

Public transportation – exemplary clean



Exhaust-Aftertreatment-Systems for Public Transport Buses and Municipal Commercial Vehicles

SMF[®]-Sintered Metal Filter

SMF[®]-CRT[®]

SCRT[®]





| Environmental protection creates perspectives

Focus on mobility, health and environmental protection

Mobility, health and environmental protection are among our company's key concerns. The problem of ever-increasing volumes of traffic, allied to the associated risks to humans and the environment from exhaust emissions, represents a major challenge both today and for the future.

The main demands on the internal combustion engine in this respect relate to the need for low pollution and efficiency. Thanks to its outstanding characteristics and its benefits in terms of CO₂, the diesel engine will in future continue to be used around the world as the most important engine type for many areas of application. As far as environmental considerations are concerned, there is a critical debate focused especially on emissions of soot and nitrogen oxides.

The consistent use of diesel exhaust-gas aftertreatment systems makes it possible for such pollutants to be eliminated and for vehicles and machines alike to be operated cleanly and efficiently. This is where HJS technologies play an important role.

Diesel emissions

Through the combustion of fuel in diesel engines, above all, soot particles are produced. The smaller these soot particles are, the easier it is for them to pass through our lungs and on into our bloodstream and other organs. Soot particles from diesel engines are known to represent a particular health hazard. But the combustion processes that take place in a diesel engine also give rise to gaseous pollutant emissions such as nitrogen oxides (NO_x). When these become exposed to sunlight, they are converted to ozone. Ozone is an irritant gas and can damage people's respiratory passages. The formation of acid rain and smog are other negative consequences of high nitrogen oxide levels.

This means that lowering the emissions from diesel engines is very important in terms of human health and the environment. Any measure aimed at reducing such pollution must, therefore, be viewed positively.

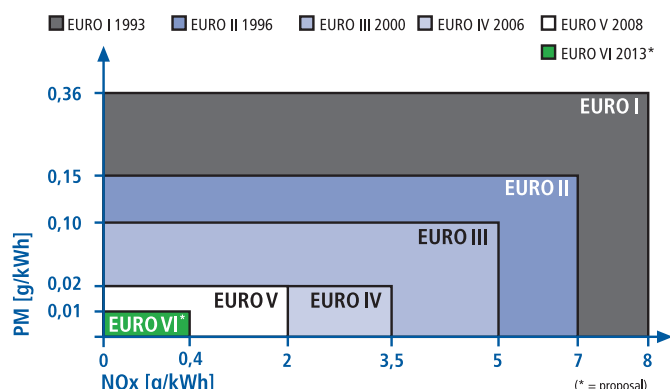
European exhaust emission standards

A reduction of the pollution caused by commercial vehicles has been mainly achieved in the past 15 years through in-engine measures. The further tightening of emissions limits, which will be introduced with the EURO V standard and, above all, the EURO VI standard, make the use of exhaust-gas aftertreatment systems necessary.



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The consistent application of advanced exhaust treatment systems not only allows new vehicles to meet these high standards, but also older vehicles can be brought into line with the current state of the art through retrofitting.



Fine particulate matter

According to the German federal environmental agency, road traffic – predominantly diesel-engined vehicles – is one of the principal sources of pollution. The particulate matter pollution caused by soot emissions from these engines accounts for around half of all particulate matter pollution in our towns and cities. According to studies carried out on behalf of the EU Commission, every year over 280,000 people in Europe – 65,000 in Germany alone – die prematurely from particulate matter. Moreover, high levels of particulate matter result in an average shortening of life expectancy by around six months. Consequently, various measures have and are being introduced to reduce the release of pollutants at both European and also German national level. Such measures include the EU clean air directive, which came into force at the beginning of 2005 and sets limits for air pollution from particulate matter and other pollutants such as nitrogen dioxide and forces city and local authorities to take action against the increasing pollution levels in inner-city areas.



