

TL 600/SL 600 series

Brakes, suspension, side slip and noise diagnostics: passenger-car test lines from Beissbarth for effective diagnosis.



The image is a composite. On the left, there is a Beissbarth brake test report. The report includes the company logo, contact information, and a detailed diagram of a car's front suspension and steering system. The diagram is annotated with various force measurements in Newtons (N) and percentages, such as 2208 N (16%), 1719 N (14%), 3004 N (18%), and 1804 N (12%). The report also lists various diagnostic parameters and a 'LOGO' section. On the right, there is a photograph of a blue car on a lift in a garage. The car is positioned on a platform, and the lift is visible in the background.

All the best for your automobile service.

BEISSBARTH®
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Automotive Group

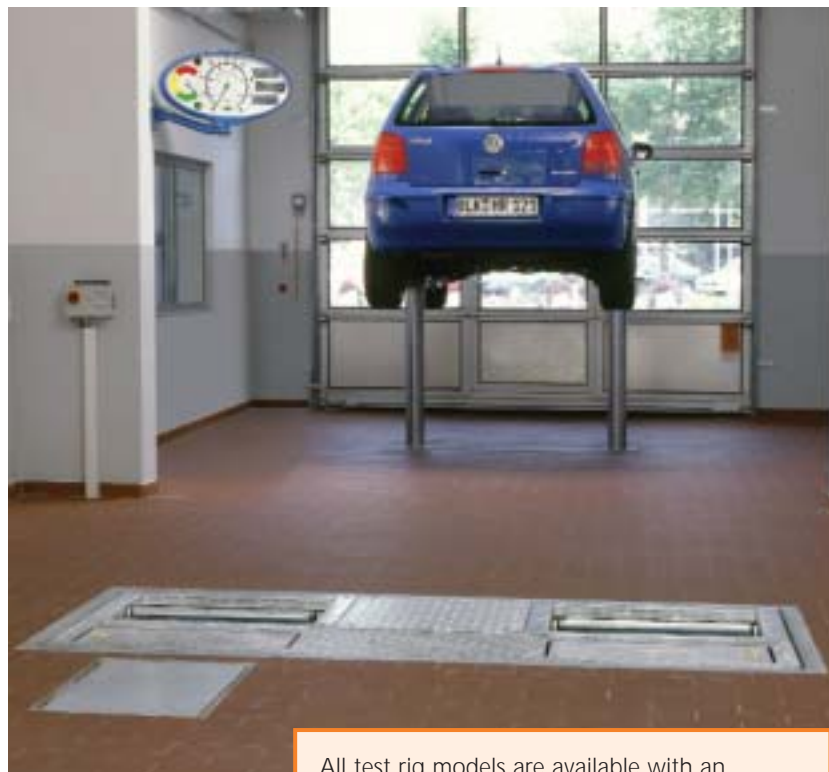
**The TL 600 series of test lanes:
with analogue- /LCD and
super-automatic mode.**

A single display shows the measured values from all test operations.

The cockpit-style design of the display unit, which can be tilted and turned, is not only easy to read off but also multifunctional. Three different measurement values of side slip, suspension and brakes are shown by indication of green, yellow and red evaluation scales, by pointers on the three-way universal analogue display dial and, last but not least, on large LCDs. This shows braking deceleration as a percentage, axle load in kilograms, ovality of brakes etc. All the measured values are stored automatically and can be printed out using the standard infrared remote control.

Super-automatic mode or infrared remote control.

These Beissbarth luxury features are not found on other makes of test rig. The standard super-automatic operating mode gives you menu control of the entire testing process. After the start, the computer automatically controls all the test phases, stores the data, indicates when the car should be moved forward and, via the integral electromagnetic brake test rig rollers (on the TL 640/680) provides an automatic drive-away aid. The entire process takes scarcely 3 minutes, including the automatic data archiving and printing functions – and without touching a single key.

