

Key Features

(updated 29/10/2010)

1. Adjustable cross section (width x height)
 - o Maxi 4.50 x 4.00 metres (for industrial vehicle)
 - o Mini 3.50 x 2.50 metres (for passenger vehicle)

Tunnel entrance dimension: 3.50 x 3.75 metres

2. Max air speed.
3 meter diameter and 450 kW fan
 - o With 7.20 m² nozzle (I.V.) 2.40 x 3.00 metres = 100 km/h
 - o With 3.50 m² nozzle (P.V.) 2.00 x 1.75 metres = 170 km/h
 - o With 2.29 m² nozzle (P.V.) 1.50 x 1.52 metres = 230 km/h

3. Climatic data (depending of test conditions)
 - o Temperature : - 35 °C to + 55 °C
 - o Solar simulation : 0 à 1200 W/m² (512 x 250W IR bulbs)
 - o Relative humidity : 10 to 98 % from -25 to +55 °C

Slope down speed from +20 °C to -18 °C, with an air speed of 40 km/h, engine stopped : 1h00

Slope up speed from -18 °C to +45 °C, with an air speed of 90 km/h : 1h30.

4. Chassis Dynamometer suitable for front, rear and four wheel drive vehicles
 - o Roll diameter : 1.60 meter
 - o Lane width min / max : 0.80 / 2.55 meters
 - o Wheelbase min / max : 2.035 / 7.000 meters
 - o Max load per axle / total : 6500 / 18000 kg
 - o Inertia range (4x2) : 500 - 6000 kg
 - o Inertia range (4x4) : 1000 - 12000 kg
 - o Max speed : 250 km/h
 - o Max power : 250 kW from 75 to 250 km/h (on 1 or 2 axes)
 - o Max tractive force : 12000 N from 0 to 75 km/h

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5. Measurement means

- The data acquisition system
 - Modular, embeddable in vehicle
 - Up to 300 temperature and tension channels
 - Able to pick up data from CAN high / low speed and OBD
- Physical data measurable
 - Temperature (coolant, air, oil, A/C refrigerant)
TC K or PT100
 - Liquids flow rate (range 500, 1000, 3000, 12000 l/h).
 - No corrosive fluids pressure (range 2.5, 6, 30 bars)
 - Revolution speed (engine, fan, etc...)
 - Electrical data (voltage, current...)

The real time data supervision is available on charts and tables support for each measured parameter.
Each channel alarm or warning is also available.

6. Airflow test bench

- Fluid : ethylene-glycol mixture at 50% in volume
- Capacity : 800 litres
- Max. temperature of use : 110 °C
- Max. flow rate : 9 000 L/H
- Total power : (195 KW)

