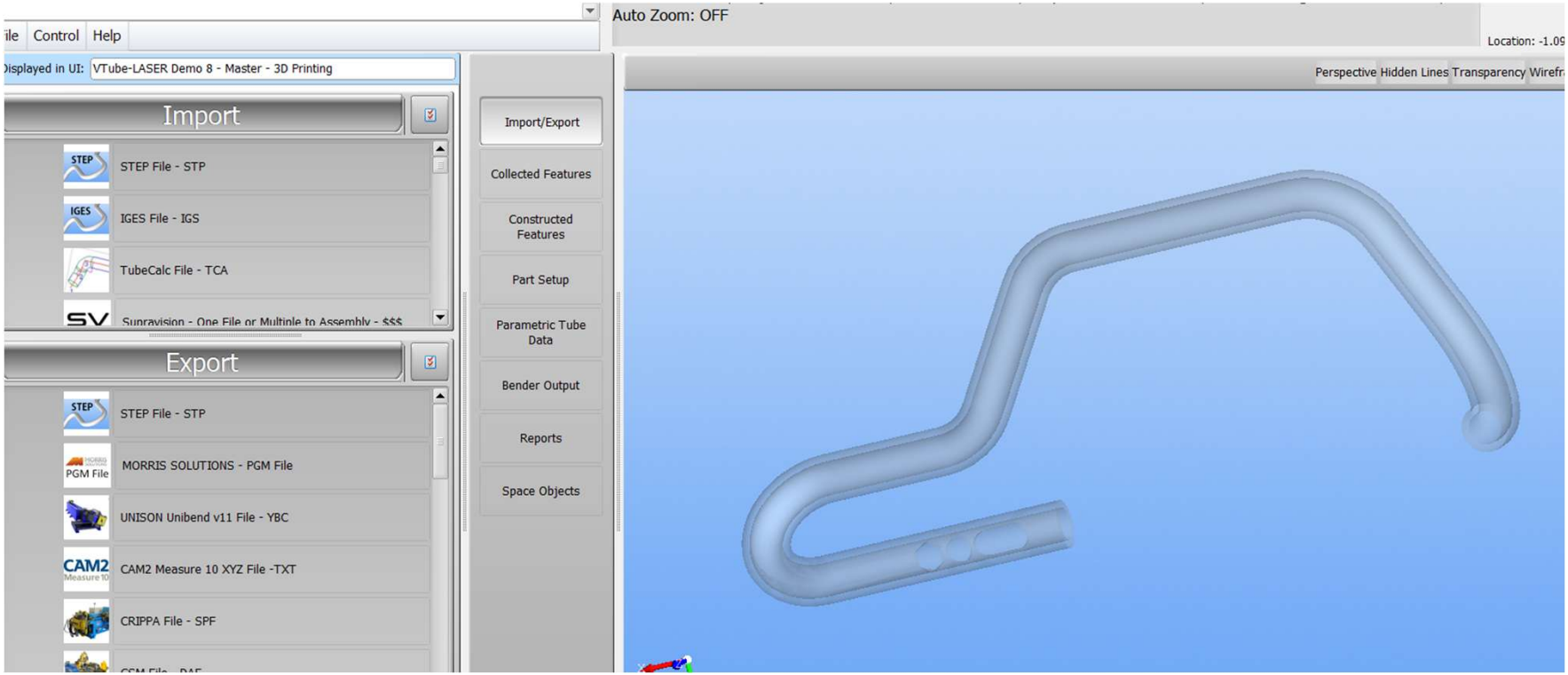
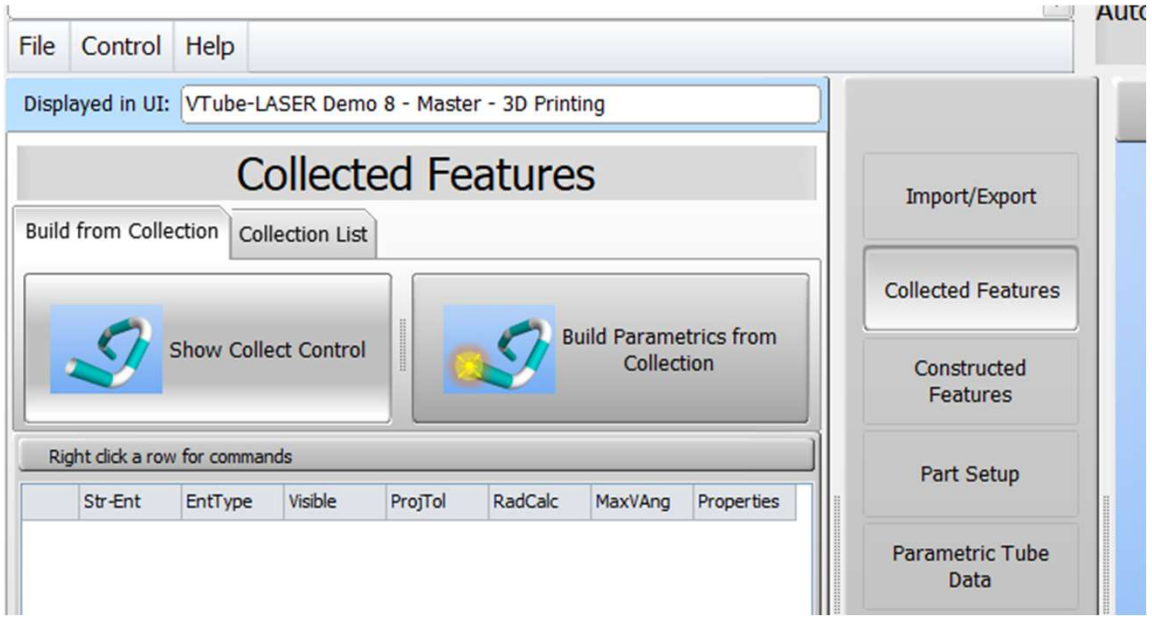
Workflow for VTube-LASER

