

ALLOY 6MO TUBING



Alloy 6MO tubing is a high-alloy austenitic stainless steel designed for maximum resistance to pitting and crevice corrosion. The high levels of chromium, molybdenum, and nitrogen make 254 SMO (6-moly) suitable for high chloride environments such as brackish water seawater pulp mill bleach plants and other high chloride process streams.

Alloy 6MO is compatible with the common austenitic stainless steels and 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.

Alloy 6MO is substantially stronger than the common austenitic grades, but is also characterized by high ductility and impact strength.

PRODUCTION SPECIFICATIONS

ASTM A213/SA213, ASTM A269,
NORSOK M650, NACE MR0175

MECHANICAL PROPERTIES

Yield Strength (0.2% offset)	45 KSI min.
Tensile Strength	98 KSI min.
Elongation (min. 2in.)	35%

DIMENSIONAL TOLERANCES

OD	OD Tolerance	Wall Tolerance
Up to 1/2"	+/- null"	+/- null%
1/2" to 3/4"	+/- null"	+/- null%

SIZE RANGE

Outside Diameter (OD)	Wall Thickness
1/4" - 3/4"	.035" - .065"

ALLOY 6MO (UNS S31254) CHEMICAL COMPOSITION % (MAX.)

Element	Symbol	Composition % (MAX.)
Chromium	Cr	19.5 - 20.5
Nickel	Ni	17.5 - 18.5
Carbon	C	0.02
Molybdenum	Mo	6.0 - 6.5
Manganese	Mn	1.0
Silicon	Si	0.8
Phosphorus	P	0.03
Sulfur	S	0.01
Nitrogen	N	0.18 - 0.22
Copper	Cu	0.5 - 1.0

OD	Wall	ID	PSI
0.250"	.035	.180	23,940
	.049	.152	33,516
0.375"	.035	.305	15,960
	.049	.277	22,344
	.065	.245	29,640
0.500"	.035	.430	11,970
	.049	.402	16,758
	.065	.370	22,230
0.750"	.065	.620	14,820

All Pressure Ratings are approximate and for illustration purposes only. Values are not Guaranteed or Warranted.

TYPICAL APPLICATIONS

Seawater Handling Equipment
Pulp Mill Bleach Systems
Oil & Gas Production Equipment
Chemical Processing Equipment
Food Processing Equipment

FABRICATION

Alloy 254 SMO (6-moly) has excellent weldability in addition to excellent formability which permits cold bending to very tight bending radii.

