





PRODUCT CATALOG

Technical Vehicle Inspection Machinery



We are Worldwide Group

 Our commitment lies in relentlessly pursuing innovation and providing state-of-the-art vehicle inspection solutions, empowering automotive professionals to consistently achieve and maintain the highest standards of safety, efficiency, and environmental responsibility in their work.

 At Ryme Worldwide, we envision becoming a global leader in vehicle inspection technology, setting global benchmarks for excellence. Our goal is to expand internationally, becoming the preferred provider of advanced inspection equipment for test centers and workshops.



Find your nearest
headquarters





ISO 9001:2015 and ISO14:001:2015 Elevating standars in every process

At Ryme Worldwide, our dedication to quality and environmental responsibility goes beyond mere compliance with ISO procedures; it is woven into the very fabric of our organizational identity.

Operating under the stringent guidelines of ISO standards – **UNE EN ISO 9001:2015** for **Quality Management Systems** and **UNE EN ISO 14001:2015** for **Environmental Management Systems** – every process involving Ryme Worldwide reflects our unwavering commitment to excellence.

Our value Proposition and Competitive advantages

Global Precision Leveraging expertise, we craft cutting-edge solutions tailored to diverse markets, understanding industry trends and regulatory landscapes.

Collaborative Innovation Global partnerships drive continuous innovation, pushing boundaries in vehicle inspection and offering clients international best practices.



Click in the logo to go to each certificate

Local Impact, Global Reach With a global presence and commitment to customization, our solutions address unique challenges in every market.

Shared Values, Shared Success Aligned with the Worldwide Group, we enhance quality, environmental responsibility, customer satisfaction, fostering mutual success.

1 High Customization

2 Quality and Reliability Standards

3 Environmental Responsibility

4 Turnkey Solutions

5 Cross-Border Partnerships

6 Concerned to Raise Awareness



Our products and solutions

Throughout its history in **vehicle inspection**, Ryme Worldwide has worked to offer improvements in its products, adapting them to the needs of markets and legislations around the world.

In addition, in order for our products to be competitive in the market, we have worked to make them leaders in **three different areas**: **mechanics**, **software** and **electronics**.

Mechanics



Epoxy paint



High quality and high adhesion



Perfect-Fit assembly



Tungsten carbide rollers



Electric brake



Robust gearmotors

Software



More productive



Software adaptation



More compatible



More intuitive



Safer



More reliable and accurate

Electronics



Best processors



More RAM and flash memory



Increase in connections



Modular System

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Side Slip Testers

Light vehicles

- ☑ Side Slip Tester for Light Vehicles **ALL**

Heavy vehicles

- ☑ Universal Side Slip Tester **ALU**





Up to 4 T



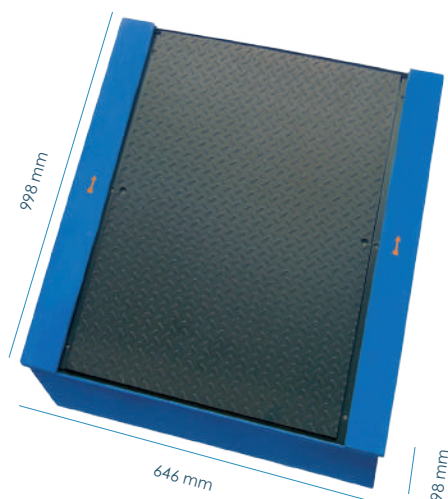
Description

The **ALL** Side Slip Tester is designed to perform a quick and efficient verification of the geometry of the steering axes of vehicles up to **4 T**.

- ✓ **Fully automatic** evaluation of deviation in **m/km**.
- ✓ **Positive (convergent) or negative (divergent)** deviation displayed on screen thanks to SMRW software.
- ✓ Memorization of up to **2 axes**.

Technical Data and Dimensions

Test speed	5 - 10 km/h
Maximum circulating weight	4 T
Scale	± 20 mm/m
Range of measurement	0.1 mm/m 0.1 m/km
Voltage	230 V - 50 Hz
3 levels of valuation	A. m/km B. Degrees and minutes C. Chart / Bar
Screen Display	Convergent Divergent Correct
Max. number of axles	2
Dimensions and weight	998 x 646 x 98 mm 128 kg
Consumption	Only in use pulses




Software




Standard Equipment

- ✓ Side Slip Tester
- ✓ Electronic control and SMRW software
- ✓ Possibility of console and integration kit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Calibration gauge set
	End-of-line console (consult)

	Plate dimensions:	998 x 460 mm
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Up to 20 T



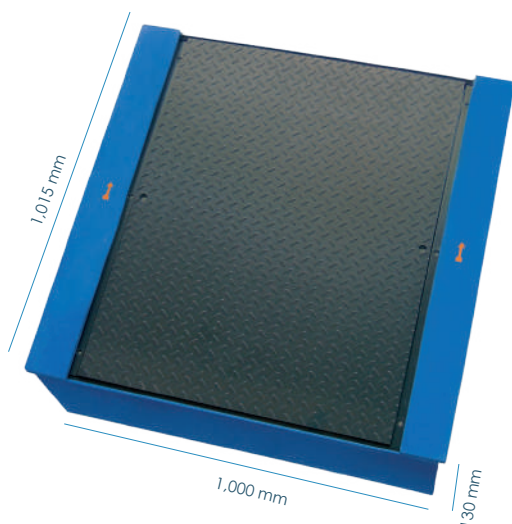
Description

The **ALU** Side Slip Tester meter is designed to perform a quick and efficient verification of the geometry of the steering axles of vehicles up to **20 T**.

- ✓ **Fully automatic** evaluation of deviation in **m/km**.
- ✓ Positive (convergent) or negative (divergent) deviation displayed on screen thanks to SMRW software.
- ✓ Memorization of up to 10 axles.

Technical Data and Dimensions

Test speed	5 - 10 km/h
Maximum circulating weight	20 T
Scale	± 20 mm/m
Measuring range	0.1 mm/m 0.1 m/km
Voltage	230 V - 50 Hz
3 levels of valuation	A. m/km B. Degrees and minutes C. Graph - Bars
On-screen display	Convergent Divergent Right
Max. number of axles	10
Dimensions and weight	1,015 x 1,000 mm 260 kg
Consumption	Only in use pulses




Software




Standard Equipment

- ✓ Side Slip Tester
- ✓ Electronic control and SMRW software
- ✓ Possibility of console and integration kit

Optional Equipment

Optional equipment	
	Voltage stabilizer
Calibration gauge set	
End-of-line console (consult)	

	Plates dimensions:	1,000 x 800 mm
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Suspension Benches

Universal

- ☑ Universal Suspension Bench **BSU**





Up to 16 T



Description

The **BSU Suspension Bench** has been designed to evaluate suspensions on vehicles up to **2.5 T per axle**, being able to withstand loads up to **16 T at passage**.

Its main task is to perform a **quick and efficient analysis of the condition of the suspension of light vehicles**. The test is performed under the EUSAMA method, measuring the wheels of each axle individually.

The test bed is equipped with **safety systems** that detect the presence of the vehicle during the test, performing the test when the measuring platforms detect a minimum weight.

The 3 kW motors subject the vehicle's suspension to an oscillation between 16 Hz and 0 Hz, simulating road conditions to obtain the degree of adherence of the vehicle to the road.

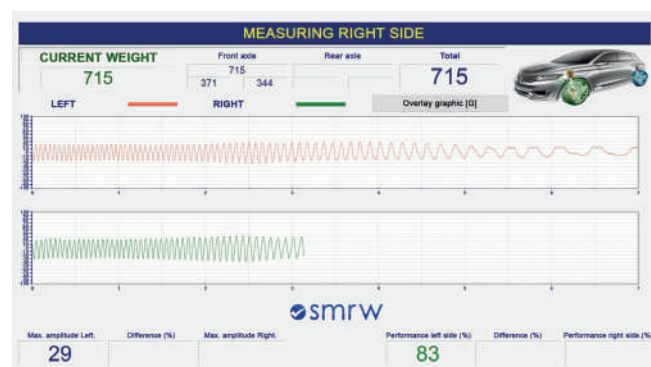
Standard Equipment

- ✓ Suspension Bench
- ✓ Electronic control and SMRW software
- ✓ Possibility of console and integration kit
- ✓ Remote controller for test control

Technical Data and Dimensiones

Maximum circulating weight	16 T
Maximum test weight	2.5 T
Motor power	2 x 3 kW
Max/min track width	2,120 / 825 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 10 A
Excitation frequency	16 Hz
3 levels of valuation	A. Amplitude B. Performance C. Graphics
Thermal Protector	1 x 5.5 - 8 A
Bench Dimensions	2,330 x 480 x 290 mm
Bench Weight	620 kg
Consumption	6 kW

Software



Optional Equipment

Optional equipment

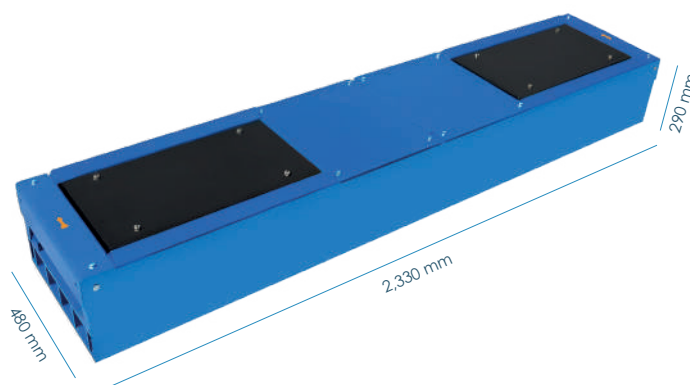


Voltage stabilizer

Power supply 230 V Three-phase

60Hz power supply

End-of-line console (consult)





Brake Testers

Light vehicles

- ✓ Brake Tester for Light Vehicles **FRL**
- ✓ Brake Tester for Light Vehicles **FRL 5.5**
- ✓ Brake Tester for Light Vehicles, ATV, Tricycles and Quadricycles **FRQ+M**
- ✓ Brake Tester for Light Vehicles, ATV, Tricycles and Quadricycles **FRQ**
- ✓ Brake Tester for Light Vehicles, ATV, Tricycles and Quadricycles **FRL 70**

Heavy vehicles

- ✓ Brake Tester for Heavy Vehicles **FRU 4**
- ✓ Brake Tester for Heavy Vehicles **FRS**
- ✓ Brake Tester for Heavy Vehicles **FRU-P**

Motorcycles

- ✓ Brake Tester for Motorcycles **FRM**
- ✓ Portable Motorcycle Brake Tester **FRM II**





Up to 4 T



Description

The **Brake Tester for Light Vehicles FRL** is designed to check the brake condition of light vehicles up to **3,500 kg**, allowing a maximum through load of up to **4 tons**.

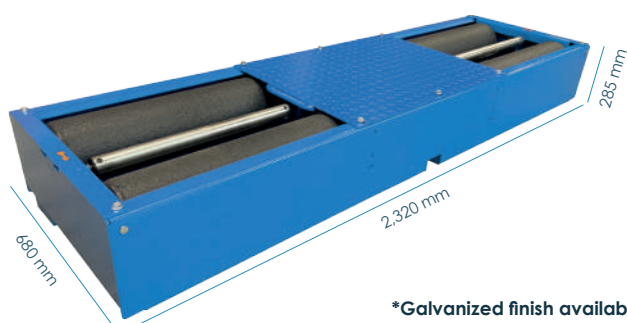
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system.

The most significant information obtained is:

- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Pedal effort (hand clamp and foot pedal) *optional**
- ✓ Braking performance

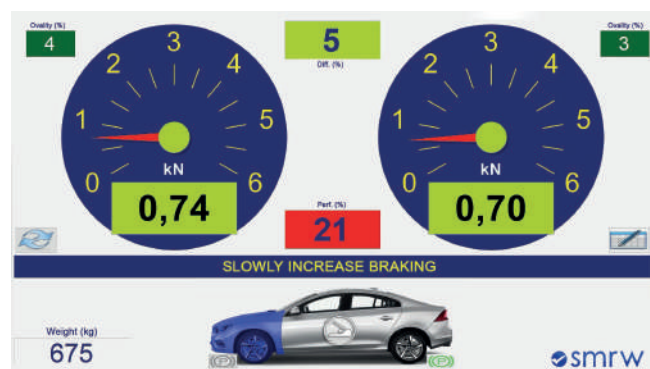
Technical Data and Dimensions

Max load	4 T
Motor power (independents)	2 x 4.8 kW
Test speed	5.4 km/h
Max / min width	2.210 / 870 mm
Voltage	400 V - 50 Hz
Fuse protector	3 x 25 A
Thermal protector	1 x 9 - 12.5 A
Roller diameter/length	208 / 685 (665 usable) mm
Distance between rollers	400 mm
Dimensions and weight	2,320 x 680 x 285 mm 400 kg
Adhesion coefficient	0.9 dry 0.7 wet
Measuring scale	6 kN
Step / measurement error	0.01 kN / 1 %
Consumption	9.2 kW



*Galvanized finish available









Software



Standard Equipment

- ✓ Brake Tester
- ✓ Cabinet, Electronic control and SMRW software
- ✓ Hardware and software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Motor soft starter
	230 V start-up sensitizer
	230 V Start-up power supply 3-phase
	60 Hz Power supply
	Axle weighing scales (4 load cells)
	Pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	4x4 free rollers
	Motorcycle software and kit
	Roller covers
	10 kg calibration weight
	30 kg calibration weight
	Calibration lever
	End-of-line console (consult)



Up to 6 T



Description

The **FRL 5.5 Brake Tester for Light Vehicles** is prepared to check the brake condition of light vehicles **allowing a maximum step load of up to 6 T**.

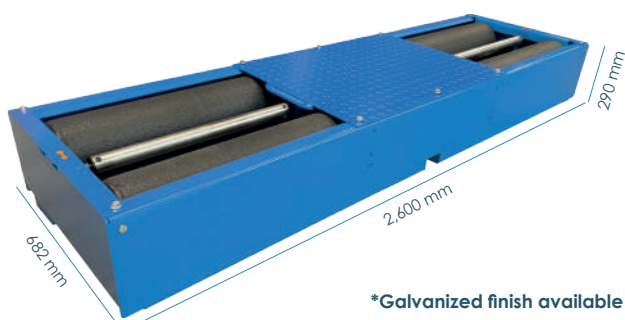
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system.

The most significant information obtained is:

- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement op*
- ✓ Pedal effort (hand clamp and foot pedal) op*
- ✓ Braking performance

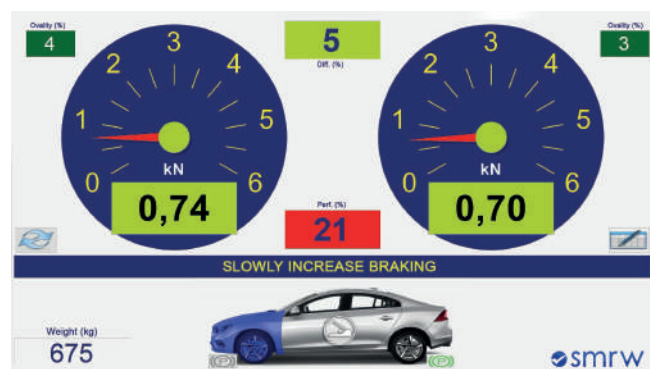
Technical Data and Dimensions

Maximum Load	6 T
Engine Power (Independent)	2 x 5.5 kW
Test speed	4 km/h
Max/min track width	2,458 / 870 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 32 A
Thermal protector	2 x 10 - 16 A
Roller diameter/length	208 / 830 (793 usable) mm
Distance between rollers	400 mm
Dimensions and weight	2,600 x 682 x 290 mm 400 kg
Adhesion coefficient	0.9 dry 0.7 wet
Measurement scale	0 - 12 kN
Step / measurement error	0.01 kN / 1%
Consumption	11 kW



*Galvanized finish available









Software



Standard Equipment

- ✓ Brake Tester
- ✓ Cabinet, Electronic control and SMRW software
- ✓ Hardware and software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Motor soft starter
	230 V Start-up sensitizer
	230 V Start-up power supply
	60 Hz Power supply
	Axle weighing scale with 4 load cells
	Foot pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	4x4 freewheels
	Software and kit for motorcycles
	Roller cover
	Calibration weight 10 kg
	Calibration weight 30 kg
	Light vehicles calibration lever
	End-of-line console (consult)



Up to 1 T



Description

The **FRQ+M for Vehicles and Motorcycle Brake Tester** is specially designed to check the brake condition of **Tri-cycles, Motorcycles and Quads**.

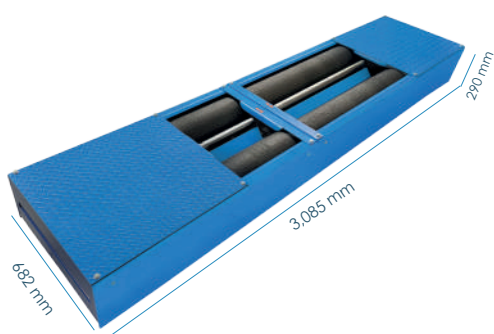
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system. **Its design is adapted for use on 1 or 2 wheel axles.**

The most significant information obtained is:

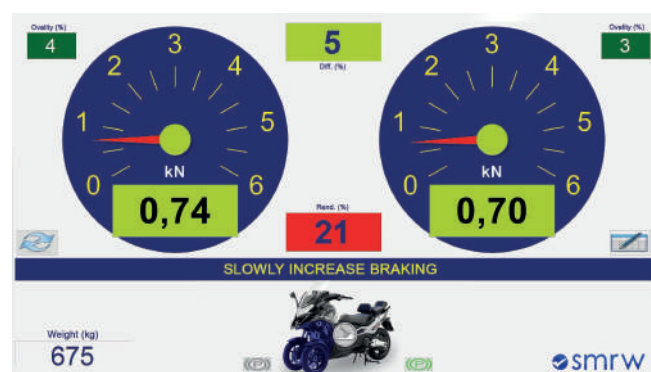
- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Measurement of ovality and weight *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

Technical Data and Dimensions

Maximum axle load	1 T
Engine power	2 x 4,8 kW
Test speed	5.4 km/h
Track max / min	1,505 / 103 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 25A
Thermal protector	1 x 9 - 12.5 A
Roller diameter	208 mm
Length rollers 1 and 2 (usable)	446 (419) / 1,000 (947) mm
Distance between rollers	400 mm
Dimensions and weight	3.085 x 682 x 290 mm 400 kg
Adhesion coefficient	0.9 dry 0.7 wet
Measuring scale	3.5 kN
Step / measurement error	0.01 kN / 1 %
Consumption	9.2 kW



Software



Standard Equipment

- ✓ Brake Tester
- ✓ Control console
- ✓ Electronic control and SMRW software
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Start-up sensitizer
	Sensitizer start 230 V
	Start-up power supply 230 V
	Power supply 60 Hz
	Axle weighing scales (8 load cells)
	Pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	Front wheel clamp
	Pneumatic clamp
	Calibration weight 10 Kg
	Calibration weight 30 Kg
	Light calibration lever
	End-of-line console (consult)



Up to 4 T



Description

The **FRQ** Brake Tester is designed to test **Passenger Cars, ATV, Tricycles and Quadricycles**, in addition to the possibility of testing **Motorcycles**. The split structure of the Ryme equipment supports **up to 4 T per axle per step**.

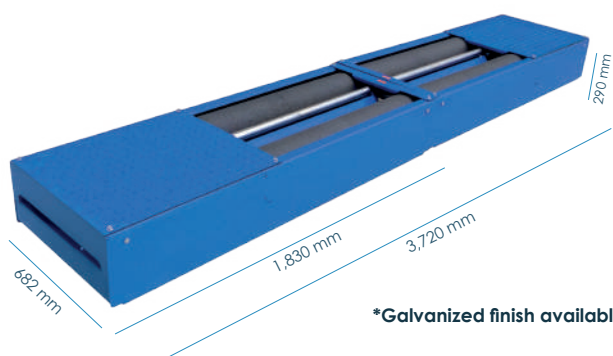
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**.

The most significant information obtained is:

- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

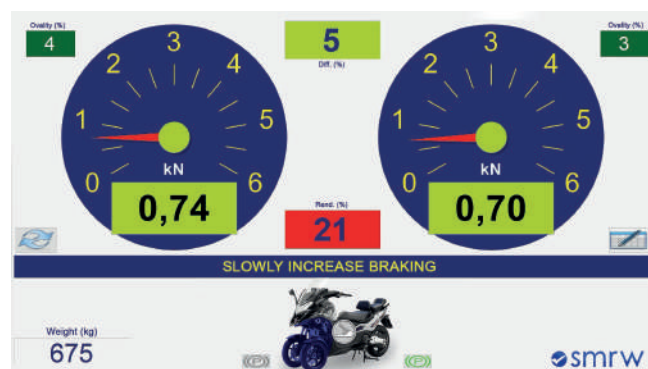
Technical Data and Dimensions

Max load	4 T
Engine Power (independent)	2 x 4.8 kW
Test speed	5.40 km/h
Max/min track width	2,143 / 163 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 25 A
Thermal protector	2 x 9 - 12.5 A
Roller diameter/length	208 / 1,000 (980 usable) mm
Distance between rollers	400 mm
Dimensions and weight (per frame)	1,830 x 682 x 290 mm 560 kg
Adhesion coefficient	0.9 wet 0.7 dry
Measurement scale	0 - 6 kN
Step / measurement error	0.01 kN / 1 %
Consumption	9.2 kW



*Galvanized finish available









Software



Standard Equipment

- ✓ Brake Tester
- ✓ Cabinet, Electronic control and SMRW software
- ✓ Hardware and software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Motor soft starter
	230 V Start-up sensitizer
	230 V Start-up power supply
	60 Hz Power supply
	Axle weighing scale with 4 load cells
	Foot pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	4x4 freewheels
	Software and kit for motorcycles
	Roller cover
	Calibration weight 10 kg
	Pesa de calibración 30 Kg
	Light vehicles calibration lever
	End-of-line console (consult)



Up to 8 T



Description

The **FRL 70** Brake Tester is designed to test **Passenger Cars, ATV, Tricycles and Quadricycles**, in addition to the possibility of testing **Motorcycles**. The split structure of the Ryme equipment supports **up to 8 T per axle per step**.

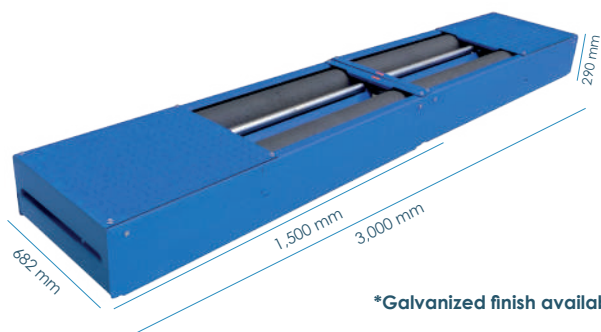
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**.

The most significant information obtained is:

- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

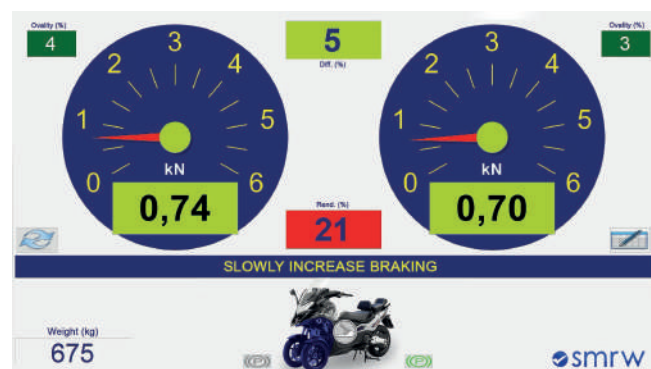
Technical Data and Dimensions

Maximum load	8 T
Engine Power (independent)	2 x 5.5 kW
Test speed	4 km/h
Max/min track width	2,320 / 947 mm
Voltage	230 / 400 V - 50 Hz
Protection fuse	3 x 25 A
Thermal protector	2 x 10 - 16 A
Roller diameter/length	202 / 700 (683 usable) mm
Distance between rollers	400 mm
Dimensions and weight (per frame)	1,500 x 682 x 290 mm 400 kg
Adhesion coefficient	0.9 dry 0.7 wet
Measurement scale	0 - 12 kN
Step / measurement error	0.01 / 1 kN
Consumption	11 kW



*Galvanized finish available









Software



Standard Equipment

- ✓ Brake Tester
- ✓ Cabinet, Electronic control and SMRW software
- ✓ Hardware and Software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Motor soft starter
	230 V Start-up sensitizer
	230 V Start-up power supply
	60 Hz Power supply
	Axle weighing scale with 4 load cells
	Foot pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	4x4 freewheels
	Software and kit for motorcycles
	Roller cover
	Calibration weight 10 kg
	Calibration weight 30 kg
	Light vehicles calibration lever
	End-of-line console (consult)



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**.

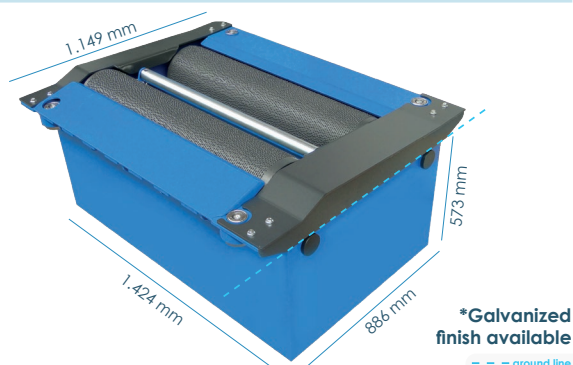
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**.

The most significant information obtained is:

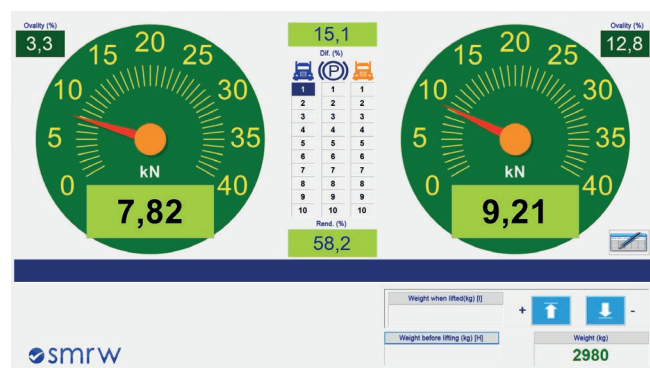
- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand caliper and tachometer *optional**
- ✓ Braking performance

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)	1,424 x 886 x 573 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

















Software



Standard Equipment

- ✓ Brake Tester
- ✓ Electronic control console + wireless controller
- ✓ Electronic control and SMRW software
- ✓ Motor soft starter
- ✓ Hardware and software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Side Slip Tester Integration kit
	Voltage stabilizer
	Axle weighing scale (8 load cells)
	230 V Power supply Three-phase
	60 Hz Power supply
	Hydraulic Group Cabinet
	Standard lifting system
	Tensile load simulation
	Foot pedal dynamometer + receiver
	4x4 freewheels
	Wireless pressure transducer 1 - 4 pcs.
	USB receiver up to 15 devices
	Sensor base/charger with alert
	Roller covers
	Calibration weight 10 kg
	Calibration weight 30 kg
	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





Up to 13 T



Description

The **FRS Heavy Vehicle Brake Tester** is designed to check the brake condition of vehicles **with a maximum axle load of up to 13 T per axle**.

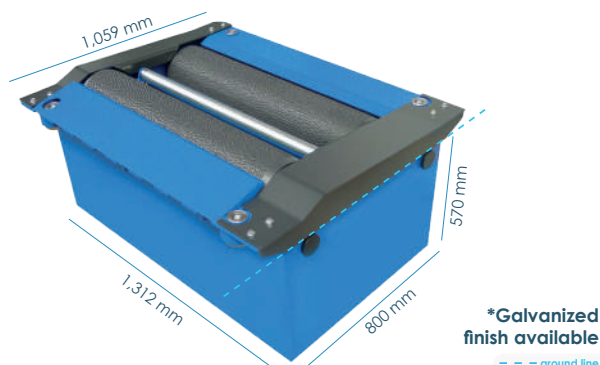
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**.

The most significant information obtained is:

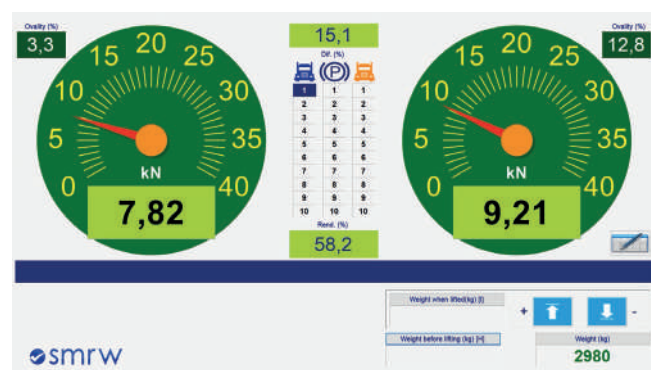
- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

Technical Data and Dimensions

Max load	13 T
Engine Power (independent)	2 x 9 kW
Test speed	3 km/h
Max/min track width	2,840 / 850 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 50 A
Thermal protector	2 x 18 - 25 A
Roller Diameter / Length	208 / 990 (990 usable) mm
Distance between center	407 mm
Rear roller lift	50 mm
Dimensions and weight (per frame)	1,312 x 800 x 570 mm 800 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	18 kW














Software



Standard Equipment

- ✓ Brake Tester
- ✓ Electronic control console + wireless controller
- ✓ Electronic control and SMRW software
- ✓ Motor soft starter
- ✓ Hardware and software for 4x4 vehicles
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Side Slip Tester Integration kit
	Voltage stabilizer
	Axle weighing scale (4 load cells)
	60 Hz Power supply
	Foot pedal dynamometer + receiver
	4x4 freewheels
	Wireless pressure transducer 1 - 4 pcs.
	USB receiver compatible with 15 devices
	Sensor base/charger with alert
	Roller cover
	Calibration weight 10 kg Calibration weight 30 kg
	Heavy vehicles calibration lever
	End-of-line console (consult)



Designed for
installation in Mobile
Inspection Units

Up to 20 T



Description

The **FRU P 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**.

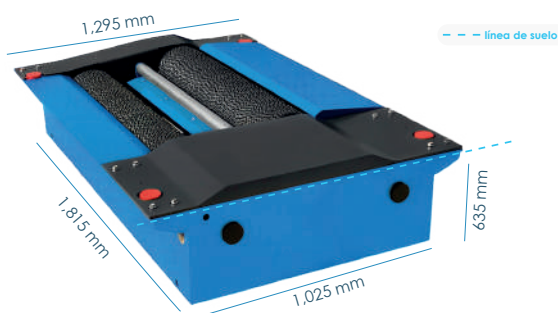
The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system **in a 2-bench structure**. The FRU P is designed to be equipped in Universal Mobile Units.

