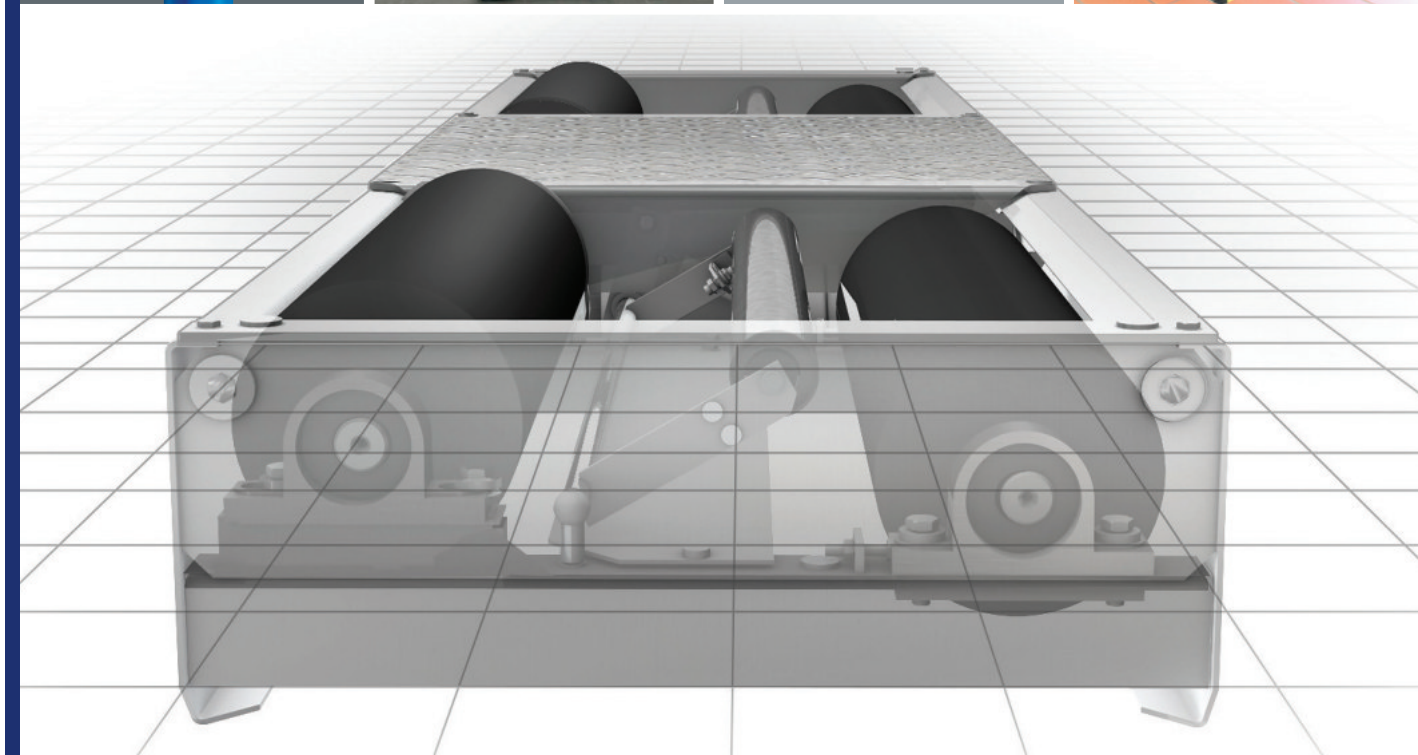


Brake test stands, test lanes and headlight testers for passenger cars and transporters



Testing equipment 2018



HLT Headlight tester

The testing and positioning of headlights should be checked at the workshop on every visit just as the oil levels and other important things are also checked.

It is extremely important that the correct headlight adjustments are maintained since any deviation could mean that the driver loses meters in his line of sight. And it could also be dangerous for other road users when blinding them with incorrectly adjusted headlights.



HLT 620 with BMW approval

In order to adjust the headlight according to most legal requirements, the vehicle should be positioned exactly 10 meters in front of a white wall with the centre axis of the headlight beams reflected onto it. This is the basis of checking the deviation of the beams in percentage terms according to the make and brand of the vehicle and correcting it.

This form of measurement is often impractical as it can cause some problems due to lack of space in the workshop. The HLT headlight beamer adjustment device from ATT offers the mechanic a small workshop helper that does the job more efficiently. The integrated lens enables the required 10 meter distance to be minimized down to just a few centimeters.