| Unrestricted access to low-pollution zones

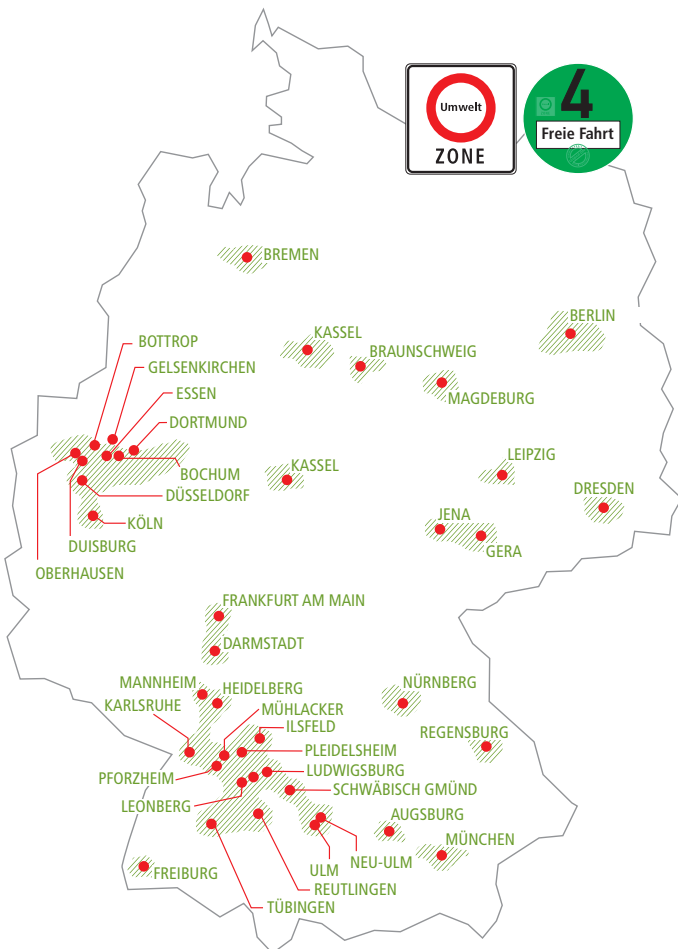


Right to clean air

Citizens have the "right to clean air" – such was the ruling made by the European Court of Justice on the 25th of July 2008. This latest judgement has confirmed that health protection is an important duty of local governments. Cities and local authorities can be obliged to take measures to reduce the repeatedly proven threats to health caused by particulate matter. Since the EU air quality directive came into force, authorities are called upon to make a significant contribution to reduce particulate matter pollution by taking local measures, such as the establishment of low-emission zones with driving bans for high emitting vehicles.

Low-emission zones and driving bans

The establishment of low-emission zones throughout Europe and nationwide is aimed at reducing particulate matter pollution levels and improving health protection for everyone. In Germany, the cities of



- Over 40 low-emission zones will be implemented in Germany

Cologne, Hanover and Berlin have taken the lead in the battle against fine particulate matter by launching their low-emission zones at the beginning of 2008. Sooner or later, more than 40 cities and towns around the country will introduce low-emission zones. Such zones are all the more effective if the local authorities actually integrate the source of the harmful emissions, namely the vehicles themselves, in comprehensive approaches to solving the problem. This applies even more so for publicly operated vehicles, such as public transport buses and local authority vehicles.

By being retrofitted with a 100% filter system from HJS, buses and local authority vehicles qualify for entry into low-emission zones well into the future.

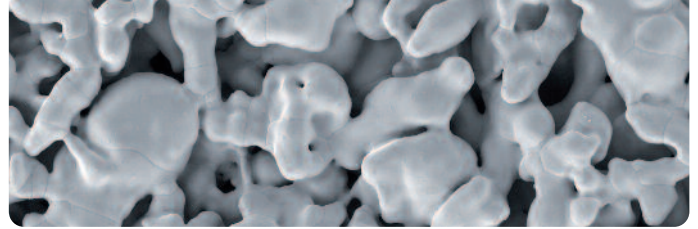
Public transport buses – a clean and environment friendly means of transportation

Cities and towns should serve as role models in respect of ecological and health concerns. By systematically equipping or retrofitting public transport buses with effective exhaust-gas aftertreatment systems, local authorities don't just live up to the expectations of their citizens' – who see public transport as being especially "green" – rather they function as role models and pioneers in the areas of environmental and health protection.

Diesel emissions can be almost entirely eliminated by means of enclosed "100% filters". Use of an SCRT® (Selective Catalytic Reduction Technology) system enables not only particulate but also nitrogen oxide emissions to be effectively and efficiently reduced.

The benefits at a glance

- ✓ Active protection of health and the environment
- ✓ Public transport – with exemplary emissions
- ✓ Unrestricted access to low-pollution zones



| Sintered Metal through an electron microscope

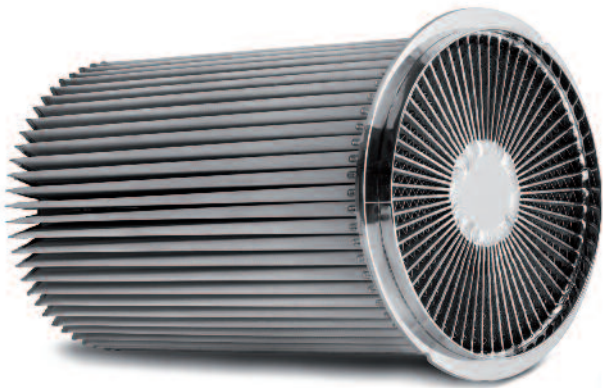
HJS Exhaust-Aftertreatment-Systems

Public transport buses and local authority vehicles run green

SMF®-Sintered Metal Filter

100% soot-free

The centrepiece of all HJS exhaust treatment systems is the sintered metal filter (SMF®), with which HJS sets new standards in the global marketplace and for which HJS was awarded the 2003 German Environment Prize. This enclosed 100% filter reduces the emissions of soot particles, including fine particulate matter, down to the limit of detection, with a filter efficiency of over 99%, which means that such a filter complies with the limits laid down not only in EURO V, but also in the EEV (Enhanced Environmentally Friendly Vehicle) standard.



SMF® - Sintered Metal Filter – 100% soot-free

Reliable and low on maintenance

The SMF® and the systems based on it are exceptionally reliable in operation, low on maintenance and also benefit from a long service life. HJS systems have proved their worth over many years in thousands of bus and truck applications. The advantages offered by an SMF® result from its special design as well as its use of sintered metal. The clogging known from conventional ceramic filters with their honeycomb structure is made impossible by the pocket-type construction of the SMF®. Exhaust backpressure is minimised by the fact that there is an unrestricted inflow of gas into the filter pockets from outside. In addition, the ash holding capacity of an SMF® is three to four times as high as that of a conventional ceramic filter system, which significantly increases the mileage before an HJS filter requires

cleaning. This also includes older buses and commercial vehicles with their particularly high oil consumption.

