



Pump And Valve Manufacturing Monel K500 Wire With Corrosion Resistance

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Monel K500
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Special packaging requirements can also be accommodated. OEM is also acceptable.
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

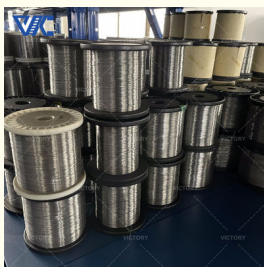


Product Specification

- Product Name: Monel K500 Wire
- Material: Nickel Base Alloy
- Nickel(Min): 63%
- Melting Point: 1288-1343
- Application: Pump And Valve Manufacturing
- Density: 8.05 G/cm³
- Thermal Conductivity: 17.2 Watts/meter-Kelvin
- Linear Expansion Coefficient: 13.9 X 10⁻⁶ Degrees
- Yield Strength: 790 MPa
- Tensile Strength: 1100MPa
- Elongation (≥ %): 20%
- Sureface: Bright,Oxided
- Highlight: **Monel Nickel Alloy Wire,
Nickel Based Monel Wire,
Corrosion Resistant Monel Wire**



More Images



Product Description

Introduction:

Monel K500 wire is an alloy material widely used in pump and valve manufacturing. As a nickel-copper alloy, Monel K500 wire has excellent performance and characteristics, so it is widely used in the manufacture and application of pumps and valves.

First, Monel K500 wire has excellent corrosion resistance. In the working environment of pumps and valves, they are often exposed to various corrosive media, such as acids, alkalis, salt water, etc. Monel K500 wire can resist the erosion of these corrosive media and is not prone to corrosion, oxidation or sulfurization reactions, maintaining its stable performance and extending its service life. It has high corrosion resistance to corrosive media such as seawater, chemical solutions and strong acids and alkalis, making it an ideal choice in pump and valve manufacturing.

Secondly, Monel K500 wire has excellent mechanical properties. It has high strength and excellent plasticity, and can withstand the stress and pressure of pumps and valves during work. This makes it an ideal material for manufacturing high-performance pumps and valves, capable of maintaining its stable performance under high pressure, high temperature and high-speed flow conditions, ensuring the reliability and safety of pumps and valves.

In addition, Monel K500 wire also has good sealing properties. In pumps and valves, sealing is critical to ensure the control and transfer of fluids. Monel K500 wire can achieve good cooperation with the sealing surface through appropriate processing and manufacturing processes, provide reliable sealing effect and avoid leakage and leakage problems.

Parameter:

Chemical composition:

Nickel (Ni): about 63%
Copper (Cu): about 29.5%
Aluminum (Al): about 2.7%
Titanium (Ti): about 0.6%
Iron (Fe): about 2%
Manganese (Mn): about 1.5%
Silicon (Si): about 0.5%
Carbon (C): up to 0.25%

Physical properties:

Density: about 8.05g/cubic centimeter
Melting point: about 1288-1343 degrees Celsius
Thermal Conductivity: Approximately 17.2 Watts/meter-Kelvin
Linear expansion coefficient: approximately 13.9×10^{-6} degrees Celsius⁻¹ (room temperature to 100 degrees Celsius)

Mechanical behavior:

Yield Strength (Tensile Strength): Minimum approximately 790 MPa (80,000 psi)
Tensile Strength: Minimum approximately 1100 MPa (110,000 psi)
Elongation: minimum value is about 20%

| Item | Ni | Cu | Al | Ti | Fe | Mn | S | C | Si |
|------------|-----|-------|----------|-----------|----|------|-------|-------|------|
| Monel K500 | ≥63 | 27-33 | 2.3-3.15 | 0.35-0.85 | ≤2 | ≤1.5 | ≤0.01 | ≤0.25 | ≤0.5 |

| Item | Density | Melting point | Tensile Strength | Yield Strength | Elongation |
|------------|------------|---------------|------------------|----------------|------------|
| Monel K500 | 8.05 g/cm3 | 1288-1343 | 1100 | 790 | 20% |

| Monel K500 | Bar/Rod | Forging | Pipe | Sheet/Strip | Welding Wire |
|------------|-----------|---------|-----------|-------------|--------------|
| Standard | ASTM B864 | AMS4676 | ASTM B865 | ASTM B564 | ErNiCu-7 |



| Shape | Size(mm) |
|---------|-------------------|
| Wire | 0.15-7.5 |
| Rod/Bar | 8.0-200 |
| Strip | (0.5-2.5)*(5-180) |
| Plate | custom made |

Advantage:

Monel K500 alloy wire is a high-strength, corrosion-resistant alloy material composed of elements such as nickel and copper. It is widely used in the field of pump and valve manufacturing mainly due to the following characteristics and advantages:

Corrosion resistance: Monel K500 alloy wire has excellent corrosion resistance and can resist various corrosive media, including acid, alkaline and salt water. This makes it an ideal material for manufacturing equipment such as pumps and valves, which can operate stably for long periods of time in corrosive environments.