Importing and Measuring a
Round Slot

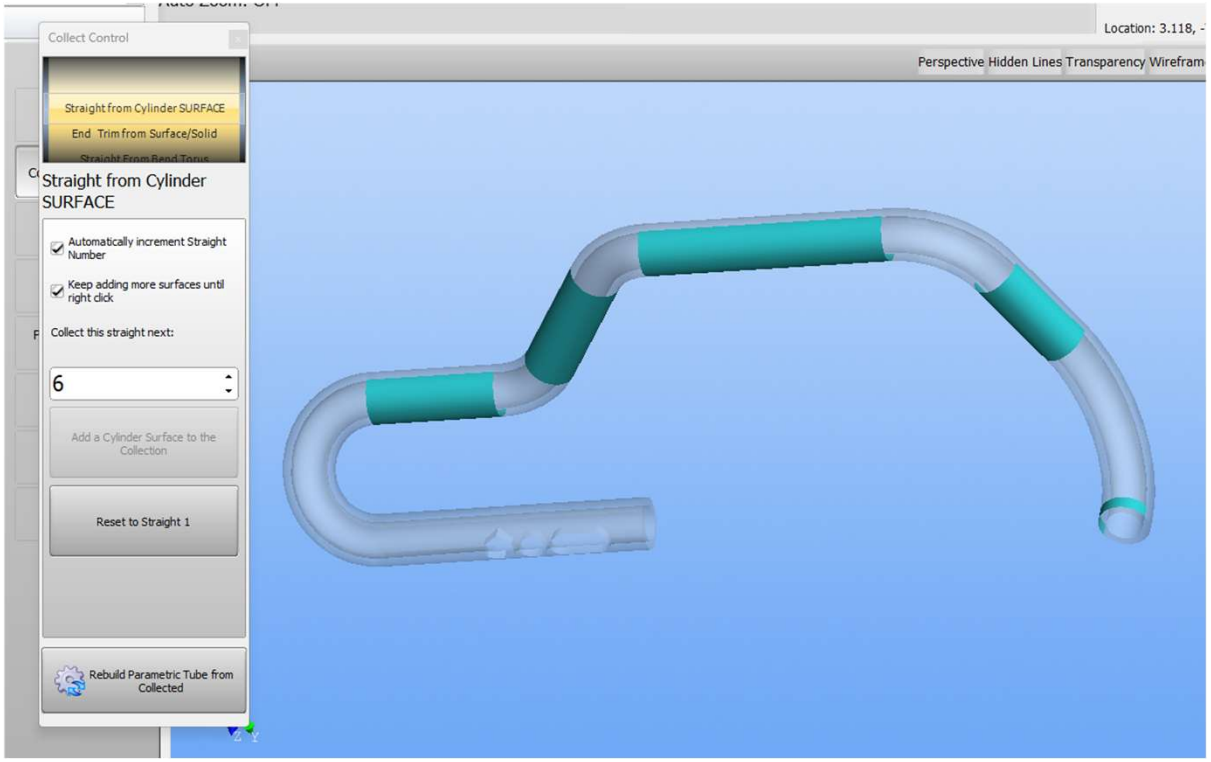
Import your 3D model



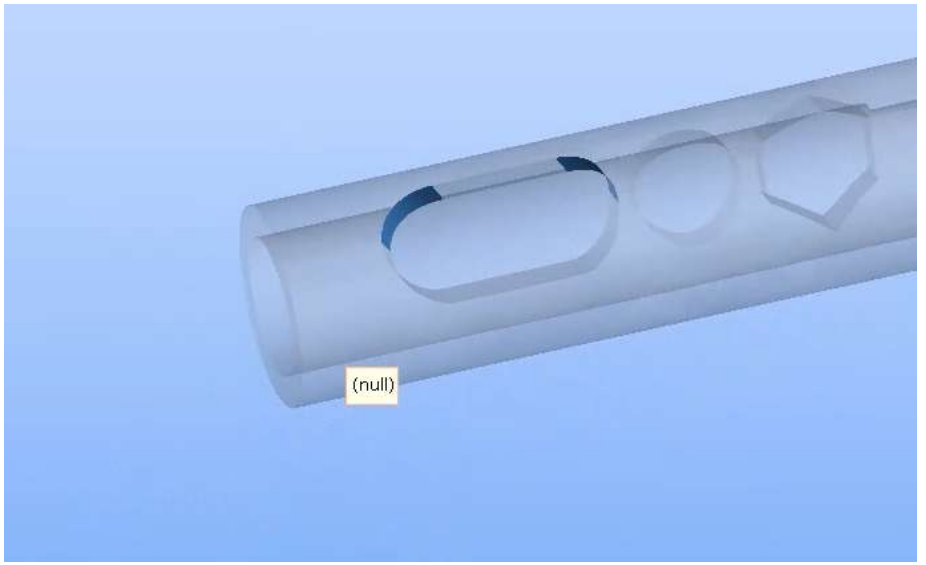
Go to Collected Features > Show Collect Control



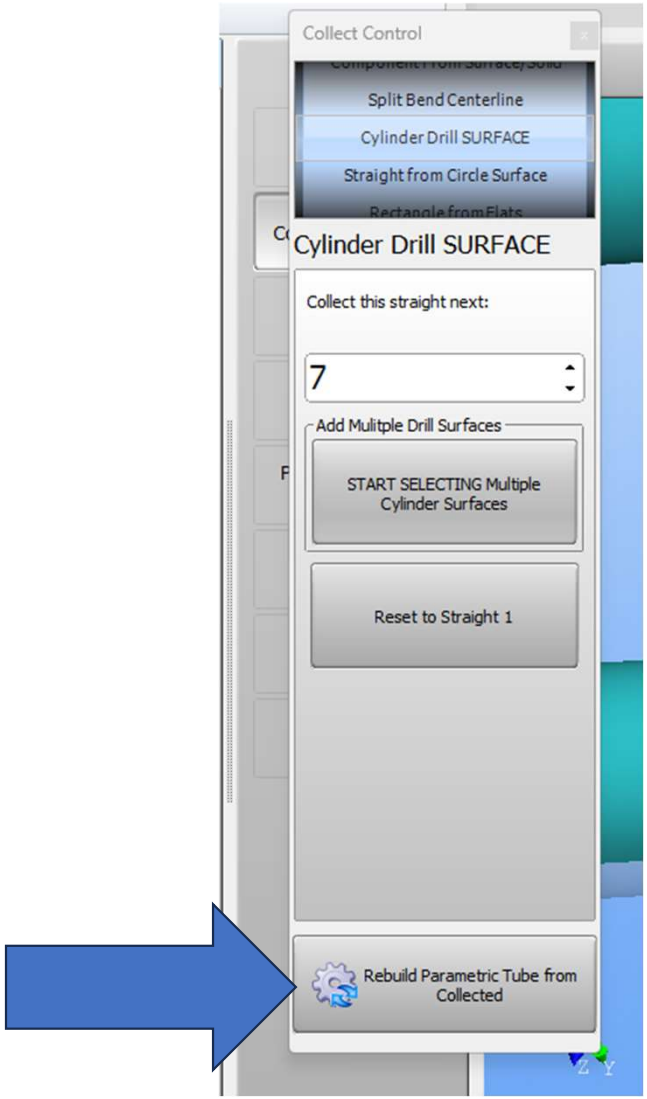
Collect your tube cylinders



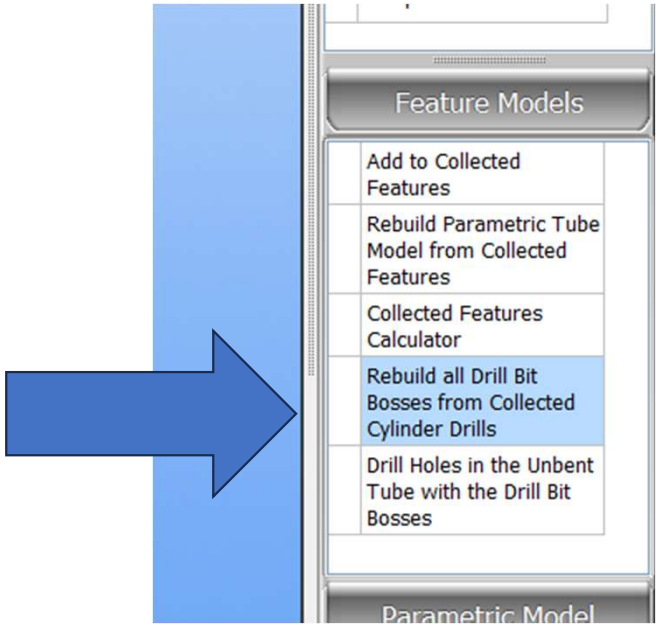
a) Scroll down to “Cylinder Drill SURFACE”
b) Set the straight the hole is on
c) Select one side of the slot (half is enough)
d) Hold SHIFT down and select the other side of the slot
e) Right-click to accept the selection



