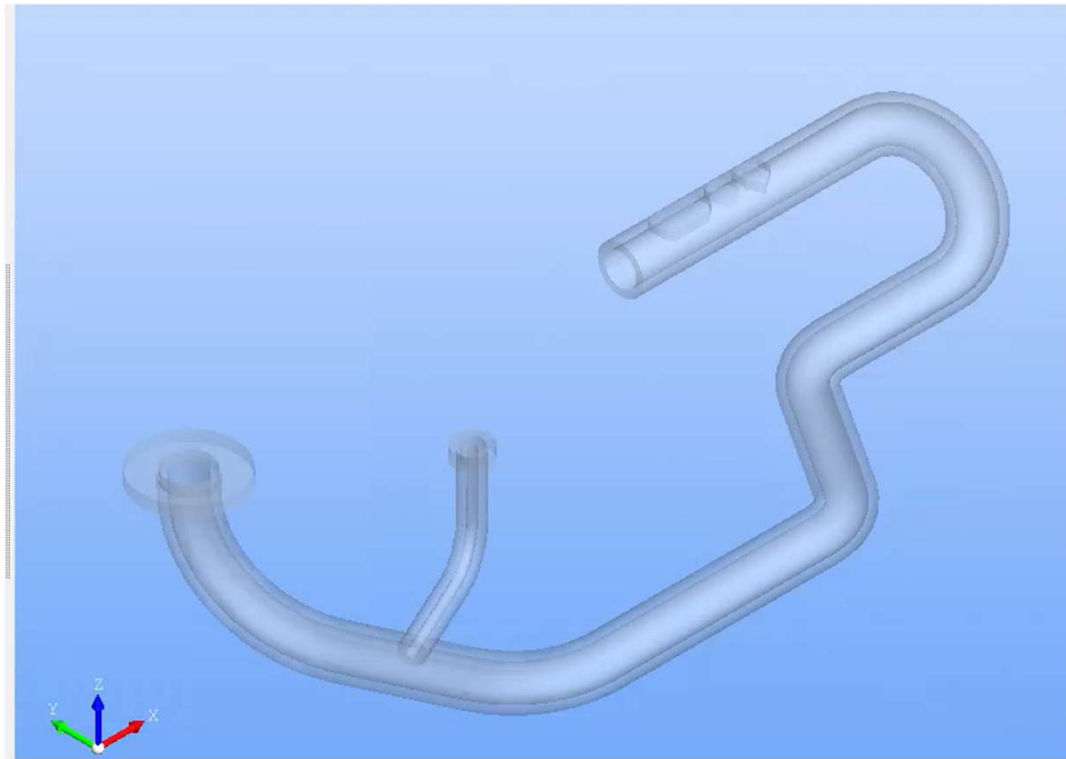




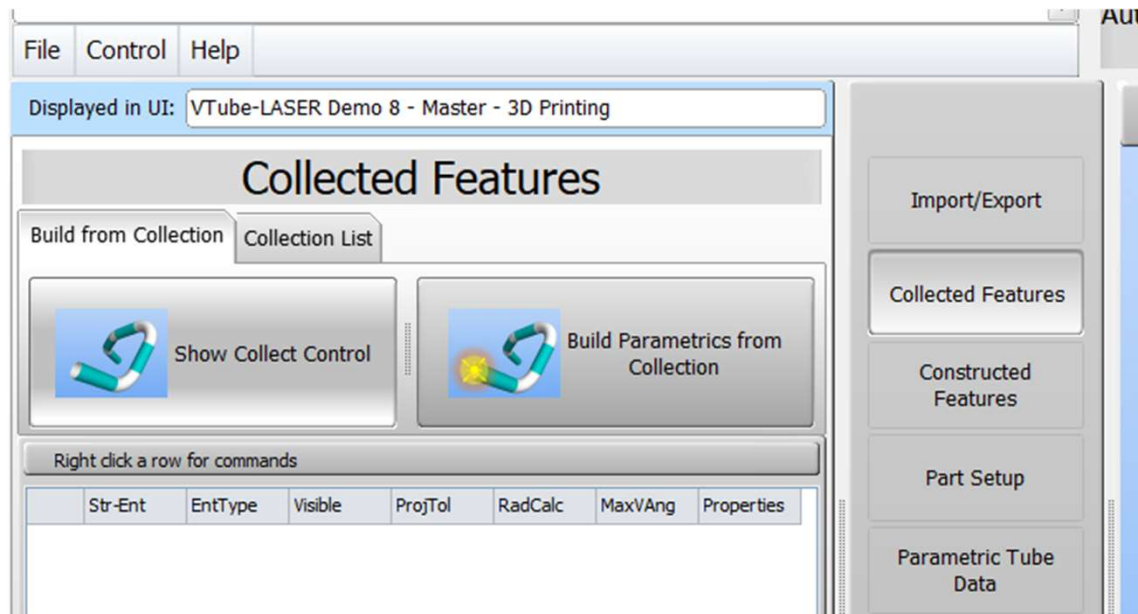
Workflow for VTube-LASER

Importing and Measuring a
Tube Assembly

Import your 3D model



