

25 years of Emitec history – taking the lead through innovation

Emitec Gesellschaft für Emissionstechnologie mbH was founded as a joint venture between Uni Cardan and Siemens/Interatom on 11 August 1986. The name Emitec is derived from the term **emission technology**. The three founding members, led by Wolfgang Maus, the former director of Interatom's automotive technology division, couldn't have imagined back then that they would be instrumental in shaping the catalytic converter market.

Engineers had spent many years trying to develop metal substrates as the basis of catalytic converters before ceramic substrates were presented as a solution in 1974. All their attempts failed until the breakthrough was made in Bergisch Gladbach.

Emitec soon received small series production orders for metal catalysts. One of the first customers was the premium carmaker BMW-Alpina. Its director, Burkard Bovensiepen, was known for setting new standards when it came to building exciting, fast, and now, also particularly environmentally friendly cars. Early customers also included a Canadian manufacturer of catalytic converters for stationary engines and Jaguar, which ordered starting catalysts for their V12 engines. This completed the next stage, that is, finding the first satisfied customers.

The first series-production metal substrates were still built by hand in small numbers at Interatom in Bensberg. Siemens was looking for a partner with experience in large-scale production and eventually teamed up with the Anglo-German company Uni Cardan AG. The two partners founded Emitec GmbH as a 50/50 joint venture on 11 August 1986. Today, after various reorganisations, Emitec is owned in equal parts by Continental AG and GKN plc.

Within six months Emitec grew from a start-up with three founding members (Wolfgang Maus, Director, Rolf Hetzelberger, Technical Sales and Dorothee Groetzner, Secretary) into a company with 21 employees. One year later this figure rose to 64 because of a large number of new orders, including from Alpina and Porsche (for main catalysts). In 1987 Mercedes ordered 180,000 starting catalysts merely on the basis of satisfactory test samples because the car manufacturer had experienced major problems with catalyst substrates from another supplier. The first series metal catalysts were delivered to Mercedes in December 1987.

Emitec's success was also due to the fact that car manufacturers were keen on finding a third supplier of catalyst substrates so as not to be solely dependent on the, then only, two suppliers of ceramic monoliths worldwide.

Press enquiries:

Emitec Gesellschaft für Emissionstechnologie mbH
Hauptstraße 128
53797 Lohmar
www.emitec.com

Tel.: +49 (0) 2246 109 311
Fax: +49 (0) 2246 109 109
Email: presse@emitec.com

Zero-defect quality

In 1988 Porsche began to fit its 944 series with Emitec metal substrates after they had proven their high performance in motor racing. When VW placed the first large order for 700,000 close-coupled metal substrate catalysts at the end of 1989 the new company finally achieved its breakthrough. Another milestone was the one millionth catalyst, which was produced in January 1990. Not one of the 150 million Metalit metal catalysts supplied to date has been responsible for a vehicle breakdown. The quality of metal substrate catalysts has been thoroughly proven over a period of 25 years.

At the end of 1990 the previously outsourced matrix production was brought in-house and installed alongside the existing high-temperature vacuum brazing furnace in the newly built production hall in Lohmar. There were also new rooms for company management and administration.

Emitec's CEO Wolfgang Maus had established ties with car manufacturers in the US at an early stage. In 1988 Chrysler engineers visited Emitec in Lohmar to decide whether the order for starting catalysts for their crucial LH project should go to Emitec or one of its competitors. In 1991 Emitec received the first order from Chrysler for its Dodge Viper sports cars and in 1992 the eagerly awaited large-volume production order for the LH platform arrived. In the same year Emitec took over the patents and the brand name *METALIT* from its competitor.

In 1993 Emitec's engineers began to analyse different cell densities and foil thicknesses with the aim of optimising heating times and exhaust backpressure. The research carried out, as part of a joint project with Toyota, resulted in Emitec supplying close-coupled catalysts to the carmaker. Emitec started a new trend with these catalysts. Metal catalysts with cell densities of 600 cpsi and foils, that in some cases were only 0.02 mm thick, turned out to be the perfect solution, especially in the US where they had to comply with LEV emission limits.

The orders from Chrysler led Emitec to set up a production plant in Fountain Inn, South Carolina, in 1996. Following further US orders from BMW-USA, Chrysler and Toyota, the plant was expanded in September 1999. This was a major factor behind Emitec's rising sales, which increased by 70% to 149 million euros between 1996 and 1999.

In response to the rapid growth in orders in Europe, a modern production plant and a state-of-the-art test centre were built in East Germany. Some 20 sites worldwide were surveyed and compared. Thuringia beat all competitors hands down. Today the Hörselberg plant near Eisenach employs around 200 people.

Press enquiries:

Emitec Gesellschaft für Emissionstechnologie mbH
Hauptstraße 128
53797 Lohmar
www.emitec.com

Tel.: +49 (0) 2246 109 311
Fax: +49 (0) 2246 109 109
Email: presse@emitec.com

R&D as a unique selling point

With the Emitec test centre in Eisenach-Hörselberg, the company possesses various highly dynamic state of the art engine, component and roller test benches, modern laboratories, the latest emission measurement techniques as well as a highly motivated research and development team. In August 2009 the world's most powerful roller dynamometer was installed. This twin-axle dynamometer can even handle large buses, heavy-duty commercial vehicles and all-wheel drive vehicles with a total output of up to 600 kW (816 PS).

Emitec has always placed great emphasis on research and development from the start. By leading through innovation Emitec was able to survive and grow alongside two major competitors. Other milestones include the turbulence-generating metal substrate profiles. In 2004, Audi was the first car manufacturer to fit its RS sports models with close-coupled catalysts based on the PE structure. The perforations (PE) in the foils ensure that the entire catalyst cross-section is utilised even in case of an uneven upstream flow. This makes it possible to build exceptionally small and light substrates that are able to operate at full capacity, even with high exhaust flow rates. Since the introduction of the PM-Metalit in 2004 Emitec has been large scale OEM supplier for commercial vehicles. It is not least because of this innovation that Emitec managed to increase its revenue by 25 per cent in time for its 20th anniversary in 2006.

It is a little known fact that Emitec leads the world market in catalytic converters for motorcycles (four-stroke and two-stroke engines). When the first emission limits for two-wheelers were announced in India a few years ago Emitec responded by building a production facility in Pune. Since 2006, the Pune plant has supplied several million emission control systems for two-stroke engines. The company has set up further sites in China, Japan and South Korea.

Even for mobile machinery for construction and agricultural engineering, Emitec has been a strong supplier of exhaust gas emission technology and development partner for the engine and machinery manufacturers since the introduction of stricter emission limits from 2009 onwards.

In 2010, Emitec acquired a major developer and manufacturer of SCR dosing pumps (selective catalytic reduction) to complement its in-house developments on the, soon-to-be important, market for DeNO_x systems.

Press enquiries:

Emitec Gesellschaft für Emissionstechnologie mbH
Hauptstraße 128
53797 Lohmar
www.emitec.com

Tel.: +49 (0) 2246 109 311
Fax: +49 (0) 2246 109 109
Email: presse@emitec.com

In 2011, Emitec's workforce of approximately 1,000 employees will be generating a planned turnover of 180 million euros. About 90 per cent of all products are supplied to the vehicle and engine industry. The rest is used in industrial and marine applications. The company's export volume is around 50 per cent.



Press enquiries:

Emitec Gesellschaft für Emissionstechnologie mbH
Hauptstraße 128
53797 Lohmar
www.emitec.com

Tel.: +49 (0) 2246 109 311
Fax: +49 (0) 2246 109 109
Email: presse@emitec.com