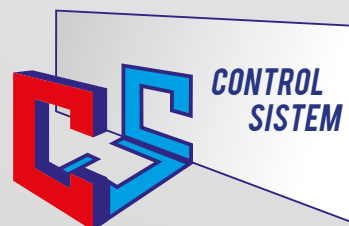
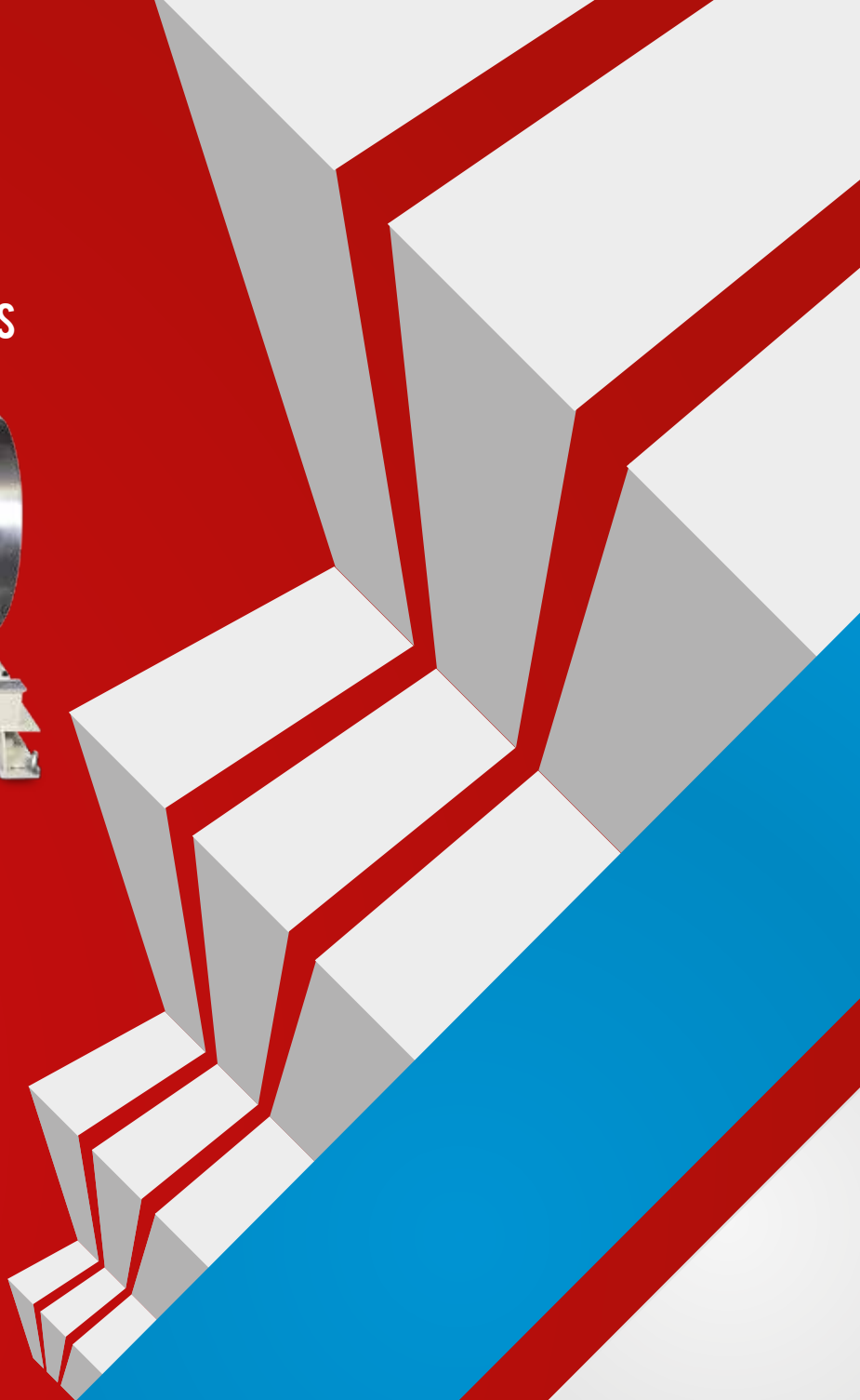
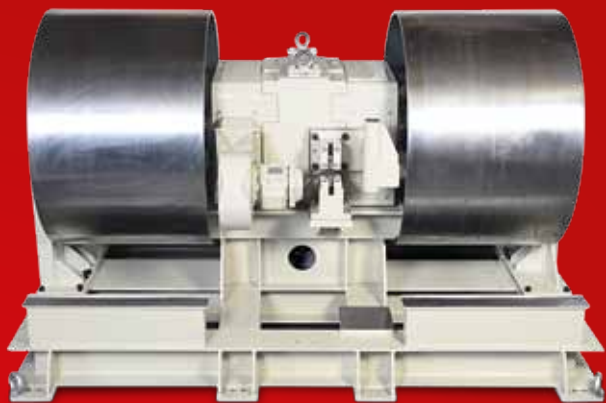


