







# DIESEL EXHAUST FLUID

### WHAT IS DIESEL EXHAUST FLUID?

Diesel exhaust fluid is the mixture of high-purity synthetic urea and deionized water that is used in selective catalytic reduction (SCR) systems on diesel engines. Diesel exhaust fluid is injected into the exhaust stream via a controlled dosing module where the water vaporizes, leaving ammonia molecules free to travel into the catalytic converter, where it reacts and neutralizes the NOx molecules, converting it to nitrogen and water.

### **HOW IT WORKS**

Diesel exhaust fluid is carried onboard SCR-equipped vehicles in specially-designed tanks and is dosed into the SCR system at a rate equivalent to 2–5% of diesel consumption. This low dosing rate ensures long refill periods, and the use of diesel exhaust fluid helps improve fuel economy, allowing fleets to realize a reduction in overall operating costs.

### **COMMITTED TO QUALITY**

SCR systems are sensitive to potential chemical impurities in the urea solution. Therefore, it is essential to maintain high standards of diesel exhaust fluid quality and ISO Standard 22241-1 is in place to ensure fluid quality. Our diesel exhaust fluid is manufactured in accordance with these strict standards, giving you the peace of mind you need when you use it in your SCR system.

### **STORAGE**

Storage temperature between 40°F and 80°F is recommended to maintain shelf life. Storage temperature above 12°F is recommended to avoid crystallization, which starts at 11°F. Prolonged storage above 86°F will reduce shelf life by causing hydrolysis to occur, with the consequent formation of ammonia and pressure rise.

# DIESEL EXHAUST FLUID STORAGE & DISPENSING SOLUTIONS

Maintaining DEF product integrity is vital to the efficient and long-term operation of your SCR-equipped vehicle. We offer a full line of proven and reliable storage and dispensing equipment designed specifically for DEF.

### **FULL PRODUCT LINE**

- Closed liquid dispensing systems for drums and totes
- Pump assemblies, nozzles, and hoses
- Insulated and pre-wired tote cabinets
- · Mini-bulk storage and dispensing systems
- Bulk storage solutions

### **OUR PROGRAM INCLUDES**

- · Highest-quality products
- Field-tested and proven
- Guaranteed product performance

### **INDUSTRY LEADING WARRANTY**

- 2-Year warranty on all pumps
- 1-Year warranty on all nozzles, meters, hoses, and fittings

### **NATIONWIDE SERVICE AND SUPPORT**

- · Factory-trained service technicians
- · Mini-bulk and bulk site survey, installation, and maintenance
- On-site training program



# DRUM AND TOTE DISPENSING SOLUTIONS

Engineered to easily integrate with virtually any container (drums, totes/IBCs, portable tanks, etc...), the centrifugal pump system is designed to transfer DEF at a rate of 8 to 10 gallons per minute. CNH Original Parts is confident that these tested and proven pump assemblies will meet your DEF dispensing needs.

### MANUAL CENTRIFUGAL PUMP ASSEMBLIES

### **FEATURES**

- Automatic shut-off function Prevents pump burn-out
- · Heavy-duty stainless steel pump housing
- · Built-in current overload protection
- Self-priming
- · Steel mounting bracket for drum integration

### **TECHNICAL SPECIFICATIONS**

• Dual voltage: 115V/230V 60Hz

• Liquid temperature range: from +32°F to +113°F

Maximum ambient temperature: +104°F

Maximum operating pressure: 8 bar (116 PSI)

• Flow rate: 8 to 10 gpm

### **OPTIONS**

- Flow meter
- Varying hose lengths
- · Attachment couplers for totes or drums







Requires coupler part number DEF744-048 for stainless steel valve in DEF totes. Requires coupler part number DEF756-008B for plastic valve in DEF drums.