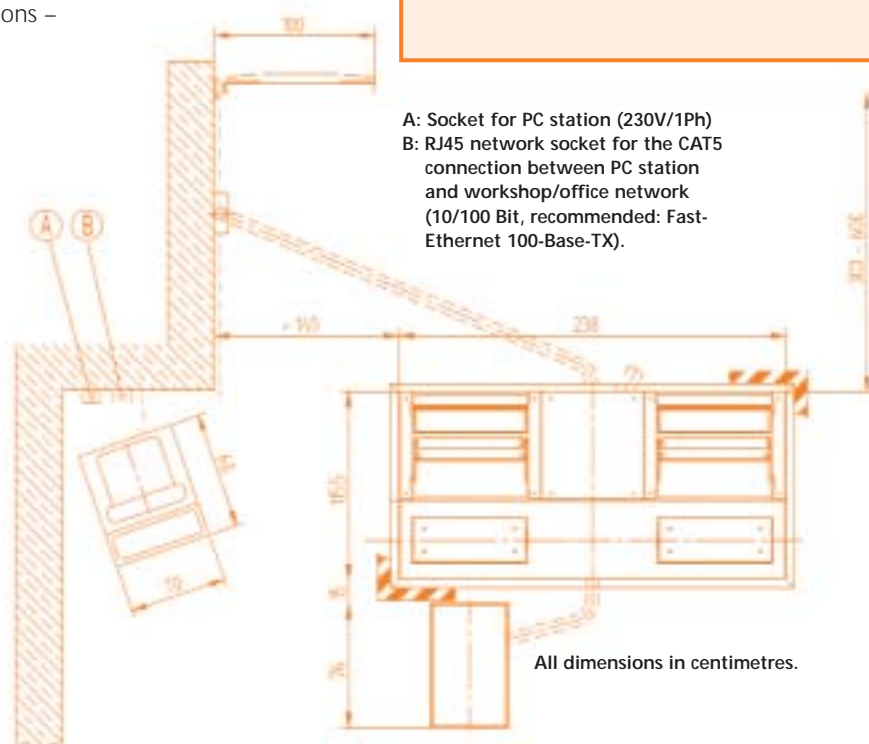


Illustrated: model TL 640.

All test rig models are available with an optional Beissbarth BNet-PC software interface (printing and archiving software) and therefore compatible with any modern Windows PC.



The brake test rig installation frame is prepared as standard for retrofitting the suspension tester. This cuts the cost of foundation works.



All dimensions in centimetres.



Side slip testing: the ST 600 tester displays the deviation in mm/m simply by driving across the platform. The result tells you whether the car needs wheel alignment.



Suspension testing: the SA 600 (EUSAMA measuring principle) delivers rapid information on tyre grip as a percentage value and the difference between the wheels on one axle.



Brake testing: the TL 640 supplies full data on the service and parking brakes.



Noise detection diagnosis with the TL 680: combined with the suspension tester, noise from the chassis, inside the vehicle and from the suspension can be rapidly and reliably localized.



Infrared remote control is a standard feature.

Evolution Line

TÜV (German official inspection authority) approval has been granted for the entire test rig equipment to be used for inspections in accordance with § 29, German Motor Vehicle Construction and Use Regulations.



Product features at a glance: the TL 600 brake test rig

- Infrared remote control
- LCD displays for program sequence, weight on axle, digital braking force differential and retardation rate
- BNet equipment bus with PC connection for use of BNet printing and archiving software; this can be installed on your network at various work stations
 - ASA workshop networking
 - online software update and remote maintenance diagnosis
- Fully automatic test run and super-automatic mode
- Operation either at start/stop button or via the infrared remote control
- Three-way universal analogue dial display with integral control electronics and BNet equipment bus connection
- Brake rollers with plastic corundum layer; the rear rollers are raised by 25 mm
- Outdoor installation possible (enclosure rating IP54)
- 15 m power cable (3x400V) for connecting main switch cabinet to roller set
- 30 m BNet equipment bus cable for connections between analogue display, printer cabinet/PC station, main switch cabinet and roller set

SA 600 suspension tester

- EUSAMA measuring principle to determine residual shock absorber performance and chassis condition via road grip as a percentage, resonance frequency in cycles (Hz) per wheel
- Automatic test run after driving onto the swing plates

ST 600 side slip tester

- Hot-dip galvanized floor-level assembly to be driven over at 5-10 km/h
- Automatic determination of toe-in and toe-out values in mm/m

Additional performance features of TL 640

- Automatic identification of all-wheel-drive vehicles
- Reversal of direction of rotation (for 4x4 vehicles)
- Electromagnetic brake as drive-out aid

Additional performance features of TL 680

- In combination with the swing plates on the suspension tester, noise from the vehicle chassis, inside the cockpit and from the body can be easily and rapidly localised. The remote control selects frequencies between 10 and 30 Hz in 0.5 Hz steps.

Entry Line

B N e t

The SL 600 test line series with PC visualization and multiple software capabilities



Standard features: super-automatic mode, quick automatic-mode testing and infrared remote control.

