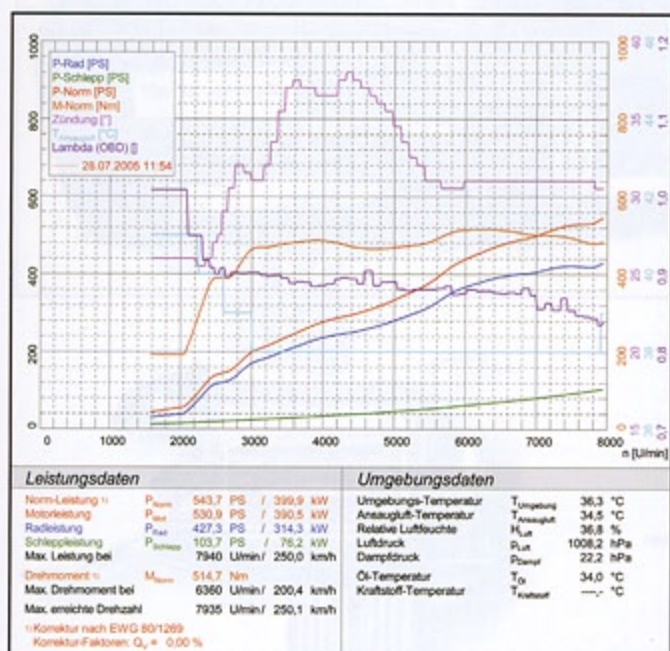


Supersprint

A TRADITION OF EXCELLENCE, BUILT UPON A SOLID BASE OF R&D WORK AND DYNO TESTING.



BMW E60 M5



The Supersprint Exhaust systems are developed and extensively tested using the exclusive MAHA 4x4 LPS 3000 braked dyno. The data processing software has been specifically built around Supersprint's stringent requirements. Supersprint has been using the MAHA Dyno only, since 1994!

Supersprint always tests each individual car model in its stock configuration at first, in order to determine any difference between the manufacturer's claims and the real word performance. Various Supersprint exhaust prototypes are then tested against the stock exhaust, to see the real gains.

The Maha Dynamometer does not only measure the wheel horsepower, but the engine horsepower and torque as well, with the utmost precision, thanks to its extremely sophisticated, electromagnetic brake system.

When Supersprint is testing performance cars, it does not matter how steep the torque curve and the powerband are, and how quick their acceleration is, the Maha dyno manages to "break down" the power build-up in a very controlled and metered way, in order to effectively measure the actual wheel torque and the drivetrain drag, and the resulting engine Hp and torque.

This has long been an exclusive feature of the Maha Dynamometers.

Ambient temperature and barometric pressure are also measured, as they provide the ever important, final correction to the results. Depending on the car model/year, the DIN standard, or the newer EEC standard are used, following the manufacturer guidelines.

Not incidentally, the same type of Maha Dynamometer is used by each of the main car manufacturers in Germany, in their R&D facilities.

Time after time, only consistent results are ensured with this method. No room for errors here.

On the contrary, other types of dynamometers, such as the "inertial dynamometers", only measure the wheel horsepower, and their degree of precision is adversely related to the quickness of the powerband, because of the lack of any form of braking. This means, the stronger and quicker the engine is, the less reliable are the outcoming readings.

Unfortunately, many self-proclaimed tuners seem to rely on this machinery, simply because it's inexpensive and easy to operate.

One of the most outstanding features of the Maha dyno, which Supersprint takes full advantage of, is the capability of measuring horsepower and torque, while holding the engine steadily under a load, at any set rpm, at the desired throttle opening, ranging from partial to full.

Additionally, the Maha dyno software connects to the car OBD port, and it monitors several, important datas, besides the engine speed (rpm). It reads the spark advance, the intake air temperature, the throttle opening, the air-fuel mixture ratio (Lambda), the intake air volume and pressure, and more.

Supersprint's own software downloads the exhaust gas temperature and backpressure, thus enabling the R&D team to keep the entire engine functionality under control, all the time.

This allows Supersprint to design and tune its exhausts to work best under the specific conditions set by the R&D team itself. Depending on each individual car model, the gain made by the Supersprint exhaust is more evident in the lower, middle or high rpm range, although the output is superior to stock throughout the entire powerband.