ALLOY C276 TUBING

Alloy C276 is a nickel-molybdenum-chromium-tungsten superalloy, showing excellent resistance to mechanical and chemical degradation. The high nickel and molybdenum content impart remarkable corrosion resistance in reducing environments while chromium provides the same in an oxidizing media. Molybdenum also provides strong resistance to crevice corrosion and pitting. This alloy gives an excellent performance in a wide range of chemical processing conditions, often where nothing else works. Target applications include those involving strong oxidizers such as ferric and cupric chlorides and hot contaminated media (organic and inorganic), formic acid, seawater and brine solutions.

PRODUCTION SPECIFICATIONS

ASTM B622, B829/ASME SB622, SB829 NACE MR0175

MECHANICAL PROPERTIES

Yield Strength 0.2% Offset	41 KSI min.
Tensile Strength	100 KSI min.
Elongation (min. 2in.)	40%

DIMENSIONAL TOLERANCES

OD	OD Tolerance	Wall Tolerance
1/4" Tubes	+.004"/-.005"	+/- 12.5%
3/8" Tubes	+.004"/-.004"	+/- 12.5%
1/2" Tubes	+.005"/-.008"	+/- 15%

SIZE RANGE

Outside Diameter (OD)	Wall Thickness
1/4" - 1/2"	.035" - .065"

Cold Finished and Bright Annealed Tube

ALLOY C276 (UNS N10276)
CHEMICAL COMPOSITION % (MAX.)

Cr	Chromium	14.5 - 16.5
Ni	Nickel	57.0 (min.)
C	Carbon	0.01
Mo	Molybdenum	15.0 - 17.0
Mn	Manganese	1.0
Si	Silicon	0.08
P	Phosphorus	0.04
S	Sulfur	0.03
Fe	Iron	4.0 - 7.0
Co	Cobalt	2.5
W	Tungsten	3.5 - 4.0
V	Vanadium	0.35

OD	Wall	ID	PSI
1/4"	.035	.180	26,063
(.2500")	.049	.152	38,044
3/8"	.035	.305	16,673
(.3750")	.049	.277	24,123
	.065	.245	33,206
1/2"	.035	.430	12,258
(.5000")	.049	.402	17,581
	.065	.370	23,990

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

TYPICAL APPLICATIONS

Equipment in Sulfuric Acid Environments
Chemical Processing - Organic/Inorganic Chlorides
Sour Gas Well Environments
Pulp & Paper Productions - Digesters, Bleach Plants
Waste Treatment - Evaporators
Pollution Control - Sulfur Compounds in Flue Gas

FABRICATION

Detailed fabrication and welding process information is available upon request.