A-286

Quarto North America is proud to offer our customers the high temperature alloy of choice, A-286. A-286 is an iron-nickel-chromium based austenitic alloy which is age hardening, high strength, and maintains performance across a broad range of temperatures.

While still more difficult to work with than stainless steels such as 316 and 310, A-286 can still be coldworked with satisfactory results. When compared with other nickel or cobalt based high temperature alloys, A-286 is considerably easier to machine. It can also be solution annealed and age hardened for various applications, and is often treated to provide superior creep strength.

A-286's most notable virtue is its wide temperature range. It can maintain high strength when faced with continuous exposure from -320 to 1300^{0}F (700^{0}C), and remains resistant to oxidation even when continuously exposed to as much as 1500^{0}F and in the face of intermittent temperatures as high as 1800^{0}F. This impressive temperature tolerance lends itself to numerous applications in high heat environments such as jet engine and steam turbine components, and fasteners and springs in high temperature settings. It is also useful in cryogenics and other low temperature environments.

Quarto North America can provide customers with round bar and is the industry choice for projects requiring Class B and D properties.

A-286 Stainless Steel Applications

- Jet engine components
- Compressors
- High temperature frames
- Gas turbine, disks, blades and shafts
- High temperature turbine wheels and blades
- Tanks, pumps, piping, valves and heat exchange
- High temperature fasteners, springs
- Non-magnetic cryogenic equipment
- Manifold components
- Superchargers
- High temperature casings

A-286 Stainless Steel Composition

A.I.S.I. Analysis	C	Mn	Ti	S	Si	Cr	Al	V	Ni
	.08 max	2.0 max	11.9 - 2.35	.025max	1.0 max	13.5 - 16.0	0.35 max	0.10-0.50	24.0 - 27.0

A-286 Stainless Steel Industry Standards

• AMS 5731	• EN 10204 3.1
• AMS 5732	• NACE MR-0175
• AMS 5734	• AMS 5853
• AMS 5737	• AMS 5895
• ASTM A638 (Grade 660 Type 1,2)	• API PSL 3
• ASTM A453 (Grade 660 Class A, B,C,D)	• UNS S66286