

INSPECTION TEST LINES

MONOBLOC · TANDEM

Monobloc inspection line is composed of a frame that integrates a brake tester and a suspension bench, designed for light vehicles weighing up to 3,500 kg of MMA, and supporting loads of up to 4 tons. per axis to step

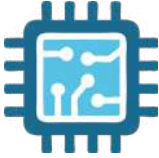
Its main task is to carry out a quick and effective verification of the operation status of the braking control in the vehicle, accurately measuring the maximum braking on the front and rear axles, handbrake, as well as the existing ovality in the discs and drums. braking system. In addition to performing a quick and effective analysis of the state of the suspension of light vehicles. The test is carried out under the EUSAMA method, individually measuring the wheels of each axle.

Optionally supports the ability to perform tests to 4WD vehicles.


A computer is responsible for controlling the entire measurement system and the operation of the machine. Control can be by keyboard, mouse or remote control and the visualization is done through highly intuitive software.

Max load per axle (to step)	4 Tn.
Motor Braketester	2x 4,6 Kw.
Motor Suspension Bench	1x 3,0 Kw.
Maximum Track Width	2.270 mm.
Minimum Track Width	840 mm.


Electronics




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




Connections
Ethernet (TCP-IP) / RS-232 connection on the main board



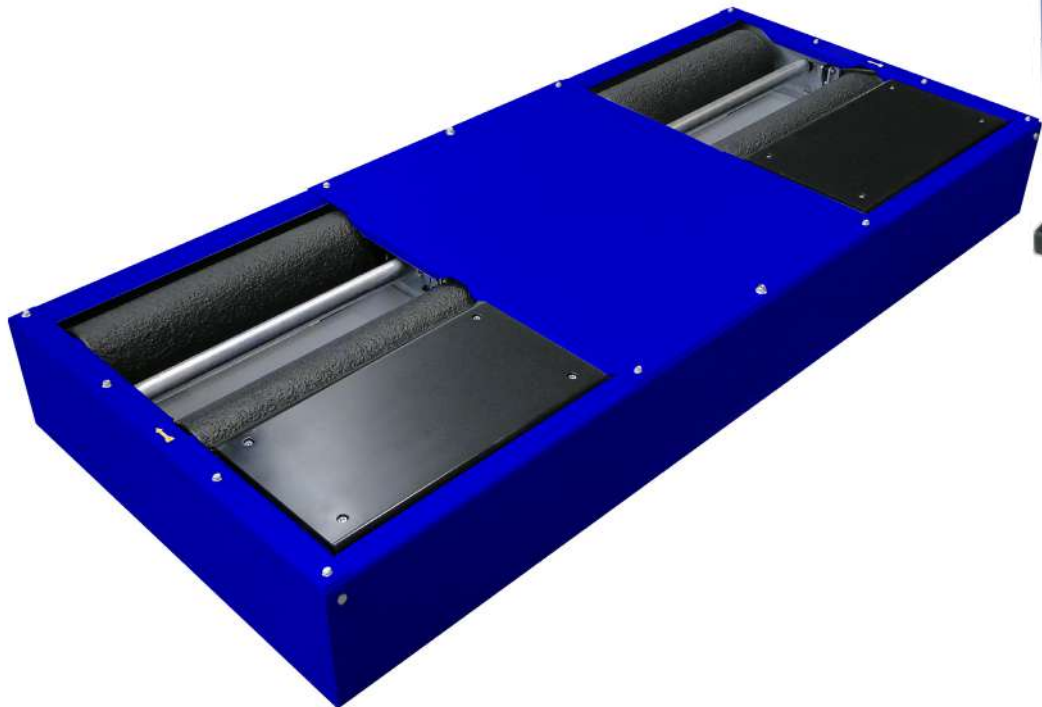
RAM memory
New memory 16 times faster



Flash Memory
New memory 4 times faster



Modular System
All electronics are expandable.
Specially designed for automotive and vehicle inspection centers



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

Standard Equipment

- Suspension Bench and Brake Tester for light vehicles
- Control cabinet
- Electronic control & software
- Remote control for test control
- Electric blockage of rollers to facilitate the vehicle entry/exit
- Rollers coated in welded steel or synthetic fiber

Software

RYME MONOBLOC inspection line has a machine management software that allows you to get the most out of the equipment. This software is simple and intuitive, with a user-friendly interface

