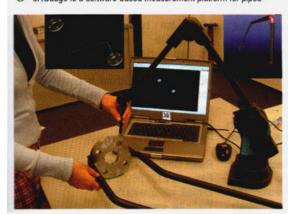
Measurement of pipes using software module

3R Solutions, Germany, have developed a software-based measurement platform for pipes, branded 3RGauge. The software can be used for the initial composition of the geometry as in reverse engineering or repair work.

It can also be used for the measurement of pipes fitted-on-board – a common approach in ship-building and plant production to compensate production deviations.

3RGauge is a software-based measurement platform for pipes



Measured parts are transferred into the company's CAD platform RoNi for the creation of necessary documentation and isometric drawings and the subsequent transfer to the attached CAM systems.

If documentation is not necessary, the geometric data can be directly used for the transfer to the company's CAM systems, where it is distributed to CNC based machinery without the need for any

further manual data transfer. The result of this strong integration in the existing IT environment is a faster conception-to-market for a user's products.

A user-friendly interface that quickly presents any measured parts on screen, controlled via a foot-switch, provides the operator with a maximum of guidance and freedom during the process of measurement. The operator begins the measurement process with a selection of

the basic measurement structure, such as 'fitted-on-board pipe based on a shape with flanges', while the software guides a user through all measuring points until the geometry is fully composed.

Automatic warnings are provided if entered points are too close to each other for an accurate measurement, so that the user is able to correct any problematic data immediately.

Integrated with the pipe-bending simulation software KOLLI, a user can provide customers with early indications as to whether a given prototype can be produced, together with necessary production details. This is a real advantage for suppliers in the automobile industry sector but can also be very helpful in other industries as well. The 3RGauge can also be used in the quality control of pipe production. Deviations of the produced parts and their designs can be evaluated and thus any problematic fields identified.

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