



# Advanced Tube Bending Training

3 Day Lecture-Lab | Hands-on Bending Exercises

## Learn From An Expert

Sound tube bends are hard to achieve in any condition or setting, no matter how simple it may appear. Attempts to do without proper training may cost you expensive downtime and money. This valuable three-day course will challenge attendees with a variety of exercises designed to improve their abilities with both basic and advanced bending techniques in any situation.

This training will provide you with:

- A detailed, mathematical approach that will improve accuracy, allowing for better quality prototypes and output
- Improved system performance and enhanced aesthetic qualities of your tubing system  
Reduced scrap and rework time caused by inaccurate or unqualified tube bending practices
- An emphasis on operational issues, overcome through unique, hands-on learning experiences

## Who Should Take This Seminar?

*Hands-on personnel who need to learn the art of tube bending or upgrade their skills. Engineers who design systems that include bent tubing. Supervisors of operations personnel. Quality assurance and quality control personnel.*

## How Can Swagelok Training Help?

The seminar is a hands-on, lecture-lab that provides a deep dive into tube bending. Students gain practical experience using tools-of-the-trade.

Primary topics will include:

- Using the Swagelok Hand Tube Bender
- The Measure-Bend Method of Tube Bending
- The Swagelok Method of Tube Bending
- How to make both simple and custom offset bends
- Making both segmented bends and rolling offsets
- Understanding constraints of tube bending, such as minimum distances between bends
- Hands-on experience constructing a peg board
- How to use Swagelok electric bender (ETB) and bench top tube bender (BTTB)(Day 3)
- Additional time to complete all the types of bends and finish constructing the peg board as well as bend larger tubing using the ETB and BTTB (Day 3)

**Where: Swagelok Northern California**  
**3393 West Warren Ave**  
**Fremont, CA 94538**

**When: April 2-4, Tuesday-Thursday, 8am-5pm**  
**Oct 22-24 Tuesday-Thursday, 8am-5pm**

**Price: \$2,249 (Seating Is Limited)**

Register at [NorthernCal.Swagelok.com/events](https://NorthernCal.Swagelok.com/events) or Scan QR Code

