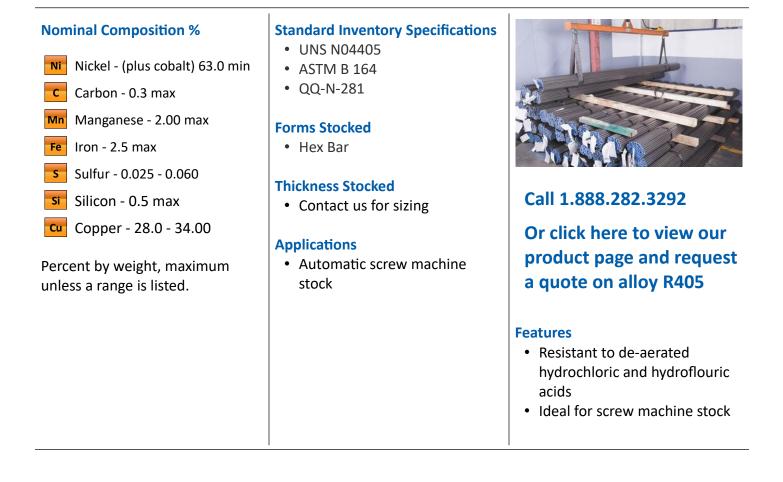


Monel R-405[™] is a nickel-copper-alloy. This high strength, free-machining grade of 400 has more sulfur, improving its machinability. While it maintains virtually the same corrosion resistance and physical properties as 400, it's slightly different range of mechanical properties are best recommended for screw machine stock.

Other components that may use Monel R-405[™] bar stock include valve parts and fasteners used in corrosive marine and seawater applications, and this alloy is especially resistant to de-aerated hydrochloric and hydrofluoric acids. Aeration of these acids will reduce the excellent corrosion resistance found in alloy R-405[™] fasteners.



The technical data provided is for information only and not for design purposes. It is not warranted or guaranteed.

Physical Properties

Properties	Value			
Density	0.318lb/in ³ (8.80 g/cm ³)			
Melting Range	2370-2460°F / 1300-1350°C			
Modulus of Elasticity	10 ³ ksi			
Tension	26			
Compression	26			
Torsion	9.5			
Poisson's Ratio	0.32			
Curie Temperature	70-120°F / 21-49°C			

Mechanical Properties

Condition	Tensile Strength, ksi	Yield Strength (0.2% offset) ksi	Elongation %	Hardness Brinell	Hardness Rockwell B
Annealed	70-85	25-40	50-35	110-140	60-76
Hot Finished	75-90	35-60	40-30	130-170	72-86
Cold Drawn, As Drawn	85-115	50-105		160-245	85-23C