ZEISS FalconEye Analyzes Quickly and Accurately

Quality assurance in car body construction is among the most challenging jobs in metrology. There is increasingly less time for the development of new vehicle models. When space is tight, horizontal-arm measuring machines often run into difficulties. It is therefore necessary to combine proven solutions with the latest technology. Thanks to ZEISS FalconEye, it is now possible to use the same technology from the ZEISS EagleEye navigator on stepping articulating probe holders.

In addition to countless boreholes, car manufacturing also requires the measurement of edges such as sections, transitions, threaded bolts and finished vehicles with accessories. For new vehicles, parts must be analyzed quickly and accurately. The requirements are consequently very high and inspections are extremely time consuming – particularly for serial inspection. ZEISS EagleEye navigator was developed to master these challenges as best possible, meaning quickly and accurately. The ZEISS FalconEye optical sensor system expands on this technology and can now be used on stepping, articulating probe holders, making it ideal for complex

measuring tasks in the automotive industry. The new sensor system is used in combination with the ZEISS CARMET II horizontal-arm measuring machines.

Sensor ideally integrated into the overall system

However, to obtain the required measuring results quickly and easily, the sensor has to be optimally integrated into the overall system. The RDS-CAA stepping articulating probe holder is ideal because only a few single positions have to be calibrated, but all angular settings are available for the application. This enables a considerable reduction of the measuring time compared to contact measuring technology. Laser line sensors with single lines require alignment of the laser line relative to the part. With the ZEISS FalconEye system, this is enabled through the utilization of an additional manual rotary axis that can be positioned in three angular settings with very accurate repeatability. ZEISS FalconEye therefore, provides users with an outstanding system to quickly and accurately complete their jobs.

The new ZEISS FalconEye system has also been optimally integrated into the CALIGO software package from ZEISS. Users are armed with easy-to-use tools for travel path planning and programming. Therefore, characteristics can be directly calculated and entered into the analysis as a result.

Overview:

- *Sensor axis (C axis) manually indexable*
- *3 angular settings 0°/ -45°/ -90°*
- *High repeatability accuracy*
- *Minimal operating forces on the hand lever*
- *Automatic stylus change-out with standard RDS; stylus changer supported*
- *Software integration in CALIGO*