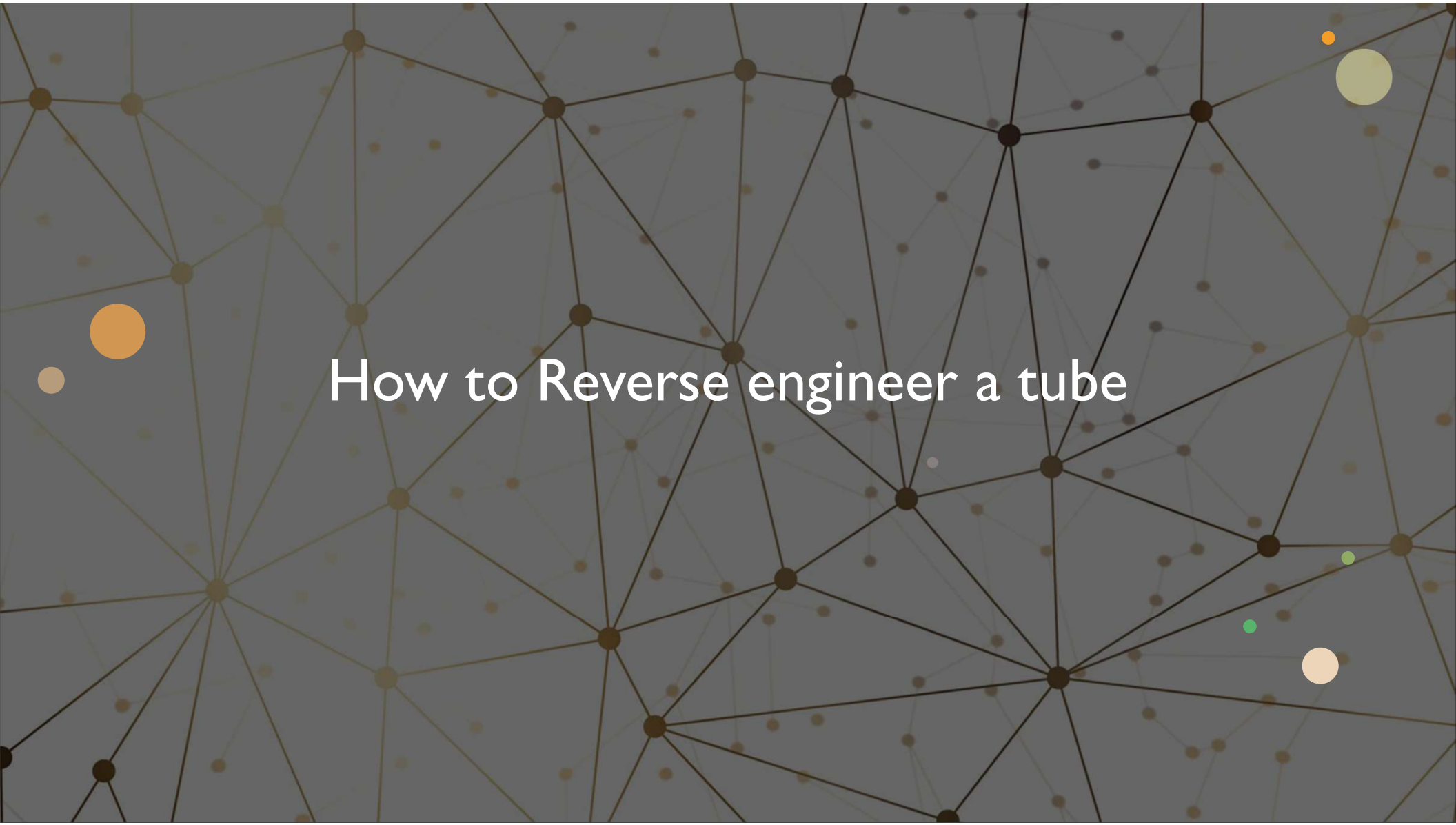
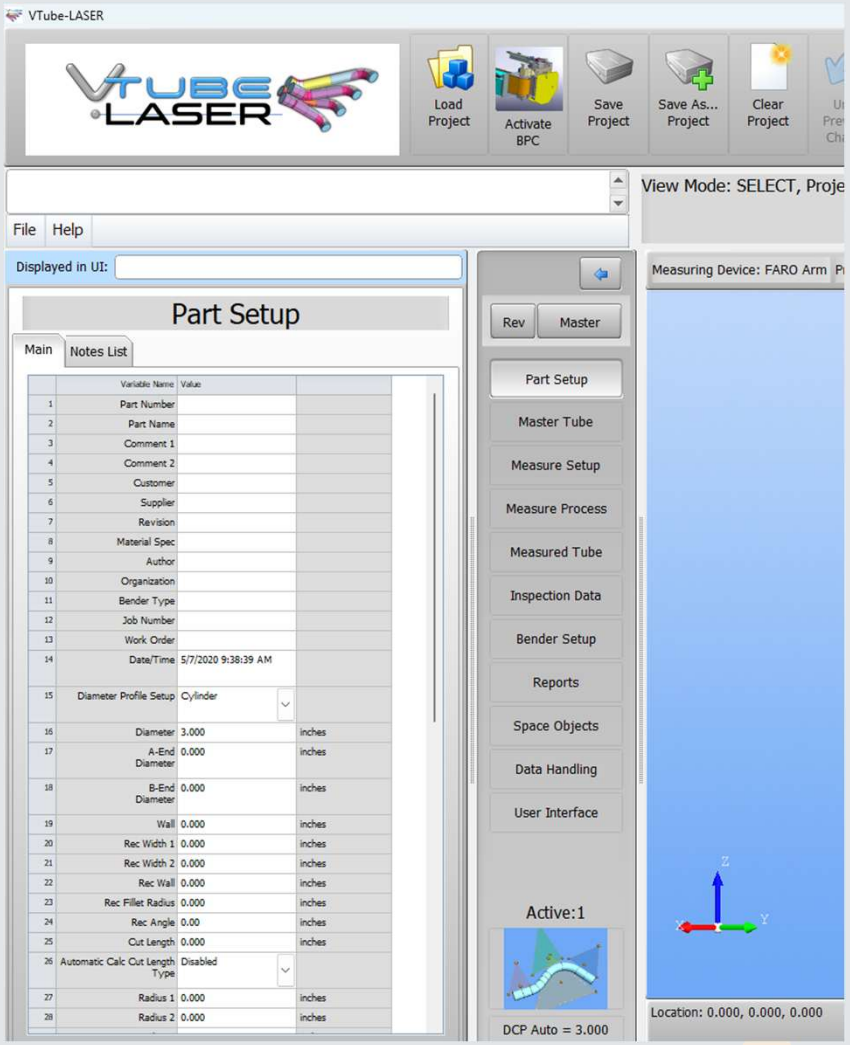
