

Up to 20 T



Description

The **FRU 4 Heavy Vehicle Brake Tester** is designed to check the brake condition of vehicles **with a maximum axle load of up to 20 T per axle**.

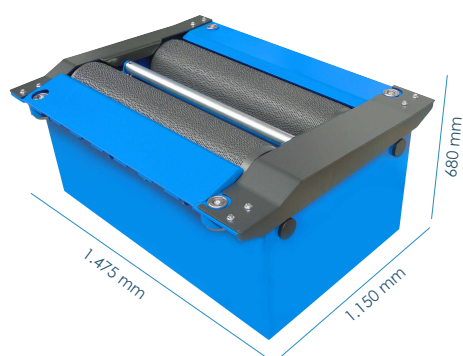
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**.

The most significant information obtained is:

- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement op*
- ✓ Pedal effort op*
- ✓ Braking performance

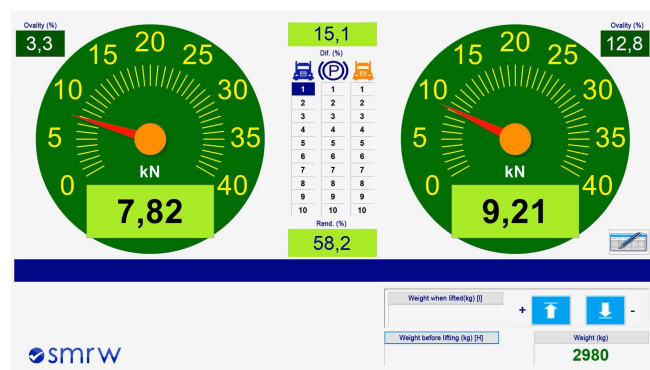
Technical data and Dimensions

Max load	20 T
Engine power (independent)	2 x 11 kW
Test speed	2,75 km/h
Max/min track width	3.100 / 850 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 63 A
Thermal protector	2 x 18 - 25 A
Roller Diameter / Length	282 / 1.135 (usable 1.135) mm
Distance between center	485 mm
Rear roller lift	50 mm
Dimensions and weight (per frame)	1.475 x 1.150 x 680 mm 1.150 kg
Adhesion coefficient	0,9 dry 0,7 wet
Measurement scale	0 - 8 kN / 0 - 40 kN
Step / measurement error	0,01 kN / 1 %
Consumption	22 / 25 kW



*Galvanized finish available















Software

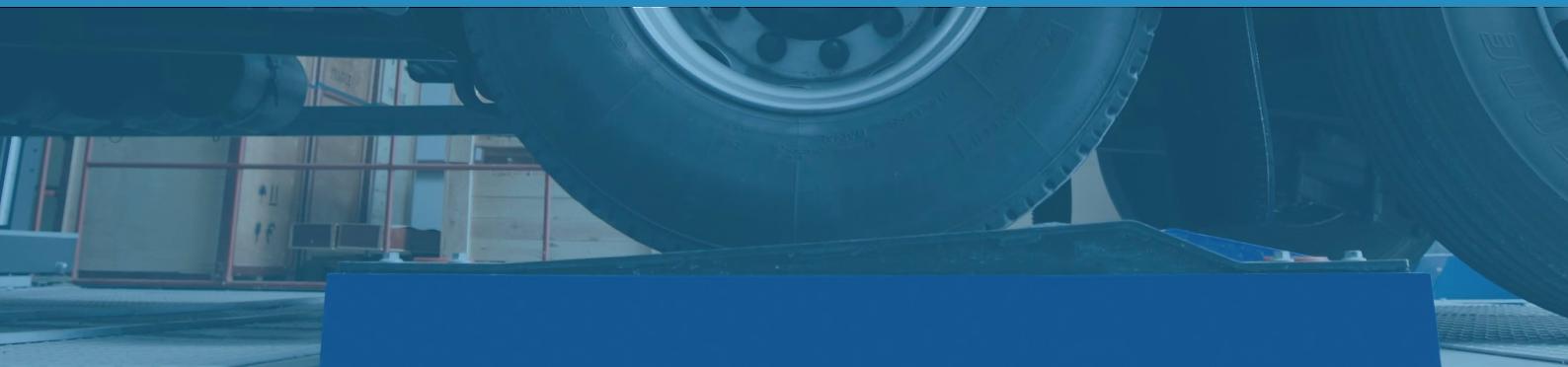


Optional Equipment

- ✓ Brake Tester
- ✓ Electronic control console + wireless controller
- ✓ Analog display console
- ✓ Electronic control and SMRW software
- ✓ Motor soft starter
- ✓ Self-locking rollers for easy exit

Optional Equipment

Ref.	Optional Equipment	
 ALU-02-00000	Side Slip Tester Integration kit	
 COM-04-12003	Voltage stabilizer	
 FRS-BAS	Axle weighing scale (8 load cells)	
GEN-230	230 V Power supply Three-phase	
GEN-60	60 Hz Power supply	
 ACU-05-99201	Hydraulic Group Cabinet	
 ACU-05-00001	Standard lifting system	
 ACU-11-RY450	Tensile load simulation	
 ACU-05-00001	Foot pedal dynamometer + receiver	
 ACL-03-00000	4x4 freewheels	
 COM-05-01001	Wireless pressure transducer 1 - 4 pcs.	
 COM-05-01002	USB receiver compatible with 15 devices	
 ACU-10-00000	Sensor base/charger with alert	
 ACU-12-00000	Roller covers	
 CAL-04-00000	Calibration weight 10 kg	
CAL-01-00000	Calibration weight 30 kg	
 CAL-03-00000	Heavy vehicles calibration lever	



Lifting

The ISO 21.069 standard on Vehicle Technical Inspection distinguishes **two types of tests for braking tests on heavy vehicles on roller brake testers**: with full vehicle load or with partial load using the extrapolation method.

The Ryme Worldwide lifting system allows to implement the **full load simulation** system to make a **direct maximum brake reading**, or a **partial simulation** with or without lifting of the frames to be able to apply this **extrapolation method**.

This system allows to perform during the brake test:

- ✔ Apply to the braking system by extrapolation
- ✔ Weight measurement with the scale system
- ✔ Measurement of the pneumatic circuit of the brake system by means of pressure sensors



The heavy brake tester is lifted by **hydraulic cylinders**. An oil-hydraulic circuit with flow dividers allows the frames to be lifted **synchronously**.



Traction

The option of load simulation by traction **has been the traditional way** to simulate weight during brake testing of heavy vehicles.

Heavy-duty **hydraulic cylinders** are clamped to the chassis or axle of the vehicle and pull the vehicle until a suitable weight reading is obtained on the brake tester scale. There we can simulate:

The total load set by the MMA for that axle or a *load sufficient to apply the extrapolation method* together with the data provided by the scale and pressure sensors.

Features

Hydraulic Group	4 CV
Cylinder stroke	310 mm
Maximum traction capacity	15 T