The most significant information obtained is:

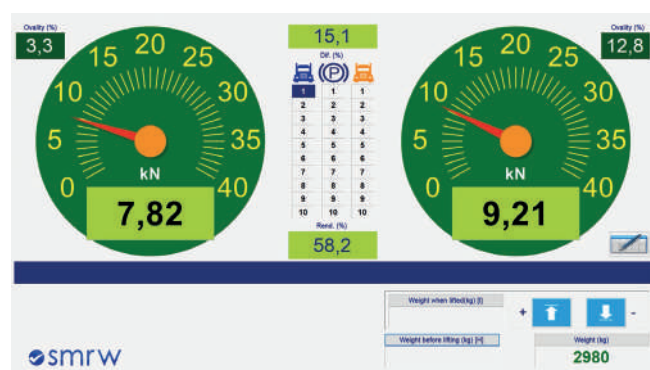
- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

Technical Data and Dimensions

Max load	20 T
Engine power (independent)	2 x 11 kW
Test speed	2.70 km/h
Max/min track width (2 possible arrangements)	2,994 / 700 mm 3,294 / 1,000 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 (1,135 usable) mm
Distance between center	485 mm
Rear roller lift	50 mm
Dimensions and weight (per frame)	1,815 x 1,025 x 415 mm 925 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














Software



Standard Equipment

- ✓ Brake Tester
- ✓ Control cabinet + wireless controller
- ✓ Electronic control and SMRW software
- ✓ Hardware and software for 4x4 vehicles
- ✓ Motor soft starter
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Side Slip Tester Integration kit
	Voltage stabilizer
	Axle weighing scale (8 load cells)
	230 V Power supply Three-phase
	60 Hz Power supply
	Hydraulic Group Cabinet
	Tensile load simulation
	Foot pedal dynamometer + receiver
	4x4 freewheels
	Wireless pressure transducer 1 - 4 pcs
	USB receiver up to 15 devices
	Sensor base/charger with alert
	Roller covers
	Calibration weight 10 kg
	Calibration weight 30 kg
	Heavy vehicles calibration lever



Up to 1 T



Description

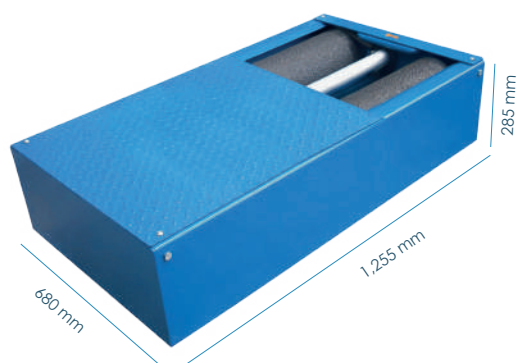
The **FRM Motorcycle Brake Tester** is designed to verify the brake condition of motorcycles, **allowing a maximum step load of up to 1 T**. The braking force is obtained from the electrical signal provided by a strain gauge to the data acquisition system.

The most significant information obtained is:

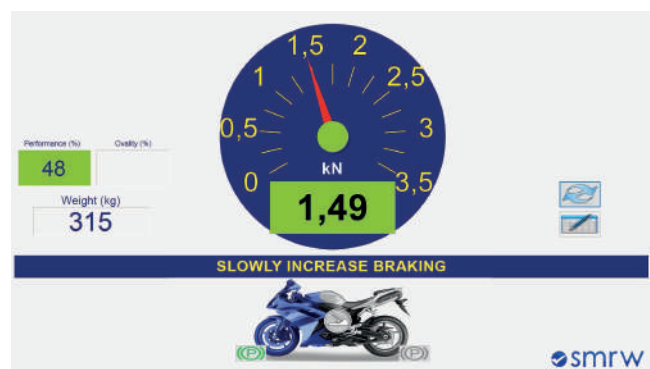
- ✓ Braking force on manual and pedal brakes
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand clamp and foot pedal *optional**
- ✓ Braking performance

Technical Data and Dimensions

Maximum load	1 T
Engine power	4.8 kW
Test speed	5.88 km/h
Maximum wheel width	400 mm
Voltage	400 V - 50 Hz
Fuse protection	3 x 16A
Thermal protector	1 x 9 - 12.5 A
Roller diameter/length	208 / 440 mm
Dimensions and weight	1,255 x 680 x 285 mm 230 kg
Adhesion coefficient	0.9 dry 0.7 wet
Max. braking forces	3.5 kN
Step / Measurement error	0.01 kN / 1 %
Consumption	4.8 kW










Software



Standard Equipment

- ✓ Brake Tester
- ✓ Control console
- ✓ Electronic control and SMRW software
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Start-up sensitizer
	230 V start-up sensitizer
	Start-up power supply 230 V
	Power supply 60 Hz
	Axle weighing scale with 4 load cells
	Hand-held dynamometer + receiver
	Front wheel clamp
	Pneumatic clamp
	Calibration weight 10 Kg Calibration weight 30 Kg
	Light vehicles calibration lever
	End-of-line console (consult)



Up to 400 Kg



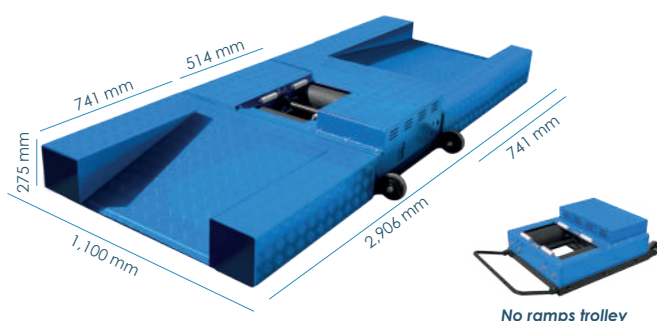
Description

The **FRM II portable Brake Tester** is suitable for **motorcycle and moped brake** system inspections

- ✓ Braking force measurement
- ✓ Rolling resistance
- ✓ Ovality and weight measurement *optional**
- ✓ Hand caliper and tachometer *optional**
- ✓ Braking performance
- * Removable modular system
- * Inc. wheel protection system and user's foot

Technical Data and Dimensions

Max load	400 kg
Electric motor Power	1.1 kW
Test speed	3.17 Km/h
Voltage	230 V - 50 Hz
Fuse protector	2 x 10 A
Thermal protector	0 - 10 A
Minimum wheel diameter	10 "
Roller diameter/length	122 / 260 (240 usable) mm
Distance between rollers	360 mm
Trolley dimensions and weight	1,100 x 614 x 275 mm 80 kg
Trolley + ramps dimensions and weight	1,100 x 2,906 x 275 mm 120 kg
Adhesion coefficient	0.9 dry 0.7 wet
Max. braking force	3 kN
Measuring step	10 N
Consumption	1.1 kW











Software



Standard Equipment

- ✓ Brake Tester
- ✓ Aluminum ramps and footrests
- ✓ Electronic control and SMRW software
- ✓ Self-locking rollers for easy exit

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Motor soft starter
	230 V start-up sensing device**
	230 V start-up power supply
	Axle weighing scales (3 load cells)
	Hand-held dynamometer + receiver
	Front wheel clamp
	Additional platform x2 units
	Pneumatic clamp
	10 kg calibration weight
	30 kg calibration weight
	Light vehicles calibration lever
	End-of-line console (consult)

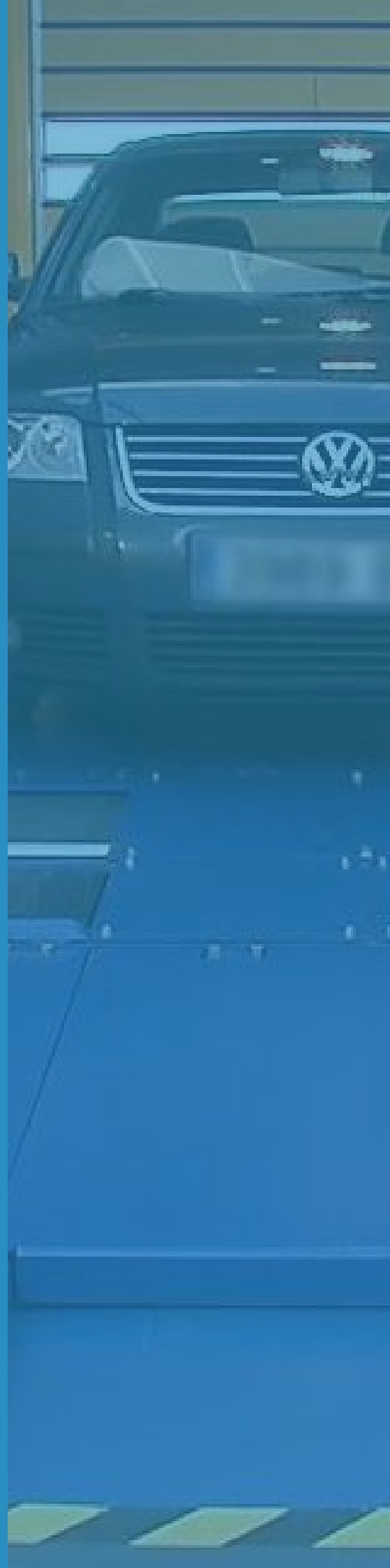
**It can also be 400 V and 220 V single-phase power supply.



Inspection Lanes

Light vehicles

- ✓ Inspection lane **MONOBLOC**
- ✓ Inspection lane **TANDEM**





Up to 4 T



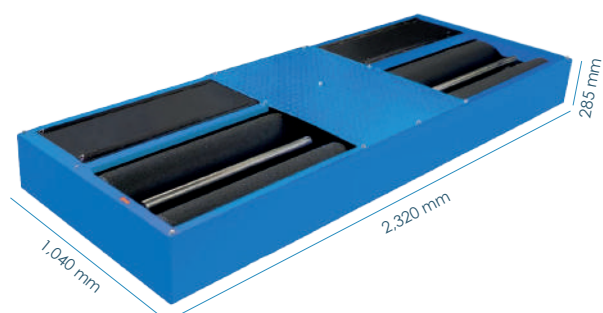
Description

The **MONOBLOC inspection lane** consists of a Light Vehicle **Brake Tester** and a **Suspension Bench** integrated in a single frame.

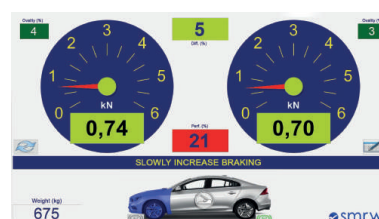
In this way, Ryme Worldwide offers a solution capable of measuring the suspension and braking of the vehicle in a single device.

Technical Data and Dimensions

Max. load per axle	4 T
Max/min track width	2,205 / 840 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 25 A
Thermal protector	2 x 9 - 12.5 A
Dimensions and weight	2,320 x 1,040 x 285 mm 650 Kg
Consumption	9.2 kW
Suspension Bench	
Engine power	1 x 3 kW
Excitation frequency	16 Hz
3 levels of valuation	A. Amplitude B. Performance C. Graphics
Brake Tester	
Engines power	2 x 4.8 kW
Diameter / Length rollers	205 / 684 (670 usable) mm
Distance between centres	400 mm
Adhesion coefficient	0.9 dry 0.7 wet
Measuring scale	0 - 6 kN
Step / measurement error	0.01 kn / 1 %



SUSPENSION
BENCH SOFTWARE



LIGHT VEHICLES
BRAKETESTER SOFTWARE

Standard Equipment

- ✓ Brake Tester + Suspension Bench
- ✓ Self-locking rollers for easy exit
- ✓ Electronic control and SMRW software

Optional Equipment

Optional equipment	
	Voltage stabilizer
Start-up sensitizer	
Sensitizer start-up 230 V	
230 V Power Supply	
60 Hz Power supply	
	Pedal dynamometer + receiver
	Hand-held dynamometer + receiver
	Self-supporting 4x4 free rollers
Motorcycles software and kit	
	Roller covers
10 kg calibration weight	
30 kg calibration weight	
Light calibration lever	
End-of-line console (consult)	



Up to 3.5 T

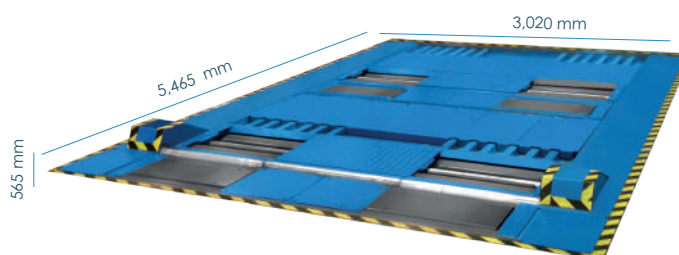


Description









The **inspection lane TANDEM**, is composed of a side slip tester (integrated in a separated frame) and two pairs of benches for the suspension and brake test, one fixed and the other mobile, which is adjusted to the vehicle before starting the test. **The positioning is very precise due to a transducer that constantly sends the position of the mobile bench to the machine's electronic control and management system.**



With this revolutionary inspection lane and with proper vehicle flow management, it is possible to reduce the time of the test by more than 50%, and consequently increase the productivity of the inspection lane by more than 100%.



Optional Equipment

Optional equipment	
	Voltage stabilizer
	Delayed static retarder
	Delayed static retarder 230 V
	230 V Threephasic Power supply
	60 Hz Power supply
	Pedal dynamometer + receptor
	Hand dynamometer + receptor
	4x4 free rollers
	Software and kit to perform the test on motor-bikes
	Rollers cover platform
	Calibration weight 10 kg
	Calibration weight 30 kg
	Calibration lever for light vehicles
	End-of-lane console (consult)

Standard Equipment

- ✓ 2 sets of suspension benches
- ✓ 2 sets of brake tester benches
- ✓ Self-locking rollers for easy exit
- ✓ Electronic control and SMRW software
- * Standard side slip tester on a separated frame

Technical Data and Dimensions

Max load per axle	3.5 T
Track width min / max	880 - 2,175 mm
Voltage	400 V - 50 Hz
Protection fuse	3 x 50 A
Thermal protector	4 x 9 - 12.5 A
Wheelbase min / max	2,300 - 3,300 mm
Dimensions and weight	3,100 x 5,530 x 565 mm 4 T
Consumption	18.4 kW
Suspension Bench	
Engine power	2 engines of 3 kW on each frame
Excitation frequency	16 Hz
Three valuation levels	A. Amplitude B. Efficiency C. Graphic
Brake Tester	
Rollers diameter	Front: 155 mm Rear: 208 mm
Rollers length / usable	684 (647) mm
Distance between centers	400 mm
Test speed	3.5 km/h
Engines	4.8 kW
Friction coefficient	0.9 dry - 0.7 wet
Measurement range	0 - 6 kN
Range of measurement	0.01 kN
Measurement error	1 %
Side Slip Tester (integrated in a separated frame)	
Step speed	5 - 10 km/h
Measurement range	0.1 mm/m - 0.1 m/km
Range of measurement	-20 to +20 mm/m

Three valuation levels

a) m/km
b) Degrees and minutes
c) Graphic/bar



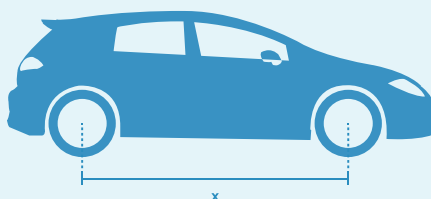
Automatic adaptation to the vehicle wheelbase

The **inspection lane TANDEM**, automatically adjusts the distance between benches (fixed and mobile) according to the **vehicle information entered by the inspector**. These distances are specific for each model, and a transducer continuously monitors the position between benches, sending data from the electronic part to the machinery.

Initial lane position

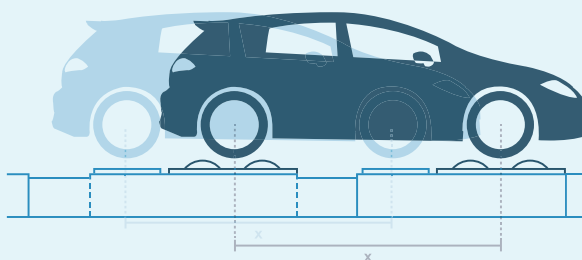


Receives the information of the vehicle wheelbase



x = vehicle wheelbase

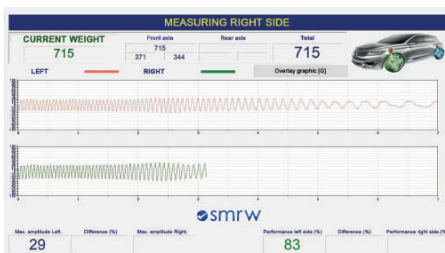
Final lane position adjusted to the vehicle wheelbase



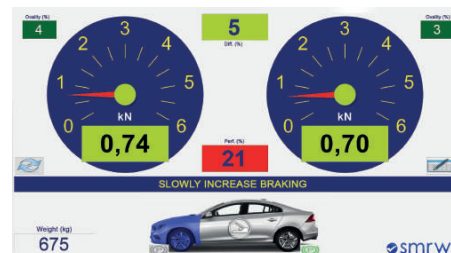
After the test of the **Side Slip Tester (1)**, the vehicle enters the TANDEM lane for the test on the double **Suspension Bench (2)**, where the suspension efficiency is measured and both axles are weighed. Finally, the **Brake Tester test (3)** is performed, recording the ovality and braking values, with a retaining roller that secures the rear tires more safely and safely.



SIDE SLIP TESTER SOFTWARE



SUSPENSION BENCH SOFTWARE



BRAKE TESTER SOFTWARE



Play Detectors

Light vehicles

- ✓ Axle Play Detector **DHL CLASSIC**
- ✓ Axle Play Detector **DHL TOTAL**
- ✓ Axle Play Detector **DHL TOTAL-4**
- ✓ Axle Play Detector **DHLJ5N**
- ✓ Axle Play Detector **DHLJ5N-4**
- ✓ Lift with axle Play Detector plates **DHE (4 plates)**
- ✓ Lift with axle Play Detector plates **DHE (2 plates)**

Heavy vehicles

- ✓ Axle Play Detector **DHU CLASSIC**
- ✓ Axle Play Detector **DHU TOTAL**
- ✓ Axle Play Detector for **DHU TOTAL-4**

Agricultural vehicles

- ✓ Axle Play Detector **DHA**







Axle Play Detector for Light Vehicles DHL CLASSIC



Description

The **DHL CLASSIC electro-hydraulic** play detector is used to check the condition of the axles of **light vehicles with a gross vehicle weight of 3,500 kg**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their transverse movements by switches mounted on the hand lamp.

DHL CLASSIC plate movements:  

Technical Data and Dimensions

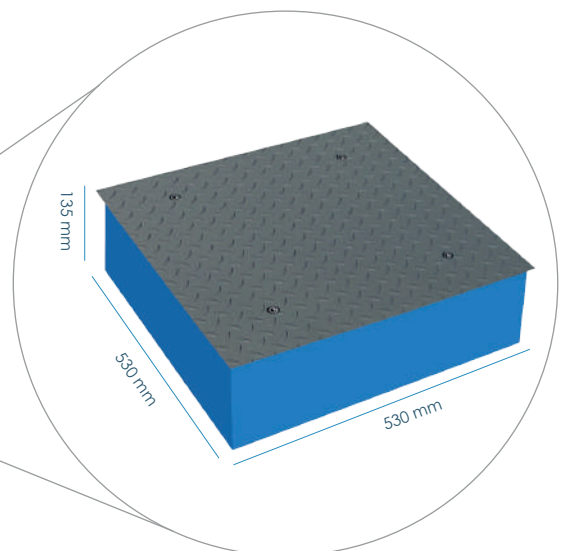
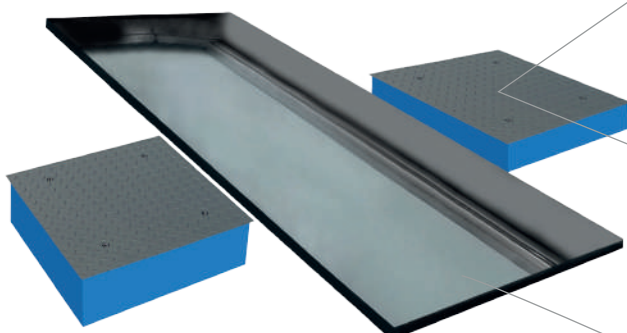
Max axle load	4 T
Power engine	2,2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection fuse	10 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic p	15 l/min
Pushing force	12,500 N
Side shift	100 mm
Displacement speed	13 cm/s
Frame dimensions and weight	530 x 530 x 135 mm
Plate dimensions	650 x 650 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 2 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	Hydraulic unit desk: 420 x 600 x 1,460 mm 92 kg
Power supply 230 V Three-phase	
	Linterna LED control inalámbrico
LED torch wireless	
Torch charger	
	Floor camera with wireless control
	Display + camera system control
	Plates dimensions and weight: 650 x 650 mm 132 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Light Vehicles

DHL TOTAL



Description

The **DHL TOTAL electro-hydraulic** play detector is used to check the condition of the axles of **light vehicles with a gross vehicle weight of 3,500 kg**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their transverse movements by switches mounted on the hand lamp.

DHL TOTAL plates movements:  

Technical Data and Dimensions

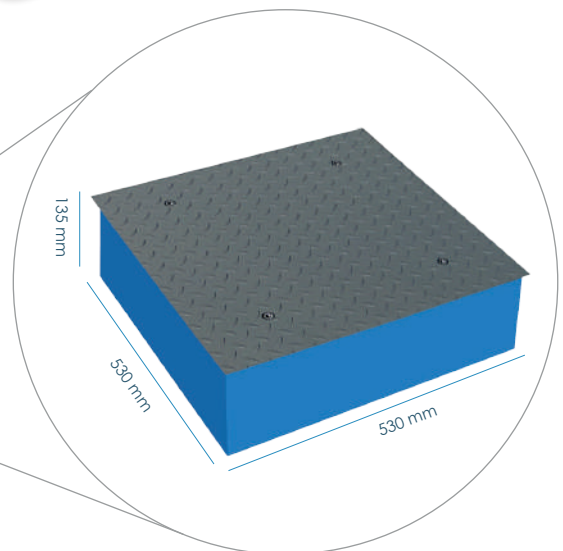
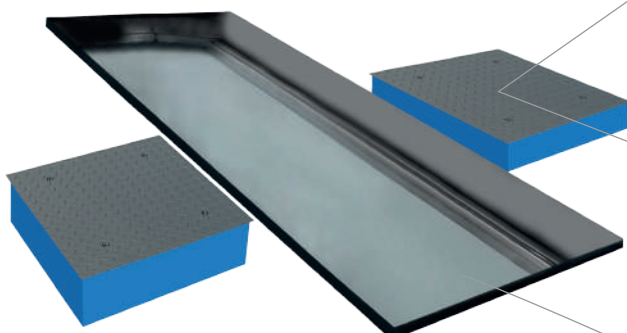
Max axle load	4 T
Power engine	2.2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection Fuse	10 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic pump	15 l/min
Pushing force	12,500 N
Side shift	100 mm
Displacement speed	13 cm/s
Frame dimensions	530 x 530 x 135 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 2 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	Hydraulic unit desk: 420 x 600 x 1,460 mm 92 kg
Power supply 230 V Three-phase	
	Linterna LED control inalámbrico
LED torch wireless	
Torch charger	
	Floor camera with wireless control
	Display + camera system control
	Plates dimensions and weight: 650 x 650 mm 132 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Light Vehicles DHL TOTAL-4



Up to 4 T



Description

The **DHL TOTAL 4 electro-hydraulic** play detector is used to check the condition of the axles of **light vehicles with a gross vehicle weight of 3,500 kg**.

It allows to observe possible wear and looseness caused by the same. **Four plates adapted to support the 4 wheels of the vehicle at the same time without the need to move the vehicle when measuring the different axles.**

DHL TOTAL 4 plates movements:



Technical Data and Dimensions

Max axle load	4 T
Power engine	2.2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection fuse	10 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic pump	15 l/min
Pushing force	12,500 N
Side shift	100 mm
Displacement speed	13 cm/s
Frame dimensions	780 x 530 x 147 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 4 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment



Hydraulic unit desk:
420 x 600 x 1,460 mm 92 kg

Power supply 230 V Three-phase



LED torch wireless

Torch base

Torch charger



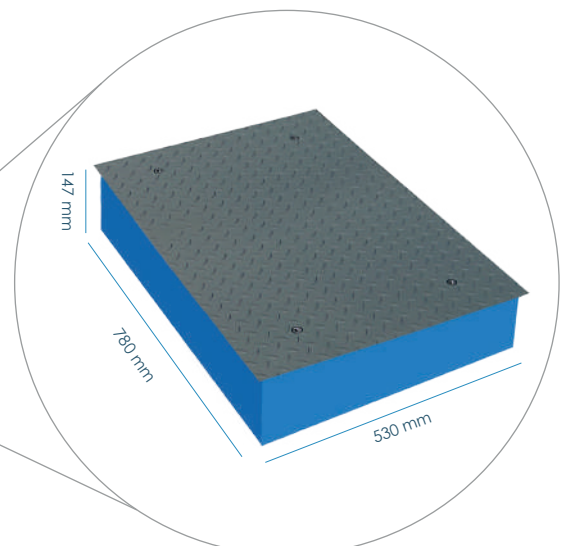
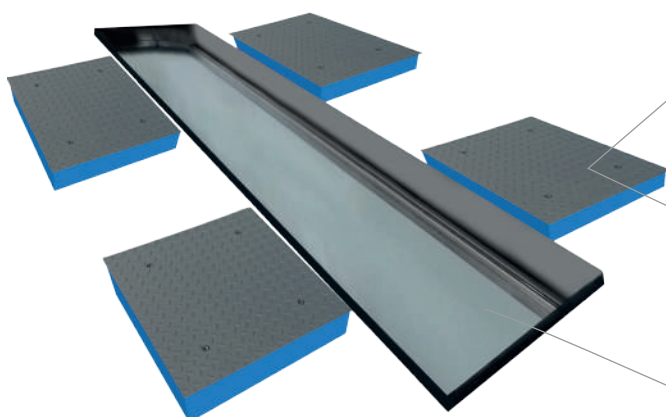
Floor camera with wireless control



Display + camera system control



Plates dimensions and weight: **650 x 650 mm**
132 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Light Vehicles

DLJ5N *(pneumatic)*



Description

The **DLJ5N electro-pneumatic** play detector is used to check the condition of the axles of **light vehicles and their components**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their transverse movements by switches mounted on the hand lamp.

DLJ5N plates movements:  

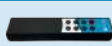



Technical Data and Dimensions

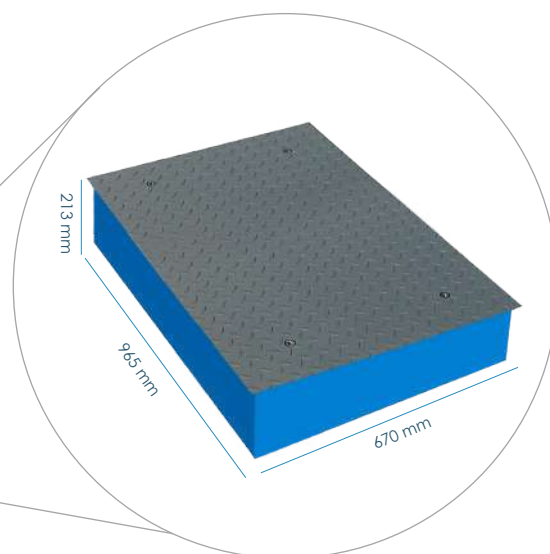
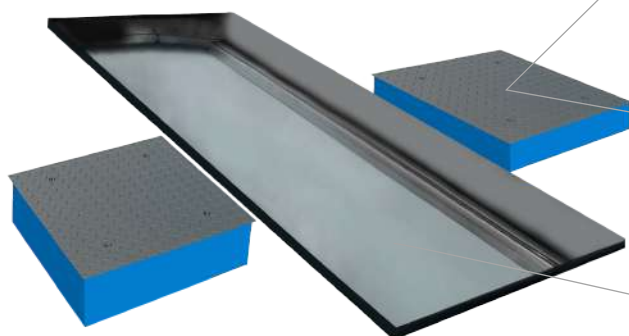
Max axle load	2 T
Voltage	230 V - 50 Hz
Protection fuse	5 A
LED lamp	12 V - 6 W
Nominal pressure	8 bar
Pneumatic pressure min/max	7 / 12 bar
Minimum air flow rate	250 l/min
Pushing force	2,500 N
Side shift	50 mm
Displacement speed	2.6 cm/s
Frame dimensions (civil work + equipment)	965 x 670 x 213 mm
Consumption	Only in use pulses

Standard Equipment

- ✓ 2 electro-pneumatic plates
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	LED torch wireless
	Torch base
	Torch charger
	Floor camera with wireless control
	Display + camera system control
	Plates dimensions and weight: 903 x 606 mm 115 kg

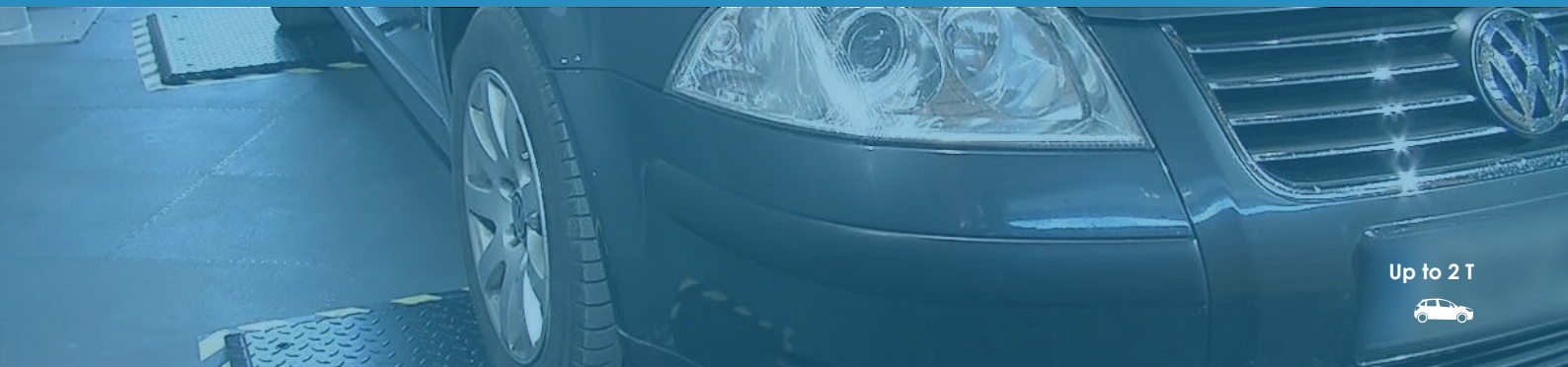


Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Light Vehicles

DLJ5N-4 (pneumatic)



Up to 2 T



Description

The **DLJ5N-4 electro-pneumatic** play detector is used to check the condition of the axles of **light vehicles and their components**.

It allows to observe possible wear and looseness caused by the same. **Four test plates** installed on the floor at ground level are guided in their transverse movements by switches mounted on the hand lamp.

