



GIANT 5200

Brake Dynamometer for Brake Emissions Testing

The GIANT 5200 brake dynamometer for brake emissions measurements offers a robust, fully automatic and highly accurate measuring environment for brake dust test procedures of passenger car brakes. The concept is based on our proven GIANT 6x00 Series, focusing on the features that are required for brake emissions measurement according to GTR24. As a member of Europe's Particulate Measurement Program (PMP) working groups, HORIBA has helped develop the framework for test procedures outlined in Euro 7/ GTR24.

Combined with our expertise in emissions measurement, HORIBA provides a comprehensive and fully automated solution for brake emissions measurement.

HORIBA provides advanced mobility leadership and comprehensive engineering and measurement expertise to support the gradual shift from traditional propulsion, to fully electrified solutions.

[horiba.com](https://www.horiba.com)

THE HORIBA GLOBAL NETWORK

ASIA

HORIBA Ltd.
2 Miyanohigashi
Kisshoin Minami-ku
Kyoto, Japan
info@horiba.co.jp

EUROPE

HORIBA Europe GmbH
Hans-Mess-Straße 6
61440 Oberursel
Germany
info.he@horiba.com

THE AMERICAS

HORIBA Instruments Inc.
5900 Hines Drive
Ann Arbor, MI 48108
USA
sales-ats.us@horiba.com



Tailor-made for Brake Dust Measurement

To measure brake dust particles effectively, modifications to the supply and exhaust air ducts on the dynamometer are necessary to optimize flow behavior and minimize particle losses. For isokinetic sampling during particle number (PN) and particulate matter mass (PM) measurements, a stainless-steel nozzle is attached to the sampling probes at the sampling site. A HEPA H13 filter and an activated carbon filter are installed in the supply air duct of the dynamometer to ensure reliable and repeatable measurements. This entire setup complies with GTR 24 standards.

HORIBA employs the SPCS-ONE-MT-10 for measuring solid and total PN, and the OBS-ONE/PM for PM_{2.5} and PM₁₀ measurements. These products leverage our extensive expertise in exhaust emissions measurement.

TECHNICAL SPECIFICATIONS

POWER	[kW]	180
SPEED RANGE	[rpm]	± 0 – 2 400
MAX. DRAG BRAKE TORQUE	[N·m]	2 150
STOP BRAKE TORQUE RANGE	[N·m]	± 0 – 3 000
ELECTRICAL INERTIA SIMULATION RANGE	[kg·m ²]	5 - 180
MAX. HYDRAULIC PRESSURE	[bar]	200
MECHANICAL INERTIA	[kg·m ²]	20

FEATURES

- Small footprint (approx. 2m x 1.8m x 5m)
- Brake enclosure designed for horizontal air ducting system for GTR compliance and in line with OICA recommendation
- Quick mounting and dismounting of test specimen in working height
- Test brake adaptations are designed with the customer for a perfect fit
- Designed for WLTP brake testing
- Fully automated with STARS Brake providing a GTR 24 compliant test report