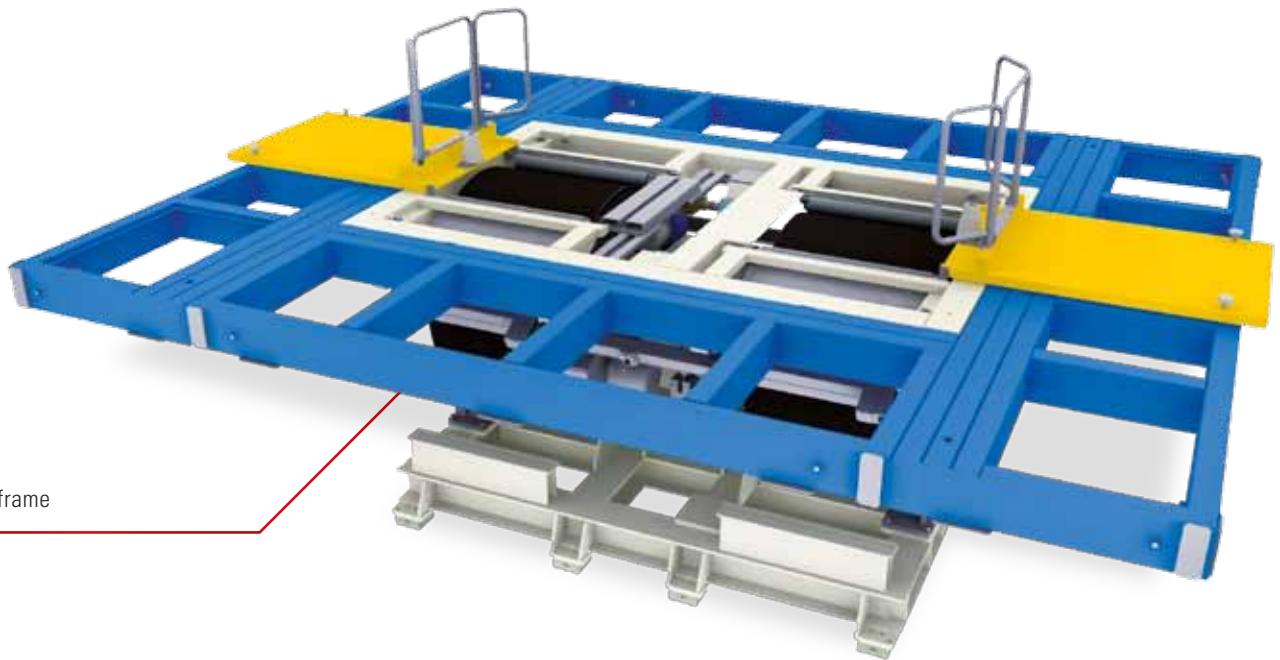
DYNOSAUR

CHASSIS-DYNO FOR LIGHT
AND MEDIUM DUTY VEHICLES



AUTOMOTIVE TESTING SOLUTIONS

DYNOsaur



Covering frame



Motor/rolls assembly

FEATURES

DYNOsaur is a 48-inch roll bench developed to be used for cars and light commercial vehicles (up to 5500kg). It is able to perform power, constant speed and road simulation tests. With these characteristics, it encompasses a utilization area including emission measuring cycles according to the international standards, power measuring cycles at constant speed and in dynamic conditions, durability tests, fuel consumption tests, performance (acceleration, pick-up) tests, driveability tests, etc...

Thanks to its extremely compact design, the building works necessary for its installation are reduced to the minimum.

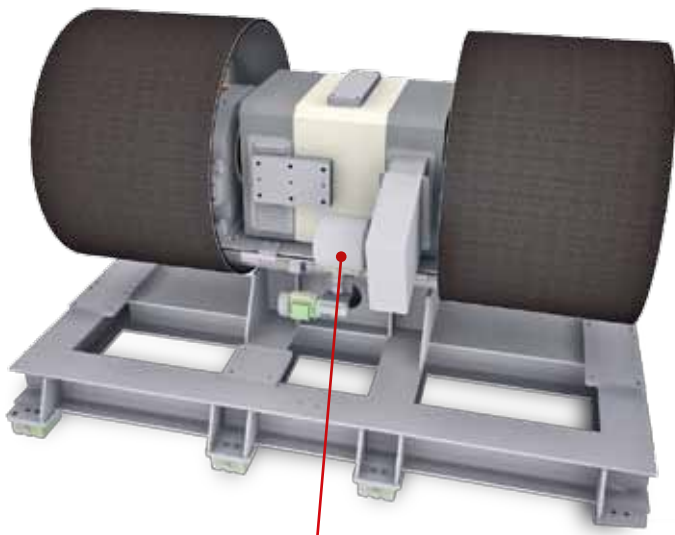
Electric motor and rolls are connected directly by means of a unique shaft thus ensuring high efficiency in terms of forces measuring as well as great accuracy in road load simulation. The motor/rolls assembly is supported by means of roller bearings featuring a slow rotation system for the outer race. This solution makes it possible to prevent static friction problems in the determination of the force exchanged between the tyre and the roll.