DLJ5N-4 plates movements:






Technical Data and Dimensions


Max axle load	2 T
Voltage	230 V - 50 Hz
Protection fuse	5 A
LED lamp	12 V - 6 W
Nominal pressure	8 bar
Pneumatic pressure min/max	7 / 12 bar
Minimum air flow rate	250 l/min
Pushing force	2,500 N
Side shift	50 mm
Displacement speed	2.6 cm/s
Frame dimensions (civil work + equipment)	965 x 670 x 213 mm
Consumption	Only in use pulses

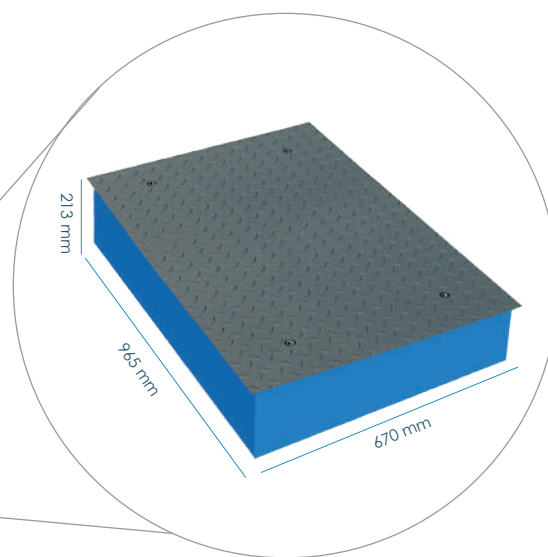
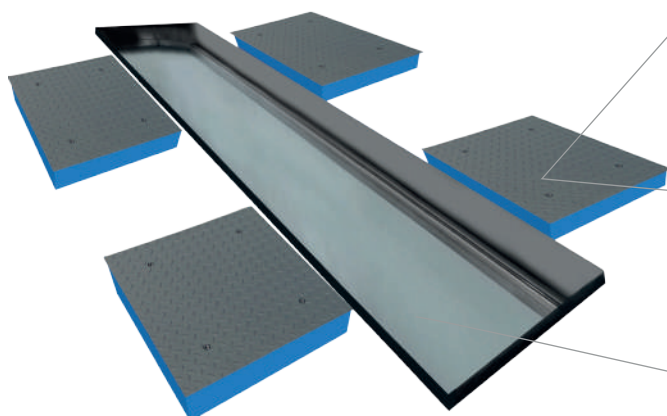
Standard Equipment

- ✓ 4 electro-pneumatic plates
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	LED torch wireless
	Torch base
	Torch charger
	Floor camera with wireless control
	Display + camera system control

	Plates dimensions and weight:	903 x 606 mm 115 kg
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Consult our possibilities of prefabricated or civil works pits.



Lift with axle Play Detectors plates DHE (4 plates)



4 plates

Up to 4 T

Description

The **DHE lifter with play detector**, is an **electro-hydraulic scissor lift especially designed to align**, with a capacity up to 5.000 kg and a 5 meters total lenght.

The alignment plates can be adjusted in **three different positions to be addapted to the vehicles wheelbase**. **Four check plates** installed on the lift and adapted to RD920/2017, are guided in their transversal movements by a wired control lamp.

The plates can perform 4 different movements with a single controller: 

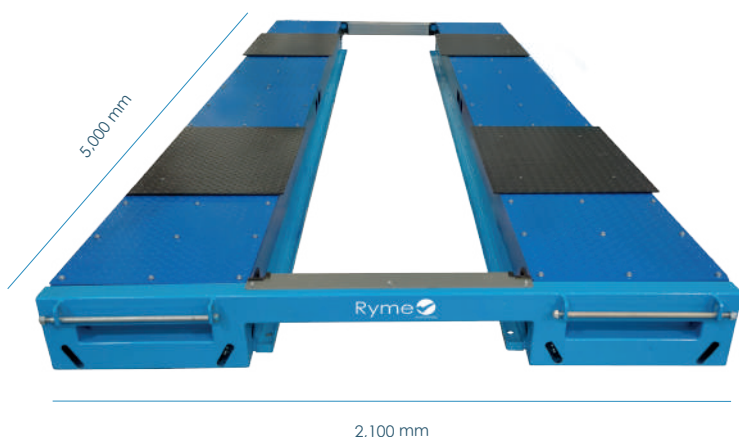
The **latest technologies** have been used to create these equipments, adding a **maximum precision finish, achieving a robust machine with excellent aesthetic**, characterised by its **silent and precise operation**.



A second pair of plates are included to check both axes without moving the vehicle.

Standard Equipment

- ✓ Lift with 4 electro-pneumatic play detectors
- ✓ Civil work frame
- ✓ Electronic control
- ✓ Wired lamp to control the plates



Technical Data and Dimensions

PLAY DETECTOR

Number of plates	4
Max load per axle	4 T
Engine power	2.2 kW
Voltage	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection fuse	10 A
LED lamp	12 V - 6 W
Hydraulic group capacity	15 litres
Hydraulic pump	15 l/m
Thrust force	12,500 N
Displacement per side	100 mm
Displacement speed	13 cm/s
Plates dimensions (each)	650 x 650 mm
Plates weight (each)	91 kg

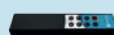
LIFT

Max load	5 T
Engine power	3.6 kW
Voltage	400 V 50 Hz
Max height	2,160 mm
Min height	450 mm
Auxiliar lift height	450 mm
Dimensions and weight	5,000 x 2,100 mm 3,000 kg
Lifting time	40''
Consumption	6 kW

Optional Equipment

Optional equipment

230 V power supply (three-phase)



Wireless control LED lamp



Lift with axle Play Detectors plates DHE (2 plates)



2 plates

Up to 4 T

Description

The **DHE lifter with play detector**, is an **electro-hydraulic scissor lift especially designed to align**, with a capacity up to 5.000 kg and a 5 meters total lenght.

Two check plates installed on the lift and adapted to RD920/2017, are guided in their transversal movements by a wired control lamp.

The plates can perform 4 different movements with a single controller:  

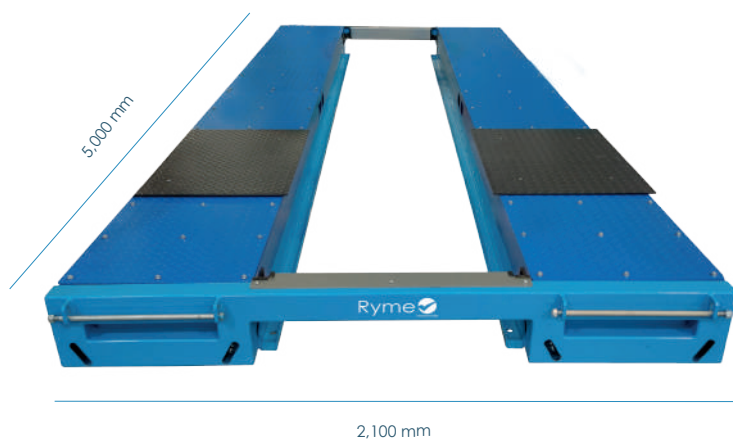
The **latest technologies** have been used to create these equipments, adding a **maximum precision finish**, **achieving a robust machine with excellent aesthetic**, characterised by its **silent and precise operation**.



A second pair of plates are included to check both axles without moving the vehicle.

Standard Equipment

- ✓ Lift with 2 electro-pneumatic play detectors
- ✓ Civil work frame
- ✓ Electronic control
- ✓ Wired lamp to control the plates
- ✓ Auxiliar central scissor lift
- ✓ Central oleo-pneumatic jack



Technical Data and Dimensions

PLAY DETECTOR

Number of plates	2
Max load per axle	4 T
Engine power	2.2 kW
Voltage	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection fuse	10 A
LED lamp	12 V - 6 W
Hydraulic group capacity	15 litres
Hydraulic pump	15 l/m
Thrust force	12,500 N
Displacement per side	100 mm
Displacement speed	13 cm/s
Plates dimensions (each)	650 x 650 mm
Plates weight (each)	91 kg

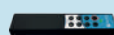
LIFT

Max load	5 Tn
Engine power	3.6 kW
Voltage	400 V 50 Hz
Max height	2,160 mm
Min height	450 mm
Auxiliar lift height	450 mm
Dimensions and weight	5,000 x 2,100 mm 3,500 kg
Lifting time	40''
Consumption	6 kW

Optional Equipment

Optional equipment

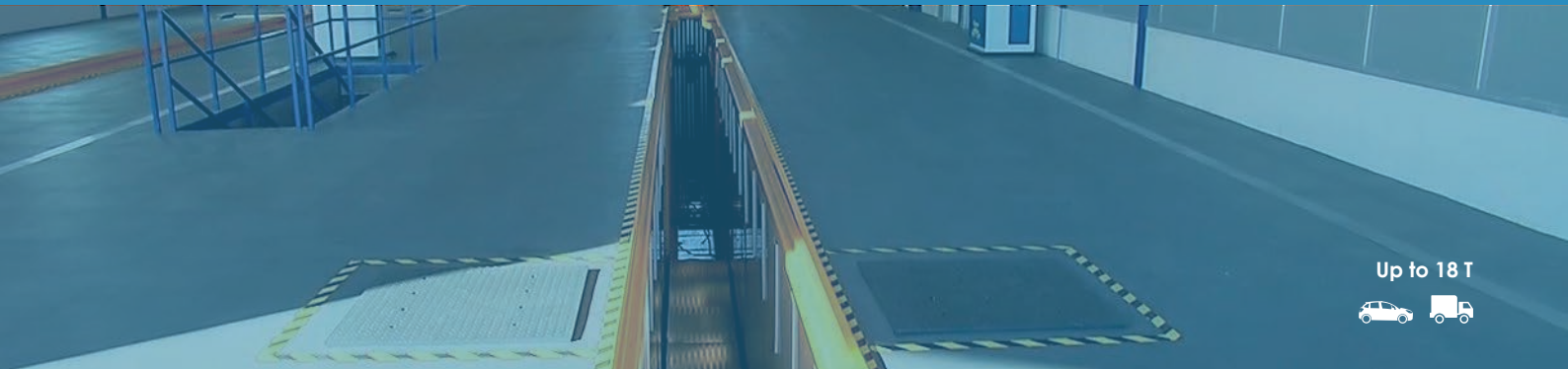
230 V power supply (three-phase)



Wireless control LED lamp



Axle Play Detector for Heavy Vehicles DHU CLASSIC





Up to 18 T



Description

The **DHU CLASSIC electro-hydraulic** play detector is used to check the condition of the axles of **vehicles up to 18 T per axle**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their transverse movements by switches mounted on the hand lamp.

DHU CLASSIC plate movements:  

Technical Data and Dimensions

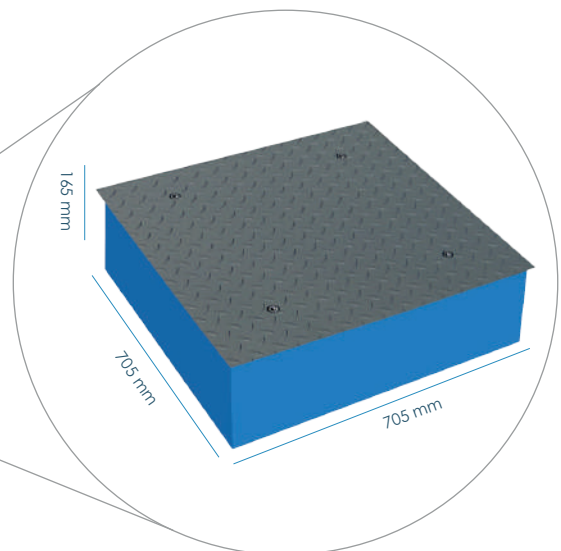
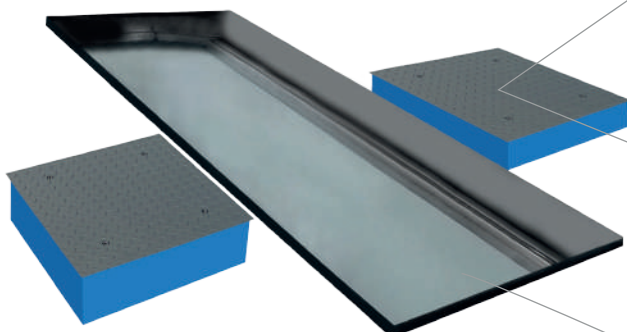
Max axle load	18 T
Power engine	2.2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Fusible de protección	10 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic pump	15 l/min
Pushing force	30,000 N
Side shift	105 mm
Displacement speed	6.4 cm/s
Frame dimensions	705 x 705 x 165 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 2 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

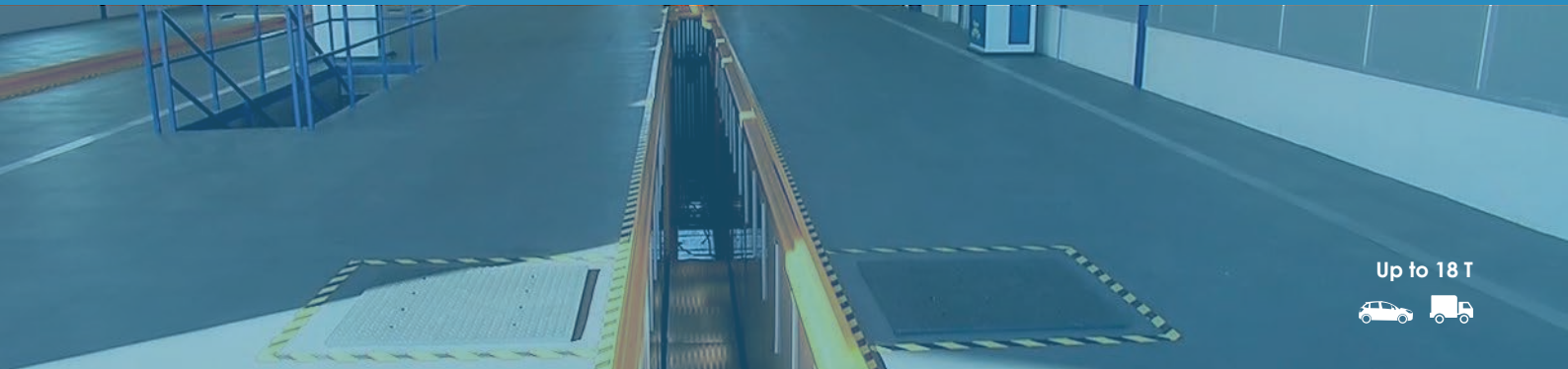
Optional equipment	
	Hydraulic unit desk: 420 x 600 x 1,460 mm 92 kg
Power supply 230 V Three-phase	
	Linterna LED control inalámbrico
LED torch wireless	
Torch charger	
	Floor camera with wireless control
	Display + camera system control
	Dimensión y peso placas: 850 x 850 mm 195 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Heavy Vehicles DHU TOTAL





Up to 18 T



Description

The **DHU TOTAL electro-hydraulic** play detector is used to check the condition of the axles of **vehicles up to 18 T per axle**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their four transverse movements by switches mounted on the hand lamp.

DHU TOTAL plate movements:  

Technical Data and Dimensions

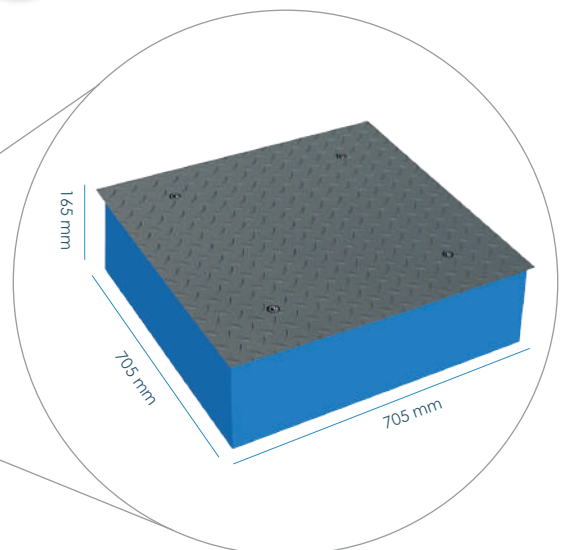
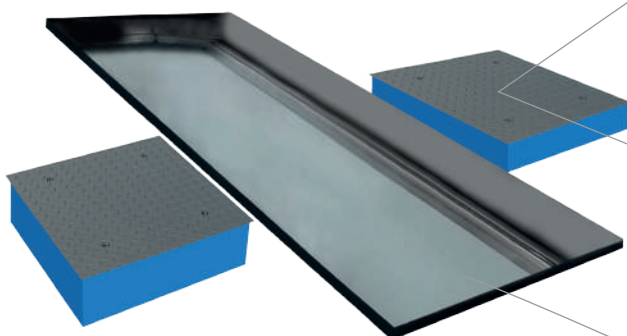
Max axle load	18 T
Power engine	2.2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic pump	15 l/min
Pushing force	30,000 N
Side shift	105 mm
Displacement speed	6.4 cm/s
Frame dimensions	705 x 705 x 165 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 2 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	Hydraulic unit desk: 420 x 600 x 1,460 mm 92 kg
Power supply 230 V Three-phase	
	Linterna LED control inalámbrico
LED torch wireless	
Torch charger	
	Floor camera with wireless control
	Display + camera system control
	Plates dimensions and weight: 850 x 850 mm 270 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Heavy Vehicles DHU TOTAL-4



Up to 18 T



Description

The **DHU TOTAL-4 electro-hydraulic** play detector is used to check the condition of the axles of **vehicles up to 18 T per axle**.

It allows to observe possible wear and looseness caused by the same. **Two test plates** installed on the floor at ground level are guided in their four transverse movements by switches mounted on the hand lamp.

DHU TOTAL plate movements:



Technical Data and Dimensions

Max load per axle	18 T
Power engine	2.2 kW
Voltage (three-phase)	400 V - 50 Hz
Thermal protector	4.5 - 6.3 A
Protection Fuse	10 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 - 18 l SAE-10 oil
Hydraulic pump	15 l/min
Pushing force	30,000 N
Side shift	105 mm
Displacement speed	6.4 cm/s
Frame dimensions	750 x 750 x 165 mm
Consumption	2.2 kW

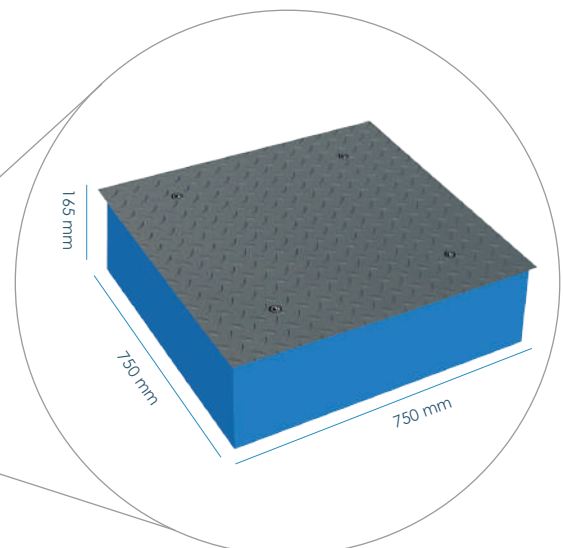
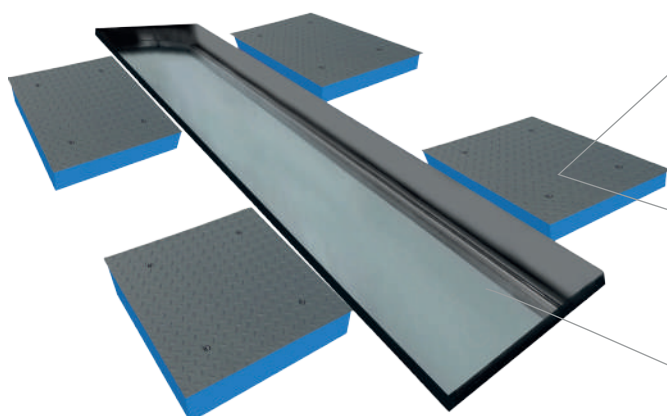
Standard Equipment

- ✓ 4 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller

Optional Equipment

Optional equipment	
	Hydraulic unit desk: 420 x 600 x 1,460 mm 92 kg
Power supply 230 V Three-phase	
	Linterna LED control inalámbrico
LED torch wireless	
Torch charger	
	Floor camera with wireless control
	Display + camera system control

**Plates dimensions and weight:** 850 x 850 mm
275 kg



Consult our possibilities of prefabricated or civil works pits.



Axle Play Detector for Agricultural Vehicles DHA



Up to 3 T



Description

The **DHA electro-hydraulic** play detector is used to check the condition of the axles of **agricultural vehicles up to 3 T**.

It allows to observe possible wear and looseness caused by the same. **Two portable test plates** resting on the floor are guided in their transverse movements by switches mounted on the hand lamp.

DHA plates movements:  

Technical Data and Dimensions

Max axle load	3 T
Power engine	2,2 kW (Single-phase)
Voltage	230 V - 50 Hz
Thermal protector	5.5 - 8 A
Protection Fuse	12 A
LED lamp	12 V - 6 W
Tank capacity hydraulic group	15 l
Hydraulic pump	15 l/min
Pushing force	7,000 N
Side shift	100 mm
Displacement speed	13 cm/s
Frame dimensions with open ramps	700 x 1.639 x 117 mm
Consumption	2.2 kW

Standard Equipment

- ✓ 2 electro-hydraulic plates
- ✓ Hydraulic unit
- ✓ Electric box
- ✓ Torch/Controller
- ✓ Hoses and fittings

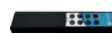
Optional Equipment

Optional equipment



Hydraulic jack for weight relief

230 V three-phase power supply



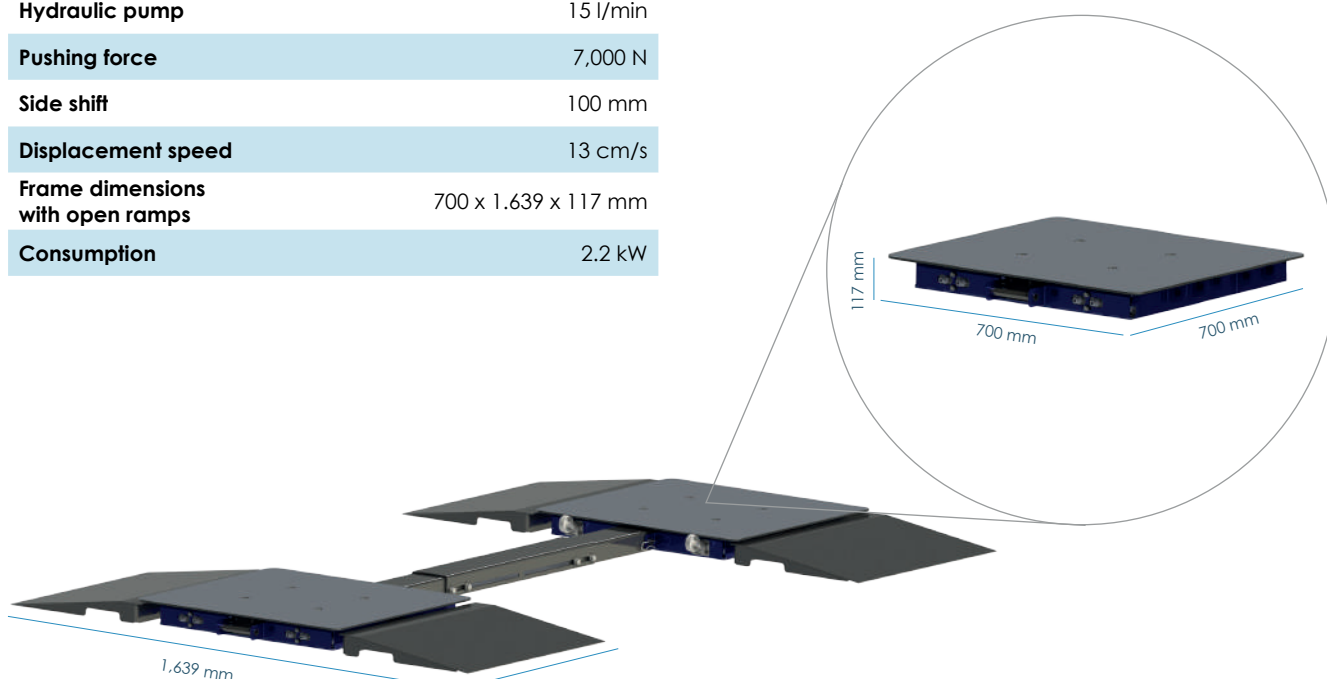
LED wireless torch

Torch base

Torch charger



Plates dimensions and weight: 700 x 700 mm
90 kg





Emission Equipment

Gasoline vehicles

- ✓ Gas Analyzer **RY-500AG**
- ✓ Gas Analyzer **RY-4000AG**
- ✓ Gas Analyzer **RY-3200AG**

Diesel vehicles

- ✓ Smokemeter **RY-500AH**
- ✓ Smokemeter **RY-3200AH**
- ✓ Particle counter **R-PC300**

Gasoline and diesel vehicles

- ✓ Gas Analyzer + Smokemeter **RY-500AGH**
- ✓ Gas Analyzer + Smokemeter **RY-4000AGH**
- ✓ Gas Analyzer + Smokemeter **RY-3200AGH**
- ✓ Gas Analyzer + Smokemeter **EIS-5000**





Gas Analyzer RY-500AG



Compatible with gasoline vehicles



Description

The gas analyzer is a **modern equipment**, prepared and ready to meet the requirements of **OIML Class 1** and **O, ISO**.








Based on **infrared technology** it **measures up to 5 gases** and other parameters such as corrected Lambda CO, oil temperature and rpm. It is very useful for **detecting ignition and injection problems** as well as for **improving fuel consumption**. The software shows the concentration of the gases and the rpm in numerical form.

- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles

Technical Data and Dimensions

Measurable gases	HC / CO / CO ₂ / O ₂ / NO _x (op.)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C to 70 °C
Operation temperature	-10 °C to 55 °C
Atm pressure	750 a 1,150 mbar
Automatic removal of water and particles	
Power supply	115 - 230 V 1.5 A 47 - 63 Hz
Regulations	OIML R99 ISO3930 BAR97
Dimensions and weight	400 x 380 x 220 mm 12 kg

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Tachometer y and accesories kit for rpm measurement
	Tachometer y and accesories kit for rpm measurement
	EOBD kit, gas equipment integration and software
	NO _x sensor
	Smokemeter kit with commissioning certificate module F
	Gas inlet hose with double probe
	Motorcycle exhaust adaptor kit
	Electro-pneumatic adaptation for self-calibration by means of internal standard gas bottles

Software



Standard Equipment

- ✓ Gas analyzer module
- ✓ Sampling probe
- ✓ Emissions dedicated cabinet
- ✓ Electronic control and SMRW software
- ✓ Temperature meter

Measurement range and resolution

Gas	Measurement range	Regular	High
HC	0 - 20,000 ppm	1 ppm	1 ppm
CO	0 - 15 %	0.01 %	0.01 %
CO ₂	0 - 20 %	0.1 %	0.1 %
O ₂	0 - 25 %	0.01 %	0.01 %
NO _x (op.)	0 - 5,000 ppm	10 ppm	10 ppm
Lambda	0.8 - 1.2		

Measurement	Range	Resolution
Regime	0 - 9,999 ppm	10 ppm
Oil temperature	- 5 °C to 150 °C	1 °C





Gas Analyzer RY-4000AG

Ryme  worldwide

Compatible with gasoline vehicles



Description

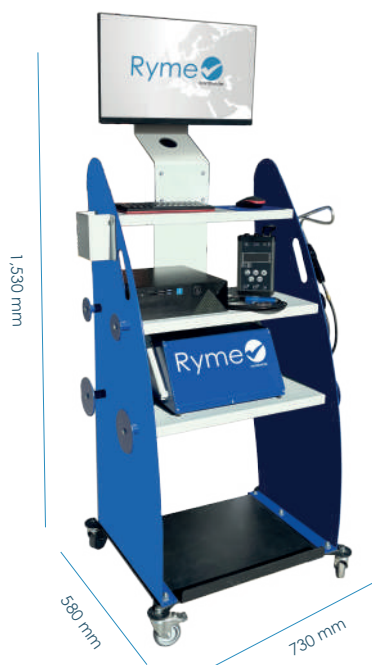
The RY-4000AG is prepared to meet the requirements of **OIML CLASE 1** and **O, ISO 3930, UNE 82501, bar 90, bar 97, U.S. EPA ASM.**

Based on **infrared technology** it measures up to **5 gases** and **other parameters** such as Lambda, corrected CO, oil temperature and **rpm**.

- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles

Technical Data and Dimensions

Storage temperature	-50 °C to 70 °C
Operation temperature	-12 °C to 48 °C
Atm pressure	750 to 1,100 mbar
Automatic removal of water and particles	
Power supply	115 - 230 V 50 - 60 Hz
Nominal/minimum flow	4.2 / 3 l/min
Connection	R232 series
Oil temperature meter	0 - 150 °C / Resol. 1 °C
rpm meter	0 - 9,990 / Resol. 10 rpm
Lambda	0.8 - 1.2



Software











Measurement ranges and resolution

Measurement	Range	Resolution	Method
HC	0 - 19,999 ppm	1 ppm	NDIR
CO	0 - 15 %	0.01 %	NDIR
CO ₂	0 - 20 %	0.1 %	NDIR
O ₂	0 - 25 %	0.01 %	Cell
NO _x (op.)	0 - 4,000 ppm	10 ppm	Cell

Standard Equipment

- ✓ Gas Analyzer module
- ✓ Sampling probe
- ✓ Emissions dedicated furniture
- ✓ SMRW software
- ✓ External temperature meter and rpm with a magnetic probe

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Tachometer and accessories kit for rpm measurement
	EOBD kit, gas equipment integration and software
	NO _x sensor
	Smokometer kit with commissioning certificate module F
	Gas inlet hose with double probe
	Motorcycle exhaust adaptor kit
	Electro-pneumatic adaptation for self-calibration by means of internal standard gas bottles



Gas Analyzer RY-3200AG

Ryme  worldwide

Compatible with gasoline vehicles



Description

The **gas analyzer RY-3200-AG** is a modern equipment, prepared and ready to meet the requirement of **OIML R00 Class 1** and **0, ISO 3930, UNE 8251, bar 90, bar 97, U.S EPA ASM**.








Based on **infrared technology** it **measures up to 5 gases** and other parameters such as corrected Lambda CO, oil temperature and rpm. It is very useful for **detecting ignition and injection problems** as well as for **improving fuel consumption**.

- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles

Technical Data and Dimensions

Measurable gases	HC / CO / CO ₂ / O ₂ / NO _x (op.)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C to 70 °C
Operation temperature	-10 °C to 55 °C
Atm pressure	750 a 1,150 mbar
Automatic removal of water and particles	
Power supply	115 - 230 V 1.5 A 47 - 63 Hz
Regulations	OIML R99 ISO3930 BAR97
It has a database and a rejection assesment	
Dimensions and weight	400 x 400 x 190 mm 10 kg

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Tachometer and accesories kit for rpm measures
	Tachometer and accesories kit for rpm measures
	EOBD kit, gas equipment integration and software
	NO _x sensor
	Smokemeter kit with commissioning certificate module F
	Gas inlet hose with double probe
	Motorcycle exhaust adaptor kit
	Electro-pneumatic adaptation for self-calibration by means of internal standard gas bottles

Software



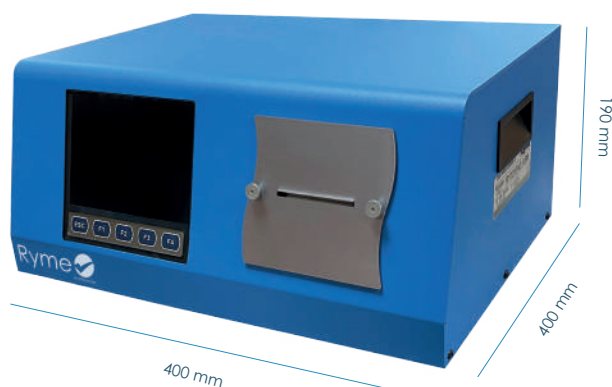
Standard Equipment

- ✓ Gas analyzer module
- ✓ Sampling probe
- ✓ SMWR software and electronic control
- ✓ Temperature meter

Measurement range and resolution

Gas	Measurement range	Regular	High
HC	0 - 20,000 ppm	1 ppm	1 ppm
CO	0 - 15 %	0.01 %	0.01 %
CO ₂	0 - 20 %	0.1 %	0.1 %
O ₂	0 - 25 %	0.01 %	0.01 %
NO _x (op.)	0 - 5,000 ppm	10 ppm	10 ppm
Lambda		0.8 - 1.2	

Measurement	Range	Resolution
Regime	0 - 9,999 rpm	10 rpm
Oil	- 5 °C to 150 °C	1 °C





Compatible with diesel vehicles



Description

The smokemeter RY-500AH is a **modern equipment**, prepared and ready to meet the requirements of **UNE 82503** and **DIN 57411, SAE J1677 USA/Canada**.