For, whereas a ceramic filter requires cleaning after just a short period of operation, an SMF® is capable of several years of operation before maintenance is needed. This makes it possible to minimise the running costs for service and maintenance as well as the associated downtime costs, which in turn allows considerable cost savings for the operator over the life of a vehicle.

Catalytic coating

For OE applications or in the case of vehicles that are operated at low temperatures, the SMF® can be provided with a specially HJS developed catalytic coating to support the process of filter regeneration.

Flexible solutions for different applications

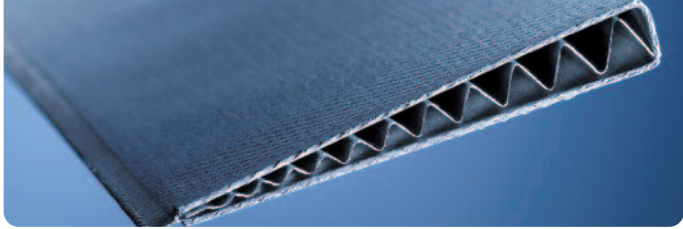
Thanks to their modular construction, sintered metal filters can be used in various systems and versions to suit different applications. They are suitable both as original equipment (OE) and also for retrofitting in buses and commercial vehicles.

This also enables, for instance, newer buses that are already equipped with an SCR system (Selective Catalytic Reduction) for reducing nitrogen oxide emissions to be fitted with an SMF®, too. The result: EURO IV and EURO V buses with an SMF® fulfil the particulate emission limits laid down in the EEV standard.

Operating principle

The CRT® effect is used to break down the soot that collects in the SMF®. The HJS system combines a highly efficient upstream diesel oxidation catalyst (DOC) with an SMF®. Optimised tuning of the system results in the SMF® being continuously and effectively freed from the deposited soot.

The modular SMF®-CRT® system requires neither extra regeneration aids nor additives or any intervention in the engine management system. Electronic monitoring constantly guarantees the complete operability of the filter system.



| Sintered Metal Filter-pocket

Manufacturers' approval

The results of assessments from commercial vehicles manufacturers (OE) who have tested the SMF® have been extremely positive. European market leaders such as EvoBus, MAN, Solaris, VanHool and VDL have approved the system for series production for their vehicles. So far, more than 10,000 buses have been fitted with SMF® systems.

SMF® advantages at a glance

- ✓ Over 99% Reduction of soot emissions, incl. fine particulate matter
- ✓ Suitable for OE- and retrofit-applications
- ✓ Approvals issued by EvoBus, MAN, Solaris, VanHool and VDL
- ✓ SMF® as an add-on system for buses with SCR (upgrade from EURO IV/V to EEV standard)
- ✓ High ash holding capacity and low exhaust backpressure
- ✓ Catalytic coating provides extended temperature window
- ✓ Absolutely low-maintenance and economical
- ✓ Reliable with long service life
- ✓ 100% recyclable



| Clean solutions > Clean emissions > Clean cities

Modular SMF®-CRT® system – 100% soot-free

The proven SMF®-CRT® system (Continuously Regeneration Technology) is suitable for buses and local authority vehicles that are primarily operated in the urban environment.

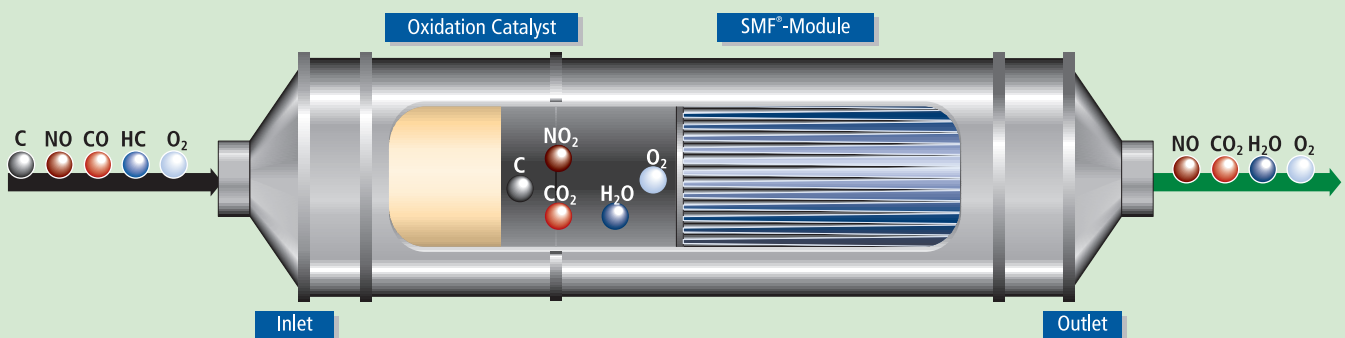
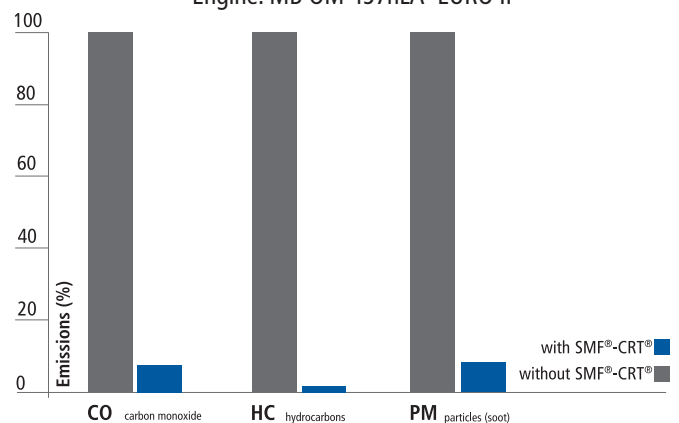
Efficiency