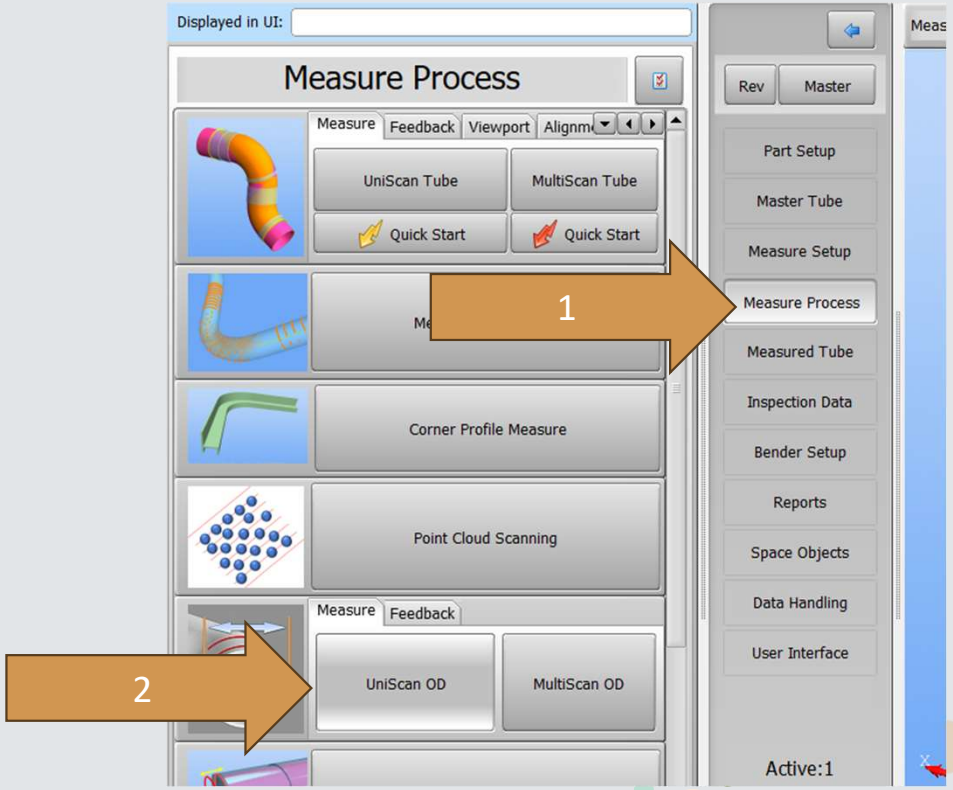

