

**HORIBA**  
Automotive Test Systems

ALTITUDE SIMULATION  
**MEDAS**



# MEDAS

## Altitude Simulation

The MEDAS system is a compact altitude simulator that reproduces a wide range of environmental conditions. It allows for testing light- to heavy-duty vehicles, including Non-Road Mobile Machinery (NRMM). It is ideally suited for a range of testing applications, such as durability, RDE replication, emission tests and mapping. MEDAS can be used for tests from component to vehicle level. The patented technology inside the MEDAS allows dynamic changes on the simulated atmosphere with high accuracy. Additionally, the system can be moved between different test cells due to its compact design.



### FEATURES

- » Suitable for different test cell configurations (e. g. engine, vehicle, powertrain)
- » Full integration with test cell control through CAN
- » Two MEDAS systems can be coupled in parallel to multiply the mass flow
- » No limit on minimum engine flow rate
- » Additional options available, e. g. noise insulation

# KEY BENEFITS

## From the Road to the Laboratory

The MEDAS system increases flexibility by offering a modular design, which can be adjusted for a wide range of different test environments and possible applications. It allows any worldwide atmospheric condition to be reproduced inside the test cell. For a complete real driving correlation (such as emissions correlation), an integration with other testing equipment is possible.



### FLEXIBLE

- » Flexible concept with extended temperature and humidity modules
- » Can be moved between different test cells
- » Suitable for a range of applications



### DYNAMIC

- » Can simulate changing ambient pressure, temperature and humidity
- » Very fast response time for replication of real driving tests



### EFFICIENT

- » Precise and repeatable, even during high engine dynamics
- » Patented design and internal algorithms reduce power requirements

## SPECIFICATIONS

| System               | Mass flow [kg/h] | Pressure                         |                                  | Temperature [°C]      | Humidity [%]          | Δp area [m] |
|----------------------|------------------|----------------------------------|----------------------------------|-----------------------|-----------------------|-------------|
|                      |                  | Vacuum                           | Overpressure                     |                       |                       |             |
| MEDAS-5012 V         | 1 200            | <input checked="" type="radio"/> | <input type="radio"/>            | Limited               | <input type="radio"/> | 700         |
| MEDAS-5012 V0        | 1 200            | <input checked="" type="radio"/> | <input checked="" type="radio"/> | Limited               | <input type="radio"/> | 700         |
| MEDAS-5015 V         | 1 500            | <input checked="" type="radio"/> | <input type="radio"/>            | Limited               | <input type="radio"/> | 350         |
| MEDAS-5015 V0        | 1 500            | <input checked="" type="radio"/> | <input checked="" type="radio"/> | Limited               | <input type="radio"/> | 350         |
| MEDAS-5050 V (HD)    | 5 000            | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> | <input type="radio"/> | 350         |
| MEDAS + MTM ST       | 900/1200/1500    | <input checked="" type="radio"/> | <input checked="" type="radio"/> | -45 to 50             | Limited               | None        |
| MEDAS + MTM HU + MHM | 900/1200/1500    | <input checked="" type="radio"/> | <input checked="" type="radio"/> | -45 to 50             | 5 to 95               | None        |

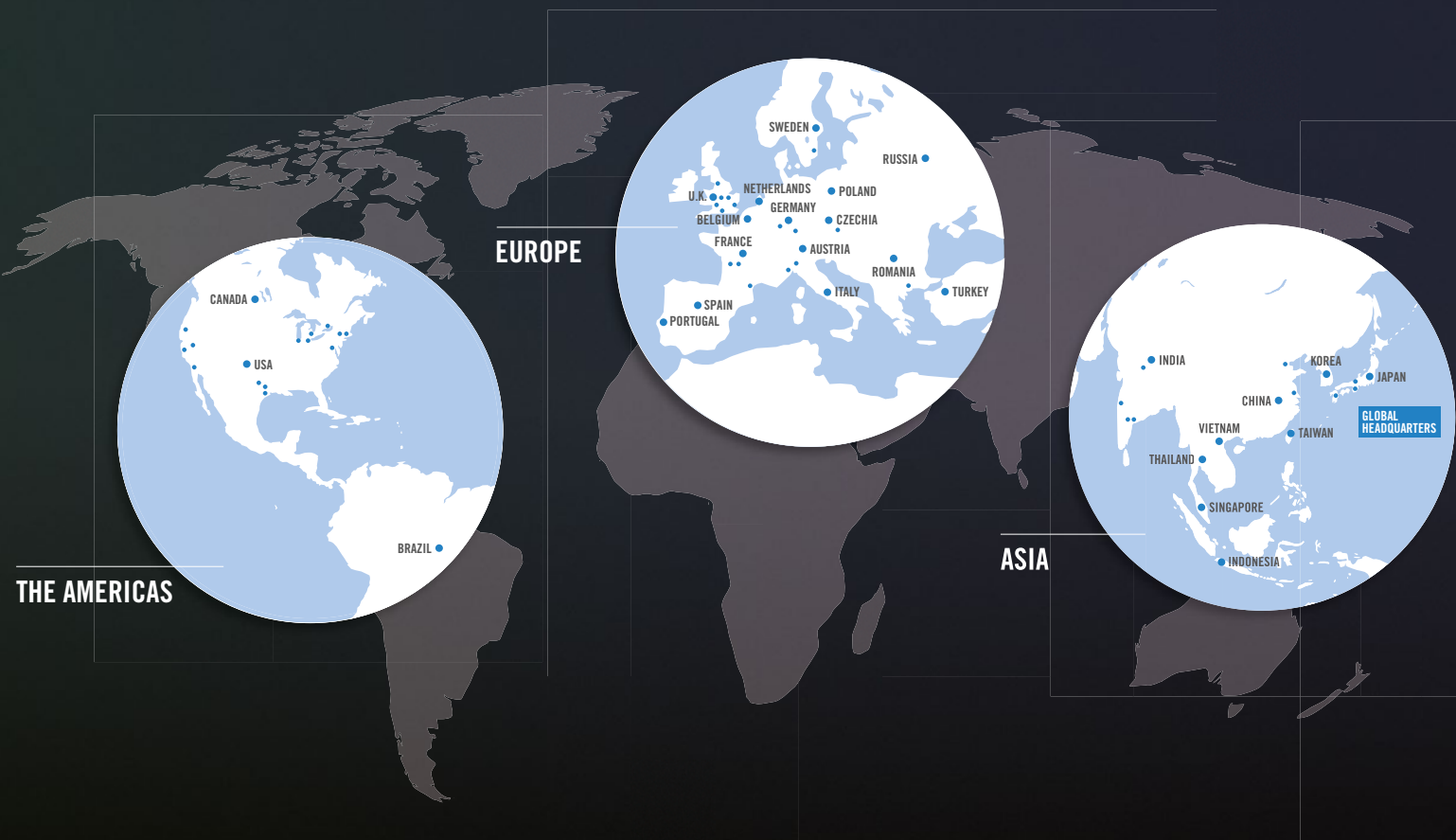
System available in sizes from 2 050 x 1 150 x 1 645 to 3 254 x 1 265 x 1 955 mm (L x W x H), excluding temperature and humidity modules.

# THE HORIBA GLOBAL NETWORK

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