Different studies conducted on engine test stands, by various vehicle manufacturers and also by the TÜV-Nord technical inspection agency in Essen have confirmed the exemplary operating efficiency of the HJS SMF®-CRT® system.

- ✓ Over 99% reduction of soot particles, incl. fine particulate matter
- ✓ Over 95% reduction of gaseous pollutants (CO / HC)

Exhaust emissions in 13-step test

Engine: MB OM 457hLA–EURO II



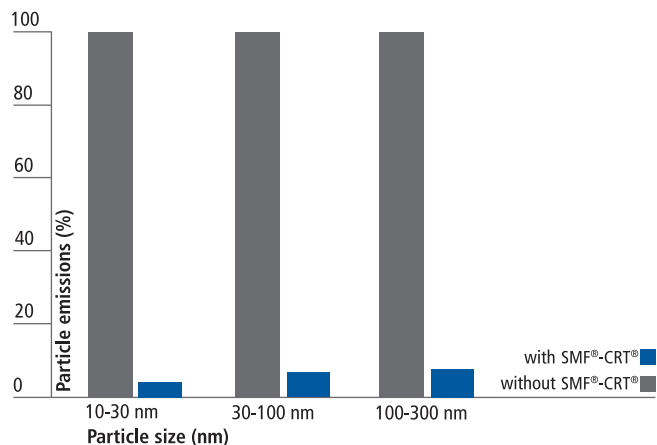


| City buses – 100% soot-free



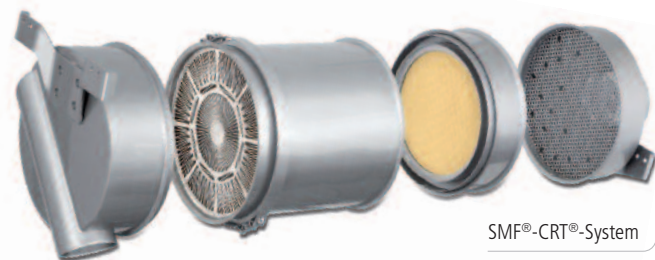
| More and more cities use SCRT®

Impact of the SMF®-CRT®-System on the particulate size distribution



Market coverage and product range

Almost all buses can be fitted or retrofitted with HJS particulate filter systems. For example, the HJS SMF®-CRT® product range covers the bulk of the entire fleet of buses in Germany. Systems are available for various models of buses made by EvoBus, Mercedes-Benz, MAN, Solaris, VanHool and VDL and have already been in use for a number of years.



SMF®-CRT®-System

SMF®-CRT® advantages at a glance

- ✓ Suitable for OE and retrofitting applications
- ✓ Over 99% Reduction of soot emissions, incl. fine particulate matter
- ✓ Over 95% Reduction of gaseous pollutant emissions (CO / HC)
- ✓ Extended CRT® temperature window for filter regeneration
- ✓ Modular construction
- ✓ Over 90% EURO III city bus market covered by existing product range

Modular SCRT® system – soot-free and up to 90% lower nitrogen oxide emissions

Soot particles have been able to be filtered from diesel exhaust gases, down to the limit of detection, with the aid of a HJS SMF® for some time now.

Now, to reduce gaseous pollutants in combination with a diesel particulate filter, HJS has played a crucial role in developing SCRT® – Selective Catalytic Reduction Technology. By combining an SMF® system with an SCR unit, the SMF® can be upgraded to create what is called an SCRT® system. This applies both to new vehicles that are already equipped with a particulate filter and older commercial vehicles without any form of exhaust treatment system fitted.

The SCRT® system is currently the most effective and state-of-the-art exhaust-gas aftertreatment system available. The longer economic and service life generally enjoyed by buses and local authority vehicles makes the SCRT® system a genuinely profitable, long-term investment.

Efficiency – EURO III to EURO V and EEV

The SCRT® system reduces not only soot and fine particulate matter in diesel exhaust emissions right down to the detectability threshold, but also nitrogen oxide emissions by up to 90 percent, as well as the remaining gaseous pollutants. As a result, EURO III buses that have undergone an SCRT® retrofit comply with the EURO V and even the EEV standard.

- ✓ Over 99% reduction of soot particles, incl. fine particulate matter
- ✓ Up to 90% reduction of nitrogen oxides (NOx)
- ✓ Over 95% reduction of gaseous pollutant emissions (CO / HC)

Operating principle SCRT®

The modular SCRT® system consists of an SMF® and SCR unit. The CRT® effect is used to break down the soot that collects in the particulate filter. This ensures that the soot held in the filter is continuously burned off.

