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.
Reference system and 3D stereo cameras.

The new Touchless software:
- New intuitive graphics
- New GUI (Graphical User Interface)
- Neatly arranged user interface

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 Link
The lift adaptation adjusts itself to different wheelbases and track widths. No relocation of turntables, etc. on the lift.
**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
Infrared illumination of
the wheel (under dark
conditions)

Highest safety standards for both employees and customers.
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.
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.
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
## Preview of the Measurement Report

### Standards Measurement

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Initial Measurement</th>
<th>Target Value</th>
<th>Final Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camber Left</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
<tr>
<td>Camber Right</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
<tr>
<td>Toe In Left</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
<tr>
<td>Toe In Right</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
<tr>
<td>Toe Out Left</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
<tr>
<td>Toe Out Right</td>
<td>+7.0°</td>
<td>-7.0°</td>
<td>-7.0°</td>
</tr>
</tbody>
</table>

### Touchless Measurement

- Measurement report previewed for Touchless alignment.
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 wheelsbases, 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

<table>
<thead>
<tr>
<th>Beissbarth Order No.</th>
<th>VLH 4345 A</th>
<th>VLH 4345 LA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift</td>
<td>1 692 841 540</td>
<td>1 692 841 541</td>
</tr>
<tr>
<td>Required accessory:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Link adapter</td>
<td>1 690 900 003</td>
<td>1 690 900 003</td>
</tr>
</tbody>
</table>
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)
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
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

<table>
<thead>
<tr>
<th>Touchless</th>
<th>Standard 1 690 900 004</th>
<th>Excellence 1 690 900 000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trolley with PC, Windows 7, keyboard, mouse, printer</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4 Touchless sensor heads</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Touchless SmartAlign software</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nominal values</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Control box</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Cable set lift, connection cable trolley-lift 10m</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Brake tensioner and steering-wheel lock</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>19” screen</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Standard aluminum turning plates with plastic filling pieces</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>27” screen</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>High-precision aluminum turning plates with aluminum filling pieces and rubber covers</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Remote control</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Covers for both the trolley and the sensor heads</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

*Smart Link adapter* optional accessory
Measuring ranges

<table>
<thead>
<tr>
<th>Measurement options</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total toe (front axle + rear axle)</td>
<td>±18°</td>
</tr>
<tr>
<td>Individual toe (front axle + rear axle)</td>
<td>±9°</td>
</tr>
<tr>
<td>Camber (front axle + rear axle)</td>
<td>±10°</td>
</tr>
<tr>
<td>Geometrical driving axis</td>
<td>±9°</td>
</tr>
<tr>
<td>Castor</td>
<td>±22°</td>
</tr>
<tr>
<td>Toe-out on turns</td>
<td>±20°</td>
</tr>
</tbody>
</table>

Touchless Technical Data

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

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