

Case Study: Transports Metropolitans Barcelona

Improving Air Quality in Barcelona

The Catalan government has introduced a plan to improve air quality by upgrading all Euro 2 and 3 public transport buses in Catalonia to Euro 4 standard. Transports Metropolitans de Barcelona (TMB) is the major bus provider in Barcelona with a fleet of over 1000 vehicles.

Rather than replace all Euro 2 and 3 buses, TMB identified a more cost effective option to upgrade them using retrofit emissions technology.

Eminox advanced emission reduction technology: SCRT® is capable of removing over 90% of particulate matter, hydrocarbons and carbon monoxide, plus more than 70% of nitrogen oxides.

The system combines the CRT® (Continuously Regenerating Trap) diesel particulate filter with SCR (Selective Catalytic Reduction). The system was tested at homologation test centre Idiada, demonstrating that the Eminox SCRT system could go further than the minimum requirement of Euro 4 and reach emissions equivalent to EEV (Enhanced Environmentally Friendly Vehicle). By using Eminox's retrofit emissions technology, TMB achieved this at a fraction of the cost of new buses.

The technical performance and innovative design of the SCRT system convinced TMB to award the business for 363 retrofit upgrades to Eminox. A new ultra compact system was designed and developed to meet the limited space envelopes on the TMB low floor city bus fleet.

Josep-María Armengol, who is responsible for engineering and new developments at TMB stated *"We are very pleased that we put our trust in Eminox and thanks to them, we have been able to adapt to these changes in environmental legislation. The Eminox team has demonstrated great speed and flexibility in developing their systems to fit the tight space envelopes of our low floor buses. Their skill in producing solutions without compromising on quality is highly valued at TMB"*. He added, *"Eminox's capability to provide real world NOx reduction data in real time has been crucial for TMB to measure our achievements against our air quality objectives"*.

The compact SCRT was used for low-floor double deck buses including Mercedes, MAN and Iveco. More bus operators across Catalonia are now planning to upgrade their buses using Eminox SCRT technology.

