Machinery and systems for mission critical products
MESH Engineering has developed some of the most flexible and productive machines in the small-diameter tube processing field. Our investment in engineering, tooling design, controls and quality has meant success for our customers.

MESH is a full-service supplier of standard and customized tubing equipment for fully-automated and integrated systems, lean cells operating in semi-automatic mode or individual modules.
TUBE BENDING SYSTEMS
Automated systems designed for small diameter steel, aluminum and copper tubing for gas or fluid carrying components

- Multiple diameter capabilities
- Standard power bending technologies
- Semi-automatic or fully-automatic systems
- Robotic bending technologies
- Strategic relationships with global suppliers
AUTOMOTIVE

Small diameter fluid carrying systems needing high productivity, flexibility and value for producing tubing products that need tight tolerances and strict quality control. Products such as brake, fuel, transmission oil cooling, airbag inflation tubing and AC.

**Tube Transfer Line Features and Options**

- World class cycle rates as fast as 3 seconds per tube
- 0.5 - 6 meter tube length capability on one machine
- Push button changeover for width and process operations and no tool quick change tooling
- Tubing diameter range: 5/32” - 12.7mm
- Endforming excellence - full electric servo ball screw actuation, programmable clamping and hit pressure/displacement. Precision deburring, stripping and tube end preparation prior to endforming. MESH also offers hydraulic and pneumatic presses in single or double hit models
- Various blank tube feeding module offerings
- Multiple quality control and inspection processes.
  - Machine vision with Cognex or Keyence systems for dimensional, inspection of seat surfaces for cracks, flaws and fitting identification
  - High pressure leak and obstruction testing
- Multiple fittings and endforms on one machine. SAE, ISO and hose beads
- Optional control platforms - Rockwell, Siemens, Omron, SEW
- Integrated lot tracking or serial number inkjet or laser engraving options
  white letters on black coating
- SUMI sleeving and heat shrinking modules
Automated High Volume Equipment with Refrigeration

**REFRIGERATION**
Automated systems designed for small diameter steel and copper tubing for gas or fluid components such as hot gas circuit tubing, serpentine and circular compressed gas condenser coils.

**Refrigeration Line Features and Options**
- Dereeling, straightening and cutting operations
- Tube bending – “S” bends, dimple bends
- World class cycle rates on 6 meter fully processed hot gas loops of 11 seconds per tube
- Up to 6 meter tube length capability
- Push button changeover
- Multiple quality control and inspection processes
- Multiple fittings and endforms on one machine
- Optional control platforms – Rockwell, Siemens, Omron, SEW, Fanuc
- Autofeed and integration to robotic tube bending
AIR CONDITIONING SYSTEMS

Fully automated systems designed for aluminum and copper tubing used in automotive and residential cooling systems. Finished tubes are used in serpentine, formed or bent configurations for fluid and gas carrying applications.

AC Line Features and Options

- Dereeling, straightening, cutting, roll grooving and swaging
- Diameters up to 14mm
- Cycle rates as fast as 8 seconds
- World-class cycle rates as fast as 8 seconds on a 5 meter AC aluminum tube
- Up to 6 meter tube length capability
- Multiple quality control and inspection processes
- Multiple fittings, roll grooving and endforms
- Optional control platforms – Rockwell, Siemens, Omron, SEW, Fanuc
- Autofeed and integration to cleaning system
MESH – FOR ALL YOUR TUBE PROCESSING NEEDS!