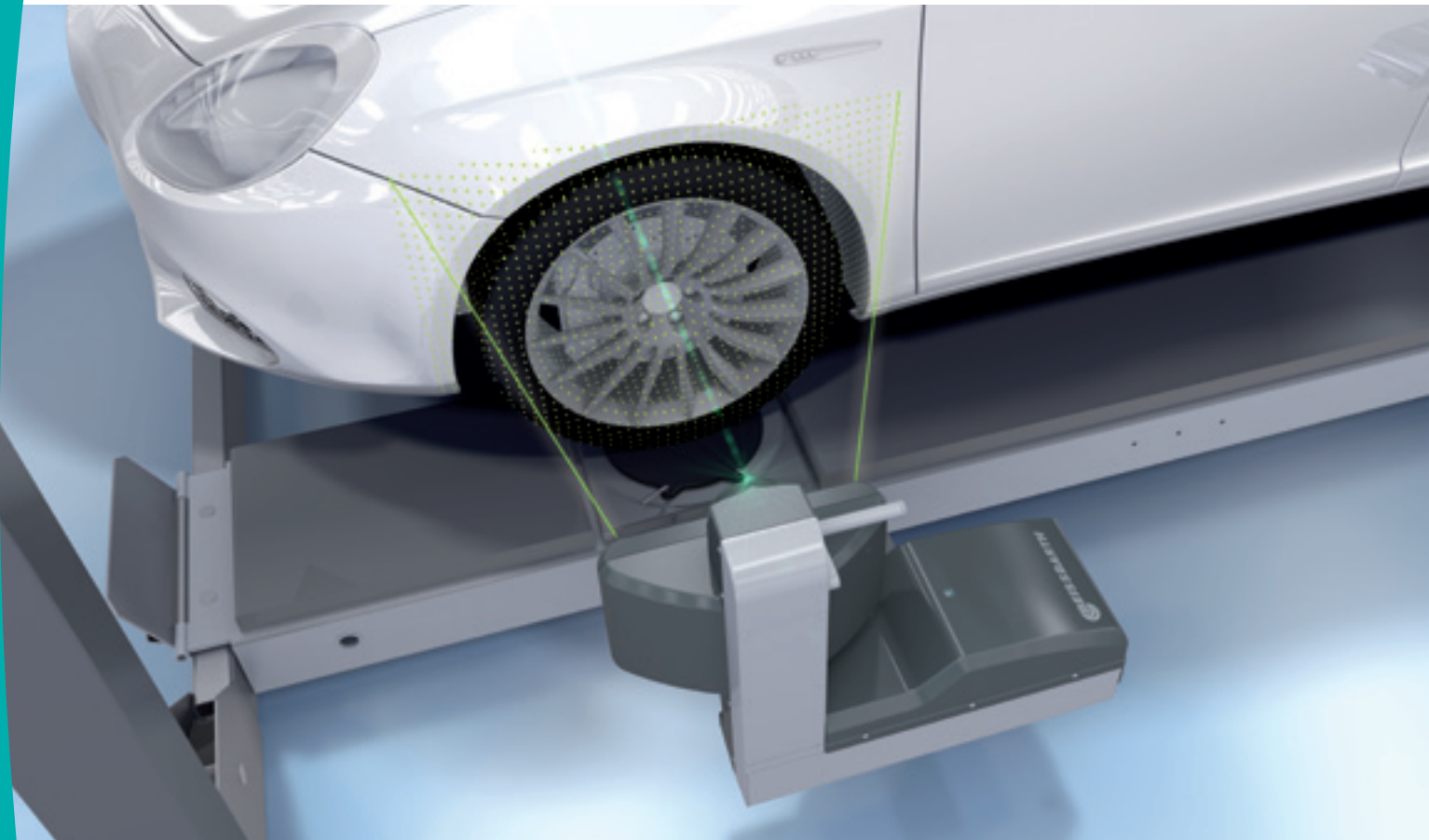


Beissbarth Touchless Non-Contact Wheel Alignment



- Highly accurate, simultaneous on 4 wheels
- High-speed diagnosis of camber, individual and total toe
- Touching neither wheels nor the vehicle

Touchless: Touching neither wheels nor the vehicle



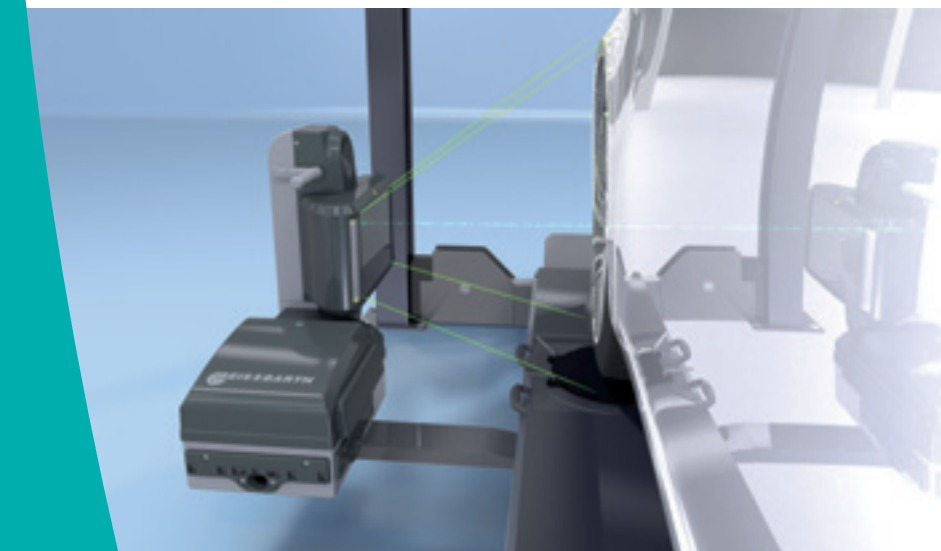
Touchless live measurement:

4 wheels simultaneously, without waiting time.



