Press Release **64th IAA September 2011**

Clean two-wheelers with high-performance metal catalysts

Compact metal substrate catalysts are ideal for small and high-powered motorcycles

The new turbulence-generating metal catalysts from EMITEC Gesellschaft für Emissionstechnologie mbH in Lohmar near Cologne are the perfect solution for all two-wheelers, from small mopeds to high-performance motorcycles. Metalit® catalysts with turbulent flow profiles (LS structure = longitudinal structure, TS structure = transverse structure and PE structure = perforated metal foils) are considerably more efficient than conventional metal or ceramic catalysts. Turbulent metal catalysts also perform better despite their smaller installed size and save costs because they require less precious metal. Motorcycle manufacturers and their customers accept no compromises!

A recent study carried out in collaboration with a motorcycle manufacturer revealed the specific advantages of structured substrates over standard substrates. The combination of low thermal mass and improved mass transport produces high specific performance compared to conventional catalysts. This was also demonstrated in highly dynamic exhaust gas tests that were conducted on the basis of future emission stages. In addition, metal catalysts can be perfectly adapted to specific installation conditions. The LS structure is a cost-optimised, highly effective lightweight system for a wide range of motorcycle applications. Metal catalysts with a PE structure improve flow distribution for optimum catalyst utilisation and substantially lower pressure loss. This makes them ideal for high-performance applications.

With 33 championships, 254 Moto GP World Championship wins and 8 Superbike victories under their belt, Aprilia has become a force to be reckoned in motorcycle racing. A super compact 1 liter cc 65° V4 cylinder engine, which produces 132 kW (180 hp) makes the new Aprilia RSV4 ideal for the racetrack. Maximum torque is 115 Nm. The lambda sensor-controlled three-way catalytic converter and the throttle valve are integrated in the single silencer. A Metalit® catalyst with 200 cpsi was installed to keep exhaust backpressure as low as possible. A low kerb weight of around 180 kg results in a power/weight ratio of at least 0.74 kW (1 hp)/kg.

Turbulence-generating metal catalysts are able to cut emissions by up to 30 per cent with minimum pressure or performance loss. Turbulent motorcycle catalysts eliminate pollutants much more effectively than conventional catalysts of the same size. Alternatively, the size of the catalyst can be greatly reduced with significant cost savings.

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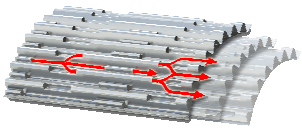
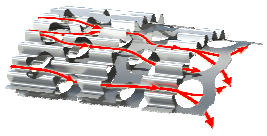
Like all other BMW models, the new BMW S 1000 RR has two compact METALIT® catalysts with a TS structure (transverse structure), which breaks up the laminar boundary layer and so creates turbulence. Two metal substrate catalysts with a cell density of only 100 cpsi are installed in the junction between the manifolds and the front silencer. The catalysts have a high temperature-resistant and very durable palladium-rhodium coating. The BMW S 1000 RR has a completely new 999 cc 4-cylinder in-line engine that produces a nominal 142 kW (193 hp) and a maximum torque of 112 Nm. Like the Aprilia RSV4, the BMW S 1000 RR is designed for racing events such as the Superbike Championships.

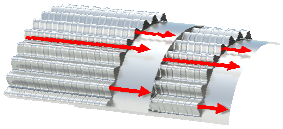
Alongside well-known motorcycle manufacturers, such as Aprilia, BMW, Harley Davidson, Honda and KTM, major customers for Emitec's powerful metal catalysts include motorcycle manufacturers in India and China. Since 2006 the big Asian two-wheeler market has been well served by the production plant of EMITEC Emission Control Technologies India Private Limited located in Pune in the Mumbai region.



LS-Design



PE-Design



TS-Design

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