

SHANGHAI C&N INDUSTRIAL GROUP LIMITED  
 INQUIRY TO [Bill@cnpipfitting.com](mailto:Bill@cnpipfitting.com)

INCONEL 718 Bolt, INCONEL 718 Hex Bolt,  
 INCONEL 718 Stud bolt

HEX HEAD BOLT & NUTS  
 STUD BOLT & NUTS

Standard: ANSI/ASME B18.2.1, DIN933, DIN931  
 Size: 1/4" - 4" , M5-M100

Material: Hastelloy c-276, Monel 400, Nickel, Inconel 600, INCONEL 625, INCONEL 718, Incoloy 800 Duplex, Superalloy, Austenitic Stainless steel  
 Heat Treatment: Solution and Aging

INCONEL® alloy 718 (UNS N07718/W.Nr. 2.4668) is a high-strength, corrosion-resistant nickel chromium material used at -423° to 1300°F. Typical composition limits are shown in Table 1.

The ease and economy with which INCONEL alloy 718 can be fabricated, combined with good tensile, fatigue, creep, and rupture strength, have resulted in its use in a wide range of applications. Examples of these are components for liquid fueled rockets, rings, casings and various formed sheet metal parts for aircraft and land-based gas turbine engines, and cryogenic tankage. It is also used for fasteners and instrumentation parts.



**Table 1 - Limiting Chemical Composition<sup>a</sup>, %**

Nickel (plus Cobalt) .....	50.00-55.00
Chromium.....	17.00-21.00
Iron .....	Balance*
Niobium (plus Tantalum).....	4.75-5.50
Molybdenum .....	2.80-3.30
Titanium.....	0.65-1.15
Aluminum .....	0.20-0.80
Cobalt .....	1.00 max.
Carbon .....	0.08 max.
Manganese .....	0.35 max.
Silicon .....	0.35 max.
Phosphorus.....	0.015 max.
Sulfur.....	0.015 max.
Boron .....	0.006 max.
Copper.....	0.30 max.

## PHYSICAL CONSTANTS AND THERMAL PROPERTIES

**Table 2 - Physical Constants**

Density, lb/in <sup>3</sup>	
Annealed.....	0.296
Annealed and Aged .....	0.297
Melting Range, °F.....	2300-2437
°C .....	1260-1336
Specific Heat at 70°F, Btu/lb °F (at 21°C, J/kg °C) .....	0.104 (435)
Curie Temperature, °F (°C)	
Annealed Material.....	<-320 (<-196)
Annealed and Aged Material .....	-170 (-112)
Permeability at 200 oersted and 70°F	
Annealed Material.....	1.0013
Annealed and Aged Material .....	1.0011

