



# NESSteel Inc.

83 Gerber Drive, Tolland, CT 06084

800-654-2901 • Fax: (860) 875-4900 [sales@nessteel.com](mailto:sales@nessteel.com)

---

## Alloy/Stainless Tubing

---

NESSteel Inc. offers a wide variety of alloy and stainless steel tubing in virtually all standard diameters.

Tubing is produced with properties making it suitable for use in a wide variety of finished mechanical or structural parts. **Depending on the end use, tubing may be produced as either seamless or welded from carbon, alloy or stainless steel, and in a variety of grades, sizes and finishes.**

Tubing is made to special sizes, shapes, finishes and analyses. Normally, however, tubing requirements are concerned with machinability, dimensional accuracy, surface finish and suitability for heat treatment.

### **Seamless/Drawn Over Mandrel:**

Seamless tubing is produced by piercing a hot billet and swaging or rolling it to reduce diameter and to elongate. Next, it is finished to accurate size by cold drawing through a die and over a mandrel. The cold drawing operation produces tubing of great accuracy as to size, a superior smooth finish, increased physical properties and better grain structure which result in excellent machinability.

This type of tubing has been used in the following applications:

- Machine Parts
- Bushings
- Bearings
- Spacers
- Hollow Shafts
- Structural Members
- Torque Rods
- Mandrels
- Cylinders
- Pump Stock
- Furniture
- Rollers

### **Welded:**

Welded tubing is produced by a process where flat rolled steel is cold shaped into tubular form and welded along the longitudinal axis. The extruded metal on the tubing does not affect the properties of the tubing, and is always removed from the outside surface. The inside weld flash is removed or controlled to various degrees.

### **Drawn Over Mandrel Welded Steel Tubing:**

Drawn over mandrel welded steel tubing is electric resistance welded, flash removed, fully normalized, cold drawn over a mandrel and supplied in the as-drawn condition unless otherwise specified. Drawn over mandrel tubing has a uniform wall thickness, one of its greatest assets.

The tube is formed and welded from flat steel which has little gauge variation. Any wall variation which does exist runs in the same plane, leaving the tube's bore straight.

Machinability of DOM welded tubing is equivalent to seamless tubing. For producing machined parts, less stock allowance is required than for an equivalent size of seamless tubing because of its excellent surface finish.

### **Hollow Bar:**

Hollow bar steel is produced from a solid steel bar which is then bored or trepanned to proper inside diameter. Hollow bar is typically used for heavy walls or small quantities of tubing in non-standard grades or sizes.

### **Ordering:**

NESSteel Inc. can offer virtually any size, length and type of tubing for your application. Because of the wide variety of different tubing application, please call NESSteel's sales engineers to discuss your requirements.