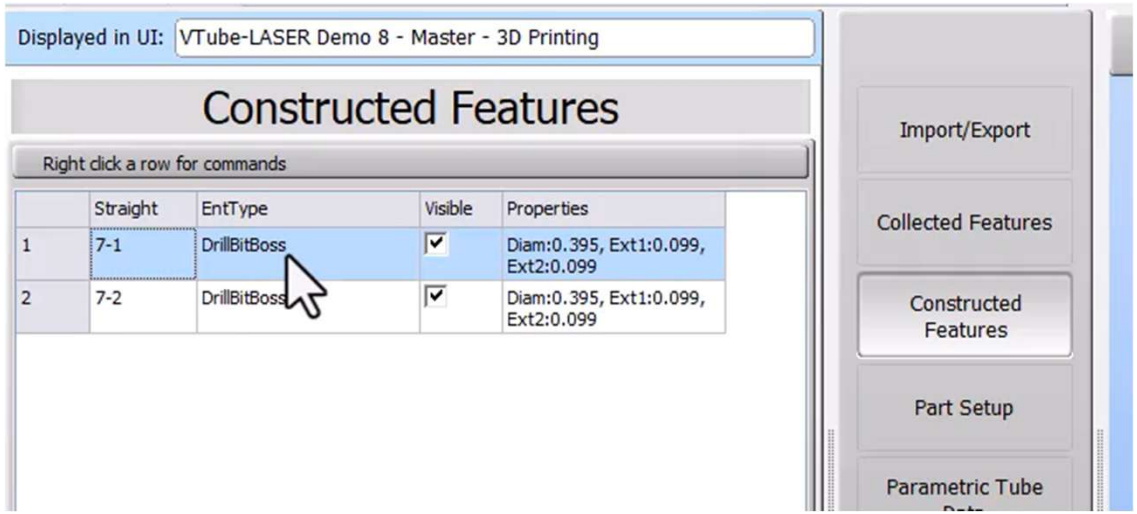
Rebuild Parametric Tube from Collected



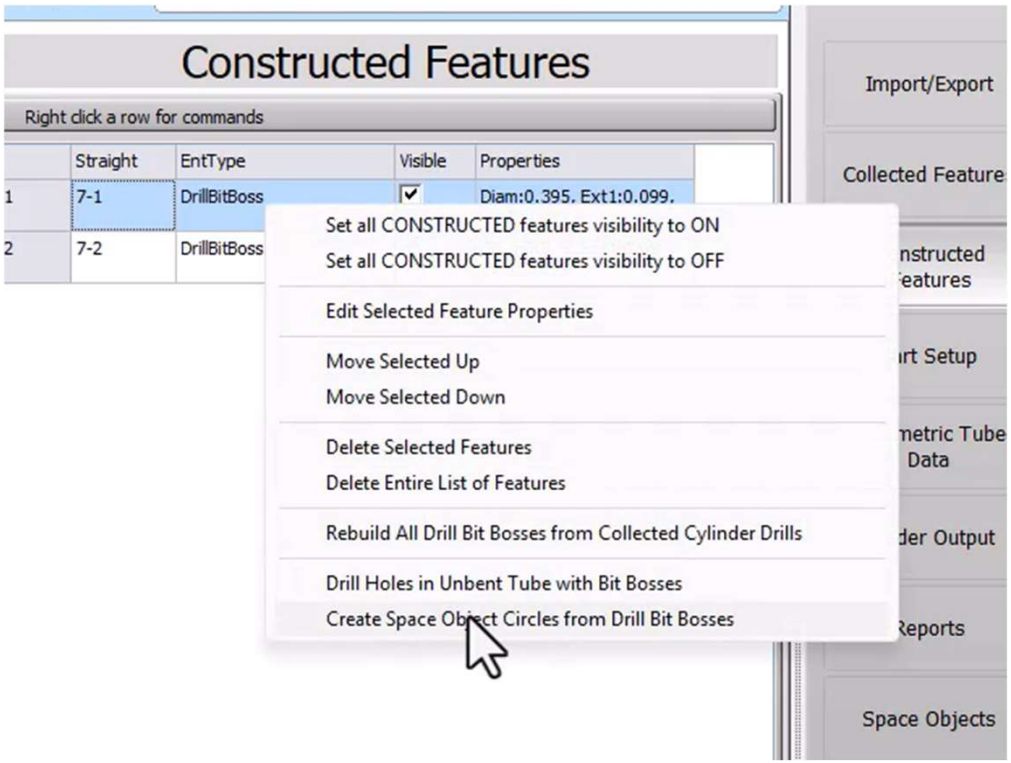
Rebuild all Drill Bit Bosses from Collected Cylinder Drills



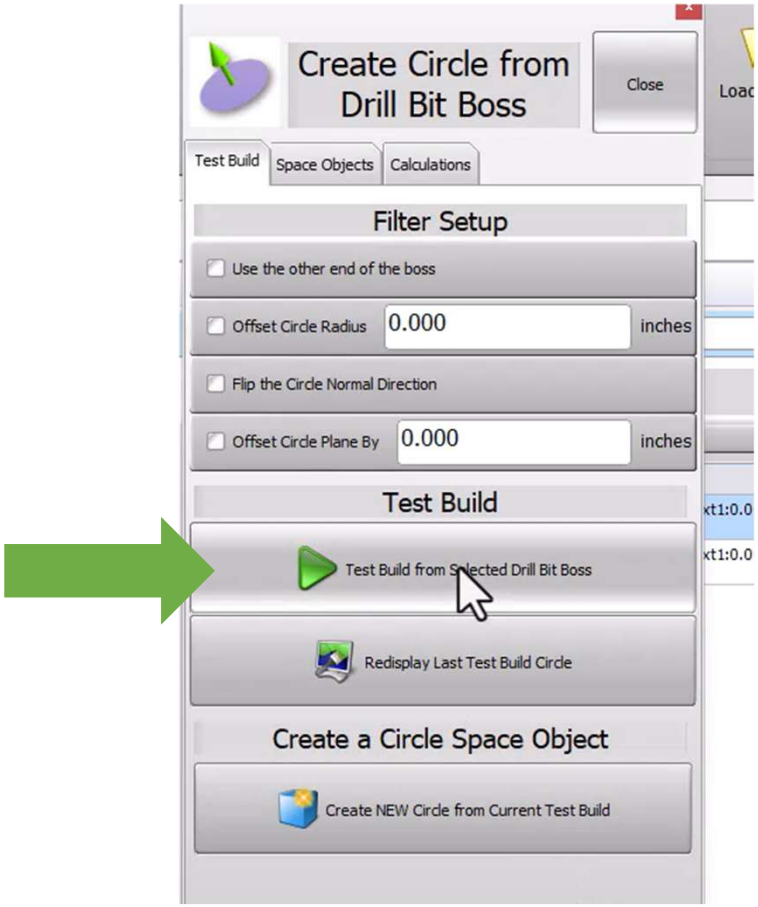
You now have two Constructed Features

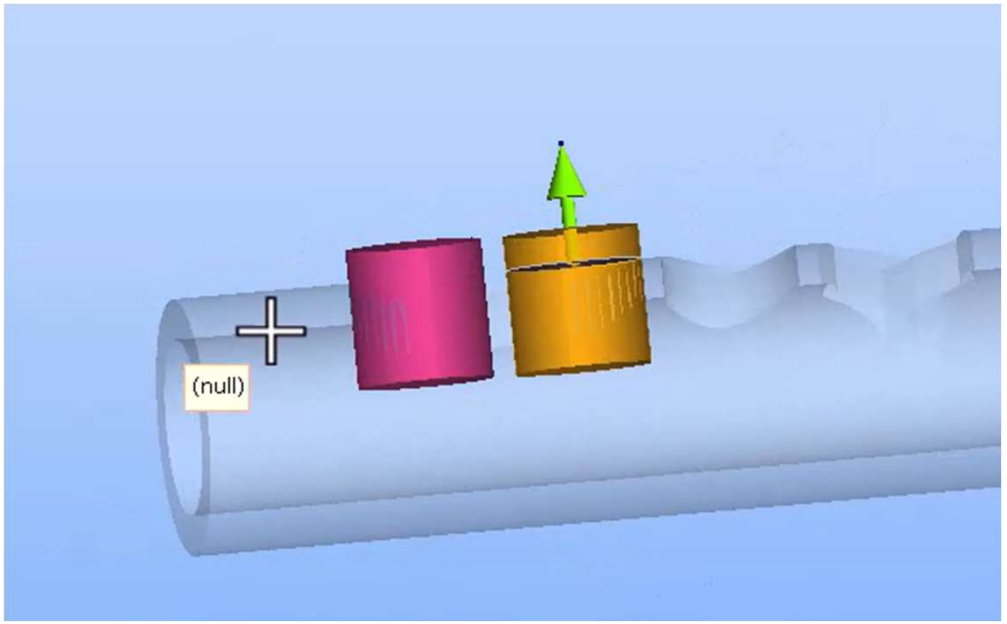


Right-click on the ‘drill’ of choice and select “Create Space Object Circles from Drill Bit Bosses”

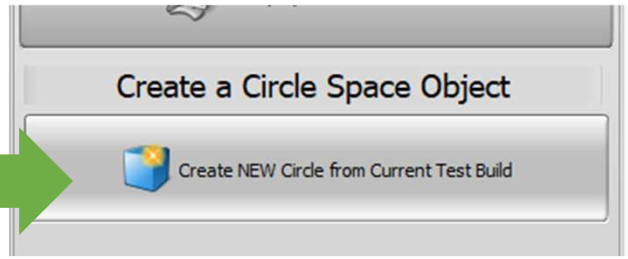


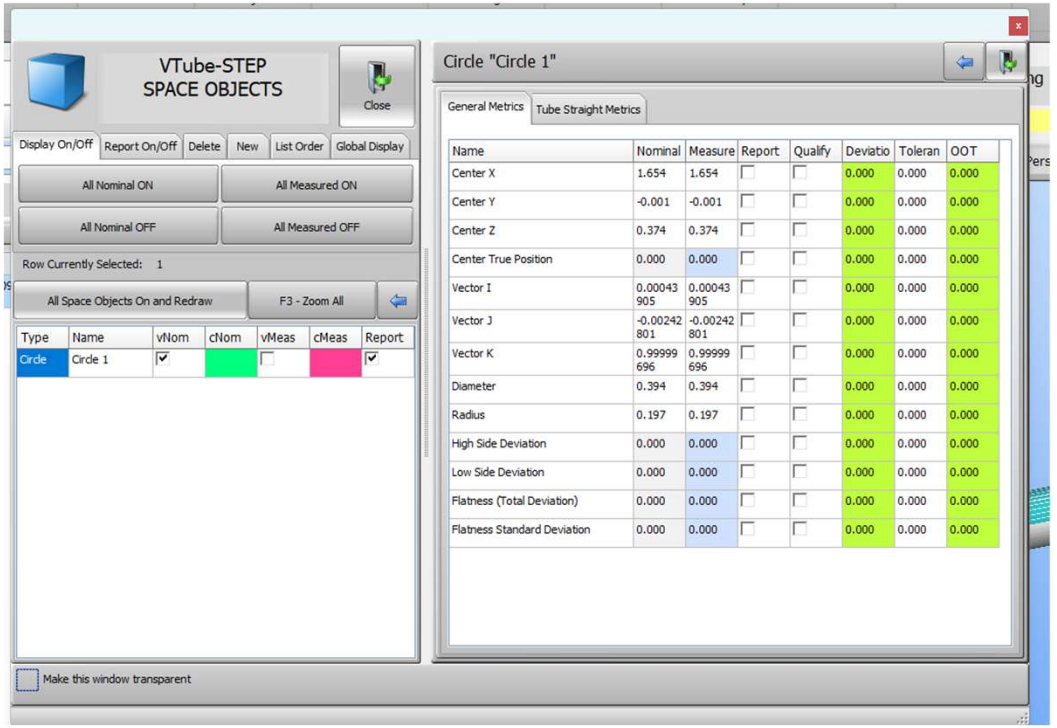
Preform a TEST to ensure the normal direction is correct.