It is possible to operate the software manually where the inspector chooses the sequence and the way to perform the test or automatically where it is the machine that manages the inspection process

- Automatic 4WD vehicle detection
- 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)
- Braking lock difference less than 20 ms
- 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
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Self test of auto-zero in the beginning of each test
- 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.
- Translation module which the user will be able to translate the program into his own language or modify any sentence or word on it..
- Customized advertising on screen
- Test control by using a remote control
- Carrying out a test for each individual wheel for differential observation per individual wheel
- Automatic slip cut-off: new system for measuring the slip, the safety of the tyre is considerably increased, taking into account the performance of the engine in the lowering of the rolling speed
- Possibility of repetition and independent analysis of each wheel
- Possibility of automatic or manual start and stop
- Strain gauge measurement system
- Measurement display with error less than 1%.
- Graphical overlay for checking
- Static and dynamic weighting in each axle
- Measurement of maximum Amplitude produced from start to stop
- Display of left and right Amplitude and difference between the two
- Performance indication left, right and difference between the two
- Free movement of the plate for noise location
- Manual entry of the vehicle weight
- Communication USB / RS232 / Ethernet (TCP-IP) Protocol
- Calibration software
- Software for automatic operation



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

Main Characteristics

Maximum axle load (to step)	4 Tn.
Maximum Track Width	2.270 mm.
Minimum Track Width	840 mm.
Voltage	400 V. 50 Hz. Threephasic
Protection Fuse	3 x 25 A
Thermal Protector	2 x 12,5 A

Suspension Bench Characteristics

Maximum weight test	2.500 Kg
Engine Power	1 x 3 kW
Excitation frequency	16 Hz
Three valuation levels	A) Amplitude B) Efficiency in % C) Diagnosis

Brake tester Characteristics

Drive Motors	2 x 4,6 kW
Test Speed	5,7 km / h.
Roll diameter	202 mm.
Length of the rollers	685 mm.
Useful length of the rollers welded steel / Synthetic fiber	685 mm.
Distance between centers	400 mm.
Friction coefficient	0,9 dry 0,7 wet
Measurement Ranges	0 - 6 kN
Range of measurement	10 N
Measurement indication error	1 %

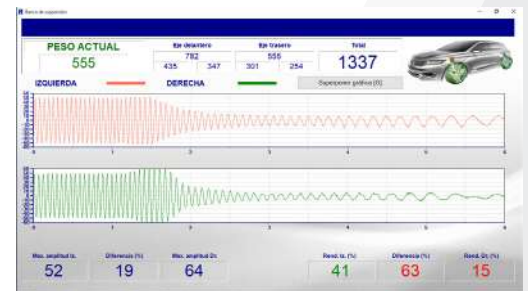
Dimensions

MONOBLOC






Bench dimensions	2.320 x 1.040 x 285 mm.
Packed bench dimensions	2.400 x 1.200 x 520 mm.
Bench weight	650 kg
Packed bench weight	700 kg

CABINET

Cabinet dimensions	620 x 510 x 1.850 mm.
Packed cabinet dimensions	800 x 600 x 1.580 mm.
Cabinet weight	80 Kg
Packed cabinet weight	100 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
	AL-INT	Integrator Kit Side Slip Aligner
	GEN-EST	Voltage Stabilizer
	FRL-M55	Motor 5,5 KW
	FRL-SA230	Delayed static retarder 230 V.
	GEN-230	Power supply 230 V. Three-phase
	GEN-60HZ	Power supply 60 Hz
	FRL-RAS	Access ramps for floor mounting without civil works
	GEN-DPR	Pedal dynamometer with wireless PC communication. Includes wireless receiver and software
	FRM-DMR	Wireless handheld dynamometer

	FRL-4WD	Autoportable set of rollers for 4WD vehicles (4 units)
	FRL KPM	Software and mechanical kit to develop test on motorbikes
	FRL-EPR	Roller covers platform (2 units)
	GEN-PES6	Calibration weight 6 kg
	GEN-PES10	Calibration weight 10 kg
	GEN-PES30	Calibration weight 30 kg
	GEN-PAL2	Calibration lever
	GEN-BOC	Civil work frame monobloc
	AL-BOC	Civil work frame Alineador al paso
	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...