The headlight beamer tester and adjustment device is a robust precision instrument designed for simple user friendly implementation in the repair workshop. With a measuring height of between 270 mm to 1.300mm it is ideal for testing not only headlights on cars but also for trucks.

In order to meet different country specific requirements ATT is able to offer further models, e.g. for Switzerland, Belgium, France, England and many more.

Technical Data

HLT	600	610	620	620-L
Measuring height (mm)	270 – 1.300			
Weight (kg)	30			
Luxmeter	-	yes	yes	yes
Laser positioning	optional	optional	optional	yes
Wheels	yes	yes	-	-
Rail kit	optional	optional	standard	adjustable



Highly robust and workshop orientated headlight tester with optical or laser positioning

- Full testing range from a simple incandescent lamp up to the latest LED technologies
- One handed hight adjustment with automatic locking
- Fast set up by use of a mirror
- Control of the measurement reflection using a hinged mirror at the rear of the cabinet
- Simple lateral movement from each headlamp without complicated maneuvering
- No electrical connection or batteries required
- Ergonomic controls



Analogue display or PC system for brake testing?



Experience the best of both worlds in one system:

BT 110
together with the software
BT Data
offer amazing possibilities.



BT 110

The analog display indicates the most important results at a glance: the braking force is clearly shown on a 350 mm diameter scale. An excessive braking force imbalance is symbolised through a standard signal lamp.

- Brake tester for passenger cars and transporters
- 4 t axle load, 6 kN brake force
- One-piece galvanized roller set, including middle cover plates
- Electronic measuring system with strain gauges
- Switching on and re-start, start blocking protection
- Cabinet for wall mounting
- Splash-proof motor (IP54)
- Drive-by self-locking worm gear box
- Solid and lasting rollers with welded surface
- Differential indicator light and automatic lamp

BT 110 & BT-Data

Experience the best of both worlds in one system: BT 110 together with the software BT Data offer amazing possibilities.

BT Data

BT Data can be installed on any PC in your workshop – which just needs to be connected via the BT110 serial interface. BT Data is an option, of course BT 110 runs as standalone brake tester as well.

The workshop has an additional benefit

Measured data can be stored along with customer data, diagram and display can be provided by an inexpensive and common PC printer.

And the best: The software can be installed on an existing PC in any workshop.

Technical data

Brake tester	BT 110	BT 110 Profi
Permissible axle weight (t)	4	4
Measuring range (kN)	6	6
Testing speed (km/h)	5	5
Roller diameter (mm)	204	204
Roller surface	welded	
Testing width (mm)	800–2.200	800–2.200
Motor power (kW)	3,5	3,5
Roller set dimensions (mm)	2.332 x 668 x 265	
Cabinet dimensions (mm)	580 x 500 x 210	

Brake tester	BT 400	BT 410	BT 415	BT 420	BT 425
Permissible axle weight (t)	3	4	4	5	5
Display area (kN)	8	8	8	8	8
Measuring range (kN)	5	6	6	8	8
Testing speed (km/h)	3	5	5	5	5
Roller diameter (mm)	204	204	204	204	204
Roller length (mm)	700	700	1.000	700	1.000
Roller set dimensions (mm)	2.332 x 668 x 265	2.332 x 668 x 265	2.932 x 668 x 265	2.332 x 668 x 265	2.932 x 668 x 265
Testing width (mm)	800–2.200	800–2.200	800–2.800	800–2.200	800–2.800
Roller surface	plastic corundum				
Cabinet dimensions (mm)	900 x 580 x 275				

	Suspension tester EUSAMA	Suspension tester BOGE
Permissible axle weight	2 t / Axle	2 t / Axle
Vibrational amplitude	+/- 3 mm	-
Frequency	25 – 0 Hz	16 – 0 Hz
Motor power	2 x 2,5 kW	2 x 1,5 kW
Measurand	contact force	Displacement
Noise detection function	optional	optional

Side Slip	
Permissible axle weight	2,5 t
Measuring range	-15 m/km bis + 15 m/km

Network connections	
All PC based test lanes can be connected using ASA Network, GiegNet und MCTCNet protocols	



