



x-3Dsurface

The evolution in chassis geometry measurement

The new "x-3Dsurface Measuring Technology" provides the answer to the new measuring tasks in end-of-line production.

While maintaining the advantages of stereophotogrammetric measurement, the new x-3Dsurface sensor offers the necessary performance for future requirements through a surface measurement with structured LED light. Our aim is to ensure the highest measurement accuracy and to fulfill additional requirements with regard to tire and car body shapes implemented in our new x-3Dsurface measurement sensor.

The measurement of the entire side surface of the wheel and the wheel arch edge results in a "measuring area in space" that contains considerably more information than a pure line-based measurement. The tire flank and the wheel arch edge are recorded as a whole.

CUSTOMER BENEFIT



Improved stability of the measurement

High flexibility for new measuring tasks

Flexible determination of interesting measuring ranges

Immediate measurement readiness of the sensor

Reliable height measurement despite complicated fender geometries

Improved measuring properties in complicated tire and body shapes

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HEIGHT MEASUREMENT

The height measurement at the wheel arch edge is also carried out directly with the x-3Dsurface sensor without additional hardware.

3D surface measurement also offers decisive advantages here, especially for complicated body shapes or for additional attachments to the wheel arch.

INTEGRATION INTO EXISTING SYSTEMS

During the development, a simple integration of the new x-3Dsurface measuring system into existing plants was considered.

This concerns the mechanical integration as well as the electrical interfaces. An existing x-3Dprofile master gauge can be used without adaptation. Only a software update with subsequent parameterization is required.



Sensor x-3Dsurface

TECHNICAL DATA

Feature	x-3Dsurface
Measuring range toe/camber	13" - 23"
Height measurement	Integrated, without additional hardware, simultaneous real-time measurement with the wheel
Measuring principle	Stereo photogrammetry
Exposure	Structured blue 2D pattern
Measuring technology	Surface measurement
Measuring frequency	20 Hz
Light source	LED
Camera resolution	5 megapixel
Interface	24 V voltage, network TCP/IP
Measuring range (at the distance 800 mm)	Approx. 950 - 900 mm (width x height)
Readiness of the sensor to measure	Immediate readiness for measurement! no identification required
Measurement dynamics	High measurement dynamics
Sensitivity to light	2500 Lux (permissible homogeneous ambient light)
Life time in measuring operation	> 10.000 operating hours
Size + weight	H x W x D = 670 x 145 x 210 mm / weight 9 kg