

SHIPYARD PIPING SOLUTION



The Piping Solution is made to measure in confined spaces with limited accessibility.

With our systems capability to measure flanges and pipes quick and easily, we have created the perfect solution for workers in the shipbuilding business. The CAD files that are generated and the automatically-built measurement reports make the flow of information easier than ever – data can be seamlessly transferred to the workshops.

Our special packaging makes working with Metronor products safe and simple.

The transport case can be carried as a backpack and the integrated set-up allows the user to start measuring in minutes.

ABOUT METRONOR

Metronor is a high technology company headquartered just outside Oslo, Norway, with subsidiaries in the US, Germany and China, globally supporting partners and customers.

Based on in-house innovation and research, Metronor has since 1989 developed a range of electro-optical portable coordinate measuring systems that have become popular among leading manufacturers worldwide.

Metronor's management system is certified to ISO 9001 and complies with ISO 14001.

For more information, please visit our website www.metronor.com



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Presenting
Piping Solution





MEASURE FLANGES

With as few as 12 point measurements, we can create a reproduction of any circle flange in under one minute. Of course, we can also measure non-standard flanges without any complication.

Flange measurements are performed quick and easily thanks to TeZetCAD, the leading software for pipe measurements.

MEASURE HOLDERS

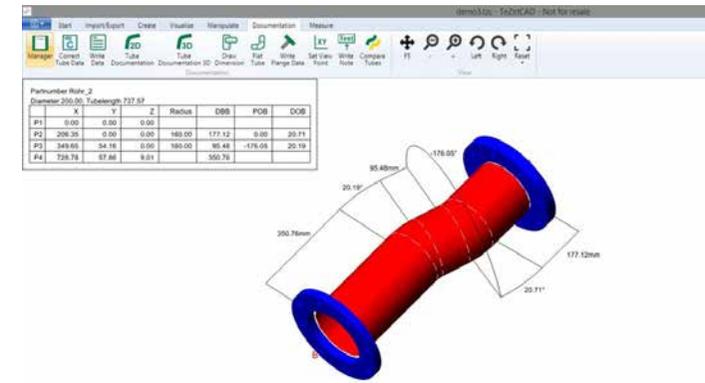
Also clamps that hold for example hydraulic pipes can be measured efficiently. Create a 3D representation of your pipe holders to construct a perfectly fitting pipe without corrections.



CREATE PIPES

The task of creating pipes, be it replacement pipes or connecting pipes where specifications are not yet known, is not always easy. Often rework has to be done because physical templates were not accurate enough. Using a special function in TeZetCAD, we can draw with our measurement system a virtual pipe in free space, avoiding obstacles as needed, creating a 3D CAD template that is accurate to the tenth of a millimeter.

Measuring an existing pipe is equally easy, just take measurements at the end points of the pipe and on the pipe itself and a CAD representation of an existing pipe is created. The data from the created pipes can now either be sent directly to a bending machine or a blueprint for the shop floor can be exported.



DATA ADJUSTMENT

A number of modifications and transformations can be performed on the measured geometries afterwards in TeZetCAD:

Measured flanges can be mirrored, creating perfect counterparts and therefore guaranteeing a matching hole pattern. Space holders for sealings can be taken into account and pipes specified to end either directly with the flange or pass through it.

Measured angles can also be manually overwritten should specific bending angles be preferred – the CAD model updates the geometries accordingly whilst not changing fixed points that are important for the correct fabrication. It is also possible to calculate the correction values for bending processes, e.g. values for the springback correction.