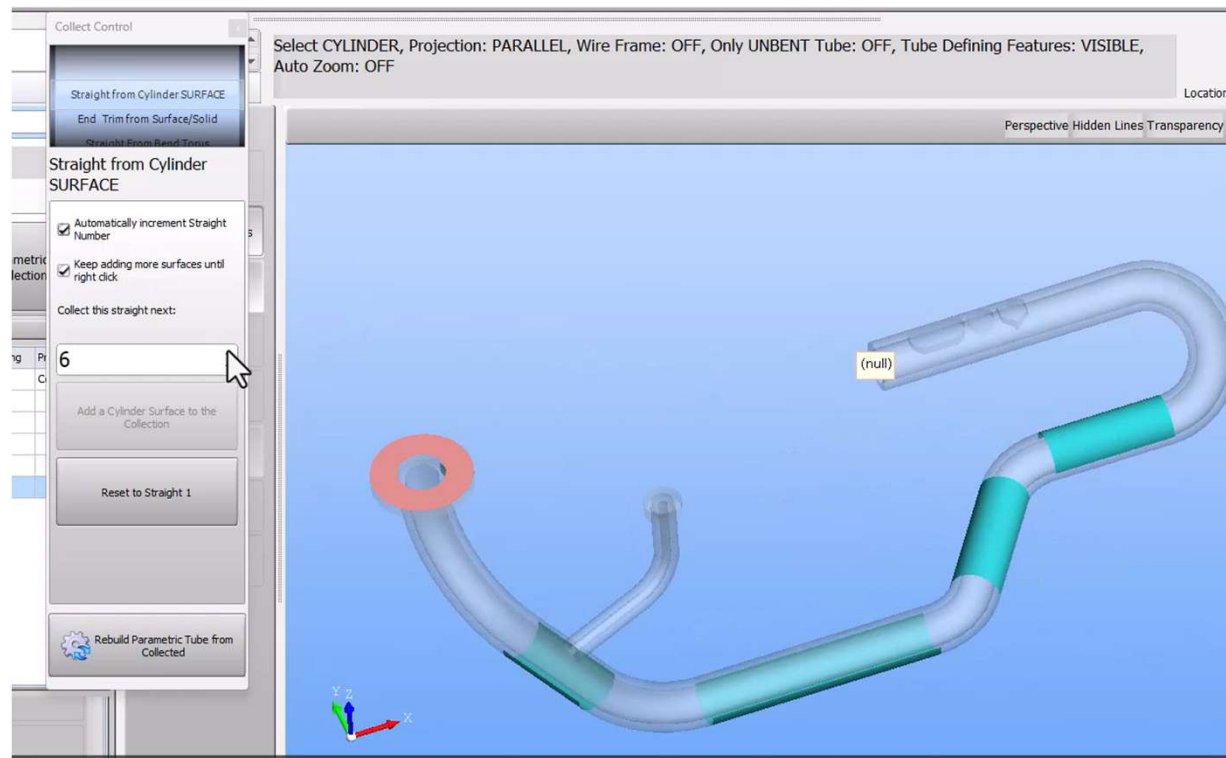
Go to Collected Features > Show Collect Control



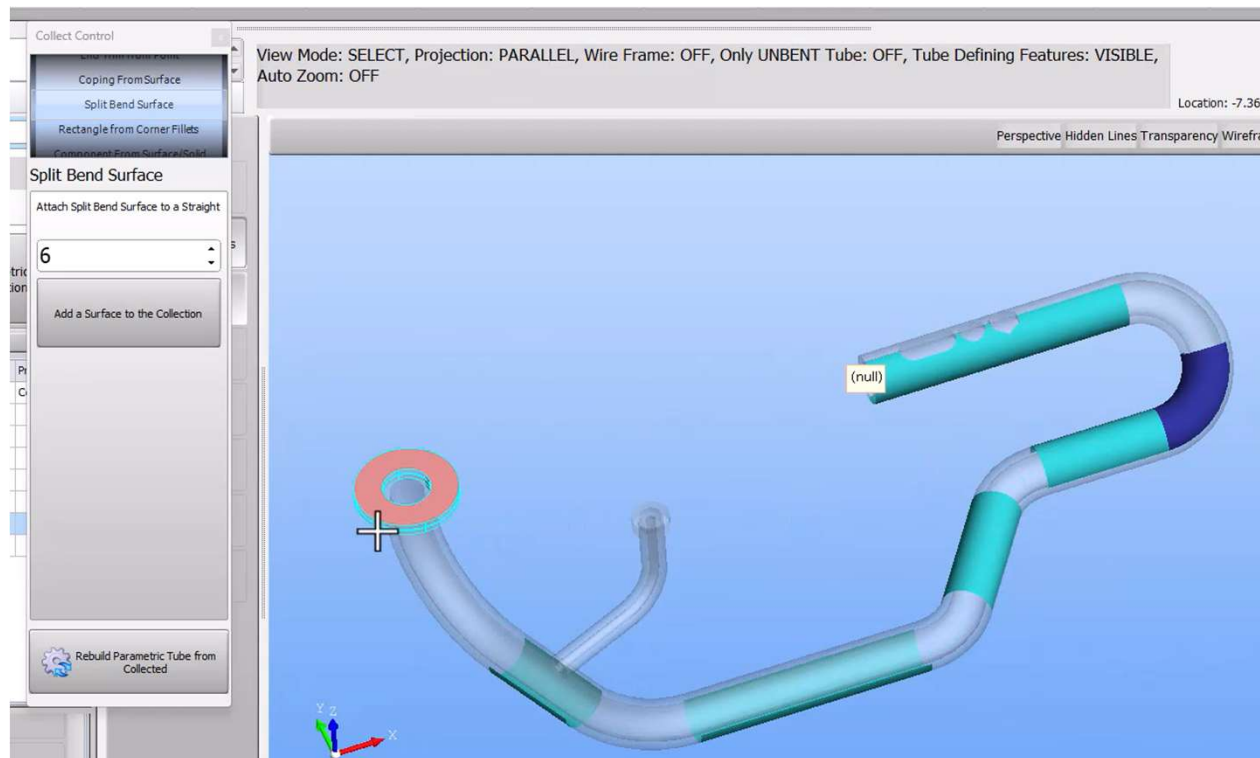
Use End Trim to select the end of the model



