

HIGH- HORSEPOWER SOLUTIONS



HH4000 SCR SYSTEM

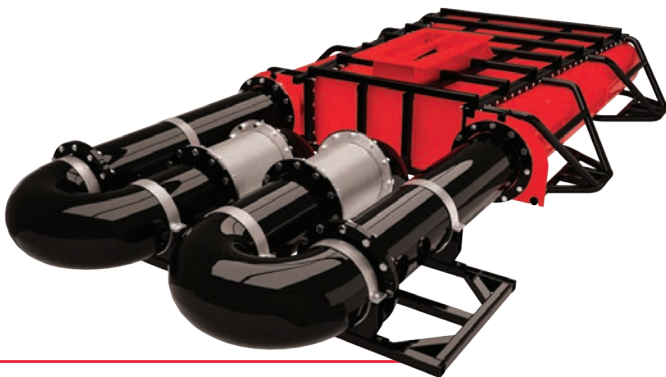
RELIABILITY AT ITS BEST.



HH6000 SCR SYSTEM



HH8000 SCR SYSTEM



HH24000 SCR SYSTEM

Cummins Emission Solutions is a world leader in aftertreatment technology, with proven experience in on-highway commercial vehicles and off-highway heavy-equipment markets. Our expertise in design innovation has introduced a unique solution to high-horsepower customers, with integrated mixing technology and exclusive high-flow urea systems. We have emission solutions which offer reliability at its best.

THE HIGH-HORSEPOWER SELECTIVE CATALYTIC REDUCTION SYSTEM.

The High-Horsepower Selective Catalytic Reduction (HHP SCR) System for U.S. Environmental Protection Agency (EPA) Tier 4 Final (Industrial, Marine, Locomotive and Power generation), IMO3 and Stage V industrial applications is the solution for off-highway applications, and is designed for durability to operate in rugged conditions. It offers reduced space claim, with optimized catalysts, controls and dosing capabilities, for easier equipment integration.

The HHP SCR System has a modular design which can be integrated into most mobile off-highway, locomotive, power generation, rail and marine applications. Our marine SCR solutions are ABS, DNV-GL agency certified (other certifications could be pursued based on customer request). This modular design has many benefits:

- Allows for multiple installation orientations, providing ease of integration and assembly for equipment manufacturers
- Offers flexible mounting options consisting of horizontal, vertical and upright positioning
- Comparable to previous Tier 2 silencer space claims, thus reducing customer integration costs
- Supports high-shock and vibration environment requirements
- Enables advanced, fully integrated SCR mixing

Offering optimized mixing capabilities in order to maximize oxides of nitrogen (NOx) emissions conversion, the Cummins HHP SCR System design has been developed with high-flow urea dosing capabilities.

The fully integrated and enclosed decomposition chamber inside the SCR package on HH4000 and HH6000 systems reduces the number of equipment interfaces, as well as space claim. The decomposition reactor pipe on the HH8000 and HH24000 systems allows significantly higher dosing rates to reduce higher quantities of engine out NOx.

The HHP SCR system comes with software that is capable of being integrated on engine control modules (ECM) and controls multiple SCR systems for Vee engines. This software integration capability on OEM ECM eliminates the need for a separate aftertreatment control module.

Cummins Emission Solutions also offers off the shelf aftertreatment control module for customers that require one.

UL2 UREA DOSING SYSTEM — AVAILABLE FOR HIGH-FLOW DOSING.

Cummins Emission Solutions offers a complete product portfolio of urea dosing systems to best fit any off-highway SCR application while providing industry-leading performance. The UL2 Urea Dosing System supports customer applications ranges for low-flow and high-flow dosing applications.

The UL2 System is the only airless dosing system commercially available that is capable of meeting high-flow dosing rates of up to 20.5 kg/hr, unique to high-horsepower SCR applications. Our technology promotes simplicity by reducing the cost for additional dosing systems which may be needed for high-flow delivery of urea with other competitive systems. In addition to these, other features and benefits offered by the UL2 system are:

- Provides freeze-robustness, eliminating the need for power after key-off
- Offers safe shutdown, as no purging is necessary
- Offers improved reliability, as urea is continually present within the unit to prevent doser crystallization and promote quicker NOx treatment
- Offers modular architecture for flexible equipment integration, supporting extended urea transfer line lengths of up to 15 meters
- Offers integrated controls capability for the airless supply unit
- Offers several optimized and validated injection patterns through a patented pressure-swirl atomizer, enhancing dosing performance and minimizing validation costs

VARIOUS SOLUTIONS TO MEET YOUR NEEDS.

Our HHP SCR offering includes four different size systems, each formulated to meet specific engine output needs:

APPLICABLE ENGINE DISPLACEMENT <i>(Inline or 1 bank of Vee engine)</i>	APPLICABLE ENGINE POWER RANGE <i>(Inline or 1 bank of Vee engine)</i>
HH4000	
15–25 liter	750–820 hp
HH6000	
25–30 liter	800–1200 hp
HH8000	
30–40 liter	1250–1800 hp
HH24000	
40–48 liter	1800–2200 hp

** Product fit may vary based on engine displacement and emission regulation.*



UL2 UREA DOSING SYSTEM

CATALYST TECHNOLOGY — REDUCES SIZE AND IMPROVES EMISSIONS PERFORMANCE.

Our high-horsepower SCR solutions leverage Cummins expertise in catalyst technologies and are backed by proven real world experience in the commercial vehicle and equipments market. Innovations in catalyst technologies and packaging design set us apart from the competition. Our catalyst solutions enable smaller space claims and better emissions performance while also allowing trade-offs in total system cost optimization. Cummins engineering experts will work with your designers to deliver the best catalyst solutions for your applications.

LEARN MORE.

To learn more about these high-horsepower solutions or any of our innovative products, visit cummins.com.



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