNMD5B.....	69
247337.....	38	255751.....	83, 89	286621.....	43	HNMD5F.....	69
247435.....	96	255793.....	91	308403.....	21	HNMDDA.....	69
247436.....	93, 96	255800.....	84	312417.....	96	HNMDDB.....	69
247443.....	57	255801.....	84	313013.....	95	HNMDDF.....	69
247450.....	57	255802.....	84	313046.....	95	HNPB8A.....	69
247453.....	87	255803.....	84	313104.....	94	HNPB8B.....	69
247540.....	57	255852.....	88, 89	313106.....	94	HNPB8F.....	69
247712.....	90	255853.....	89	313108.....	94	HNPC5A.....	69
247713.....	90	255854.....	88, 89	313112.....	94	HNPC5B.....	69
247714.....	90	255855.....	88, 89	313114.....	94	HNPC5F.....	69
247715.....	90	255856.....	89	512874.....	39	HPH1DA.....	65
247716.....	90	255857.....	89, 90	512926.....	98	HPH1DB.....	65
247717.....	90	255858.....	89, 90	512927.....	98	HPH1DC.....	65
247718.....	91	255859.....	91	514037.....	98	HPH1DD.....	65
247721.....	91	255885.....	89, 95	514150.....	98, 100	HPH1DE.....	65
247722.....	91	255921.....	91	601950.....	109	HPH1DF.....	65
247723.....	91	256164.....	88, 90	647016.....	45	HPH5DA.....	65
247724.....	91	256215.....	10, 11, 19, 83, 89	647648.....	45	HPH5DB.....	65
247725.....	91	256216.....	10, 11, 83, 89	647731.....	45, 46, 106	HPH5DC.....	65
247759.....	89	256282.....	95	652002.....	45	HPH5DD.....	65
247760.....	89	256285.....	93, 96	948392.....	39	HPH5DE.....	65
247888.....	23	256482.....	95	948393.....	39	HPH5DF.....	65
247889.....	23	256483.....	95	965124.....	32, 37	HPH15A.....	65

Index

Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
HPH15B	65	HPM65E	65	HSM3BF	68		
HPH15C	65	HPM65F	65	HSM3BG	68		
HPH15D	65	HRL56B	66	HSM6DA	68		
HPH15E	65	HRM33D	65	HSM6DB	68		
HPH15F	65	HRM33E	65	HSM6DF	68		
HPH23A	65	HSDD5A	54, 68	HSM6DG	68		
HPH23B	65	HSDD5B	54, 68	HSM33A	68		
HPH23C	65	HSDD5F	54, 68	HSM33B	68		
HPH23D	65	HSDDDA	54, 68	HSM33F	68		
HPH23E	65	HSDDDB	54, 68	HSM33G	68		
HPH23F	65	HSDDDF	54, 68	HSM65A	68		
HPH55A	65	HSH1DA	68	HSM65B	68		
HPH55B	65	HSH1DB	68	HSM65F	68		
HPH55C	65	HSH1DF	68	HSM65G	68		
HPH55D	65	HSH1DG	68	HSMC8A	68		
HPH55E	65	HSH5DA	68	HSMC8B	68		
HPH55F	65	HSH5DB	68	HSMC8F	68		
HPL5JA	65	HSH5DF	68	HSMC8G	68		
HPL5JB	65	HSH5DG	68	HSMCFA	68		
HPL5JC	65	HSH15A	68	HSMCFB	68		
HPL5JD	65	HSH15B	68	HSMCFE	68		
HPL5JE	65	HSH15F	68	HSMCFG	68		
HPL5JF	65	HSH15G	68	HSM5A	68		
HPL23A	65	HSH55A	68	HSM5B	68		
HPL23B	65	HSH55B	68	HSM5F	68		
HPL23C	65	HSH55F	68	HSM5G	68		
HPL23D	65	HSH55G	68	HSMDDA	68		
HPL23E	65	HSHB7A	68	HSMDDB	68		
HPL23F	65	HSHB7B	68	HSMDDF	68		
HPL25A	65	HSHB7F	68	HSMDDG	68		
HPL25B	65	HSHB7G	68	HSPB8A	68		
HPL25C	65	HSHC5A	68	HSPB8B	68		
HPL25D	65	HSHC5B	68	HSPB8F	68		
HPL25E	65	HSHC5F	68	HSPB8G	68		
HPL25F	65	HSHC5G	68	HSPC5A	68		
HPL33A	65	HSHCDA	68	HSPC5B	68		
HPL33B	65	HSHCDB	68	HSPC5F	68		
HPL33C	65	HSHCDF	68	HSPC5G	68		
HPL33D	65	HSHCDG	68	P14DCS	41		
HPL33E	65	HSHFFA	68	P14MCS	41		
HPL33F	65	HSHFFB	68	P26DCS	41		
HPL56A	65	HSHFFF	68	P26MCS	41		
HPL56B	65	HSHFFG	68	P29DCS	41		
HPL56C	65	HSL25A	68	P29MCS	41		
HPL56D	65	HSL25B	68	P55DCS	41		
HPL56E	65	HSL25F	68	P55MCS	41		
HPL56F	65	HSL25G	68	P63DCS	41		
HPL65A	65	HSL33A	68	P63MCS	41		
HPL65B	65	HSL33B	68	P68DCS	41		
HPL65C	65	HSL33F	68	P68MCS	41		
HPL65D	65	HSL33G	68				
HPL65E	65	HSL56A	68				
HPL65F	65	HSL56B	68				
HPM3BA	65	HSL56F	68				
HPM3BB	65	HSL56G	68				
HPM3BC	65	HSL65A	68				
HPM3BD	65	HSL65B	68				
HPM3BE	65	HSL65F	68				
HPM3BF	65	HSL65G	68				
HPM6DA	65	HSLC8A	68				
HPM6DB	65	HSLC8B	68				
HPM6DC	65	HSLC8F	68				
HPM6DD	65	HSLC8G	68				
HPM6DE	65	HSLD5A	68				
HPM6DF	65	HSLD5B	68				
HPM33A	65	HSLD5F	68				
HPM33B	10, 11, 19, 65, 66	HSLD5G	68				
HPM33C	65	HSLE3A	68				
HPM33F	65	HSLE3B	68				
HPM65A	65	HSLE3F	68				
HPM65B	10, 11, 19, 65	HSLE3G	68				
HPM65C	65	HSM3BA	68				
HPM65D	65	HSM3BB	68				

