

# A286

Smiths Advanced Metals

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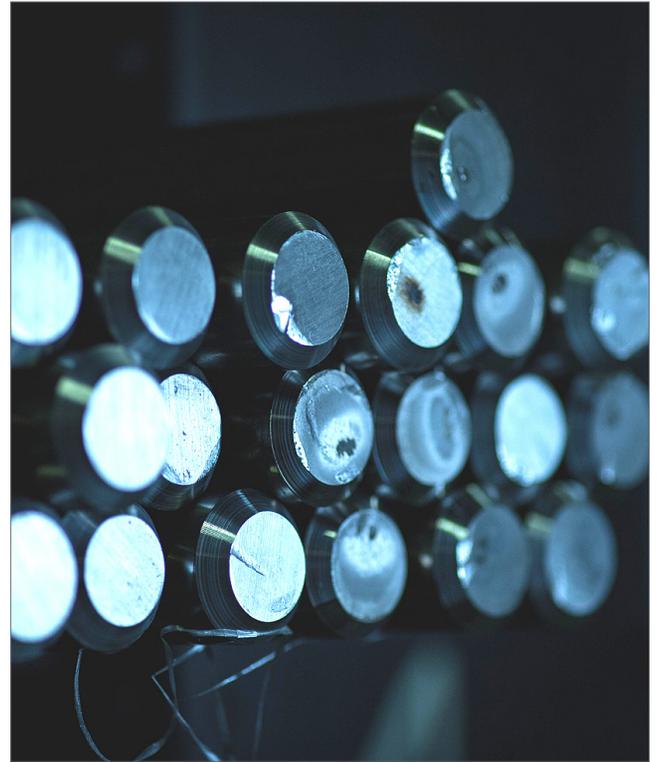
## Precipitation Hardened Stainless Bar

Corrosion resistance with high strength.

A286 is a nickel-chromium austenitic precipitation-hardened stainless steel that is iron-based. The alloy is highly suitable for applications requiring high strength corrosion resistance.

A286 retains its high strength at elevated temperatures of 704°C (1300°F), and the material is produced vacuum induction melting (VIM) or vacuum oxygen decarburisation (VOD). The alloy is then remelted using vacuum arc or electro slag remelting processes to complete the production cycle. A286 finds typical use in lower stress applications at high temperatures and provides good corrosion and oxidation resistance. A286 offers greater hardness than many nickel-based stainless steel alloys and is easily machined and formed. The material finds use in jet engine parts, thrust nozzles and gas turbine components.

Smiths Advanced Metals stocks [A286 stainless steel bars](#) in the solution annealed condition and in various incremental sizes to suit your engineering requirements. We also process your A286 bars in-house at our central warehouse in Biggleswade.



### Grades / Specifications

- 1.4943
- 1.4944
- 1.4980
- UNS S66286
- X4NiCrTi25-15
- X4NiCrTi26-15
- Z6NCT25
- AMS5731
- AMS5732

### Benefits

- High strength at elevated temperatures
- Moderate resistance to corrosion
- Iron-based superalloy
- Easily machined and formed

#### \* Chemical Composition (weight %)

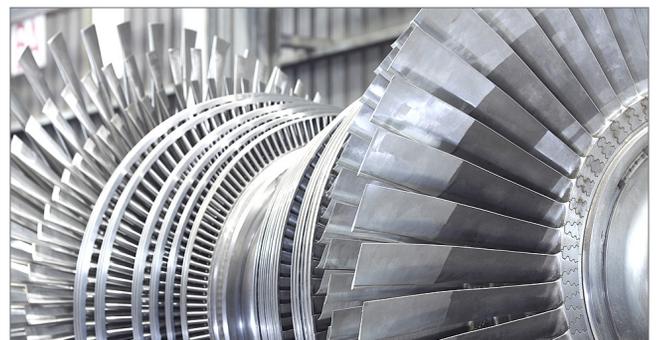
	C	Mn	P	S	Si	Cr	Ni	Mo	Ti	V	Al	B	Co	Cu	Fe
min.						13.50	24.00	1.00	1.90	0.10		0.003			Bal
max.	0.08	2.00	0.025	0.025	1.00	16.00	27.00	1.50	2.35	0.50	0.35	0.010	1.00	1.50	

\* As per AMS 5732

### Use in Industry

A286 is a versatile alloy suitable for a broad range of commercial applications.

The material finds use in heat exchangers, tanks, pumps, superchargers, industrial gas turbines and jet engine afterburners. The alloy may be solution annealed or age-hardened, which significantly increases creep strength. Welding of the alloy is good by conventional methods though use of welding wire of the same specification is preferable.



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