It is a **partial flow meter** based on the **principle of light absorption by smoke**. It allows to perform an **official opacity test** guided step by step through the program. It has a configuration module that allows to **consult and modify the operation parameters**.

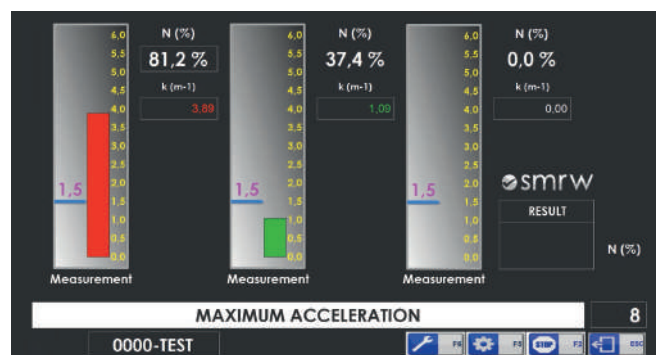
Technical Data and Dimensions

Environmental operation conditions	Op. temp: -10 °C to 55 °C
	Official op. temp: 0 °C to 45 °C
Storage temperature	Humidity: 30 % to 90 %
	Pollution: < 2 %
Optic	Green LED light source between 480 and 680 mm (max. 565mm)
Detector	Silicon photodiode
Response time	10 % to 90 % < 0,2"
Acoustic noise	53 dB
Warm-up period	3 - 6'
Standard test probe	745 mm / 110 mm
Opacity	N range: 0 -100 %
	N resolution: 0.10 %
	K range: 0.00 - 9.99 m ⁻¹
Power supply	K resolution: 0.01 m ⁻¹
	230 V / 50 Hz
Dimensions and weight	460 x 220 x 360 mm 9 kg

Measurement of opacity in % and absorption coefficient K calculated according to Beer-Lambert's law








Software



Standard Equipment

- ✓ Smoke analyzer module
- ✓ Sampling probe
- ✓ Dedicated cabinet for emissions
- ✓ Commissioning certificate for module F smokemeter
- ✓ Electronic control and SMRW software
- ✓ Temperature and rpm meter

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Tachometer and accesories kit for rpm measurement
	Tachometer and accesories kit for rpm measurement
	EOBD kit, gas equipment integration and software
	Pole for vehicles with vertical exhaust
Calibration lenses with ENAC certificate	

Approved extensor probe:
1,500 mm, 3,840 mm y 4,000 mm



Compatible with diesel vehicles



Description

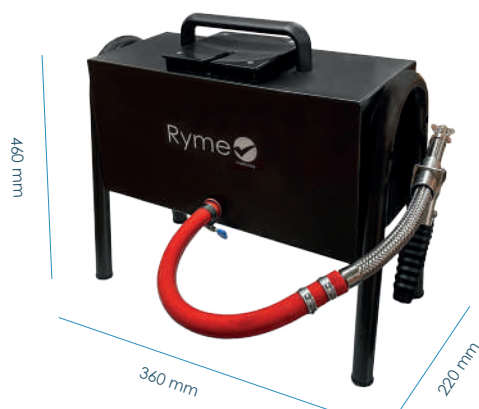
The RY-3200AH Smokemeter is a **modern equipment**, prepared and ready to meet the requirements of **UNE 82503** and **DIN 57411**, **SAE J1677 USA/Canada**.

Meets entirely the opacity control procedure for the MOT centres and the opacity determination procedure is applicable for the repairing workshops

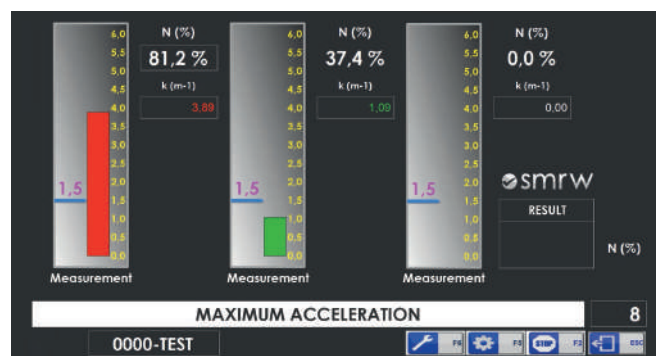
- ✓ Opacity analysis function with visualization of the opacity curve
- ✓ Automatic reset after use

Technical Data and Dimensions

Environmental operation conditions	Op. temp: -10 °C to 55 °C Official op. temp: 0 °C to 45 °C
	Humidity: 30 % to 90 %
	Pollution: < 2 %
Storage temperature	-32 °C to 55 °C
Optic	Green LED light source between 480 and 680 nm (max. 565 mm)
Detector	Silicon photodiode
Response time	10 % to 90 % < 0.2"
Acoustic noise	53 dB
Warm-up period	3 - 6'
Standard test probe	745 mm / 110 mm
Opacity	N range: 0 - 100 %
	N resolution: 0.10 %
	K range: 0.00 - 9.99 m ⁻¹ K resolution: 0.01 m ⁻¹
Power supply	230 V / 50 Hz
Dimensions and weight	460 x 220 x 360 mm 9 kg
Measurement of opacity in % and absorption coefficient K calculated according to Beer-Lambert's law	








Software



Standard Equipment

- ✓ Smokemeter
- ✓ Sampling probe
- ✓ Commissioning certificate for module F Smokemeter
- ✓ Electronic control and SMRW software
- ✓ Temperature and rpm meter

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Tachometer and accessories kit for rpm measures
	Tachometer and accessories kit for rpm measures
	EOBD kit, gas equipment integration and software
	Pole for vehicles with vertical exhaust
Calibration lenses with ENAC certificate	

Approved extensor probe:
1,500 mm, 3,840 mm y 4,000 mm



Compatible with diesel vehicles



Description

The **technology** of the **R-PC300** is based on the **DC** (diffusion charging) principle. **In combination with the EOBD module**, the portable particle counter R-PC300 is suitable for **measuring particle number concentration** according to the new AU equipment guideline.

The R-PC300 particle counter is characterized by its **high measuring accuracy for the determination of particle number concentration** and its **simple handling**. This is essential for mobile use to ensure consistent accuracy.

For the calibration and traceability required by law, **Ryme Worldwide has its own certified and approved laboratory**, which also performs mobile calibrations on site by its own service technicians.

Technical Data and Dimensions

Power supply	24 V \pm 10 % continuous tension
Power consumption	< 120 W
Weight	5 kg
Dimensions	325 mm x 103 mm x 290 mm
Operation temperature	+5 °C to +40 °C
Storage temperature	-10 °C to +50 °C
Environmental pressure	860 hPa to 1,060 hPa
Gas flow measurement	2 l/min
Accuracy (laboratory conditions)	\pm 25 %, at least 5,000 cm ⁻³
Preparation and warm-up time	< 5 min
Protection	IP54 in the measuring enclosure
Connectivity	USB, Bluetooth, WLAN
Integrated ASA interface	
Display to show the measurements	
Removal of volatile particles	

Standard Equipment

- ✔ Particle counter R-PC300
- ✔ EOBD Device

Advantages

- ✔ Easy to use
- ✔ No means required for operation
- ✔ Easy to integrate into existing systems
- ✔ Quick and easy replacement of filters without opening the unit
- ✔ Low downtime due to automatic self verifications
- ✔ Robust and low-maintenance measuring principle
- ✔ Exhausting probe hose, making it more resistant to possible breakdowns
- ✔ Exhaustive filtered dilution system to avoid particle contamination

Optional Equipment

Optional equipment

Mobile kit: transport case, cart and a set of batteries (specifically designed for the PTI requirements)



*transport cart (optional)



Gas Analyzer + Smokemeter RY-500AGH

Ryme  worldwide

Compatible with gasoline and diesel vehicles



Description

The **Gas Analyzer RY-500-AG** is a modern equipment, prepared and ready to meet the requirement of **OIML R00 Class 1 and 0, ISO 3930, UNE 8251, bar 90, bar 97, U.S EPA ASM.**

Based on **infrared technology** it **measures up to 5 gases** and other parameters such as corrected Lambda CO, oil temperature and rpm.

The **Smokemeter RY-500-AH** is a **modern equipment**, prepared and ready to meet the requirements of **UNE 82503 and DIN 57411, SAE J1677 USA/Canada**, it allows to perform an official opacity test (light).

**Ryme Worldwide offers an integrated set
Gas Analyzer + Smokemeter RY-500AGH.**

- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles.
- ✓ It has a database and a rejection assesment

Standard Equipment

- ✓ Gas analyzer module + smokemeter module
- ✓ Emissions dedicated furniture
- ✓ Sampling probes
- ✓ Electronic control and SMRW software
- ✓ Temperature and rpm meter
- ✓ Commissioning certificate for module F RY-500AH



Technical Data RY-500AG

Measurable gases	HC / CO / CO ₂ / O ₂ / NO _x optional
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C to 70 °C
Operation temperature	-10 °C to 55 °C
Atm pressure	750 to 1,150 mBar
Automatic removal of water and particles	
Power supply	115 - 230 V 1,5 A 47 - W63 Hz
Regulations	OIML R99 ISO3930 BAR97
Dimensions and weight	400 x 380 x 220 mm 12 kg

Measurement ranges and resolution

Gas	Measurement range	Regular	High
HC	0 - 20,000 ppm	1 ppm	1 ppm
CO	0 - 15 %	0.01 %	0.01 %
CO ₂	0 - 20 %	0.0%	0.1 %
O ₂	0 - 25 %	0.0%	0.01 %
NO _x (op.)	0 - 5,000 ppm	10 ppm	10 ppm
Lambda	0.8 - 1.2		
Measurement	Range	Resolution	
Regime	0 - 9,999 rpm	10 rpm	
Oil temperature	- 5 to 150 °C	1 °C	



Gas Analyzer + Smokemeter RY-500AGH

Ryme 
worldwide

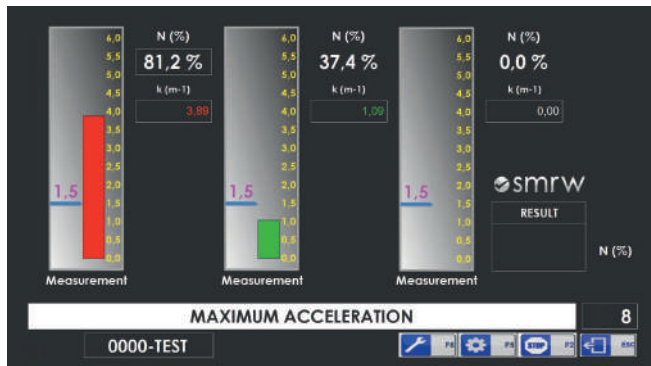
Compatible with gasoline and diesel vehicles



Software



RY-500AG GAS ANALYZER SOFTWARE



RY-500AH SMOKEMETER SOFTWARE

Optional Equipment RY-500AGH

Optional equipment



Voltage stabilizer



Tachometer and accessories kit for rpm measures



Tachometer and accessories kit for rpm measures



NO_x sensor

Gas inlet hose with double probe



Motorcycle exhaust adaptor kit

Technical data RY-500AH

Environmental operation conditions

Op. temp: -10 °C to 55 °C

Official op. temp: 0 °C to 45 °C

Humidity: 30 % to 90 %

Pollution: < 2 %

Storage temperature

-32 °C to 55 °C

Optic

Green LED light source
between 480 and 680 nm
(max. 565 nm)

Detector

Silicon photodiode

Response time

10 % to 90 % < 0.2''

Acoustic noise

53 dB

Warm-up period

3 - 6'

Standard test probe

745 mm / 110 mm

Opacity

N range: 0 - 100 %

N resolution: 0.10 %

K range: 0.00 - 9.99 m⁻¹

K resolution: 0.01 m⁻¹

Power supply

230 V / 50 Hz

Dimensions and weight

460 x 220 x 360 mm
9 kg

Measurement of opacity in % and absorption coefficient K
calculated according to Beer-Lambert's law

Optional equipment

Calibration lenses with ENAC certificate



Pole for vehicles with vertical exhaust

Approved extensor probe:
1,500 mm, 3,840 mm y 4,000 mm



You can check our versions without furniture based on these same equipments and the references: RY-3200AG (Gas analyzer), RY-3200AH (Smokemeter) and RY-3200AGH (both equipments integrated).



Gas Analyzer + Smokemeter RY-4000AGH



Compatible with gasoline and diesel vehicles



Description

The **Gas Analyzer RY-4000AG** is a modern equipment, prepared and ready to meet the requirement of **OIML R00 Class 1 and O, ISO 3930, UNE 8251, bar 90, bar 97, U.S EPA ASM.**

Based on **infrared technology** it **measures up to 5 gases** and other parameters such as corrected Lambda CO, oil temperature and rpm.

The **Smokemeter RY-500AH** is a **modern equipment**, prepared and ready to meet the requirements of **UNE 82503 and DIN 57411, SAE J1677 USA/Canada.**

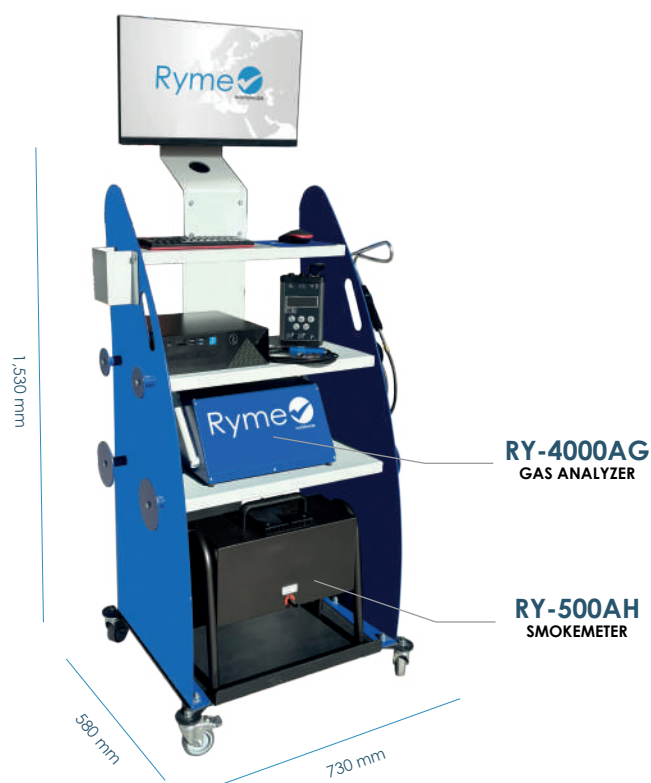
- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles

Standard Equipment

- ✓ Gas Analyzer module + Smokemeter
- ✓ Dedicated cabinet for emissions
- ✓ Sampling probes
- ✓ Electronic control and SMRW software
- ✓ External temperature meter and rpm with a magnetic probe
- ✓ Commissioning certificate for module F RY-500AH

Technical Data RY-4000AG

Storage temperature	-50 °C to 70 °C
Operation temperature	-12 °C to 48 °C
Atm pressure	750 a 1,100 mbar
Automatic removal of water and particles	
Power supply	115 - 230 V 50 - 60 Hz
Nominal/minimum flow	4.2 / 3 l/min
Connection	R232 series
Oil temperature meter	0 - 150 °C / Resol. 1 °C
rpm meter	0 - 9,990 / Resol. 10 rpm
Lambda	0.8 - 1.2



Measurement range and resolution

Measurement	Range	Resolution	Method
HC	0 - 19,999 ppm	1 ppm	NDIR
CO	0 - 15 %	0.01%	NDIR
CO ₂	0 - 20 %	0.1 %	NDIR
O ₂	0 - 25 %	0.01 %	Cell
NO _x (op.)	0 - 4,000 ppm	10 ppm	Cell



Gas Analyzer + Smokemeter RY-4000AGH

Ryme 
worldwide

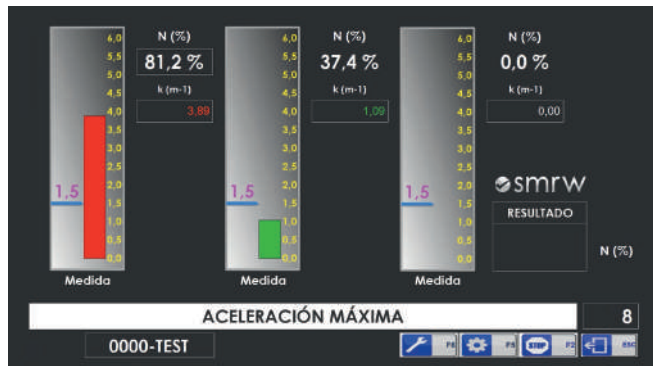
Compatible with gasoline and diesel vehicles



Software



RY-4000AG GAS ANALYZER SOFTWARE



RY-500AH SMOKEMETER SOFTWARE

Technical Data RY-500AH

Environmental operation conditions

Op. temp: -10 °C to 55 °C
Official op. temp: 0 °C to 45 °C

Humidity: 30 % to 90 %

Pollution: < 2 %

Storage temperature

-32 °C to 55 °C

Optic

Green LED light source
between 480 and 680 nm
(max. 565 nm)

Detector

Silicon photodiode

Response time

10 % to 90 % < 0.2''

Acoustic noise

53 dB

Warm-up period

3 - 6'

Standard test probe

745 mm / 110 mm

Opacity

N range: 0 - 100 %
N resolution: 0.10 %
K range: 0.00 - 9.99 m⁻¹
K resolution: 0.01 m⁻¹

Power supply

230 V / 50 Hz

Dimensions and weight

460 x 220 x 360 mm
9 kg

Measurement of opacity in % and absorption coefficient K calculated according to Beer-Lambert's law

Optional Equipment RY-4000AGH

Optional equipment



Voltage stabilizer



Tachometer and accessories kit for rpm measures



NO_x sensor

Gas inlet hose with double probe



Motorcycle exhaust adaptor kit

Calibration lenses with ENAC certificate

Optional equipment



Pole for vehicles with vertical exhaust



Gas Analyzer + Smokemeter RY-3200AGH

Ryme 
worldwide

Compatible with gasoline and diesel vehicles



Description

The **Gas Analyzer RY-3200AG** is a modern equipment, prepared and ready to meet the requirement of **OIML R00 Class 1 and 0, ISO 3930, UNE 8251, bar 90, bar 97, U.S EPA ASM.**

Based on **infrared technology** it **measures up to 5 gases** and other parameters such as corrected Lambda CO, oil temperature and rpm.

The **Smokemeter RY-3200AH** is a **modern equipment**, prepared and ready to meet the requirements of **UNE 82503 and DIN 57411, SAE J1677 USA/Canada**, it allows to perform an official opacity test (light).

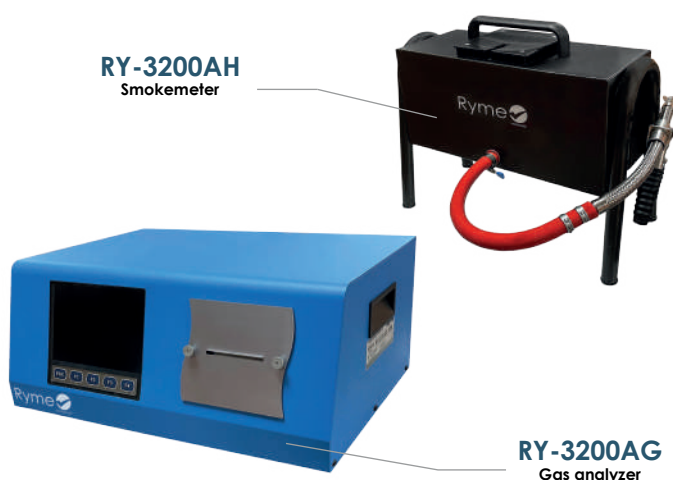
- ✓ Dual exhaust measurement capability
- ✓ Adapted for measuring and calculating Lambda in GLP, GNC and GNL vehicles

Standard Equipment

- ✓ Gas Analyzer module + Smoke Analyzer module
- ✓ Sampling probes
- ✓ SMRW software and electronic control
- ✓ Temperature and rpm meter
- ✓ Commissioning certificate for module F RY-3200AH

Technical Data RY-3200-AG

Measurable gases	HC / CO / CO ₂ / O ₂ / NO _x (op.)
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C to 70 °C
Operation temperature	-10 °C to 55 °C
Atm pressure	750 to 1,150 mBar
Automatic removal of water and particles	
Power supply	115 - 230 V 1.5 A 47 - 63 Hz
Regulations	OIML R99 ISO3930 BAR97
It has a database and a rejection assesment	
Dimensions and weight	400 x 400 x 190 mm 10 kg



Measurement ranges and resolution

Gas	Measurement range	Regular	High
HC	0 - 20,000 ppm	1 ppm	1 ppm
CO	0 - 15 %	0.01 %	0.01 %
CO ₂	0 - 20 %	0.1 %	0.1 %
O ₂	0 - 25 %	0.01 %	0.01 %
NO _x (op.)	0 - 5,000 ppm	10 ppm	10 ppm
Lambda	0.8 - 1.2		

Measurement	Range	Resolution
Regime	0 - 9,999 rpm	10 rpm
Oil	- 5 to 150 °C	1 °C



Gas Analyzer + Smokemeter RY-3200AGH

Ryme 
worldwide

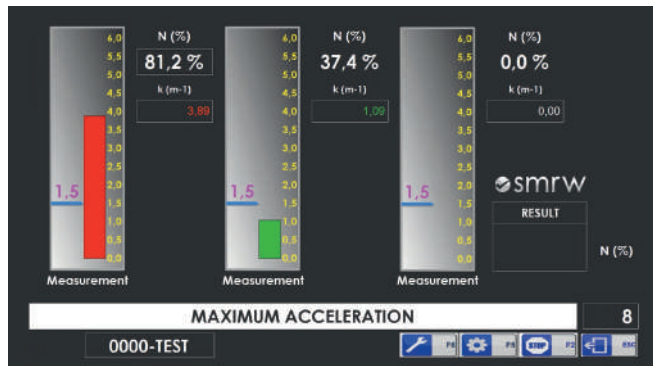
Compatible with gasoline and diesel vehicles



Software



RY-3200AG GAS ANALYZER SOFTWARE



RY-3200AH SMOKEMETER SOFTWARE

Optional Equipment RY-3200AGH

Optional equipment



Voltage stabilizer



Tachometer and accessories kit for rpm measures



Tachometer and accessories kit for rpm measures



NO_x sensor

Gas inlet hose with double probe



Motorcycle exhaust adaptor kit

Technical Data RY-3200-AH

Environmental operation conditions	Op. temp: -10 °C to 55 °C
	Official op. temp: 0 °C to 45 °C
	Humidity: 30 % to 90 %
	Pollution: < 2 %
Storage temperature	-32 °C to 55 °C
Optic	Green LED light source between 480 and 680 nm (max. 565 nm)
Detector	Silicon photodiode
Response time	10 % to 90 % < 0.2''
Acoustic noise	53 dB
Warm-up period	3 - 6'
Standard test probe	745 mm / 110 mm
Opacity	N range: 0 - 100 %
	N resolution: 0.10 %
	K range: 0.00 - 9.99 m ⁻¹ K resolution: 0.01 m ⁻¹
Power supply	230 V / 50 Hz
Dimensions and weight	460 x 220 x 360 mm 9 kg
Measurement of opacity in % and absorption coefficient K calculated according to Beer-Lambert's law	

Optional equipment

Calibration lenses with ENAC certificate



Pole for vehicles with vertical exhaust

Approved extensor probe:
1,500 mm, 3,840 mm y 4,000 mm



You can check our versions with furniture based on the same equipments and the references: RY-500AG (Gas analyzer), RY-500AH (Smokemeter) and RY-500-AGH (both equipments integrated).



Gas Analyzer + Smokemeter EIS-5000

Compatible with gasoline and diesel vehicles



Description

The **EIS-5000 Gas Analyzer and Smoke Meter** is a modern equipment prepared to work under DIN 57411, SAE J1677 USA/Canada (opacimeter) and OIML R99 Classes 1 and 0, **ISO 3930:2009**, UNE 82501, Bar 90 and 97, and US EPA ASM (Gas Analyzer).

Adapted to current regulations for vehicles with dual exhaust system, and the exhaust system, and possibility of performing two measurements.

Among the Autozero systems on the market, the EIS 5000 can boast **the most powerful Zero in the world, as it is made using canisters that generate pure Zero air**, leaving behind carbon filters.

- ✓ The OBDII DAD peripheral with USB and Wi-Fi communication is capable of obtaining all the necessary data required by the BAR97.
- ✓ First gas analyzer compatible with all dynamometer benches on the market.

Standard Equipment

- ✓ Gas Analyzer and Smoke Meter module
- ✓ Sample collection probe
- ✓ Temperature sensor and OBDII DAD
- ✓ Electronic control and SMRW software
- ✓ Zero air generator via cylinders

Optional Equipment

Optional equipment

2D Barcode scanner



Stickers printer



Fingerprint scanner



Leak tester for fuel plugs



Voltage stabilizer



Tachometer and accessory kit for rpm measures



Tachometer and accessory kit for rpm measures

OBD and software



NO_x Sensor

Double probe hose



Motorcycle exhaust pipe adaptation kit



Pole for vehicles with vertical exhaust

ENAC-certified calibration lenses (20% / 37% / 60%)

Probe extension



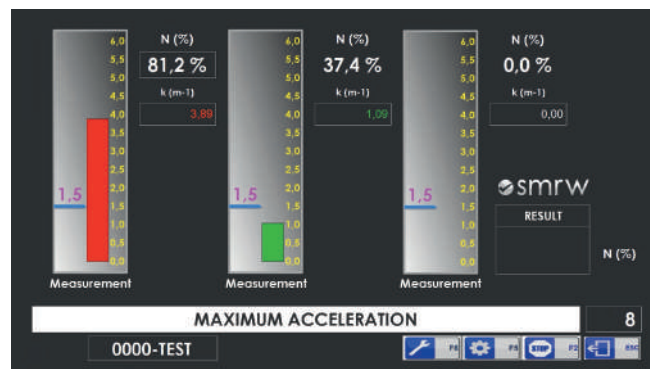
The EIS-5000 cabinet includes protection and safety systems in all its compartments to eliminate any possible tampering. Consult our possibilities in terms of security.



Software



EIS-5000 GAS ANALYZER SOFTWARE



EIS-5000 SMOKEMETER SOFTWARE

Gas Analyzer Technical Data

Measurable gases	HC/CO/CO ₂ /O ₂ /NO _x (op.)
Calculation of Lambda factor and corrected CO	
Storage temperature	- 50 °C to 70 °C
Operating pressure	812 to 1,085 mbar
Automatic water and particle removal	
Power supply	230 V / 50 or 60 Hz
Oil temperature/resolution	OBD
r.p.m/resolution	OBD
Rejection valuation	Yes
Humidity	5 - 95 % ± 8 %
Environmental conditions	0 - 140 F ± 3 % (- 18 °C to 60 °C)
Barometric pressure	24 - 32 in. Abs ± 3 % (812 - 1,085 mbar)
Pneumatic pressure	80 - 90 psi (5.5 - 6.2 bar)

Measuring ranges and resolution

	Measurement range	Resolution	High
HC	0 - 20,000 ppm	1 ppm	N/A
CO	0 - 15 % vol.	0.01 % vol.	N/A
CO ₂	0 - 20 % vol.	0.1 % vol.	N/A
O ₂	-0.8 - 21.7 % vol.	0.1 % vol.	0.01 %
NO _x (op)	0 - 5,000 ppm	1 ppm	10 ppm
Lambda	0.8 - 1.2	0.01	0.001%

Measurement	Range	Resolution
Regime	0 - 9,999	Depends on the device
Oil temperature		OBD

Smoke Meter Technical Data

Environmental working conditions	
Operating temperature	-10 °C to +55 °C
Official operating temperature	0 °C to 45 °C
Humidity	30 % to 90 %
Pollution	< 2 %
Optics	Strong green light between 480 y 680 mm / max. 565 mm
Detector	Sicilium photodiode
Acoustic noise	53 dB
Warm-up period	3 - 6'

Standard test probe	745 mm / 10 mm
Power supply	230 V / 50 Hz
Standards	ISO 11614 CEM UNE 82503 NFR 10025 - 2016
Measurement of opacity in % and absorption coefficient K calculated according to the Beer-Lambert law.	

Measuring ranges and resolution

	Measuring range	Resolution
N	0 - 99.9 %	0.10 %
K	0,00 - 9.99 m ⁻¹	0.01 m ⁻¹



Speedometers

Light vehicles

- ✔ Speedometer for Light Vehicles **VTL-AE**
- ✔ Speedometer for Light Vehicles **VTL-N**
- ✔ Speedometer **VTL+M** (Tricycles)

Heavy Vehicles

- ✔ Universal Speedometer **VTU-N**
- ✔ Free Rollers **6WD**

Motorcycles

- ✔ Speedometer **VTC-III (Embeddable)**
- ✔ Speedometer for Mopeds **VTC-05**





Speedometer for Light Vehicles

VTL-AE (Electric Drag)

Ryme  worldwide



Perform your
taximeters test with
the VTL-AE

Up to 3.5 T



Description

Ryme Worldwide's **VTL-AE Light Vehicle Speedometer** allows you to quantify the time, space traveled and price of **light vehicles up to 3,500 kg**.

The **speedometer** records the speed indicated by the inspector and the actual **speed**, showing the difference in %.

The **odometer** test records the **distance** indicated by the technician and compares it with the actual distance, showing the difference in %.

The **taximeter** test identifies **the charging error, in different prices**, indicating if the value is out of parameters, both in kilometer and hourly test.

