



NEXT.assembly

x-around

The multi-sensor-calibration test stand

Due to the development of semi-autonomously and autonomously driving vehicles within the next years, the requirements posed on the testing procedures in the End of Line will continue to increase. As a pioneer of test stands for driver assistance systems, Dürr Assembly Products has anticipated this future trend and has developed a new generation of test stands. The new concept is based on years of experience in developing and designing test stands for the calibration of today's driver assistance systems, as well as being based on the cooperation with our customers and manufacturers of driver assistance systems. With innovations such as monitors that display static and dynamic calibration patterns as well as an unprecedented concept for flexible positioning of the calibration devices around the vehicle, the new x-around is perfectly suited to calibrate the next generation of driver assistance systems and to perform further function tests. To ensure that your End of Line is also ready for an integrated and flexible testing of the latest driver assistance systems!

CUSTOMER BENEFITS



[Highest process and production reliability](#)

[Simple, easy-to-maintain structure](#)

[Highest flexibility when positioning the sensor calibration devices](#)

[Sensor calibration and system validation under controlled, stable conditions](#)

[Easy retrofitting of new camera calibration pattern in case of new vehicle programs](#)

[Visualization of dynamic patterns / videos for advanced function testing of camera systems](#)

Technical data

x-around

A booth that surrounds the complete test stand and blocks external light sources enables identical and reproducible calibration conditions for all vehicles. To cover different sensor positions, the separate positioning systems for the calibration devices are mounted on the same supporting structure, thus allowing flexible movement in three dimensions.

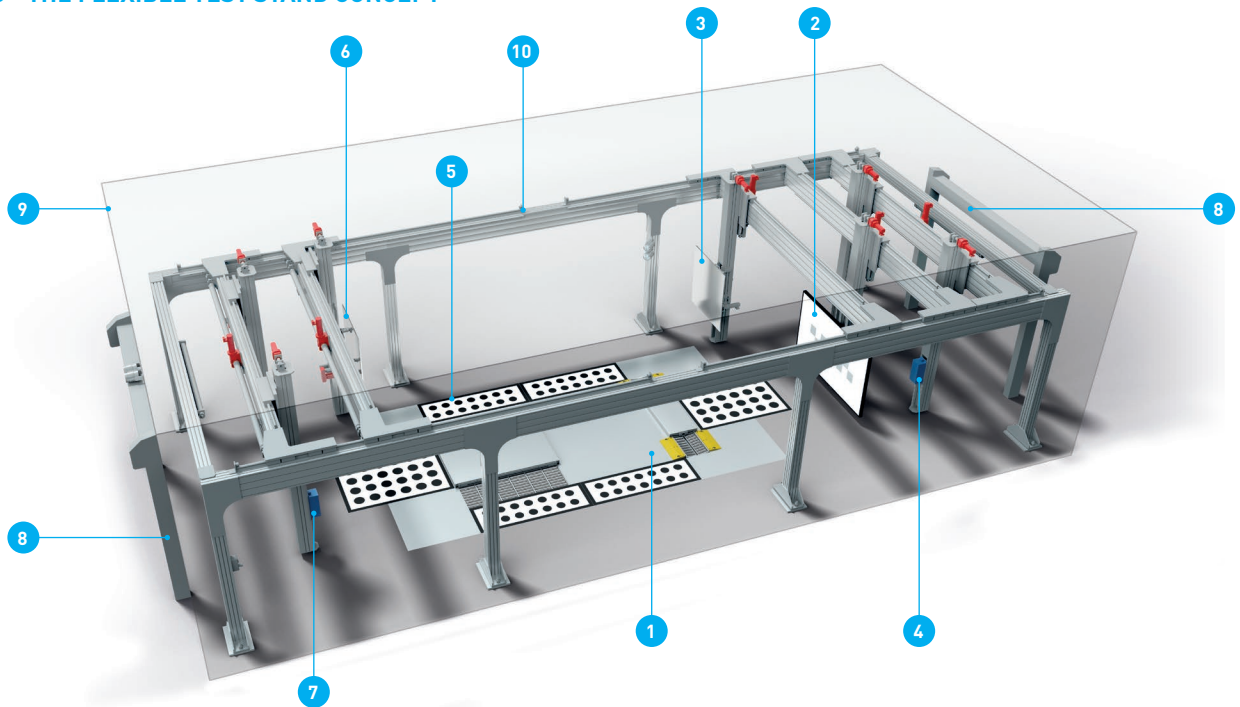
By means of a contactless measurement system, body height and vehicle symmetry can be measured and taken into account during the sensor calibration process. The consideration of the dynamic axis of travel is also possible at any time due to data

transfer from wheel alignment stands located in front of the booth.

Custom-made master gauges with the point lasers and distance measurement devices are available for test stand calibration, enabling a fast and efficient check of the different calibration targets and systems.

For flexible control of the separate test stand components and tasks, Dürr Assembly Products provides the in-house automation

X-AROUND - THE FLEXIBLE TEST STAND CONCEPT



x-around – variable configuration

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| 1 Centring unit, for a reproducible alignment of the vehicles to the calibration devices | 5 Floor-mounted calibration targets for surround view camera systems | 9 Booth blocking external light sources, ensuring identical environmental and lighting conditions during the calibration processes |
| 2 Calibration target for front camera systems: LCD monitor with up to 86" | 6 Calibration device for rear radar systems: rotary aluminium target | 10 Supporting structure for modular support of the separate systems |
| 3 Calibration device for front radar systems: rotary/swivelling aluminium target, corner reflectors, doppler generators, or active systems | 7 Calibration device for rear corner radar systems: doppler generators | |
| 4 Calibration device for front corner radar systems: doppler generators | 8 Entry and exit gate | |