Other versions

	MONOBLOC-KIT	Electronic box with software and mechanical frames Dimensions of the electronic box: 600 x 600 x 300 mm.
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Other Cabinet

	GEN-MC	PREMIUM CABINET Cabinet only Dimensions: 730 x 600 x 1.800 mm.
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Monobloc inspection line is composed of a single frame that integrate a brake tester and a suspension bench, designed for light vehicles up to 3,500 kg of MMA, and withstand loads of up to 8 tons. per axis to step.

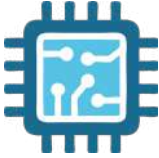
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Max load per axle (to step)	8 Tn.
Motor Braketester	2x 5,5 Kw.
Motor Suspension Bench	1x 3,0 Kw.
Maximum Track Width	2.830 mm.
Minimum Track Width	840 mm.


Electronics




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New high-speed processor
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Connections
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- Automatic 4WD vehicle detection
- 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)
- Braking lock difference less than 20 ms
- 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
- Intuitive, simple and fast configuration software
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Self test of auto-zero in the beginning of each test
- Very intuitive control software guided by graphic icons
- Common database (on network as well as in local mode) that's 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.
- Translation module which the user will be able to translate the program into his own language or modify any sentence or word on it..
- Customized advertising on screen
- Graphical and numerical display of results
- Test control by using a remote control
- Carrying out a test for each individual wheel for differential observation per individual wheel
- Automatic slip cut-off: new system for measuring the slip, the safety of the tyre is considerably increased, taking into account the performance of the engine in the lowering of the rolling speed
- Possibility of repetition and independent analysis of each wheel
- Possibility of automatic or manual start and stop
- Strain gauge measurement system
- Measurement display with error less than 1%.
- Independent manual start and stop by plates
- Static and dynamic weighting in each axle
- Measurement of maximum Amplitudee produced from start to stop
- Display of left and right Amplitudee and difference between the two
- Performance indication left, right and difference between the two
- Free movement of the plate for noise location
- Manual entry of the vehicle weight
- Communication USB / RS232 / Ethernet (TCP-IP) Protocol
- Control software for 4WD all-wheel drive vehicles
- Calibration software
- Software for automatic operation



Software



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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

Main Characteristics

Maximum axle load (to step)	8 Tn.
Maximum Track Width	2.830 mm.
Minimum Track Width	840 mm.
Voltage	400 V. 50 Hz. Threephasic
Protection Fuse	3 x 32 A
Thermal Protector	2 x 16 A

Suspension Bench Characteristics

Maximum test load	2.500 kg
Engine Power	2 x 3 KW
Excitation frequency	16 Hz
Three valuation levels	A) Amplitude B) Efficiency in% C) Diagnosis

Brake tester Characteristics

Engine Power	2 x 5,5 kW (S3)
Test Speed	5 km / h.
Roll diameter	202 mm.
Length of the rollers	1.000 mm.
Distance between centers	400 mm.
Measurement range	0 - 12 kN
Range of measurement	10 N
Measurement indication error	1 %
Friction coefficient	0,9 dry 0,7 wet

Dimensions

Monobloc +

Bench dimensions	2.952 x 1.129 x 285 mm.
Packed bench dimensions	3.150 x 1.400 x 550 mm.
Bench weight	888 kg
Packed bench weight	950 kg

CABINET

Cabinet dimensions	620 x 510 x 1.850 mm.
Packed cabinet dimensions	800 x 600 x 1.580 mm.
Cabinet weight	80 Kg
Packed cabinet weight	100 Kg




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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
	AL-INT	Integrator Kit Side Slip Aligner
	GEN-EST	Voltage Stabilizer
	FRL-M55	Motor 5,5 KW
	FRL-SA230	Delayed static retarder 230 V.
	GEN-230	Power supply 230 V. Three-phase
	GEN-60HZ	Power supply 60 Hz
	FRL-RAS	Access ramps for floor mounting without civil works
	GEN-DPR	Pedal dynamometer with wireless PC communication. Includes wireless receiver and software
	FRM-DMR	Wireless handheld dynamometer

	FRL-4WD	Autoportable set of rollers for 4WD vehicles (4 units)
	FRL KPM	Software and mechanical kit to develop test on motorbikes
	FRL-EPR	Roller covers platform (2 units)
	GEN-PES6	Calibration weight 6 kg
	GEN-PES10	Calibration weight 10 kg
	GEN-PES30	Calibration weight 30 kg
	GEN-PAL2	Calibration lever
	GEN-BOC	Civil work frame monobloc
	AL-BOC	Civil work frame Alineador al paso
	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...