Touchless high-speed diagnosis:

Quick values about camber, individual and total toe. *Smart Test* eliminates set-up time for tyre clamps, rim targets and marks.



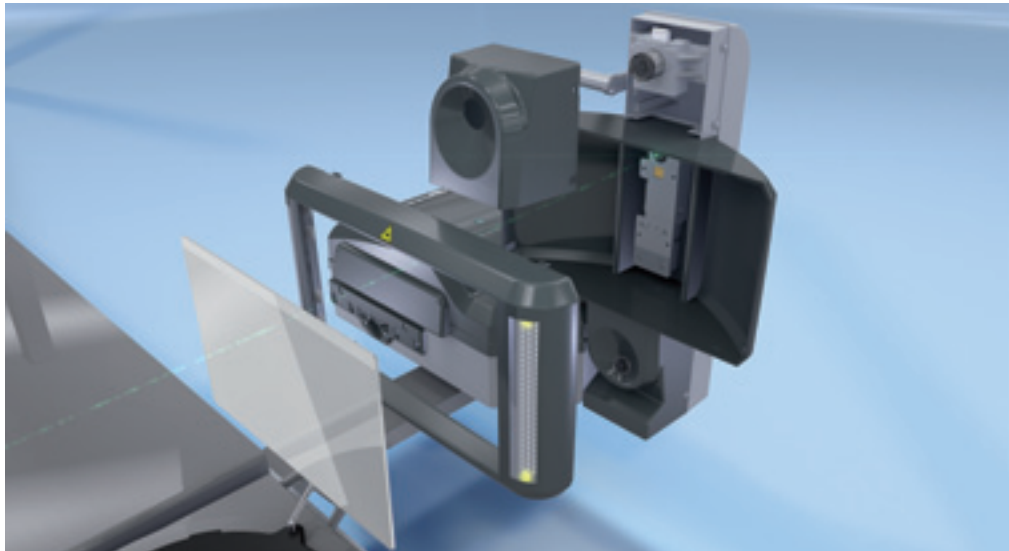
Touchless Ready:

Smart Link lift adaption to measure almost any vehicle type, track width and wheelbase.

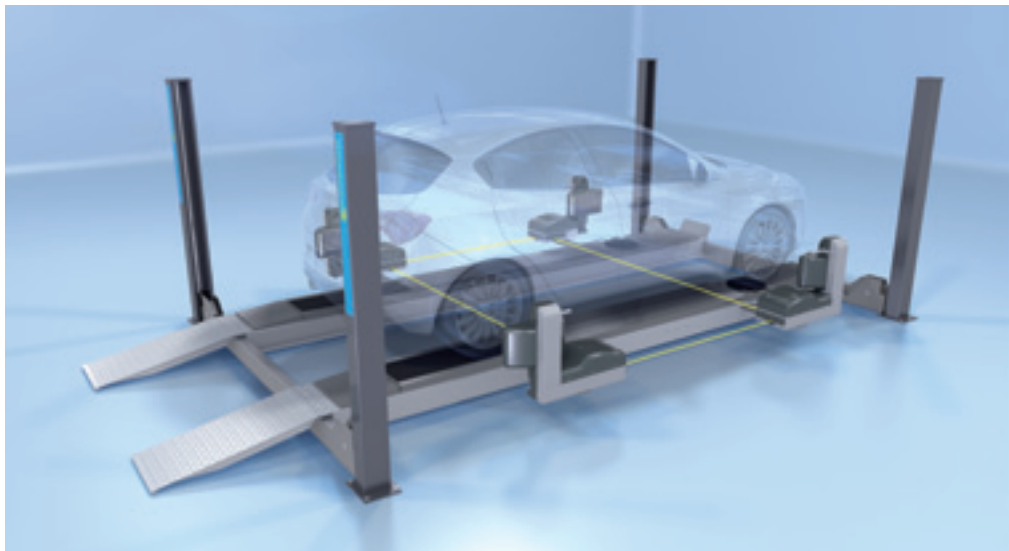


Touchless Precision:

