



From Design to Finished Product

Closing the cycle in pipe production

Industry 4.0 is talked about in all business sectors – and of course also in regard to pipes and tubes. Automation of processes, transparent data flow and digitization are the keywords. The use of fully CNC-automated bending machines is more and more in demand.

But how do we obtain the data that feeds into the bending machine in a simple manner? Metronor and transfluid have partnered to close this missing link.



Stability and Performance in Pipe Bending

Transfluid bending machines are well known throughout the industries and showcase an intuitive command system and high through-put. The bottleneck is no longer producing bent pipes, but rather acquiring the necessary data to be fed to the bending systems. Especially in the maritime sector and for service companies, each pipe might be one of a kind and not a part of a serial production.



Metronor measurement systems are made to measure in difficult environments – be it in tight quarters or bad light situations. Measurements are taken on-site and in place, capturing the real-time situation. It only takes a couple of minutes to reverse-engineer a pipe with its connecting points, for both repairs and design of new connections.



Metronor One system



Perfect Adjustments, No Waste

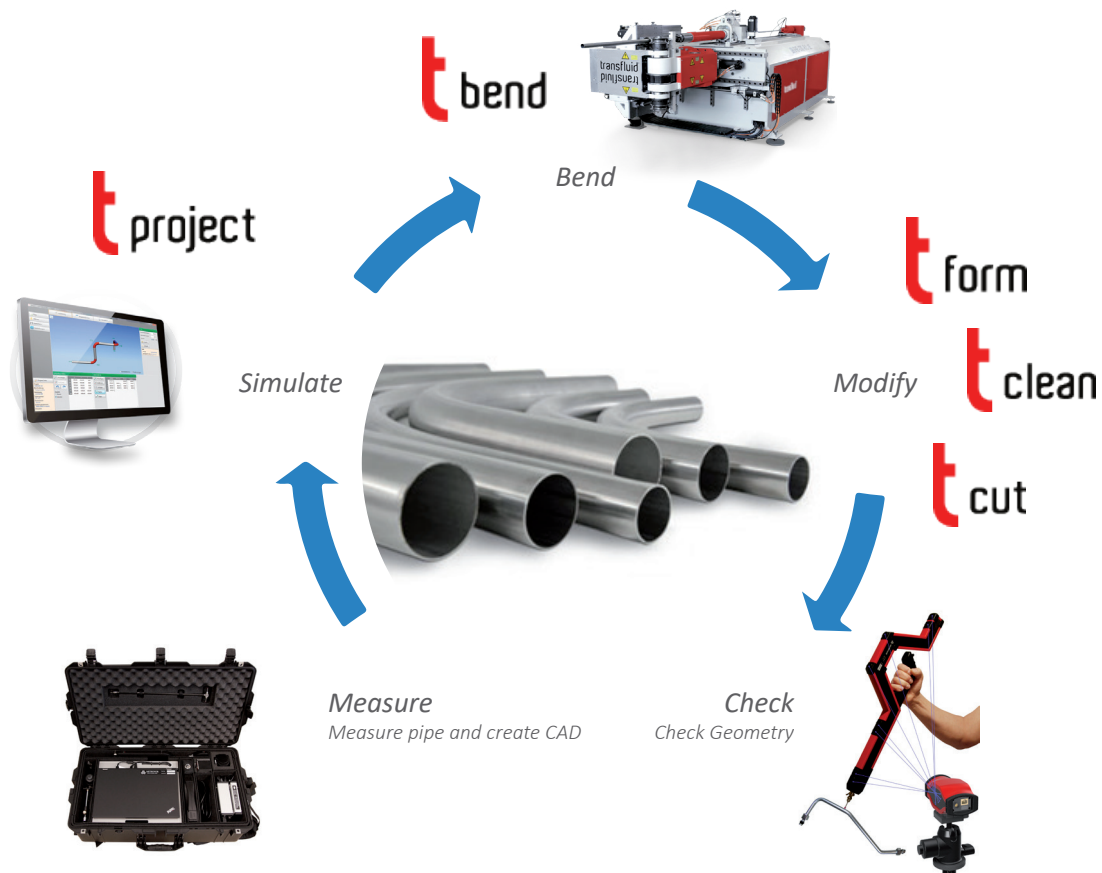
A 3D representation of each pipe is created automatically and can be transferred straight to the bending machine. Even if the measurements are taken on an oil platform and the bending machine is located in a workshop 400 kilometers away.

The size of the pipe to be measured and bent is also no hurdle. Both the measurement systems and the bending machines can easily handle diameters of 4mm up to 330mm. And with each measurement, a digital model of every fabricated pipe is made available. A simulation of each bending process can also be performed, making sure that no material is wasted.

Through this workflow, we can guarantee a perfect first time-fit – so that each pipe only needs be produced once.

t-control

The concept for customer success



About Metronor

Metronor is a privately held ISO 9001 certified high technology company headquartered outside Oslo, Norway. Metronor has developed a range of high accuracy, large volume, portable electro-optical coordinate measuring systems that provide excellent return on investment for customers, as well as facilitate a highly efficient dimensional management of manufacturing processes.

Metronor's Industrial Systems Business Unit

Metronor's range of portable coordinate measuring machines and scanning systems offers the best measurement capabilities, high accuracy, large measurement volumes, reliability and robustness.

Over 600 leading companies around the world use our systems, confirming our multi-application capabilities on a daily basis.

All Metronor systems share common core components that can be extended over the lifetime of the system. For this reason our systems always adapt to the requirements of our customers.

For more information: www.metronor.com



About Transfluid

As a globally demanded partner for the production of tube bending and tube processing machines, transfluid Maschinenbau GmbH emphasize on guaranteeing the customer the optimum in added value.

Since 1988 transfluid has been further developing its technologies for tube machining, so that it can provide customer-oriented, tailor-made solutions – for plant and machine construction, the automotive and energy industries, shipbuilding and medical device manufacturing.

As a world-renowned brand, the company from Schmallingenberg, Germany, is providing its machine solutions for tube processing worldwide.

Global market and technological leader

With the process of CNC-controlled rotary tube forming - newly developed by transfluid - the company is the world's market leader and is accordingly presented in the "Directory of World Market Leaders" of the South Westphalian chambers of industry and commerce

For more information: www.transfluid.net