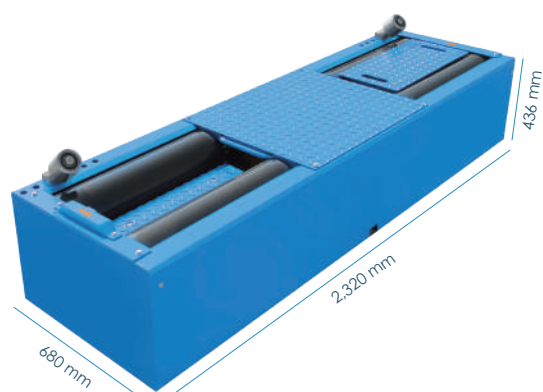
Software



Technical Data and Dimensions

Maximum axle load	3.5 T
Maximum test speed without traction	0 - 120 km/h
Max/min Track width	2,130 / 795 mm
Measuring step	1 km/h 0.1 m
Roller lock system	Pneumatic
Voltage	400 V / 50 Hz Three-phase
Roller length / diameter	682 / 202 mm
Roller wheelbase	360 mm
Dimensions and weight	2,320 x 680 x 436 mm 750 kg
Pneumatic power supply	8 bar
Consumption	7.5 kW

Electric drag motor for traction axles with 7.5 kW drive up to 60 km/h



Standard Equipment

- ✓ Electric brake speedometer
- * Special rollers for better grip
- ✓ Control console
- ✓ Roller covers
- ✓ Electronic control and SMRW software
- ✓ Pneumatic lift for easy exit
- ✓ Safety bumpers to prevent side ejection

Optional Equipment

Optional equipment



Voltage stabilizer



4x4 free rollers

End-of-line console (consult)

Taximeter Tests

- ✓ Hourly drag test
- ✓ Kilometer drag test
- ✓ Possibility to select different prices

Speedometer Tests

- ✓ Testing and evaluation of results at different speed ranges

Odometer Tests

- ✓ Testing and evaluation of results for different distances traveled



Speedometer for Light Vehicles

VTL-N (pneumatic)

Ryme  worldwide

Up to 3.5 T



Description

The Ryme Worldwide **VTL-N Light Vehicle Speedometer** allows you to quantify the time and space traveled or light vehicles up to 3,500 kg.

The **speedometer** records the speed indicated by the inspector and the actual **speed**, showing the difference in %.

The **odometer** test records the **distance** indicated by the technician and compares it with the actual distance, showing the difference in %.

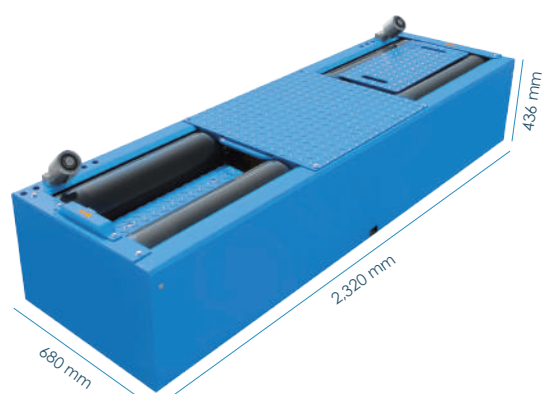
Incorporates a photocell for calculating the error introduced by tire deformation

Software



Technical Data and Dimensions



Maximum axle load	3.5 T
Maximum test speed without traction	0 - 120 km/h
Max/min Track width	2,130 / 795 mm
Measuring step	1 km/h 0.1 m
Roller lock system	Pneumatic
Voltage	400 V / 50 Hz
Roller length / diameter	682 / 202 mm
Roller wheelbase	360 mm
Dimensions and weight	2,320 x 680 x 436 mm 750 kg
Pneumatic power supply	8 bar
Consumption	By signals
Air consumption	By cycles



Standard Equipment

- ✓ Light Vehicles speedometer
- * Special rollers for better grip
- ✓ Control console
- ✓ Roller covers
- ✓ Electronic control and SMRW software
- ✓ Pneumatic lift for easy exit
- ✓ Safety bumpers to prevent side ejection

Optional Equipment

Optional equipment	
	Voltage stabilizer
	4x4 free rollers
	End-of-line console (consult)

Speedometer Tests

- ✓ Testing and evaluation of results at different speed ranges

Odometer Tests

- ✓ Testing and evaluation of results for different distances traveled



Up to 1 T



Description

Ideal machine to **test and determine the speed limiter status** of quadricycles, motorcycles, quads and three-wheel motorcycles.

High resistance steel frame assembled under the exclusive **"Perfect-fit" system**, which characterizes **all Ryme brand frames**, with great **adjustment accuracy**, avoiding the possibility of human errors in the assembly and giving an unbeatable appearance.

The speed measurement is obtained through an **incremental encoder mounted on the front roller axis**. Given the encoder resolution, a high reading **accuracy is obtained**, higher than $\pm 0,1$ km/h.

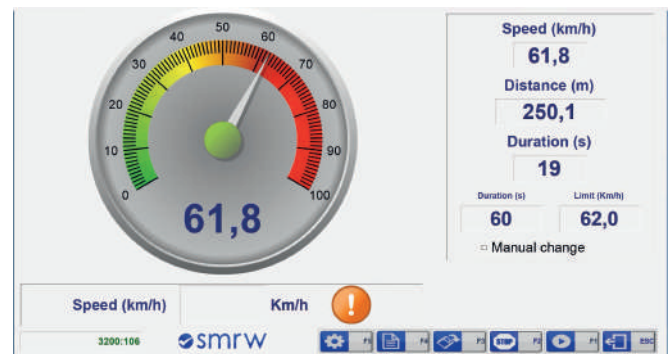
Smooth surface, painted in epoxy that provides the rollers a high durability.

Technical Data and Dimensions

Max load per axle	1 T
Max test speed	120 km/h
Track width min / max	200 - 1,600 mm
Escalón de medida	1 km/h - 0.1 m
Voltage	230 V 50 Hz
Rollers length	495 / 1,000 mm
Rollers diameter	202 mm
Distance between axles	360 mm
Pneumatic supply	8 bar
Weight	500 kg



Software



Standard Equipment

- ✓ Speedometer with electric brake
- ✓ Control console
- ✓ Electronic control and SMRW software
- ✓ Special rollers for a perfect adhesion

Optional Equipment

Optional equipment



Voltage stabilizer

End-of-line console (consult)



Up to 16 T



Description

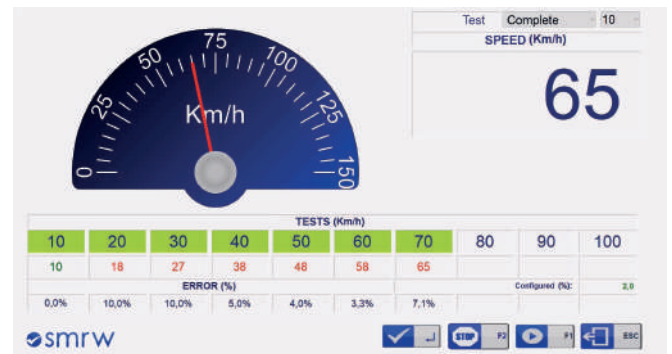
Ideal for **testing and determining the status of the speedometer** and **tachograph**, quantifies the time, the distance travelled and the price of the journey made.

The **speedometer** compares the **speed** indicated by the technician and the real speed, finding the difference between both in %.

The **tachograph** test registers the **distance** indicated by the technician and the real distance travelled by the vehicle, finding the difference between both in %.

The measurement system is based on a high-resolution encoder and incorporates a photocell to calculate the error introduced by the deformation of the ties.





Software



Standard Equipment

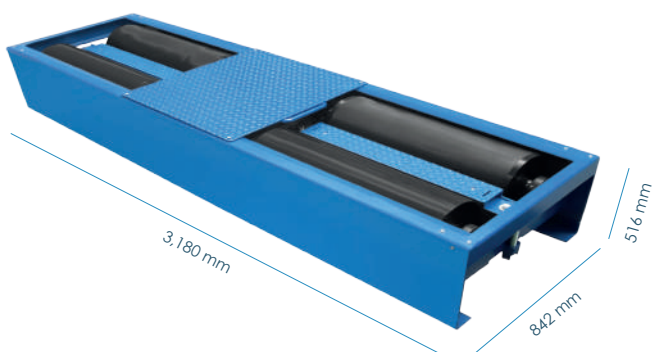
- ✓ Universal speedometer
- ✓ Control console
- ✓ Rollers covers platform
- ✓ Electronic control and SMRW software
- ✓ Pneumatic lift for easy exit
- ✓ Safety bumpers to prevent side ejection
- ✓ Special rollers for better grip

Optional Equipment

Optional equipment	
	Voltage stabilizer
	4x4 free rollers 6WD
	Free rollers for AWD vehicles
	Tacographs speed limiter/tester
End-of-line console (consult)	

Technical data and Dimensions

Max load per axle	16 T
Test max speed	0 - 120 km/h
Track width min / max	805 / 2,635 mm
Range of measurement	1 km/h 0.1 m
Roller locking system	Pneumatic
Voltage	230 V / 50 Hz
Roller length	900 mm
Rollers diameter	318 mm
Wheelbase Roller	456 mm
Pneumatic supply	8 bar max.
Weight	1,160 kg



Speedometer Tests

- ✓ Testing and evaluation of results at different speed ranges

Odometer Tests

- ✓ Testing and evaluation of results for different distances traveled



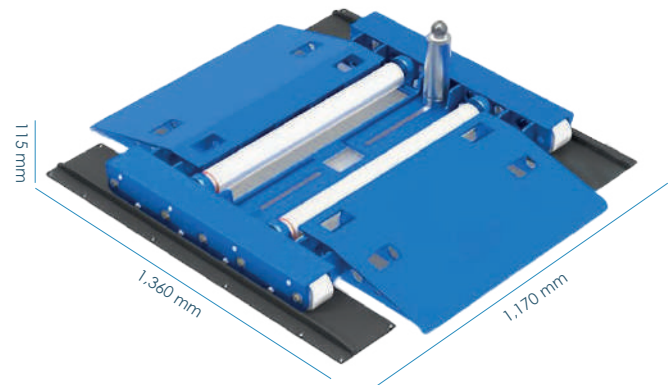
Description

The **6WD free rollers** are destined to the **speed test** of industrial vehicles of **4WD and 6WD**. In this way, our equipment **completes the features of the speedometer** to carry out the **speedometer and the tachograph test**.

The assembly is composed of **two welded steel frames** on which are mounted the rollers that allow the vehicle's tire to rotate freely.

Each frame has rows of rollers that allow the **longitudinal displacement** of the assembly, adaptable to the whole range of wheelbases or distances between axles. It also has a mechanical **interlocking system** that **restricts the movement during maneuvers** to facilitate the vehicle entry, exit and testing.

The equipment has an **auxiliary roller** that adjusts to the tire, limiting the transversal deviation of the tire during the test. Manually installed **ramps allow the entry and exit of the vehicle**.



The main advantage of the 6WD rollers is that they do not require any civil works, making installation costs or installation adjustment costs irrelevant.

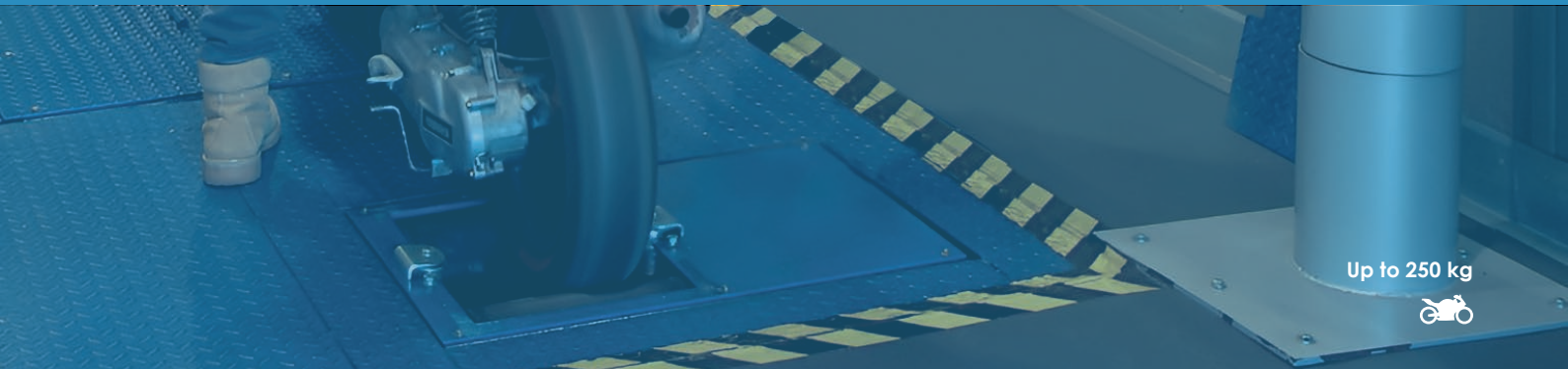
Technical Data and Dimensiones

Max load per axle	10 T
Rollers lenght	800 mm
Roller diameter	80 mm
Distance between Roller centres	310 mm
Frame dimensions and weight	1,170 x 1,360 x 115 mm 130 kg
Ramps weight	25 kg

Standard Equipment

- ✓ 6WD rollers frame
- ✓ Safety mechanical interlocking system during the test
- ✓ Anti-wear Teflon sliding rollers
- ✓ Module for adjusting the vehicle axles





Description

Speedometer **designed to be embedded** or to be on the surface, ideal for verifying the tachometer and the mopeds limiter. High resistance steel frame assembled under the exclusive **"Perfect-fit" system**, which characterizes **all Ryme brand frames**, with great **adjustment accuracy**, avoiding the possibility of human errors in the assembly and giving an unbeatable appearance.

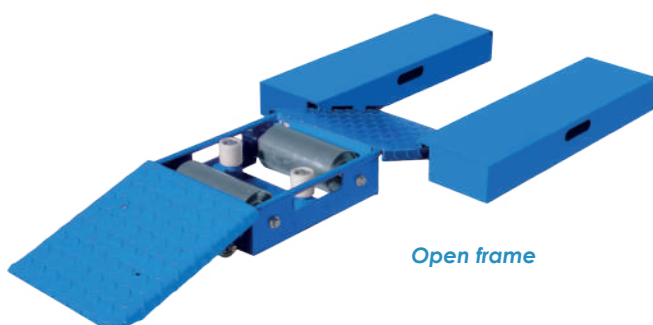
The speed measurement is obtained through an **incremental encoder mounted on the front roller axis**. Given the encoder resolution, a high reading **accuracy is obtained, higher than $\pm 0,1$ km/h**.

The surface is smooth and coated with an antioxidant treatment that gives the rollers great durability.

- ✓ Movable rear roller to adjust different wheel diameters
- ✓ Frame to be embedded or just on the surface

Technical Data and Dimensions

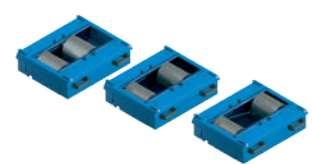
Max load per axle	250 kg
Max test speed	120 km/h
Rollers length	195 mm
Rollers diameter	150 mm
Distance between roller axes (3 positions)	a) 366 mm b) 308 mm c) 250 mm
Rolling resistance	< 0.1 Nm
Equipment weight	56 kg
Platform weight	9 kg



Open frame

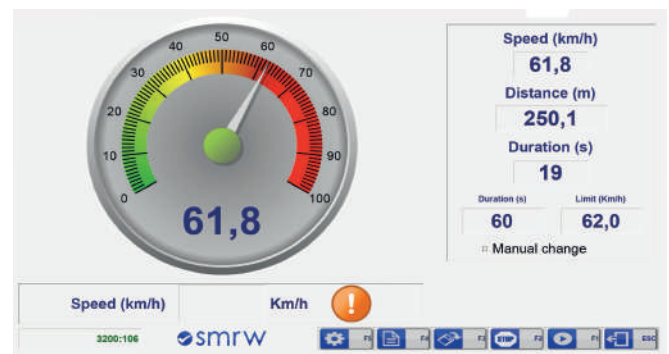


Embedded frame



Adjustable rollers distance






Software

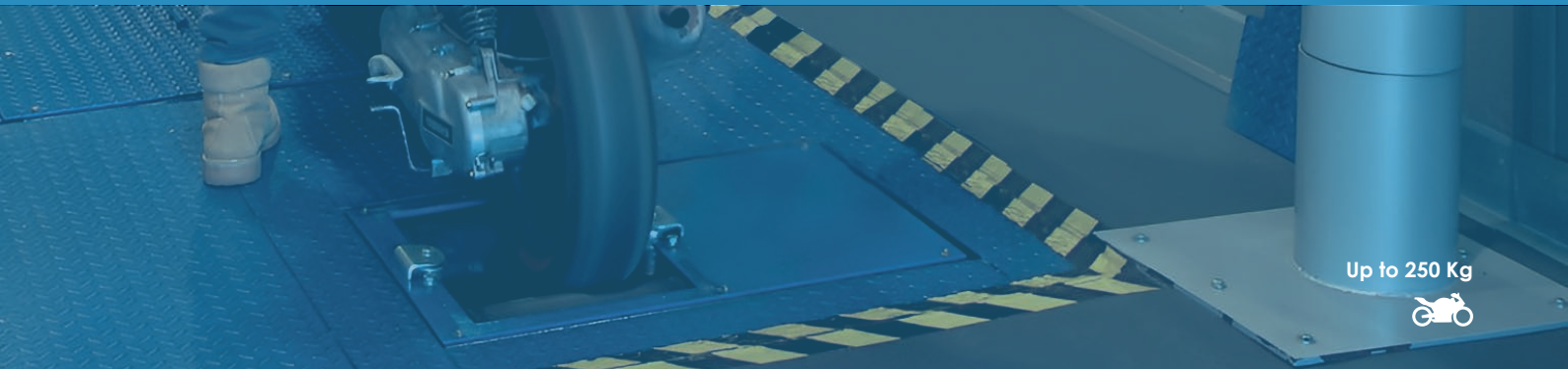


Standard Equipment

- ✓ Speedometer frame
- ✓ Folding access ramps
- ✓ Foot-resting platforms
- ✓ Electronic control and SMRW software

Optional Equipment

Optional equipment	
	Voltage stabilizer
	Front wheel clamping clamp
	Pneumatic clamping clamp
	Calibration weights
	Ramp / Platform
	End line console (consult)



Up to 250 Kg



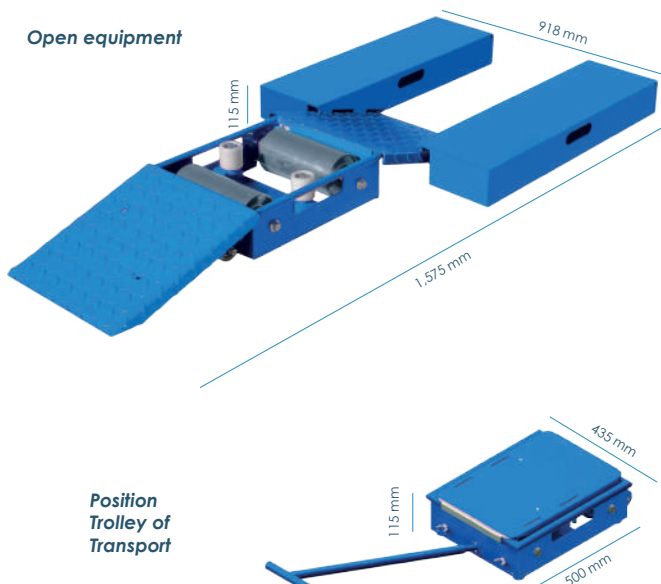
Description

The **VTC-05** Speedometer is designed to check the maximum speed limiter of mopeds. The structure of Ryme's equipment supports **up to 250 kg per axle per step**.

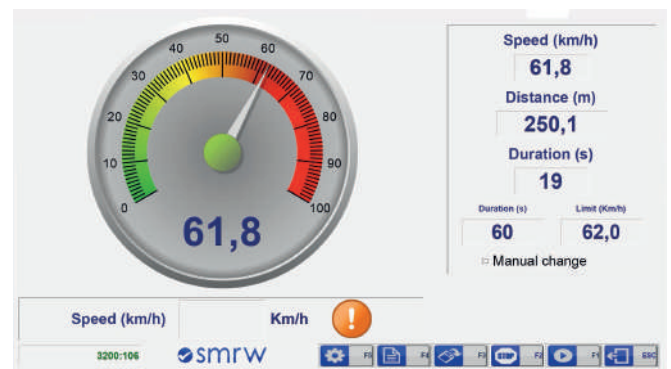
The speed measurement is obtained through an impulse sensor taken on the rollers. The surface of the rollers is smooth and coated with an anti-rust treatment for the correct performance of the test.

Technical Data and Dimensions

Maximum load	250 kg
Maximum test speed	120 km/h
Roller length	390 mm
Roller diameter	102 mm
Roller center distance	260 mm
Rolling resistance	< 0.1 Nm
Dimensions open equipment	1,575 x 918 x 115 mm
Dimensions closed equipment	500 x 435 x 115 mm
Weight of frame Platform	41 8 kg
Consumption	Through signals







Software



Standard Equipment

- ✓ Moped speedometer
- ✓ Access ramps
- ✓ Electronic control and SMRW software
- ✓ Foot support platform

Optional Equipment

Optional equipment	
	Voltage stabilizer
FRM II Portable Brake Tester Integration	
	Front wheel clamp
	Pneumatic clamp
	Inertia mass kit for calibration
End-of-line console (consult)	



Emission Benches

Light vehicles

- ✓ Emission Test Bench by acceleration simulation **ASM 2WD**
- ✓ Emission Test Bench by acceleration simulation **ASM 4WD**

Heavy vehicles

- ✓ Testing Bench with loading capacity **BD-U**

ASM





Emission Test Bench by acceleration simulation ASM 2WD



Up to 4 T



Description

The **ASM emissions bench for 2WD vehicles**, can prevent, locate and investigate ignition and injection problems, and improve the fuel consumption and gas emissions measurement of the vehicle under load.

During the emission tests, an **absortion of the power in accordance with the ASM standard** is made through an **electric brake** self-cooled by air. It is composed of a **steel monocoque frame with four 350 mm rollers on it**.

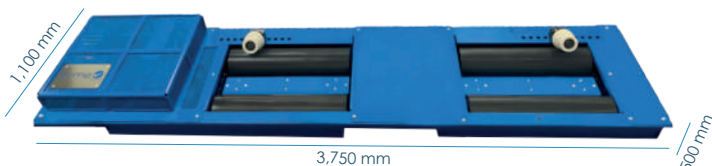
The front rollers are covered with tungsten carbide to improve the adhesion of the vehicle and to avoid rollers wear. **A high energetic absortion electric brake is included.**

Technical Data and Dimensions

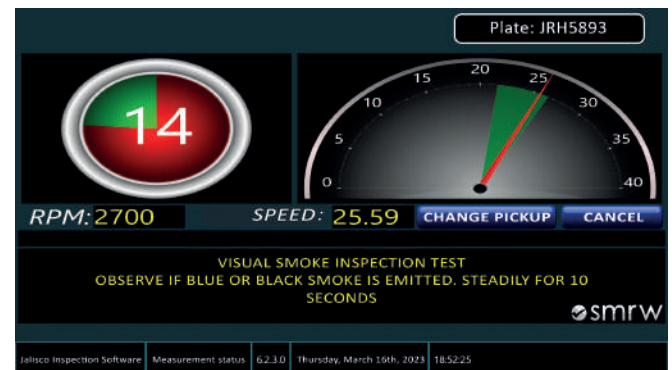
Max load per axle	4 T
Max test speed	70 km/h
Track width min / max	760 - 2,480 mm
Voltage	400 V 50 Hz
Rollers length	860 mm
Rollers diameter	218 mm
Rollers distance between axles	440 mm
Pneumatic supply	8 bar/min
Conection	RS232
Dimensions and weight	3,750 x 1,100 x 500 mm 1,900 kg



The ASM test can be done together with the gas analyzers. From Worldwide Group, **we recommend the integration with our Gas analyzer EIS-5000**, capable of carrying the test with any dynamometer bench. Consult its datasheet and options..



Software



Standard Equipment

- ✓ Dynamometer bench ASM 2WD
- ✓ Control cabinet *
- ✓ Meteorological station
- ✓ Focault brake
- ✓ Electronic control and SMRW software
- ✓ Pneumatic lifter to ease the exit of the vehicle
- ✓ Safety stops to avoid lateral exit
- ✓ Special rollers for a better adhesion

* Depending on the integration with our gas analyzers, the control cabinet changes. Consult the better option for your center with our professional team.

Optional Equipment

Optional equipment



Voltage stabilizer



4x4 free rollers



Vent for cooling



Calibration lever for light vehicles



30 kg Calibration lever

End-of-line cabinet (consult)



Emission Test Bench by acceleration simulation ASM 4WD



Up to 4 T



Description

The **ASM emissions bench for 4WD vehicles**, can prevent, locate and investigate ignition and injection problems, and improve the fuel consumption and gas emissions measurement of the vehicle under load.

During the emission tests, an **absortion of the power in accordance with the ASM standard** is made through an **electric brake** self-cooled by air. It is composed of a **steel monocoque frame with four 350 mm rollers on it**.

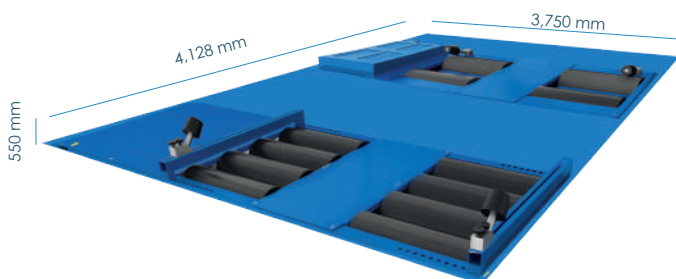
The front rollers are covered with tungsten carbide to improve the adhesion of the vehicle and to avoid rollers wear. **A high energetic absortion electric brake is included.**

Technical Data and Dimensions

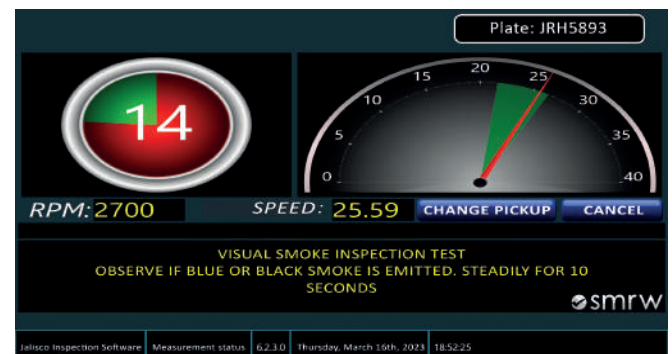
Max load per axle	4 T
Max test speed	0 - 300 km/h
Track width min / max	785 - 2,310 mm
Voltage	400 V 50 Hz
Rollers length	752 mm
Rollers external diameter	352 mm
Rollers distance between axles	498 mm
Pneumatic supply	8 bar/min
Connection	RS232
Measurement range	0.1 km/h 0.1 HP
Weigh	5,200 kg



The ASM test can be done together with the gas analyzers. From Worldwide Group, **we recommend the integration with our Gas analyzer EIS-5000**, capable of carrying the test with any dynamometer bench. Consult its datasheet and options..



Software



Standard Equipment

- ✓ Dynamometer bench ASM 2WD
- ✓ Control cabinet *
- ✓ Metheorological station
- ✓ Focault brake
- ✓ Electronic control and SMRW software
- ✓ Pneumatic lifter to ease the exit of the vehicle
- ✓ Safety stops to avoid lateral exit
- ✓ Special rollers for a better adhesion

* Depending on the integration with our gas analyzers, the control cabinet changes. Consult the better option for your center with our profesional team.

Optional Equipment

Optional equipment



Voltage stabilizer



Vent for cooling



30 kg calibration lever

End-of-line console (consult)



Up to 16 T



Description

The **testing bench with loading opacity for heavy vehicles**, can prevent, locate and investigate ignition and injection problems as well as improving the fuel consumption and measuring the vehicle gas emissions under load.

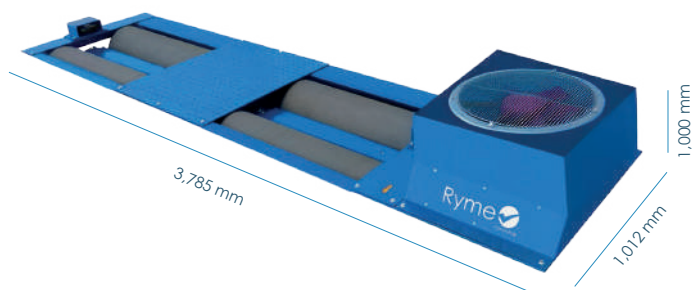
It is formed by a **steel monocoque frame with four rollers of 350 mm on top**. The front rollers are covered of tungsten carbide to improve the vehicle adhesion and avoid rollers wear.

Technical Data and Dimensions

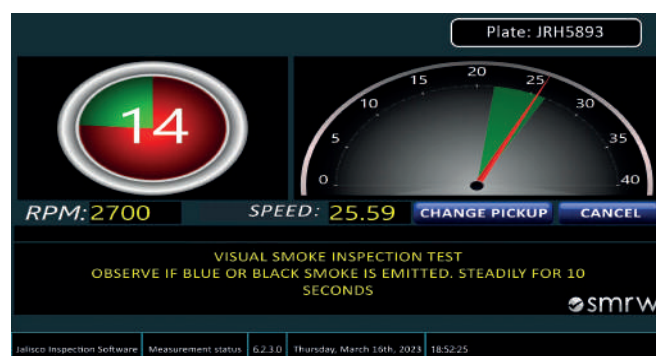
Max load per axle	16 T
Max test speed	0 - 300 km/h
Track width min / max	820 / 2,680 mm
Measurement scale	0.1 km/h 0.1 HP
Measurable power	600 kW / 800 CV
Power supply	400 V 50 Hz
Roller length	965 mm
Roller diameter	350 mm
Distance between centers	504 mm
Pneumatic supply	8 bar/min
Connection	RS232
Dimensions and weight	3,785 x 1,012 x 1,000 mm 2,400 kg



The ASM test can be done together with the gas analyzers. From Worldwide Group, **we recommend the integration with our Gas analyzer EIS-5000**, capable of carrying the test with any dynamometer bench. Consult its datasheet and options..



Software



Standard Equipment

- ✓ Bench with loading opacity BD-U
- ✓ Control cabinet*
- ✓ Smoke analyzer module
- ✓ Weather station
- ✓ Electronico control and SMRW software
- ✓ Pneumatic lifter to ease the exit
- ✓ Special rollers for a perfect adhesion

* Depending on the integration with our gas analyzers, the control cabinet changes. Consult the better option for your center with our professional team.

Optional Equipment

Optional equipment



Voltage stabilizer



rpm counter and rpm measurement kit

Fan for cooling

End-of-line console (consult)

Headlight Testers

Headlight Testers

- ✔ Digital Headlight Tester **RY-RL**
- ✔ Electronic Headlight Tester **RY-RM**
- ✔ Automatic Headlight Tester **RY-RR**
- ✔ Analogic Headlight Tester **RY-5413**
- ✔ Analogic Headlight Tester **RY-RAR**

Calibrators

- ✔ Headlight Tester **Calibrators**





Compatibility (-6%)



Description

Headlight tester suitable to verificate and adjust any type of headlight (measures in % and in cm/10 m the inclination of the headlights).

In addition to meet the CE regulations, it also has the TÜV approval.