PART NUMBERS		
DEFCTBM10	Tote Pump Manual Start 10' Hose w/ Stainless Steel Nozzle	
DEFCTBM20	Tote Pump Manual Start 20' Hose w/ Stainless Steel Nozzle	
DEFCBBM10	Drum Pump Manual Start 10' Hose w/ Stainless Steel Nozzle	
DEFCBBM20	Drum Pump Manual Start 20' Hose w/ Stainless Steel Nozzle	
DEFCWM10	Wall Pump Manual Start 10' Hose w/ Stainless Steel Nozzle	
DEFCWM20	Wall Pump Manual Start 20' Hose w/ Stainless Steel Nozzle	

### SMART START CENTRIFUGAL PUMP ASSEMBLY

### **FEATURES**

- Electronic pressure sensor On/off function is controlled by nozzle
- Time-out function Automatically shuts off after 12 seconds of disuse
- · Heavy-duty stainless steel pump housing
- · Built-in current overload protection
- Self-priming
- · Steel mounting bracket for tote integration

### **TECHNICAL SPECIFICATIONS**

• Dual voltage: 115V/230V 60Hz

• Liquid temperature range: from +32°F to +113°F

• Maximum ambient temperature: +104°F

• Maximum operating pressure: 8 bar (116 PSI)

Flow Rate: 8 to 10 gpm

### **OPTIONS**

- Flow meter
- Varying hose lengths
- · Attachment couplers for totes or drums







Requires coupler part number DEF744-048 for stainless steel valve in DEF totes. Requires coupler part number DEF756-008B for plastic valve in DEF drums.

PART NUMBERS		
DEFCTBSS10	Tote Pump Smart Start 10' Hose w/ Stainless Steel Nozzle	
DEFCTBSS20	Tote Pump Smart Start 20' Hose w/ Stainless Steel Nozzle	
DEFCBBSS10	Drum Pump Smart Start 10' Hose w/ Stainless Steel Nozzle	
DEFCBBSS20	Drum Pump Smart Start 20' Hose w/ Stainless Steel Nozzle	
DEFCWSS10	Wall Pump Smart Start 10' Hose w/ Stainless Steel Nozzle	
DEFCWSS20	Wall Pump Smart Start 20' Hose w/ Stainless Steel Nozzle	

# **DRUM AND TOTE DISPENSING SOLUTIONS**



### MANUALLY OPERATED ROTARY HAND PUMP

### **FEATURES**

- Industrial-grade polypropylene housing
- · Flow rate: 6 gpm

- 2" bung adaptor
- 10' dispensing hose
- Poly manual nozzle

### **PART NUMBERS**

**DEFHC10** Hand Crank Pump w/ Hose and Poly Nozzle (for use on plastic drums only)

### **PORTABLE 12V TRANSFER SYSTEM**

### **FEATURES**

- Polypro pump housing
- 12 VDC positive displacement pump
- 12' power cord with in-line fuse and battery clips
- · Automatic stainless steel nozzle with swivel
- · Delivery hose: optional lengths available
- Suction hose: 4'Flow rate: 7 gpm

### **OPTIONS**

- Flow meter
- · Varying hose lengths
- Attachment couplers for totes or drums



Requires coupler part number DEF744-048 for stainless steel valve in DEF totes. Requires coupler part number DEF756-008B for plastic valve in DEF drums.

PART NUMBERS	
DEFE12V10D	12V Pump 10ft. Hose, Stainless Steel Nozzle, and Drum Bracket
DEFE12V20D	12V Pump 20ft. Hose, Stainless Steel Nozzle, and Drum Bracket
DEFE12V30D	12V Pump 30ft. Hose, Stainless Steel Nozzle, and Drum Bracket
DEFE12V10T	12V Pump 10ft. Hose, Stainless Steel Nozzle, and Tote Bracket
DEFE12V20T	12V Pump 20ft. Hose, Stainless Steel Nozzle, and Tote Bracket
DEFE12V30T	12V Pump 30ft. Hose, Stainless Steel Nozzle, and Tote Bracket



### AIR DIAPHRAGM TRANSFER SYSTEM

### **FEATURES**

- 3/4 double diaphragm pump
- No lube, no stall design
- Polypro seats
- Flow rate: 6.5-7.5 GPM
- Delivery hose: 10'
- Suction hose: 4'

### **OPTIONS**

- Flow meter
- Varying hose lengths
- Attachment couplers for totes or drums

### PART NUMBERS

	DEFDPTB10	Tote Air Pump 10' Hose w/ Stainless Steel Nozzle
_	DEFDPBB10	Drum Air Pump 20' Hose w/ Stainless Steel Nozzle

### **MOBILE DRUM CART**

### **FEATURES**

- 3-Wheel drum cart with swivel locking rear wheel
- Pneumatic front tires
- Load capacity: 550 lbs.
- Custom stainless steel pump bracket
- DEF hose hanger
- Nozzle holder
- Powder coated finish
- Safety chain for barrel

### **OPTIONAL PUMPS**

- · Manual centrifugal
- Smart Start centrifugal
- Air diaphragm



Requires coupler part number DEF756-008B for plastic drum valve.

