

## Product-Information Diesel Exhaust Gas treatment SCRT<sup>®</sup> for retrofitting

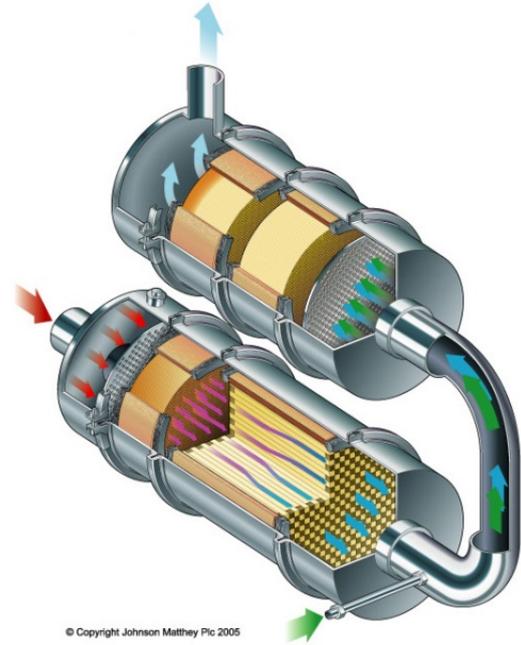
Urea-based SCR technology is combined with Johnson Matthey's patented CRT<sup>®</sup> (Continuously Regeneration Trap) particulate filter system to achieve maximum emission control.

First stage, engine exhaust flows through Johnson Matthey's CRT diesel particulate filter to reduce Carbon monoxide (CO), Hydrocarbons (HC) and particulates (PM).

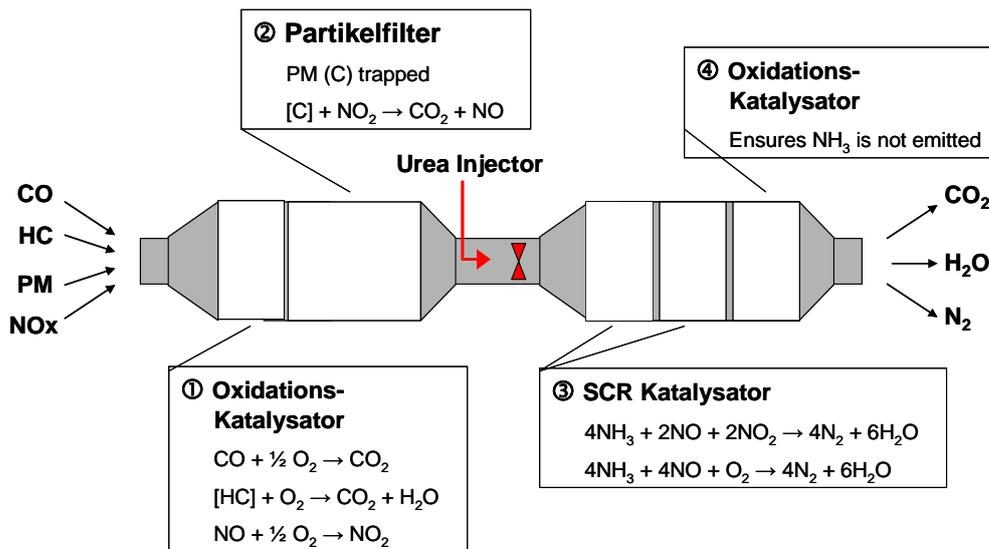
In a second stage a controlled amount of urea, trade name AdBlue, is then injected into the exhaust before it enters the SCR (Selective catalyst reduction) catalyst modules.

Urea provides the necessary chemical conditions for the SCR catalyst to reduce Nitrogen oxides (NO<sub>x</sub>) into nitrogen and water (vapour).

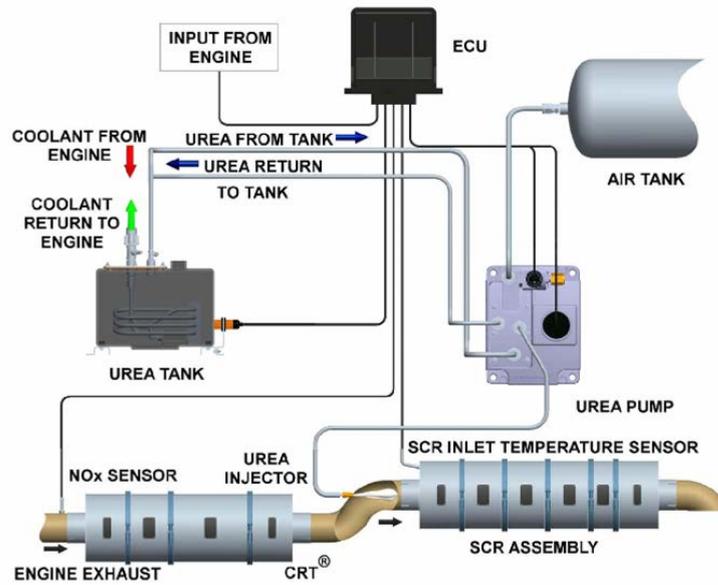
The SCR system consists of a commercial available urea injection system and a Johnson Matthey developed control system that precisely delivers urea without ammonia slip.



### CRT<sup>®</sup> System + SCR System = SCRT<sup>®</sup> System



## The Johnson Matthey SCRT System



Johnson Matthey SCRT<sup>®</sup> Retrofit System

### SCR Function:

The SCR catalyst is located downstream of the particulate filter CRT<sup>®</sup>, which reduces the nitrogen oxides (NO<sub>x</sub>). In front of the SCR catalyst module the liquid urea will be injected into the exhaust and develops to ammonia before entering the SCR catalyst.

The ammonia reacts with the catalyst to nitrogen and water.

The injection rate of the urea is depending from the NO<sub>x</sub> concentration (engine out) and is continuously controlled and adjusted by the ECU.

### Example: Compressor with SCRT system



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