Extreme Conditions

OFF-ROAD
The continued drive towards lower NOx emissions has led to an increased use of Selective Catalytic Reduction (SCR) system hardware in off-road engines requiring designs and packaging for a wide range of vehicles, including mobile equipment with operating life spans that often far exceed on-highway applications. In Parker, we recognize the harsh SAE standards for “Extreme Duty” vehicle, including demanding conditions, temperatures, and harsh work environments typically found at construction, farm, forestry, and excavation sites. To help meet this challenge, we use our proven track record of success with on-road applications to develop products ideally suited for the demanding off-road market.

ON-ROAD
With thousands of diverse solenoid valve options for fluid control and a history of success in the on-road market, our highly skilled engineers, global operations, and technical sales support make Parker Fluid Control Division your most valuable partner. Our innovative and cost-effective solutions have been used by numerous global OEMs and Tier 1 suppliers to help reduce on-road diesel emissions. Many of these proven transportation technologies can now be applied to the off-road segment to meet ongoing global regulations for emissions reduction.

SCR Coolant Valves
DEF Tank Heating Control for the Off-Road Market

PARKER Fluid Control Division partners with transportation industry leaders to help limit toxic emissions, reduce greenhouse gases, improve fuel efficiency, and utilize cleaner burning alternative fuels.

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Extreme Conditions

OFF-ROAD

The continued drive towards lower NOx emissions has led to an increased use of Selective Catalytic Reduction (SCR) in off-highway applications. Off-highway SCR system emissions and off-road access require design and packaging for a wide range of vehicles, including mobile equipment with operating conditions that far exceed on-highway applications.

At Parker, we recognize that today’s SCR systems must remain dependable under severer operating conditions, temperatures, and harsh work environments typically found at construction, farm, forestry, and excavation sites. To meet this challenge, we use our proven track record of success with on-road applications to develop products ideally suited for the demanding off-road market.

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Proven Reliability in Extreme Conditions
Clean Air Doesn’t Stop at the End of the Road

OUR MISSION

Parker Fluid Control Division partners with transportation industry leaders to help limit toxic emissions, reduce greenhouse gases, improve fuel efficiency, and utilize cleaner burning alternative fuels.

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Extreme Conditions

OFF-ROAD
The continued drive toward lower NOx emissions has led to an increased use of Selective Catalytic Reduction (SCR) in off-highway applications. When designing an SCR system, engineers must design and package a valve system that is both reliable and effective for a wide range of vehicles, including mobile equipment such as construction, farm, forestry, and excavation. To meet this challenge, Parker Fluid Control Division uses its proven track record of success with on-road applications to develop products ideally suited for the demanding off-road market.

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With thousands of diverse solenoid valve options for fluid control and a history of success in the on-road market, our highly skilled engineers, global operations, and technical sales support make Parker Fluid Control Division your most valuable partner. Our innovative and cost-effective solutions have been used by numerous global Original Equipment Manufacturers (OEMs) to help reduce on-road diesel emissions. Many of these proven transportation technologies can now be used in off-road applications to meet ongoing global regulations for emissions reduction.

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SCR Coolant Valves
DEF Tank Heating Control for the Off-Road Market

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Superior Protection for Challenging Work Environments

An emissions control valve that holds up to vibration, heat, moisture and debris.

**The Parker Advantage**

- **Construction Equipment**
- **Agricultural Machinery**
- **Mining Vehicles**
- **Rail & Transit Systems**
- **Stationary Generators**
- **Marine**

**Glycol Control Valve**

Reliable DEF Tank Heating Control

Parker Fluid Control Division offers glycol control products designed specifically for the off-road & mobile equipment market.

- **Weight:** 430g 720g
- **Coil orientation:** Any angular
- **Surge diode:** Bidirectional: no polarization Unidirectional: polarized circuit

**Selective Catalytic Reduction (SCR) System (NOx)**

An emissions control valve that holds up to vibration, heat, moisture and debris.

- **Valve:**
  - **Type:** 2-way type Solenoid valve
  - **Function:** Normally closed, Servo-piloted, Diaphragm valve
  - **Type:** 2-way type Solenoid valve
  - **Operation:** Direct lift
  - **Construction:** Metallic yoke & coil overmolding

**Options and Mounting**

- **Standard Configuration**
  - Four (4) Bolt Mount
  - Quick Connect

**DEF System and Fluid Control Options**

- **Options**
  - **Standard Configuration**
  - **Four (4) Bolt Mount**
  - **Quick Connect**

Learn more at www.parker.com/fcd or call us at 860 827 2300
Superior Protection for Challenging Work Environments
An emissions control valve that holds up to vibration, heat, moisture, and debris.