BT & NTS

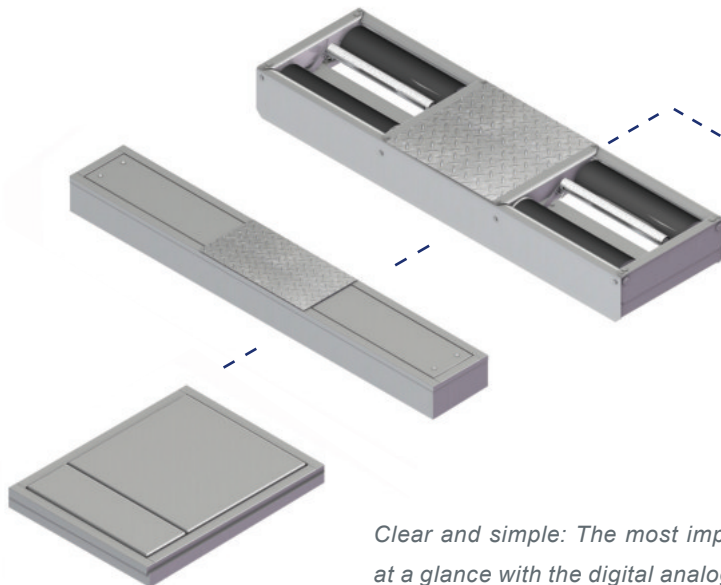
Brake tester and test lane



Organise your own ideal testing station

Using the modular concept, you are able to select the types of testing that is required:

- Either using the repair tests such as brake testing which can also be placed outdoors.
- Or as a pre-service inspection with the suitable lift.
- Or a universal test lane which incorporates the brake test with others such as side slip, play detection and headlight testing.



Clear and simple: The most important results can be viewed at a glance with the digital analogue display: The brake forces are shown on a 350 mm wide display as well as slip limits and high imbalance using signal lamps. The optional digital display extends the brake tester to a complete test lane.

The analogue display has the advantage of clear and quick presentation of the results. A PC system can graphically display the values and results to be presented to the customer and save them in a databank. The test lane can also be integrated into an existing workshop network system.

The flexibility of the Nussbaum test lane series enables a complete test lane to be configured. You choose the applicable test stand and receive the results via the control unit and test lane software. The PC and monitor can be placed wherever you want as the PC and control unit are connected either via a serial cable or a wireless remote control connection.

BT & NTS short and efficient

- The modular system offers standard solutions as well as additional configuration possibilities to enable the set up of an ideal test lane.
- All floor units are hot dip galvanized, thus optimally protecting them from corrosion.
- All brake testers are fitted with worm gears enabling rollers to self block assisting the exit of vehicles from the rollers.
- Engineered and manufactured in Germany
- Our own development branch for software, measurement and control technology as well as electronics, mechanics and in house production, ensure flexibility, innovation and quality.

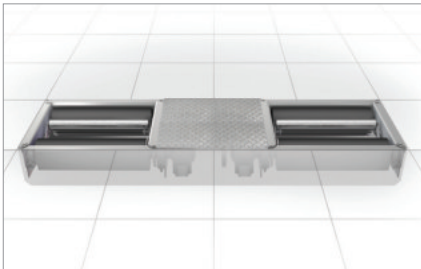


The pre-connected test lane: You have the freedom to configure your ideal test lane: select the most suitable roller set with various options, Eusama-, Boge tester and side slip. The measurement and control electronics, PC and printer are situated together in the control cabinet.

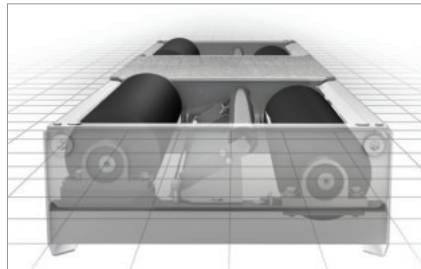


BT roller set

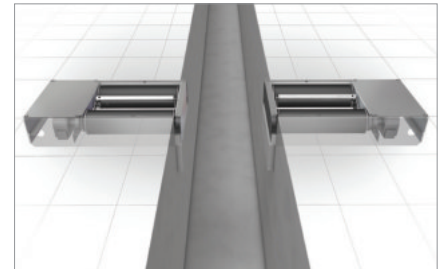
Which roller set is the most suitable?



Roller set with the standard testing width of 800 – 2.200 mm and level rollers.



