

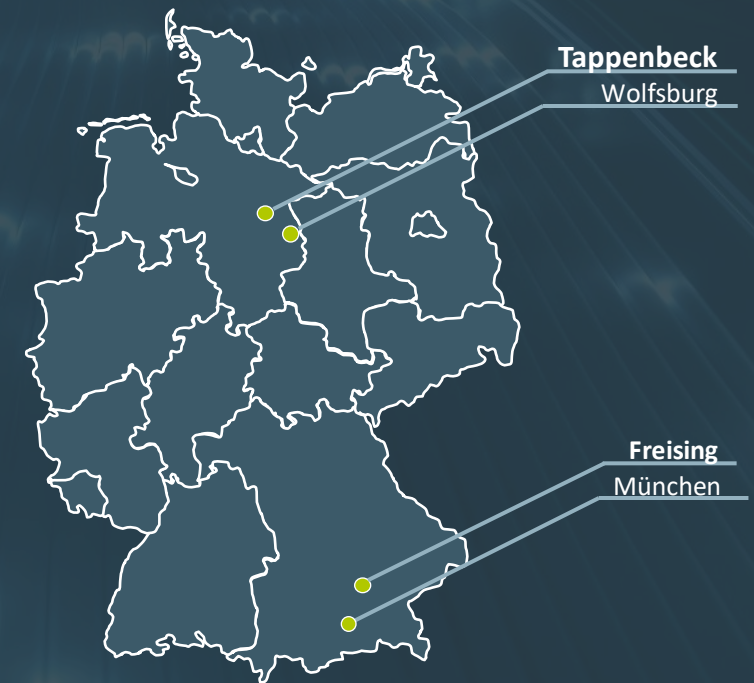
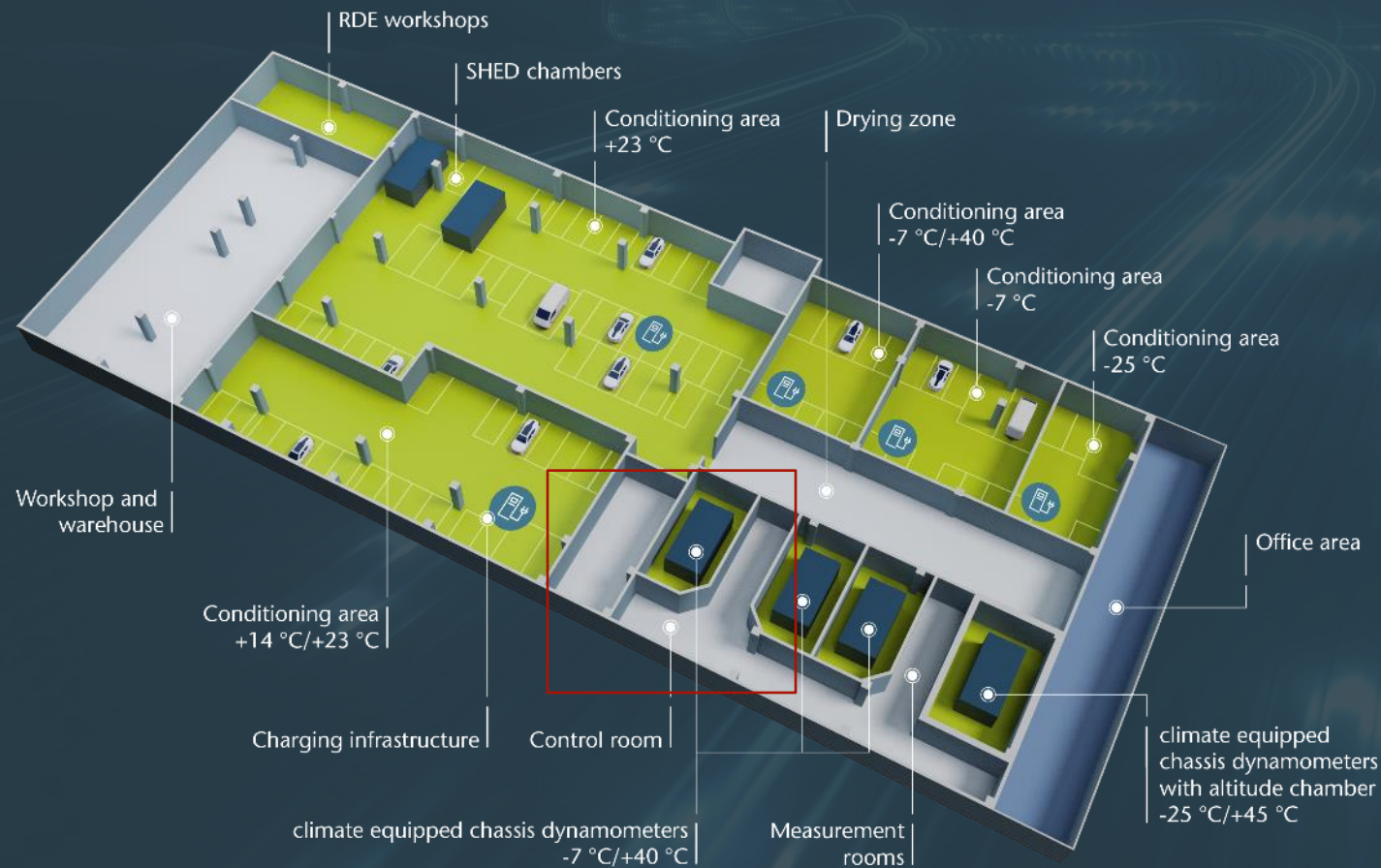
Bertrandt Powertrain Solution Center

All-wheel A/C roller dynamometers

Christian Eberle | 15.02.2022

The entire world in one place

Whether battery-electric, hybrid or internal combustion engine drive - with the **Bertrandt Powertrain Solution Center** in Wolfsburg or Munich, we offer **validation, certification and real-driving emissions tests for all drive concepts** - in accordance with legal and/or customer-specific requirements.



