

AxelSystems

Complete Solution For
Effort Free Tube Measurement

TUBE INSPECTION SYSTEM

The portable system for shop-floor tube inspection



Axel 7 TUBE

Romer Absolute Arm

www.axelsystems.com

Completely portable inspection system for simple and fast inspection of tubes.

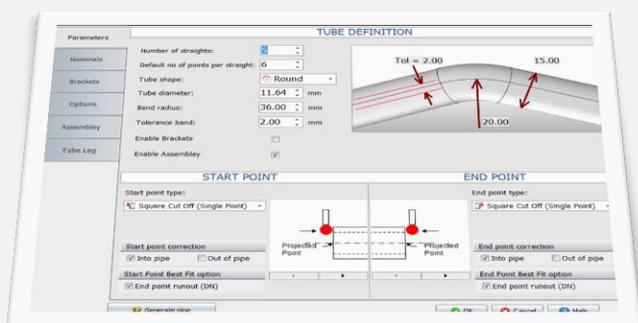
To facilitate inspection of tubes, Axel Systems combined the most portable CMM – the ROMER Absolute Arm – with Axel 7 TUBE which outlines the most powerful software on the market for the inspection of manipulated tube, pipe, wire or hose.

ROMER Absolute Arm

A portable arm is a good investment. The time required to train users is minimal – even unpractised personnel will produce reliable measuring results in a short time due to the user-friendliness of the ROMER Absolute Arm. Unlike many metrology devices, the ROMER Absolute Arm does not require warm-up time or initialization, thanks to a stable carbon fiber structure and industry leading Absolute encoders.

AXEL 7 TUBE

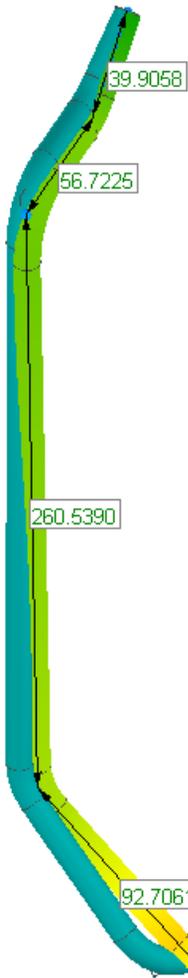
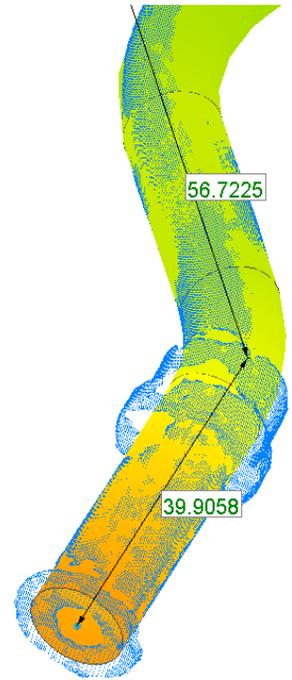
We develop tube inspection system driven by our client requirements, and not only our software can inspect tube, wire & hose assemblies, it can go on to inspect the individual brackets, end fitting, T sections and also tube fixtures. If a deviation from original fabrication is detected, the bending machine is corrected over the direct link.



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FEATURES AND BENEFITS

- ❑ **Bend on Bend Measurement** - With Axel Pipe, the operator can choose where to take points for a 'bend on bend' construction, and then opt to remove the intersection from the 'best fit' if required
- ❑ **Intricate Assembly Measurement** – Pipe Wizard can measure intricate, intertwined parts with short straights and multiple 180 bends.
- ❑ **Assembly Versatility** – Our software can measure tube assemblies, brackets, T sections and intersections.
- ❑ **Tube End Fitting Measurement** – Standard Axel Tube inspection Wizard software has 4 build in end fitting types to measure the position and angle in modern day tube assemblies – Square, Angled Face, Jagged and Flange / Banjo.
- ❑ **Multiple Fit Options** – Pipe Wizard software contains multiple fit options – Best Fit / End Fit / Last End Fit. Rouge or deformed intersection points can also be excluded from the fit. Any geometrical feature such as a bracket or 'T' section can also be added.



- ❑ **Pipe Bender Link** – Our software come with several pipe bender download links as standard for popular manufactures such as Addison, Unison and Herber.
- ❑ **Extended Results** – Axel Pipe Wizard not only give XYZ, YBC and envelope correction but also: Straight Miss By, Angle Deviation of each straight, End to End Length (Nominal & Measured), Total Tube Length, Tangent (Straight) Length, Total Bend and Total Rotation to help in forecasting tool wear.
- ❑ **Reverse Engineering Capability** – Axel Pipe Software have the ability to measure prototype / development tube assemblies, brackets and end fittings, before saving the measured data as IGES / DXF files and sending it to a CAD system.
- ❑ **Production Aid** – it can be used as production aid to set the position of brackets, end-fittings and 'T' sections. Simply measure the tube assembly and then use the Digital Read-Out to move the probe head to specific tube / drawing coordinates to set the bracket.
- ❑ **Multiple Coordinates** – Axel Pipe Wizard allows data / output results to be configured as pipe coordinates or CAD / Car line / Aircraft line coordinates

FEATURES AND BENEFITS

- ❑ **Absolute Encoders** – Referencing and warm up time was for yesterday – just switch the arm and measure.
- ❑ **Lightest Portable Arm** – from 7.1 kg.
- ❑ **Biggest Measurement Volume** – Size does matter. The ROMER Absolute arm is available in seven lengths between 1.5 m and 4.5 m.
- ❑ **SmartLock** – If the ROMER Absolute Arm is not in use, lock it comfortable and safely.
- ❑ **Romer Most Accurate Arm** – Accuracy from 0.016 mm.



For more information, visit www.axelsystems.com

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