DYNOsaur is a single roll set, 48" (1219.2mm) in diameter. It has been designed by taking into account current European and American standards, especially in relation to emission and performance measurement tests.

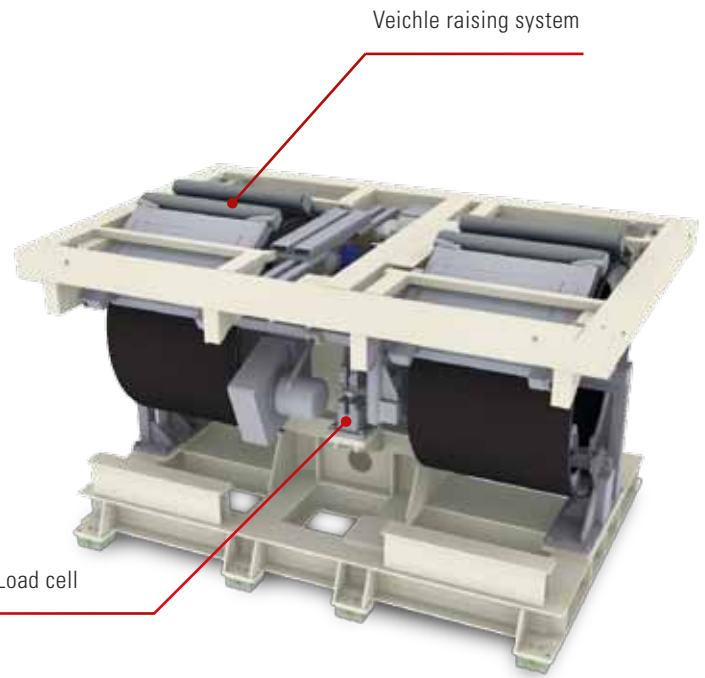
If desired, the rollers can be coated so as to obtain an improved roll-tyre friction coefficient and a more accurate simulation of actual conditions on asphalted surfaces.

The force acting on the surface of the roller is measured by means of a load cell with a reading range of 10kN that can be easily calibrated by means of certificated weights.

The frame covering the pit and supporting the vehicle centring assembly is made up of high strength steel tubular elements. It is fixed to the perimeter of the pit and remains mechanically released from the motor/roller assembly and therefore from any vibration as may be produced by the latter.



Bearings slow rotation system



Load cell

ROLLER BENCH USES

Cycles of emission measurements according to the following international standards:

- | ECE / EUDC / NEDC European standard
- | FTP75 / SFPT (US06, SC03) USA standard
- | 10-15 mode / JC08 Japanese standard

Cycles of power measurements in static and dynamic conditions:

- | Duration tests
- | Consumption tests
- | Performance tests (acceleration, recovery)
- | Driveability tests

The control system is composed by a micro PLC dedicated to the real time control of all bench functions and a standard PC that, using an easy to use graphical user interface, allows the setting of all bench functions and the real time monitoring and visualisation of all system parameters during the test.

MAIN FUNCTIONS

- | Road load simulations in accordance with the vehicle parameter settings
- | Operation at constant velocity with power measurements
- | Determination of the vehicle power curve with ascending or descending ramps
- | Automatic Coast Down cycle verification
- | Automatic bench calibration cycle

TECHNICAL SPECIFICATIONS

Roller diameter	48" (1219 mm)
Internal distance between rollers	900 mm
Roller width	700 mm
External roller distance	2400 mm
Maximum axle load	3500 kg
Maximum motor power	210 kW (from 120 to 250 km/h)
Maximum force on roller	6200 N (from 0 to 120 km/h)
Power supply	from 380 to 440 V, 50 Hz
Simulated inertial mass	from 500 to 5500 kg
Operating temperature	from 5 to 40 °C
Operating temperature (air-conditioned version)	from -35 to +60 °C
Total mass	6800 kg

CONTROL SYSTEM

Expert engineering, flexible deployment.

Control System is a leading producer of Testing Facility solutions for the Automotive sector providing all-round service and extensive specialization across the vehicle testing spectrum: Engine Testing Cells, Components Testing Rigs, Powertrain & Gearbox Testing Solutions. Control System also develops in-house complete dedicated management Software that is a key feature of the entire test process alongside the other elements in the Testing chain.

The high-level technical and entrepreneurial capacity acquired in over 20 years experience in the Automotive sector enables Control System to deliver cutting-edge solutions comprising latest-generation technology as well as sophisticated Hardware and Software systems. Proven expertise in the sector has enabled the Company to collaborate with top automakers both in Italy and worldwide with consistently excellent results.

Control System's real strength is its highly flexible ability to design and produce solutions tailored to customer specifications or developed in conjunction with customers themselves – a versatility that has become a fundamental market plus in the development of each project.



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