Features

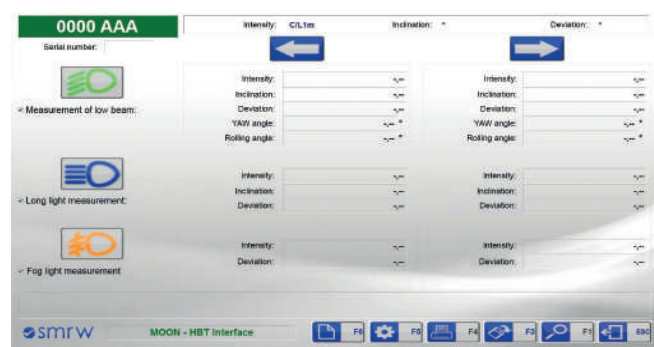
- ✓ Height adjustment mechanism with locking system
- ✓ Li-Ion batteries with external charger input
- ✓ Comfortable movement, thanks to the position of the wheels, it has an anti-rolling base
- ✓ Swiveling bar that allows 360° rotation with the possibility to lock the optical block in any position along the bar



Technical Data and Dimensions

Lights	HALOGEN, XENON, LED, LOW BEAMS, HIGH BEAMS, FOG LIGHTS
Wheels	3 adjustable wheels
Measurement range / resolution	0 - 150 kcd / 0.1 %
Adjustable height	min: 250 mm max: 1,400 mm
Vertical deviation	- 6 % to + 2 % accuracy: ± 0.2 % resolution: 0.1 % max error: ± 0.1 %
Horizontal deviation	± 6 % accuracy: ± 0.2 % resolution: 0.1 % max error: ± 0.2 %
Conection	USB / WIFI / Bluetooth

Software



The digital headlight tester has a native software installed on the 10" tablet that **communicates directly with the SMRW on PC.**

Standard Equipment

- ✓ Digital headlight tester RY-RL
- ✓ Laser viewfinder
- ✓ Laser pointer
- ✓ 10" tablet
- ✓ Protective cover
- ✓ Centimeters marked column
- ✓ SMRW software

Optional Equipment

Optional equipment

Standard RY-RL headlight tester

Counterweight and auto-straighten RY-RL headlight tester

1,900 mm pole

1,500 mm 2 section rail



Description

Electronic headlight tester RY-RM equipped with a camera for a complete analysis of headlights, valid for all types of headlights.

Valid for European, American and Japanese vehicles.

Interface through Graphic LCD display that, in a few simple steps, guides the operator in the execution of the test with accuracy and simplicity.

Technical Data and Dimensions

Lights	LED, BILED, BEAM, LOW BEAM, XENON, BIXENON, FOG BEAM, HALOGEN & TURNING LIGHT
Number of wheels	3
Measuring range	150,000 cd
Error	± 5%
Connectivity	RS232, WiFi, Bluetooth

Standard Equipment

- ✓ Viewfinder and laser pointer
- ✓ RS232 and Bluetooth ports
- ✓ 5.7" Touchscreen and reversible screen support
- ✓ Headlight tester software (integrated in the device)
- ✓ SMRW control software (PC)

Optional Equipment

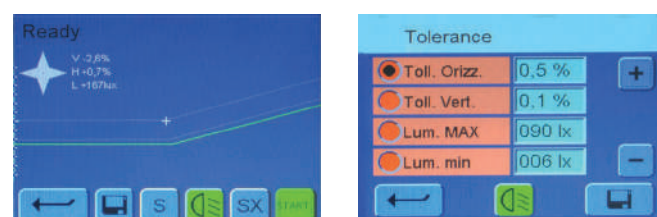
Optional Equipment
Height sensor
LAN connection
Tilt sensor
Single rail
Double rail on floor
Double rail in civil works
Single Bluetooth



SMRW software in english



Integrated Software





Compatibility



Description

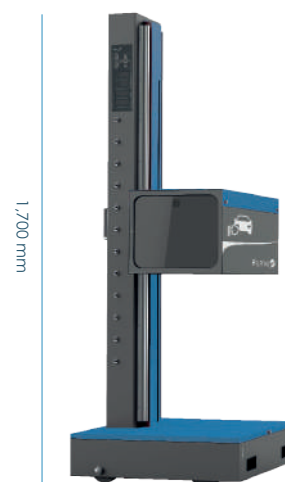
The new **RY-RR headlight tester** is designed to be an **automatic headlight measuring device for every type of vehicle**. Conceived for its use at **technical inspection vehicles, workshops and vehicle factories** among others.

Fast operation, 40'' average, and just 25'' with double lamp test synchronously.

Thanks to the **latest technology of his CCD camera sensor**, **the shot offers a higher dynamic range** (high lights, mid-tones, and shadows) of the captured images. Also, **the CCD sensor produces high quality images with reduced digital noise**, **the shot and the image processing timing are lower** as well, regarding other camera processors with CMOS technology.

Technical Data and Dimensions

Lights	LED, XENON, HALOGEN, LASER, POSITION LAMP, LOW BEAMS, HIGH BEAMS, FOG LIGHTS (op.)
Adjustable height	min: 350 mm max: 1,400 mm
Luminous intensity	0 - 120 kcd $\leq \pm 10 \%$
Measurement range	top: 400 mm / 10 m bottom: 560 mm / 10 m left: 560 mm / 10m right: 560 mm / 10 m
Accuracy	$\pm 32 \text{ mm} / 10 \text{ m} (\pm 8 \%)$
Power supply	AC 220 V $\pm 10 \%$, 50 Hz $\pm 1 \%$
Operation temperature	- 5 °C to +40 °C
Test distance	80 to 120 cm
Conection	RS232
Dimensions	800 x 670 x 1,700 mm
Weight	100 kg
Rails dimensions	5 m



Software



Optional Equipment

Optional equipment

Headlight tester RR calibrator

Headlight tester RR

Headlight tester RR + Fog lights measurement

Standard Equipment

- ✓ Automatic headlight tester
- ✓ Led display with VGA interface
- ✓ High resolution CCD camera sensor
- ✓ Rails to install on the floor

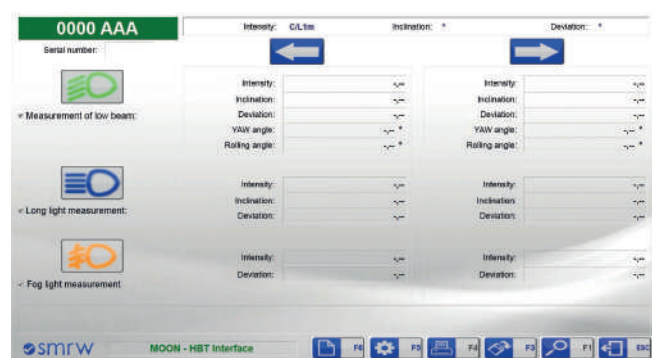


- ✔ Suitable for the verification and adjustment of any type of headlight
- ✔ Suitable for workshops and technical inspection centers
- ✔ Fixed verification display with scale, adapted to ITV standards (0 to -6 %)
- ✔ The equipment is supplied with a level on the foot to compensate the inclination of the road surface, and another level on the optical block to check it
- ✔ Comfortable movement thanks to the position of the wheels
- ✔ Robust anti-rolling base



SMRW Software

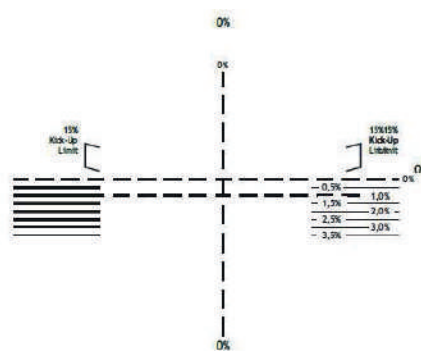
Lights	HALOGEN, XENON, LED, LOW BEAM, HIGH BEAM, FOG LIGHTS
Wheels	3 adjustable wheels
Measuring range	0 - 150,000 cd
Adjustable height	min: 240 mm max: 1,350 mm
Vertical deviation	0 to -6 %
Accuracy	± 0.2 %
Tolerance	± 0.2 %



- Analogic headlight tester RY-5413
- Digital luxometer
- SMRW control software (PC)

Optional Equipment

Optional equipment
Laser pointer
1,900 mm pole



ITV dedicated fixed display



Description

RY-RAR headlight tester with a digital luxometer and an adjusted verification display to read **every type of lights**.

Inclination measurement range: 0 to -6%

Technical Data and Dimensions

Lights	HALOGEN, XENON, LED, LOW BEAMS, HIGH BEAM,S FOG BEAMS
Wheels	3 adjustable wheels
Measurement range	0 - 150,000 cd
Error	± 5 %
Intensity	klux /1m: 0 - 150 kcd: 0 - 150 lux/25m: 0 - 240
Vertical deviation	0 to -6 %
Horizontal deviation	± 5 cm/10m



Standard Equipment

- ✓ Mechanical headlight tester RY-RAR
- ✓ Digital luxometer
- ✓ Polycarbonate lens
- ✓ Two-section column

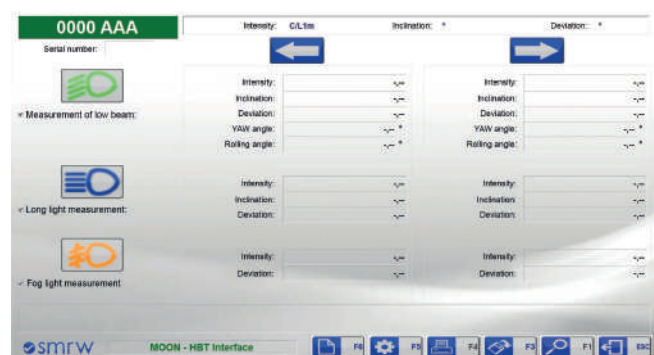
Optional Equipment

Optional equipment

Laser viewfinder

Laser pointer

SMRW Software



Headlight tester calibrator 809602

Device for the periodic verification and control of the headlight testers. It is equipped with a display for volt control, a height adjustable feet, a precision ruler, a 12 V power supply with an integrated connection cable. The connection is carried out through a 100 m RS232 interface (class 1). The connection kit is supplied in two different versions:

025030064

Composed of the PC receiver module and the beacon transmitter module. The kit includes:

- ✓ 2 Bluetooth modules
- ✓ 1 serial cable DB9 M/M
- ✓ 1 serial cable DB9 M/F
- ✓ 1 PC power supply charger

025030064

Composed of the beacon transmitter module. The kit includes:

- ✓ 1 Bluetooth module
- ✓ 1 serial cable DB9 M/M



Universal headlight tester calibrator

Calibrator suitable for the verification of the headlight tester of motor vehicles. Resistance, optical axis displacement angle and shear line angle near the light are the values checked. It is equipped with a standard light source, a horizontal and vertical rotation mechanism, a laser, an stabilized CC power supply, a voltmeter, a horizontal and vertical angle, a rotation mechanism and an alignment mechanism.

Luminous intensity	50 to 800 x 10 2 cd
Angle of optical axis deviation	upper: 3° lower: 3° left: 3° right: 3°
Luminous intensity error	≤ ± 4 %
Repeatability of luminous intensity	≤ ± 1 %
Stability of luminous intensity	≤ 1,5 % / 10 min
Symmetry of light distribution	≤ 10 %
Zero indication error of the optical axis angle	≤ ± 5'
Free error range of the optical axis angle rotation mechanism	≤ 3'
Readjustment change of the optic axis from the horizontal adjust mechanism	≤ 3'





Management Systems

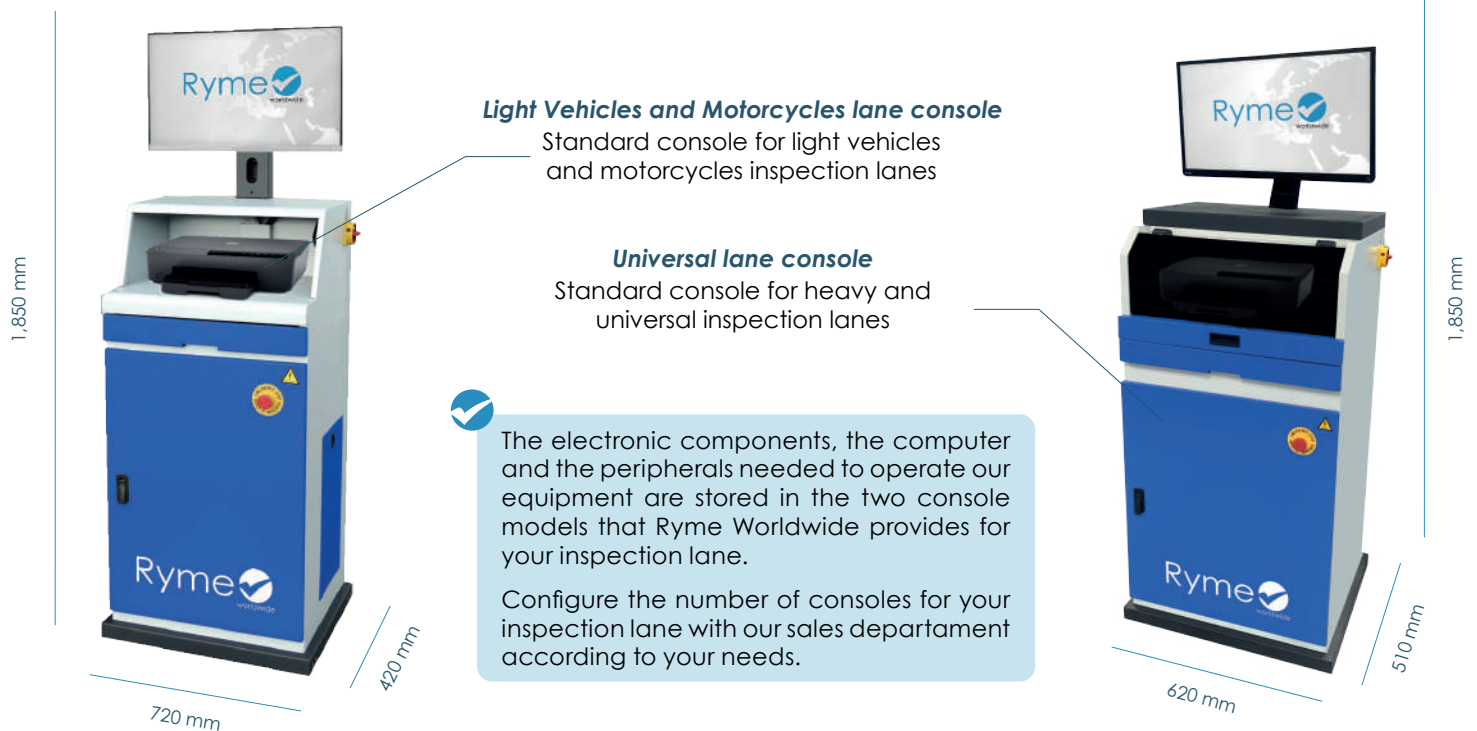
Softwares

- ✓ Electronics + **SMRW** Machinery Software
- ✓ e•swift (Integrated Management Software)





Worldwide Group consoles - Where the control is located



smrw - Ryme Worldwide machinery software



The **Ryme Worldwide machinery software (SMRW)** is the set of **compatible and official programs** for our vehicle inspection equipment.

Our software **can be adapted to each client and each legislation** in technical, appearance and usage matters (always under budget).

All our equipment has its own compatible software, from the machinery section to the peripherals that require a software for its correct operation.

Ryme Worldwide has succeeded in the developing of a software capable of synchronizing with management systems and our integrated management software **e-swift**.

Over the years, our software has achieved a **more visual interface, an easier operation and aspects of improvement in the quality and speed of the inspection**, such as the possibility of **automatic detection of the vehicle**, the possibility of **integrating it with inspection lanes** or improvements in the **connectivity between the different machines** of the inspection lane.



e-swift - electronic-software Worldwide integrated fast test

Our **integrated management software** is a **customized application designed for vehicle inspection centers**. e-swift **manages each Ryme equipment** of the inspection lane and its **process as part of the integrated lane itself**, in order to provide a **faster, more accurate and fraud-free inspection**.

The e-swift is based on the idea of offering a **simple, easy-to-use, transparent and seamless solution**. In this way we have created a tool that provides all the necessary functions in the simplest possible format to increase the productivity of inspection centers.

The software **includes a guide to the examiner throughout the inspection process** and **indicates the tasks** at each point in time. **Data can be entered automatically or manually**, and will be **checked against available records and databases for accuracy in real time**.

e-swift will analyze the data and the test results for irregularities based on information in reference to regulations or the pre-defined limits.

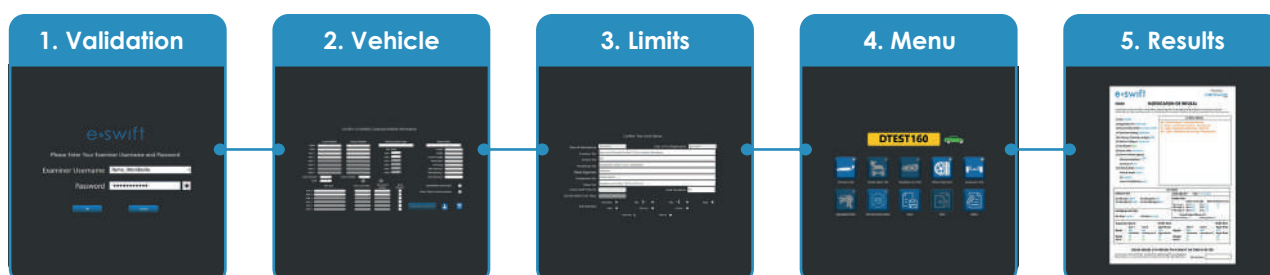


Our e-swift is highly customizable in its interface and functionalities to suit the preferences and regulations of each inspection center and country.

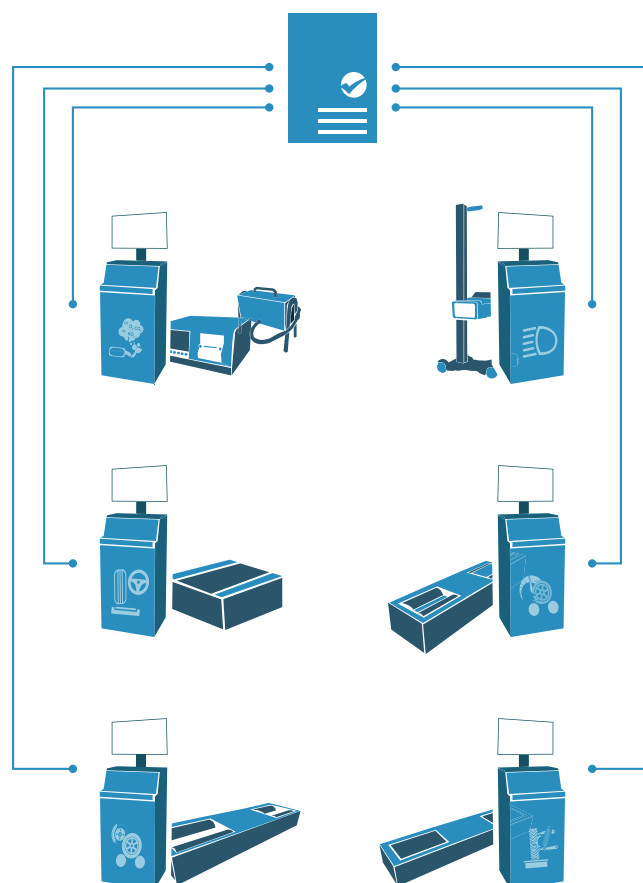
Features

- ✓ User-friendly interface with a modern look and feel
- ✓ Faster operation than in a traditional system
- ✓ Increases the center's productivity
- ✓ Safer
- ✓ Highly customizable
- ✓ Responsive design in different formats/devices
- ✓ Possibility of communication with the regulatory entity

Procedure



Bidirectional communication between the center's server with each lane and with each equipment console





The 5 steps of your high performance test

1. Validation

The first step in the software navigation is the **login screen**, where the examiner must enter his or her user name and password in order to start the procedure.

The users registered in e-swift are **regulated by a system of permissions and roles** fully configurable at the decision of the inspection center. The information of the examiner in charge of the test will be displayed during the whole process.

Possibility of biometric registration by fingerprint reader.

2. Customer and vehicle selection and data

Once logged in, the **menu for selecting the vehicle** to be inspected and those that have already been inspected is displayed, showing a list of the vehicles scheduled for the day, with the license plate number, time and type of vehicle, among other data.

Once the vehicle is selected for testing by clicking on the **"Call Forward"** button, which will display a menu with the center's available lanes. Subsequently the software will switch to the **customer and vehicle information panel** (this form is customizable based on the type of vehicle or center preferences), where all technical and administrative data is displayed.

This data can only be manipulated by certain roles, since the **information is extracted directly from the regulatory entity's database**. The e-swift has an alert system if it detects any irregularity in the information received.

On this screen the examiner has the option to **add a comment** by clicking on the **"Examiner Comments"** button. This information will be saved but will not be printed.

3. Test limits

One of the most important features of e-swift is the **adaptability of the tests** that are going to be performed.

Once the vehicle information has been checked, the software goes to the **test limits screen**, which allows the examiner to **adjust the limits of each test according to the corresponding legislation, type of vehicle, year, size, weight, fuel...**

This makes our software **one of the most versatile center management software solutions**.



4. Main menu

Once the limits of each test have been defined, the software will display the **main menu screen to start the vehicle inspection**. In this menu you can navigate to the previous sections, so **all the information can be consulted at any time during the test**.

The icons of the different tests to be performed are displayed in the center of the menu with an **indicator in the upper left corner indicating the status of the corresponding test**:



Test not performed



Test passed



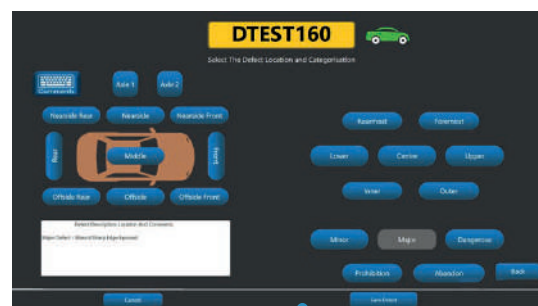
Test passed with minor defects



Test not passed

The menu also shows the type of vehicle being inspected, whether it is a light vehicle or a heavy vehicle, and its license plate (in the case of a heavy vehicle with a trailer with its own license plate, both plates will be shown). **The different tests to be performed can also be customized to the center's preference.**

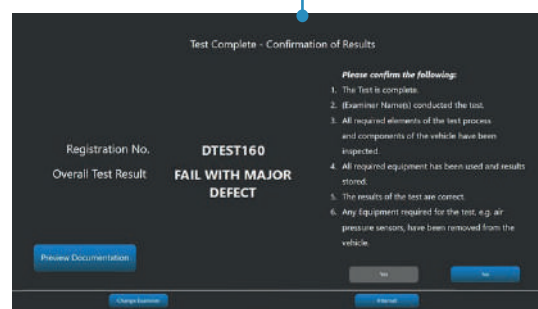
Once all tests are completed, the software will automatically display **a short summary of all test results for 5 seconds** and then return to the main menu. The examiner will then be able to access the **"Vehicle Defects" section to perform a visual inspection of the vehicle**, locate and categorize these defects in the software.



5. Results/Test printing

At any time during the test process, the examiner can select the "Test Complete/Print" icon from the main menu. Once selected, the software will take the examiner to the **"Test Complete" screen, which will present three options**:

- ✓ **"No"**: the software automatically returns to the **main menu**.
- ✓ **"Print Preview"**: by clicking this button, the corresponding documents will be displayed on the screen using a PDF viewer, which will also allow the user to zoom in and out if necessary.
- ✓ **"Yes"**: once 'Yes' is selected on this screen, the software will prompt the examiner to select the printer location with the options of connected printers. Once the examiner selects the printer and clicks the "OK" button, the test documents will be printed to that location. With this action the test comes to an end.



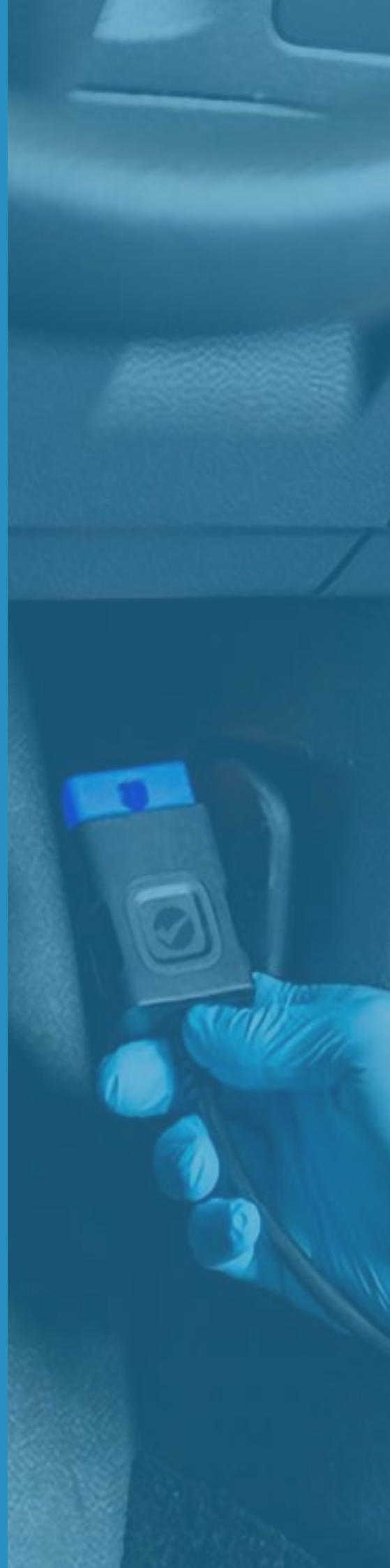


Peripherals

- ✓ Integrating Sound Level Meter **SC-250 Class 1**
- ✓ Integrating Sound Level Meter **SC-202 Class 2**
- ✓ Taximeter Tester via GPS **COM-05-00030**
- ✓ Universal Tachometer **RY-3**
- ✓ Universal Tachometer **868800**
- ✓ Tachometer for Motorcycles **COM-05-03001**
- ✓ Tacographs speed limiter Tester **RY-400 V2**
- ✓ **EOBD Pro**
- ✓ Window tint Meter **RY-900**
- ✓ Leak Detector **RY-GA-12**
- ✓ Tire inflating gun **RY-AIRFORCE II**
- ✓ Portable **tire inflators**
- ✓ Trailer Plug Testers **12V/24V**
- ✓ Decelerometer **BrakeCheck**
- ✓ Door pressure Dynamometer **83500N**

RPM

EOBD





Integrating Sound Level Meter Class 1 SC-250



Class 1



Description

The **SC-250** is a **class 1 Sound Level Meter** that can be upgraded to a **band spectrum analyzer**. It is the **first integrating sonometer with measurement protocols**, which **simplifies the process to obtain the results** to the maximum.

Standard Equipment

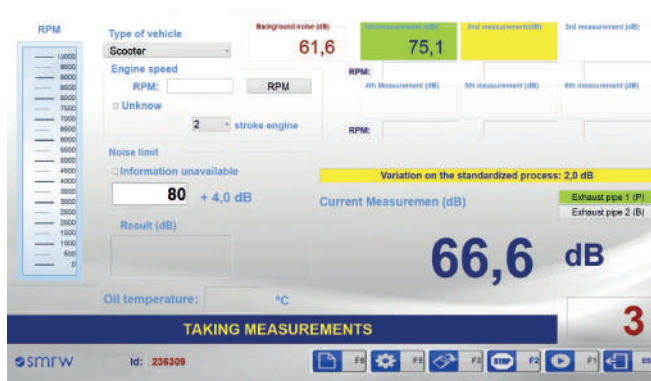
- ✓ Sound Level Meter SC-250
- ✓ Protective case
- ✓ Native equipment software + SMRW software

Technical Data and Dimensions

Lpeak detector	Rising time < μ 75
Resolution	0.1 dB
Max error due to static pressure influence	0.4 - 0.9 dB
Max error due to temperature influence	0.5 dB
Max error due to humidity influence	0.5 dB
Connectivity	Bluetooth, USB C, AC
Dimensions and weight	296 x 85 x 26.5 mm 358 g (with batteries)



Software



Measurement ranges and noises






FREQUENCIAL AND TEMPORAL WEIGHTING

Class according to ICE 61672	Class 1
Frenquencial weighting	A, C and Z
Temporal weighting	F, S and I

Weighting A (dB)	Weighting C (dB)	Weighting Z (dB)
MEASUREMENT RANGE (LF, LS, LI, LT Y LT)		
16.5 - 137.0	16.3 - 137.0	19.9 - 137.0
LINEAL RANGE (LF, LS, LI, LT Y LT)		
23.5 - 137.0	23.3 - 137.0	26.9 - 137.0
RANGE FOR LPEAK FUNCTIONS		
-	55.0 - 137.0	-
ELECTRICAL NOISE		
10.2	11.2	16.4
TOTAL NOISE AT 20° C		
16.5	16.3	19.9

Optional Equipment

Optional equipment

-  Sound level meter calibrator
-  Tripod
-  10 m extension cable
-  30 m extension cable
-  Sound level meter + calibrator + transport suitcase



Integrating Sound Level Meter Class 2 SC-202

Ryme  worldwide



Class 2



Description

The **SC-202** is a **class 2 Sound Level Meter** that can be upgraded to an **octave band and third octave band spectrum analyzer** that measures all parameters simultaneously with all **frequency and temporal weightings**.

Standard Equipment

- ✓ Sound Level Meter SC-202
- ✓ Protective case
- ✓ Native equipment software + SMRW Software

Technical Data and Dimensions

Lpeak detector	Rising time < μ 75
Resolution	0.1 dB
Max error due to static pressure influence	0.7 - 1.6 dB
Max error due to temperature influence	1.0 dB
Max error due to humidity influence	1.0 dB
Connectivity	via Bluetooth, USB C, AC
Dimensions and weight	296 x 85 x 26.5 mm 358 g (with batteries)








Software



Measurement ranges and noises

FRECUENCIAL AND TEMPORAL WEIGHTING		
Class according to ICE 61672	Clas2 2	
Frequency weighting	A, C and Z	
Temporal weighting	F, S and I	
Weighting A (dB)	Weighting C (dB)	Weighting Z (dB)
MEASUREMENT RANGE (LF, LS, LI, LT Y LT)		
16.5 - 137.0	25.5 - 137.0	33-3 - 137.0
LINEAL RANGE (LF, LS, LI, LT Y LT)		
30.5 - 137.0	34.1 - 137.0	38-3 - 137.0
RANGE FOR LPEAK FUNCTIONS		
-	55.0 - 140.0	-
ELECTRICAL NOISE		
12.7	12.5	17.7
TOTAL NOISE AT 20° C		
25.5	29.1	33.3

Optional Equipment

Optional equipment	
	Sound Level Meter calibrator
	Tripod
	5 m extension cable
	10 m extension cable
	Sound Level Meter + calibrator + transport suitcase



Compatibility



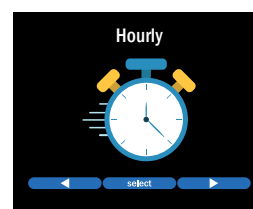
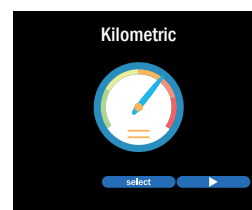
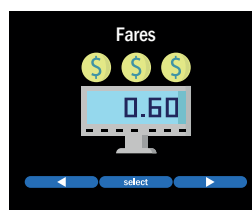
Description

The **COM-05-00030** is a system created for the **verification of fares for all types of cabs**, including vehicles equipped with the **most updated systems** on the market.