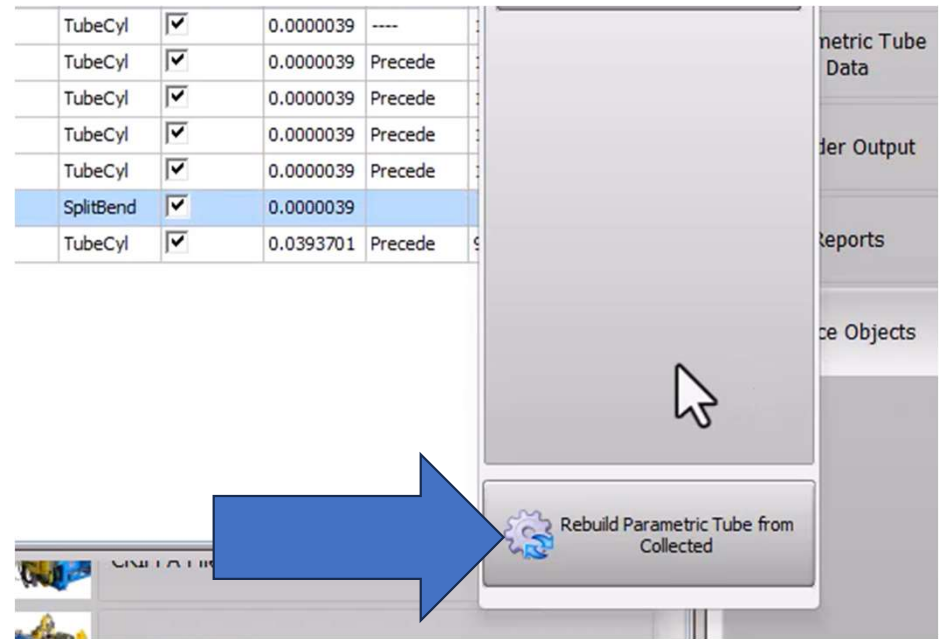
Switch to “Straight from Cylinder SURFACE”
for straights 1-5 and 7



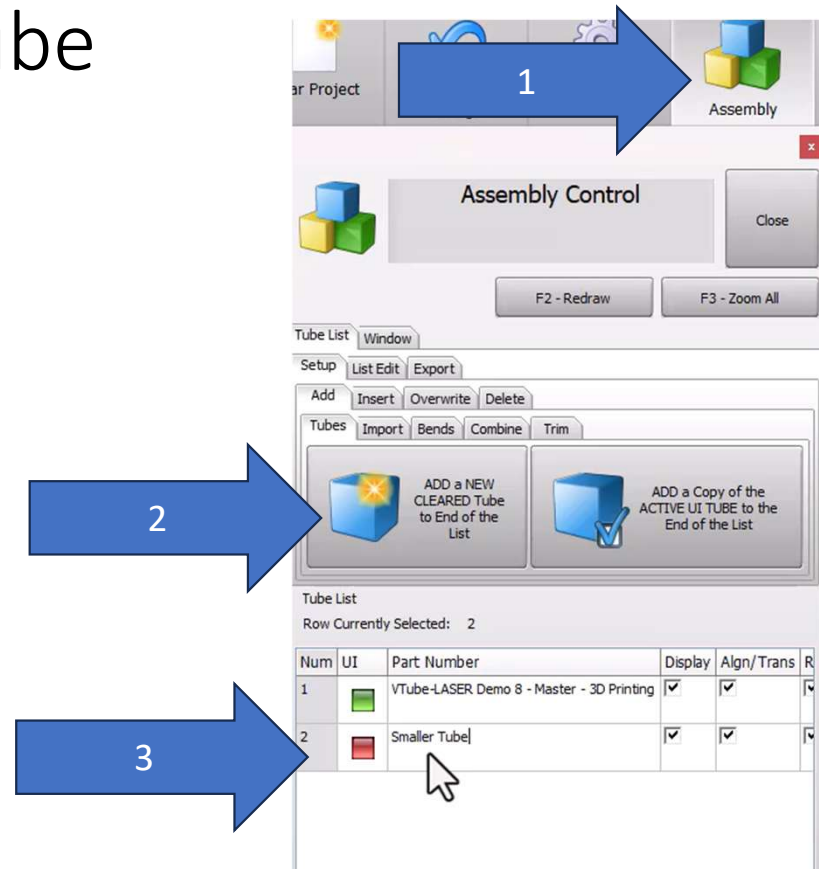
Switch to “Split Bend Surface” for straight 6 and select the bend of the split bend