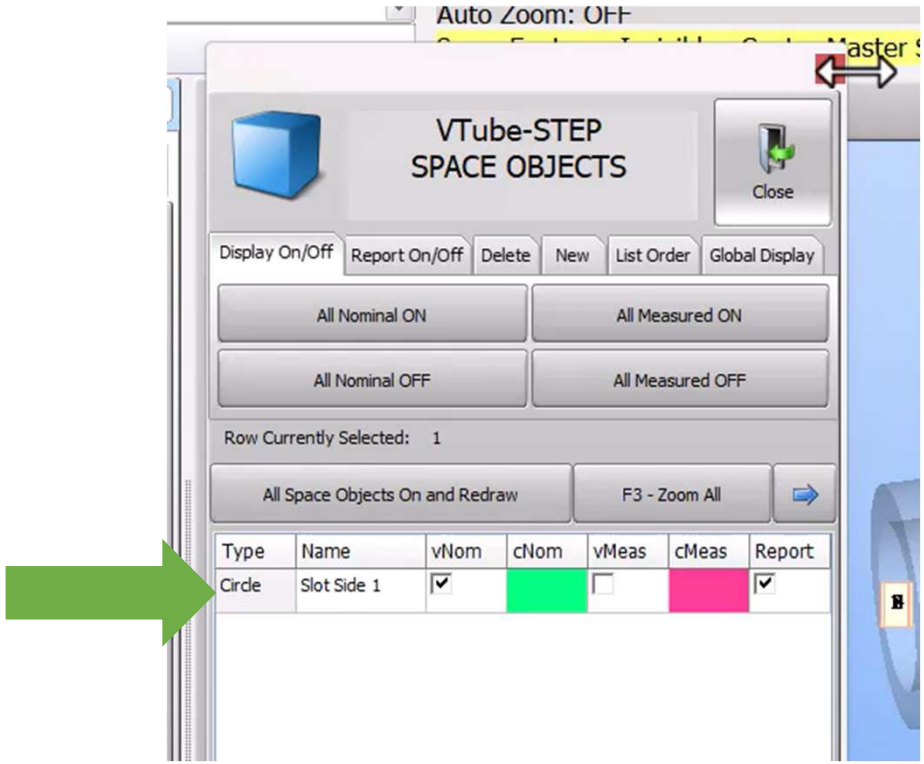


Once the test looks good, Create NEW Circle from Current Test Build

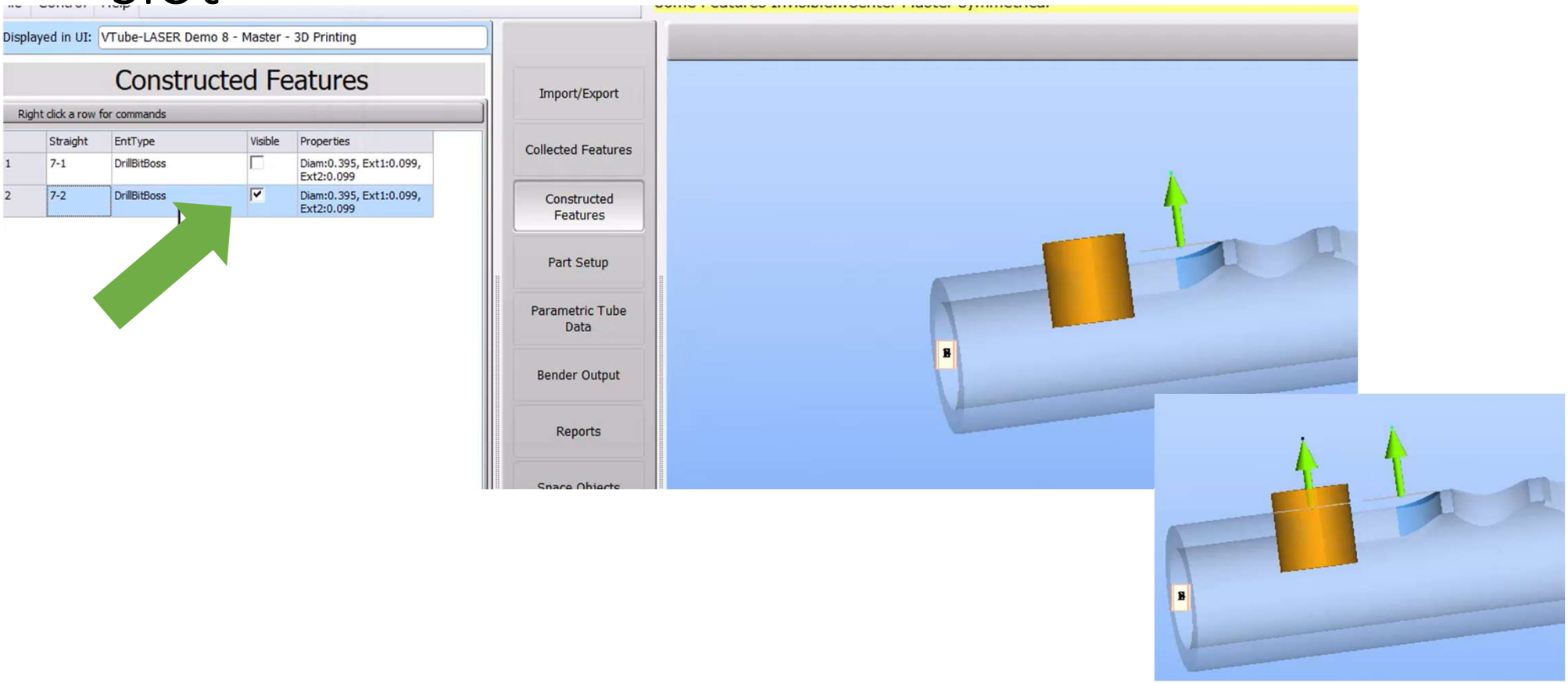




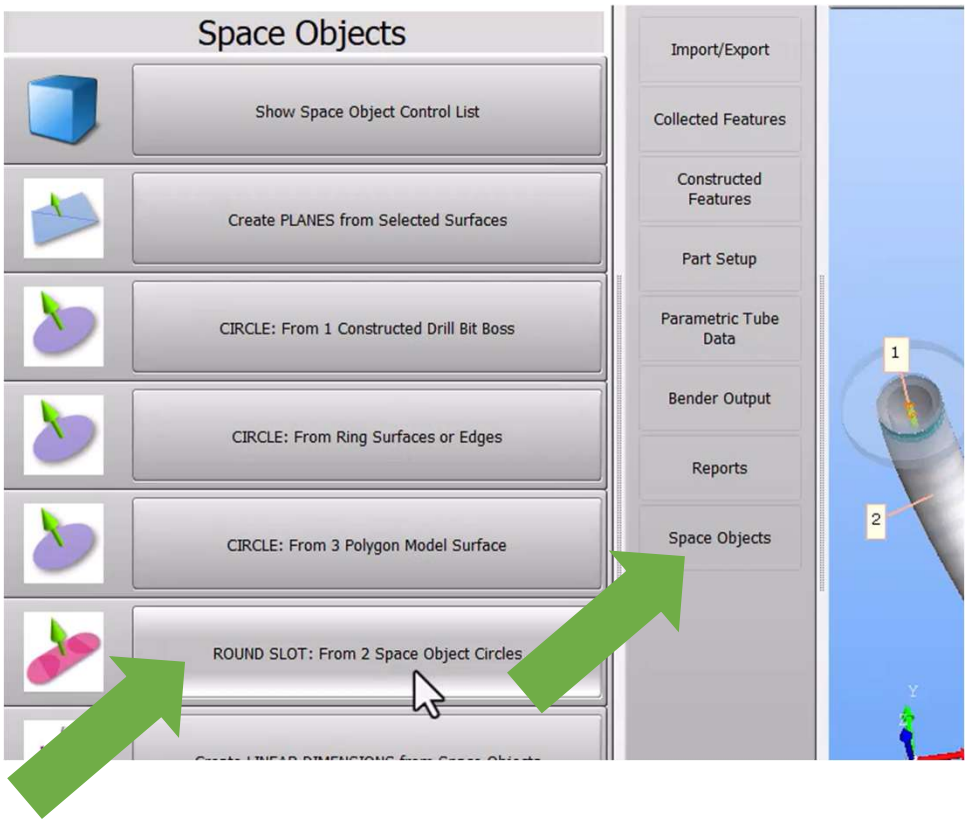
Rename for clarity going forward



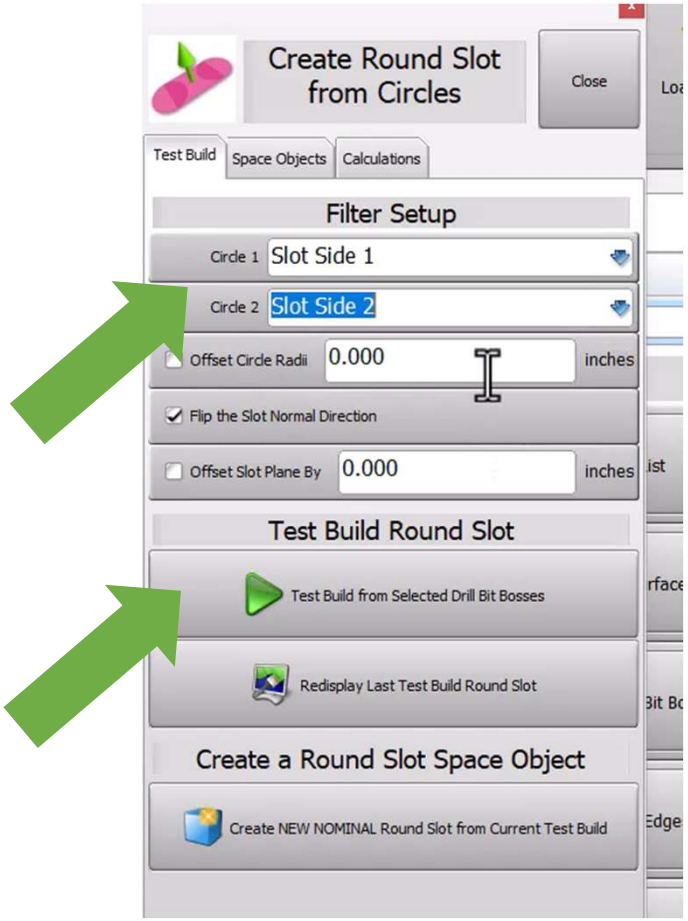
Repeat this process for the other side of the slot

