

VULCAN COMPACT 4X4



EMISSIONS



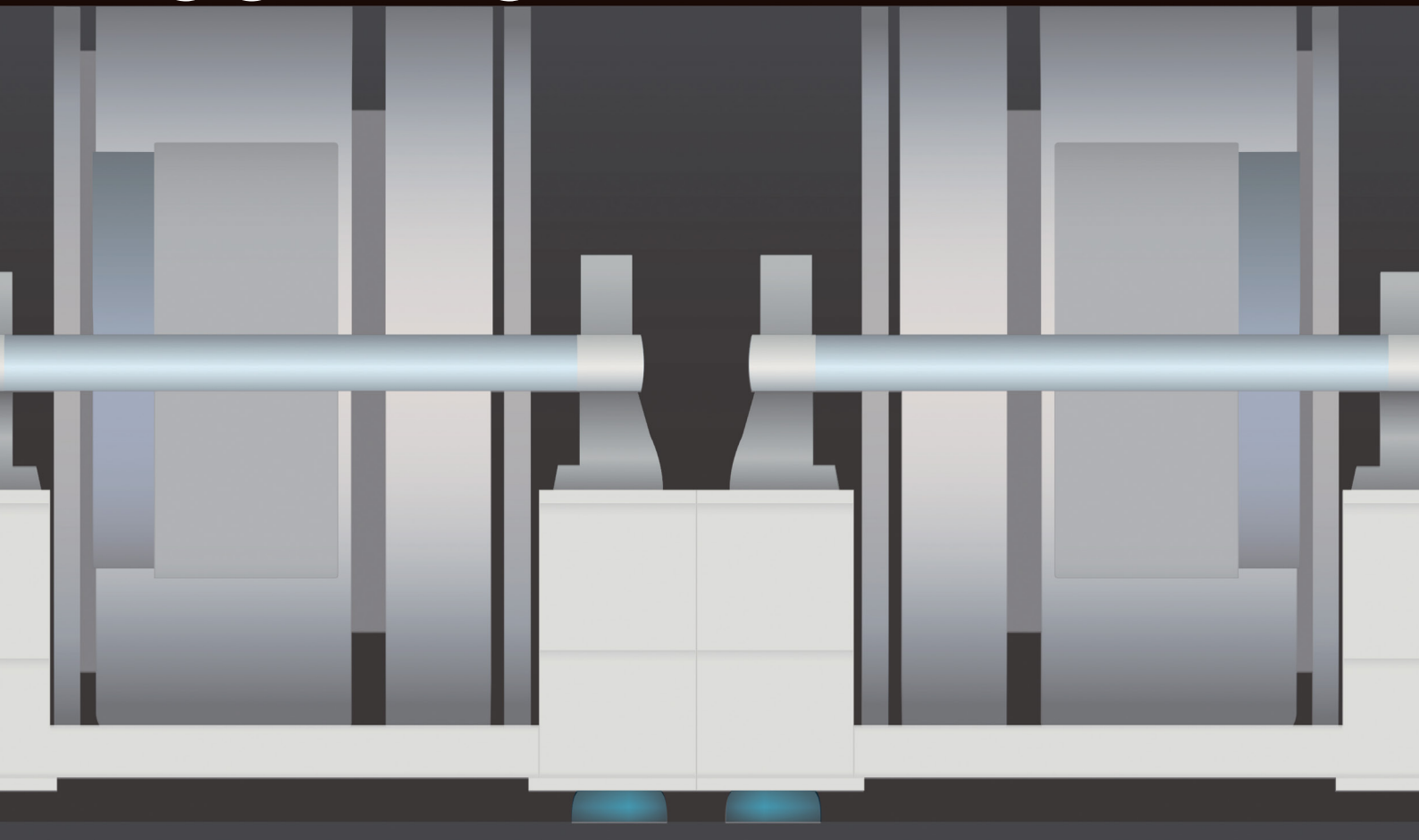
ELECTRIFICATION



CAV



DATA



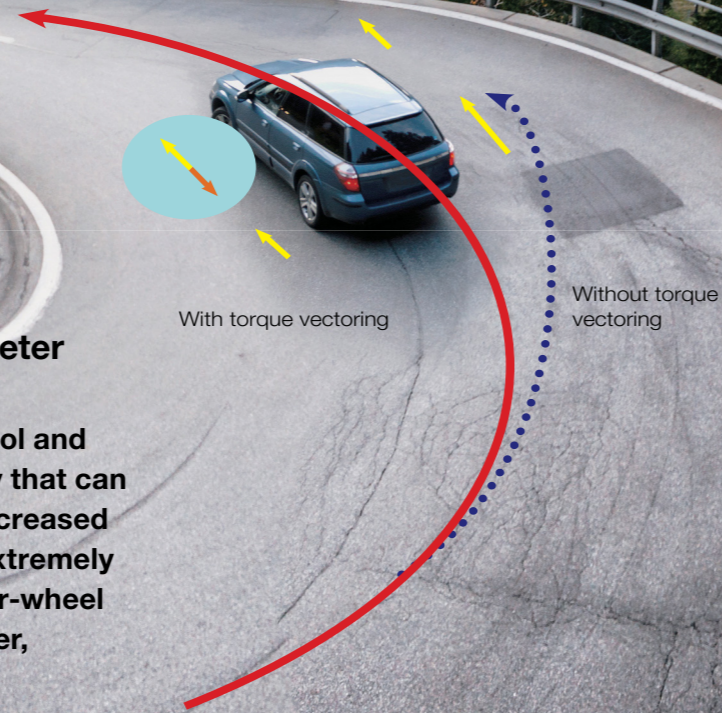
Multi-Purpose Chassis Dynamometers

HORIBA provides test facilities for electric vehicles based on existing vehicle evaluation infrastructure and a variety of solutions to improve efficiency.

VULCAN Compact 4x4 Series for Electric Vehicle Testing

Four-wheel independent chassis dynamometer

The development of four-wheel independent control and regenerative control requires an evaluation facility that can control each tire independently. In addition, the increased