AMERICAS

MINNESOTA

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

MAILING ADDRESS

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

EUROPE

BELGIUM

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

ASIA PACIFIC

AUSTRALIA

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

CHINA

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

INDIA

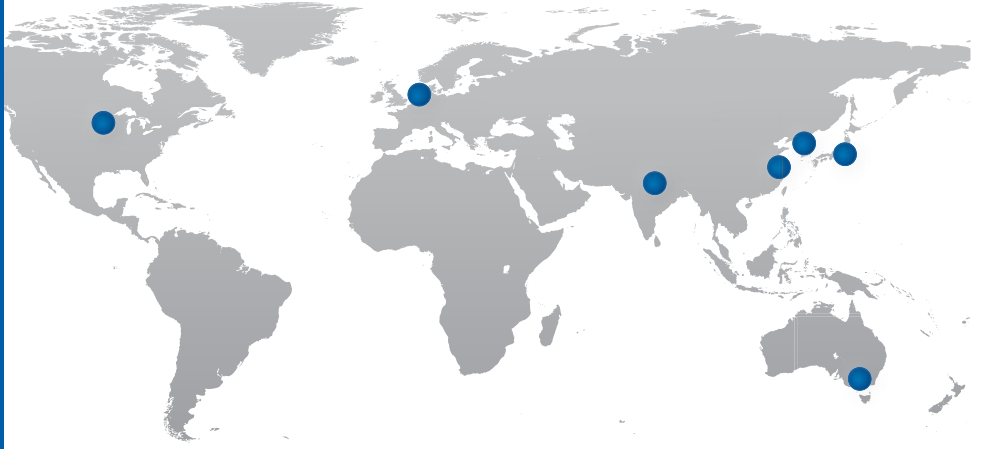
Graco Hong Kong Ltd.
India Liaison Office
Room 443, Level 4
Augusta Point, Golf Course Road
Gurgaon, Haryana, India 122001
Tel: 91 124 435 4208 Fax: 91 124 435 4001

JAPAN

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

KOREA

Graco Korea Inc.
Shinhan Bank Building
4th Floor #1599
Gwangyang-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.

Contact us today!

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