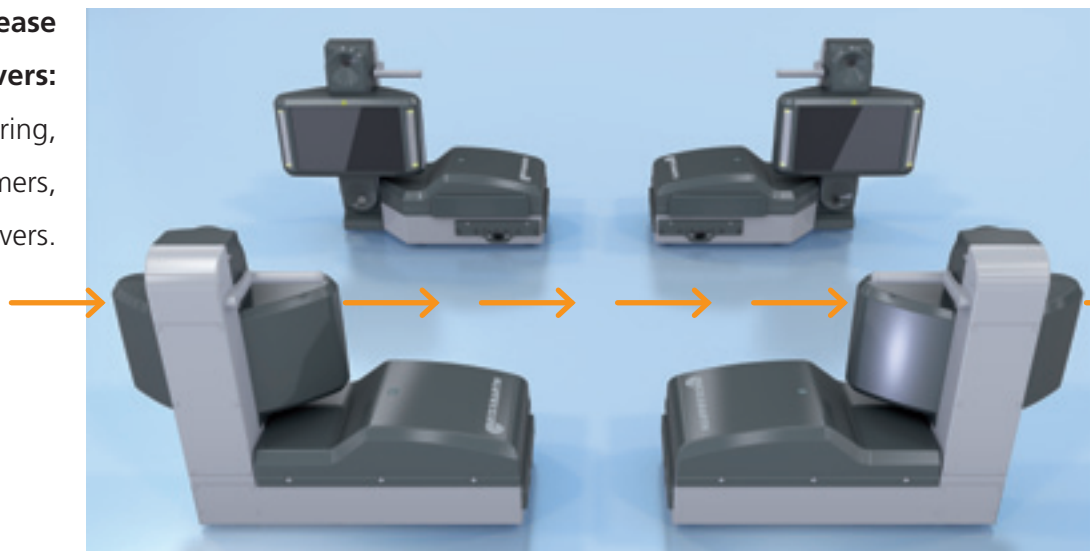
Top repeating accuracy through laser and 3D stereo cameras.

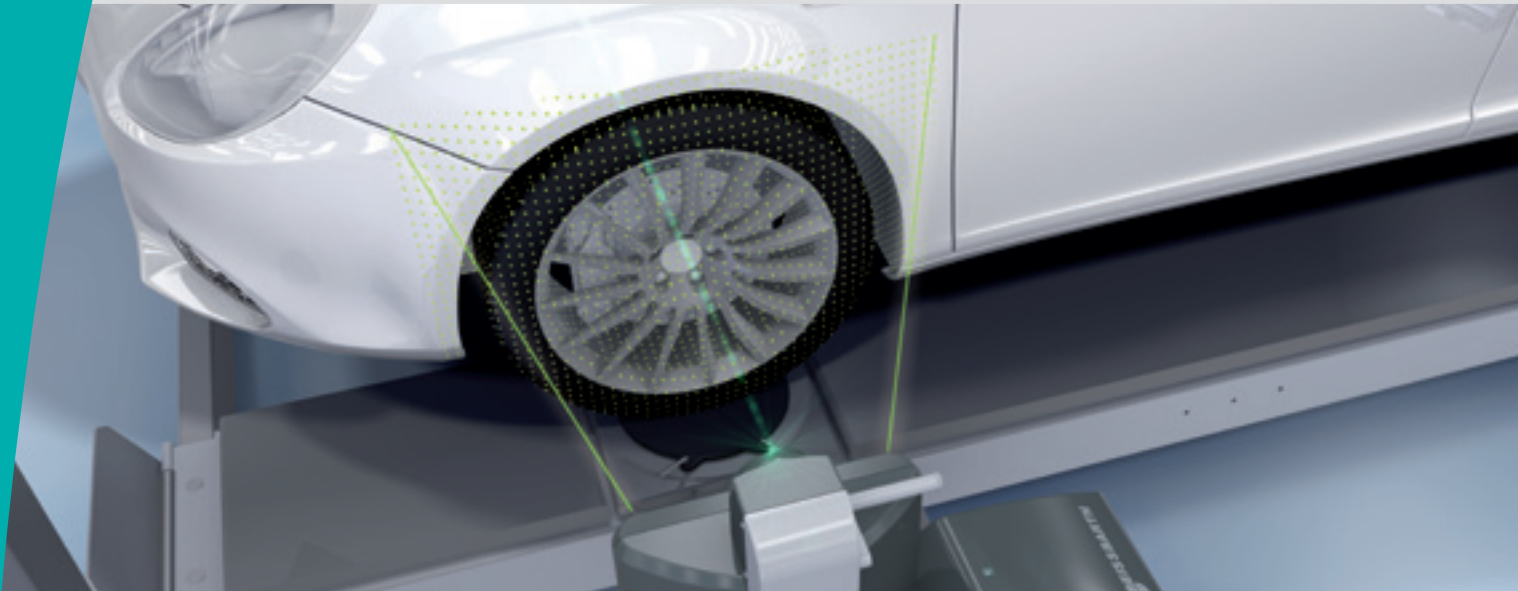
**Touchless reference system:**

Permanent live monitoring of the 4 sensor heads through 3D reference.

**Touchless increase in turnovers:**

Faster measuring,
more customers,
-> increase in turnovers.





Digital image processing with high frame rate generates a 3D model of the wheel.

Beissbarth: Measurably Better.

Precision from Munich (Germany).

Touchless Smart Test

Time-saving wheel-alignment check for the customer within seconds: drive in, measure, done! Thanks to the simultaneous live measurement of all 4 wheels, Touchless is faster and more precise than systems with multi-stage 2-wheel measurement.