Rebuild Parametric Tube from Collected

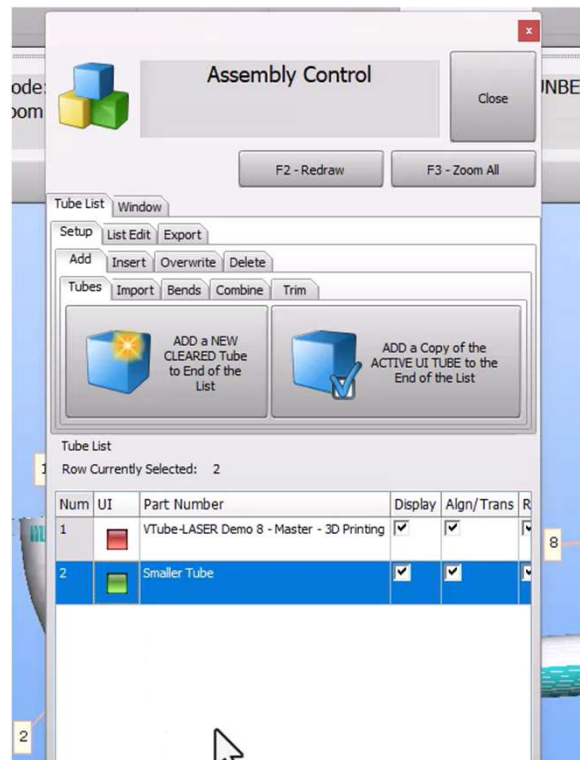


- 1- Go to Assembly
- 2- ADD a NEW CLEARED Tube to the End of the list
- 3- Name the new tube

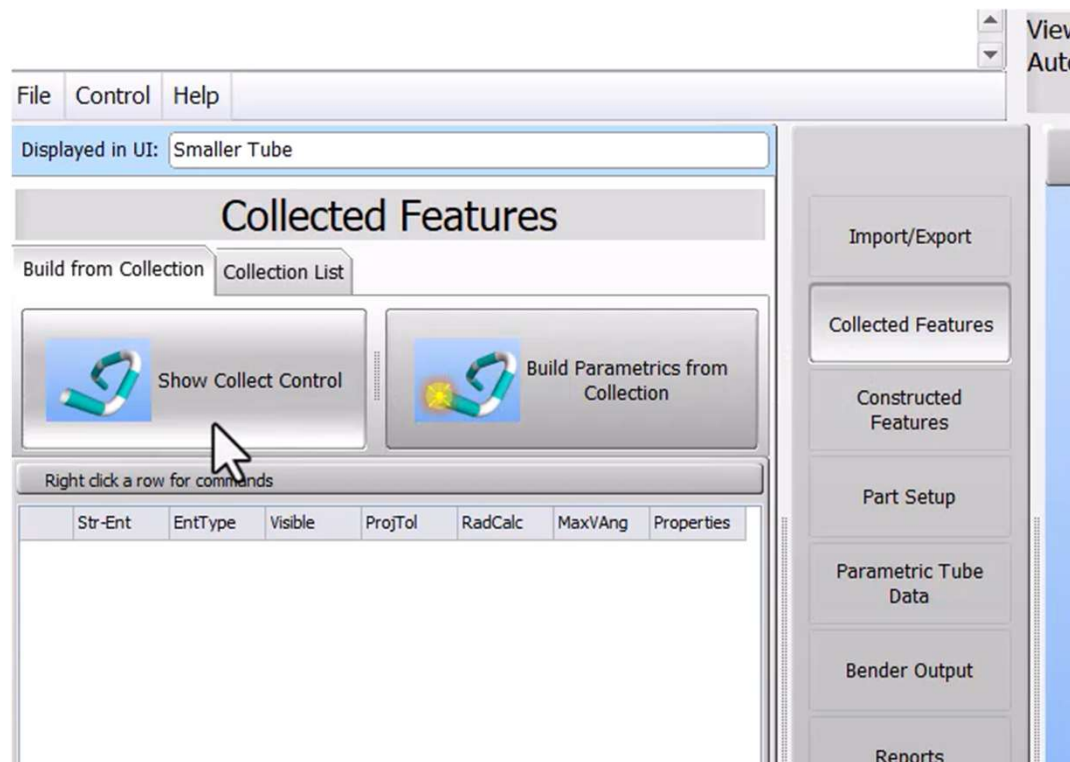


Highlight the “Smaller Tube”

