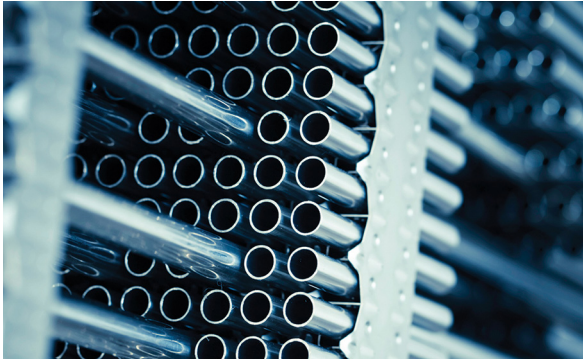


# ALLOY 625 NICKEL TUBING



Alloy 625 is an austenitic nickel alloy resistant to crevice corrosion and oxidation, specifically under a wide range of temperatures from cryogenic to 1800°F. This makes the product well suited for nuclear and aerospace applications. The main feature of alloy 625 is the addition of niobium, which increases the strength of the tubing without heat treating.

## PRODUCT SPECIFICATIONS

ASTM B444 / ASME SB444 / NACE MR0175

### SIZE RANGE

Outside Diameter (OD)	Wall Thickness
.375"-.750"	.035"-.095"

## CHEMICAL REQUIREMENTS

ALLOY 625 (UNS N06625)  
COMPOSITION %

Element	Symbol	Requirement
C	Carbon	0.10 max
Mn	Manganese	0.50 max
Si	Silicon	0.50 max
P	Phosphorous	0.015 max
Cr	Chromium	20.0-23.0
Nb + Ta	Niobium + Tantalum	3.15-4.15
Co	Cobalt	1.0 max
Mo	Molybdenum	8.0-10.0
Fe	Iron	5.0 max
Al	Aluminum	0.40 max
Ti	Titanium	0.40 max
Ni	Nickel	58.0 min

## DIMENSIONAL TOLERANCES

OD	OD Tolerance	Wall Tolerance
.375"-.500" excl	+0.004"/-0.000"	± 10%
.500"-1.250" excl	+0.005"/-0.000"	± 10%

## MECHANICAL PROPERTIES

Yield Strength	60 ksi min
Tensile Strength	120 ksi min
Elongation (min 2")	30%

## FABRICATION

Alloy 625 has excellent forming and welding characteristics, but is prone to work hardening.

OD	Wall	ID	Lbs./Ft.	Bursting PSI	Working PSI
<b>3/8"</b> <b>(.375")</b>	.035	.305	.1368	20,160	5,040
	.049	.277	.1837	28,224	7,056
	.065	.245	.2317	37,440	9,360
	.083	.209	.2787	47,808	11,952
<b>1/2"</b> <b>(.500")</b>	.035	.430	.1871	15,120	3,780
	.049	.402	.2541	21,168	5,292
	.065	.370	.3251	28,080	7,020
	.083	.334	.3980	35,856	8,964
<b>3/4"</b> <b>(.750")</b>	.065	.620	.5119	18,720	4,680
	.095	.560	.7155	27,360	6,840

All pressure ratings are approximate and for illustration purposes only. Values are not guaranteed or warranted.

## TYPICAL APPLICATIONS

Offshore  
Subsea  
Aerospace  
Nuclear  
Heat Exchangers  
Offshore Applications  
Chemical Processing

