

STAINLESS STEEL SPECIFICATIONS

TYPE 304

An austenitic steel possessing a minimum of 18% chromium and 8% nickel, combined with a maximum of 0.08% carbon.

- Nonmagnetic steel which cannot be hardened by heat treatment, but instead must be cold worked to obtain higher tensile strengths.
- The 18% minimum chromium content provides corrosion and oxidation resistance.
- The nickel content (8% min.) extends resistance to corrosion caused by reducing chemicals.
- Carbon is held at a level (0.08% max.) that is satisfactory for most service applications.
- The stainless alloy resists most oxidizing acids and can withstand all ordinary rusting.
- **It will tarnish or show red rust when exposed to a salt water or coastal environment.**
(Type 316 Stainless Steel is recommended for exposed fasteners within 5 miles of a coastal salt water environment.)

TYPE 204Cu

A copper-containing, low-nickel, nitrogen-strengthened, austenitic stainless steel.

- The nitrogen addition results in higher annealed strength than Type 304;
- The copper addition reduces the work hardening rate to provide cold worked properties similar to Type 304.
- The alloy is nonmagnetic in the annealed condition and remains nonmagnetic after cold working.
- Cold forming characteristics are superior to the 200 series stainless steels and similar to Type 304.
- Consider for applications where Type 304 has been previously used — including wire products such as spring, fence, rope, belt, nail, electropolished, pole-line, buttress screw and windshield wiper arms.
- The stainless alloy resists most oxidizing acids and can withstand all ordinary rusting.
- **It will tarnish or show red rust when exposed to a salt water or coastal environment.**
(Type 316 Stainless Steel is recommended for exposed fasteners within 5 miles of a coastal salt water environment.)

Analysis of Stainless Type 304:

Carbon: 0.08% max.; Silicon: 1.00% max.;
Manganese: 2.00% max.; Chromium: 18.00-20.00%;
Phosphorus: 0.045% max.; Nickel: 8.00-10.50%;
Sulfur: 0.030% max.

Analysis of Stainless Type 204Cu:

Carbon: 0.10% max.; Silicon: 1.00% max.;
Manganese: 9.00% max.; Chromium: 6.00-17.00%;
Phosphorus: 0.035% max.; Nickel: 2.00-3.00%;
Sulfur: 0.010% max.; Copper: 3-3.5%



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