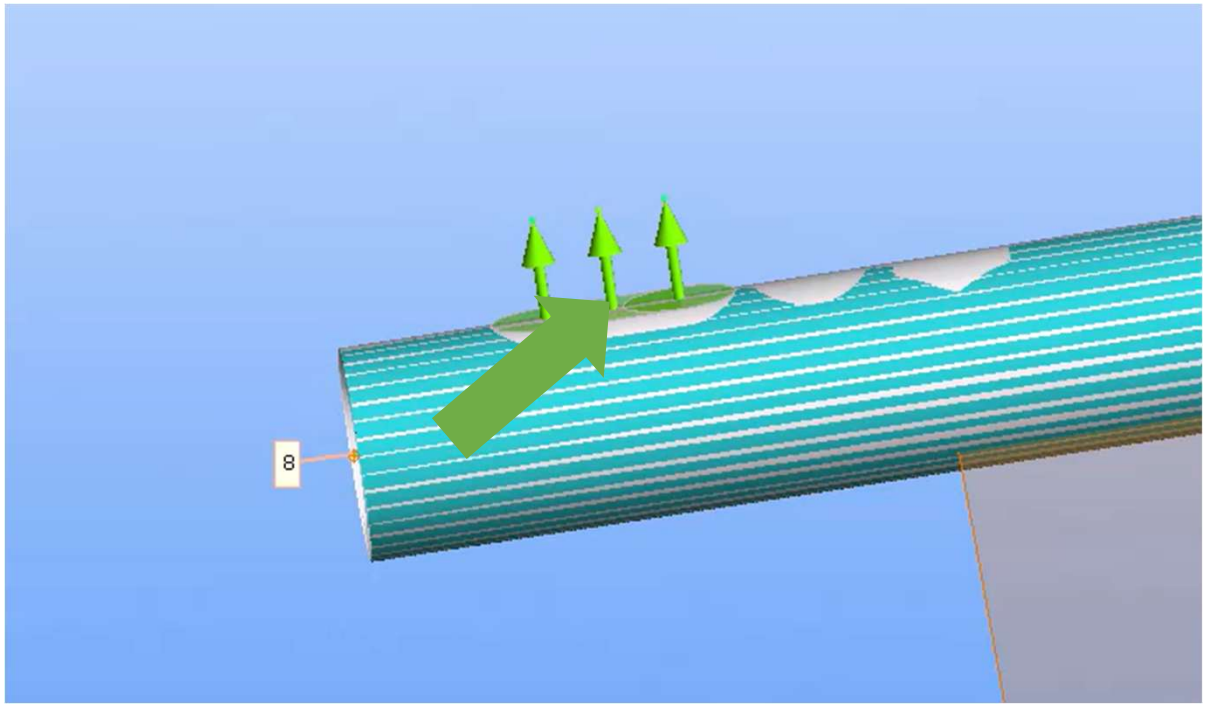


Once both sides of the slots have been collected, go to Space Objects > ROUND SLOT

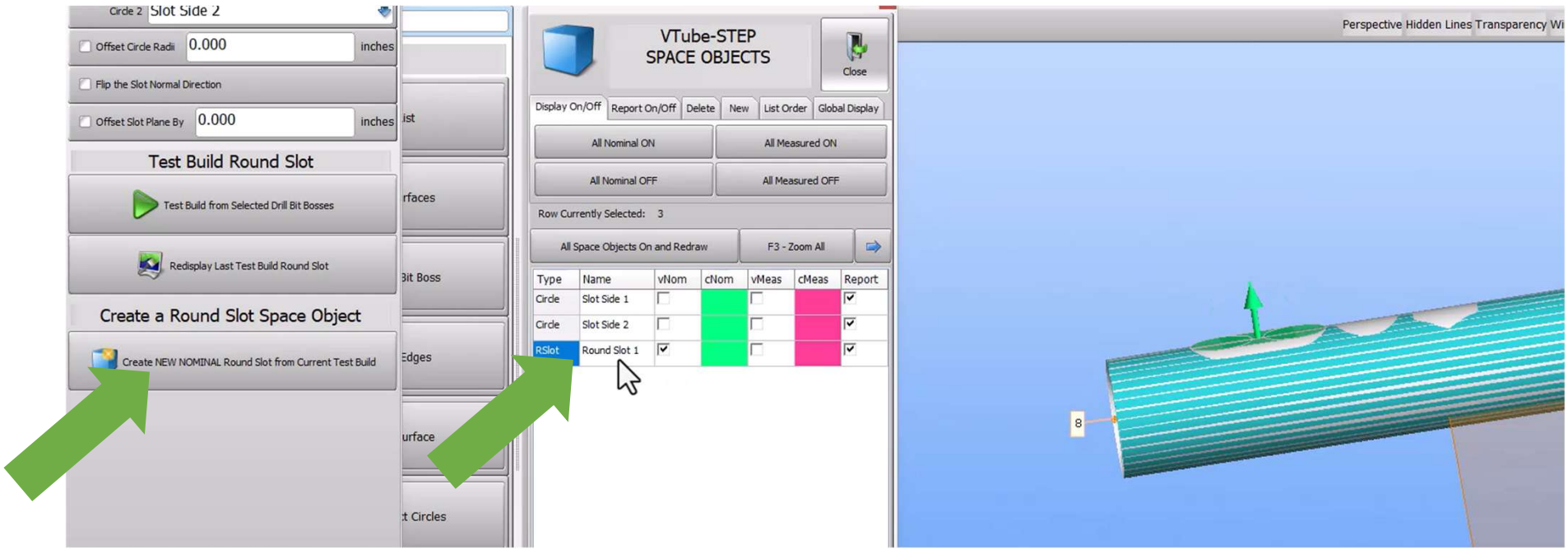


Select both sides of the slot under Filter Setup and create a TEST. This will put another arrow in the center of the slot.

