Austenitic A2 And A4 Stainless Steel

Class	Property Class	Tensile Strength	Grade Compositions Ranges								Note Numbers
			C	Cr	Mn	Ni	P	S	Si	Mo	
A2 - 304	*70*	700 N/mm ^{2}	0.08	17.5-19.0	0.50-2.00	8.0-11.0	0.045	0.03	1.0	–	3 - 4 - 5 & 7
A4 - 316	*70*	700 N/mm ^{2}	0.08	16.0-18.5	2.0	10.0-14.0	0.045	0.03	1.0	2.0-3.0	3 - 4 & 5
A4 - 316	*80*	800 N/mm ^{2}	0.08	16.5-18.5	2	10.0-14.0	0.045	0.03	1	2.0-3.0	3 - 4 & 5

Notes :

(1) Values Are Maximum Unless Otherwise Indicated
(2) Sulphur May Be Replaced By Selenium
(3) May Contain Titanium > 5 x C Up To 0.8% Maximum
(4) May Contain Niobium (Columbium) And Or Tanalum > 10 x C Up To 1.0% Maximum
(5) May Contain Copper Up To 4.0% Maximum
(6) Carbon Content May Be Higher At The Option Of The Manufacturer Where Required To Obtain The Specified Mechanical Properties In Larger Diameters
(7) Molybdenum May Be Present At The Option Of The Manufacturer

Grade A2 (AISI 304) Has excellent resistance to atomospheris corrosion, except in severe industrial and marine environments.
Typical applications include Street furniture, Food processing, Domestic appliances Medical and Brewing equiomen, Fasteners for Aluminium alloy, Building Fixings and Fasteners for Oak.
Also suitable for most NON Salt Water marine applications.
Oxidation Resistance Is Satiafactory For Use Up To 850 Degree C
Resistance To Nitric Acid And Oxidising Chemicals Is Excellent
High Strength And Toughness At Sub Zero Temperatures To Minus 250 Degree C

Grade A4 (AISI 316) has a higher corrosion resistance than A2 grade in many Chemical environments including contact with dilute sulphuric acid and acetic acid.
Suitable for marine conditions but not recommended for immersion in sea water.
Typical applications include Fasteners for boat deck fittings, Chemical plants Swimming pools, Dye vats, Sewage treatment plants, Dairy and Medical sterilising equipment and Specialist building fixings.
Oxidising Resistance Is Satisfactory For Use Up To 800 Degree C
Resistance To Nitric Acid And Other Oxidising Chemicals Is Excellent
Generally Unsuitable For Solutions Of Hydrocholoric Avid And Chlorides If Evaporation At High Temperatures Occurs