

# AMS 5643, AMS 5604, AMS 5622, 17-4ph Stainless Steel

## Typical Applications

Motor Shafts

Aircraft Structural Parts

Valve Stems

Gears



*The 17/4PH is an austenitic stainless steel alloy that has superior resistance to corrosion and outstanding mechanical properties. Conforming to the stringent AMS 5604, AMS 5622, and AMS 5643 specifications, this alloy is meticulously engineered to meet the most demanding industrial requirements.*

The exceptional corrosion resistance of the 17/4PH alloy stems from its carefully crafted chemical composition, blending chromium, nickel, and copper in precise proportions, this unique formulation imbues the material with an unrivaled ability to withstand a broad spectrum of corrosive environments.

Moreover, the alloy's precipitation hardening capabilities allow for precise control over its mechanical properties, through a carefully controlled heat treatment process, 17/4PH can achieve remarkable strength and hardness levels while maintaining excellent toughness and ductility.

The remarkable combination of high strength and lightweight characteristics makes the 17/4PH alloy exceptionally well-suited for applications where optimal strength-to-weight ratios are paramount. From aerospace components that demand superior performance without compromising on weight, to oil and gas equipment subjected to harsh environments, and intricately designed precision engineering parts requiring meticulous craftsmanship, this versatile material excels across a wide range of demanding applications.

## Related Products

**15 5Ph Stainless Steel**

**17 4Ph**

**17 7Ph**

**431 - 1-4057 STAINLESS STEEL**

**A286 Bar**

**A286 Sheet**

**Aermet 100**

S145 Stainless Steel

### Technical specification

#### *Related Specifications*

AMS 5604

AMS 5622

AMS 5643

UNS S17400

W.Nr 1.4548

#### *Specific Gravity*

7.74 g/cm<sup>3</sup>

#### *Chemical Composition (WT %)*

	Min	Max
<b>C</b>	-	0.07
<b>Si</b>	-	1.00
<b>Mn</b>	-	1.00
<b>P</b>	-	0.040
<b>S</b>	-	0.030
<b>Cr</b>	15.00	17.50
<b>Mo</b>	-	0.50
<b>Ni</b>	3.00	5.00
<b>Cb</b>	5 x %C	0.45



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