vehicle weight requires high-power control with extremely low speed. HORIBA has added a new lineup of four-wheel independent chassis dynamometers for high-power, high-speed, and ultra-low-speed control.



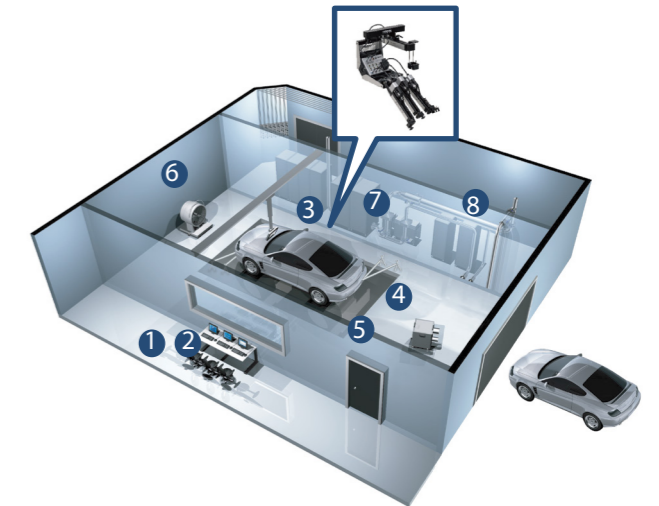
FEATURES

- Differential rotation and differential torque control for front/rear/left and right/right, and adaptable to torque vectoring without steering wheel turning
- Torque of each axle can be measured separately
- Small amount of inertia per axle and fast acceleration
- For checking the difference between tires for braking, checking the difference in friction of each tire