Probably the ultimate in operating convenience! Depending on the required test mode, you can choose from three different functional sequences the one that is most cost-effective for your workshop: manual operation from the driver's seat by infrared remote control, the single quick automatic-mode test or the super-automatic mode with drive-out aid and automatic archiving and printing functions.

Operator control and measured-value display on 17-inch colour monitor.

The SL 600 series database and measured-value display on the monitor screen have decisive advantages for your workshop. The measured values can be displayed in various forms, compared with reference values from the database and shown as digital values or bar graphics. This permits a clear diagnosis. Evaluation of the results is based on legally stipulated limits and is identified by a colour scale. In addition, messages in clear text draw your attention to possible vehicle faults.

What BNet Office testline software can do.

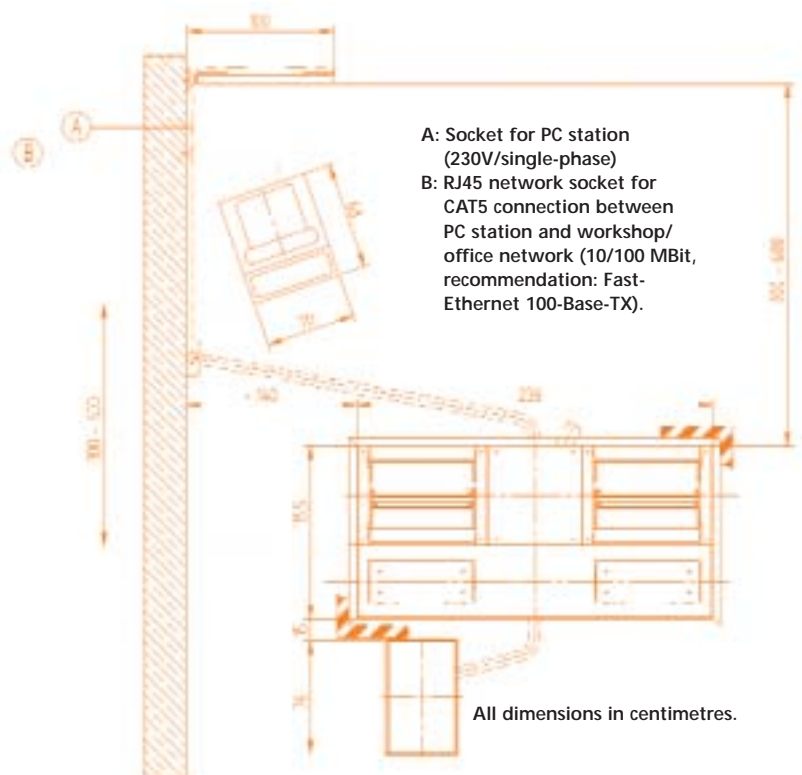
BNet Office testline software contains the following standard modules: order manager, print manager for standard and 3D graphic printouts, archiving manager and ASA network interface. For your workshop, this means: connecting the testline to the PC in your reception area makes the measured values available there too, for order processing, customer advice and allocation of data for invoicing.

Interfaces for networking with other-make equipment and commercial operating software.

The standard ASA network interface opens up new dimensions: connection to all other workshop equipment and the use of commercial software. Take our word for it: you can make a **real cost saving** with this solution!

Software online update and remote maintenance diagnosis.

You can download SL 600 series software from the Beissbarth Software Centre (www.beissbarth.com). Or we can on requirement log in at your testline via Internet or ISDN. With this method almost all system faults or user errors can be identified in no time at all. A perfect Beissbarth service!



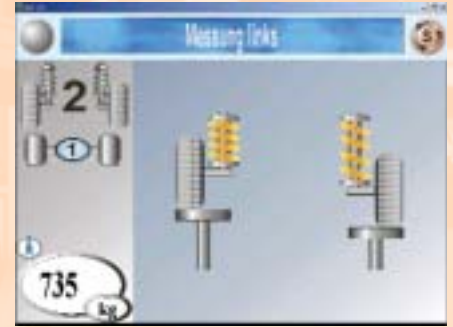
Evolution Line



The software order manager is used to raise, process, archive and print out orders.



Measured-value display while testing the parking brake in the super-automatic mode.



Measured-value display during suspension testing at the left rear wheel.



Side slip test result in mm/m with colour-scale evaluation.

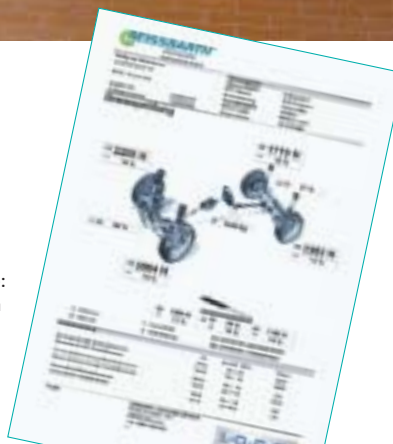


Measuring phase during noise detection diagnosis, with memory fields for characteristic frequency points.