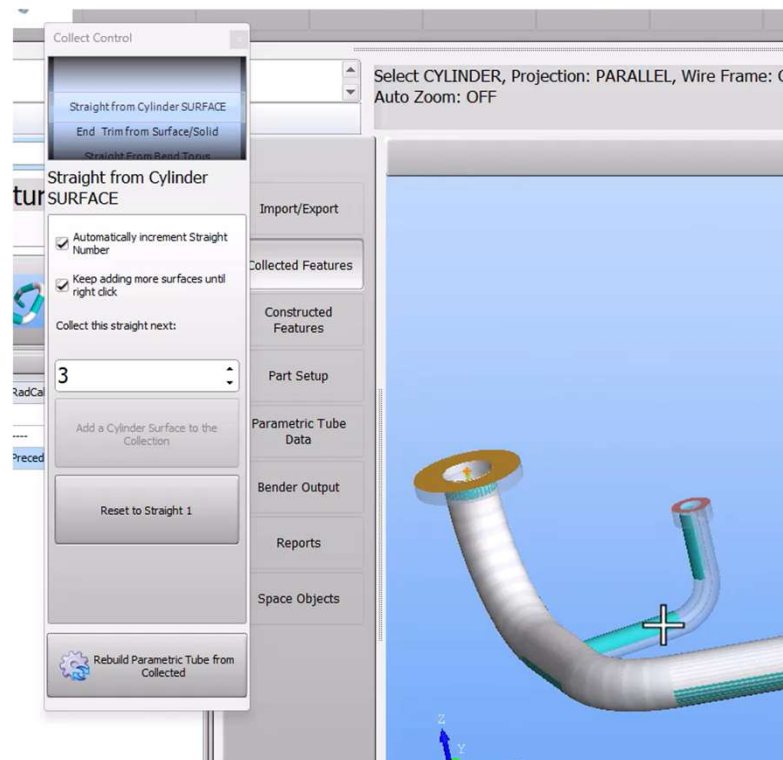
Note: Whichever tube has the **green** box is the active tube



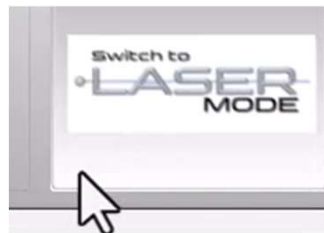
Go to Collected Features > Show Collect Control



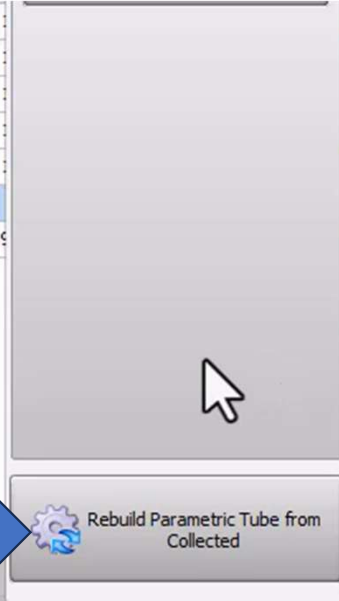
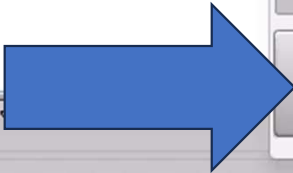
Collect the end and straights for the smaller tube



Rebuild Parametric Tube from Collected then switch to VTube-LASER

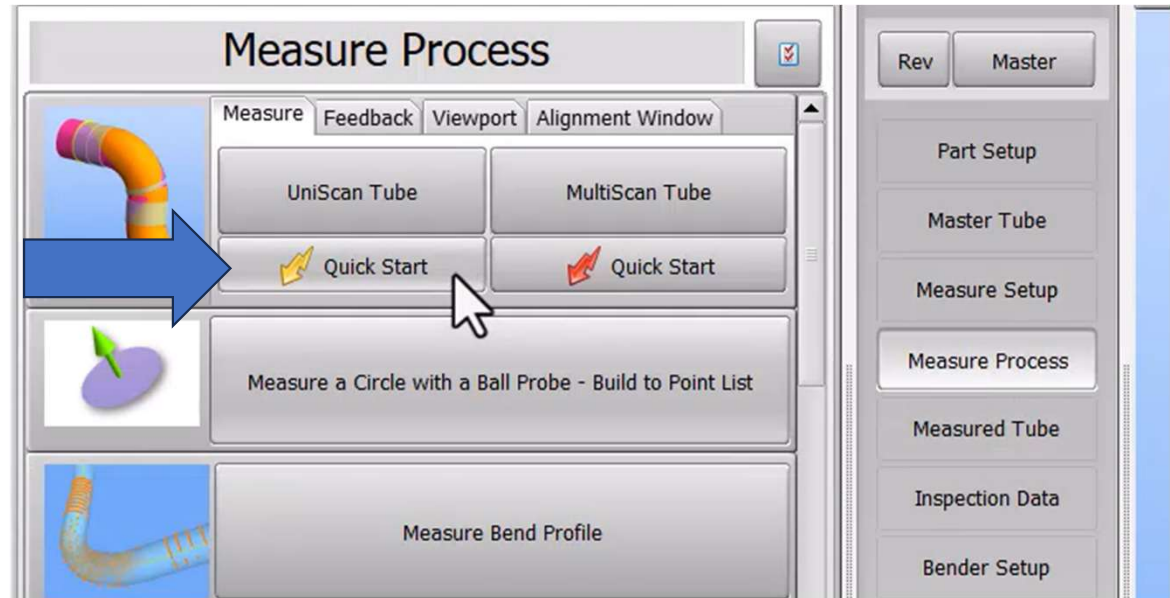
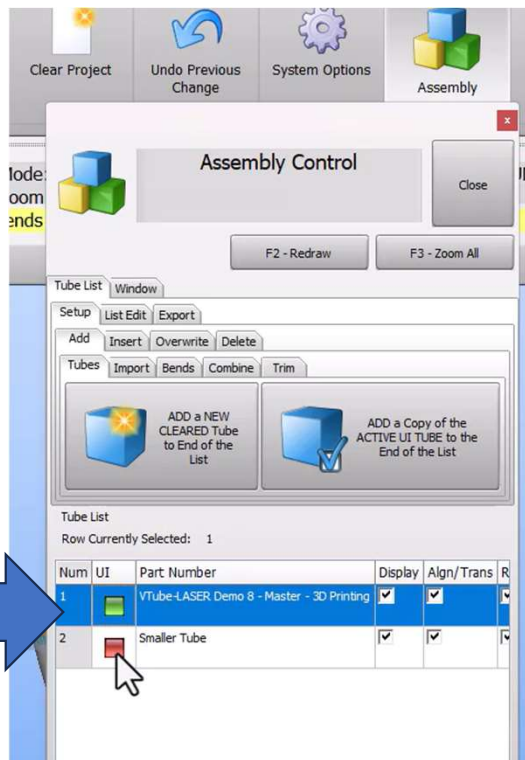