PART NUMBERS		
DEFCMCM10	Mobile Drum Cart w/ Manual Pump 10' Hose w/ Stainless Steel Nozzle	
DEFCMCM20	Mobile Drum Cart w/ Manual Pump 20' Hose w/ Stainless Steel Nozzle	
DEFCMCSS10	Mobile Drum Cart w/ Smart Start Pump 10' Hose w/ Stainless Steel Nozzle	
DEFCMCSS20	Mobile Drum Cart w/ Smart Start Pump 20' Hose w/ Stainless Steel Nozzle	
DEFDPMC10	Mobile Drum Cart w/ Air Pump 10' Hose w/ Stainless Steel Nozzle	
DEFDPMC20	Mobile Drum Cart w/ Air Pump 20' Hose w/ Stainless Steel Nozzle	

### **HEAVY-DUTY RACK STAND**

### **FEATURES**

- Stainless steel construction
- Integrated nozzle holder
- Pre-drilled 5/8" holes for floor mount
- Approximate ship weight: 115 lbs.
- Suction hose: 4'
- Hose reel: multiple options

### **OPTIONAL PUMPS**

- · Manual centrifugal
- Smart Start centrifugal
- Air diaphragm

PART NUMBERS	\$
DEFCRSM	Heavy-Duty Rack Stand w/ Manual Pump Stainless Steel Nozzle (requires hose reel w/ assembly)
DEFCRSSS	Heavy-Duty Rack Stand w/ Smart Start Pump Stainless Steel Nozzle (requires hose reel w/ assembly)
DEFDPRS	Heavy-Duty Rack Stand w/ Air Pump Stainless Steel Nozzle (requires hose reel w/ assembly)





# **ACCESSORIES**



### **DEF HOSE REELS**

### **FEATURES**

- Designed for dispensing DEF (aqueous urea solution)
- · Economical and impervious to outdoor conditions
- · Open design allows for easy maintenance
- Reel stores hose up and out of harm's way, greatly extending service life

### **OPTIONS**

• 15', 25', and 35' hose

PAKI NUMBEKS	
DEFHR15H0SE	Hose Reel 15' w/ Hose Assembly
DEFHR25HOSE	Hose Reel 25' w/ Hose Assembly
DEFHR35H0SE	Hose Reel 35' w/ Hose Assembly



## STAINLESS STEEL AUTOMATIC SHUT-OFF NOZZLE

### **FEATURES**

- Rugged design for long life and reliable service
- · 19mm nozzle spout

- · Stainless steel main stem
- · Duratuff lever and lever guard for additional durability

### PART NUMBERS

DEF510COM-NOZZ Replacement Nozzle (standard option for ALL drum and tote pumps)



### **FLOW METER**

### **FEATURES**

- Turbine measuring system
- · Reinforced polyamide body
- Threaded input/output, aligned male/ female depending on version
- Totalizer
- Flow indication
- Batteries: 2 AAA batteries

### **PART NUMBERS**

**DEF510COM-FMA** Flow Meter Assembly (standard option for ALL drum and tote pumps)



### HOSE

Our hose is specifically designed for dispensing and delivery of urea aqueous solution (32%) for the SCR technology.

