

IVECO

STRALIS
EURO 4▶▶▶5





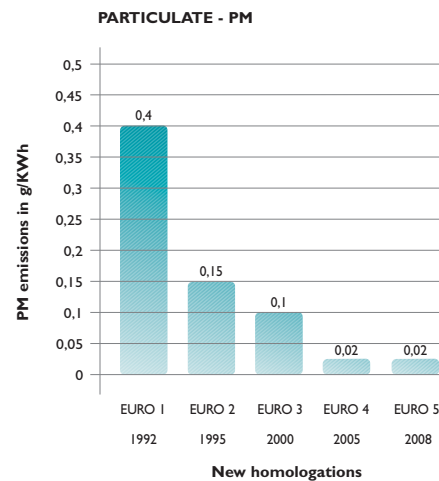
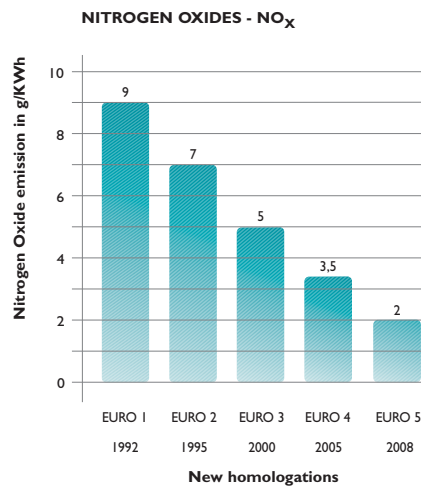
THE ENVIRONMENT. COMPLYING WITH STANDARDS TO PROTECT NATURE.

Nowadays the environment has to be considered an absolute priority. Iveco has focused on safeguarding the environment by putting great effort and resources into researching and applying new technologies. It can thus offer innovative solutions to comply with the new standards while at the same time improving vehicle performance.

Iveco has confirmed its position as a dynamic company ahead of the times by developing advanced, highly effective systems for its Heavy Commercial Vehicles in advance of forthcoming European directives further limiting exhaust gas and particulate emissions from commercial vehicles.

Permitted emission levels are regulated by standards that limit the emission of pollutants such as nitrogen oxides, carbon monoxide, hydrocarbons and particulates. The Euro 4 standard to be introduced in October 2006 will bring in new limits for particulate and NO_x emissions, and they will be reduced even further by Euro 5 in October 2009.

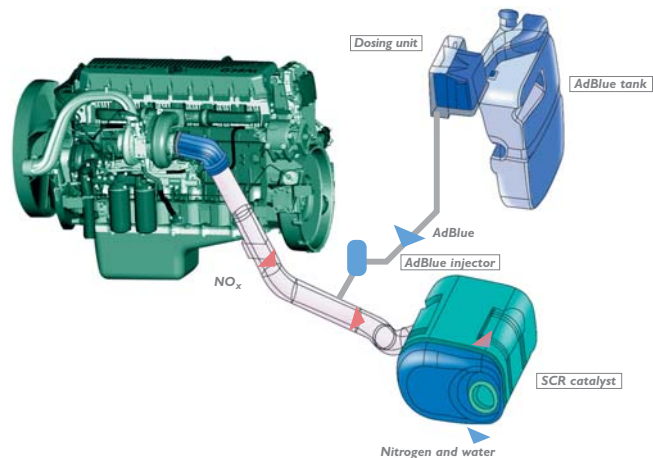
Over the years, Iveco has always been a leader in diesel engine development, so now it can offer the best solution for every kind of vehicle application. The system used in the specific case of the Stralis range, Selective Catalytic Reduction (SCR), provides Euro 4 compliance and can already achieve the levels required by Euro 5, well in advance.



NITROGEN OXIDES (NO_x): these consist of NO and NO_2 , which are formed during combustion at high temperatures, when oxygen reacts with nitrogen. A modern, fuel-efficient engine often operates at very high combustion temperatures, thus increasing NO_x levels.