Saving space

Touchless is installed onto the lift. No additional rails or robots are required in front of the lift or behind it.

Simultaneous measurement on four wheels

provides precise and clear axle values.



VLH 4345 LA: Beissbarth 4-post lift:
High-precision lift for wheel alignment



Reference system and 3D stereo cameras.



The new Touchless software:

- New intuitive graphics
- New GUI (Graphical User Interface)
- Neatly arranged user interface

Touchless Smart Link

The lift adaption adjusts itself to different wheelbases and track widths. No relocation of turn tables, etc. on the lift.

Non-Contact Touchless

does not require the time-consuming installation of wheel brackets or plates. No damaging of the rims, no setup-driven measurement errors.



Touchless Smart Test



Faster measurements, more customers, increase in turnovers.

The Touchless Smart Test at the workshop check-in generates additional jobs for the workshop – every minute.

Within seconds, you receive the current values regarding camber, individual and total toe and can then use these facts when talking to the customer.



Drive in.



Measure.



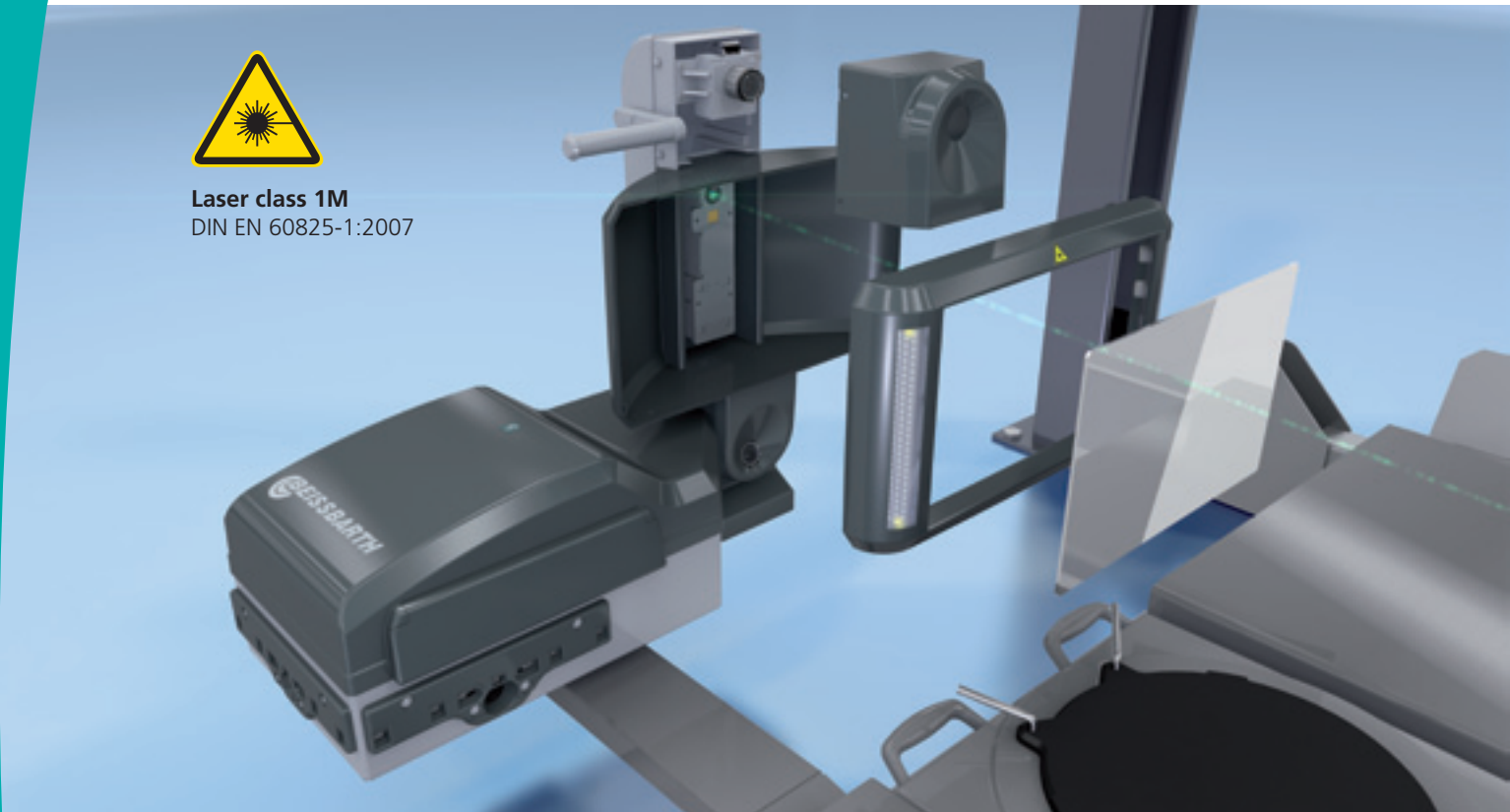
Adjust.



Touchless precision with laser



Laser class 1M
DIN EN 60825-1:2007



Upper stereo camera



Highest safety standards for both
employees and customers.

Infrared illumination of
the wheel (under dark
conditions)



Touchless Reference System

3D stereo cameras



Two stereo cameras operate per sensor head (on top and bottom, triangulation principle).

