

General description

The new ST 200 E suspension test bench is designed to test the efficiency of suspensions on cars and light vehicles, measuring the adherence value according to the EUSAMA method.

EUSAMA method (EUropean Shock Absorber Manufacturers Association) is now the most used and standardised because most simple and intuitive.

During the test a value of global adherence is found, since this is related not only to the shock absorber, but to the whole suspension system.

The EUSAMA method is based on the measuring of minimum dynamic loading and wheel static loading, which ratio is showed in percentage. This value (EUSAMA value), shows the ability of the suspension unit to keep on the wheel-road contact in the most difficult situation. The value is calculated for each wheel, so that it is possible to carry out the adherence percentage difference between the wheels of each axle (imbalance), in order to point out possible anomalous conditions which could lead to dangerous situations during the running.

The ST 200 E suspension tester is available in 2 versions:

- "complete testing line" version, with values showed on the screen of the brake tester cabinet
- "stand alone" version, complete with cabinet and monitor

Possibility of pit installation or on-floor installation with podium.

The bench is designed to maximum simplify the access to inner components, for a simple and user-friendly maintenance.

The bench has compatibility features which grant the replacement, both from the electrical and mechanical point of view, with the most of previous versions.



Measured values

- Axle weight
- Weight of each wheel
- Adherence percentage of each wheel
- Adherence percentage difference between the wheels of each axle
- Minimum dynamic loading (minimum power to the ground)

Technical data

- β Measuring method: EUSAMA
- Power supply:
 - to PC and sensors230V / 1Ph / 50 - 60 Hz
 - to the motors400V / 3Ph / 50 - 60 Hz
- Maximum power absorbed at 230 V1,5 kW
- Maximum power absorbed at 400 V3 kW
- Motors.....2 x 3 kW
- Maximum axle weight (transit)3000 kg
- Maximum static load for axle weighing2500 kg
- Min/max axle weight suspension test180/2500 kg
- Minimum track of vehicle800 mm
- Maximum track of vehicle2200 mm
- Amplitude of forced oscillation.....6 mm
- Frequency of forced oscillation25 Hz
- Weighing accuracy+/-1 % (full-scale)
- Noise level when running ≤ 85 dB (A)
(measuring standard in accordance with D. L. 277/91).

