

## 17-4 PH STAINLESS STEEL BAR

17-4 PH is in the "Precipitation Hardening" (or iron-chromium-nickel) series of stainless steels. Excellent mechanical properties may be obtained and other features include high corrosion resistance, good machining capabilities, and excellent welding characteristics. It can be heat-treated to high strength levels.

SS 17-4 stainless is typically used good corrosion resistance is required, as well as high strength. It also has good machinability and excellent weldability.

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.

### 17-4 PH Stainless Steel Chemical Analysis

	<b>C</b> (max)	<b>Mn</b> (max)	<b>P</b> (max)	<b>S</b> (max)	<b>Si</b> (max)	<b>Cr</b>	<b>Ni</b>	<b>Cu</b>	<b>Cb + Ta</b>
<b>17-4</b>	.07	1.00	.04	.03	1.00	15.00/17.50	3.00/5.00	3.00/5.00	5xC/.45

### 17-4 PH STAINLESS STEEL BAR

AED stocks SS 17-4 bars primarily in rounds, but flats, squares and hex bars may be available at different times. Stainless Steel bars are produced in "random lengths" that can range between 11 to 13 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.

SS 17-4 bars are produced in the Annealed Condition, and generally meet AMS 5643 and ASTM A564, but several others may also apply.

### 17-4 PH Bar Typical Mechanical Properties:

Annealed Condition

	<b>17-4</b>
<b>Tensile Strength (psi)</b>	150,000
<b>Yield Strength (psi)</b>	110,000
<b>Elongation (% in 2")</b>	10
<b>Reduction of area (%)</b>	45
<b>Brinell Hardness</b>	332

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.**