With a total of 8 high-performance cameras and the additional reference system, Touchless is extremely vibration-resistant and reliably provides precise repeating accuracy.





Touchless Smart Align

The new Touchless software:

- New intuitive graphics
- New GUI (Graphical User Interface)
- Neatly arranged user interface with Touchless *Flexibar* (see above)



Start menu 3: Measuring methods



Random measurement



Initial Measurement: done

Touchless *Flexibar*

Process steps of the measurement routine are arranged neatly. They can be selected flexibly in terms of order.



Measured values of the front axle



Measured values of the rear axle



Left and right steering swing



Touchless Live Wheel Check



The new Touchless Smart Align software also shows live images of the wheels – for a first visual inspection on the screen:

Live Wheel Check.



Camera support for the positioning of the sensor head



Touchless Excellence version: with 27" screen



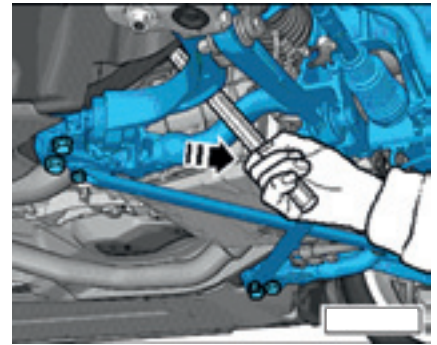
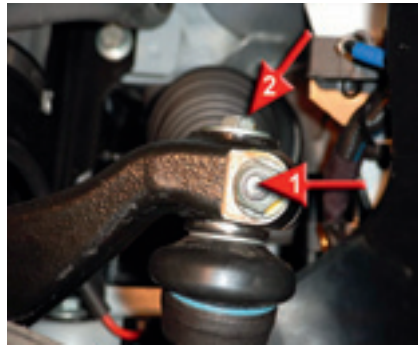
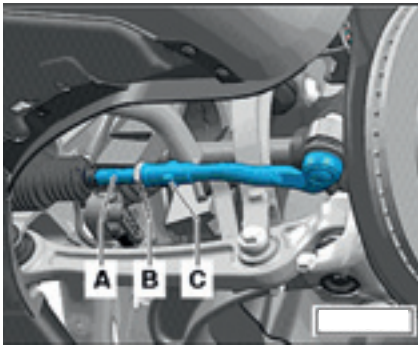