TubeCyl	<input checked="" type="checkbox"/>	0.0000039	----
TubeCyl	<input checked="" type="checkbox"/>	0.0000039	Precede
TubeCyl	<input checked="" type="checkbox"/>	0.0000039	Precede
TubeCyl	<input checked="" type="checkbox"/>	0.0000039	Precede
TubeCyl	<input checked="" type="checkbox"/>	0.0000039	Precede
SplitBend	<input checked="" type="checkbox"/>	0.0000039	
TubeCyl	<input checked="" type="checkbox"/>	0.0393701	Precede



A screenshot of a software interface. On the left, a table lists several components: TubeCyl, SplitBend, and TubeCyl. The 'SplitBend' row is highlighted in blue. To the right of the table is a large, light gray rectangular area. At the bottom of this area is a button with a gear icon and the text "Rebuild Parametric Tube from Collected". A white mouse cursor is pointing at the button. A large blue arrow points from the "Switch to LASER MODE" button in the previous image to this button. On the far right, a vertical sidebar contains several menu items: "Parametric Tube Data", "Order Output", "Reports", and "Place Objects".

Select the tube you want to measure first and complete the measuring process



FINISH and Build Measured Tube

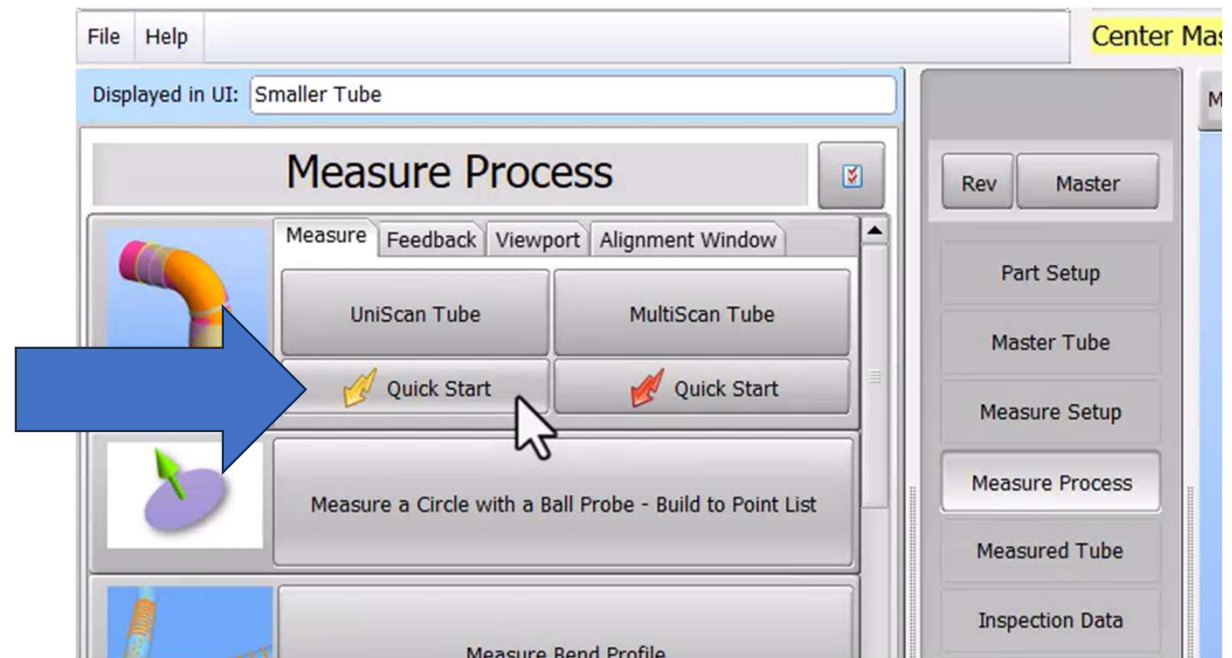
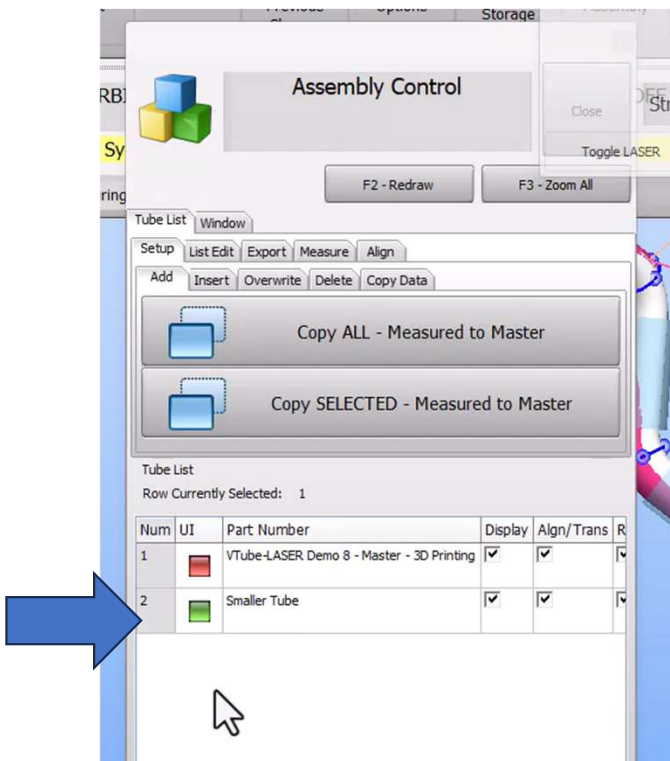
The screenshot displays a software interface for measuring a tube. On the left, a control panel includes options like 'Include Bend Profile Scans', 'Is Cylinder Inner Diameter', and 'Accept Button is in Backup Mode'. Below these is a 'Measure Measure Complete' section with a 'Laser Line