How to Reverse engineer a tube

1- Clear project
2- Go to Part Setup
3- Enter (if known):
    Part Number
    Diameter
    Radius

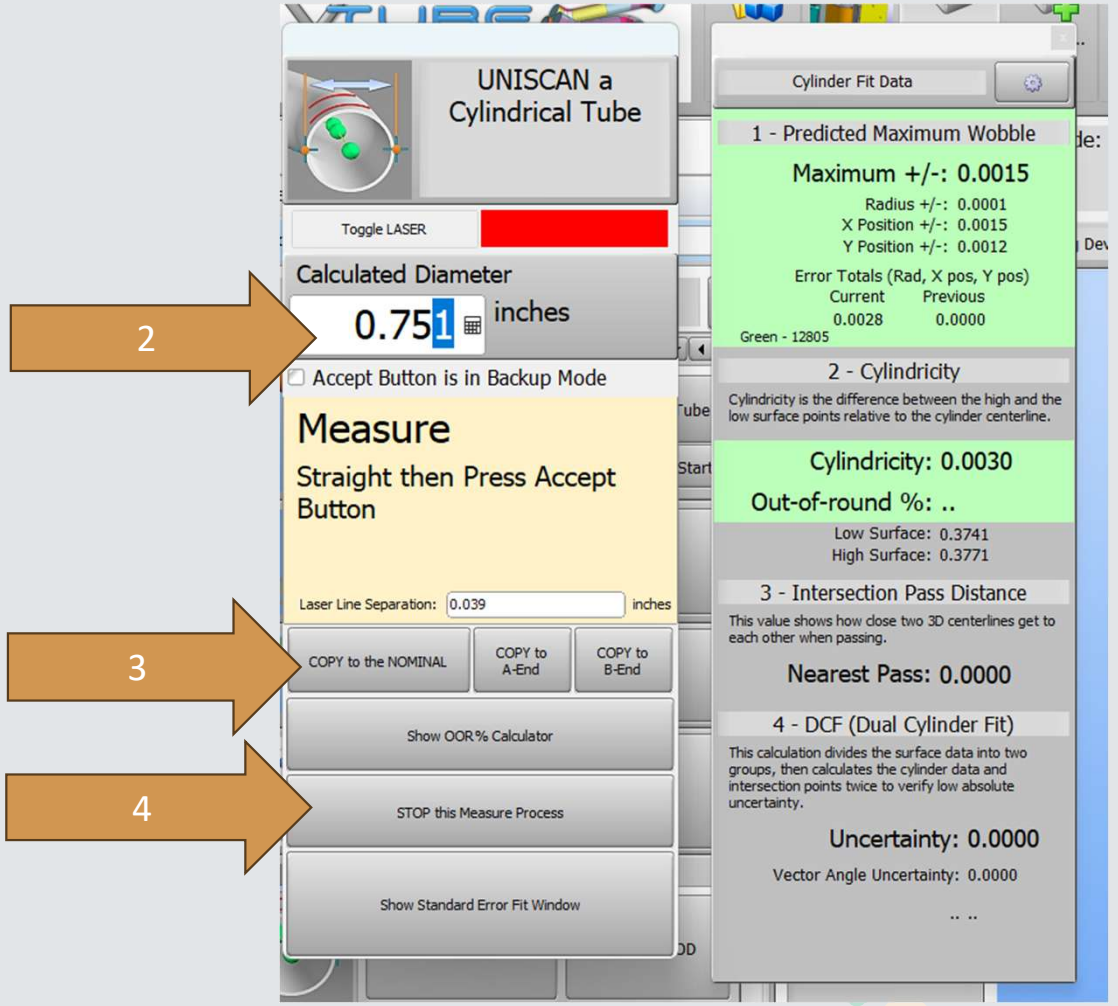


To measure the diameter