Other versions

	MONOBLOC-KIT	Electronic box with software and mechanical frames Dimensions of the electronic box: 600 x 600 x 300 mm.
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Other Cabinet

	GEN-MC	PREMIUM CABINET Cabinet only Dimensions: 730 x 600 x 1.800 mm.
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Debido a la continua evolución de nuestros productos, las características técnicas y de diseño podrían estar sujetas a modificaciones, sin previo aviso.

Tandem inspection line is composed of a initial side slip and a tandem brake tester and suspensions bench designed for light vehicles up to 3,500 kg of MMA, and withstand loads of up to 8 tons. per axis to step.


The tandem is composed of two pairs of test benches for brakes and suspension, a fixed and a movable that automatically adjusts to the specific wheelbase of the vehicle to be tested.

The positioning is very precise due to a transducer that constantly sends the position of the movable bed to the electronic control and management of the machine.

With this revolutionary line inspection and proper management of the flow of vehicles can reduce testing time by more than 50%, and therefore increase the productivity of the inspection line by more than 100%.

PATENTED

Max load per axle **3,5 Tn.**

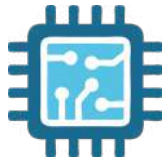
Wheelbase 

mín. - máx. 2.300 - 3.060 mm.

Maximum Track Width **2.175 mm.**

Minimum Track Width **835 mm.**

Electronics



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



RAM memory
New memory 16 times faster



Connections
Ethernet (TCP-IP) / RS-232 connection on the main board



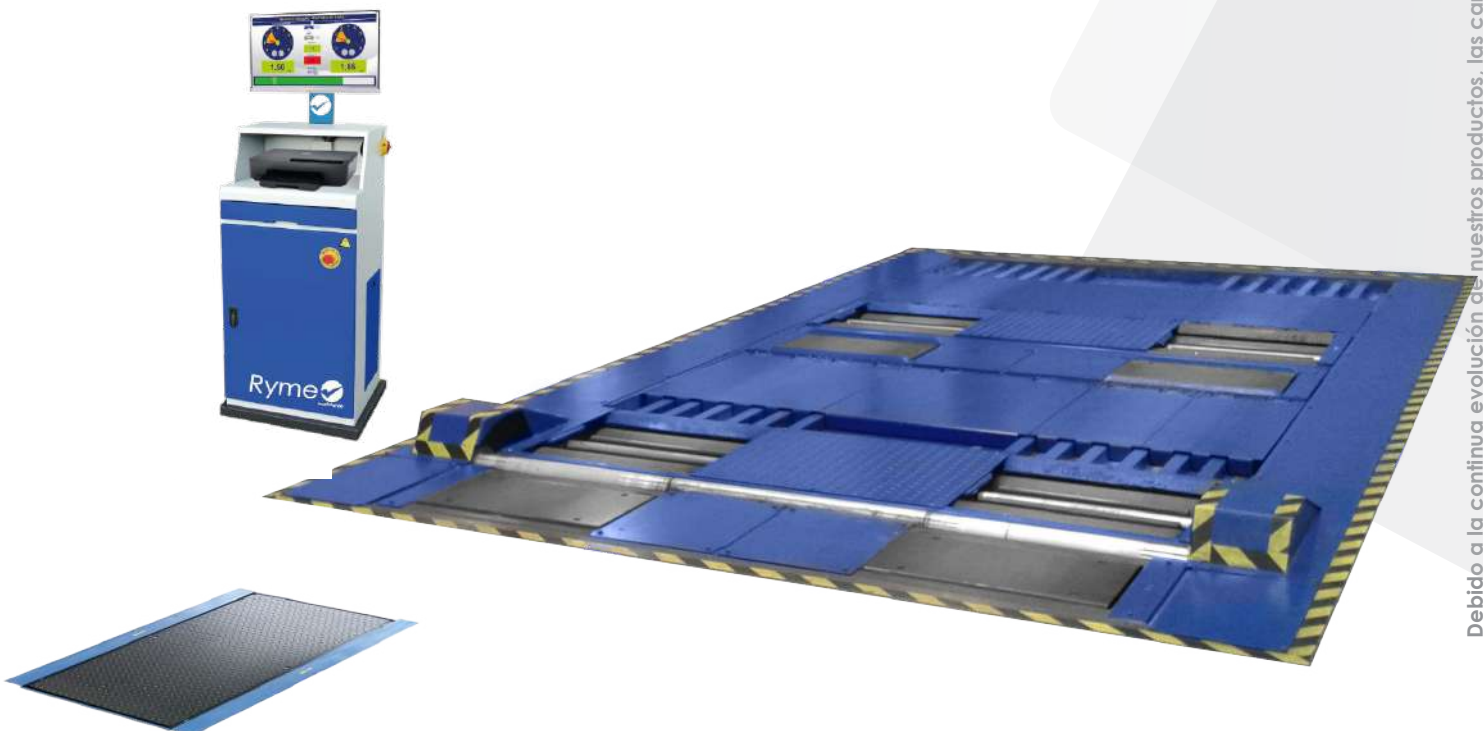
Flash Memory
New memory 4 times faster

Modular System
All electronics are expandable.
Specially designed for automotive and vehicle inspection centers

Time Optimization



Inspection equipment designed for the optimization and speed of the inspection process. Thanks to its design in a single test we obtain a verification of the state of the brakes and suspension of the vehicle



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Standard Equipment

- Side Slip Tester, Suspension bench and Brake Tester for light vehicles
- Control cabinet
- Electronic control & software
- Remote control for test control
- Electric blockage of rollers to facilitate the vehicle entry/exit
- Rollers coated in welded steel or synthetic fiber
- Pneumatic lift on the Brake tester to facilitate vehicle exit
- Rear retention bar, with pneumatic system, for improved braking performance

Software

- Automatic 4WD vehicle detection
- 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)
- Braking lock difference less than 20 ms
