

The ASM emission bench for 2WD vehicles is a useful tool in workshops, automotive technology centres and vehicle inspection centres, as it is designed to prevent, locate and investigate possible ignition and injection problems as well as to improve the fuel consumption and gas emission measurement of the vehicle under load.

The gas analysis complies with the requirements of OIML class I, ISO 3930, UNE 82501, bar 90, U.S. EPA ASM.

Based on the infrared technology it measures up to 5 gases, CO, CO₂, HC, O₂ and NO_x and other parameters such as, corrected CO, oil temperature and r.p.m. During the emission tests, power is absorbed in accordance with the ASM standard by an air-cooled Electric Brake.

Recording of temperature, relative humidity and barometric pressure, and calculation of NO correction factor

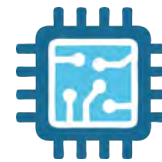
RPM detection for every second.

The mechanical system is composed of a steel monocoque frame that houses four 350 mm rollers. Of which the front rollers are coated with Tungsten Carbide, to improve the adherence of the vehicle and avoid the wear of the rollers.

It includes an electric brake with high energy absorption. In addition, to facilitate access and exit from the vehicle, it has a pneumatically operated lifting and locking mechanism

Maximum axle load	2,5 tn.
Approximate mechanical inertia	1004 kg
Max./min. track width	2.490 / 720 mm.
Traction	2WD

Electronics



Best Processors

New high-speed processor
Increase the response and process of each vehicle test



Modular System

All the electronics is expandable. Special design for automotive and technical inspection of vehicles designed by Ryme



Flash Memory

New memory 4 times faster



RAM memory

New memory 16 times faster



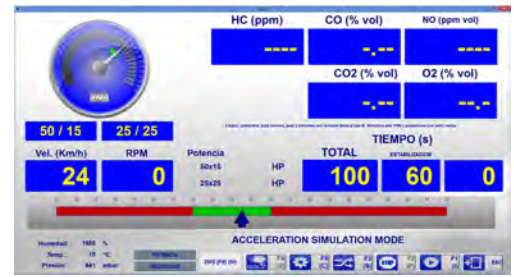
Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

Standard Equipment

- Dynamometer bench 2WD
- Control cabinet
- Electronic control & software
- Remote control for test control
- 5 gas analysis module
- Sampling probe
- Weather station
- Tungsten carbide coated front rollers (2 pcs.)
- Simulation of loads using the electric Foucault brake
- Central lift system with automatic roller lock for easy vehicle exit

Software

- High precision speed pulse measurement system
- PID control of the electric bank brake. Maintains stable braking torque regardless of possible disturbances
- Sending and processing data and graphics in real time
- Possibility of sending encrypted data to the server using the AES encryption method (Advanced Encryption Standard)
- 100% compatible with management systems and databases
- Assigning permissions to different user levels
- Possibility of assigning the results obtained to a vehicle plate before or after each test
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Very intuitive control software guided by graphic icons
- Common database (on network as well as in local mode) that allows us to save all client and vehicle data and have easy access to them to be able to make comparisons between old and new tests.
- Customized advertising on screen
- Database that allows to store cards with customer and vehicle data. All tests are registered and easy to search.
- Translation module through which the user can translate the program into their own language
- Connection RS232



Acceleration simulation

The dynamometer or "road simulator" is used to simulate driving under real traffic conditions. The 5-gas analyser measures NOx and emission levels of HC, CO, CO2 and O2

During the ASM test, emissions are measured using two modes: a high load and low speed condition (the 50/15 test) and a moderate load condition at moderate speed (the 25/25 test).

The dynamometer has a fixed Inertial weight (equivalent to 2,000 inertia pounds), a power absorption unit (PAU), a torque measurement system (load cell), an encoder, a motor for loss calibration, rollers, and a bench lift.

Software



More Productive
Repetition of partial tests



Safer
Ryme application can encrypt data, make them safer



More Intuitive
Incorporation of graphic icons. RYME applications share the same menus..



More Compatible
Compatibility with more than 95% of the database management systems on the market today, ORACLE, SQL SERVER, Postgre, SQLite, etc. OS support for 32 and 64 Bits and with Android, Windows...



Online support
Possibility of remote connection from our technicians with your equipment
Consult conditions



More Reliable & Precise
Improvement in the process of calibrating the main board Allows the adjustment of the weighing and force calibration to very precise values.