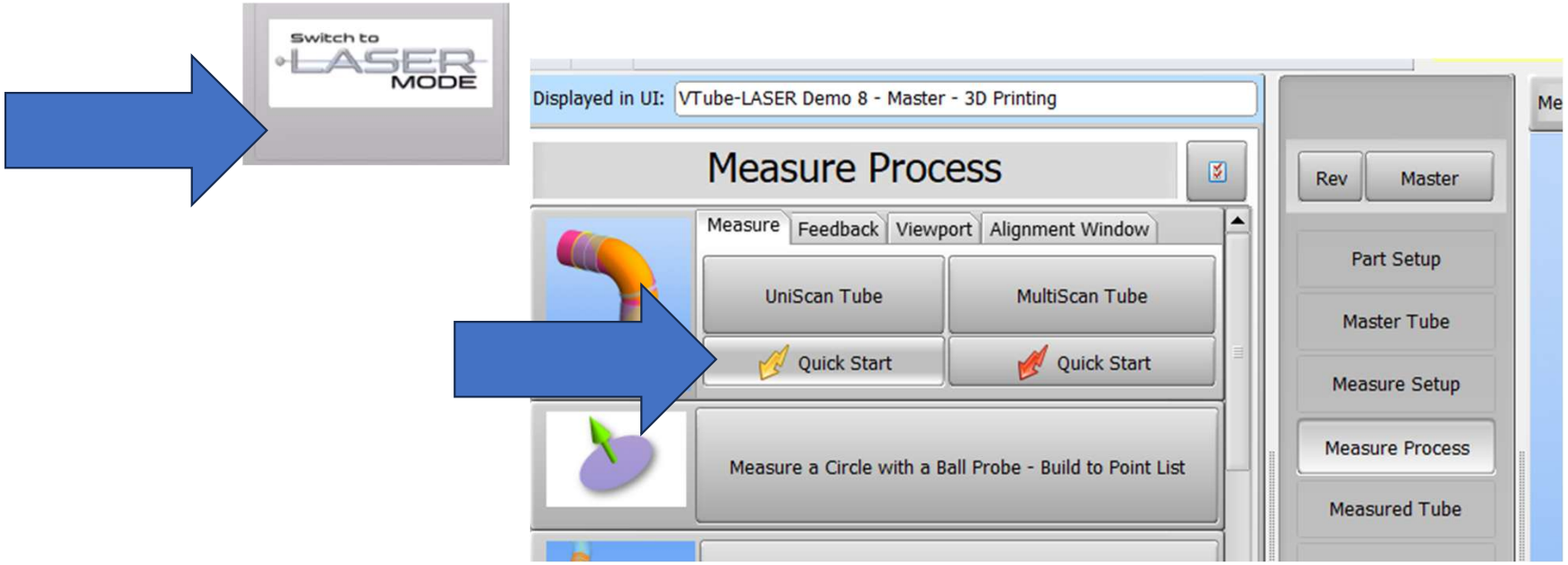




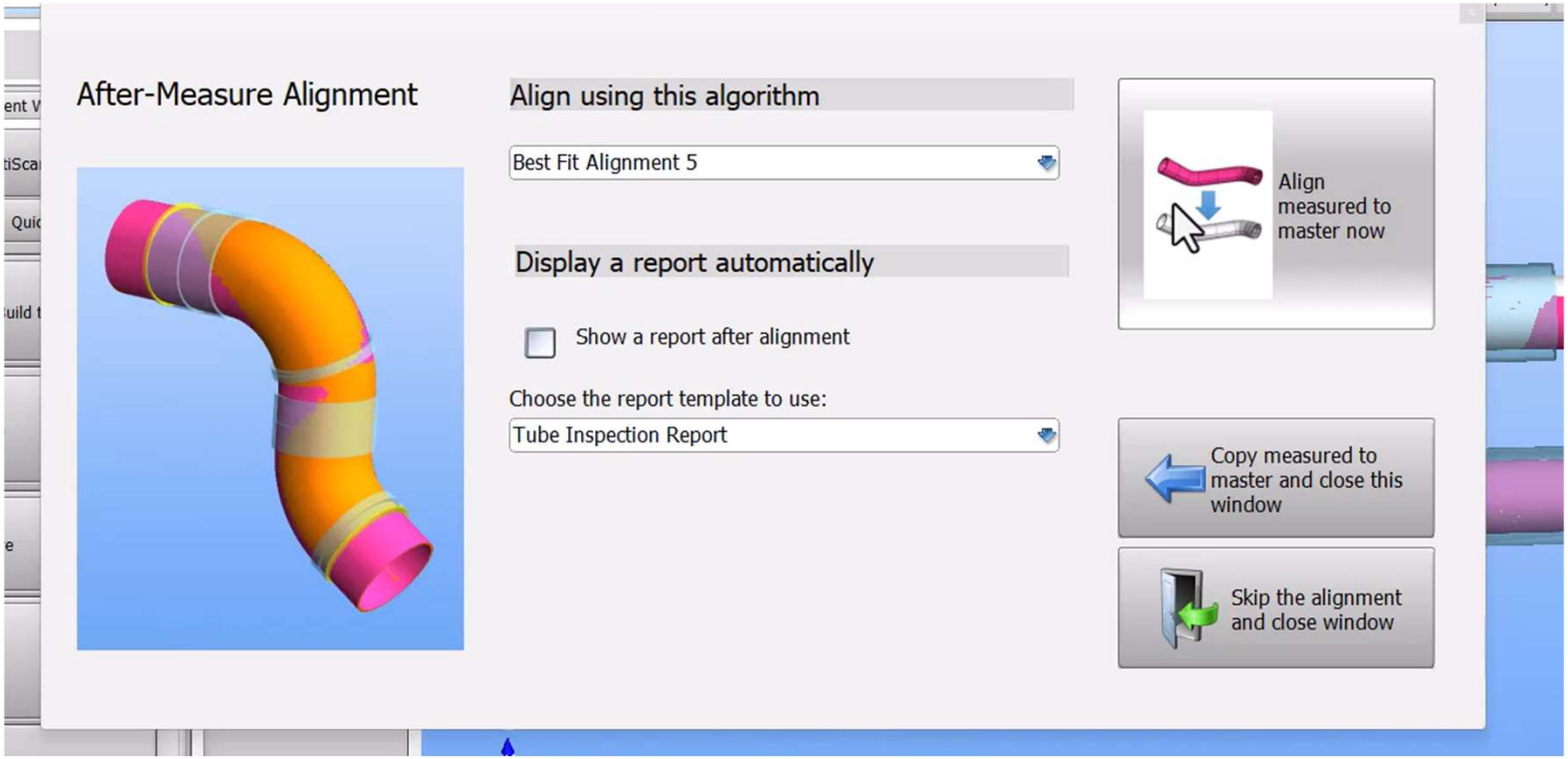
Create a Space Object



Switch to VTube-LASER and measure the main body of the tube as normal

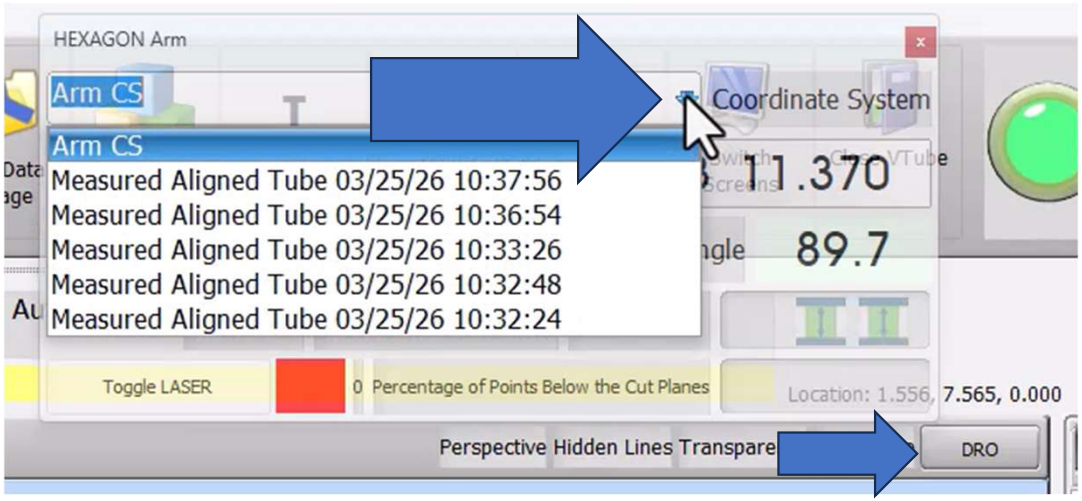


Align measured to master

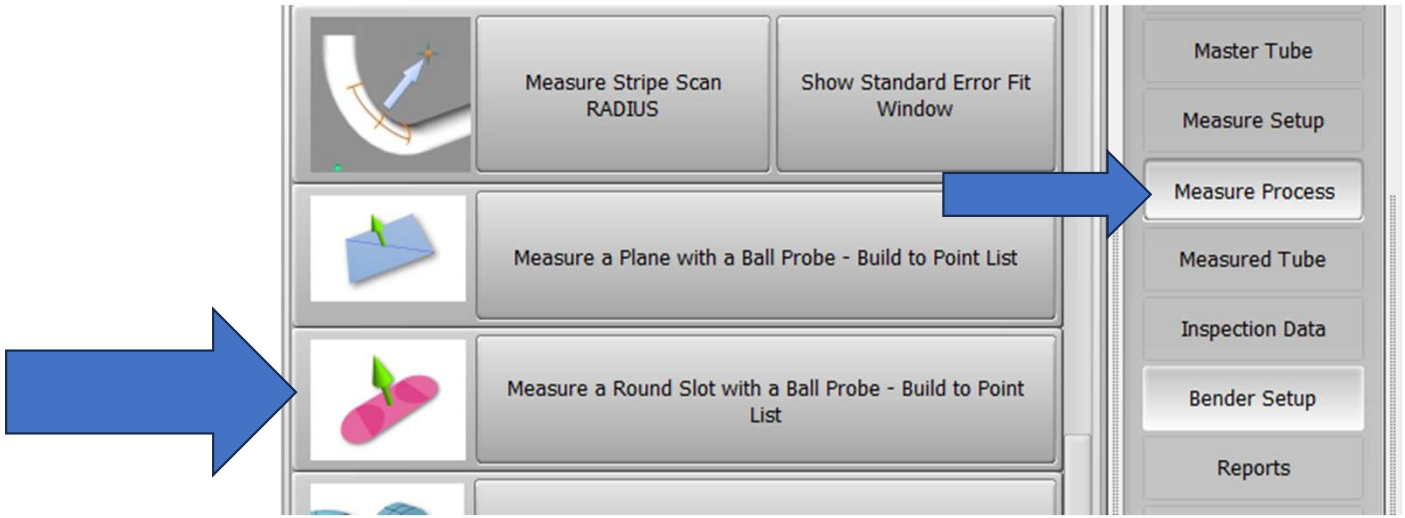


Change the Coordinate System from Arm CS to the most recent Measured Aligned Tube.

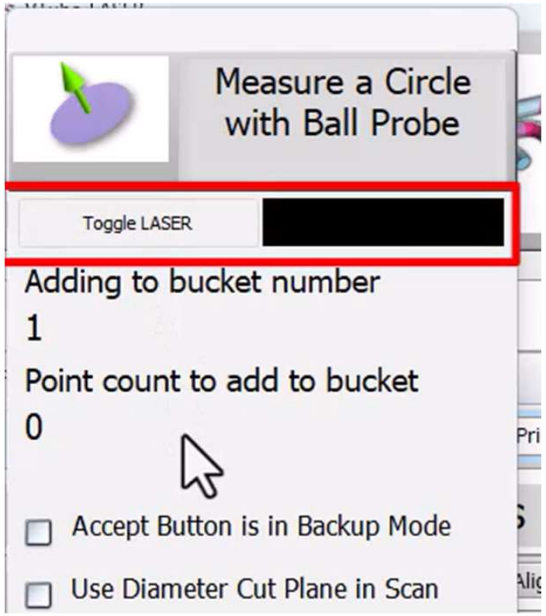
