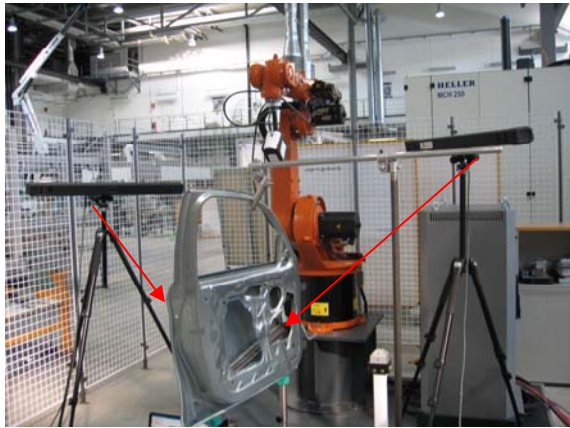


## 3D Creator DUAL - for fast and precise measuring of large and complex objects

The expectations for modern measuring systems are always getting more manifold because of increasing quality control requirements. Especially large and complex objects or vehicles of all kinds need great efforts for measurement. In these cases the 3D Creator DUAL meets the requirements in the best way with free movable probe, large and flexible working range. The DUAL system can be used with two synchronised sensors positioned either parallel or opposite to each other.



3D Creator DUAL – working range



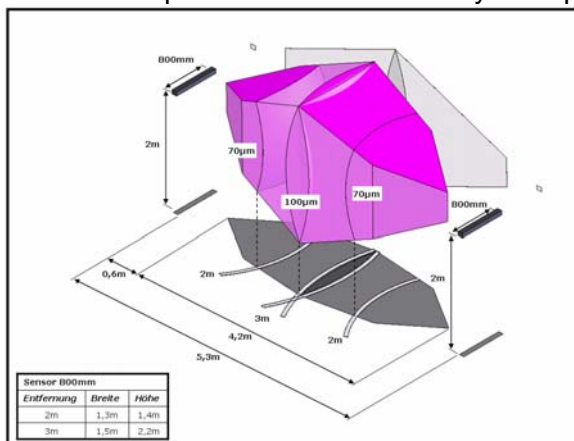
3D Creator DUAL – taking measure points

### System

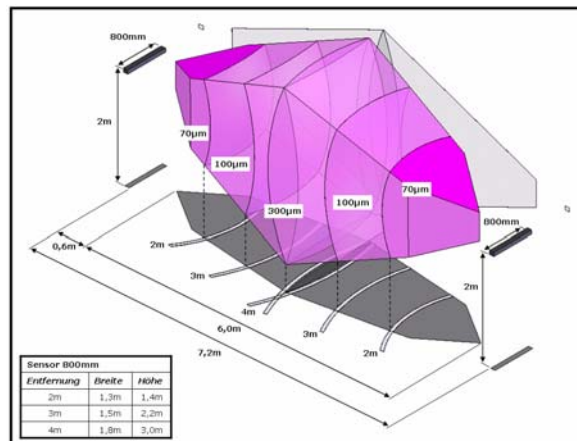
The 3D Creator DUAL is an optical sensor system, which consists of two sensor units, two synchronised control units and a free movable probe or laser scanner, of which the position and vectors are exactly defined via the infrared detection. The infrared LEDs of the probe, which can also be mounted on different objects, can be detected up to a distance of 8m -10m between the two sensor units placed in an opposite position. The exact 3D coordinates X,Y,Z and the vectors U,V,W are measured and calculated in real time can be used for further investigation or for direct CAD model comparison.

### System Working Range

The following two diagrams indicate the optimum working range and accuracy when the sensors are positioned such that they are opposite to each other.



Working range optimised for accuracy



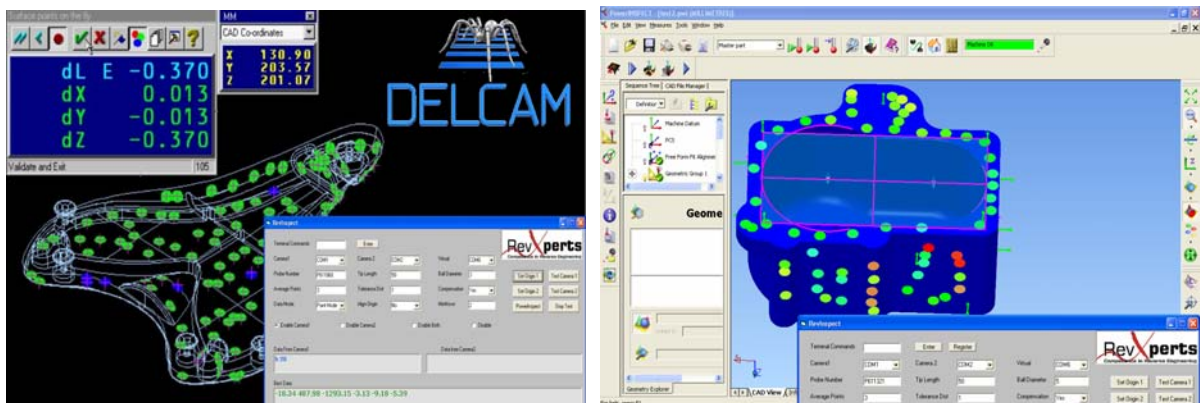
Working range optimised for size

If optimised for accuracy the maximum distance between the two sensor units could be in the range of 5,5m. In case for optimising for measuring volume the distance should be around 9m. In both cases the sensors are synchronised and aligned towards the same coordinate system. The alignment procedure is to be done only once at the beginning of the system installation. This alignment will be stored and can be reused as long as the systems do not move. Independent from which sensor unit the probe is visible all measurement values are given in the same coordinate system.

Therefore the 3D Creator DUAL system allows a fast and flexible measurement of large objects, especially for all kinds of vehicles. Depending on the task and the form of the objects the sensor units can be arranged in different positions either in opposite or parallel positions. If the object is very long the opposite position is preferred while for wide objects the parallel position is more useful. This flexible concept allows measuring even quite different and complex objects very quickly and ergonomically.

### PowerINSPECT

The 3D Creator DUAL is supported by one of the best performing inspection software named PowerINSPECT from DELCAM. RevXperts has developed a plug-in, which allows the user to enter all the necessary parameters of the 3D Creator. This plug-in also supports calibration and alignment procedure. All the other features of PowerINSPECT works the same way as though it has been connected with one sensor unit, so all the functions like importing a cad model and cad comparison can be performed in the same manner.



PowerINSPECT user level with the 3D Creator DUAL set up parameter list.

### Product Features (see also datasheet PowerINSPECT)

- Comparable with all important CAD models via direct import interface
- As standard interfaces are available: IGES, VDA, STEP, AutoCAD, CATIA, Pro/E
- Fast alignment for complex free form surfaces
- Different inspection formats are possible
- Automated construction of inspection features form the nominal values given by the CAD systems.
- creation of comprehensive graphical reports which shows all the deviations at a glance.
- point, wire and surface presentation of the measured object

The 3D Creator DUAL in combination with PowerINSPECT is a high performance inexpensive solutions for 3D inspection tasks of large and complex objects which can be measured, inspected and compared with their CAD models in a very efficient manner.

### Innovative Products for Effective Solutions