In turn the SCR unit reduces the diesel engine's emissions of nitrogen oxides by up to 90 per cent.

Together with the HJS 100% filter, almost all diesel emissions are reduced.



| Unrestricted mobility



Application range

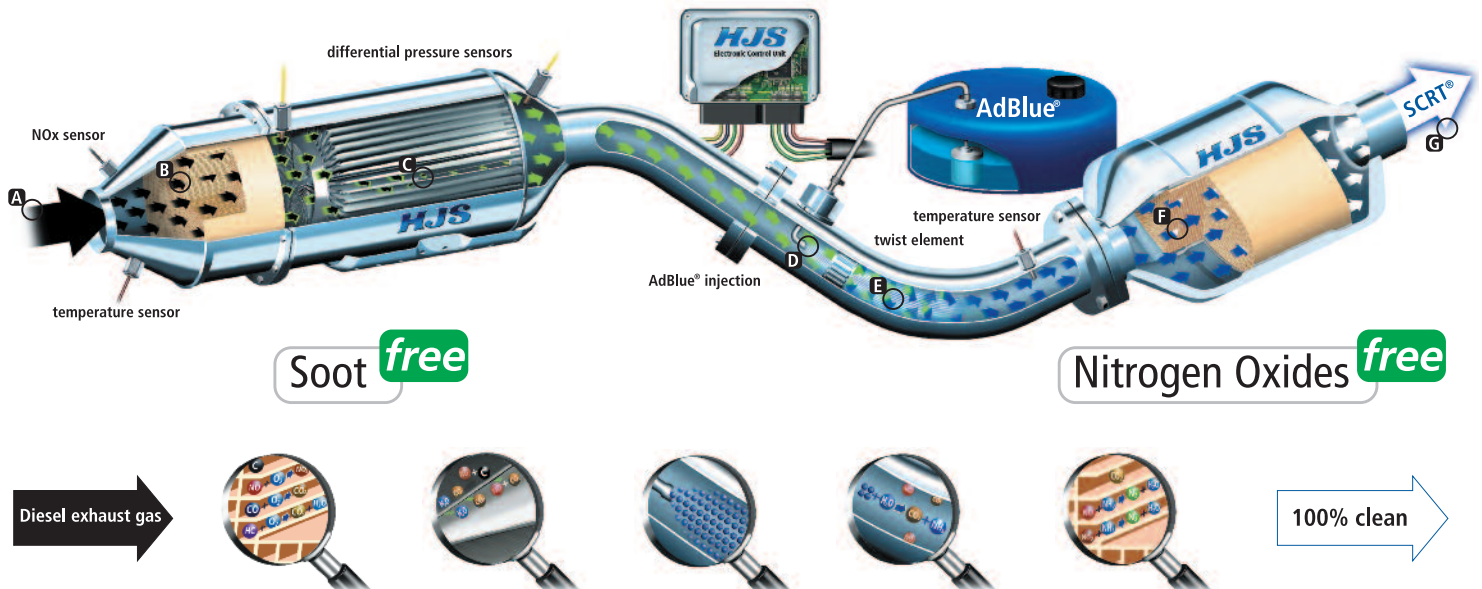
This new generation of exhaust-gas aftertreatment system gives commercial-vehicle manufacturers and local authority fleet operators the opportunity to comply with the globally applicable and strictest exhaust emissions legislation of the future.

The system has been designed so that it can be fitted not only to new but also older vehicles. Vehicles that already have a CRT® system can also quickly be retrofitted with an SCR unit to create an SCRT® system.

The SCRT® system is reliable. Even if the AdBlue® tank runs empty, it neither compromises the vehicle's running performance nor damages the SCRT® system. Moreover, use of an SMF® makes the system both low-maintenance and economical.

SCRT® advantages at a glance

- ✓ Retrofitting of EURO II and EURO III city buses
- ✓ Simultaneous reduction of soot-particle and nitrogen-oxide emissions
 - Over 99% soot emissions, incl. fine particulate matter
 - Nitrogen oxides by up to 90%
 - Over 95% gaseous pollutant emissions (CO / HC)
- ✓ SCRT® satisfies emission classifications EURO V and EEV
- ✓ Modular design with SMF® and SCR unit
- ✓ Absolutely low-maintenance and economical



A Diesel exhaust gas	B Oxidation catalyst	C SMF® Sintered Metal Filter	D AdBlue®	E Ammonia	F SCR catalyst	G Diesel emissions
Pollutants in diesel exhaust gas Primary: Soot particles (PM) Nitrogen oxides (NOx) Secondary: Carbon monoxide (CO) Hydrocarbons (HC)	The oxidation catalyst converts: - The pollutant carbon monoxide (CO) into carbon dioxide (CO₂) = harmless - The pollutant hydrocarbons (HC) into water (H₂O) and CO₂ = harmless. Additional important function: Diesel exhaust also contains nitrogen monoxide (NO), which the oxi-cat simultaneously converts into nitrogen dioxide (NO₂). The particulate filter then uses the NO₂ to continuously oxidize the soot.	The filter is designed in such a way that only gaseous components can flow through. The soot particles are held back by the filter material. The in the oxi-cat generated NO₂ oxidizes the soot continuously. This produces "soot-free" exhaust gas.	To reduce the levels of nitrogen oxides (NOx), an additional chemical component is needed: ammonia. An urea solution (trade name AdBlue®) is therefore stored in a separate small tank in the vehicle. A nitrogen oxide sensor detected the NOx-level in the exhaust gas and a small amount of AdBlue® is injected into the exhaust system.	After the AdBlue® has been injected, a swirl element mixes the urea with the hot exhaust gas. This causes the urea to decompose and ammonia (NH₃) is formed on the way to the SCR catalyst.	The previously formed exhaust mixture of ammonia (NH₃) and nitrogen oxides now reaches the next catalyst (SCR = Selective Catalytic Reduction). This catalyst converts the pollutant nitrogen oxides into non-toxic nitrogen (N₂), carbon dioxide (CO₂) and water (H₂O).	SCRT® Clean Diesel