The taximeter tester by **GPS**, measures **speed, distance traveled** and **operating time**.

The data is obtained by **evaluating the behaviour of the vehicle** on the road. The meter tester automatically **locates the satellites, analyzes the time and position** information received and derives from it the **space traveled** as well as the **vehicle speed**.

Software



Technical Data and Dimensions

Device	
Dimensions and weight	110 x 55 x 32 mm 500 g
Transport suitcase	230 x 190 x 55 mm
Display	LCD RGB
Min/Max Speed	40 / 120 km/h
Maintenance	Not necessary
Measure time	Instantaneous
Slot for memory card	Yes
Parameterization by ENAC test: cancellation of the test in case of non-compliance with minimum and maximum speeds and under signal qualities within range.	
Tolerance	± 2 %
Wheel drive compatibility	FWD, RWD, AWD, with ESP, TCS, ABS, etc.
GPS Receiver	
Dimensions and weight	40 x 50 x 100 mm 100 g
Magnet support for correct fixation	
Compatibility	NEO-6 and NEO-7
Dilution of accuracy (DOP)	PDOP
Environmental conditions	-40 to +80 °C

Standard Equipment

- ✓ Taximeter tester
- ✓ Via satellite GPS receiver
- ✓ PC Software
- ✓ USB type C PC Connector/charger
- ✓ External memory card
- ✓ Transport suitcase





Compatibility



Description

Engine temperature and **revolution detection** device that also works as a **scantool**. With this dispositive the mechanic uses a **single instrument to perform both tests**.

It is an universal rev counter deisigned for use in both **li-ght and heavy vehicles**. Equipped with **two data acquisition systems: ripple battery** or via **OBD cable**. There is also the optional possibility of using it with an induction clamp or with a piezo sensor. Supports **EOBD protocols: ISO9141, KW2000, PWM, VPMW, CAN BUS** and the latest **WWH-OBD**.

Thanks to its interface, it can **detect data in three different ways**: through the **induction clamp** and **piezoelectric sensor**, through the **microphone** and **battery signal residual**, or directly from the **OBD socket** (with vehicles equipped with such protocol).

In case the detection of revolutions and motor temperature is carreid out through this last modality, the instrument allows the **test to be carried out without opening the motor hood**, since it can connect and detect data through the EOBD protocol

The **RY3** can also be used in **scantool mode**; connected to the **EOBD socket**, it works as a **parameter reader** intended for this standard, as the new emission control procedures say.

Standard Equipment

- ✓ Universal tachometer RY3
- ✓ Power supply clamps (ROM reading by curling alternator)
- ✓ Microphone
- ✓ OBD cable
- ✓ Bluetooth receiver



Technical Data and Dimensions

Connection	Bluetooth
Processor	MB90F591 16 MHz
External power supply	8 / 32 V
Gasoline detection and diesel throw vehicle battery	12 VDC and 24 VDC
Gasoline analog detection	Induction clamp
Diesel analog detection	Piezoelectric clamp
EOBD detection	ISO9141-2 ISO14230 SAE J1850 PWM SAE J1850 VPW CAN ISO11898
Operating temperature	-5 °C / +40 °C
Storage temperature	-20 °C / +60 °C
Operation humidity	10 % / 80 % w/o condensation
Dimensions and weight	155 x 162 x 63 mm 800 g



Compatibility



Description

The universal tachometer 868800 allows simple and precise **measurement of the number of revolutions** and the **oil temperature** of all vehicles with diesel or gasoline engines.

The equipment can **operate autonomously** because it incorporates a display or PC connection via RS232, USB or Bluetooth (optional).

Specs

- ✓ Connection for induction clamp
- ✓ Two independent rpm measurement channels
- ✓ rpm boost output
- ✓ Selection of motor type between 2 / 4 strokes
- ✓ Selection of the numbers of cylinders between 1 and 12

Optional Equipment

Optional equipment

Probe antenna motor

Universal magnetic probe for light vehicles

Magnetic probe for motor



Supply extensor cable 2 m



Supply extensor cable 6 m



Lighter power supply cable

AC USB adaptor



Connection cable RS 232



Extensor cable for rpm sensor



Extensor cable for temperature probe PT100

Magnetic sensor
by accelerometer

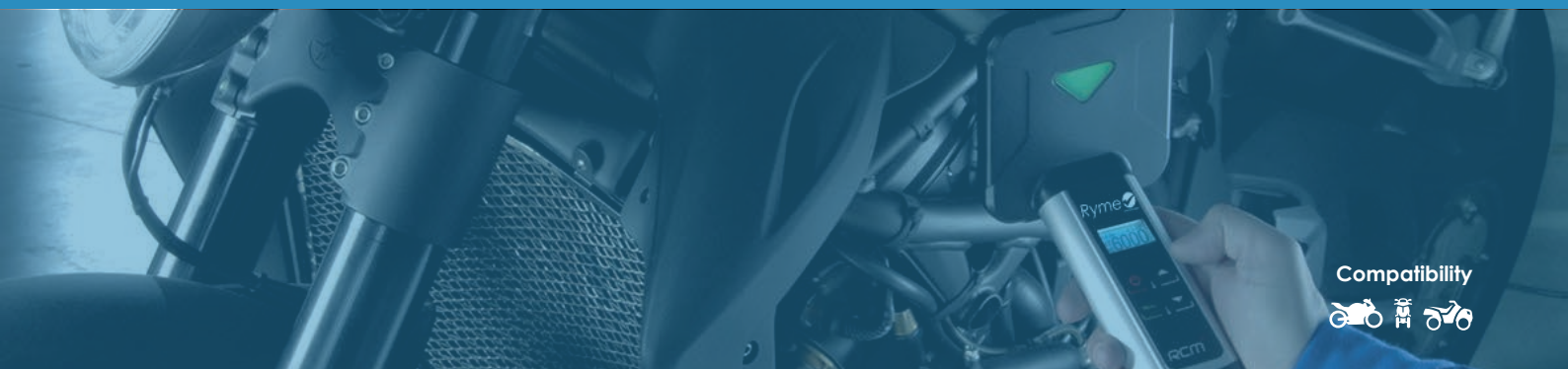


Standard Equipment

- ✓ Universal tachometer 868800
- ✓ USB connection cable with the PC control
- ✓ Supply cable in conjunction with the RY8800/A/USB
- ✓ Transport suitcase

Technical Data and Dimensions

Measure	Range	Resolution
Resolution	200 - 19,990 rpm	10 rpm
Temperature	0 - 200 °C	1 °C
Power Supply	from 10 to 34 VDC	
Supply possibilities	Vehicle battery Lighter (optional) AC adaptor (optional)	
Consumption	0.5 A	
Dimensions	200 x 120 x 45 mm	
Weight	500 g	



Compatibility



Description

The Tachometer **COM-05-03001** has been designed to **be used on motorbikes and motorcycles** by technical inspection centers and workshops, making it easy for the instructor to carry out the different tests quickly and easily, and to carry out pre-testing controls.

It incorporates a **patented measurement technology** that guarantees a **very precise and reliable analysis in the different tests**, in accordance with the **latest emission and noise control standards**.

Technical Data and Dimensions

Connection	USB
Display	Backlight LCD 64 x 128 mm
Alimentación	Lithium Battery 3.75 - 1,000 mAh
Measurement range	0 - 9,990 rpm
Autonomy	7 h measuring continuously
Temperature probe	- 20 to 200 °C
Measurement error	50 rpm or 3 %
Operation temperature	-10 / 50 °C
Storage temperature	-20 / 60 °C
Temperature while charging	0 / 45 °C
Operation humidity	10 % / 80 % w/o condensation
Dimensions and weight	204 x 110 x 117 mm 270 g



Standard Equipment

- ✓ Wireless tachometer
- ✓ Floor stand
- ✓ Charger
- ✓ Transport suitcase
- ✓ Software SMRW for analysis and data submission
- ✓ USB receiver

Operation

Thanks to the **integration with our data reception and control software**, we can **view and store the data** safely, easily and quickly in our management system or database.

It **does not need cables and it is self-powered** with rechargeable batteries; the configuration of the number of cylinders and the number of strokes of the engine are done through the keyboard, the reading of the revolutions is done on

It needs the SC-250 or SC-202 sound level meters to operate correctly.

Our COM-05-03001 allows the measurement of the number of revolutions without having to connect cables and sensors to the motorcycle, thus guaranteeing ease and reduction of the time for the authorized workshop/inspection center to perform the test.



100 %
Wireless and
contactless



Compatibility



Description

Calibrator and programmer for all **analogue and digital tachographs**, mainly use in vehicle inspection stations for checking the speed limiter in tachographs.

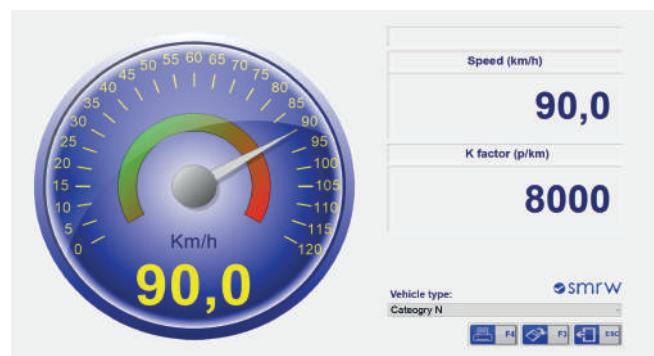
- ✓ "W" Measurement factor (manual and photocell)
- ✓ "K" Measurement factor
- ✓ Parameter configurator
- ✓ Bench test (manual and automatic)
- ✓ Odometer test
- ✓ Reading DTC's (installers only)
- ✓ Sensor matching (KITAS)
- ✓ Clock test

Technical Data and Dimensions

Conection	Bluetooth
Display	Backligh LCD
Power supply	9 - 30 VDC
Made of ABS (IP40)	
Supply current	12 mA
Operation temperature	0 - 70 °C
Dimensions	150 x 100 x 45 mm
Weight	155 g
Internal flash memory	



Software



Standard Equipment

- ✓ Speed limiter RY-400 V2
- ✓ Bluetooth receiver
- ✓ Battery
- ✓ Lighter charger
- ✓ 12 V power supply
- ✓ 1319 cable for MOT
- ✓ 1318 cable, 1314 flat DC test cable
- ✓ Transport suitcase
- ✓ Software SMRW for analysis and data submission

Supported Tachographs



Optional Equipment

Optional equipment

ENAC certified



Compatibility



Description

Ryme Worldwide EOBD Pro dispositivo, developed specifically for the **MOT test and adapted to the 7.70 version of the ITV manual**.

This latest version consider as obligatory two new functions for the first time in history:

- ✓ Inspection of the emergency call system (eCall)
- ✓ Data collection from the OBFCM (On-Board Fuel Consumption Meter)

Technical Data

Communication with every ITV management systems

Free updates

100 % compatible with vehicle nets

Big reliability reading codes

Simplification of the software to analyze the functionalities required by ITV regulations

Optimized inspection timing

Compliance NT66

J1850 PWM

J1850 VPW

ISO 9141

Supported protocols

ISO14230 (KWP 2000)

CAN ISOTP (ISO 15765 / SAE J2480)

WWH-OBD

Standard Equipment

- ✓ EOBD dispositive
- ✓ Extensor for difficult positions
- ✓ SMWR Software for analyze and data submission

Functionalities

MIL state

VIN reading

km/h with MIL on

km/h from code deletion

Ubication diagnosis outlet

Reading of error codes with its own description

Real time parameters

Driving cycles from code deletion

PC Bluetooth adaptor

Optimized equipment for

itv

Workshops pre

itv





Compatibility



Description

The window tint meter RY-900 is a **photo-optical device that accurately measures light transmission** through any type of vehicle window. The tint meter helps to verify compliance with vehicle regulations. **It is prepared to meet the ISO 3538:1996 regulations.**

Thanks to the tint meter we can **control and prevent vehicles from being driven with illegal tinted windows.**

The minimum requirements for modern vehicles in some countries are **light transmissions of 75 % for the windscreen and 70% for the front side windows.**

Technical Data and Dimensions

Display	LED 0 - 100 % Display
Voltage	6 V DC (4 x 1.5 V / AAA)
Operation temperature	-10 °C / +50 °C
Relative humidity	0 - 80 % w/o condensation
Battery life	200 tests (under normal conditions)
Dimensions	170 x 85 x 35 mm
Weight	500 g
Accuracy	± 2 %

Simplified way of use

The Window tint meter is used by **aligning the transmitter and receiver on opposite sides of the glass** and then pressing the 'Enter' button. Then it **emits a beam of light through the glass that is detected by the receiver on the other side.**

The unit then displays **the percentage of light transmission that has passed through the glass.**

The reading can be recorded **manually or printed out** using the printer (optional) for possible legal evidence.

For data verification, an annual calibration can be required in some countries.

Standard Equipment

- ✓ Window tint meter RY-900

Features

- ✓ Very easy to use
- ✓ Light and compact
- ✓ Easy to read screen
- ✓ Compensates for different type of crystals
- ✓ Automatic power off
- ✓ Own independent light source

Optional Equipment

Optional equipment



Infrared printer

Infrared printer + charger

Transport suitcase

Printer paper roll (10 units)



Meter + printer + Transport suitcase





Leak Detector RY-GA-12



Compatibility



Description

The **Leak Detector RY-GA-12** is a mobile and **easy-to-use device**. This leak detector measures combustible gases and generates an **audible and vibrating alarm as soon as it detects a flammable gas**. Thanks to the detector's **semi-rigid probe**, it is possible to orient the sensor to almost **any position** and to measure in hard-to-reach places

This makes the leak detector an ideal tool for detecting the presence or leakage of gases (system checks during factory inspections, engine and pipe checks or gas pipeline checks). **There is no need to manually adjust the combustible gas leak detector, as this device is automatically calibrated.**

Standard Equipment

- ✓ Leak detector
- ✓ Probe



Technical Data and Dimensions

Device	
Detectable gases	Acetaldehyde, ammonia, benzene, ethane, ethanol, ethylene, formaldehyde, hexane, isobutane (methylpropane), methane, propane, xylene, hydrogen sulfide, toluene, hydrogen.
Measurement Range (Concentration)	Low: 0 - 1,000 ppm High (only methane): 0 - 10,000 ppm
% LEL	0 - 20 % LEL
Acoustic alarm	85 dB
Sensitivity	< 10 ppm (only methane)
Measurement interval	< 2''
Display	LCD with bar graph
Calibration	Automatic
Warm up time	40''
Power supply	Lithium-Ion Polymer Accumulator 18500 3.7 V
Full charge time	2.5 h
Full charge duration	8 h
Power adaptor	Input: 100 - 240 V, 50 - 60 Hz 0.2 A Output: 5 V 1 A
Automatic turn off	After 10 min or low batter
Probe	
Type	Semi-rigid
Length	500 mm
Head diameter	24 mm
Sensor life	5 years approx.



Tire inflating gun RY-AIRFORCE II



Compatibility



Description

The **RY-AirForce II inflator gun** complies with **Order ICT/155/2020** regulating metrological control.

Its **robust** and **lightweight** design has been further enhanced with a **nylon body** and a **new metal inlet**, making it ideal for any type of environment.

With a **user-friendly display** for quick and trouble-free inflation, this **pressure gauge** has **BS EN 12645:2014** approvals and certifications.

It features a **high performance mechanical dial** with approvals to meet the latest industry standard **EC86/217**.



Technical Data and Dimensions

Dimensions	250 x 110 mm
Weight	350 g
Operation temperature	-20 / +60 °C
Humidity range	up to 95 % RH w/o condensation
Reading accuracy	0.1 bar / 2 psi / 10 kPa
Max inlet pressure	15 bar / 218 psi / 1,500 kPa
Inflation range	0 - 12 bar / 170 psi / 1,200 kPa
Inflation flow	Max. 910 l/min @ 13 bar supply

Standard Equipment

- ✓ Tire inflating gun with pressure gauge

Features

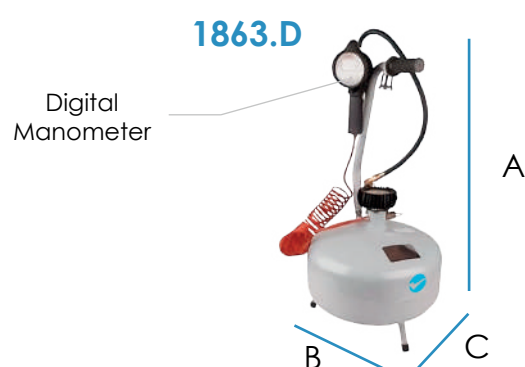
- ✓ Modern design
- ✓ Lighter design
- ✓ Shock resistant design
- ✓ New nylon handle function
- ✓ Metallic inlet as standard
- ✓ Proven Bourdon tube with beryllium construction for robustness
- ✓ Direct valve design increasing inflation and deflation rates
- ✓ Built in swivel and hanging device
- ✓ Scales: bar, psi and kPa



Compatibility



Automatic air charge system - 1863.D / 1863R-1864R



	1863.D	1863R	1864 R
Dimensions	A: 700 mm	A: 690 mm	A: 690 mm
	B: 325 mm	B: 350 mm	B: 350 mm
	C: 296 mm	C: 340 mm	C: 340 mm
Capacity (litres)	10	10	15
Safety valve	10 bar	10 bar	10 bar
Weight	9.7 kg	9.6 kg	10.9 kg

Manual air charge system - 1860.D-1861.D / 1860-1861 / 1862



	1860.D	1861.D	1860	1861	1862
Dimensions	A: 645 mm	A: 690 mm	A: 700 mm	A: 645 mm	A: 645 mm
	B: 315 mm	B: 350 mm	B: 325 mm	B: 315 mm	B: 315 mm
	C: 296 mm	C: 340 mm	C: 296 mm	C: 296 mm	C: 296 mm
Capacity (litres)	10	15	10	15	24
Safety valve	10 bar	10 bar	10 bar	10 bar	10 bar
Weight	8.7 kg	9.8 kg	8.7 kg	9.8 kg	16.3 kg



Trailer Plug Testers 12V/24V



Compatibility



Description

Very useful for MOT, electrical workshops, towbar installers and agricultural machinery workshops and even for private individuals.

It allows to verify the correct connection of the plugs after their installation.

4 m cable versions available on all models. This allows to make the checks from the driver's seat.

- ✓ High brightness LED indicators
- ✓ No external power supply needed
- ✓ Protected against connection errors

Complete set of 12 V vehicles (15+7 poles) - COM-04-03050

New 15-pole model with simulation

Simulates the consumption of lamps. Allows the testing of all vehicles, including those equipped with CAN BUS (and other systems that detect blown lamps).

Testers:

- DIN/ISO 12098 24 V 15-pole with simulation
- DIN/ISO 1185 24 V / 7-pole type N
- DIN/ISO 3731 24 V / 7-pole type S



Complete set of 24 V vehicles (13+adaptor) - COM-04-03051

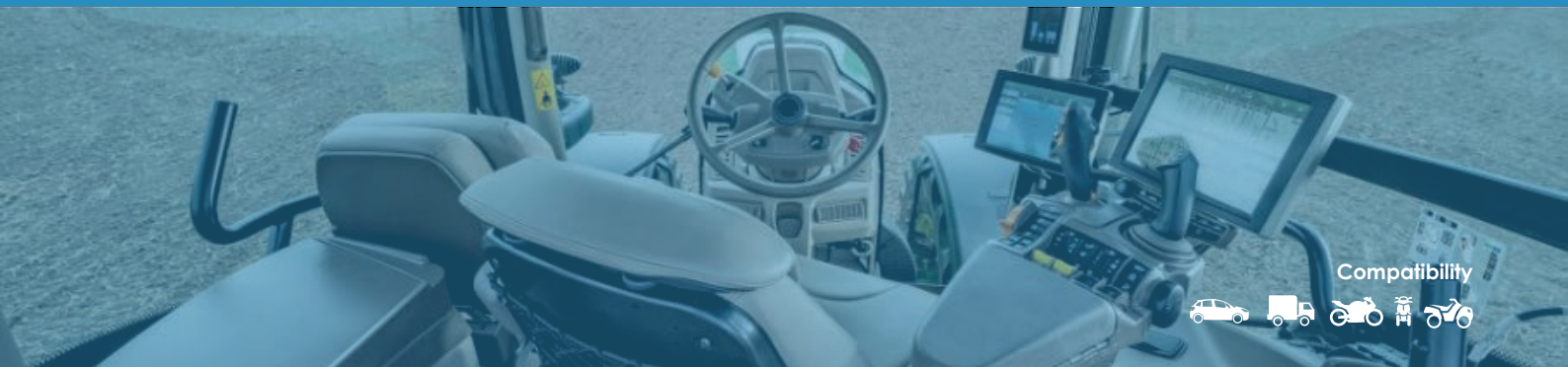
New 15-pole model with simulation

Simulates the consumption of lamps. Allows the testing of all vehicles, including those equipped with CAN BUS (and other systems that detect blown lamps).

Testers:

- Trailer socket tester with simulation 13-pole 12 V DIN/ISO 11446
- 13 to 7-pole 12 V adaptor





Compatibility



Description

The **Decelerometer BrakeCheck** determines the **braking performance** of both the **service brake** pedal and the **hand brake**, measuring deceleration.

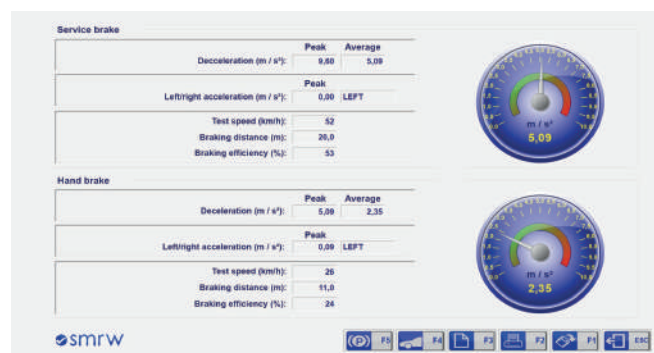
Portable and self-reliant, powered by battery, that can be used in workshops, governmental authorities responsible for traffic, testing and inspection stations, etc., to test and report on the **braking performance** of vehicles.

Technical Data and Dimensions

Connectivity	USB
Display	LED
Power supply	5 V / 500 - 1,500 mA
Measurement range	0 - 10 m/s ²
Range of measurement	0.1 m/s ²
Operation temperature	0 - 50 °C
Dimensions and weight	170 x 80 x 35 mm 400g



Software



Standard Equipment

- ✓ Decelerometer BrakeCheck BRK01749
- ✓ Printer
- ✓ Charger
- ✓ Transport case
- ✓ Software SMRW for analysis and data submission

Features

Measures	front/rear end deceleration half front/rear deceleration left/right point deceleration
Calculates	Stopping distance - m Test speed - km/h
Output	R232
Accuracy ("G")	± 0,02 G
Indication and value that the vehicle is pulled to the left/right	
Reading expressed in acceleration values (m/s ²)	
Can be used for hand brake testing	
Acoustic signal	
"Calibration requires" indicator	
Internal self-diagnosis	

Optional Equipment

Optional equipment

Calibration certificate ENAC



Door pressure Dynamometer 83500N



Compatibility



Description

The **Door Pressure Meter 83500N** is an autonomous equipment designed to **measure the pressure of automatic doors**.

- ✓ Made of aluminium with anti-corrosion treatment
- ✓ USB / radio connection
- ✓ Possibility of configuring the number of measurements and the number of doors
- ✓ Possibility of repeating the measurement
- ✓ Storage in internal memory until being deleted
- ✓ Peak and hold value measurement

Technical Data and Dimensions

Nominal Force	350 N
Maximum force without loss of characteristics	500 N
Accuracy	1 %
Resolution	0.1 N
Operation temperature	- 10 / +65 °C
Threshold of sensitivity	50 N
Low pass filter cutoff frequency	100 Hz
Transceiver operation frequency	863 - 870 mHz
Maximum measurement deviation from calibrated value (±%)	± 0.4 N
Stiffness of the cell	10 + 0.2 N/mm
Protection	IP50
Power Supply	9 V Battery

Software features

- ✓ Possibility of evaluating results on screen
- ✓ Setting limits (peak and hold)
- ✓ Direct delivery of measured values
- ✓ Possibility to configure for the measurement of primary closing edges and secondary anti-compression closing edges
- ✓ Setting from the software the number of measurements and the number of doors

Software

Serial number:	1803040	Peak	Sustained
PRINCIPAL CLOSURE THRESHOLDS			
	HALF (N)		15 CM (N)
Peak	536	430	209
Door 1:	646	107	232
Sustained	429	264	128
	528	86	125
Peak	-	-	-
Door 2:	-	-	-
Sustained	-	-	-
Peak	-	-	-
Door 3:	-	-	-
Sustained	-	-	-
MEASUREMENT FINISHED			
smrw			

Standard Equipment

- ✓ Door pressure dynamometer 83500N
- ✓ Software SMRW for analysis and data submission
- ✓ Wireless receiver
- ✓ Battery
- ✓ Transport suitcase

Optional Equipment

Optional equipment

Calibration certificate ENAC

2nd computer installation





Mobile Units

Light vehicles

- ✓ Mobile Unit for Light Vehicles (Trailer)
- ✓ Mobile Unit for Light Vehicles (Container)
- ✓ Mobile Unit for Light Vehicles - Longitudinal Arrangement (Container)

Universal

- ✓ Universal Mobile Unit (Container)

Motorcycles

- ✓ Box for Motorcycles inspection lane

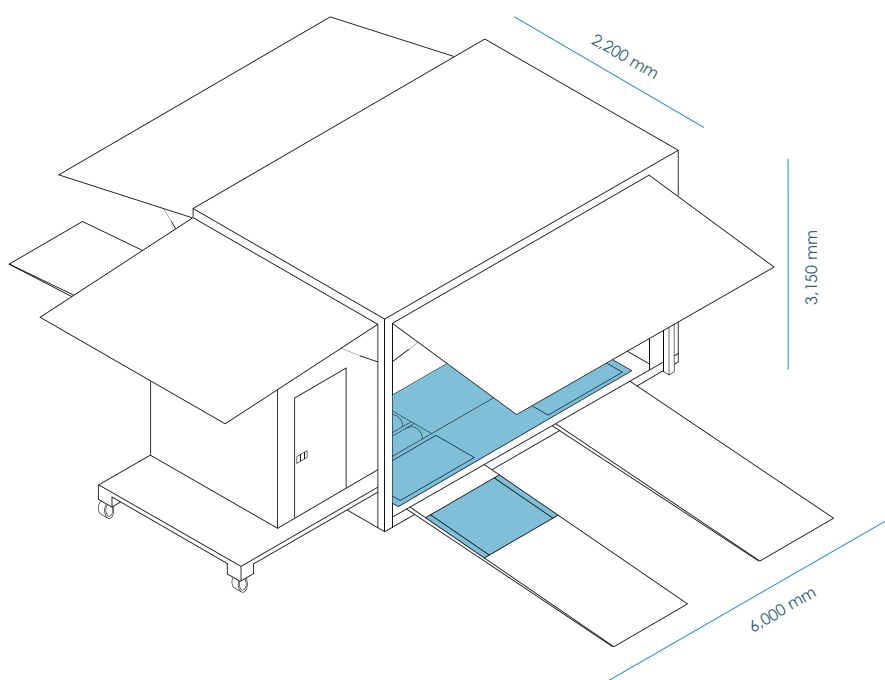
Agricultural vehicles

- ✓ Mobile Unit for Agricultural Vehicles

Above ground lanes

- ✓ Above Ground Lane for Light Vehicles





Features

- ✓ Mobile station for light vehicles designed to be **transported by a pick-up truck**.
- ✓ The container weighs between **2,800 and 3,500 kg**, depending on the equipment carried.
- ✓ The station, once placed in the desired location, is **uncoupled from the trailer by means of 4 lifting cylinders** allowing the trailer to be removed. Subsequently, the elevators are retracted until the **container is placed on the ground**.
- ✓ It has an **office area** to carry out the relevant administrative procedures.
- ✓ **4 ramps facilitate the entry and exit** of the vehicle from the inspection area.

Equipment incorporated in the container

- ✓ **Sliding window** at the front of the office.
- ✓ **L-shaped office desk** with drawer units.
- ✓ **Electrical router** for data insertion.
- ✓ **220 V air conditioner** with 2 kW of power.
- ✓ **220 V and 400 V electrical outlets**.
- ✓ **Kholer 19 kW - 220 / 400 V generator**.
- ✓ **Abac compressor** of 5.5 hp and 100 litres.

Dimensions l x w x h (w/o ramps)

EXTERIOR

6,000 mm

2,200 mm

3,150 mm

Recommended Ryme equipment

Recommended equipment



Side Slip Tester **ALL**



Universal Suspension Bench **BSU**



Brake Tester for Light Vehicles **FRL**



Play Detector **DHL TOTAL**



Gas Analyzer + Smokemeter **RY-4000AGH**



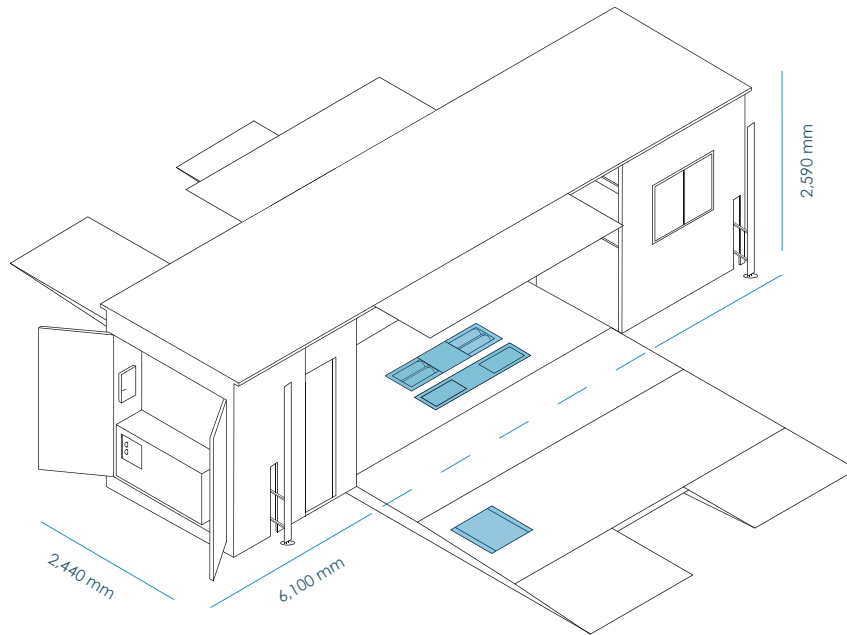
Electronic Headlight Tester **RY-RM**



The equipment shown should be taken as a reference and is subject to change without prior notice.