PARTICULATE MATTER (PM): this consists mainly of fine carbon particles generated by incomplete combustion in that part of the combustion chamber where the oxygen content is lowest. Hydrocarbons, unburnt fuel and sulphur present in the fuel will increase the particulate emissions.

TECHNOLOGY. SOLUTIONS TO EVERYBODY'S NEEDS.



SCR SYSTEM: the main components of SCR technology are an optimised engine, a special tank containing AdBlue, a dosing unit and a catalytic converter.

SCR technology involves the use of optimised engines, a catalytic converter in place of the usual silencer, and a special tank containing a reducing fluid (AdBlue), which is injected upstream of the catalyst by an electronically controlled dosing system.

Iveco has taken the strategic decision to reduce NO_x levels by treating exhaust gases after they leave the engine by means of a catalytic converter.

That makes it possible to optimise the combustion process in the **engine** and at the same time cut both fuel consumption and particulate emissions.

With SCR, therefore, no extra filter is required to comply with the new environmental standards.

In addition, the vehicles' well-known driveability provided by their Cursor engines is not affected, while their reliability and fuel consumption are actually improved. They do not require an oversized cooling system and the engine's maximum power output is not impaired.

A **special tank** contains the reducing agent **AdBlue**, a solution of 32.5% urea in water, which is non-toxic, colourless and non-flammable and thus easily stored. Its physical and chemical properties are defined in standard DIN 70070.

In the SCR system, AdBlue is sprayed into the exhaust pipe upstream of the **catalyst** in very precise quantities, activating the reaction that converts NO_x and ammonia in the exhaust gases into harmless nitrogen and water:

AdBlue is injected by an electronically controlled **dosing unit** in amounts that depend on both vehicle and environmental factors. The system ensures that the standards are met even in extreme weather conditions, without affecting vehicle performance.

AdBlue consumption is roughly 1 litre to every 20 litres of diesel, and a tankful of AdBlue is enough for more than 7000 km or well over 4000 miles.

SCR technology is designed to last for the life of the vehicle and does not require special maintenance.



THE CORRECT FUNCTIONING OF THE SCR SYSTEM AND THE LEVEL OF AdBLUE CAN BE CONTROLLED USING THE DIGITAL DISPLAY



AdBLUE TANK



DOSING UNIT



SCR CATALYST





PRODUCTIVITY. INVESTMENT AND DECISIONS FOR THE FUTURE.



Buying AdBlue is easy. Some service stations are already in operation while others are quickly fitting themselves out. The same applies to haulage companies and lorry parks. In addition, Iveco customers will soon have their own excellent AdBlue distribution system. AdBlue will be distributed by Iveco through its sales and service network throughout Europe, ensuring that the product is readily available everywhere.

SCR represents the best solution to sensitive environmental issues without compromising on the productivity requirements for the Stralis, as low running costs and low maintenance are essential factors in keeping the range competitive.

In such circumstances, choosing Iveco vehicles with SCR will deliver benefits over both the short and the long term.

As they are constantly being improved, Iveco engines ensure excellent fuel consumption levels. In addition, engine service intervals have not changed and so their reliability over time is not put at risk. The result is a reduction in overall running costs, even when AdBlue consumption is taken into account.

In many European countries, depending on the rules in force in each one, growing concern for the environment has led to a policy of encouraging people to buy Euro 4 and Euro 5 compliant vehicles even before the standards themselves become law. Measures include reducing road tolls on the basis of emission classes, waiving prohibitions on driving, and providing tax breaks. In some countries, purchasers of Euro 5 vehicles could be entitled to the incentives until 2009.

In response to these requirements, Iveco is already able to supply Euro 5 vehicles in 2005. SCR is in fact the simplest way to achieve Euro 5 compliance while cutting fuel consumption at the same time. Iveco is thus responding to the most pressing environmental requirements and meeting market expectations and needs.

The results Iveco has achieved in always finding new and effective technological solutions are due to its constant focus on research and development. For years, this has been a feature of its corporate strategy, which Iveco takes with it in its pursuit of ongoing improvement and worldwide growth.



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