Separation' of 0.097 inches and buttons for 'Clear/Start Over' and 'Stop Measure'. A blue arrow points to the 'FINISH and Build Measured Tube' button, which has a green checkmark icon. Below it is a 'FINISH and Build then MEASURE AGAIN' button with a green arrow icon.

The central data panel shows the following measurements:

- Green - 12805: 0.2878, 0.0000
- 2 - Cylindricity: Cylindricity is the difference between the high and the low surface points relative to the cylinder centerline. Cylindricity: 0.0031, Out-of-round %: 0.8, Low Surface: 0.3721, High Surface: 0.3752
- 3 - Intersection Pass Distance: This value shows how close two 3D centerlines get to each other when passing. Nearest Pass: 0.0000
- 4 - DCF (Dual Cylinder Fit): This calculation divides the surface data into two groups, then calculates the cylinder data and intersection points twice to verify low absolute uncertainty. Uncertainty: 0.0000, Vector Angle Uncertainty: 0.0000, Max Offset at 2 inches: ..

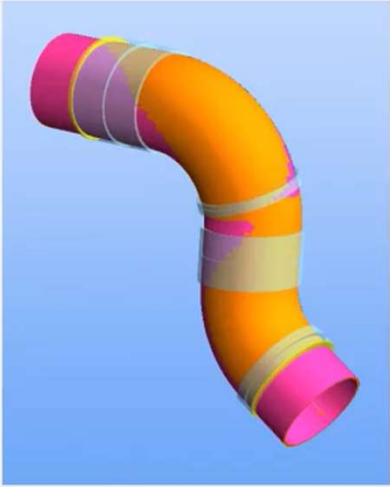
The right side of the interface shows a 3D model of a tube with measurement points and a 'Measuring Device: HEXAGON Arm' label. A mouse cursor is visible over the model. The top right corner shows 'Toggle LASER' and '28 Percentage of'.

Select the other in the tube in the assembly and complete the measuring process



Align measured to master

After-Measure Alignment



Align using this algorithm

Best Fit Alignment 5

Display a report automatically

Show a report after alignment

Choose the report template to use:

Tube Inspection Report

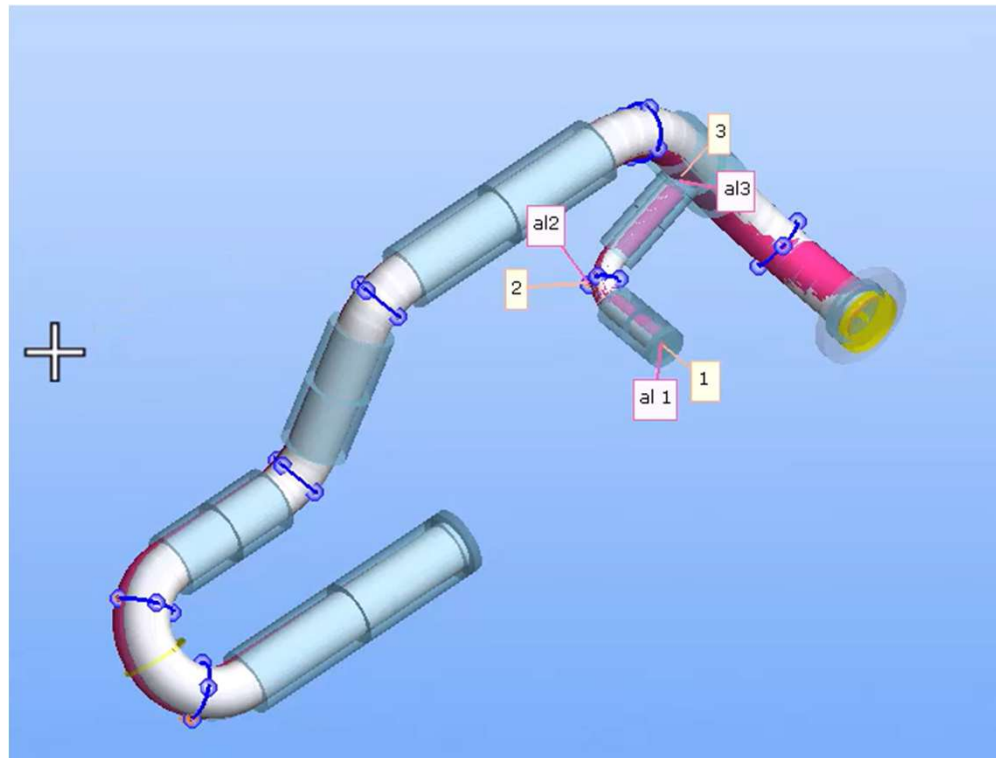
Align measured to master now

Copy measured to master and close this window

Skip the alignment and close window

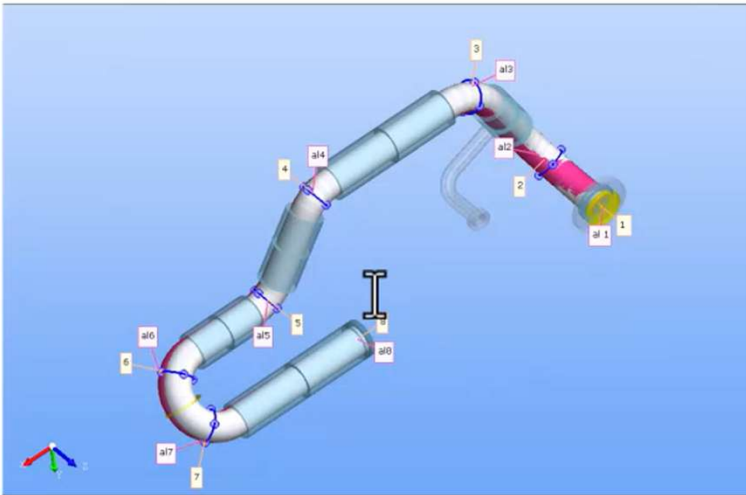
The image shows a software interface for aligning a measured part to a master. On the left, a 3D model of a curved pipe is shown with several colored bands (yellow, purple, pink) indicating measurement points. The main panel contains settings for the alignment algorithm, a checkbox for automatic report generation, and a dropdown for the report template. On the right, there are three buttons: 'Align measured to master now' (with a mouse cursor icon), 'Copy measured to master and close this window' (with a blue arrow icon), and 'Skip the alignment and close window' (with a green arrow icon).

Now both tubes have been measured and aligned to nominal (MASTER)



The tubes will on the same report but the information will be separated out

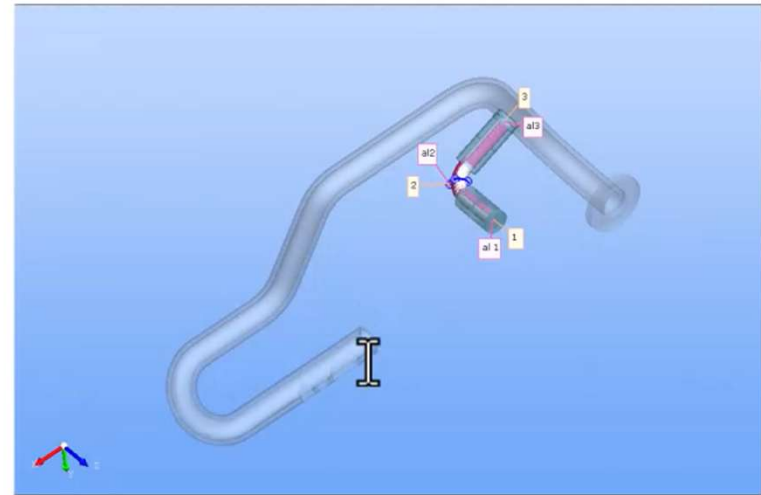
VTUBE
REPORT



Part Setup

Date: 3/23/2026 12:51:58 PM
Part Number: VTube-LASER Demo 8 - Master - 3D Printing
Unit: Inches

VTUBE
REPORT



Part Setup

Date: 3/23/2026 12:51:59 PM
Part Number: Smaller Tube
Unit: Inches