Screen overview with measured values





Touchless target data



**The Beissbarth database with vehicle values
for vehicle conditioning and practical
visual adjustment assistance:**

130 manufacturers

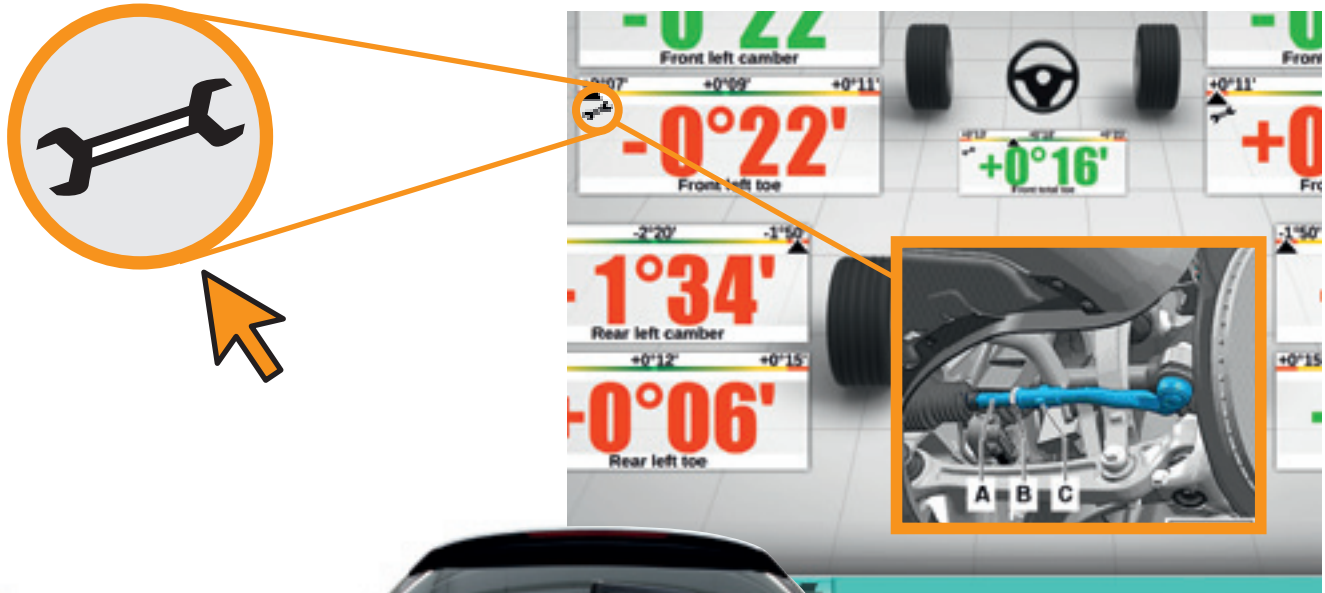
30.000 vehicle types

16 languages

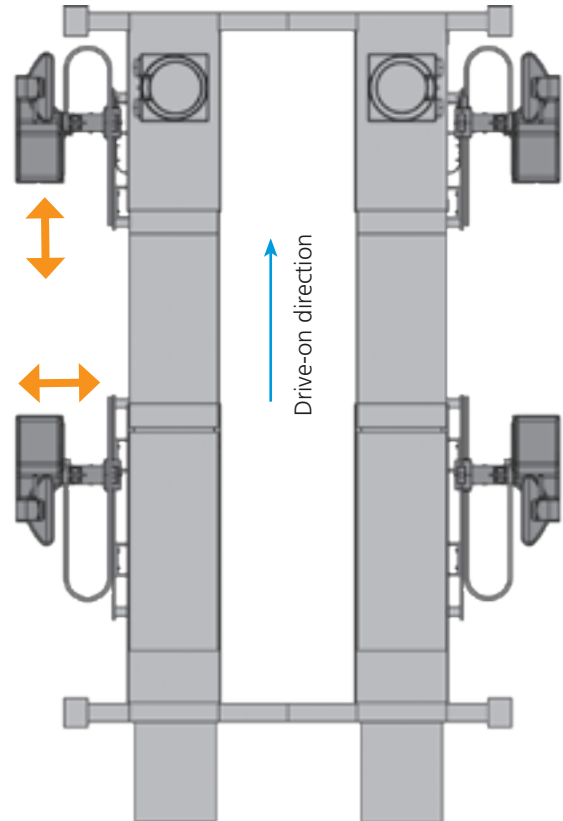
Updates via software center:

www.beissbarth.com





Touchless Smart Link to the lift



Smart Link:

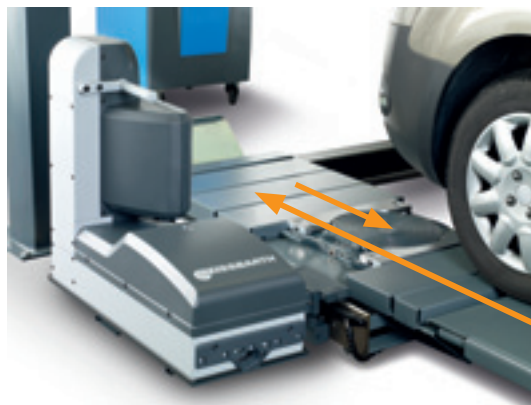
the Touchless lift adapter for 4-post lifts. Adjustment to different wheelbases, track widths and vehicle types (optional, required accessory).



Practical Touchless

Initial measurement:

Short (approx. 50cm) roll forward to perform run-out compensation and produce a 3D model of the wheel.

**Automatic start detection**

Touchless detects the movement of the vehicle and automatically starts the initial measurement process.

**Touchless with remote control**

High-speed diagnosis without even having to leave the vehicle (included at the Touchless *Excellence* version).



The proper alignment bay for Touchless

Beissbarth 4-post lifts for wheel alignment

- Easy and quick to install
- Optimized for Touchless Smart Link
- Perfect solution for wheel alignment
- Wheel aligner and lift from a single source

Beissbarth Order No.	VLH 4345 A	VLH 4345 LA
Lift	1 692 841 540	1 692 841 541
Required accessory:		
<i>Smart Link</i> adapter	1 690 900 003	1 690 900 003

XXL sliding plate

Absolutely no contact on: VLH 4345 A and VLH 4345 LA

VLH 4345 A/LA

- High-precision wheel-alignment bay for Touchless
- Long 5.070 mm rail (-> from passenger cars to LCVs with a long wheelbase)
- Version „-LA“: with integrated wheel-free auxiliary lift (particularly high – 450 mm – especially for off-road vehicles and SUVs)
- Robust, durable design
- Integrated side-slip plates (XXL)
- Compatible with Beissbarth Easy 3D as well



Auxiliary lift (LA)

