STAINLESS STEEL GRADE 904L – UNS N08904 – 1.4539

MF Inox produces screws, nuts and tie rods in 904L stainless steel. In comparison to 316L, its molybdenum addition gives it superior resistance to localized attack (pitting and crevice corrosion) by chlorides and greater resistance reducing acids and in particular its copper addition gives it useful corrosion resistance to all concentrations of sulphuric acid. Its high alloying content also gives it greater resistance to chloride stress corrosion cracking, but it is still susceptible.

A PREN of 35 indicates that the material has good resistance to warm sea water and other high chloride environments. High nickel content results in a much better resistance to stress corrosion cracking than the standard austenitic grades. Copper adds resistance to sulphuric and other reducing acids, particularly in the very aggressive "mid concentration" range.
In most environments 904L has a corrosion performance intermediate between the standard austenitic grade 316L and the very highly alloyed 6% molybdenum and similar "super austenitic" grades.

It should not be used above about 550°C.

It has applications in piping systems, pollution control equipment, heat exchangers, and bleaching systems.

CHEMICAL COMPOSITION

C	S	P	Si	Mn	Cr	Ni	Mo	Cu	Fe
<0.02	<0.035	<0.045	<1.0	<2.0	19.0 - 23.0	23 – 28	4.0 – 5.0	1.0 – 2.0	balance

MECHANICAL PROPERTY

Yield	Rp 0.2 ≥220 MPa
Tensile	Rm 490 MPa

SPECIFICATION AND DISEGNATIONS

W.	1.4539
UNS	UNS N08904
Swedeish	2526
BRAND	904L