Large Engine SCR System for Marine Applications

Clean Air innovation, accelerated
Tenneco has launched a complete urea dosing control and catalyst solution for selective catalytic reduction (SCR) aftertreatment, enabling large engines to meet EPA Tier IV and IMO Tier III regulations.

Designed to target high horsepower engines in the marine market, the system provides precise and reliable delivery of liquid urea through the use of a proprietary, high-performance injector, a precision mechatronic fluid delivery pump and customizable remote monitoring and controls.

The system’s modular design enables seamless integration for a broad range of engine sizes and works with electrically or mechanically controlled engines. It has been validated for durability and performance and all components are easy to maintain and service without the need for special tools.

The fluid delivery system with dosing control software manages multiple injector points and sensors, supporting urea flows up to 120 meters and enabling a range of installation options. The airless urea injection provides high dosing accuracy and consistency.

The system’s unique Human Machine Interface (HMI) can be accessed on the front of the fluid delivery box or remotely via a touch screen tablet. It features an easy-to-use interface to monitor and control all system parameters including but not limited to NOx reduction performance and urea concentration levels in real time. Onboard diagnostics are capable of monitoring more than 100 parameters including urea leakage, sensor faults and system backpressure.

Tenneco’s clean air technologies provide customized solutions for the marine market while meeting global regulations for the reduction of NOx emissions.

Forward thinking. Forward moving.
FEATURES & BENEFITS

- Designed to meet NOx reduction standards, useful life and warranty periods as defined by both U.S. EPA Tier IV and IMO Tier III
- Technology designed to support engines up to 7,500kW
- Compatible with electrically and mechanically controlled engines
- Modular, scalable and cost effective architecture accommodates a diverse configurations of catalysts, including round and square designs
- Components are easy to maintain and service, thus minimizing required redundancies
- Tenneco’s complete systems integration helps maximize efficiency and performance
- Designed to meet the requirements of major maritime classification societies including the ABS, DNV-GL, CCS, KR and Class NK
- Production-ready and currently being evaluated by marine and large engine customers globally

Advanced Dosing Control System
Tenneco’s advanced dosing control system can support multiple injection points and sensors with a single control unit. It also can manage urea supply up to 120 meters, improving flexibility in marine application design and potentially eliminating need for urea day tanks.

Tenneco has been awarded product design assessment classification from the American Bureau of Shipping and approved in principle classification from DNV-GL
THE ENGINE OF INNOVATION IN CLEAN AIR

At Tenneco, innovation is a hallmark of everything we do. In our advanced clean air technologies and solutions. In our unique, total-system integration expertise and approach. In our commitment to partnership and collaboration. We’re always looking beyond the technology horizon to anticipate and develop the next-generation clean air solutions that accelerate our customers’ success and keep them moving toward the future.

From development through delivery and beyond—we help our partners drive transportation innovation, full speed ahead.

TENNECO IS EVERYWHERE OUR CUSTOMERS NEED US

Our reach is global, but our focus is local, helping customers adapt our global capabilities and technologies for local applications.

- Approximately 29,000 employees worldwide
- More than 90 manufacturing facilities
- 15 state-of-the-art research and development centers
- A global network of engineering and technical centers including facilities in Grass Lake, Michigan, Edenkoben, Germany and Kunshan, China

Customers served:
- Light vehicle
- Commercial truck and off-highway equipment
- Large engine
  - Marine
  - Stationary
  - Locomotive

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