



ALLOY 625 INSTRUMENTATION TUBE

PRODUCT GRADES & FINISHES

- Alloy 625 (UNS N06625) Inconel 625
- Bright Annealed

PRODUCT SPECIFICATIONS

ASTM B444 / ASME SB444 Grade1

COMPLIANCE

- NACE MR0175/MR0103
- EN10204 3.1
- PED / RoHS / ISO

PRODUCT SOURCING

Domestic & DFARS

PRODUCT SIZE RANGE

- Outside diameter (OD) 1/4" to 1"
- Wall thickness .035w .065w

GENERAL PROPERTIES

Nickel alloy 625 tubing, also known as Inconel 625, is a nickel-chromium-molybdenum superalloy renowned for its exceptional blend of properties. It maintains significant strength and toughness from cryogenic temperatures up to 1800° F. This is achieved through solid solution strengthening from molybdenum and niobium, eliminating the need for precipitation hardening. Alloy 625 is a high-performance material that provides a compelling combination of strength, corrosion resistance, and high-temperature performance, making it a versatile solution for demanding applications across a number of industries.

CORROSION RESISTANCE

- High resistance to intergranular corrosion due to the stabilization provided by niobium
- Exhibits resistance to chloride-ion stress corrosion cracking, a significant advantage in marine and chemical processing applications due to high nickel content
- Exceptional resistance to pitting and crevice corrosion, especially in chloride-bearing media, due to its high molybdenum content
- Resistance to organic acids in both oxidizing and reducing conditions

HEAT RESISTANCE

- Alloy 625 exhibits excellent heat resistance across a broad temperature range, making it suitable for various high-temperature applications
- Offers good resistance to scaling and oxidation in air at temperatures up to 1800° F

INDUSTRIES

Power Gen, Chemical Processing, Aerospace, Marine, Oil & Gas, Nuclear, Pollution & Waste processing, & Automotive

APPLICATIONS

Aerospace:

- High temperature strength and pressure control for fuel, hydraulic, and exhaust applications
- Offers strength and corrosion resistance for critical fluid transfer

Oil & Gas:

- Downhole and wellhead equipment containing hydrogen sulfide, chlorides, and high pressures
- Processing equipment used for separation equipment handling corrosive hydrocarbons & sour gases

Chemical Processing:

 Resists attack from a wide range of corrosive chemicals, gases, acids, & alkalis

Nuclear:

 Reactor core components where high strength and resistance to corrosion in high-temperature water

Pollution & Waste Processing:

- Resists corrosion from combustion byproducts, including halides
- Also used in Gas Scrubbers that handles corrosive gases and liquids in emission control systems



Dover Tubular Alloys founded in 1983, is a true Master Distributor of Stainless Steel, Nickel & Aluminum Tube and Pipe. With a focus on superior customer service and value, our inventory includes more than 3,000 variations of tubing sourced from the world's leading mills.