All test lines are provided with an infrared remote control as a standard feature.

Standard with BNet PC software:
3D report print-out for optimum
customer documentation.



SL 600 product features at a glance:

The technical features of the test line components are identical to those of the TL 600 test line, but with the following additional features:

- Infrared control
- Instead of the analog display there is an equipment cabinet on wheels with printer drawer, PC, Windows operating software, 17-inch colour monitor, keyboard, mouse and interface board
- Measured-value display and operator control via 17-inch colour monitor
- Customer/vehicle database (reference values)
- BNet Office testline software with order manager, print / archiving manager and ASA network interface
- Network-compatible, with interface to commercial operating software
- Online software updates and remote maintenance diagnosis

Additional performance features of the SL 640

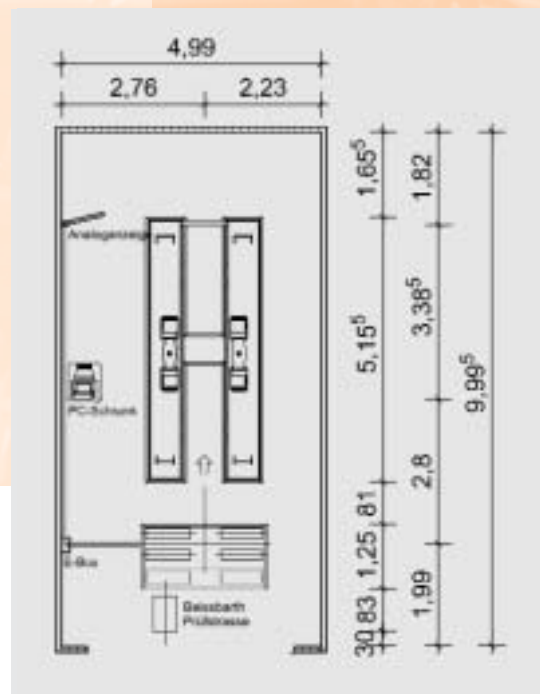
- Automatic identification of all-wheel-drive vehicles
- Reversal of direction of rotation (for 4x4 vehicles)
- Electromagnetic brake as drive-out aid

Additional performance features of the SL 680

- In combination with the swing plates on the suspension tester, noise from the vehicle chassis, inside the cockpit and from the body can be easily and rapidly localised. The remote control selects frequencies between 10 and 30 Hz in 0.5 Hz steps.

Test line equipment, accessories and technical data.

	Entry		Evolution	
	TL 600	SL 600	TL 640	SL 640
Brake test rig				
Max. test load [t]	3,5	3,5	3,5	3,5
Max. vehicle track [mm]	2200	2200	2200	2200
Suspension tester:				
Max. test load 2,5 t	●	●	●	●
Side slip tester:				
Max. test load 2,5 t	●	●	●	●
Equipment:				
Analogue display	●	○	●	○
PC visualization	○	●	○	●
Electromagnetic brake	○	○	●	●
Reversal of rotation	○	○	●	●
LCD display	●	○	●	○
ASA interface	○	●	○	●
Axle-load weigher	○	○	○	○
Roller cover plates	○	○	○	○
Printer set	○	●	○	●
PC station with BNet value visualisation	○	●	○	●
Super-automatic mode	●	●	●	●
Infrared remote control	●	●	●	●
Quick test automatic mode	●	●	●	●
Noise-detection diagnosis	○	○	○	○
BNet Office testline software	○	●	○	●



BNet networking is ideal for direct customer reception, even with test lines arranged in parallel.

Tech Line

Models TL 680 and SL 680:

Same as TL 640 and SL 640, but with suspension tester, including noise-detecting diagnosis function.

● standard, ○ optional, – not available.

