# DIESEL EXHAUST FLUID (DEF) SYSTEMS

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## Flexible Installation – Solutions for Every Application

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







## How to Choose Your Graco DEF Solution:



#### Identify your power supply

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



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#### **Determine your container size**\*

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

\*Tote and drum not for sale from Graco



#### **Choose your accessories**

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



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## A Reliable Industrial Pump with Self-Priming Capabilities

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



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

#### Stay Up and Running Longer

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

#### **Reduced Maintenance**

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

#### **Typical Applications**

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

#### Typical Fluids Handled

• Diesel exhaust fluid

#### Technical Specifications

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

#### >>> Ordering Information

#### **Pump Only**

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



#### **LD Blue Electric Pump Packages**





#### LD Blue Electric Pump Packages

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



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





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

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

#### Modular Air Valve

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

#### **Robust Design**

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

#### Versatility

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

#### **Rugged Construction**

Resists corrosion for reliable performance and long life.

#### **Typical Applications**

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

#### **Typical Fluids Handled**

Diesel exhaust fluid

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

#### >>> Ordering Information

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

#### **SD Blue Pump Tote Packages**



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

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

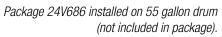


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### SD Blue Pump Drum Packages



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







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Warranty!

#### **Features and Benefits**

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

#### **Typical Applications**

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

#### **Typical Fluids Handled**

Diesel exhaust fluid

#### **Technical Specifications**

Maximum Flow Rate

11 oz per stroke

#### >>> Ordering Information

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

#### **Accessories**

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







#### **Typical Applications**

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

#### **Typical Fluids Handled**

• Diesel exhaust fluid

#### >> Ordering Information

## Features and Benefits

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

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

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

## **LD Blue In-Line Meter**





#### **Typical Applications**

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

#### **Typical Fluids Handled**

• Diesel exhaust fluid

#### **Features and Benefits**

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

#### **Technical Specifications**

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

#### >>> Ordering Information

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

#### Accessories

<b>A</b>	Part Number	Description
	127800	Adapter – SD auto nozzle connection to LD meter

## **LD Blue Automatic Nozzles**





### **Features and Benefits**

- Easy break-away system for low-cost repairs if the spout becomes detached
- Choose with or without built-in meter
- 4 gpm to12 gpm flow rate
- 50 psi maximum pressure
- · Optional mis-filling system to prevent mis-fills
- Stainless steel spout

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

#### Typical Applications

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

#### **Typical Fluids Handled**

• Diesel exhaust fluid

#### >> Ordering Information

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

#### Accessories

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

## **SD Blue Nozzle**



#### **Features and Benefits**

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

#### Typical Applications

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

#### Typical Fluids Handled

• Diesel exhaust fluid

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

## **LD Blue Manual Nozzle**

#### Typical Applications

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

#### **Typical Fluids Handled**

• Diesel exhaust fluid

#### **Features and Benefits**

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



Part Number	Description
125078	LD manual DEF nozzle with SST spout











#### **Features and Benefits**

- For use with SD and LD pumps (LD pump with manual nozzle only)
- Stainless steel fluid section with open porting ensures high fluid flow with minimal pressure loss
- Flexible positioning of guide arm for mounting on bench, overhead, wall, tote or utility truck
- 150 psi maximum pressure

**Technical Specifications** 

Sound Pressure Level

Sound Power Level

Instruction Manual

Wetted Parts

Operating Temperature Range

• 1/2 in x 45 ft inlet hose with 1/2 in BSPT(M) swivel connection to provide leak-free connection

80 dB(A)

87 dB(A)

3A8216

-40°F to 158°F (-40°C to 70°C)

Hybrid polymer, brass, nitrile rubber

#### Typical Applications

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

#### Typical Fluids Handled

• Diesel exhaust fluid

#### >> Ordering Information

#### **Hose Reels**

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

#### Accessories

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

Diesel Exhaust Fluid (DEF) Systems





#### **Features and Benefits**

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

al Applications	Technical Specifications	
Automotive and heavy-duty dealerships Mining Service and fast lube centers Fleet service facilities In-plant Lube trucks	Operating Temperature Range Maximum Working Pressure Wetted Parts (Bare Reel Only) Weight (Without hose) Sound Pressure Level	12°F to 140°F (-11°C to 60°C) 50 psi (3.5 bar) Zinc plated steel, polyurethane, steel 98 lb (44.5 kg) 85.8 dB (A)
al Fluids Handled	Sound Power Level	94.9 dB (A)
Diesel exhaust fluid	Instruction Manual	3A1767

#### >>> Ordering Information

#### **Hose Reels**

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

#### **Hose Reel Inlet Kits**

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

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





#### **Mounting Brackets**

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

#### **Dispense and Suction Hoses**

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

#### **Pump Handle**

Part Number	Description
127646	Black handle for 12V DC pump





#### Fittings

Fluid (DEF)

Fillings	Part Number	Description
	127656	1 in BSP(F) elbow fitting, black
	127657	1 in BSP(F) x 3/4 in barb hose tail, black
	127720	1 in BSP(F) x 1 in BSP(F) linear socket, black
	127804	3/4 in x 1 in BSPP(F) swivel fitting with seals
	127805	1 in BSPP(F) x 1 in BSPP(F) coupler
	127806	1 in BSPP(M/F) swivel, white
	127815	3/4 in BSP x 3/4 in barb SST swivel hose tail
	127823	1 in BSP x 3/4 in barb elbow, white
	116306	1/4 in NPT, 50 psi air safety valve for Standard AODD pump packages
-0	124963	1/8 in NPT, 50 psi air safety valve for Deluxe AODD pump packages
	24F524	3/4 in BSPP(M) x 3/4 in BSPP(F) SST swivel





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

#### Colder

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

Part Num		Description
	24F532	Colder closed-system coupler kit – includes drum coupler (124548), drum insert (124549) and downtube (124550)
	124548	Colder closed-system drum coupler
1	124549	Colder closed-system drum insert
1	125014	Colder closed-system drum insert with buttress thread
	124550	Colder closed-system 47 in downtube



#### **Micro Matic**

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

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

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

EPV<sup>™</sup> is a trademark of Micro Matic USA, Inc.



#### **Micro Matic Packages**

Includes coupler, valve and downtube.

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