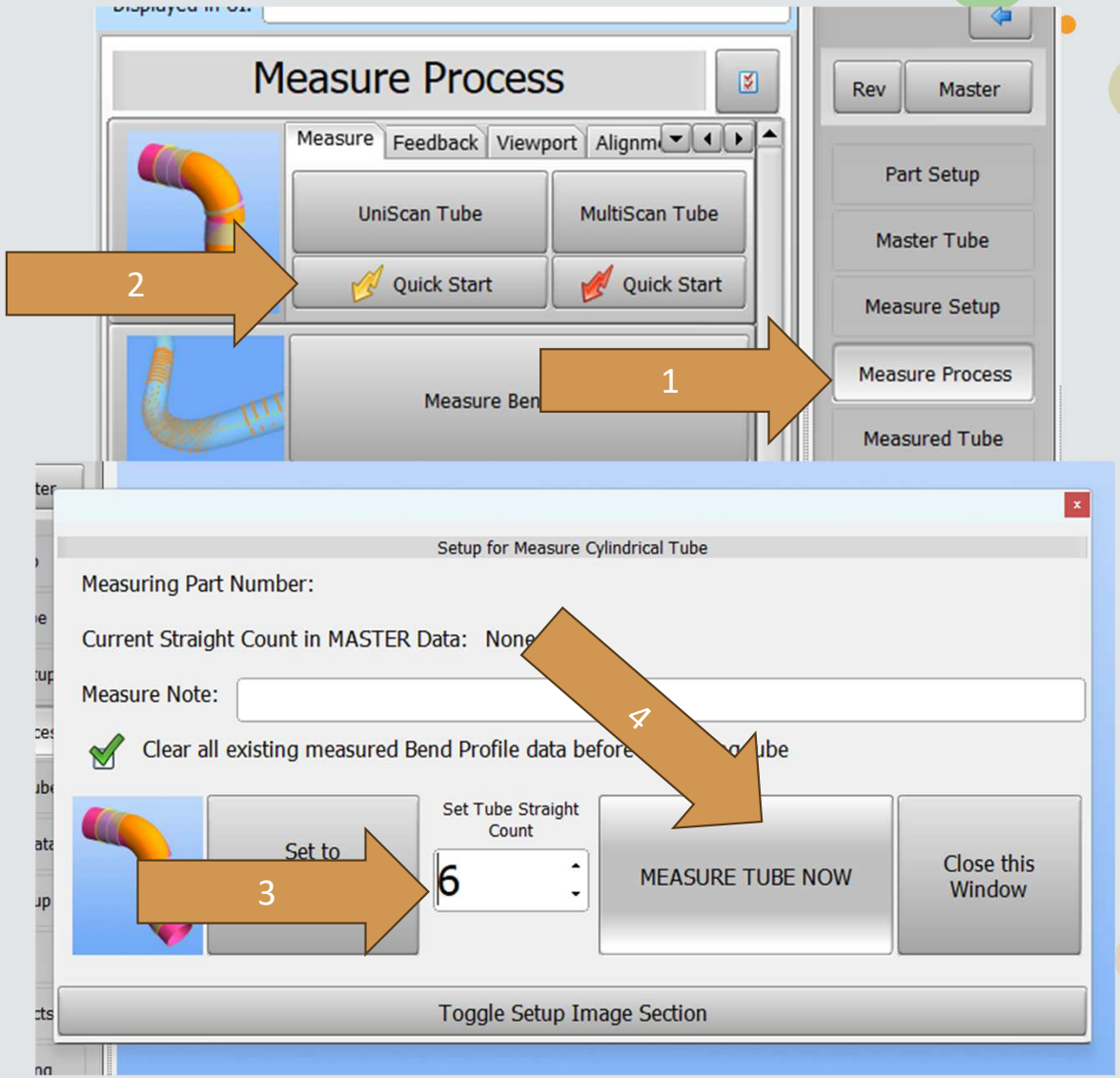
1- Go to Measure Process
2- UniScan OD
3- Measure any straight in any direction. The arm is being used as calipers to get the diameter of the tube