PARKER OFF ROAD

Glycol Control Valve
Reliable DEF Tank Heating Control
Parker Fluid Control Division offers glycol control products designed specifically for the off-road & mobile equipment market.

The Parker Advantage
- Construction Equipment
- Agricultural Machinery
- Mining Vehicles
- Rail & Transit Systems
- Stationary Generators
- Marine

Built-in surge protection prevents damage due to pressure surges. The valve body incorporates high-pressure design to prevent leakage. The Parker Advantage features:
- Superior Protection for Challenging Work Environments
- An emissions control valve that holds up to vibration, heat, moisture, and debris.
- Glycol Control Valve
- Reliabl...
Superior Protection for Challenging Work Environments

An emissions control valve that holds up to vibration, heat, moisture and debris.

Glycol Control Valve

Reliable DEF Tank Heating Control

Parker Fluid Control Division offers glycol control products designed specifically for the off-road & mobile equipment market. Glycol Control Valve

Options and Mounting

- High reliability with IP69K rated seal connector coil
- Quick Connect
- Four (4) Bolt Mount

Solenoid design adapts well to higher levels of coolant contamination

Pilot operated, less components, simpler functioning:
- Low temperature expansion
- Surge diode: Bidirectional: no polarization
- Unidirectional: polarized circuit

- Metalic yoke & coil overmolding
- Overmolding outside: coil overmolding affected (crack) with expansion
- Overmolding inside: coil overmolding

The Parker Advantage

- Construction Equipment
- Agricultural Machinery
- Mining Vehicles
- Rail & Transit Systems
- Stationary Generators
- Marine

DEF Tank

- Metallic yoke & coil overmolding
- IP69K Rated Seal Connector Coil
- Epoxy Molded Coil
- Class “H” High Temperature Wire Rating
- Ambien temperature: -40°C to 85°C
- Media Temperature: -40°C to +135°C (water or water with max. 50% glycol solution)
- Flow Rate: From 12 to 36 l/min
- Differential Pressure Range: 0.2 to 3.0 bar (3.0 to 45 psig)
- Function: Normally closed, Servo-piloted, Diaphragm valve
- Valve: 2-way type Solenoid valve
- Coil Rating: 155° C
- Casing: Cast iron, standard and stainless steel
- Terminal: ISO 15170-A1-2.3-Sn/K2 or A3-2.1-Sn/K2
- Voltage: 24 VDC / 9W / hot conditions

Flow Curves

Typical Coolant Valve

PARKER OFF ROAD

Options

- Standard Configuration
- Four (4) Bolt Mount

DEF Tank

- Select design for high vibrations, high pressures, and short term submersion applications.
- Advanced manufacturing technology offers enhanced performance in all environmental conditions.
- Ideal for mobile Class I, II, III, and IV service reliable vehicles.

DEF Header

- Integrated with Quick Connect

Learn more at www.parker.com/fcd or call us at 860 827 2300

Don’t let moisture affect your performance:
EXTREME CONDITIONS

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PROVEN RELIABILITY IN TIGHT SPACES

Our mission
Parker Fluid Control Division partners with transportation industry leaders to help limit toxic emissions, reduce greenhouse gases, improve fuel efficiency, and utilize cleaner burning alternative fuels.

Our solution
With a focus on emissions control, Parker is a value-added partner for fluid control and our innovative solenoid valve solutions have transformed the on-road market. Parker has the engineering and manufacturing capacity to meet your requirements for off-road markets. Parker provides a wide range of versatile solutions designed for extreme conditions.

Ways to succeed
Parker Fluid Control Division offers a range of solutions, including:
- On-road systems
- Off-road systems
- Innovative technologies
- Global manufacturing
- Technical support

Benefits
- Improved fuel efficiency
- Reduced emissions
- Increased productivity
- Cost-effective solutions

Contact us for more information on how Parker Fluid Control Division can help you meet your emission control goals.

Parker Fluid Control Division: Engineering Your Success.