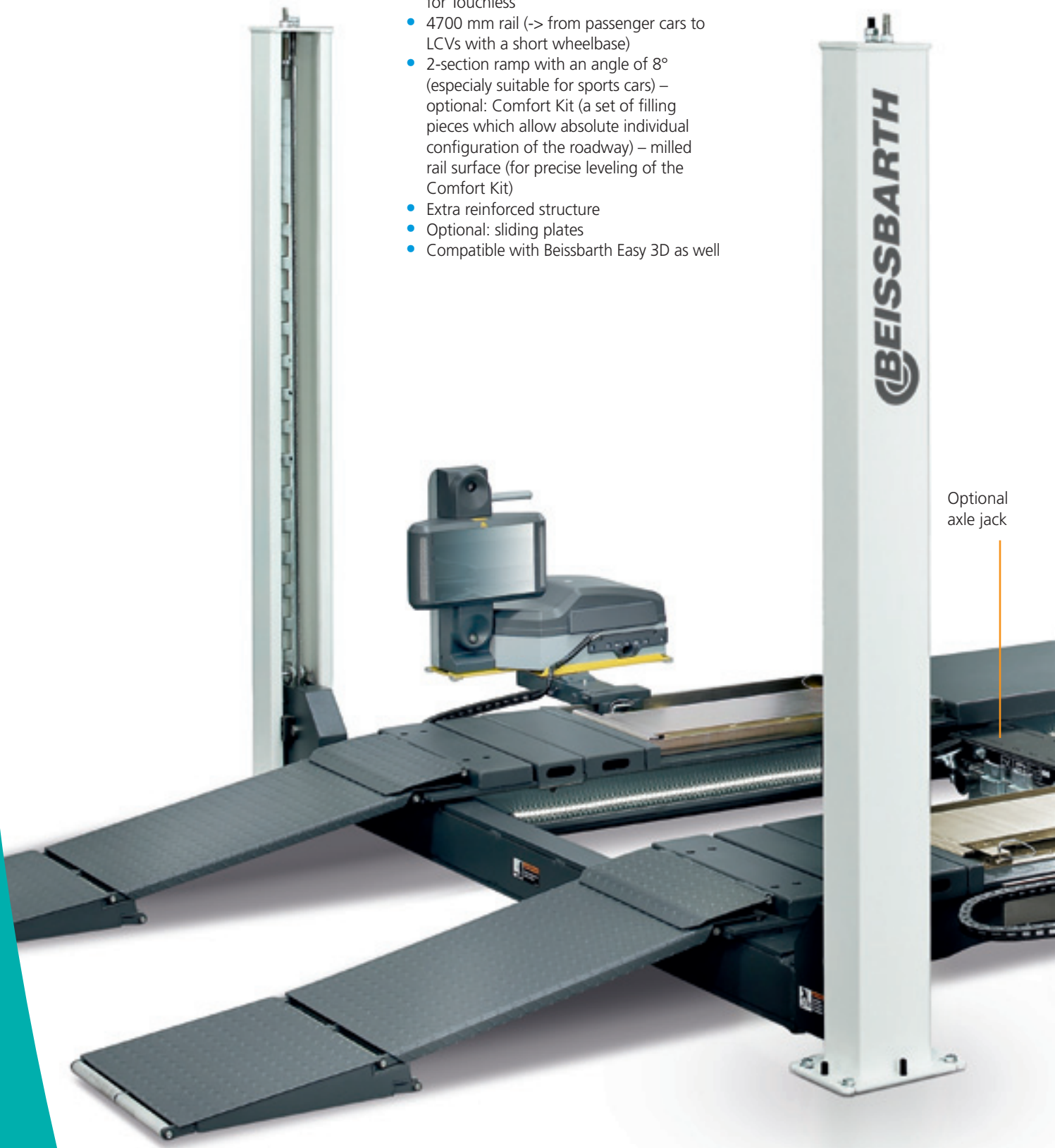


Lift certificate "Touchless Ready" for lifts suitable for wheel alignment:

Absolutely no contact on: VLH 4440

VLH 4440

- High-precision wheel-alignment location for Touchless
- 4700 mm rail (-> from passenger cars to LCVs with a short wheelbase)
- 2-section ramp with an angle of 8° (especially suitable for sports cars) – optional: Comfort Kit (a set of filling pieces which allow absolute individual configuration of the roadway) – milled rail surface (for precise leveling of the Comfort Kit)
- Extra reinforced structure
- Optional: sliding plates
- Compatible with Beissbarth Easy 3D as well