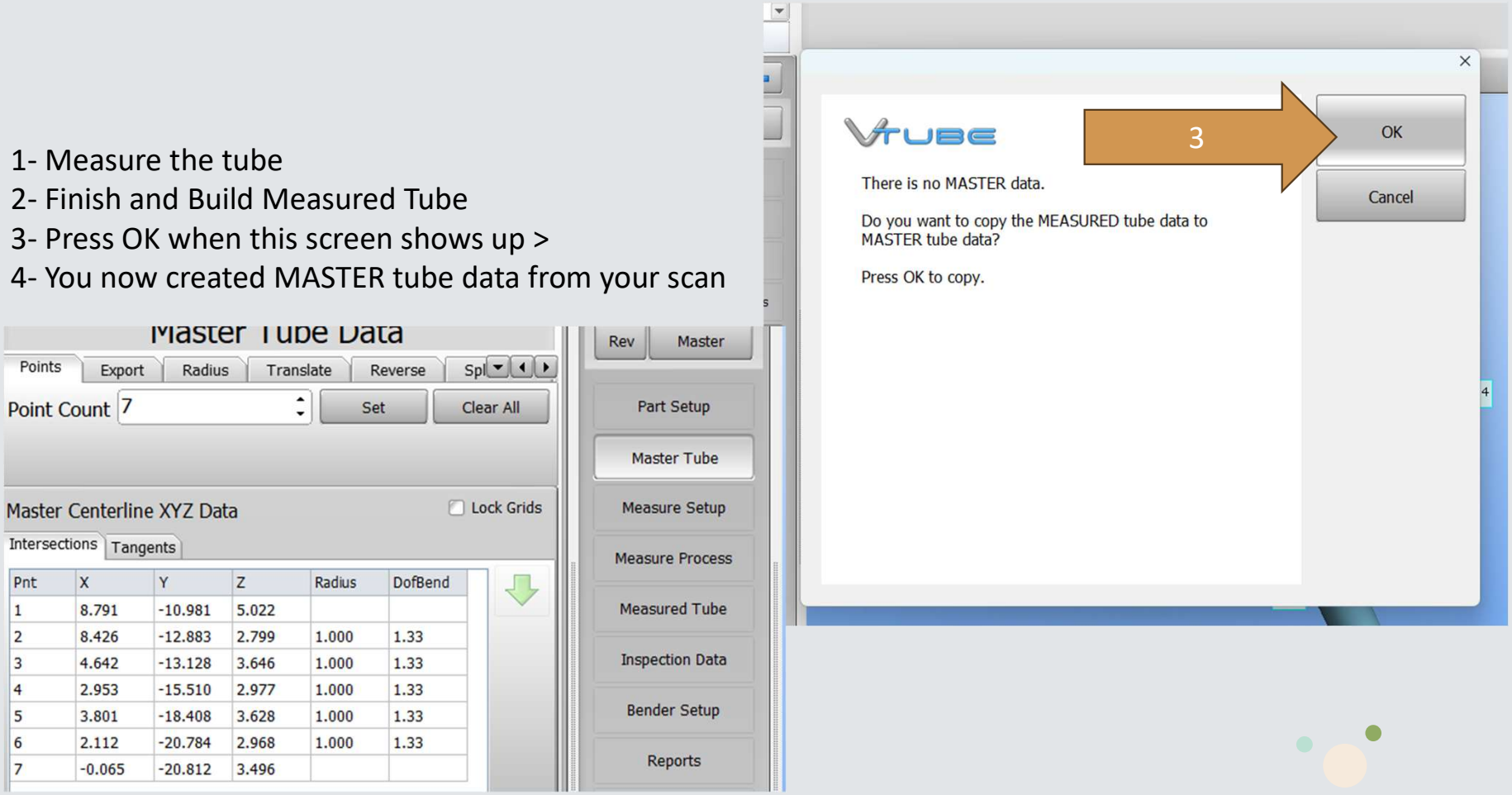
1- Measure the diameter
2- Nominalize the information if desired
3- COPY to the NOMINAL
4- STOP this Measure Process



