HOFMANN®

safelane® pro II Test lane for cars

Car test lane up to 4 tons axle load
with analogue display or PC version

safelane® pro II Test lane for cars

Modular design – automatic test sequences

Test lanes to meet your individual requirements

Unterneukirchen is the centre of excellence for testing technology in the strong and efficient Snap-on Group. For more than 30 years the name of Hofmann has been a synonym for engineering and manufacturing of testing and diagnostics technology for cars and trucks.

Our customers benefit from concentrated competence and direct and smooth handling of enquiries and orders.

A qualified team, the well-known product quality, good service and the advantages of the strong global Snap-on Group guarantee testing technology which is constantly optimised in terms of customer requirements.

This is the reason why our equipment have been approved and recommended by many important car manufacturers.

The optimum test lane for check-in, final inspection, tests in line with government standards, and training classes. The vehicle test in the presence of your customer and the relative print-out make diagnostics much more transparent and improve your customer's confidence.

The test lane is available in different versions:
– safelane® pro II with analogue display
– safelane® pro II in PC version
– safelane® pro II in PC version, combined with analogue display

Owing to the modular design it is possible to buy test lane components step by step:
Basis is the brake tester, whereas suspension tester and side-slip tester can be retrofitted at a later date.
Connection to PC can also be made at a later date as requested.
All components of Hofmann testing equipment can be combined at customer's discretion.

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Customised operation of testing equipment

Brakes and shock absorbers are wear parts and there are numerous possible defects which might occur.

Regular diagnostics with results documented on the test record provide an additional service and profit for your shop. The complete vehicle test can be accomplished with the fully automatic test sequence where all testing units (brake tester, lifting device, suspension tester and slide-slip tester) start automatically.

Short testing times of 2 to 3 minutes only mean an increased vehicle throughput. IR remote control is no longer necessary.

The features to be tested are detected by means of well-proven strain-gauge type load cells. This wear-free measuring system ensures reliable and error-free measurement of the forces produced.

The optional IR remote control unit can be used to control the testing equipment from driver's seat at the entire discretion of the operator, e.g. by starting the brake tester only, or by conducting the tests in the sequence he prefers.

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Modular design – automatic test sequences

The basis: safelane pro II® brake tester

safelane® pro II – Analogue 3 for cars of up to 3 tons axle load, with analogue display 0-6 kN

safelane® pro II – Analogue 4 or cars of up to 4 tons axle load, with analogue display 0-8 kN

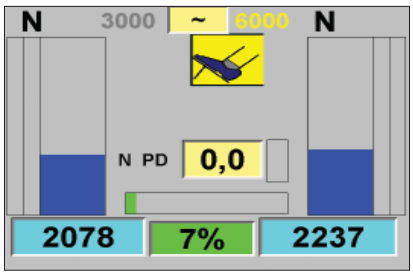
safelane® pro II – PC 3 for cars of up to 3 tons axle load, PC version

safelane® pro II – PC 4 for cars of up to 4 tons axle load, PC version

Standard equipment of the roller sets:
- Mechanics in compact flat design, galvanised and consequently suitable for outdoor installation
- Rollers with long-life ceramics-silicon coating are abrasion-proof and very tyre preserving
- Roller sets are equipped with rust-proof feeler rolls
- Splash-proof motors
- Measurement with wear-free strain-gauge type load cells
- Electric automatic drive-off aid

The brake tester, which forms the basic unit of the test lane, is also available with braking motors (4 t versions only) and for 4WD vehicles.

Graphical analysis of brake



The brake test covers the following quantities:
- rolling resistance
- ovality
- braking force imbalance left/right
- braking force left/right

Optional pneumatic lifting device

As the lifting device raises the vehicle to ground level, driving in and off the rollers is considerably facilitated and hence especially advantageous for vehicles with sports chassis, low ground clearance, or small wheel diameters where damage to the underbody is very likely under usual conditions.

Note: suitable foundation must be available. 8 bar compressed-air supply required. Operation only with remote control unit.

Suspension tester

contactest 2100
Eusama-based suspension tester
contactest 3800
Theta-type suspension tester

Shock absorbers wear slowly so that customers often do not recognise it. In less than a minute the suspension tester enables you to determine the cause of dangerous cornering ability, irregular tyre wear, steering wheel vibrations, insufficient driving stability in case of cross winds, and poor braking performance.