SCRT®

Diesel-Emission-Technologies
SCRT® Patent = Co-Ownership by

HJS
Abgas-Systeme • Exhaust Systems



HJS Product Range 2008

Vehicle	Year	EURO Standard	Engine	Displacement ltr.	Performance kW	System	Article-Nr.
EvoBus							
Citaro (12m)	ab 1997	II	OM 906 hLA	6,4	180, 205	CRT® 12 M	93 64 3033
Citaro (18m)	ab 1997	II	OM 906 hLA	6,4	180, 205	CRT® 12 M	93 64 3033
Citaro (12m)	ab 1997	II	OM 457 hLA	12	185, 220, 260	CRT® 12 M	93 64 3033
Citaro (18m)	ab 1997	II	OM 457 hLA	12	185, 220, 260	CRT® 12 M	93 64 3033
Citaro (12m)	2001 - 2006	III	OM 906 hLA	6,4	180, 205	CRT® 50 SMF®	93 64 3023
Citaro (12m)	2001 - 2006	III	OM 906 hLA	6,4	180, 205	CRT® 50 M	93 75 3023
Citaro (12m)	2001 - 2006	III	OM 457 hLA	12	185, 220, 260	CRT® 50 SMF®	93 64 3023
Citaro (12m)	2001 - 2006	III	OM 457 hLA	12	185, 220, 260	CRT® 50 M	93 75 3023
Citaro (12m)	2001 - 2006	III	OM 906 LA	6,4	180, 205	CRT® 60 SMF®	93 64 3044
Citaro (12m)	2001 - 2006	III	OM 457 LA	12	185, 220, 260	CRT® 60 M	93 75 3023
Citaro (15m)	2001 - 2006	III	OM 457 hLA	12	220, 260	CRT® 50 SMF®	93 64 3023
Citaro (15m)	2001 - 2006	III	OM 457 LA	12	220, 260	CRT® 50 SMF®	93 64 3044
Citaro (18m)	2001 - 2006	III	OM 906 hLA	6,4	180, 205	CRT® 50 SMF®	93 64 3023
Citaro (18m)	2001 - 2006	III	OM 457 hLA	12	220, 260	CRT® 50 SMF®	93 64 3023
Citaro (18m)	2001 - 2006	III	OM 457 hLA	6,4	180, 205	SCR 50 System	94 72 0021
Citaro (18m)	2001 - 2006	III	OM 457 hLA	6,4	180, 205	SCRT 50 System	94 72 0022
Cito	1999 - 2002	II	OM 904 LA		125	CRT® 46	93 62 3020
Minibus Sprinter 6 To		III	OM 612 DE 27 LA	2,7	115	CRT® 78 SMF®	93 64 3052
Minibus Sprinter 4 To		III	OM 612 DE 27 LA	2,7	115	CRT® 78 SMF®	93 64 3054
Integro O 550 Ü		III	OM 457 hLA	12	185, 220	CRT® 63 SMF®	s. CRT 73 m
Integro O 550 Ü		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Integro O 550 ÜH		III	OM 457 hLA	12	185, 220	CRT® 63 SMF®	93 64 3039
Integro O 550 Ü (15 m)		III	OM 457 hLA	12	185, 220	CRT® 63 SMF®	93 64 3039
Integro O 550 Ü-16		III	OM 457 hLA	12	185, 220	CRT® 63 SMF®	93 64 3039
Integro O 550 Ü-16		III	OM 457 hLA	12	220	CRT® 63 SMF®	93 64 3039
Integro O 550		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Integro O 550M		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Integro O 550L		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Integro O 550 ÜH		III	OM 457 hLA	12	220, 260	CRT® 73 SMF®	93 64 3051
Conecto		III	OM 457 hLA	12	185	CRT® 50 SMF®	93 64 3023
Travego RH		III	OM 457 hLA	12	220, 260	CRT® 73 SMF®	93 64 3051
Integro		II	OM 447 hLA		220	CRT® 22 SMF®	93 64 3012
Setra S 313 UL		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Setra S 315 UL		III	OM 457 hLA	12	185	CRT® 63 SMF®	93 64 3039
Setra S 315 UL		II	OM 447 hLA	12	220	CRT® 22 M	93 64 3012
Setra S 316 UL		III	OM 457 hLA	12	185	CRT® 63 SMF®	93 64 3039
Setra S 317 UL		III	OM 457 hLA	12	185	CRT® 63 SMF®	93 64 3039



