DIESEL ENGINE EMISSION CONTROL

MICROPUMP®

DIESEL ENGI

To meet new NOx emissions standards, diesel engine manufacturers are turning to Selective Catalytic Reduction (SCR). SCR is an emission control system that injects liquid urea into the catalytic converter in the exhaust stream of engines. The urea converts the NOx into harmless nitrogen and water.

Gear pumps are used to deliver urea under pressure to a nozzle in the exhaust stream. Gear pumps provide the smooth flow and precise flow control required for this application.

SRC Technology is used in:
Heavy-duty trucks, automotive, off-road construction, mining, agriculture, power generation, locomotives and ships for diesel engine emission control.

MICROPUMP SOLUTION

Micropump pumps deliver the necessary ruggedness with smooth flow and freeze resistant aspects necessary for successful SCR systems. Our pumps can handle the urea solution for reliable uptime and can quickly respond to necessary flow changes to meet changing flow requirements.

Micropump pumps have successfully delivered SCR system support in various environments, including freezing temperatures, and when coupled with a Micropump drive our electronic components are automotive rated. Ultimately, our pumps deliver a reliable solution with long life to be deployed into important emission control technology.

NE EMISSION CONTROL

Flow Rate

- 10 to 100 mL/min (0.16 to 1.6 USG/hr) flow rates
- GA and GB pumps offer flow rates from 8.5 to 6400 mL/min (0.13 to 102 USG/hr)

Max Differential Pressure

- 8.0 bar (116 psi) max differential pressure
- GB pumps support differential pressure up to 8.6 bar (125 psi)

Precise Flow Control

- Smooth, pulseless flow with an integrated drive offering fast responses to changing flow requirements

Leak-Free Operation

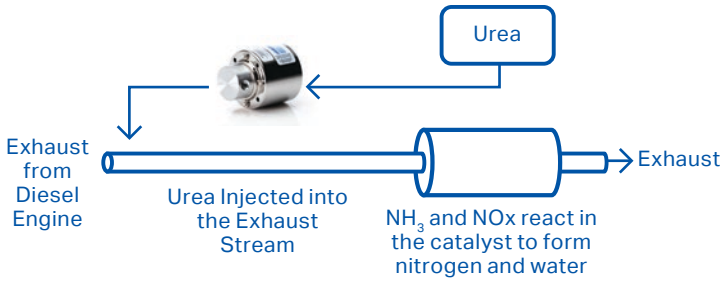
- Mag-drive gear pumps minimize leaks by eliminating dynamic shaft seals (no shafts penetrate the pump chamber wall)

Survive Harsh Environments

- Built to survive the harsh conditions found in vehicular markets. Our pumps are designed to tolerate freezing liquids and the electronic components in our drives are all automotive rated.

Low Cost-of-Ownership

- Simplified system design, low maintenance and long life are a winning cost-of-ownership combination for our mag-drive gear pumps



Micropump pump used to inject urea into the exhaust stream

MICROPUMP PRODUCTS OPTIMIZED FOR THIS APPLICATION

Micropump Series GA and Series GB mag-drive gear pumps are well suited for this application. Their smooth flow, durability, and long life make them the pump of choice over competing diaphragm pumps.

GA Specifications

- Displacement: 0.017 ml/rev (X21) | 0.042 ml/rev (V21) | 0.092 ml/rev (T23)
- Min Flow Rate: 8.5 mL/min (0.13 US gal/hr)
- Max Flow Rate: 8.5 to 506 mL/min (0.13 to 8.0 USG/hr)
- Max Differential Pressure: 75 psi (5.2 Bar)
- Max System Pressure: 300 psi (21 Bar)
- Temp range: -46 to 177 °C (-50 to 350 °F)

GB Specifications

- Displacement: 0.26 ml/rev (P23) | 0.58 ml/rev (P25) | 1.17 ml/rev (P35)
- Min Flow Rate: 131 mL/min | 2.1 US gal/hr
- Max Flow Rate: 0.131 to 6.4 L/min (2.1 to 102 USG/hr)
- Max Differential Pressure: 125 psi (8.6 Bar)
- Max System Pressure: 300 psi (21 Bar)
- Temp range: -46 to 177 °C (-50 to 351 °F)

MICROPUMP®

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