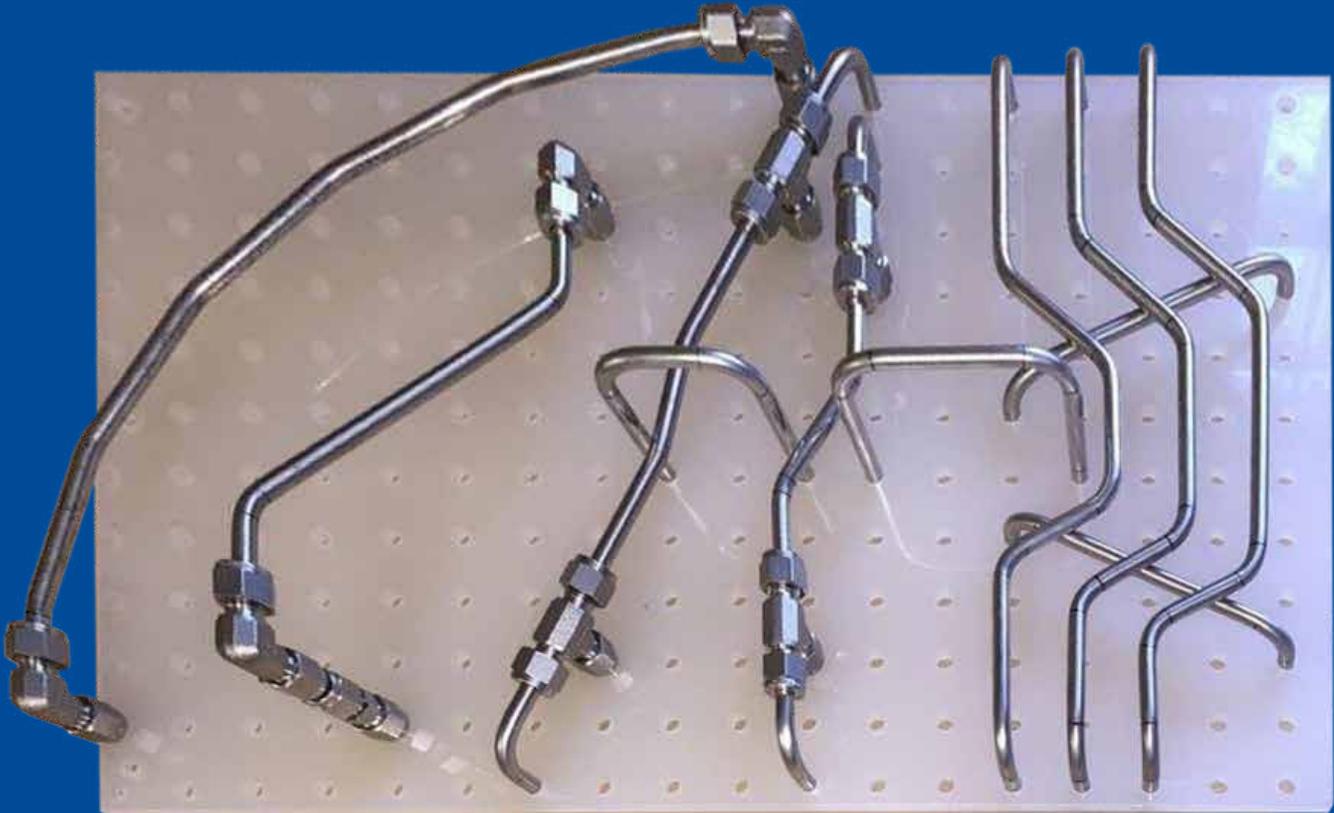
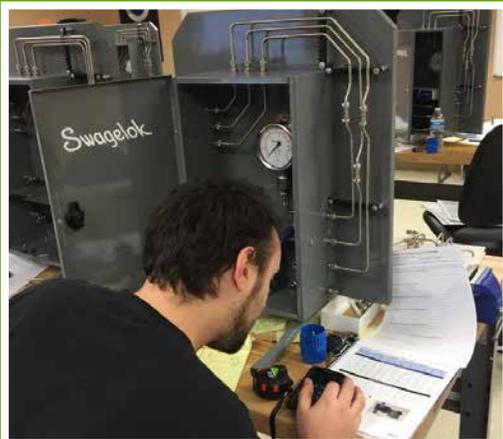