Raised rollers

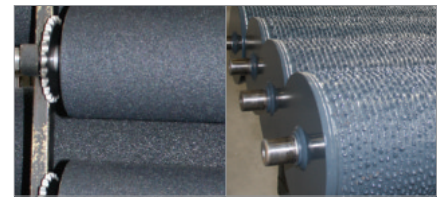


Separated rollers for installation either side of a pit

If you need to carry out periodical vehicle testing, then most countries use the testing speed of 5 km/h whereas loaded transporters usually use the maximum brake force range of 8 kN.

You can choose a roller surface coating of either welded construction or plastic corundum and both fulfil the international requirements for the coefficients of adhesion. Braking efficiency calculations require the assistance of an optional weighing device fitted under the rollers or, in the case of a test lane, by acquisitioning the weight from the suspension tester. If you have a single brake tester, the weighing device is required.

Choose your roller surface coating:



Plastic corundum Welded design

You can choose between 3 different power ranges

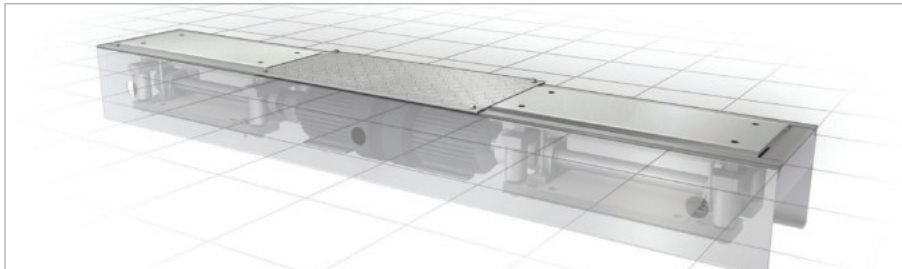
Testing speed	Max. brakeforce	Weight capacity
3,3 km/h	5 kN	3 t
5 km/h	6 kN	4 t
5 km/h	8 kN	4 t

All test stands with plastic corudum have a roller diameter of more than 204 mm and a traction value of more than 0,7 in dry and more than 0,6 in wet conditions. As option for more accurate slip measurement (requirement in some countries) an additional rotational sensor is available.

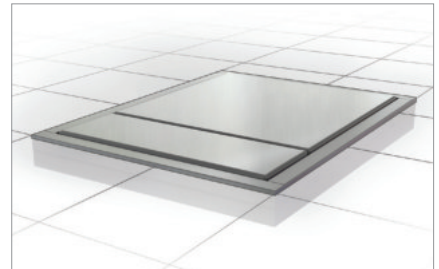


Lowering and lifting device

The optional lowering and lifting device eases the driving into and out of the rollers, especially vehicles that are fitted with front spoilers and in many cases they can substitute the requirement for roller drive over covers.



EUSAMA Tester. Alternatively we offer the BOGE Tester



Side slip tester

Suspension tester

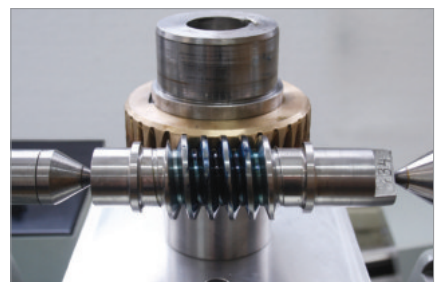
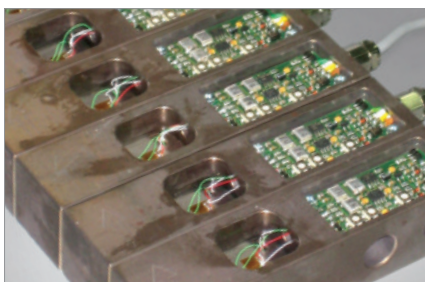
The vehicle suspension is an important safety aspect. It ensures a safe vehicle road holding, incorporating optimal steering and braking. The EUSAMA tester calculates the rebounding forces on the wheels through defined oscillation conditions whereas the Boge tester shows the axle absorption in relation to the static rebounding forces. As there are no recognised pre-defined values for suspension testing, both methods exist in parallel and we can offer the most suitable to your requirements.

Side slip plate

The side slip tester quickly checks the axle geometry and completes the test.