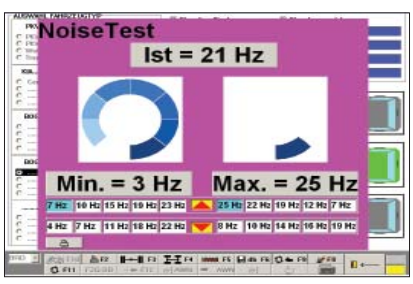
Graphical analysis of suspension

Two different measuring systems are available:

Eusama-based suspension tester
Two independent test plates determine vehicle chassis vibrations as they phase out. The forces thus produced, which might adversely effect the vibratory behaviour of the vehicle, are detected and calculated (dynamic analysis).

Theta-type suspension tester
This simple-to-operate suspension tester provides an unmistakable and highly accurate procedure for evaluation of suspension values. The evaluation is based on determination of the damping ratio ϑ according to Lehr, with a limit value being defined where wheel suspension no longer guarantees sufficient vehicle safety.

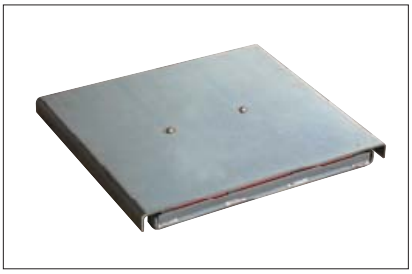
Screen graphics: noise test



The suspension testers can be equipped with the optional **noise test module**.

With conventional techniques it is hardly possible to localise any noise on or inside the vehicle. With this noise test module every single wheel can be set into vibrations with the remote control unit. In the test cycle to follow, which is started either manually, or automatically, the noise is easily localised.

Side-slip tester tractest 2500



The side-slip tester is designed to measure toe of the vehicle under test immediately. No additional tests are necessary as the testing plate is positioned directly in front of the suspension tester and the vehicle simply rolls over. The data automatically detected supplies a sound diagnostics of toe-in and toe-out. The measured value is read out in 0 +/- 20 mm/m.

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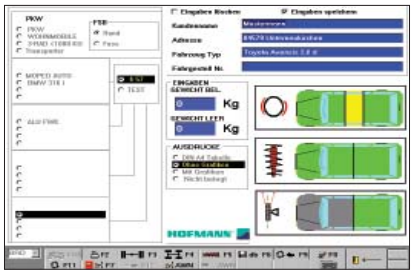
Various basic models

Communication cabinet for safelane® pro II – PC
The communication cabinet with integrated electrics and electronics in shop-proof design is prepared for accommodation of PC components. It offers space for a PC, monitor, A4 inkjet printer, keyboard and mouse.

safelane® pro II – Analogue 3
– Display **0 – 6** kN
safelane® pro II – Analogue 4
– Display **0 – 8** kN

Display cabinet with integrated electronics
– indication of cut-out at wheel lock, left/right
– wheel weight left/right
– permanent determination of braking force imbalance
– side-slip display
– force applied on pedal
– road grip left/right
– PC/printer interface
In addition there is the possibility of simultaneous operation, e.g. with the display cabinet installed in the check-in bay and connected via COM lead to the PC which is for instance located in the shop office.

Optional test software Work sheet

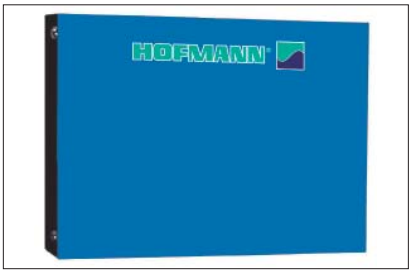


In the so-called work sheet you have a summary of all important customer and vehicle data.

Government standards
For each vehicle type specified on the work sheet the relative government standards and physical quantities can be preset.
When the vehicle is tested the results are automatically compared with government standards.

Database
Save all your customer and vehicle data. You will soon find out that in this way a vehicle's condition is easily traceable over long periods. Whenever a vehicle comes in, you immediately have customer and/or vehicle data at hand.

E box for safelane® pro II – PC



The E box with integrated electronics can be chosen instead of the communication cabinet.

Options

Optional built-in frame
These built-in frames considerably facilitate preparation of foundations.