General operating data

- Max. drive-over load 4 t
- Operating temperature -10 to + 60°
- Enclosure rating IP 54

Main switch cabinet

- Dimensions (width x length x depth) 240 x 160 x 90 mm
- Weight 3 kg
- Power supply 3 x 230/400 V (AC)
- Supply cable 5 x 2.5 sq. mm
- Fuse protection 3 x 35/20 A

Pedestal support column:

- Height approx. 1500 mm, baseplate 200 x 200 mm
- Weight 20 kg

Analogue display BD 600 / 640 / 680

- Brake force display 0 – 8 kN
- Side slip display +20 ... 0 ... - 20 mm/m
- Road grip display 0 – 100 %
- Evaluation display 3 colour areas

- Dimensions (W x L x D) 920 x 120 x 480 mm
- Weight 20 kg
- BNet field bus cable 2 x 2 x 0.5 sq. mm / 15 VDC

Roller set BD 600

- Brake force measuring range 0 – 8.0 kN
- Roller length 700 mm, Ø 205 mm
- Roller friction coefficient 0.8 dry/ 0.7 wet
- Dimensions (W x L x D) 2362 x 660 x 250 mm
- Weight 420 kg
- BNet field bus cable 2 x 2 x 0.5 sq. mm / 15 VDC
- Power cable 4 x 2.5 sq. mm, 230-400 V / 50 Hz
- Motor / transmission data 2 x 3.7 kW / 2.7 km/h

Suspension tester SA 600

- Eccentric shaft and lifting unit (6 mm) with tension springs
- Dimensions (W x L x D) 2360 x 480 x 280 mm
- Weight 260 kg
- BNet field bus cable 2 x 2 x 0.5 sq. mm / 15 VDC
- Power cable 4 x 2.5 sq. mm, 230-400 V / 50 Hz
- Motor data 2 x 2.5 kW

Suspension tester SN 680 with noise diagnosis function

- Eccentric drive and guide bushes with 6 mm lift
- Dimensions (W x L x D) 2360 x 480 x 280 mm
- Weight 300 kg
- BNet field bus cable 2 x 2 x 0.5 sq. mm / 15 VDC
- Power cable 4 x 2.5 sq. mm, 230-400V / 50 Hz
- Motor data 2 x 2.5 kW / incl. frequency converter

Side slip testing plate ST 600

- Dimensions (W x L x D) 750 x 480 x 46 mm
- Weight 48 kg
- Sensor connecting cable 3 x 0.14 sq. mm / 12 VDC

Errors can not be excluded. We reserve the right to change the technical features and equipment specifications without prior notice.



asanetwork



Networking: save money with communicative technology.

Networking pays off in every workshop.

Regardless of its size, networking your workshop always pays. Not having to enter customer data more than once for exhaust emission testing, brake testing or wheel alignment: this fact alone helps to save a substantial amount of time.

For its intelligent testing technology in the TL 600 / SL 600 series, Beissbarth is the only manufacturer to supply three different networking techniques. From an economic point of view, even small-scale workshops with direct vehicle reception can offer the same facilities with these techniques as the authorized testing organizations. All three networking techniques permit simple networking of equipment and/or connection to your commercial software. The Beissbarth MICROPEN networking technology even offers cableless networking with a mobile data carrier. Don't wait any longer – contact us now!



microbrake TL 600 / SL 600 series technology is recommended by a large number of automobile manufacturers.



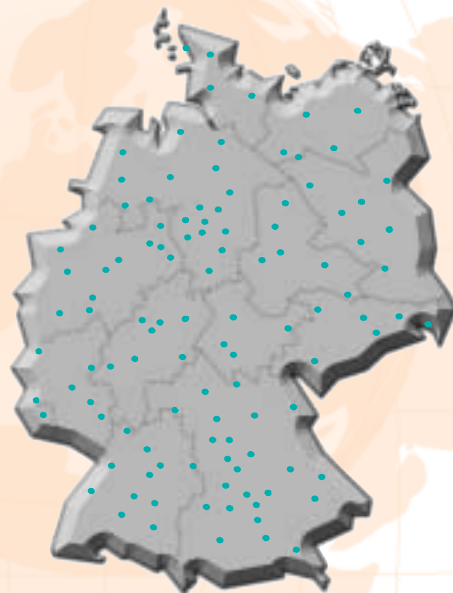
TL 600/SL 600 series

**After-sales security too,
with Beissbarth's
worldwide presence.**

**Service and supply of spare parts:
reliable, nation-wide, worldwide.**

In Germany, initial product familiarisation, assembly and servicing are carried out by our own national service organisation and certified partner workshops. This guarantees our customers rapid on-site availability for servicing and maintenance. Software updates for PC-aided equipment are available on disk or CD ROM and also via the Internet, so that your service equipment can be updated more rapidly. A mouse click puts you in direct contact to the Beissbarth Software Centre at www.beissbarth.com. You can download the requested software and updates directly via the World Wide Web. A perfect service: rapid, uncomplicated and available 24 hours a day.

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