# Swagelok®

Swagelok Pittsburgh | Tri-State Area



## ADVANCED TUBE BENDING TRAINING



# ***Substantially improve your***

*Fluid-System Maintenance skills and value with Swagelok's globally renowned Advanced Tube Bending course!*

**in just 3 DAYS,  
YOU will learn  
how to safely and expertly:**

- ...apply a traditional Measure-Mark-Bend Method
- ...apply **Swagelok's unique Bending Method for ultimate accuracy**
- ...calculate bend offset lengths
- ...calculate the minimum amount of tubing needed for back-to-back bends
- ...calculate the minimum distance needed between bends
- ...maintain spacing when making parallel tubing runs
- ...make tube runs without a drawing or template
- ...calculate and make rolling offset bends
- ...use hand and benchtop tube benders
- ...identify and avoid bend defects
- ...identify and address the potential variables encountered when bending
- ...make offset, rolling offset, parallel, complex, and segmented bends
- ...and so much more!

*"Not only will I now save time and money while making bends...my work will also look more professional."*

*"The instructor takes tube bending to another level."*

*"Now I have the confidence to do any bending job given to me in our shop."*

**Classes offered at our  
Pittsburgh Training Center **OR** at your facility.**

***We supply all training materials:***  
*componentry, large electrical box, tube benders...*  
*Students simply need to show up!*

## **all participants receive**

- Swagelok Advanced Tube Bending Workbook
  - Tube Bending Fractional Data
  - Measurement Worksheets
- Genuine Swagelok Certificate of Completion
  - Continuing Education Credits

**Complete money-back guarantee!**



**Meet your instructor:**  
**MIKE GAGEL,**  
*a 20-year Swagelok Company veteran, our Strategic Services Specialist, and certified tube-bending master.*

## ***Graduate Testimonials:***

*"Even though I've been bending tubes for a long time, I learned plenty."*

*"I'll now be able to stop wasting time and material."*

*"I learned new – and better – ways to bend tubes."*

*"You can bet I'll make fewer mistakes when making complicated bends."*

*"Anyone who bends tubes needs to enroll in this class."*

*"I especially benefitted from the hands-on portion of this class."*

*"Highly informative and fun!"*

*"Came away feeling confident about making high-quality offset bends."*

*"Now feel I can master the rolling offsets and parallel runs that used to give me trouble."*

*"This course is ideal for Mechanics who have to make multiple tubing runs."*

*"I know now that my bending will certainly help improve the quality of our finished product."*

*"I can bend anything now."*

*"Learning the Swagelok Bending Method was the highlight for me."*

*"Being able to make more accurate measurements will mean far less wasted tubing."*

*"Any Engineer incorporating bends into a design would find this session worthwhile."*

*"Never knew the impact and importance of bend deduction and gain."*

*"Learning the calculations to bend tubing more precisely was my big takeaway."*

*"This class offers something for benders of all levels: beginners as well as experienced."*

*"I used to create so much scrap when bending...now I know I can make tubes that fit."*

*"Hearing bending theory...then putting it into practice...wonderful learning experience."*

*"Enables me to now make unassisted tubing repairs on our skids."*



## Swagelok Pittsburgh | Tri-State Area



**We offer an unparalleled array of pertinent and timely safety-first course titles – and can bring our instruction directly to your facility or project site. Reserve your Swagelok training event today: *Advanced Bending, Fitting Installation & Tube Bending Essentials, Fitting Inspection Essentials, Hose Essentials, Valve Essentials, or (coming soon) Regulator Essentials!***

### Contact Us:

**P:** 412.761.3212

 [pittsburgh.swagelok.com](http://pittsburgh.swagelok.com)

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