Mobile Unit for Light Vehicles (Container)



Features

- ✓ Mobile station divided in **three sectors**: administrative area, inspection area and technical area.
- ✓ Manufactured in **reinforced steel structure** and UPN platform.
- ✓ **Thermally insulated** in 50 mm sandwich panel and finished with pultrusion profiles.
- ✓ **Non-slip steel floor** made of rhombus with removable aluminum **ramps for vehicle access**.
- ✓ Access doors with **two hinged polyester sheets** and sealed rubber gaskets. Closing of the doors by means of locking bolts.
- ✓ **Lift for the front axle of vehicles**, up to 50 cm of elevation and movement of the plates for the visualization of looseness.
- ✓ **Hydraulic start-up**

Equipment incorporated in the container

- ✓ **Sliding window** at the front of the office.
- ✓ **L-shaped office desk** with drawer units.
- ✓ **Electrical router** for data insertion.
- ✓ 220 V **air conditioner** with 2 kW of power.
- ✓ 220 V and 400 V **electrical outlets**.
- ✓ Kohler 19 kW - 220 / 400 V **generator**.
- ✓ Abac **compressor** of 5.5 hp and 100 litres.

Dimensions l x w x h (w/o ramps)

EXTERIOR		
6,100 mm	2,440 mm	2,590 mm
INTERIOR		
5,890 mm	2,350 mm	2,390 mm

Recommended Ryme equipment

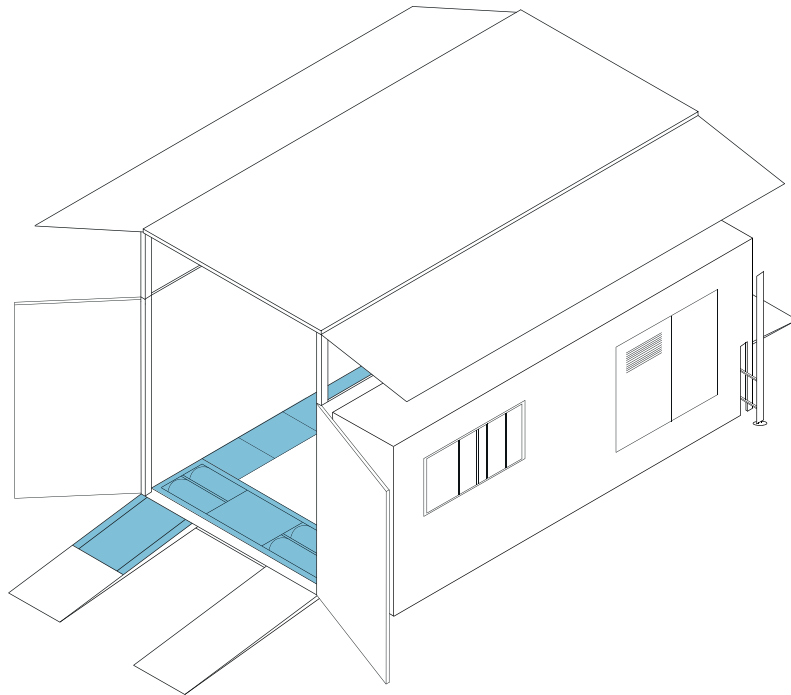
Recommended equipment	
	Side Slip Tester ALL
	Universal Suspension Bench BSU
	Brake Tester for Light Vehicles FRL
	Play Detector DHL TOTAL
	Gas Analyzer + Smokemeter RY-4000AGH
	Electronic Headlight Tester RY-RM
	Class 2 Integrating Sonometer



The equipment shown should be taken as a reference and is subject to change without prior notice.



Mobile Unit for Light Vehicles - Longitudinal Arrangement (Container)



Features

- ✓ Mobile station divided in **three sectors**: administrative area, inspection area and technical area.
- ✓ Manufactured in **reinforced steel structure** and UPN platform.
- ✓ The station, once placed in the desired location, is **uncoupled from the trailer by means of 4 lifting cylinders** allowing the trailer to be removed. Subsequently, the elevators are retracted until the **container is placed on the ground**.
- ✓ **Thermally insulated** in 50 mm sandwich panel and finished with pultrusion profiles.
- ✓ Non-slip **steel floor** made of rhombus with removable **aluminum ramps** for vehicle access.
- ✓ **Lift-up roof** with flaps to provide height relief, operated by means of hydraulic cylinders.
- ✓ **Access doors** with two hinged polyester sheets and sealed rubber gaskets. Closing of the doors by means of locking bolts.

Equipment incorporated in the container

- ✓ **Sliding window** at the front of the office.
- ✓ **L-shaped office desk** with drawer units.
- ✓ **Electrical router** for data insertion.
- ✓ 220 V **air conditioner** with 2 kW of power.
- ✓ 220 V and 400 V **electrical outlets**.
- ✓ Kohler 19 kW - 220 / 400 V **generator**.
- ✓ Abac **compressor** of 5.5 hp and 100 litres.

Recommended Ryme Equipment

Recommended equipment



Side Slip Tester **ALL**



Brake Tester for Light Vehicles **FRL**



Lift with axle Play Detector plates **DHE (4 plates)**



Gas Analyzer + Smokemeter **RY-4000AGH**



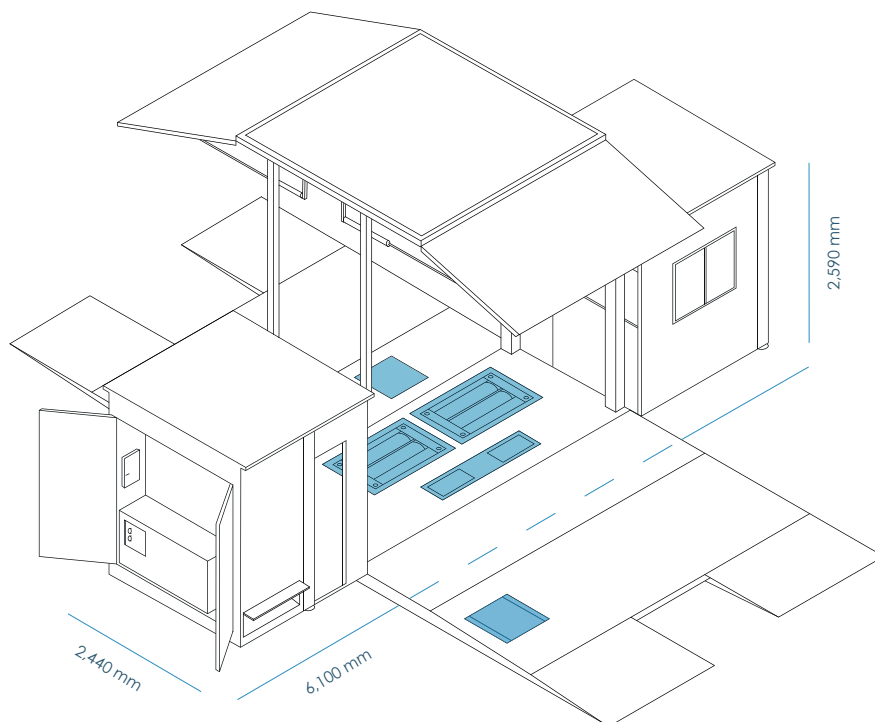
Electronic Headlight Tester **RY-RM**



Class 2 Integrating Sonometer



The equipment shown should be taken as a reference and is subject to change without prior notice.



Features

- ✓ Mobile station divided in **three sectors**: administrative area, inspection area and technical area.
- ✓ Manufactured in **reinforced steel structure** and UPN platform.
- ✓ **Thermally insulated** in 50 mm sandwich panel and finished with pultrusion profiles.
- ✓ Non-slip **steel floor** made of rhombus with removable **aluminum ramps** for vehicle access.
- ✓ **Lift-up roof** with flaps to provide 4,2 m of height relief, operated by means of hydraulic cylinders.
- ✓ **Access doors** with two hinged polyester sheets and sealed rubber gaskets. Closing of the doors by means of locking bolts.
- ✓ **Lift for the front axle of vehicles**, up to 50 cm of elevation and movement of the plates for the visualization of looseness.

Equipment incorporated in the container

- ✓ **Sliding window** at the front of the office.
- ✓ **L-shaped office desk** with drawer units.
- ✓ **Electrical router** for data insertion.
- ✓ 220 V **air conditioner** with 2 kW of power.
- ✓ 220 V and 400 V **electrical outlets**.
- ✓ Kohler 19 kW - 220 / 400 V **generator**.
- ✓ Abac **compressor** of 5.5 hp and 100 litres.

Dimensions l x w x h (w/o ramps)

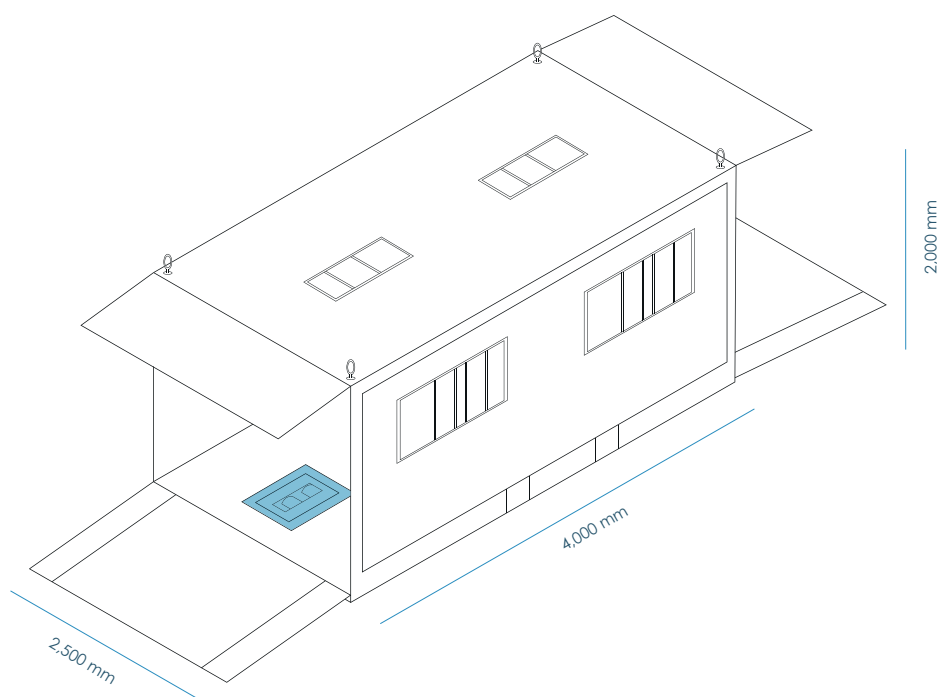
EXTERIOR		
6,100 mm	2,440 mm	2,590 mm
INTERIOR		
5,890 mm	2,350 mm	2,390 mm

Recommended Ryme equipment

Recommended equipment	
	Side Slip Tester ALU
	Universal Suspension Bench BSU
	Universal Brake Tester FRU-P
	Play Detector DHU TOTAL
	Gas Analyzer + Smokemeter RY-4000AGH
	Electronic Headlight Tester RY-RM
	Class 2 Integrating Sonometer



The equipment shown should be taken as a reference and is subject to change without prior notice.



Features

- ✓ 6005T6 **aluminum alloy** profiles lacquered in white RAL 9016.
- ✓ 30 mm thick **sandwich wall roof**.
- ✓ **Front and rear frames** of galvanized steel 3 mm thick and lacquered in RAL 9016.
- ✓ **Ramps** made of 30 mm sandwich panel ref. 40 x 20 galvanized tube with downward opening and aluminum profiles, alloy 6005 RAL 9016. Upper trap door made of 30 mm sandwich panel and aluminum profiles with gas shock absorbers and supports. External locking bolt.
- ✓ **Anchorage** for transporting the unit
- ✓ **Study of acoustic parameterization "IN SITU" of the ITV station box.**

Equipment incorporated in the container

- ✓ **Metal window** with sliding opening on the right side, 600 x 400 mm RAL 9016.
- ✓ **Metal window** with sliding opening on the left side, 600 x 400 mm RAL 9016.
- ✓ **Metal window** with sliding opening in the roof, 600 x 400 mm RAL 9016.
- ✓ Installation of embedded gutters for 3 cable outlets on the roof and 3 on each side.
- ✓ **Electrical panel** with outlets for outdoors.

Dimensions l x w x h (w/o ramps)

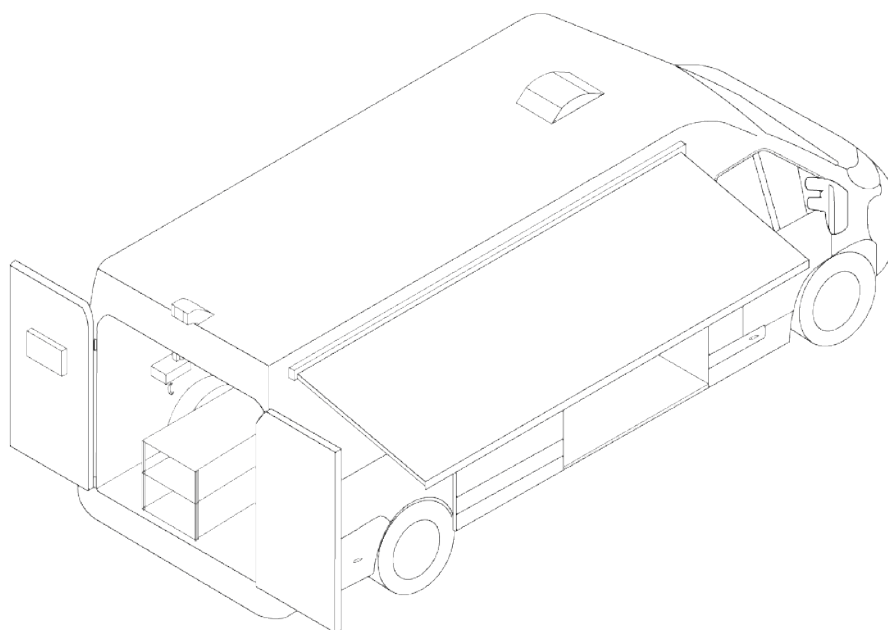
EXTERIOR		
4,000 mm	2,500 mm	2,240 mm
INTERIOR		
3,930 mm	2,430 mm	2,200 mm

Recommended Ryme equipment

Recommended equipment	
	Brake Tester for Motorcycles FRM
	Speedometer for Mopeds VTC III
	Gas Analyzer RY-400AG
	Analogic Headlight Tester RY-RAR
	Class 1 Integrating Sonometer



The equipment shown should be taken as a reference and is subject to change without prior notice.



Features

- ✓ Mobile station divided into **2 sections**.
- ✓ The **administrative area** is located at the front and access through the side door on the right side of the van, lined panels and roof with polyurethane foam white PFRV to insulate both cold and heat.
- ✓ The **technical area** is located at the rear of the van, floor finished in 15 mm Finnish board, sides covered with 1.2 mm galvanized sheet metal.
- ✓ **Dividing wall** in the center of the van to divide both areas with 50 mm thick sandwich panel.
- ✓ **Awning** on top of side door for sun protection.
- ✓ **Rail** on the van roof with hoist for easy loading and unloading of items to the ground.
- ✓ **Interior lighting** with recessed LED ceiling lights and exterior work lights.

Equipment incorporated in the van

- ✓ 630 mm "L" shaped **worktop** with three stainless steel support legs and drawer with sorter.
- ✓ 2 kW 220 V **air conditioner**.
- ✓ **Wi-Fi router** for activation via data card.
- ✓ Lombardini **generator** 220 V - 400 V and compressor 50 liters 2 HP.
- ✓ **Metallic cabinet** with sliding trays.
- ✓ General **electrical panel** with 220 and 400 V sockets.
- ✓ **Water tank** and soap dispenser for hand cleaning and wastebasket.

Adaptable vehicles

Iveco Daily

Fiat Ducato

Peugeot Boxer

Citroën Jumper

Opel Movano

Renault Master

Recommended Ryme equipment

Recommended equipment



Play Detector **DHA**



BrakeCheck Decelerometer



Electronic Headlight Tester **RY-RAR**



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Up to 4T



Description

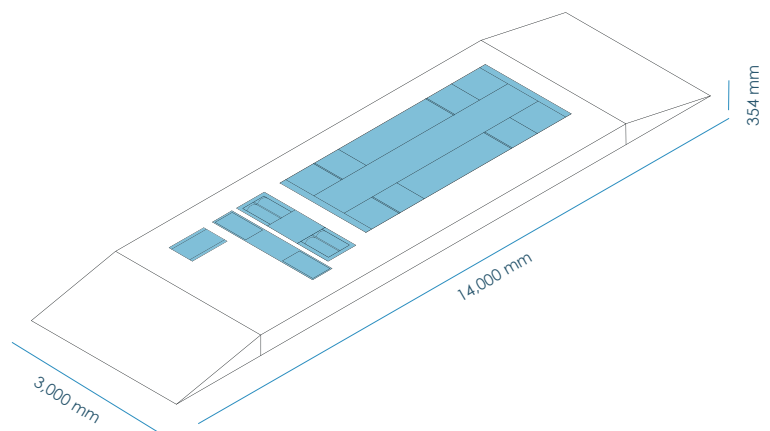
Ryme's **Above Ground Lane for light vehicles** is ideal for those concessions where **it is not possible or not wanted to carry out civil works** in order to place the necessary equipment to test the vehicles.

It has a maximum capacity of **4,000 kg**.

It is **fully modular**, making it ideal for **small sites or for extensions to existing inspection centers**. All the equipment included in the lane is adapted to **RD 920**.

To the inspection machinery, it is included:

- ✓ Peripherals according to the regulations of the country where the lane is going to be installed in
- ✓ Generator for its operation
- ✓ Wiring
- ✓ Central control computer to manage the lane
- ✓ SMRW software for each equipment



The lane can be configured with different equipment of your choice.

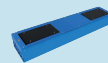


Recommended Equipment

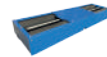
Recommended equipment



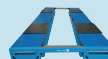
Side Slip Tester **ALL**



Universal Suspension Bench **BSU**



Brake Tester for Light Vehicles **FRL**



Lift with axle Play Detector plates **DHE (4 plates)**



Gas Analyzer + Smokemeter **RY-4000AGH**



Analogic Headlight Tester **RY-RAR**

••✓ Complementary Equipment

- ✓ Pit Jacks **HK4/HK10**
- ✓ Scissor Lift **RY-XT5500**
- ✓ Axle Scale **RY-TB**
- ✓ Sticker Solution with Two Factor Autentication: **RFID y QR**
- ✓ **Gas Extraction** Kits
- ✓ 3D Wheel Aligner **RY-DIR**
- ✓ Pneumatic Riveter **RY-1000**
- ✓ Universal electronic diagnosis & measuring system **SHARK**





Compatibility



PIT JACK HK 4

Hydraulic lifter

- ✓ Capacity of 4 Tn in all the elevation range
- ✓ Lifting height of 450 mm
- ✓ Manual hydraulic system with quick and loading elevation modes.
- ✓ Polished and chrome-plated connecting rod
- ✓ Special protection to corrosion
- ✓ Easy to use due to the ergonomic layout of the operation elements



PIT JACK HK 10

Hydraulic lifter

- ✓ Capacity of 10 Tn in all the elevation range
- ✓ Lifting height of 600 mm
- ✓ Manual hydraulic system with quick and loading elevation modes.
- ✓ Polished and chrome-plated connecting rod
- ✓ Special protection to corrosion
- ✓ Easy to use due to the ergonomic layout of the operation elements



Consult our entire pit jacks supply.



Up to 5 T



Description

The RY-XT5500 is a electro-hydraulic Scissor Lift, specially design for alignment. It is equipped with an auxiliary extendable platform integrated on both platforms, with a maximum capacity of 5.000 kg.

It has a mechanical blocker to provide more safety, a height control with a end-race sensor.



Possibility to be installed on the floor or built-in

Technical Data and Dimensions

Max load	5 T
Power supply	380 V
Engine power	2.6 kW
Max height	2,160 mm
Jack elevation height	450 mm
Min height	290 - 330 mm
Dimensions and weight	5,000 x 608 mm 2,690 kg
Elevation time	65''
Air pressure	6 - 8 bar
Noise level	< 80 dB (A)

Standard Equipment

- ✓ Civil work frame
- ✓ Electronic control panel

Operation

The elevation of the platform is done by the hydraulic unit that acts on the enslaved cylinder. The platforms are elevated simultaneously due to the crossed supply of the hydraulic cylinders. The descent, besides being electrically controlled, is performed by the own platforms and the lifted load weight.

The descent of the auxiliary platforms with little load can be accelerated through the pneumatic action in the cylinder wall cavity. The hydraulic system is protected by a maximum pressure valve, avoiding the pressure to overpass the safety maximum limit determined.

The synchronisation of the platforms is done through the master/enslaved circuit, and its protected by a photo-cell (optional) to avoid the platforms from desynchronise.

The lifting and the descent of the lifter is controlled by buttons located on the control panel. Each time the lifter goes down to its limit, and the descent button is pressed, the lifter will stop approximately at 400 mm from the floor.

In this way, the operator can verify that there are not any persons neither objects near the safety zone. If that is the case, the descent button can be pressed again and the lifter will go down completely. A sound will be emitted during this last movement.





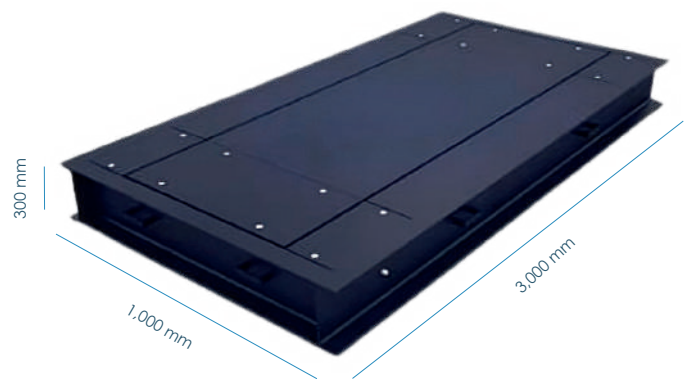
Description

The **axle scale RY-TB**, is designed for weighing the axles of both light and heavy vehicles. The weight is obtained by **load cells** which can be accessed through registers located at the ends. The viewing of the data obtained can be seen at the **weight display**.

To grant the correct operation **it is important to have a plain surface before and after the scale**, equivalent at least, to the length of the vehicle being weighed.

It has an **antirolling system and adjustable movement blocks** to provide the test of more safety.

- ✓ Structure with high resistance laminated profiles
- ✓ 10 mm thickness upper sheet
- ✓ Painted finish



Technical Data and Dimensions

Capacity	15 T
Fraction	5 kg
Load cells model	740 15 T Stainless steel IP68, 3000d OIML R60
Number of cells	4
Connection box	Stainless steel, IP65
Steel type	SRJ275
Dimensions and weigh	3,000 x 1,000 x 300 1,559.8 kg
Connectivity	RS232 with DB9 connectors
Weight display dimensions	243 x 145 x 79 mm



Standard Equipment

- ✓ Scale RY-TB
- ✓ Weigh display
- ✓ Junction box
- ✓ 6-threaded anti-rodent cable of 10 m and a corrugated tube for its installation
- ✓ RS232 / USB conversor

Weight display features

- ✓ 5/17-key waterproof keyboard
- ✓ Quick warning icons for main functions and settings
- ✓ Backlit LCD display
- ✓ IP68 stainless steel waterproof case, easy to clean and ideal for harsh and corrosive industrial environments
- ✓ Suitable for table, column or wall



Sticker Solution with Two Factor Authentication: RFID y QR



Working

- ✓ Each sticker has an **embedded RFID tag** and is programmed with vehicle inspection data. The data is available for verification with a mobile device right after the sticker is printed.
- ✓ Each windshield sticker is encoded with a **unique serial number**.
- ✓ **Thermal transfer printing** is used for visual inspection information.
- ✓ Each sticker also **has security scoring throughout to prevent reusing once installed on windshield**. All Data is stored in **VISION**.

If you pass inspection, this is how your sticker will look

Each sticker will be designed and programmed with the information according to the needs and brands of each verification program:



Ask us for a customization according to your model!

Much more than just a printer

The generation of the data, QR and customized information for each vehicle **is instantly created on a special windshield sticker paper**.

Sticker stock typically 1,000 blank stickers per roll.



Interface created to instantly access the web client and review all the necessary information about the last inspection. Modify the standards according to your law.

Web service connected to VISION

The data programmed on each **adhesive RFID tag can be read from any reader with a nearby RFID antenna for verification**. Worldwide Group offers RFID reading hardware and software:

- ✓ Unique Secure WEB Service **to prevent fraud**.
- ✓ Vehicle Inspection information **can be retrieved, and authenticity of sticker can be verified with any device that has a camera and internet access**.
- ✓ QR WEB service connects directly with VISION and instantly **verifies data and confirms sticker is authentic or counterfeit!** Quick and easy for law enforcement to verify if sticker is genuine or counterfeit.

Compatibility



SIMPLE SUCTION KIT

Single suction, medium pressure centrifugal aspirator with steel sheet casing and turbine. It has a **black neoprene hose** with a spiral that allows it to recover its shape in case of crushing.

Hose retractor option by means of an automatic spring-loaded rocker arm.

Features:

- ✓ Nozzle equipped with a 360° rotation system to prevent hose twisting
- ✓ **It does not have** an articulated fastening system
- ✓ Compatible with light and heavy vehicles

Power

2.2 kW



ARTICULATED EXTRACTION ARM

Single suction, medium pressure centrifugal aspirator with steel sheet casing and turbine. **Three-joint arm**. No height adjustment required and can be used as a **smokemeter holder**.

It has a **special nozzle for suction in opacity tests**, with a stainless steel frame. Equipped with 4 swivel wheels, two of them with a brake and a grill to avoid the aspiration of objects.

Features:

- ✓ Nozzle equipped with 360° rotation system for easy positioning in relation to the exhaust pipe
- ✓ **It has** an articulated fastening system
- ✓ Outer finish of the arm made of 200 mm diameter galvanized pipe and flexible joints
- ✓ Compatible with light and heavy vehicles

Power

2.2 kW

Power Supply

220 / 380 V



Consult our entire gas extraction kit supply.



Description

The **3D Wheel Aligner RY DIR** provided by Ryme Worldwide presents an effective solution for measuring the alignment of cars and heavy vehicles. The Hofmann Megaplan wheel alignment systems are highly technological and quickly generate extremely accurate and reliable results.

Accurate measurements

The **3D technology detects all alignment parameters of the vehicle**, including wheels diameters which allows to check the correct tyre inflation pressure or dimensions such as wheelbase, and other parameters to identify damages due to crashes. In addition, the system permits the measurement of caster trail, friction radius and the possibility to do a single wheel lift in case of restricted space or lifts with steps.

Automatic cameras

The **3D cameras are mounted on a motorized support beam that is automatically adjusted to the height of the lifter**. The position of the camera support beam is designed to optimize the available space.

HD sensors

The sensors are extremely compact and light thanks to its wireless technology and batteries. With the standard version, the sensors are mounted on 4-arm clamps for wheels from 12" to 24" (up to 27" with the optional extensions). The system allows to choose between 2 or 4 sensors in case of long vehicles.



Technical Data and Dimensions

Power supply	230 VAC - 1 phase - 50/60 Hz 115 VAC - 1 phase
Max power absorbed	0.7 kW
Max current absorbed	3 A - 230 V 6 A - 115 V
Dimensions	2,760 x 610 x 2,800 mm

Standard Equipment

- ✓ Console
- ✓ TFT monitor, printer, keyboard
- ✓ 4 clamps with sensors and universal grips
- ✓ Brake pedal lock, steering lock, 2 mechanical turntables for cars
- ✓ Software and vehicles database
- ✓ UBS Wi-Fi adaptor

Optional Equipment

Optional equipment

Extension for measuring up to 27" wheels



Description

Specially designed for **riveting brake shoes and clutch discs** of private cars, semi-industrial vehicles, among others. It is the most ideal thanks to its **speed and power**, just like its **easy adjustment of the distance between points** (it is compatible at its maximum point with the brake jaws with greater height in the central part).

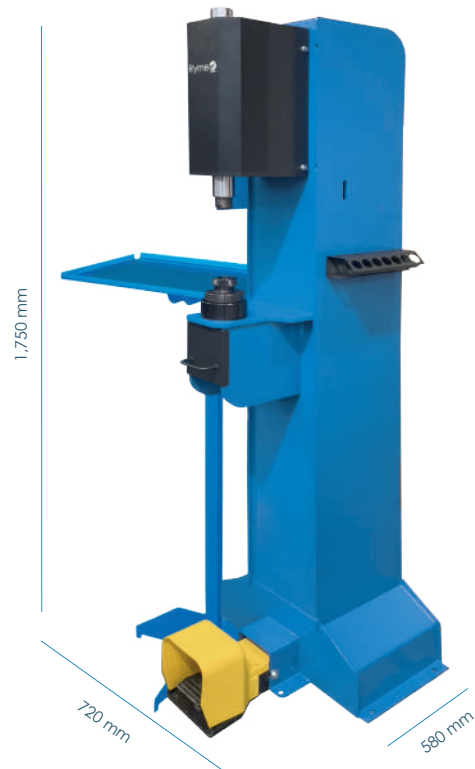
No special care is required, keeping the pneumatic movable parts clean and lubricating them, at least once a week, is enough. The glasses of the filter group must always be oiled and water-free.

Technical Data and Dimensions

Max operation pressure	12 kg
Power	6 kg - 2,520 kg 8 kg - 3,360 kg 10 kg - 4,200 kg
Max distance between the holder punch and the cutting punch	190 mm
Min distance between the holder punch and the cutting punch	0 mm
Max stroke	65 mm
Dimensions and weight	1,750 x 580 x 720 mm 230 kg

Standard Equipment

- ✓ Pneumatic riveter RY-1000
- ✓ Additional worktable
- ✓ Set of rivet snap: 4, 5, 6 and 8 mm
- ✓ Set of rivet bases: 4, 5, 6 and 8 mm
- ✓ Extractor punches bases: 11 and 17 mm



Optional Equipment

Optional equipment
Tubular and semi-tubular rivet extracting punches: 4, 5, 6 and 8 mm
Rivet snap for sintered materials. Rivet: RY-60, RY-90
Rivet snap for solid riveting on machine: 6 and 8 mm
Rivet snap + 10 mm rivet base. Tubular and semi-tubular: RY-8070, RY-8070B
Rivet snap for star riveting: 4 and 5 mm
Accessories and replacement parts (consult)



Universal electronic diagnosis & measuring system SHARK



Description

The universal electronic diagnosis and measuring system by Shark, uses an electronic measurement system to diagnose and repair, characterized by its quick and easy operation. Much easier than the mechanical system but using the same logic. The ultrasonic technology and the PC software make it a very easy to use system.

Complements all the straightening systems of any brand. The speed of the sound and the trigonometry define with plenty accurate each point of the test.

Reparation certificate

- 1- Repairment confirmation
- 2- Printed test of the vehicle dimensions before and after the repairment

Technical Data and Dimensions

Weight	190 kg
Voltage	220 V
Power	500 W
Cabinet dimensions	1,050 x 600 x 650 mm



Standard Equipment

- ✓ Cabinet, printer, keyboard, colour screen and drawers for accesories
- ✓ Ultrasonic emission sounding line, magnetic connection
- ✓ Reception beam

Advantages

- ✓ The components are not in contact, so there is no wear nor tear
- ✓ Measures up to 12 points simultaneously every 1.5 seconds
- ✓ No need of checking the measurement points after each shot, it measures them continuously
- ✓ Automatic and constant system centering
- ✓ Quarterly database updates
- ✓ Possibility to place some points on the photos (and drawings) on the screen
- ✓ Very clear graphics. The deformation of the direction is presented in 3 dimensions
- ✓ Constant and continuous evolution during the straightening



www.ryme.com