

## 304 STAINLESS STEEL TUBE

304 is in the "Austenitic" group (or chrome-nickel) series of stainless steels. It is not hardenable by heat-treatment and it is not magnetic in the annealed condition, which is the general method of production. Hardness is accomplished by cold-working, which may create some magnetism.

Tougher and more ductile than most ordinary steels, 304 (and other austenitic grades), also has excellent mechanical properties and weldability, good corrosion resistance and excellent scale resistance.

In general, stainless steel is defined as a steel alloy with a minimum of at least 10% chromium, plus other elements, especially nickel. It is also been referred to as a corrosion-resistant steel (or "CRES"), particularly in the aviation/aerospace industry.

### SS 304 Stainless Steel Chemical Analysis

	<b>C</b> <b>(max)</b>	<b>Mn</b> <b>(max)</b>	<b>P</b> <b>(max)</b>	<b>S</b> <b>(max)</b>	<b>Si</b> <b>(max)</b>	<b>Cr</b>	<b>Ni</b>	<b>Cu</b> <b>(max)</b>	<b>Mo</b> <b>(max)</b>
<b>304</b>	.08	2.00	.04	.03	.75	18.00/20.00	8.00/11.00	.75	.75

### SS 304 STAINLESS STEEL TUBE

AED stocks several sizes of round (seamless and welded) and square 304 stainless tube. The seamless round tubes are produced in "random lengths" that can range between 17 to 24 feet long. The welded round and square tubes are generally closer to around 20-foot random lengths.

In addition to the 304 tube, we also stock a welded round tube with a rich polished finish. This grade is 201 Stainless, and it appears elsewhere under its own heading. It is often used in racing for nerf bar and bumper applications, and it is characterized with "chrome" type appearance, known as "super buffed".

The best pricing is always when you order full lengths, which can be cut for economical shipping methods. AED also offers "cut-to-size" pieces.

Most SS 304 tubes meet ASTM A269, ASTM A249, or ASTM A213, and other specifications may also apply.

### SS 304 Tube Typical Mechanical Properties:

	<b>304</b>
<b>Tensile Strength (psi)</b>	85,000
<b>Yield Strength (psi)</b>	35,000
<b>Elongation (% in 2")</b>	60
<b>Reduction of Area (%)</b>	70
<b>Rockwell B Hardness</b>	85

Note: "Typical Mechanical Properties" have been compiled from a variety of sources. Information is deemed reliable, but it is not guaranteed. This data is provided for information only, **NOT FOR DESIGN PURPOSES.**