Software adaptations

Possibility of analysis and study, under budget, for adaptation to new regulations in any region and/or country

Mechanics



Epoxy Paint

Powder-coated finish ensures optimal and long-lasting protection



Perfect Fit Assembly

Mechanical design using Perfect-Fit, which guarantees the assembly and perfect final finish on all our equipment



High adherence rollers

Roller coating with our own technology, which provides optimal adhesion even in adverse conditions and high durability



Strongest Gearmotors

Tested for durability to ensure optimum performance

Technical Data Dyno 2WD

Maximum axle load	2,5 tn	Brake supply voltage	220 V. 40 A.
Track width max. / min.	2.490 / 720 mm.	Locking and lifting system	
Roller length	860 mm.	Absorbed power range	32 hp. continuous at 14 mph. min. for 5 min.
Roller diameter	350 mm.	Electric power absorption unit with the possibility of increasing 0.1 hp. and accuracy of ± 0.25 hp.	
Distance between centers	504 mm.	Max deviation ± 0.5 hp.	
Inertia Mechanics aprox.	1004 kg	Speed accuracy	0.1 km / h
Máx. Test Speed	0 - 120 km/h		
Drag feeding voltage	400 V. 50 Hz. (3F+T)		

Technical Data Analyzer RY-3200AG

Gases	CO, HC, CO ₂ , O ₂ y NOx
Lambda factor calculation and corrected CO	
Storage temperature	-50 °C a 70 °C
Operating temperature	-5 °C a 45 °C
Oil probe temperature	-5 °C a 150 °C
Operating pressure	750 - 1.100 mbar (1000 mbar nominal)
Automatic removal of water and particles	>5 μ .
Power Supply	220 V a 50 Hz
Temperature and rpm meter	r.p.m.: 0-9999 r.p.m.: 1 r.p.m.
Complies with UNE 82.501, OIML R class 0, ISO 3930, BAR 90, BAR 97, US regulations. EPA ASM	
It has a database and rejection assessment	



*** Trolley furniture not included in Standard Equipment**

Environmental conditions

Relative Humidity	5 % - 95 %, 0 °C a 45 °C
Ambient temperature	0°C a 50 °C, accuracy 1 °C
Barometric pressure	750 - 1.100 mbar.

Measurement range and Resolution





MEASUREMENT	RANGE	NORMAL	HIGH	ACCURACY
HC	0 - 20.000 p.p.m. vol. Kex	1 p.p.m.	1 p.p.m.	10 p.p.m. Hc
CO	0 - 15 % vol.	0,01 %	0,001 %	0,03 %
CO ₂	0 - 20 % vol.	0,1 %	0,1 %	0,3 %
O ₂	0 - 21,7 % vol.	0,1 %	0,01 %	0,1 %
LAMBDA	0,8 - 1,2	0,01	0,001	
NOX	0 - 5.000 p.p.m. vol.	1 p.p.m.	1 p.p.m.	32 p.p.m. (0 - 1.000 p.p.m.) 60 p.p.m. (1.001 - 2.000 p.p.m.) 120 p.p.m. (2.001 - 5.000 p.p.m.)



Dimensions

Bench dimensions	3.750 x 1.100 x 550 mm.
Packed bench dimensions	4.000 x 1.350 x 780 mm.
Bench weight	1.900 kg.
Packed bench weight	2.300 kg

Cabinet dimensions	730 x 600 x 1.800 mm.
Packed cabinet dimensions	900 x 900 x 1.690 mm.
Cabinet weight	120 kg
Packed cabinet weight	200 kg

Optional Equipment

		Multi-function wireless device, keyboard, mouse and remote control
	GEN-EIN	Computer equipment
	GEN-IMP	Printer
	GEN-TD	Data display terminal
	GEN-STD	Second Data display terminal
	GEN-EST	Voltage Stabilizer
	RY3	R.P.M. and Accessories kit for r.p.m. measurement
	GEN-EOB	EOBD kit, integration with gas equipment and software

	GEN-VEN	Vehicle cooling fan. Features: Threephasic, 5,500 W power, 12,4 A current. Air flow 25,000 m3 / h
	ASM-PES30	Calibration weight 30 kg.
	ASM-PAL	Calibration lever
	ASM-RPM	Accessory kit for RPM measurement
	ASM2W-BOC	Civil work frame
	GEN-SSA	Software for sending encrypted and non-encrypted measurements that guarantees the saving of the results of each test and their sending to the management program even in possible power cuts or other...

Optional cabinet

	<p>PREMIUM CABINET Cabinet only Dimensions: 730 x 600 x 1.800 mm.</p>		<p>TROLLEY Mobile base for computer equipment and printer</p>		<p>CABINET GASES Cabinet only Dimensions: 700 x 500 x 1.550 mm.</p>
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