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*Emission control innovation, accelerated<sup>SM</sup>*

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# Forward thinking. Forward moving.

## *Air assisted NOx Abatement alternative for emerging markets*

As global emissions regulations tighten, Tenneco continues to pioneer new technologies aimed at reducing harmful NOx emissions. Beginning with its XNOx™ SCR, Tenneco has developed a family of NOx reduction technologies to help its customers meet the ever-changing emissions requirements.



Tenneco's newest solution, XNOx Air-Assisted SCR, is a bold new addition to the company's suite of NOx abatement technologies. Similar to our classic XNOx SCR technology, XNOx Air-Assisted SCR uses liquid urea (AdBlue) injected into the exhaust stream to convert dangerous NOx gas into harmless nitrogen and water.

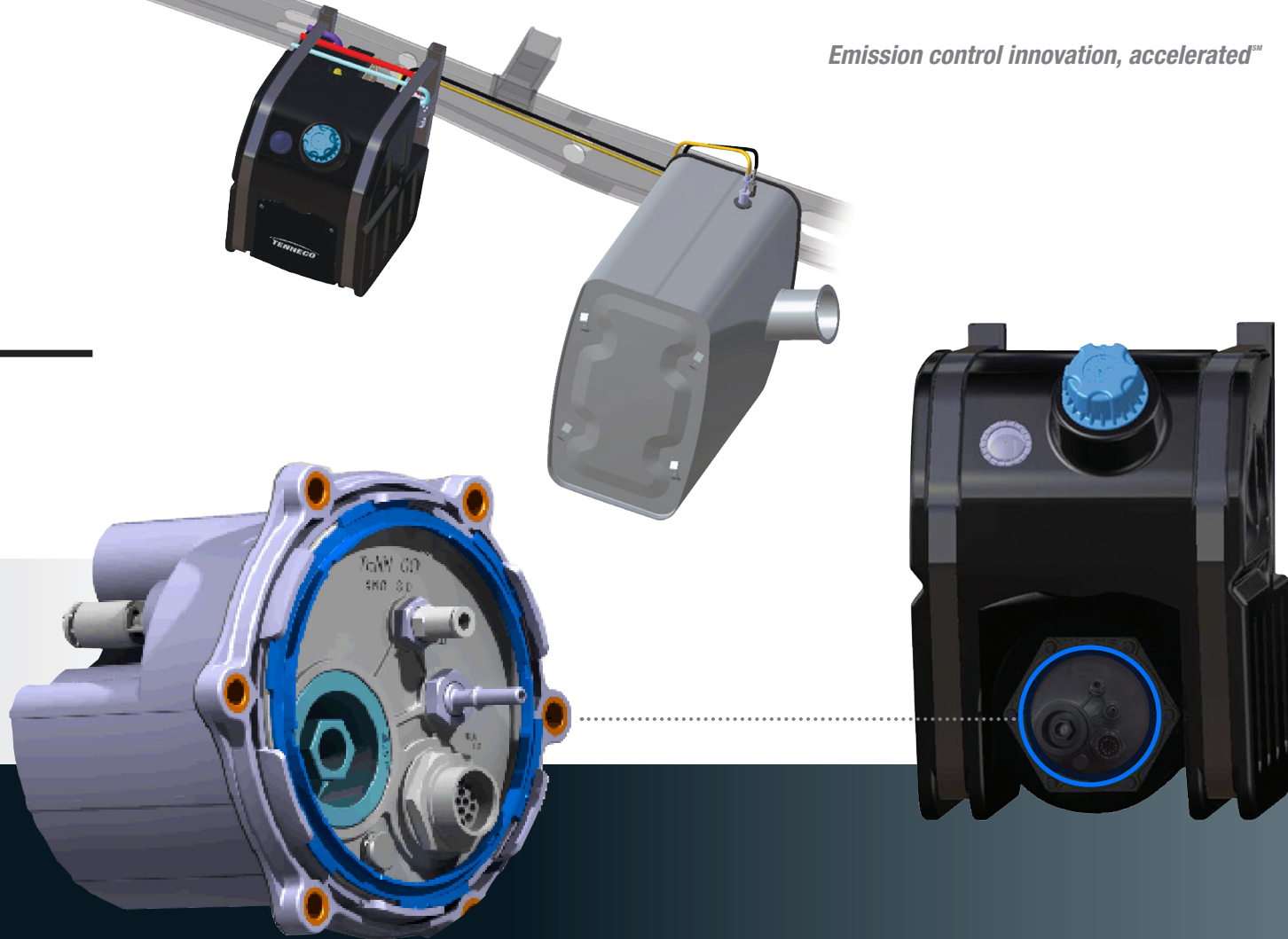
While the end result of both products is NOx reduction, the two systems operate quite differently. Using either on-board or ancillary air, XNOx Air-Assisted SCR's compact and fully integrated tank,

controller and pump assembly carefully meter the right mixture of air and urea together. It then travels to the injection nozzle where it is atomized, delivering into the exhaust stream an ultra fine spray that minimizes any chance for unwanted deposit formation.

