

**DIESEL RETROFIT EMISSIONS CONTROL SOLUTIONS**

**SCRT**  
SELECTIVE CATALYTIC REDUCTION TECHNOLOGY

For diesel applications where maximum NOx reduction is critical, SCR technology provides the highest NOx reduction available today. The SCRT® system is Johnson Matthey's innovative 4-Way emission control technology. JM's SCRT system reduces all four regulated exhaust emissions: CO, HC, and PM by over 90%, and NOx by 50-80%.

**Technology Driven**

Urea-based SCR technology is combined with Johnson Matthey's patented 2-stage CRT® particulate filter system to achieve maximum emission control. First, engine exhaust flows through Johnson Matthey's CRT diesel particulate filter to reduce CO, PM, and HC. A controlled amount of urea is then injected into the exhaust before it enters the SCR catalyst bed. Urea provides the necessary chemical conditions for the SCR catalyst to reduce NOx. The SCR system consists of a commercially available urea injection system and a JM developed control system that precisely delivers urea without ammonia slip. The engine also uses JM's proprietary SCR catalyst technology that can be supported by metal or ceramic monolith substrates of various cell densities for maximum catalyst activity and minimal pressure drop.

**Featuring**

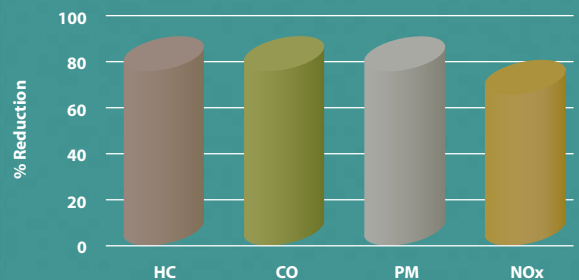
- PM, HC, and CO reduction over 90% and 50-80% NOx reduction.
- Map based or sensor based urea injection control algorithm.
- Air assisted injection for controlled droplet size.
- Meets CARB NO<sub>2</sub> slip requirements.
- Customized turnkey kit ready for installation.
- Best suited to retrofit fleets with central fueling capability.
- Operates with 15ppm or less Ultra Low Sulfur Diesel (ULSD), now widely available nationally.

**Proven Success**

Johnson Matthey's SCR experience extends back over two decades. JM supports SCR in stationary applications industry for prime or back-up power, gas turbines and refinery heaters. As a result, European engine OE's have selected Johnson Matthey as their partner for Euro 4/5 mobile SCR supply.

Engine manufacturers are now targeting SCR as one of their primary technology solutions for NOx control for 2010 for class 8 over-the-road trucks and centrally fueled fleets. Working with the EPA, a broad range of companies including the diesel engine OE's, vehicle OE's, oil companies, aftertreatment suppliers, component suppliers, urea suppliers and the truck stop industry, have formed a consortium, committed to resolve urea availability and ensure its supply on a broad public scale.

**SCRT® TEST RESULTS**



**SCRT® PERFORMANCE ON HEAVY DUTY DIESEL**

	(G/BHP-HR%)	
	NOx	PM
MY 2002 3/4 Standards	2.0	0.1
MY 2007 Standards	0.2	0.01

**SCRT PERFORMANCE**

FTP Weighted Emissions	0.450	0.005
OICA Weighted Emissions	0.050	0.007