Technical data

All-wheel A/C chassis dynamometers



Roller performance:

360 kw



Temperature range:

From -7 °C to +40 °C



Speed:

To 250 km/h



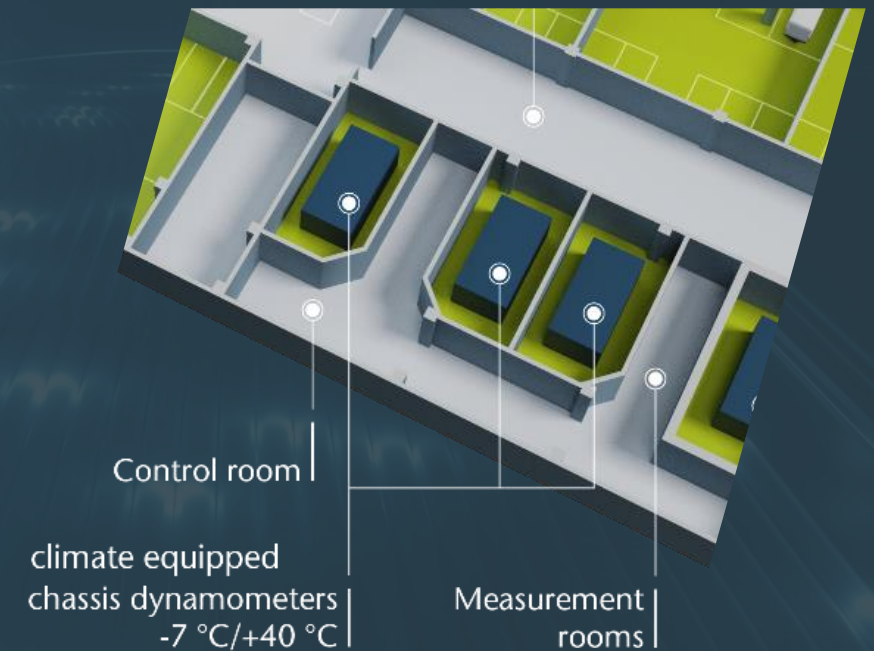
HV charging infrastructure:

22KW (400 kW*)



Emission measurement technology:

AVL Slim Line



*in progress

Technical data all-wheel A/C chassis dynamometers

Roll Performance



Manufacturer	AVL customs
Typ	AVL ROADSIM 48" MIM 4x2
Roller diameter	48" parting roll
Power	2 x 210 kW
Flywheel mass range(1 axis)	454 kg ... 4.250 kg
Flywheel mass range (2axis)	750 kg ... 7.000 kg
Flywheel masses	Electrically simulated
Max. Axle load	2.500 kg
Max. Speed	250 km/h
Axle distance	1.800 – 4.500 mm
Track width	900 mm Inner edges of tires 2.030 mm Outer edges of tires
Vehicle systems	<ul style="list-style-type: none"> - Vehicle weight max. 3,500 kg - Maximum acceleration 10 m/s² - Maximum tractive force 30,000 N

Emission Measurement



Manufacturer CVS plant	AVL Emission TestSystems, Type CVS AL LE
Measuring principle	Critical Flow Venturi (CFV) / 4 CFV
Maximum flow rate	40 nm ³ /min
Options	<ul style="list-style-type: none"> - Isolated and heated; - Tail Pipe Pressure Control - Dilution Air - Flow measurement
Manufacturer exhaust gas measuring system	AVL Emission TestSystems, Type AMA SL D1
Analyzer CO ₂ /CO/NO _x	IRD SL/IRD SL/CLD SL
Analyzer THC/CH ₄ /Tunnel THC	Twin FID SL
Special measurement technology	<ul style="list-style-type: none"> - AVL Particle Sampling System - AVL Particle Counter - AVL Filter Weighing Robot FWR 585 - Hioki 3390 current power meter - Quantum Cascade Laser for the Measurement of Nitrous Oxide (N₂O)

Technical data all-wheel A/C chassis dynamometers

Special Measurement



- AVL Particle Sampling System
- AVL Particle Counter
- AVL Filter Weighing Robot FWR 585
- Hioki 3390 current power meter
- Quantum cascade laser for the measurement of nitrous oxide (N₂O)
- Driving robot Stähle SAP 2000 for computer-controlled driving of vehicles on test benches
- 2 lines activated carbon filter loading station for the legally required conditioning of AKF

Traction blower



- Manufacturer: AVL
- Type: RDE & SC03 Blower
- Max. Air speed 0.3 m² @160 km/h

Temperature range



- From -7 °C to + 40 °C
- Adjustable test bench humidity (3/14.2 g/kg dry air (±1 g/kg)

HV- charging infrastructure



- 16 x 22 kW charging station
- 1 x 160 kW outdoor charging station
- In progress: 8 x 400 kW charging station
- Discharge and range testing for BEVs
- Adaptation of SOC HV storage of BEV vehicles
- Existing safety concept for operation of PHEV and BEV vehicles, special extinguishing equipment (fire blanket) and fire extinguishers with additives

You can find more information on our website

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→ <https://www.bertrandt.com/bpsc/>

- technical specifications
- all solutions and services
- background information