### **FEATURES**

- Tube: black, smooth, sulfur-free EPDM rubber compound with peroxide curing, antistatic (R < 1  $M\Omega/m$ )
- Reinforcement: synthetic textile fabrics
- · Optional hose lengths
- Cover: black, smooth EPDM rubber compound
- Temperature range: -40°C (-40°F), +100°C (+212°F), with peaks up to
  - +120°C (+248°F) additional durability

### **PART NUMBERS**

 DEF510C0M-H0SE1
 10' × 3/4" DEF Hose

 DEF510C0M-H0SE2
 20' × 3/4" DEF Hose

 DEF510C0M-H0SE3
 30' × 3/4" DEF Hose

 DEF510C0M-H0SE4
 40' × 3/4" DEF Hose

# **INSULATED TOTE ENCLOSURES**

### **INSULATED HEAT BLANKET**

The DEF heat blanket utilizes an innovative heat-spreading technology to warm, insulate, and protect diesel exhaust fluid as well as dispense equipment in cold weather conditions.

### **FEATURES**

- Uniform, patented, heat-spreading technology
- Protects DEF and pump assembly Prevents freezing
- · Works on both metal and poly totes
- Unique design allows for easy access to dispensing system
- UV-, wind-, and water-resistant
- · Certified to UL/CSA safety standards
- 120V and 12V options





PART NUMBERS	
DEFTH275BD	275-gallon Insulated Heat Blanket
DEFTH330BD	330-gallon Insulated Heat Blanket



# PART NUMBERS DEFTCSS Single Tote (56"d × 82"w × 83"h) DEFTCSN Single Tote Narrow (48"d × 86"w × 83"h) DEFTCDS Double Tote (56"d × 140"w × 83"h) DEFTCDN Double Tote Narrow (48"d × 158"w × 83"h) DEFRTE3000 DEF Retail Tote Enclosure (56"d × 74"w × 73"h)

### **INSULATED TOTE ENCLOSURES**

CNH Original Parts offers a complete line of insulated tote cabinets specifically designed for outdoor DEF storage and dispensing from 55-gallon drums as well as 275- and 330-gallon IBCs/totes. These rugged, climatically controlled units will protect DEF from freezing as well as from degradation from UV and excessive heat.

### **FEATURES**

- Weatherproof Protects pump, tote and equipment during inclement weather
- Lightweight and durable Walls, doors, and roof made of composite
- Vented Prevents condensation buildup and vacuum pressure when opening door
- Pre-wired For quick turnkey installations
- Heavy-duty, locking doors Tote and dispense doors can be locked for additional security
- Reinforced chassis Forklift-compatible frame
- Bolt-down design Protect against strong winds and seismic code requirements
- Dispense door Small door for drivers use will prevent loss of heat

### **OPTIONS**

- · Thermostatically controlled heater
- Multiple pump assembly and metering packages (non-weights and measures)
- Telemetry systems
- Retail upgrade (weights and measures approved)



# **MINI-BULK SYSTEMS**

These American-made DEF storage and dispensing systems are designed to easily integrate with fuel islands as well as your existing fuel management system. With thousands of these proven systems in the global marketplace today, CNH Original Parts is ready to assist you with any of your DEF storage and dispensing needs.

Meets ISO Standard 22241-3,4 for the storage and dispensing of DEF!

Patent Pending

### **KEY FEATURES**

- Environmentally safe, 110% secondary containment
- Insulated with climatic control options
- Capacity from 800 gallons to 2,000 gallons
- Turnkey system for quick and cost-effective installation
- Compatible with POS, card readers and fuel management systems

### **OPTIONS**

- Thermostatically controlled heater
- Exhaust fan with timer
- · Leveling frame
- Interstitial leak detection
- · Automatic overfill shut-off prevention valve
- · Low level warning indicator light







# **COMMERCIAL MINI-BULK SYSTEMS**





**COMMERCIAL** 

### **SIZES**

- 800-gallon Dimensions:  $48"w \times 114"l \times 99.5"h$ . Weight: approx. 2,100 lbs.
- 1000-gallon Dimensions:  $58\text{"w} \times 176\text{"l} \times 88.5\text{"h}$ . Weight: approx. 2,600 lbs.
- 2000-gallon Dimensions: 72.5"w  $\times$  197"l  $\times$  88.5"h. Weight: approx. 3,600 lbs.