NOTE: The tube CANNOT move between the main measure and measuring the circle



Go back to measure process and select Measure a Round Slot with a Ball Probe



Toggle the LASER OFF

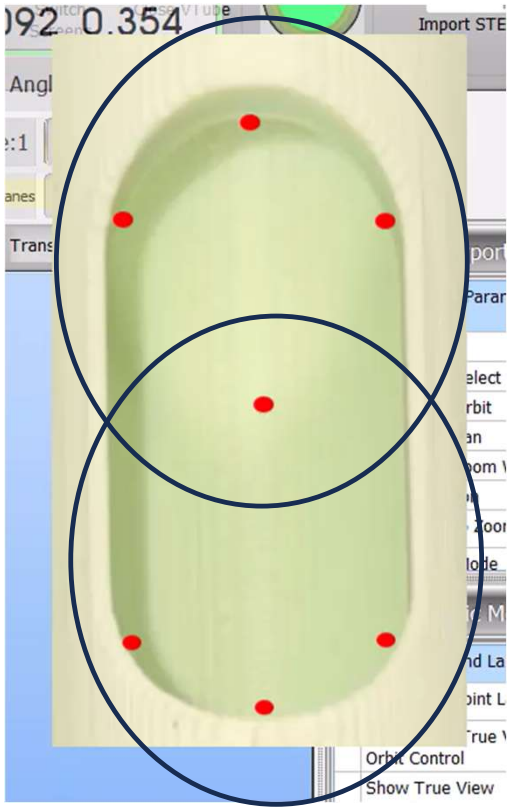


We are going to treat the slot as two individual circle measures

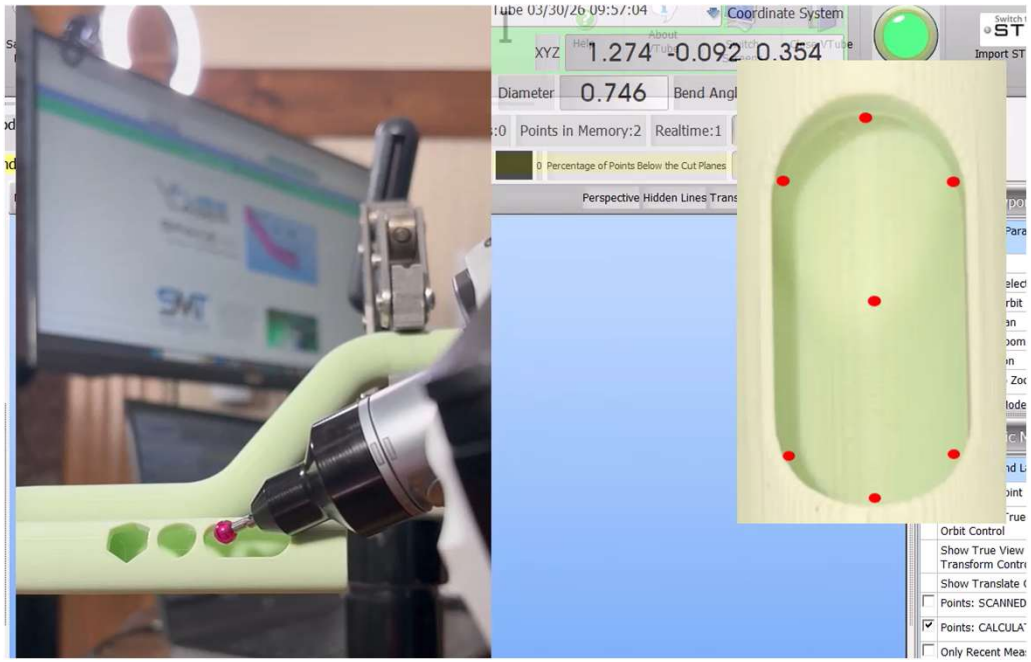
Measure

CIRCLE 1 of 2

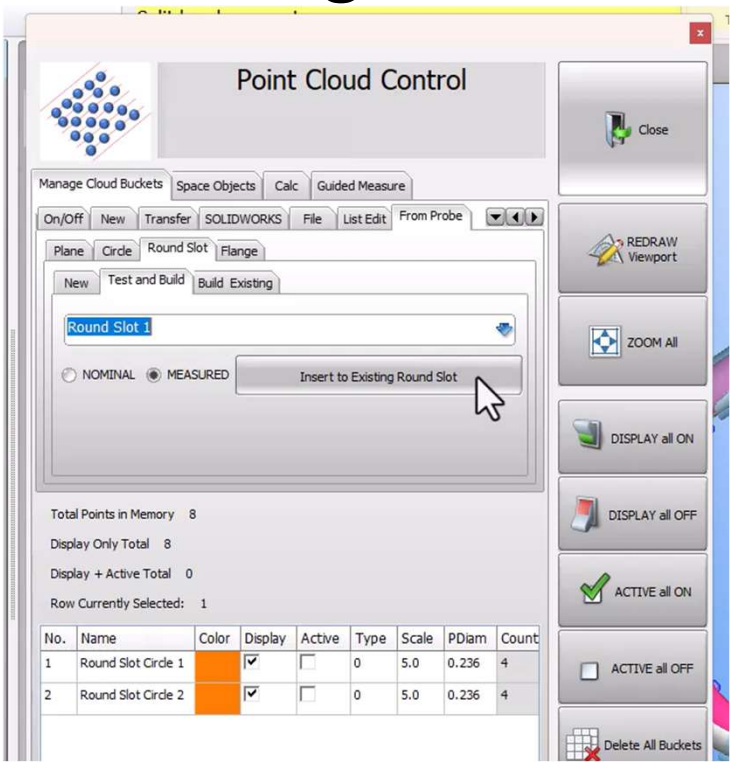
Measure 3 or more circle points, then a point toward/away for probe compensation direction.