There is no need to embed in concrete a steel beam with edge guards which is otherwise inevitable.
None the less an exactly level plane with ground is always ensured.

Optional roller cover plates

Optional motorcycle test

Car brake testers and test lanes can be easily retrofitted for motorcycle tests.

Technical data

		safelane® pro II – Analogue 3	safelane® pro II – Analogue 4	safelane® pro II – PC 3	safelane® pro II – PC 4
General					
Temperature range	°C	0 up to +70	0 up to +70	0 up to +70	0 up to +70
Power supply					
Mains voltage	V	3/N/PE400 V AC	3/N/PE400 V AC	3/N/PE400 V AC	3/N/PE400 V AC
Frequency	Hz	50	50	50	50
Fusing slow-blow type	A	3 x 25	3 x 25	3 x 25	3 x 25
Supply line	mm^2	5 x 2.5	5 x 2.5	5 x 2.5	5 x 2.5
Display cabinet					
Height x width x depth	mm	600 x 800 x 200	600 x 800 x 200		
Measuring range	kN	0 – 6	0 – 8		
Weight	kg	35	35		
Communication cabinet					
Height x width x depth	mm			1190 x 600 x 650	1190 x 600 x 650
Weight	kg			50	50
E box					
Height x width x depth	mm			650 x 500 x 200	650 x 500 x 200
Weight	kg			30	30

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Technical data

		safelane® pro II – Analogue 3	safelane® pro II – Analogue 4	safelane® pro II – PC 3	safelane® pro II – PC 4
Brake tester					
Max. axle weight	t	3	4	3	4
Roller coefficient dry – wet		0.9 – 0.5	0.9 – 0.5	0.9 – 0.5	0.9 – 0.5
Test width min. / max.	mm	800 / 2200	800 / 2200	800 / 2200	800 / 2200
Idle running speed	km/h	3.4	5.4	3.4	5.4
Dimensions of mechanics	mm	580 x 2350 x 205	670 x 2350 x 255	580 x 2350 x 205	670 x 2350 x 255
Roller diameter	mm	175	215	175	215
Roller length	mm	700	700	700	700
Motor power	kW	2 x 2.5	2 x 3.7	2 x 2.5	2 x 3.7
Weight	kg	330	370	330	370
Eusama-based suspension tester					
Dynamic wheel load min. / max.	kg	75 / 1000	75 / 1000	75 / 1000	75 / 1000
Static wheel load min. / max.	kg	75 / 1500	75 / 1500	75 / 1500	75 / 1500
Length x width x height	mm	400 x 2350 x 255	400 x 2350 x 255	400 x 2350 x 255	400 x 2350 x 255
Exciter frequency max.	Hz	24	24	24	24
Exciter stroke	mm	6	6	6	6
Motor power	kW	3	3	3	3
Weight	kg	320	320	320	320
Theta-type suspension tester					
Axle weight max.	t	2.2	2.2	2.2	2.2
Dimensions of mechanical structure (W x L x H)	mm	800 x 2350 x 286	800 x 2350 x 286	800 x 2350 x 286	800 x 2350 x 286
Test width min. / max.	mm	800 / 2200	800 / 2200	800 / 2200	800 / 2200
Exciter stroke	mm	3.5	3.5	3.5	3.5
Exciter frequency		approx. Hz 10	approx. Hz 10	approx. Hz 10	approx. Hz 10
Measuring range – max. stroke	mm	70	70	70	70
Range of readings		0 – 0.35	0 – 0.35	0 – 0.35	0 – 0.35
Accuracy of readings		+/- 2% of full-scale reading	+/- 2% of full-scale reading	+/- 2% of full-scale reading	+/- 2% of full-scale reading
Motor power	kW	2 x 1.1	2 x 1.1	2 x 1.1	2 x 1.1
Weight of mechanical structure approx.	kg	500	500	500	500
Side-slip tester (optional)					
Axle weight	t	4	4	4	4
Measuring range	mm/m	0 ± 20	0 ± 20	0 ± 20	0 ± 20
Length x width x height	mm	500 x 570 x 50	500 x 570 x 50	500 x 570 x 50	500 x 570 x 50
Weight	kg	25	25	25	25

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Part of the machines is illustrated with optional equipment which is available at extra cost.
Technical modifications reserved.

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