- 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
- Intuitive, simple and fast configuration software
- Graphical and numerical display of results
- Customization of the test duration to the minimum and/or maximum time to optimize working time
- Self test of auto-zero in the beginning of each test
- Very intuitive control software guided by graphic icons
- Common database (on network as well as in local mode) that's 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.
- Translation module which the user will be able to translate the program into his own language or modify any sentence or word on it..
- Customized advertising on screen
- Carrying out a test for each individual wheel for differential observation per individual wheel
- Automatic slip cut-off: new system for measuring the slip, the safety of the tyre is considerably increased, taking into account the performance of the engine in the lowering of the rolling speed
- Possibility of repetition and independent analysis of each wheel
- Measurement of maximum Amplitudee produced from start to stop
- Display of left and right Amplitudee and difference between the two
- Performance indication left, right and difference between the two
- Manual entry of the vehicle weight
- Communication USB / RS232 / Ethernet (TCP-IP) Protocol
- Control software for 4WD all-wheel drive vehicles
- Calibration software
- Software for automatic operation



Software



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Repetition of partial tests



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Software adaptations

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

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Technical Data Tandem

Power Supply	400 V. 50 Hz. Three-phase
Protection Fuse	3 x 50 A.
Pneumatic Supply	P _{min} 8bar.
Minimum Track Width	835 mm.

Maximum Track Width	2.175 mm.
Minimum Wheelbase distance	2.300 mm.
Maximum Wheelbase distance	3.060 mm.
Dimensions equipment	5.500 x 3.020 mm.
Weight equipment	4 Tn. (without civil works!)

Technical Data Side Slip Tester

Step speed	5-10 km/h.
Measurement range	-20 ~ 20 m/km.
Range of measurement	0,1 m/km.
3 valuation levels	A) m/km. (máx. 20 m/km) B) Degrees and minutes C) Diagnosis

Technical Data Suspension Bench

Engine Power	2 x 3 kW.
Excitation frequency	16 Hz.
Three valuation levels	A) Amplitude B) Efficiency in% C) Diagnosis

Technical Data Bracketester

Drive Motors	2 x 4,6 kW.
Test Speed	3,5 km/h.
Rear roller diameter	202 mm.
Rear roller length	684 mm.
Front roller diameter	155 mm.

Front roller length	684 mm
Friction coefficient	0,9 dry 0,7 wet
Measurement range	0 - 6 kN.
Range of measurement	10 N.
Measurement indication error	1 %.




