

BENKOO METAL

专业的不锈钢无缝钢管供应商，提供符合国际标准的高品质奥氏体不锈钢、马氏体不锈钢及特种高性能不锈钢管材

中文版本

English Version

Company Profile

BENKOO METAL is a professional supplier of stainless steel seamless pipes, committed to providing global customers with high-quality austenitic, martensitic, and special high-performance stainless steel pipes that meet international standards. With extensive material inventory and a strict quality control system, we ensure our products perform reliably in demanding industrial environments.

Material Specifications Overview

BENKOO METAL supplies seamless pipes in the following primary stainless steel grades to meet diverse industrial requirements.

Key American Standards (ASTM/UNS)

304 / 304L

S30400 / S30403

Category: Austenitic Stainless**Characteristics:** General purpose, good corrosion resistance & formability**316 / 316L**

S31600 / S31603

Category: Austenitic Stainless**Characteristics:** Molybdenum-added, improved pitting & crevice corrosion resistance**321 / 321H**

S32100 / S32109

Category: Austenitic Stainless**Characteristics:** Titanium-stabilized, resists intergranular corrosion**347 / 347H**

S34700 / S34709

Category: Austenitic Stainless**Characteristics:** Niobium-stabilized, excellent high-temperature properties**904L**

N08904

Category: Special High-Performance**Characteristics:** High Mo, low C, excellent resistance to general corrosion**410**

S41000

Category: Martensitic Stainless**Characteristics:** General purpose, heat-treatable, moderate strength & corrosion resistance

Key European Standards (EN/DIN) Comparison

| Category | Grade (Material No.) | Old Designation (DIN) | Similar U.S. Grade |
|-----------------------|----------------------|-----------------------|--------------------|
| Austenitic Stainless | 1.4301 | X5CrNi18-10 | 304 |
| Austenitic Stainless | 1.4307 | X2CrNi18-9 | 304L |
| Austenitic Stainless | 1.4401 | X5CrNiMo17-12-2 | 316 |
| Austenitic Stainless | 1.4404 | X2CrNiMo17-12-2 | 316L |
| Austenitic Stainless | 1.4541 | X6CrNiTi18-10 | 321 |
| Austenitic Stainless | 1.4845 | X8CrNi25-21 | 310S |
| Martensitic Stainless | 1.4006 | X12Cr13 | 410 |

Compliance Standards System

BENKOO METAL products strictly adhere to international mainstream standards.

Product & Material Standards Comparison

| Standard System | Standard Number | Standard Name / Scope |
|----------------------|-----------------|--|
| American (ASTM/ASME) | ASTM A213/A213M | Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes |
| American (ASTM/ASME) | ASTM A269/A269M | Seamless and Welded Austenitic Stainless Steel Tubing for General Service |
| American (ASTM/ASME) | ASTM A312/A312M | Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes |
| European (EN) | EN 10216-5 | Seamless steel tubes for pressure purposes - Part 5: Stainless steel tubes |
| German (DIN) | DIN 17456 | Seamless circular stainless steel tubes - Technical delivery conditions |
| Japanese (JIS) | JIS G3459 | Stainless steel pipes for ordinary piping |
| Japanese (JIS) | JIS G3463 | Stainless steel pipes for boiler and heat exchanger |
| Chinese (GB) | GB/T 14976 | Stainless steel seamless pipes for fluid transportation |

Target Applications

BENKOO METAL pipes are widely used in the following industries:

Application by Industry

| Industry | Recommended Grades (Examples) | Typical Applications |
|-----------------------|-------------------------------|---|
| Petrochemical | 316/316L, 317L, 321, 904L | Process piping, heat exchangers, reactors, catalyst carrier tubes |
| Food & Pharmaceutical | 304/304L, 316/316L | Processing equipment, transfer lines, fermentation tanks, sanitary tubing |
| Energy & Power | 304H, 316H, 321H, 347H | Power station boiler tubes, superheater & reheater tubes, nuclear secondary systems |
| Mechanical Equipment | 304, 316, 410, 420 | Hydraulic & pneumatic cylinders, bearing sleeves, precision instrument parts |
| Automotive & Marine | 304, 409, 321 | Automotive exhaust manifolds, marine fittings, fasteners for offshore equipment |
| Aerospace | 321, 347, 310S | Engine exhaust ducts, hydraulic system lines |

BENKOO METAL Advantage

We provide complete **Material Test Certificates (MTC)** compliant with EN 10204 3.1/3.2, ensuring full traceability. Our technical team offers professional **material selection guidance** and **standard substitution services** to meet your project's specific requirements.

© 2023 BENKOO METAL. All rights reserved.

专业不锈钢无缝钢管供应商 | Professional Stainless Steel Seamless Pipe Supplier