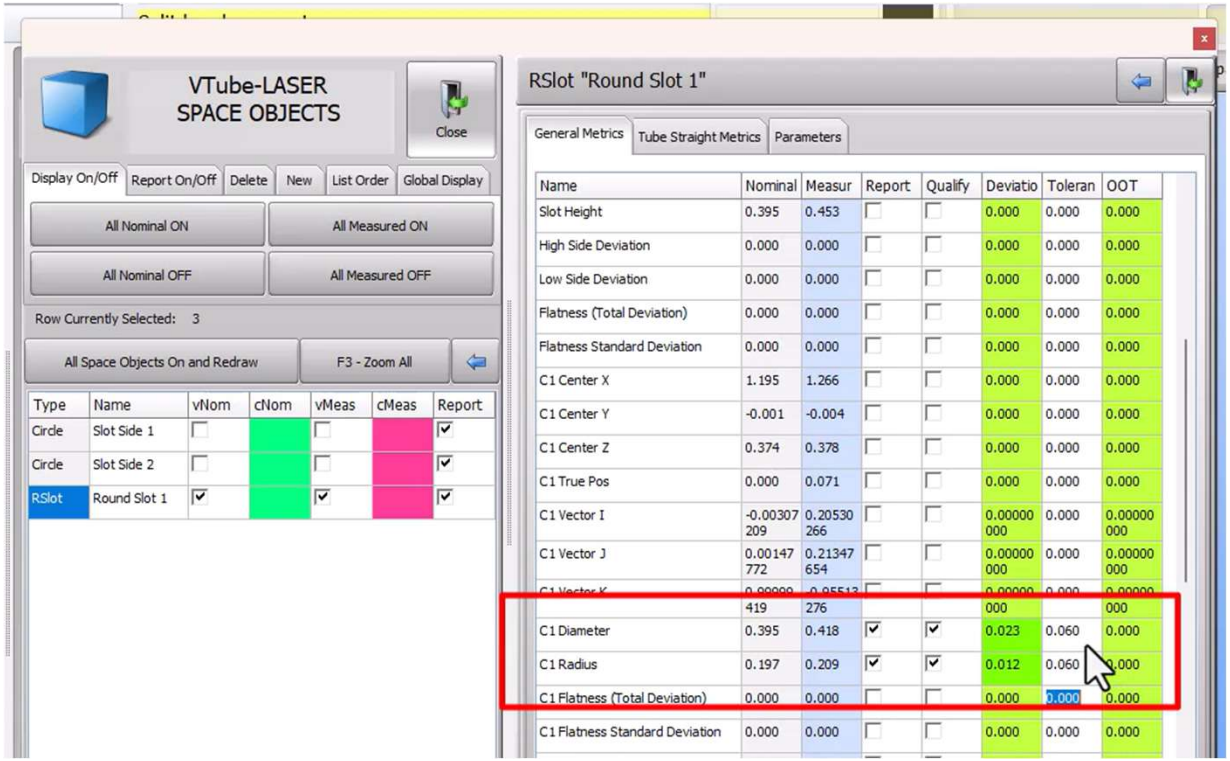
Measure 3 points around the perimeter of one side of the slot and a fourth point in the center as an offset point. Repeat on the other side of the slot. Click the rubber button on the arm left or right to accept between sides.



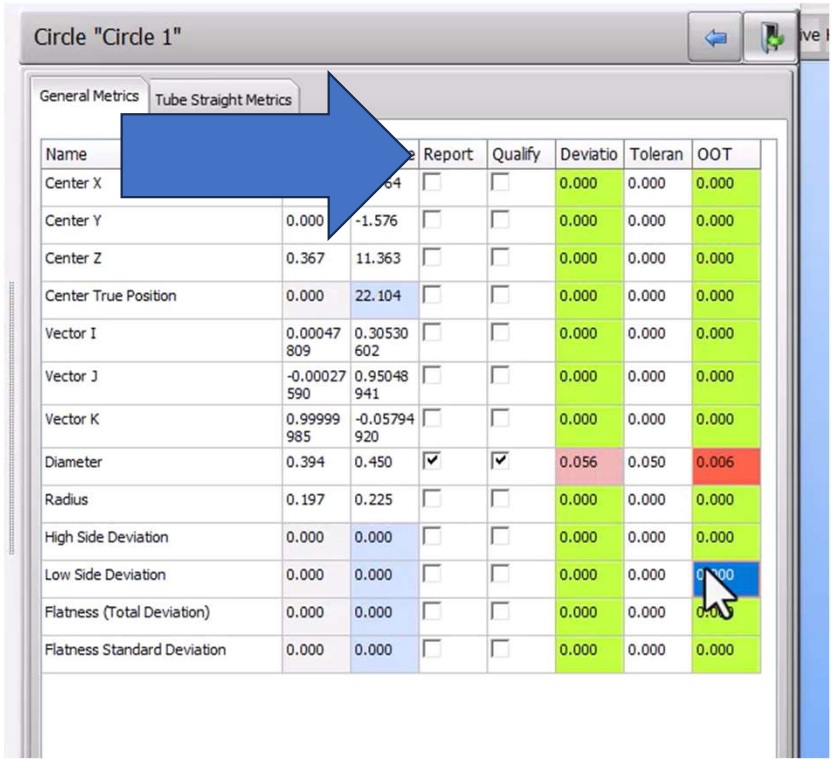
Go to the Test and Build tab and select the Space Object slot for the slot you just measured. Then press “Insert into Existing Circle”



In the Space Object Control list, expand the tabs to view the nominal and measured information

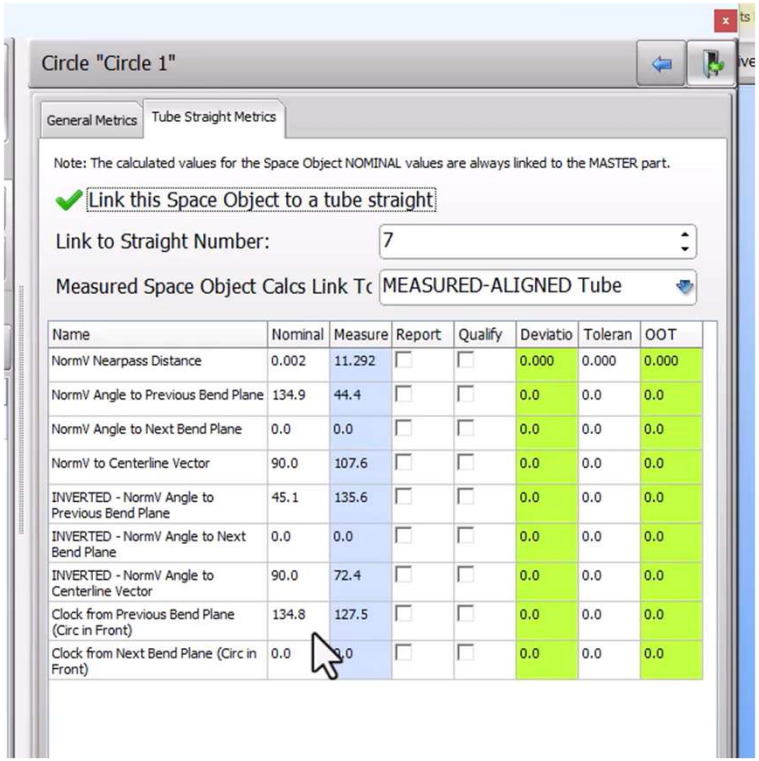


Click on Report and Qualify if you'd like to save the information to a report and set the tolerance



Name			Report	Qualify	Deviatio	Toleran	OOT
Center X		64	☐	☐	0.000	0.000	0.000
Center Y	0.000	-1.576	☐	☐	0.000	0.000	0.000
Center Z	0.367	11.363	☐	☐	0.000	0.000	0.000
Center True Position	0.000	22.104	☐	☐	0.000	0.000	0.000
Vector I	0.00047809	0.30530602	☐	☐	0.000	0.000	0.000
Vector J	-0.00027590	0.95048941	☐	☐	0.000	0.000	0.000
Vector K	0.99999985	-0.05794920	☐	☐	0.000	0.000	0.000
Diameter	0.394	0.450	☑	☑	0.056	0.050	0.006
Radius	0.197	0.225	☐	☐	0.000	0.000	0.000
High Side Deviation	0.000	0.000	☐	☐	0.000	0.000	0.000
Low Side Deviation	0.000	0.000	☐	☐	0.000	0.000	0.000
Flatness (Total Deviation)	0.000	0.000	☐	☐	0.000	0.000	0.000
Flatness Standard Deviation	0.000	0.000	☐	☐	0.000	0.000	0.000

You can see more information under the Tube Straight Metrics tab after linking the circle to the correct straight



View the information you wish to see on the Space Objects report