

254SMO Chemical Composition %

C	Cr	Cu	Mn	Mo	N	Ni	P	Si	S
Max			Max				Max	Max	Max
0.02	19.5-20.5	0.5-1.0	1.0	6.0-6.5	0.18-0.22	17.5-18.5	0.03	0.80	1.01

AVAILABILITY

Weld Pipe 3/4" - 12"

Butt-Weld Fittings 3/4" - 12"

Flanges 3/4" - 12"

Bar 1" - 8"

SPECIFICATIONS

ASTM A312, A403, A182

ASME SA312, SA403, SA182

DESCRIPTION

[254SMO](#) is an austenitic stainless steel designed for maximum resistance to pitting and crevice corrosion. With high levels of chromium, molybdenum, and nitrogen, [254SMO](#) is especially suited for high chloride environments such as brackish water seawater pulp mill bleach plants and other high chloride process streams. [254SMO](#) offers chloride resistance superior to that of Alloy 904L Alloy 20, Alloy 825 and Alloy G. [254SMO](#) is compatible with the common austenitic stainless steels. It is often used as a replacement in critical components of larger constructions where Type 316L or 317L has failed by pitting, crevice attack, or chloride stress corrosion cracking. In new construction, [254SMO](#) has been found in many cases to be a technically adequate and much less costly substitute for nickelbased alloys and titanium. [254SMO](#) is substantially stronger than the common austenitic grades, but is also characterized by high ductility and impact strength. [254SMO](#) is readily fabricated and welded.

(R) 254SMO is A REGISTERED TRADEMARK OF AVESTA SHEFFIELD

DESIGN FEATURES

High resistance to pitting, crevice and general corrosion.

Very high resistance to chloride stress corrosion cracking.

50% stronger than 300-series austenitic stainless steels.

Excellent impact toughness.

Excellent workability and weldability.

TYPICAL APPLICATIONS

Seawater handling equipment

Pulp mill bleach systems

Tall oil distillation columns and equipment

Chemical processing equipment

Food processing equipment

Desalination equipment

来源: <http://www.shkunpu.com/Alloy/254SMO/>

Flue gas desulfurization scrubbers

Oil and gas production equipment

TENSILE REQUIREMENTS

Tensile Strength (KSI) 94

Yield Strength (KSI) 44

KSI can be converted to MPA (Megapascals) by multiplying by 6.895.