Vehicle	Year	EURO Standard	Engine	Displacement ltr.	Performance kW	System	Article-Nr.
EvoBus							
Setra S 319 UL		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Setra S 315 H		III	OM 457 hLA	12	220, 260	CRT® 73 SMF®	93 64 3051
Setra S 315 GT		III	OM 457 hLA	12	220, 260	CRT® 73 SMF®	93 64 3051
Setra 315 N		II	OM 447 hLA	12	220	CRT® 21 SMF®	93 64 3045
Setra S 315 NF		III	OM 457 hLA	12	185, 220, 260	CRT® 50 M	93 64 3023
Setra S319 NF		III	OM 457 hLA	12	185, 220, 260	CRT® 50 M	93 64 3023
Setra S 319 UL		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Setra SG 321 UL		III	OM 457 hLA	12	185, 220, 260	CRT® 73 SMF®	93 64 3051
Setra S 415 GT		III	OM 457 hLA	12	220, 260	CRT® 73 SMF®	93 64 3051
Mercedes Benz							
O 405 Hochboden	bis 2001	II	OM 447 hLA		177, 184, 220	CRT® 03	93 63 3031
O 405 G Hochboden	bis 2001	II	OM 447 hLA		177, 184, 220	CRT® 03	93 63 3031
O 407 Hochboden	bis 2001	II	OM 447 hLA		177, 184, 220	CRT® 03	93 63 3031
O407 G Hochboden	bis 2001	II	OM 447 hLA		177, 184, 220	CRT® 03	93 63 3031
O405 N	1990 - 2001	II	OM 447 hLA		184, 220	CRT® 02	93 63 3022
O405 GN	1990 - 2001	II	OM 447 hLA		184, 220	CRT® 02	93 63 3022
MAN							
NL 202	ab 1992	I	D0826 LUH	6,9	157, 169, 184, 198	CRT® 01 M	93 65 3013
NL 312	ab 1992	I	D0826 LUH	6,9	157, 169, 184, 198	CRT® 01 M	93 65 3013
NL 202	ab 1995	II	D0826 LUH	6,9	157, 169, 184, 198	CRT® 01 M	93 65 3013
NL 312	ab 1995	II	D0826 LUH	6,9	157, 169 184, 198,	CRT® 01 M	93 65 3013
NL 263	1998 - 2004	II	D0826 LUH 13	6,9	191	CRT® 20	—
NG 313 / NÜ 353	1999 - 2001	II	D2866 LUH 21	12,0	257	CRT® 48 M	93 65 3014
NÜ, NL, NG 313	1999 - 2001	II	D2866 LUH 26	12,0	228	CRT® 48 M	93 65 3014
NG 353	2001 - 2003	II	D2866 LUH 21	12,0	257	CRT® 48 M	93 65 3014
NL 263	2001 - 2003	II	D2866 LUH 22	12,0	181	CRT® 48 M	93 65 3014
NL 313	2001 - 2003	II	D2866 LUH 26	12,0	228	CRT® 48 M	93 65 3014
NÜ, NL 283	2001 - 2003	III	D0836 LUH 01	6,9	206	CRT® 48 M	93 65 3014
NL 283	2001 - 2003	III	D0836 LUH 40	6,9	206	CRT® 48 M	93 65 3014
SÜ, EL 283	2001 - 2006	III	D0836 LOH 02	6,9	206	CRT® 61 M	93 65 3017
NL, EL 283	2001 - 2006	III	D0836 LOH 40	6,9	206	CRT® 61 M	93 65 3017
NÜ, NL 283	2001 - 2006	III	D0836 LUH 01	6,9	206	CRT® 61 M	93 65 3017
NL 223	2001 - 2006	III	D0836 LUH 02	6,9	162	CRT® 61 M	93 65 3017
NL 283, NL 283-F	2001 - 2006	III	D0836 LUH 40	6,9	206	CRT® 61 M	93 65 3017
NL 243	2001 - 2006	III	D0836 LUH 41	6,9	176	CRT® 61 M	93 65 3017