1- Go to Measure Process
2- Press Quick Start
3- Enter the number of **STRAIGHTS**
4- Measure Tube Now



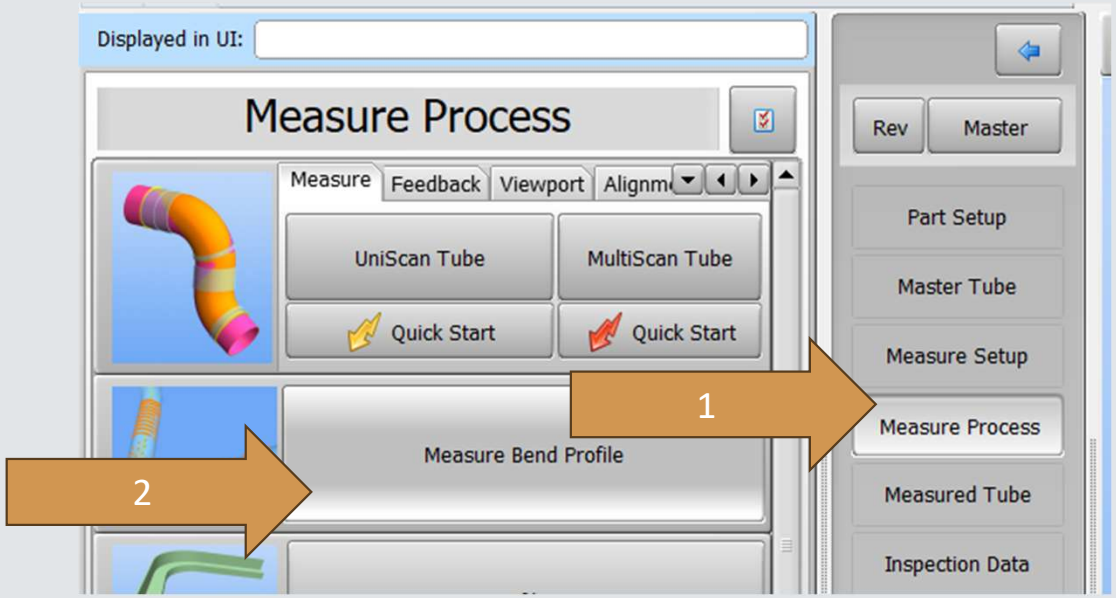
1- Measure the tube
2- Finish and Build Measured Tube
3- Press OK when this screen shows up >
4- You now created MASTER tube data from your scan