High Strength Performance: Monel K500 alloy wire has excellent high strength performance and can withstand working conditions under high pressure and temperature. This makes it suitable for manufacturing critical components such as pumps

and valves that need to withstand high pressure and mechanical loads.

Anti-wear properties: Monel K500 alloy wire has good anti-wear properties and can maintain stable performance in friction and wear environments. This allows it to provide good wear resistance in some applications in pump and valve manufacturing, such as seals and valve seats in fluid transmission.

High temperature resistance: Monel K500 alloy wire can maintain stable performance in high temperature environments and is not prone to deformation and rupture. This makes it important in the manufacture of pumps and valves under high-temperature conditions, such as high-temperature fluid transportation and heat treatment.

Application:

In the field of pump and valve manufacturing, specific applications of Monel K500 alloy wire include but are not limited to the following aspects:

Pump body and pump blades: used to manufacture key components of the pump, such as pump body, blades and impellers.

Valve seat ring and valve core: used to manufacture valve sealing components, such as seat rings, valve cores and valve balls.

Fluid transmission pipeline: used to manufacture fluid transmission pipelines with corrosion resistance and high strength requirements, such as chemical pipelines and marine engineering pipelines.

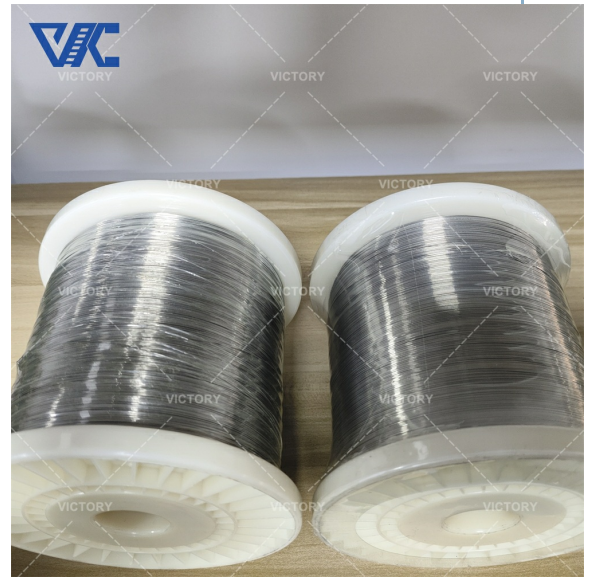
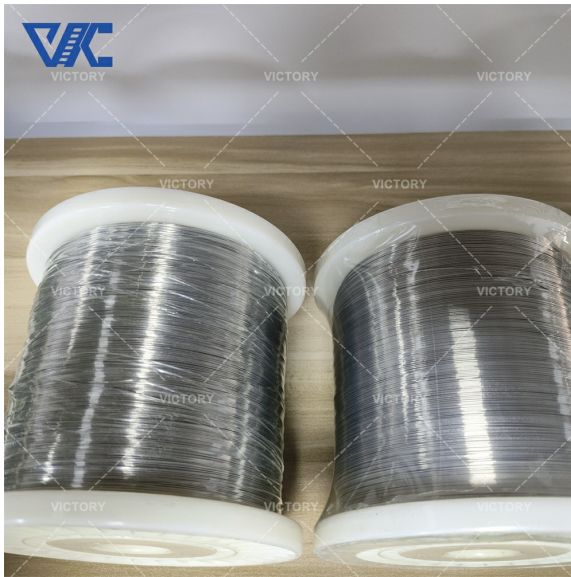
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Q&A:

Q: How is the quality of Monel K500 wire ensured?

A: The quality of Monel K500 wire is ensured through strict quality control measures, including material testing, dimensional checks, and adherence to industry standards.

Q: What are the benefits of using high-quality Monel K500 wire?

A: Using high-quality Monel K500 wire provides benefits such as reliable performance, extended service life, and resistance to corrosion and fatigue. It ensures the integrity of critical components in demanding applications, minimizing the risk of failures and downtime.



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