

MILD STEEL ELECTRIC WELDED TUBE

Mild steel tubes manufactured by the electric-resistance welding process, are often referred to as ERW or EW, among other names. These tubes have a welded seam on the inside and are typically more economical than seamless steel tubes. They may be available as cold-rolled (CR) or hot-rolled (HR) in round, square, and rectangle dimensions. AED generally does not differentiate our stock between CR and HR tubes.

ERW tubes have excellent weldability and good machinability properties, as well as bending, swaging, and machining.

1010 (and 1020) Chemical Analysis

C	Mn	P (max)	S (max)
.05/.15	.30/.60	.04	.05

WELDED STEEL MECHANICAL TUBE

AED stocks several sizes of welded steel tubing and it is produced in “random lengths” that can range between 20 to 24 feet long. 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.

These tubes may occasionally be referred to as Grade 1008-1010 or 1020, and they meet ASTM A513, Types 1 and Type 2.

Welded Steel Round Tube Typical Mechanical Properties - Minimum:

OD	Wall	Tensile Strength (psi)	Yield Strength (psi)	Elongation (%)	Rockwell B Hardness
1010 Cold Rolled					
3/4" and smaller	All	48,000	40,000	15	65
Over 3/4"	20 – 16 Gage	45,000	35,000	25	63
Over 3/4"	15 Gage & thicker	45,000	35,000	30	60
1010 Hot Rolled					
3/4" and smaller	16 – 14 Gage	48,000	40,000	12	65
Over 3/4"	16 – 14 Gage	48,000	35,000	25	63
Over 3/4"	13 Gage & thicker	45,000	35,000	30	60
1020 Cold Rolled					
3/4" and smaller	All	55,000	40,000	15	70
Over 3/4"	20 – 16 Gage	50,000	38,000	20	68
Over 3/4"	15 Gage & thicker	50,000	38,000	30	65
1020 Hot Rolled					
3/4" and smaller	16 – 14 Gage	55,000	40,000	12	70
Over 3/4"	16 – 14 Gage	52,000	38,000	20	68
Over 3/4"	13 Gage & thicker	50,000	36,000	30	65

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.**