The XNOx Air-Assisted SCR is engineered for emerging markets. Its intelligent in-tank design reduces system complexity and size, and may be readily incorporated into the existing muffler box space, thus helping to drive down costs and ease integration onto the vehicle.

Compliant with Euro V regulations, XNOx Air-Assisted SCR technology provides the world's growth economies with a NOx abatement solution that fills their needs while allowing them to keep growing.





## XNOx™ AIR-ASSISTED SCR FEATURES & BENEFITS

### • Compliant

- Meets Euro V regulatory requirements
- Air assisted dosing delivers extremely small droplets (<30µm SMD); minimizing deposit formation



### • Competitive full system SCR

- No heated lines
- No additional water cooling
- Simplified injection
- Compact, integrated tank, controller and pump
- Reduced mixing length requirements
- Low power consumption (need to define) 30-40Watts

### • Convenient

- Air cooled metering pump & engine coolant valve reduce freeze/thaw concerns
- Low maintenance and temperature resistant injection nozzle
- Integrated with muffler box
- Scalable up to 7.5L/hr dosing

## Partnership built on performance

At Tenneco, we don't simply provide a product. We provide a partnership—taking into account customers' entire systems, their unique needs and applications, technology requirements, market challenges and goals. With the XNOx™ Air-Assisted Liquid Urea SCR and our full suite of advanced solutions, we offer the partnership that drives the innovation that maximizes performance and enables true emission control.

### THE ENGINE OF INNOVATION IN EMISSION CONTROL

At Tenneco, innovation is a hallmark of everything we do. In our advanced emission control 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 foresee and develop the next-generation emission control 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.

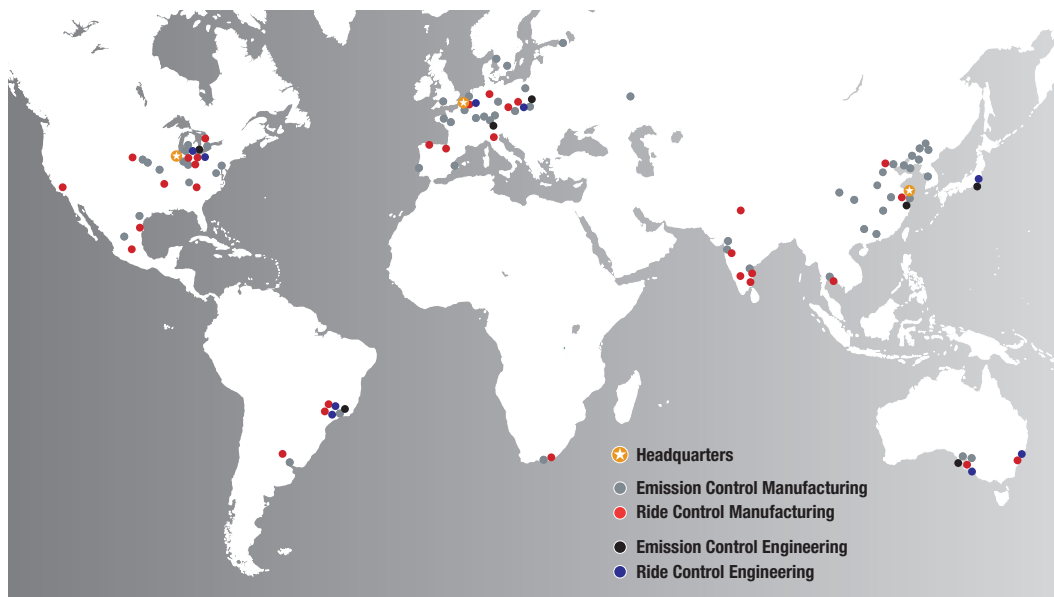
### TENNECO IS EVERYWHERE OUR CUSTOMERS NEED US

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

- 24,000 people
- More than 87 manufacturing facilities
- 14 state-of-the-art research and development centers
- 4 dedicated research and development centers for emission control engineering

#### Markets served:

- Light vehicle
- Commercial vehicle
  - On-road
  - Off-road
- Locomotive
- Marine
- Stationary
- Large engine
- Retrofit



### PLEASE CONTACT OUR EMISSION CONTROL TEAMS AROUND THE WORLD ...

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