

Copper Tubing Photo Frame



Refrigeration Technology



Copper Tubing Photo Frame

Provided Materials

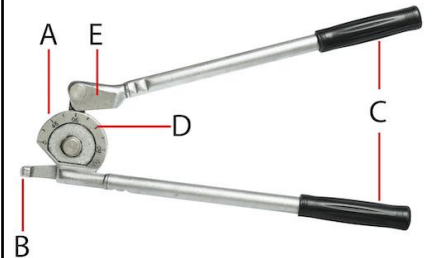
1. Copper tubing
2. Tubing cutter
3. Bending jig
4. Dual Lever Tubing Bender
5. Camera and film
6. Safety glasses
7. gloves

Required materials

1. Measuring tape
2. Felt pen



Parts of a dual lever tubing bender



- A: Former
- B: Holding clamp
- C: Handles
- D: Former angle markers
- E: Handle angle markers



Safety First.

Before you begin, put on safety glasses and work gloves.

Instructions

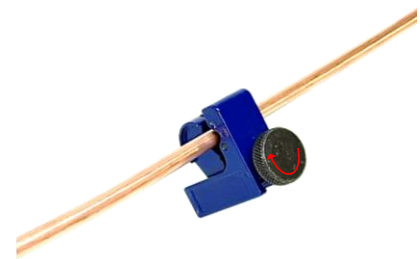
1. Mark the tubing

- Measure 23 3/4" of tubing (A). Mark a line with a felt pen.



2. Cut the tubing

- Using the tubing cutter (B), carefully cut the tubing by rotating the cutter around the work, turning the knob one half turn clockwise for each rotation of the tool. Do not apply excessive pressure with the knob, as this may squash the tubing.



3. Bend the tubing on the jig

- Place the cut length of tubing on the bending jig (C).
- Place one end against the lower stop.
- Place the free end between the side stop and the cylinder.
- The free end will extend beyond the upper end of the jig (Fig.1).



Fig.1

- By hand, bend the free end of the tubing to the right around the cylinder until it points toward the lower end of the jig (Fig.2).
- Continue to bend the free end of the tubing to the left around the cylinder until it points beyond the upper end of the jig (Fig.3).
- Continue to bend the free end of the tubing to the right around the cylinder until it points toward the lower end of the jig, mirroring the angle of the stabilized end (Fig.4).



Fig.2



Fig.3



Fig.4

4. Bend the tubing in the dual lever tubing bender to make feet for the photo frame.

- Pull the handles apart to open the bender.
- Place the tubing on the former and hold it in place with the circle against the holding clamp and the free end of one leg against the handle angle markers. The 0 handle angle mark must line up with the 0 former angle mark (Fig.5).
- Bend the pipe until the 0 handle angle mark on the handle lines up with the 135 former angle mark (Fig.6).
- Pull the handles apart again to remove the bent tubing from the former.
- Do the same to the other leg (Figs.7 and 8).



Fig.5



Fig.6

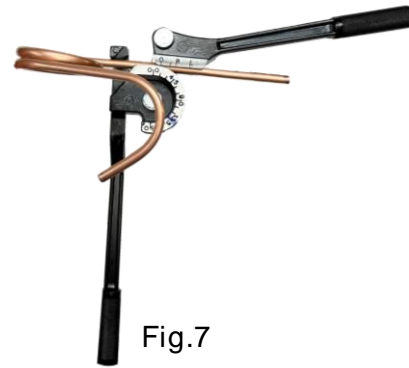


Fig.7



Fig.8

5. Finish the photo frame.

- Follow the instructions to load the camera. Take a photo and display it on your frame!



A tubing bender is a tool used to form accurate angles and curves in piping of different materials, such as copper or steel, often for plumbing or electrical work.



Follow this QR code to view the instructions in video form, or visit: www.youtube.com/@skillsalberta



Find PDF versions of these instructions at: skillsalberta.com/resources/try-a-trade-take-out



Try-A-Trade® Takeout Program

Activity: Copper Tubing Photo Frame | V3

Skill Area: Refrigeration

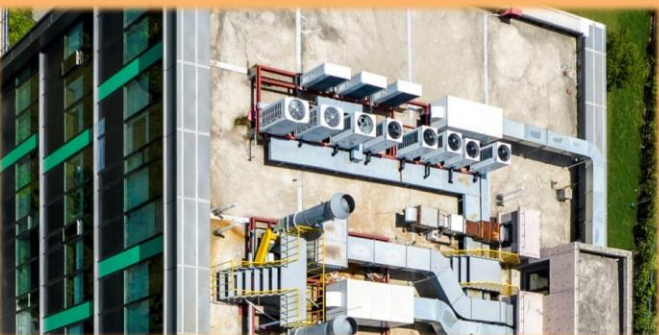
CTS Cluster: TMT

Copper Tubing Photo Frame

Refrigeration Technology

Project

Students use refrigeration and air conditioning tools to measure, cut, and shape copper tubing into a functional photo holder.



Schooling

- Four-year apprenticeship.
- Red Seal Journeyperson.
- Start early with the Registered Apprenticeship Program (RAP) or explore options available through Career and Technology Studies (CTS).

Jobs

- Install and maintain industrial, commercial, and residential refrigeration, heating, and air conditioning systems.
- Average salary: \$80,126.00/year
- Average wage: \$38.22/hour

More information:



Find your trade:

Or visit:

tradesecrets.alberta.ca



Apprenticeship
and Industry
Training

Plan your career:

Or visit:

alis.alberta.ca



Send us photos of your projects,
and tag us on social media:



#skillsalberta



@skillsalberta



@skillsalberta



@skillsalberta


Try-A-Trade
Takeout


Skills Canada
Alberta