Dimensions

Dimensions equipment	5.500 x 3.020 mm.
Weight equipment	4 Tn. (sin obra civil)


Cabinet dimensions	730 x 600 x 1.800 mm.
Packed cabinet dimensions	940 x 940 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
	Voltage Stabilizer
GEN-EST	Voltage Stabilizer
FRM-SA	Delayed static retarder
FRM-SA230	Delayed static retarder 230 V.
GEN-230	Power supply 230 V. Three-phase
GEN-60HZ	Power supply 60 Hz
	Pedal dynamometer with wireless PC communication. Includes wireless receiver and software
GEN-DPR	Pedal dynamometer with wireless PC communication. Includes wireless receiver and software
	Roller covers platform 4 unidades)
FRL-EPR	Roller covers platform 4 unidades)
	Calibration weight 6 kg
GEN-PES6	Calibration weight 6 kg
GEN-PES10	Calibration weight 10 kg
GEN-PES30	Calibration weight 30 kg

	GEN-PAL2	Calibration lever
	BS-CAL	Calibration tool for the suspension bench
	GEN-BOC	Civil work frame Tandem Lane
	AL-BOC	Civil work frame Side Slip tester
	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...

Other Cabinet

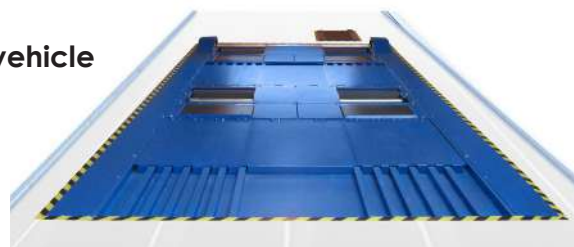
	GEN-MC	PREMIUM CABINET Cabinet only Dimensions: 730 x 600 x 1.800 mm.
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Operation

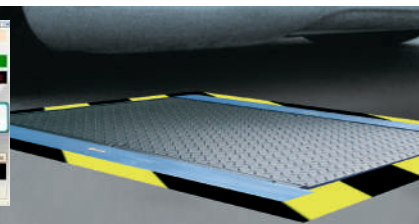
1. Automatic Adaptation to the distance between axles of the vehicle

This revolutionary line inspection receives the wheelbase of the vehicle that you are testing. The mobile bench is adjusted automatically to this wheelbase quickly and accurately. A transducer controls at all time the position of the movable bench. Once the machine has been adapted to the dimensions of the vehicle, the test can begin.



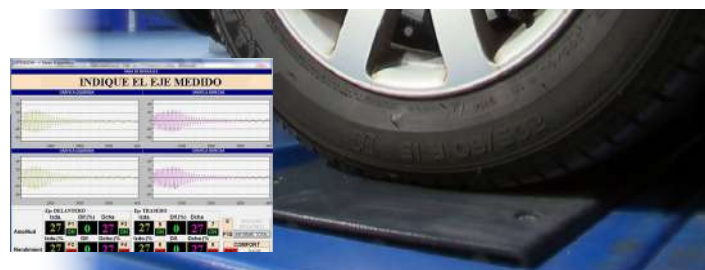
2. Side Slip Test

The first vehicle passes over the sideslip, thus being recorded deviation from his steering axle or axles that are configured



3. Suspension Bench Test

Pneumatic lifting system adjusts the vehicle until its rolling is at ground level. That is when the vehicle advances to bench tandem suspension bench. Again, the suspension is carried out simultaneously in the front and rear axles. Weights are recorded and efficiencies of the suspension of the complete vehicle



4. Brake Tester Test

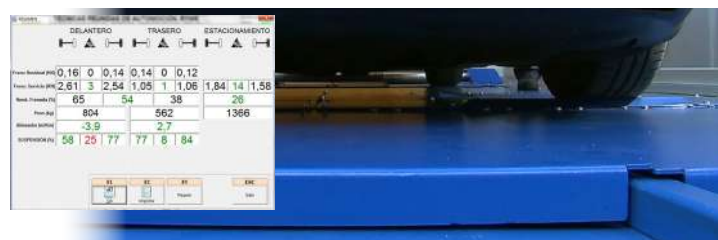
The next test that makes the vehicle is on the brake tester. Initially Pneumatic lifting beam holds the vehicle. When proper positioning of the vehicle is detected descends the lifting beam, being the axles perfectly positioned on tandem brake testers.

At this time a holding roller support on the tires of the rear axle, giving greater stability test and therefore more safety, at which the Motors start rotating. The all four wheels are tested simultaneously ovality and values are then recorded complete.



5. End of Test

The vehicle is removed from the inspection line: the test has been completed. It remains only to check on the report that the diagnosis has been favorable.



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