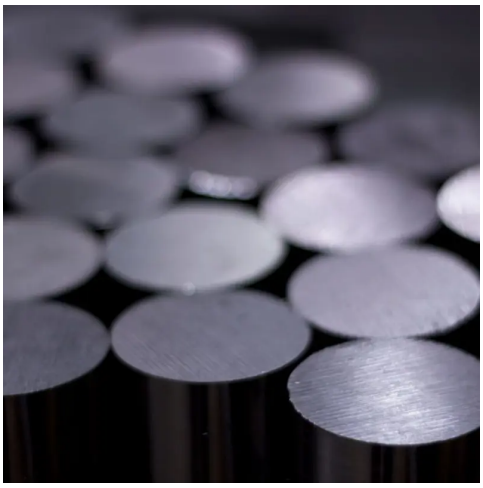
A286 Stainless Steel Bar

Typical Applications

Fasteners

Stud Bolts

Industrial Gas Turbines



AMS 5726, AMS 5731, AMS 5732, AMS 5737 Suppliers and Stockholders

A286 is an austenitic iron-nickel-chromium superalloy conforming to AMS 5726, AMS 5731, AMS 5732, and AMS 5737. Unlike the martensitic precipitation hardening grades, A286 retains its austenitic structure throughout processing, giving it a non-magnetic character and excellent toughness across a wide temperature range.

The alloy can be age hardened to develop useful strength — tensile strength reaches 965 MPa in the solution treated and aged condition to AMS 5737 — while retaining good ductility and oxidation resistance at elevated temperatures. This makes it well suited to gas turbine components, fasteners, and structural parts operating in the 500-700°C range where conventional stainless steels would be inadequate.

A286's temperature capability extends in both directions. At low temperatures down to -196°C, the alloy remains ductile and non-magnetic — properties valued in cryogenic applications and equipment where magnetic interference must be avoided. Its corrosion resistance in aqueous environments also makes it suitable for moderate corrosion applications.

Bar is the most common product form for A286, used extensively for machined fasteners, stud bolts, turbine components, and shafts. The material is supplied in solution treated condition ready for age hardening after machining, allowing complex geometries to be produced before final heat treatment.

Related Products

15 5Ph Stainless Steel

17 4Ph

17 7Ph

431 - 1-4057 STAINLESS STEEL

A286 Bar

A286 Sheet

Aermet 100

Ph 13 8Mo

S145 Stainless Steel

A286

Technical specification

Related Specifications - Bar

AMS 5726

AMS 5731

AMS 5732

AMS 5737

BS HR 51

BS HR 52

W.Nr 1.4943

W.Nr 1.4944

UNS S66286

Related Specifications - Sheet and Plate

AMS 5525

AMS 5858

UNS S66286

Specific Gravity

7.81 g/cm3

Chemical Composition (WT %)

	Min	Max
C	-	0.08
Mn	-	2.0
P	-	0.025
S	-	0.025
Si	-	1.00
Cr	13.5	16
Ni	24	27
Mo	1	1.5
Ti	1.9	2.35
V	16.00	18.00

Al	-	0.035
B	0.003	0.010
Fe	-	Bal

Typical Mechanical Properties in the Annealed Condition

			Sol treated and Aged 1800 Deg F (AMS 5732)	Sol Treated and Aged 1650 Deg F (AMS 5737)
0.2% Proof Stress	MPA	Min	586	655
Tensile Strength	MPA	Min	896	965
Elongation	%	Min	15	12
Reduction of area	%	Min	-	-

Hardness	HB	248 – 341	277 – 363

Need more information? ***Get in touch***

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