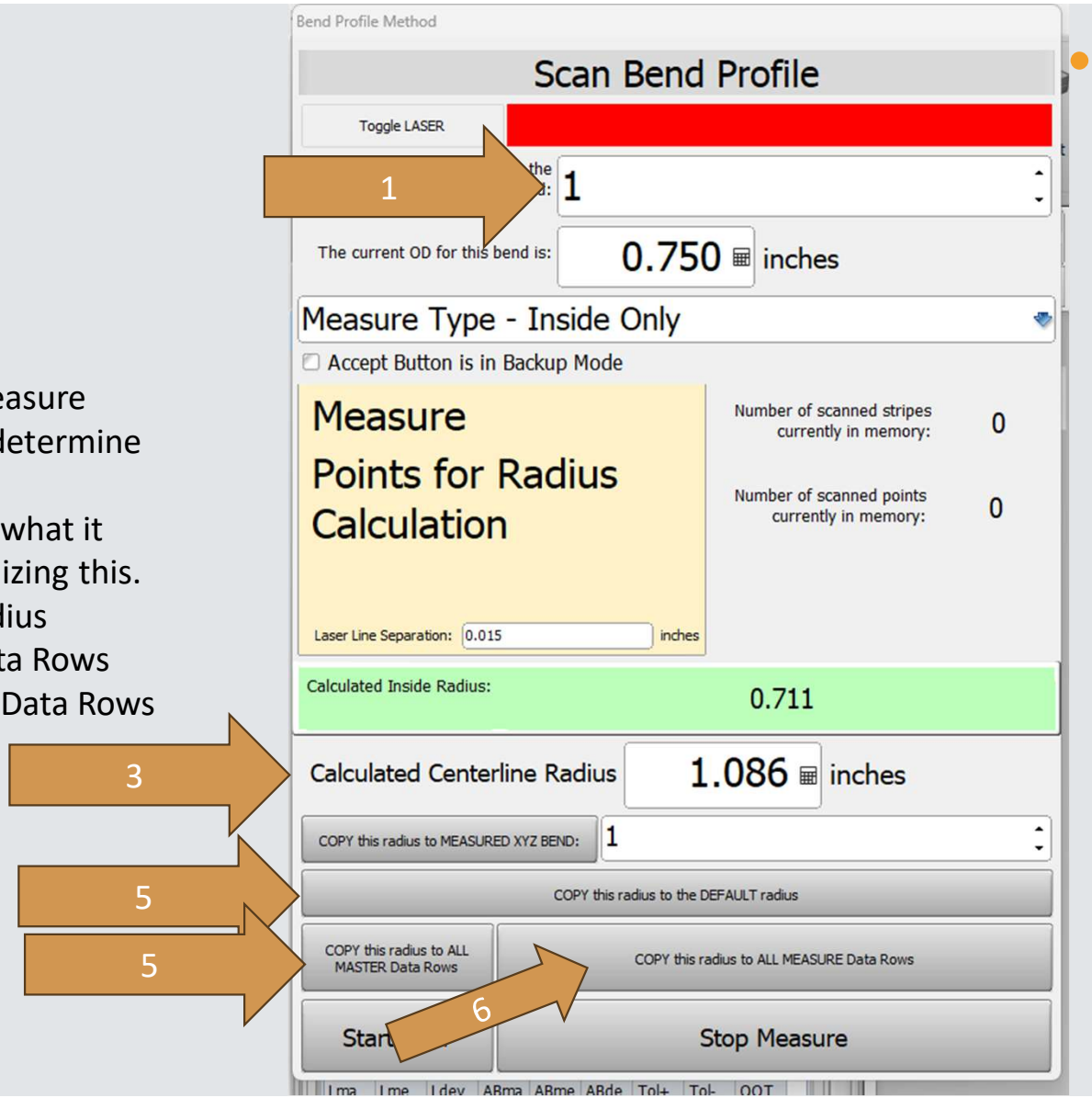
To measure the bend radius

To measure the bend radius, the tube CANNOT move between the first scan and the radius scan.

1- Go to Measure Process
2- Measure Bend Profile



1- Choose which bend you want to measure
2- Measure the inside of the bend to determine the radius
3- The Calculated Centerline Radius is what it measure, but we recommend nominalizing this.
4- COPY this radius to the DEFAULT radius
5- COPY this radius to ALL MASTER Data Rows
6- COPY this radius to ALL MEASURED Data Rows



Finished!

- You have now measured:
  - The tube diameter
  - The tube shape (straights)
  - The tube radius

	Variable Name	Value	
1	Part Number	VTube-LASER Demo 6	
2	Diameter	0.750	inches
3	Radius 1	1.000	inches

Incremental | SB Compensated | Absolute | 360CW | 360CCW

Incremental LRA

	L	R	A	Radius	Rad Level
1	1.945	0.0	90.2	1.000	1
2	2.344	-154.4	56.6	1.000	1
3	1.915	48.7	57.0	1.000	1
4	2.002	179.8	57.1	1.000	1
5	1.874	-48.3	59.5	1.000	1
LL	1.668				