

Tube Bending and Flaring

Objective: To acquire the knowledge and skills necessary to measure, cut, bend, flare and assemble copper pipe and fittings.

Prerequisites:

Observe Ridgid Manufacturer's Videos
Complete math assignment 26 Tube Bending
Pipe Fitters Handbook Section 2 assignment.
Instructor demonstration
Observe all safety precautions and use appropriate PPE.

Procedure:

1. Study piping diagram.
2. Sketch shop drawing with material list
3. Perform mathematical calculations for offset, setback and fitting allowances.
4. Gather tools and materials. Have fire extinguisher at hand.
5. Cut and solder copper tube and fittings with 95/5 solder.
6. Calculate 22.5, 45 and 60 degree offsets.
7. Flare pipe and connect offsets to soldered frame.
8. Perform pressure test. (60 psi)
9. Submit your work for assessment.

Assessment:

Submit work to instructor for inspection and testing. Document your work in your electronic portfolio with links, videos or pictures as appropriate.

Tools:

[Ridgid Geared Ratchet Bender](#)

[Ridgid 456 Tube Bender](#)