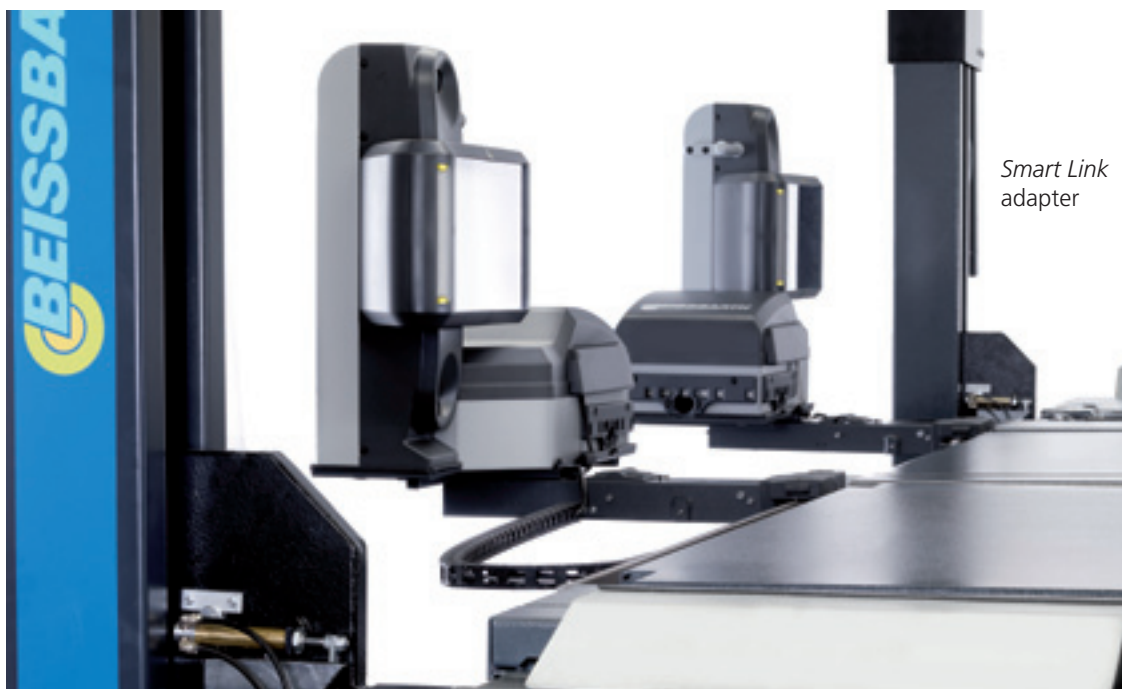
Optional
axle jack

Beissbarth Order No.	VLH 4440
Lift	1 692 841 407
Required accessory:	
Comfort Kit	1 692 871 101
Sliding plate	1 690 401 004
Smart Link adapter	1 690 900 007



Scope of Delivery

Touchless	Standard 1 690 900 004	Excellence 1 690 900 000
Trolley with PC, Windows 7, keyboard, mouse, printer	✓	✓
4 Touchless sensor heads	✓	✓
Touchless Smart Align software	✓	✓
Nominal values	✓	✓
Control box	✓	✓
Cable set lift, connection cable trolley-lift 10m	✓	✓
Brake tensioner and steering-wheel lock	✓	✓
19" screen	✓	
Standard aluminum turning plates with plastic filling pieces	✓	
27" screen		✓
High-precision aluminum turning plates with aluminum filling pieces and rubber covers		✓
Remote control		✓
Covers for both the trolley and the sensor heads		✓
Smart Link adapter	optional accessory	optional accessory





VLH 4345 LA

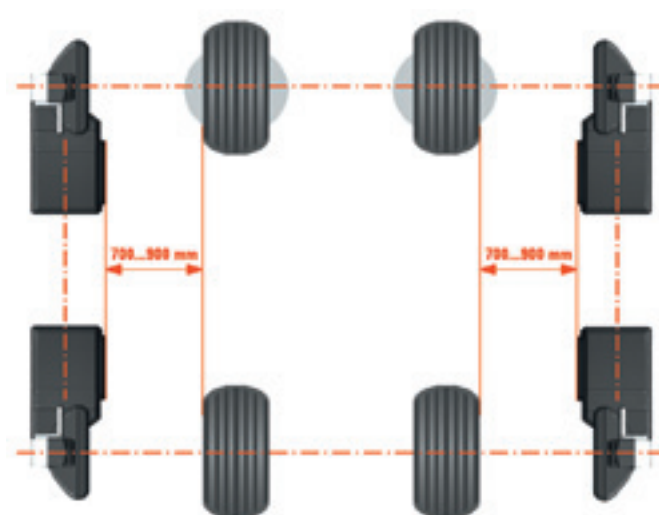


Measuring ranges

Measurement options	
Total toe (front axle + rear axle)	$\pm 18^\circ$
Individual toe (front axle + rear axle)	$\pm 9^\circ$
Camber (front axle + rear axle)	$\pm 10^\circ$
Geometrical driving axis	$\pm 9^\circ$
Castor	$\pm 22^\circ$
Toe-out on turns	$\pm 20^\circ$

Touchless Technical Data

Wheel bases	passenger cars and light commercial vehicles (LCVs) 1,800 to 3,750 mm
Input voltage	100 – 240 V AC (10A)
Input frequency	50-60 Hz
Power	0.5 kW
PC trolley	1,520 x 880 x 770 mm
Weight	60 kg
Sensor head	650 x 880 x 330 mm
Weight	21 kg
Laser class	Laser class 1M DIN EN 60825-1:2007



Lifts for wheel alignment



Touchless Ready	VLH 4345 A	VLH 4345 LA	VLH 4440
Wheel-free auxiliary lift	–	included	–
Weight	1,800 kg	2,000 kg	2,700 kg
Admissible load	4,500 kg		4,000 kg
Length	6,190 mm		6,351 mm
Width	3,220 mm		3,555 mm
Width with <i>Smart Link</i>	3,610 mm		3,623 mm
<i>Smart Link</i> extended	4,110 mm		4,055 mm



Beissbarth Service worldwide



Service from Beissbarth Munich:

- Immediate telephone support
- Rapid replacement parts deliveries
- Individual maintenance contracts

Factory customer service:

Beissbarth and certified partner companies provide on-site assistance with installation, instruction, equipment assembly and maintenance – with partners in more than 90 countries around the world.

Training Centre:

Instruction and training at STC
of Robert Bosch GmbH, 73207 Plochingen

Software Centre:

Technical documentation, specified vehicle data
and marketing material for immediate download:
www.beissbarth.com



Subject to technical modification and changes to scope of delivery.
Pictures may sometimes show special accessories or similar
versions. Please contact your Beissbarth dealer for a binding
up-to-date quotation.

Get in touch with ... Touchless:

Beissbarth GmbH
A Bosch Group Company
Hanauer Strasse 101
80993 Muenchen (Munich, Bavaria)
Germany

Tel. +49-89-149 01-0
Fax +49-89-149 01-240

www.beissbarth.com
sales@beissbarth.com