Development & production

Modern production processes mainly manufactured in – house ensures long lasting product quality. Enclosures and frameworks are all produced on modern laser plants and worm gears are developed and manufactured in our own factories.





Display and control units

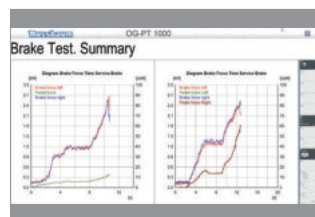
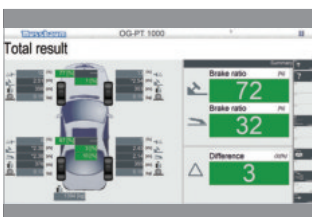
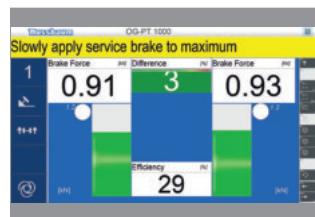
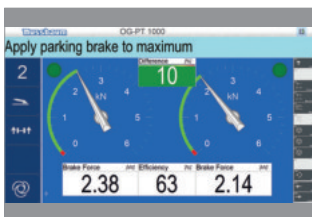
Your choice



Analogue display

The braking values are quickly and easily read with the 350 mm scale on the analogue display. The standard format also has signal lamps for the slip values and for exceeding the maximum brake force difference. The slip limit values and brake force difference limits can be adjusted.

The 14 digit LCD display (optional) shows other values such as axle weight and braking efficiencies (with optional weighing device). Test results from the optional suspension tester and side slip can also be read from the digital LCD display.

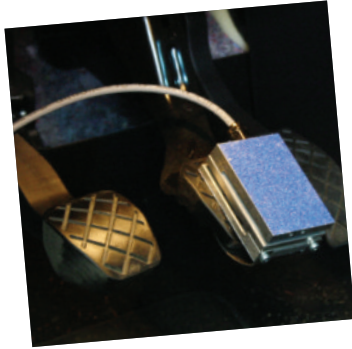


Monitor display for the PC system

The modern software system offers many possibilities and is essentially simple and intuitive to use on a two level interface. Initially the software can be configured to your own requirements, so the brake force graphical display can be depicted in analogue or in columns: The brake force graphical display can be depicted in analogue or in columns. Start the test through either customer/vehicle input or driving onto the test lane. After configuration, the testing steps are confirmed and the rest is easy. You can configure 2 or more sequences and later on select the test procedure that is best suited to your requirements.

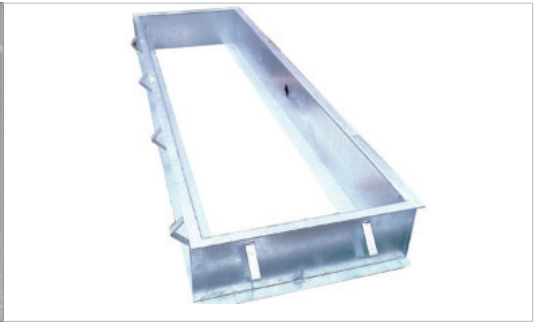
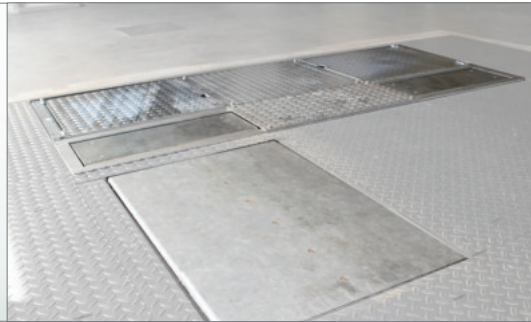
Various analysis and indication possibilities

The perfect accessory for every application



Motorcycle testing device

Cabinet wall mounting brackets



Cable connected or RC version brake force meter

Cover plates

Foundation tub for BT

Automatic all wheel recognition

This option is available on both analogue and PC versions of the brake tester. After the rollers have started, the test stand recognises if an all wheel vehicle is positioned in the rollers and then automatically changes the testing sequence to unregulated left – right running.

Pedal force meter

A further important accessory is the pedal force meter which can be offered as a cable connected or remote control unit. This will enable the brake force difference to be calculated using the brake pedal force. The brake force difference can be shown on the LCD display or printed out on the test report protocol.



Noise detection device

Printers for Analogue or PC configurations

Lowering and lifting device



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