



Product specifications

Stainless steel wire

Standard	Description
ASTM A313	Chromium-nickel stainless and heat resisting steel spring wire.
ASTM A493	Stainless and heat resisting steel for cold heading and cold forging wire.
ASTM A580	Stainless and heat resisting steel wire.
ASTM A581	Free machining stainless and heat resisting steel wire and wire rods.
ASTM A555/A555M	General requirements for stainless and heat resisting steel wire and wire rods.
JIS G4309	Stainless steel wires.
JIS G4314	Stainless steel wires for springs.
Welding wire	
AWS A5.4	Specification for covered corrosion resisting chromium and chromium-nickel steel welding electrodes.
AWS A5.9	Specification for corrosion resisting chromium and chromium-nickel steel bare and composite metal cored and stranded welding electrodes and welding rods.

Stainless steel bar

Standard	Description
ASTM A276	Stainless and heat resisting steel bars and shapes.
ASTM A564/A564M	Hot rolled and cold finished age-hardening stainless and heat resisting steel bars and shapes.
ASTM A582	Free machining stainless and heat resisting steel bars and hot rolled or cold finished.
ASTM A193/A193M	Alloy steels and stainless steel bolting materials for high temperature service.
ASTM A194/A194M	Carbon and alloy steel nuts for bolts for high pressure and high temperature service.
ASTM A320/A320M	Alloy steel bolting materials for low temperature service.
ASTM A453/A453M	Bolting materials, high temperature 345 to 827MPa yield strength with expansion co-efficients comparable to austenitic steels.
ASTM A479/A479M	Stainless and heat resisting steel bars and shapes for use in boilers and other pressure vessels.
ASTM A484/A484M	General requirements for stainless and heat resisting steel bars, billets and forgings.
EN 10088-3	Stainless steels – Part 3: Technical delivery conditions for semi-finished products, bars, rods and sections for general purposes.

Stainless steel hollow bar

Standard	Description
ASTM A511	Seamless stainless steel mechanical tubing.
ASTM A450/A450M	General requirements for carbon, ferritic alloy and austenitic alloy tubes.
DIN 17 456	General purpose seamless circular stainless steel tubes – ferritic and austenitic.

Stainless steel flat product

Standard	Description
ASTM A167	Stainless and heat resisting chromium-nickel steel plate, sheet and strip.
ASTM A176	Stainless and heat resisting chromium steel plate, sheet and strip.
ASTM A240/A240M	Chromium and chromium-nickel stainless steel plate, sheet and strip for pressure vessels and general applications.
ASTM A263	Corrosion resisting chromium steel clad plate, sheet and strip.
ASTM A264	Stainless chromium-nickel steel clad plate, sheet and strip.
ASTM A265	Nickel and nickel base alloy clad steel plate.
ASTM A666	Austenitic stainless steel sheet, strip, plate and flat bar for structural applications.
ASTM A480/A480M	General requirements for flat rolled stainless and heat resisting steel plate, sheet and strip.
EN 10088-2	Stainless steels – Part 2: Technical delivery conditions for sheet/plate and strip for general purposes.
Higher austenitic	
ASTM B625	UNS N08904 plate, sheet and strip.

Stainless steel pipe

Standard	Description
ASTM A312/A312M	Seamless and welded austenitic stainless steel pipe.
ASTM A358/A358M	Electric-Fusion-Welded (EFW) austenitic chromium-nickel alloy steel pipe for high temperature service.
ASTM A409/A409M	Welded large diameter austenitic steel pipe for corrosive or high temperature service.
ASTM A731/A731M	Seamless and welded ferritic and martensitic stainless steel pipe.
ASTM A790/A790M	Seamless and welded ferritic/austenitic stainless steel pipe.
ASTM A450/A450M	General requirements for carbon, ferritic alloy and austenitic alloy steel tubes.
ASTM A530/A530M	General requirements for specialised carbon and alloy steel pipe.
ASTM A999/A999M	General requirements for alloy and stainless steel pipe.
JIS G3459	Stainless steel pipes.
ANSI/ASME B36.19M	Stainless steel pipe.
Higher austenitic	
ASTM B673	UNS N08904 welded pipe.
ASTM B677	UNS N08904 seamless pipe and tube.

