

Tube Bending Essentials

■ Target Audience

Technicians, maintenance and engineering personnel looking to gain valuable knowledge and experience in the theory and practice of tube bending. The course covers hand tube bending from 1/8" to 1/2" OD (3mm to 12mm OD) plus an additional module is available for the Swagelok Bench Top Tube Bender (BTB) covering tubing sizes up to 1 1/4" OD (30mm OD).

■ Course Length

1 Day

■ Practical Content

50%

■ Theoretical Content

50%

■ Course Aims

To provide delegates with a comprehensive understanding of the various methods of tube bending. Utilising the Swagelok Hand Tube Bender each delegate will complete a variety of exercises comprising of 45°, 90° & 180° bends on different planes using offset calculations. Each delegate will measure then bend tubing to fit out an enclosure internally & externally with tubing runs.

■ Course Content

- Understanding Tube Bending Terminology
- Variables - Springback, Stretch & Gain
- Bend Layout Calculations: Measure Bend, Pre-Measure Then Bend & The Swagelok Method (BTB Only)
- Overall Length Calculation To Avoid Wastage
- The Three Marks Used In Tube Bending
- Offset Bend Calculations
- Troubleshooting - Tube Bending Defects
- Swagelok Hand Tube Bender - Practical Activities
- Swagelok Bench Top Tube Bender - Practical Activities

■ Delivery

Classroom and Training Workshop

**PART NUMBER:
TSG-SMTUBEBEND**

■ Certification

Swagelok® Certificate of Completion – valid for 3 years

■ Instructor

Swagelok® Certified Trainers

■ Times of Training

09.15 - 15.30 (+ BTB Module 16.30)

■ Venues

Swagelok Scotland

Silvertrees Drive, Silvertrees Business Park, Westhill, Aberdeen, AB32 6BH

Swagelok Teesside

STEM Centre, Middlesbrough College, Windward Way, Middlesbrough, TS2 1QG

Swagelok Ireland

Unit 20, Southern Cross Business Park, Boghall Road, Bray, Co. Wicklow, A98 F590

■ Contact

On site courses are available. For further details, please contact our Training Division at scots.training@swagelok.com or call **+44 (0) 1224 759916**

SWAGELOK SCOTLAND
AUTHORISED SALES AND SERVICE CENTRE

T. +44 (0) 1224 759900
E. INFO@SCOTLAND.SWAGELOK.COM
W. WWW.SWAGELOK.COM/SCOTLAND

SWAGELOK TEESSIDE
AUTHORISED SALES AND SERVICE CENTRE

T. +44 (0) 1642 636320
E. INFO@TEESSIDE.SWAGELOK.COM
W. WWW.SWAGELOK.COM/TEESSIDE

SWAGELOK IRELAND
AUTHORISED SALES AND SERVICE CENTRE

T. +353 (1) 2864088
E. INFO@IRELAND.SWAGELOK.COM
W. WWW.SWAGELOK.COM/IRELAND



HEAD OFFICE: SILVERTREES DRIVE, SILVERTREES BUSINESS PARK, WESTHILL, ABERDEEN, AB32 6BH

Swagelok Scotland, Swagelok Teesside, Swagelok Ireland and Ireland Valve & Fitting Co are trading names of Fluid System Technologies (Scotland) Ltd.

Swagelok - TM Swagelok Company