Total Electric Vehicle Evaluation Facilities for Improved Efficiency

System Configuration Example

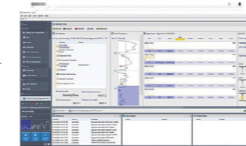
- 1 Integrated Data Management - STARS Enterprise
- 2 Automated Testing Software - STARS Series
- 3 Automatic Driving System - ADS EVO
- 4 Vehicle fixtures
- 5 Compact four-wheel independent chassis dynamometer
- 6 Vehicle speed fan
- 7 Charging and Discharging Systems
- 8 Emission Measurement System for HEV/PHEV



1 Integrated Data Management
STARS Enterprise
Data management streamlines test operations and equipment management



2 Automated Testing Software
STARS series
Automation software is built to meet your testing requirements



3 Automatic Driving System
ADS EVO
Automated vehicle operation in place of humans, for long duration and harsh environment testing



4 Vehicle fixtures
Compatible with Various Fixation Methods. Simplifies complicated test preparation work



6 Vehicle speed fan
Can be prepared with ancillary equipment in addition to vehicle speed fans



8 Emission Measurement System for HEV/PHEV
We also offer exhaust gas evaluation equipment that has been trusted for many years.



Compact design allows installation in existing facilities without modification

- Installation area is equivalent to that of conventional dynamometers.
- Easy installation with no need for new construction work
- Minimized downtime due to in-house assembly and delivery

Four-wheel independent chassis dynamometers have the disadvantage of being wider than conventional non-independent chassis dynamometers due to the need to install the motor outside the rollers. HORIBA has eliminated this disadvantage and devised a way to install a four-wheel independent chassis dynamometer with short downtime and no additional work required.

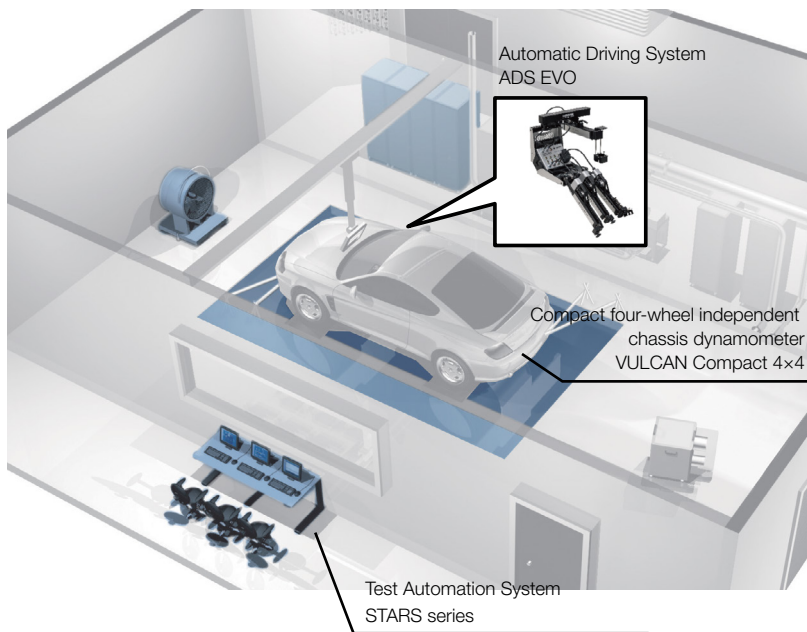
VULCAN COMPACT 4x4 SPECIFICATIONS

ELECTRIFICATION, PERFORMANCE TESTING, WIND TUNNEL BALANCES, ETC.

RATED DRIVING AND ABSORPTION POWER	kW/ shaft]	260 / 400 / 540 (300 / 470 / 650)*
RATED DRIVING/ ABSORBING FORCE	N/ shaft]	10 400 / 16 000 / 21 200 (12 000 / 18 400 / 25 600)*
MAX. SHAFT LOAD	kg	3 000
DIAMETER	in	48 / 63
MAX. SPEED	km/h	300
WHEELBASE	mm	1 800 / 2 000 - 5 200

*apply per axis

System Configuration



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

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