

DESCRIPTIVE DATA ON STAINLESS STEEL

TYPE 430 14-18 Chromium

This high chromium, low carbon stainless steel has good mechanical and physical properties, good corrosion resistance to many dilute organic acids and very dilute salt solutions, and has excellent resistance to nitric acid. It withstands destructive heat scaling up to about 1550° F.

Type 430 when welded is susceptible to grain growth with some loss in ductility and toughness. For this reason it is not recommended for welded sections which will be exposed to shock or vibration in service.

Because of its strength, toughness, and resistance to heat oxidation, as well as chemical and atmospheric corrosion, Type 430 is used in range oil burners, heat exchanger flues, oil and gas furnace combustion chambers, and annealing furnaces. Is magnetic.

TYPE 304 18-8 Low Carbon

This grade is similar to Type 302 except that a maximum carbon content of .08% is guaranteed. The lower carbon content was developed to minimize susceptibility to intergranular corrosion which may result from the carbon separation that takes place in high carbon 18-8 alloys when the metal is heated within the temperature range of 900°F.-1650°F. In welding, this temperature gradient is always encountered a slight distance on each side of the weld, in which area carbide separation takes place.

Type 304 is especially recommended for welded construction where severe corrosive conditions are encountered, such as in the dairy, chemical, paper and textile industries. This low carbon grade is not ordinarily required for welded construction subjected only to atmospheric conditions. Is non-magnetic.