

# FACT SHEET

## 202, 304 & 316 GRADE STAINLESS STEEL

### The difference between 202, 304 & 316 Grade Stainless Steel

Element %	202 Grade	304 Grade	316 Grade	Implications
Carbon	0.15	0.08	0.08	Increase in % decreases the corrosion resistance
Silicon	1.00	1.00	1.00	–
Manganese	7.5 to 10.0	2.00	2.00	Affects the magnetic characteristic and hardness of Iron
Phosphorous	0.06	0.045	0.045	–
Sulphur	0.03	0.03	0.03	–
Chromium	17.0 to 19.0	18.0 to 20.0	16.0 to 18.0	Addition of 12% forms stainless steel from ordinary steel. Removes the corrosive effect of Carbon. Forms a passive film which prevents oxidation and consequent corrosion.
Molybdenum (MOLY)	NIL	NIL	2 to 3	Molybdenum increases the corrosion resistance. It has a superior tensile strength at high temperature as compared to 304 Grade Steel. This element can resist major chemical reaction and thus is a very costly element.
Nickel	4 to 6	8.0 to 10.5	10.0 to 14.0	Nickel provides corrosion resistance, increases strength at both high and low temperature, increases toughness at low temperature and lowers the effects of work hardening. A higher percentage nickel content makes the steel a superior quality.

The table above presents the main elements (forming the chemical compositions) of 316 Marine Grade Stainless Steel compared to other cheaper grade steel such 304 or 202.



# COASTAL

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