**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.

**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.

**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.

**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

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
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<tbody>
<tr>
<td>DEFCtBm10</td>
<td>Tote Pump Manual Start 10’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCtBm20</td>
<td>Tote Pump Manual Start 20’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFCBBm10</td>
<td>Drum Pump Manual Start 10’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFCBBm20</td>
<td>Drum Pump Manual Start 20’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFCWm10</td>
<td>Wall Pump Manual Start 10’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFCWm20</td>
<td>Wall Pump Manual Start 20’ Hose w/ Stainless Steel Nozzle</td>
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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

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<tr>
<td>DEFCtSS10</td>
<td>Tote Pump Smart Start 10’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCtSS20</td>
<td>Tote Pump Smart Start 20’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCBBSS10</td>
<td>Drum Pump Smart Start 10’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCBBSS20</td>
<td>Drum Pump Smart Start 20’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCWSS10</td>
<td>Wall Pump Smart Start 10’ Hose w/ Stainless Steel Nozzle</td>
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<td>Wall Pump Smart Start 20’ Hose w/ Stainless Steel Nozzle</td>
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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.
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

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

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.

AIR DIAPHRAGM TRANSFER SYSTEM

FEATURES
- ¾ 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

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

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<tbody>
<tr>
<td>DEFCMC10</td>
<td>Mobile Drum Cart w/ Manual Pump 10’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFCMC20</td>
<td>Mobile Drum Cart w/ Manual Pump 20’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCMCSS10</td>
<td>Mobile Drum Cart w/ Smart Start Pump 10’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFCMCSS20</td>
<td>Mobile Drum Cart w/ Smart Start Pump 20’ Hose w/ Stainless Steel Nozzle</td>
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<tr>
<td>DEFDPMC10</td>
<td>Mobile Drum Cart w/ Air Pump 10’ Hose w/ Stainless Steel Nozzle</td>
</tr>
<tr>
<td>DEFDPMC20</td>
<td>Mobile Drum Cart w/ Air Pump 20’ Hose w/ Stainless Steel Nozzle</td>
</tr>
</tbody>
</table>

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

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<tbody>
<tr>
<td>DEF CRSM</td>
<td>Heavy-Duty Rack Stand w/ Manual Pump Stainless Steel Nozzle (requires hose reel w/ assembly)</td>
</tr>
<tr>
<td>DEF CRSSS</td>
<td>Heavy-Duty Rack Stand w/ Smart Start Pump Stainless Steel Nozzle (requires hose reel w/ assembly)</td>
</tr>
<tr>
<td>DEF DPRS</td>
<td>Heavy-Duty Rack Stand w/ Air Pump Stainless Steel Nozzle (requires hose reel w/ assembly)</td>
</tr>
</tbody>
</table>

OPTIONAL PUMPS
- Manual centrifugal
- Smart Start centrifugal
- Air diaphragm
**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

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<tr>
<td>DEFH15HOSE</td>
<td>Hose Reel 15’ w/ Hose Assembly</td>
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<tr>
<td>DEFH25HOSE</td>
<td>Hose Reel 25’ w/ Hose Assembly</td>
</tr>
<tr>
<td>DEFH35HOSE</td>
<td>Hose Reel 35’ w/ Hose Assembly</td>
</tr>
</tbody>
</table>

**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 MΩ/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**
- DEF510COM-HOSE1 10’ × 3/4” DEF Hose
- DEF510COM-HOSE2 20’ × 3/4” DEF Hose
- DEF510COM-HOSE3 30’ × 3/4” DEF Hose
- DEF510COM-HOSE4 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 |

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)

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) |
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!

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
SIZES
- 800-gallon – Dimensions: 48”w × 114”l × 99.5”h. Weight: approx. 2,100 lbs.
- 1000-gallon – Dimensions: 58”w × 176”l × 88.5”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 – 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.

PART NUMBERS
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<th>Commercial DEF Mini-Bulk System – 800-gallon</th>
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<tbody>
<tr>
<td>DEFCOM800</td>
<td>Commercial DEF Mini-Bulk System – 1000-gallon</td>
</tr>
<tr>
<td>DEFCOM1000</td>
<td>Commercial DEF Mini-Bulk System – 2000-gallon</td>
</tr>
<tr>
<td>DEFCOM2000</td>
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</tbody>
</table>
RETAIN Mini-Bulk Systems

Sizes
- 800-gallon – Dimensions: 48"w × 173"l × 99.5"h. Weight: approx. 2,100 lbs.
- 1000-gallon – Dimensions: 58"w × 235"l × 88.5"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
<table>
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<tr>
<td>DEFRET800</td>
<td>Fleet DEF Mini-Bulk System – 800-gallon</td>
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<tr>
<td>DEFRET1000</td>
<td>Fleet DEF Mini-Bulk System – 1000-gallon</td>
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<tr>
<td>DEFRET2000</td>
<td>Fleet DEF Mini-Bulk System – 2000-gallon</td>
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**REMOTE MINI-BULK SYSTEMS**

**SIZES**
- 1000-gallon – Dimensions: 58”w × 176”l × 88.5”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.

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<tr>
<td>DEFREM1000</td>
<td>Remote DEF Mini-Bulk System – 1000-gallon</td>
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<tr>
<td>DEFREM2000</td>
<td>Remote DEF Mini-Bulk System – 2000-gallon</td>
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