### **PRIMARY TANK**

- Type Single-walled HDPE horizontal
- Volume 800, 1,000, or 2,000 gallons
- Material High-density polyethylene
- Sensor Over fill and level probe Endress + Hauser FMI21
- Digital display Endress + Hauser RIA 250
- Overfill alarm Acoustic horn with reset button
- Filling connection 2" dry break connection, max filling speed 125 gal./min

### **TANK/HOUSING OPTIONS**

- Heater w/ thermostat Variable 1500-375 watt, fan forced, UL listed with integral thermostatic control
- Housing exhaust fan 4.5" 115V, 35 CFM, with timer relay
- Overfill prevention valve − 2" SS ball valve with Viton® seals, actuated motor drive, 115V
- Interstitial leak detection Endress + Hauser liquid sensor

### **REMOTE MONITORING**

Endress + Hauser Fieldgate FXA 320 AA4AB GSM Veeder-Root Mag-Probe .2 gph, 2" float. Requires site controller.

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PART NUMBERS	
DEFCOM800	Commercial DEF Mini-Bulk System – 800-gallon
DEFCOM1000	Commercial DEF Mini-Bulk System – 1000-gallon
DEFCOM2000	Commercial DEF Mini-Bulk System – 2000-gallon



# **RETAIL MINI-BULK SYSTEMS**





**RETAIL** 

### **SIZES**

- 800-gallon Dimensions:  $48\text{"w} \times 173\text{"l} \times 99.5\text{"h}$ . Weight: approx. 2,100 lbs.
- 1000-gallon Dimensions:  $58\text{"w} \times 235\text{"l} \times 88.5\text{"h}$ . Weight: approx. 2,600 lbs.
- 2000-gallon Dimensions: 72"w × 256"l × 88.5"h. Weight: approx. 3,600 lbs.

### **PRIMARY TANK**

- Type Single-walled HDPE horizontal
- Volume 800, 1,000, or 2,000 gallons
- Material High-density polyethylene
- Sensor Over fill and level probe Endress + Hauser FMI21
- Digital display Endress + Hauser RIA 250
- Overfill alarm Acoustic horn with reset button
- Filling connection 2" dry break connection, max filling speed 125 gal./min

### **TANK/HOUSING OPTIONS**

- Heater w/ thermostat Variable 1500-375 watt, fan forced, UL listed with integral thermostatic control
- Housing exhaust fan 4.5" 115V, 35 CFM, with timer relay
- Overfill prevention valve − 2" SS ball valve with Viton® seals, actuated motor drive, 115V
- Product filter Polypropylene housing and cartridge filter .1 micron
- Interstitial leak detection Endress + Hauser liquid sensor

### REMOTE MONITORING

Endress + Hauser Fieldgate FXA 320 AA4AB GSM Veeder-Root Mag-Probe .2 gph, 2" float. Requires site controller.

PART NUMBERS	
DEFRET800	Fleet DEF Mini-Bulk System – 800-gallon
DEFRET1000	Fleet DEF Mini-Bulk System – 1000-gallon
DEFRET2000	Fleet DEF Mini-Bulk System – 2000-gallon



# **REMOTE MINI-BULK SYSTEMS**



### **SIZES**

- 1000-gallon Dimensions:  $58\text{"w} \times 176\text{"l} \times 88.5\text{"h}$ . Weight: approx. 2,600 lbs.
- 2000-gallon Dimensions: 72.5"w × 197"l × 88.5"h. Weight: approx. 3,600 lbs.

### **PRIMARY TANK**

- Type Single-walled HDPE horizontal
- Volume 1,000 or 2,000 gallons
- Material High-density polyethylene
- Sensor Over fill and level probe Endress + Hauser FMI21
- Digital display Endress + Hauser RIA 250
- Overfill alarm Acoustic horn with reset button
- Filling connection 2" dry break connection, max filling speed 125 gal./min

### **TANK/HOUSING OPTIONS**

- Heater w/ thermostat Variable 1500-375 watt, fan forced, UL listed with integral thermostatic control
- Housing exhaust fan 4.5" 115V, 35 CFM, with timer relay
- Overfill prevention valve 2" SS ball valve with Viton® seals, actuated motor drive, 115V
- Product filter Polypropylene housing and cartridge filter. 1 micron
- Interstitial leak detection Endress + Hauser liquid sensor

### **REMOTE MONITORING**

Endress + Hauser Fieldgate FXA 320 AA4AB GSM Veeder-Root Mag-Probe .2 gph, 2" float. Requires site controller.



### **REMOTE**