Low alloy steel bar

Standard	Description
AS 1444	Wrought alloy steels – standard and hardenability (H) series and hardened and tempered to designated mechanical strengths.
ASTM A331	Steel bars, alloy, cold finished.
ASTM A434	Steel bars, alloy, hot wrought or cold finished, quenched and tempered.
ASTM A29/A29M	Steel bars, carbon and alloy, hot wrought and cold finished; general requirements.
ASTM A304	Steel bars, alloy, subject to end quench hardenability requirements.

Stainless steel pipe fittings and flanges

Standard	Description
ASTM A182/A182M	Forged or rolled alloy steel pipe flanges, forged fittings and valves and parts for high temperature service.
ASTM A403/A403M	Wrought austenitic stainless steel piping fittings.
ASTM A815/A815M	Wrought ferritic, ferritic/austenitic and martensitic stainless steel piping fittings.
AS 2129	Flanges for pipes, valves and fittings.
ASME B1.20.1	Pipe threads, general purpose (inch).
ANSI B16.5	Steel pipe flanges and flanged fittings.
ANSI B16.9	Factory-made wrought steel butt-welding fittings.
ANSI B16.11	Forged steel fittings socket-welding and threaded.
ANSI B16.25	Butt-welding ends.
MSS SP43	Wrought stainless steel butt-welding fittings.
BS21	BSP Threading - refer also AS ISO 7-1
ISO 4144	Stainless steel fittings threaded to ISO 7-1.

Stainless steel tube and fittings

Standard	Description
ASTM A213/A213M	Seamless ferritic and austenitic alloy steel boiler, superheater and heat exchanger tubes.
ASTM A249/A249M	Welded austenitic steel boiler, superheater, heat exchanger and condenser tubes.
ASTM A269	Seamless and welded austenitic stainless steel tubing for general purposes.
ASTM A270	Seamless and welded austenitic stainless steel sanitary tubing.
ASTM A450/A450M	General requirements for carbon, ferritic alloy and austenitic alloy steel tubes.
ASTM A554	Welded stainless steel mechanical tubing.
ASTM A791/A791M	Welded unannealed ferritic stainless steel tubing.
ASTM A789/A789M	Seamless and welded ferritic/austenitic stainless steel tubing for general service.
AS 1163	Structural steel hollow sections (dimensional tolerances).
AS 1528, Parts 1 to 4	Tubes (stainless steel) and tube fittings for the food industry.
Higher austenitic	
ASTM B674	UNS N08904 welded tube.
ASTM B677	UNS N08904 seamless pipe and tube.

Carbon and alloy steel hollow bar

Standard	Description
ASTM A519	Seamless carbon and alloy steel mechanical tubing.
ISO 2938	Hollow bars for machining.
DIN 1629	Seamless circular unalloyed steel tubes – special purposes.

Carbon steel bar products

Standard	Description
AS 1442	Carbon steels and carbon manganese steels – hot rolled bars and semi-finished product.
AS 1443	Carbon steels and carbon manganese steels – cold finished bars.
ASTM A576	Steel bars, carbon, hot wrought, special quality.
JIS G4051	Carbon steels for machine structural use.

Carbon steel pipe, tube and fittings

Standard	Description
ASTM A179/A179M	Seamless cold drawn low alloy steel heat exchanger and condenser tubes.
API 5L	Line pipe.
ASTM A53M	Black and zinc coated welded and seamless steel pipe.
ASTM A106M	Seamless carbon steel pipe for high temperature service.
ASTM A105M	Carbon steel forgings for piping applications.
ASTM A234M	Piping fittings of wrought carbon steel and alloy steel for moderate and high temperature service.
BS 3799	Steel pipe fittings, screwed and socket welding for the petroleum industry.
AS 1163	Structural steel hollow sections.
AS 1074	Steel tubes and tubular for ordinary service.
BS 13872	Screwed and socketed steel tube and tubulars.
EN 10241	Steel threaded pipe fittings.
ASME B36.10M	Welded and seamless wrought steel pipe.