Vehicle	Year	EURO Standard	Engine	Displacement ltr.	Performance kW	System	Article-Nr.
MAN							
NL 263	2001 - 2006	III	D2866 LUH 23	12,0	191	CRT® 61 M	93 65 3017
NL 263 NG, NÜ 313	2001 - 2006	III	D2866LUH 24	12,0	228	CRT® 61 M	93 65 3017
NL, NÜ 263	2001 - 2006	III	D2866 LUH 34	12,0	191	CRT® 61 M	93 65 3017
NÜ, NL, NG 313	2001 - 2006	III	D2866 LUH 35	12,0	228	CRT® 61 M	93 65 3017
NL 263	2001 - 2006	III	D2866 LUH 36	12,0	191	CRT® 61 M	93 65 3017
NG, NÜ 363	2001 - 2006	III	D2866 LUH 36	12,0	191	CRT® 61 M	93 65 3017
Neoplan N4516,	2005 - 2006	III	D2866 LUH 34	12,0	191	CRT® 61 M	93 65 3017
Neoplan N4516 P	2005 - 2006	III	D2866 LUH 35	12,0	228	CRT® 61 M	93 65 3017
LIONS CITY (12m)	ab 2004	III	D0836 LUH	6,9	176	CRT® 61 CSMF®	93 75 3017
LIONS CITY (12m)	ab 2004	III	D0836 LOH	6,9	176	CRT® 61 CSMF®	93 75 3017
LIONS CITY (12m)	ab 2004	III	D0836 LOH	6,9	162, 176	CRT® 61 CSMF®	93 75 3017
LIONS CITY T(9,6m)	ab 2004	III	D0836 LOH	6,9	162, 176	CRT® 61 CSMF®	93 75 3017
LIONS Classic	ab 2004	III	D0836 LOH	6,9	162, 206	CRT® 61 CSMF®	93 75 3017
LIONS Classic G	ab 2004	III	D2866 LUH	12,0	191, 228	CRT® 61 CSMF®	93 75 3017
SOLARIS							
URBINO 12	2002-2006	III	MAN D0836 LOH02	6,9	206	CRT® 61 SMFK	93 65 3021
URBINO 12	2002-2006	III	MAN D2866 LOH27	12,0	228	CRT® 61 SMFK	93 65 3021
URBINO 12	2004-2006	III	MAN D2866 LUH23	12,0	191	CRT® 61 SMFK	93 65 3021
URBINO 12	2004-2006	III	MAN D2866 LUH24	12,0	228	CRT® 61 SMFK	93 65 3021
URBINO 12	2001-2006	III	DAF PE183C	9,2	183	CRT KMI 10 SMF®	93 70 3210
URBINO 12	2001-2006	III	DAF PE228C	9,2	228	CRT KMI 10 SMF®	93 70 3210
URBINO 12 LE	2004-2006	III	DAF PE183C	9,2	183	CRT KMI 10 SMF®	93 70 3210
URBINO 12 LE	2004-2006	III	DAF PE228C	9,2	228	CRT KMI 10 SMF®	93 70 3210
URBINO 15	2002-2005	III	MAN D2866 LOH27	12,0	228	CRT® 61 SMFK	93 65 3021
URBINO 15	2002-2007	III	DAF PE228C	9,2	228	CRT KMI 10 SMF®	93 70 3210
URBINO 18	2002-2007	III	MAN D2866 LOH27	12,0	228	CRT® 61 SMFK	93 65 3021
URBINO 18	2005-2006	III	MAN D2866 LUH24	12,0	228	CRT® 61 SMFK	93 65 3021
URBINO 18	2004-2006	III	MAN D2866 LUH25	12,0	265	CRT® 61 SMFK	93 65 3021
URBINO 18	2003-2007	III	DAF PE228C	9,2	228	CRT KMI 10 SMF®	93 70 3210
URBINO 18	2003-2006	III	DAF PE265C	9,2	265	CRT KMI 10 SMF®	93 70 3210
Van Hool							
A 309	2003-2004	III	D 0836 LUH02	6,9	162	CRT® 64 M	94 50 3001
A 330	2003-2004	III	D 0836 LOH02	6,9	206	CRT® 64 M	94 50 3001
A 360	2003-2004	III	D 0836 LUH02	6,9	162	CRT® 64 M	94 50 3001

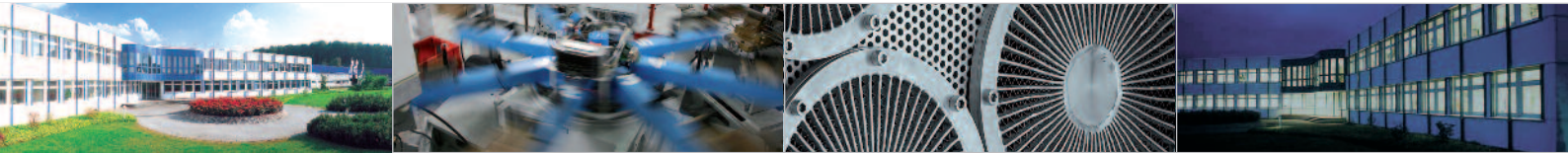


Notes



As a medium sized company based in Menden/Germany, HJS Fahrzeugtechnik GmbH & Co KG has more than 30 years experience and expertise in the field of exhaust-gas aftertreatment. Some 500 employees develop, produce and market modular systems for the reduction of pollutant emissions. These innovative environmental protection technologies can be used either for original equipment or for retrofitting in passenger cars, commercial vehicles and various non-road applications. In addition to systems for spark-ignition engines, HJS is particularly specialised in systems for diesel engines – especially for reducing soot particle and nitrogen oxide emissions. All systems meet the statutory requirements and are certified in accordance with the valid licensing regulations.

With its extensive range of patents for DPF® (Diesel Particulate Filter) and SCRT® (Selective Catalytic Reduction Technology), HJS sets benchmarks, both nationally and globally.



HJS Technology portfolio for OE- and Retrofit-Applications

- > Oxidation Catalysts
- > Diesel Particulate Filters (DPF®)
 - Sintered Metal Filters (SMF®)
 - Silicium Carbit Filters (SiC)
 - Cordierite Filters
- > Modular CRT®-SMF®-Systems
- > Modular CSMF®-Systems
- > SMF®-AR-Systems – with active regeneration
- > Fuel-Converter for DPF® regeneration
- > SCR-Systems to eliminate nitrogen oxides
- > SCRT®-Systems – reduction of soot particle and nitrogen oxide emissions