



## SPECIFICATION LIST FOR PIPING MATERIALS

Pipe World Standards

API (American Petroleum Institute)

API Spec 2B Structural Steel Pipe – Steel Pipe

API Spec 2C Offshore Cranes – Offshore Cranes

API Spec 2F Mooring Chain - Flash Welded Chain; Forged Connecting Links

API Spec 2H Carbon Manganese Steel Plate for Offshore Platform Tubular Joints – Grade 42 Steel Plate; Grade 50 Steel Plate

API Spec 2MT1 As-Rolled Carbon Manganese Steel Plate with Improved Toughness for Offshore Structures – Steel Plate, Grade 2MT1

API Spec 2MT2 Rolled Shapes with Improved Notch Toughness - Steel Rolled Shapes

API Spec 2W Steel Plates for Offshore Structures Produced by Thermo-Mechanical Control Processing (TMCP) – Grade 50 Steel Plate; Grade 60 Steel Plate

API Spec 2Y Steel Plates, Quenched-and-Tempered, for Offshore Structures – Grade 50 Steel Plate; Grade 60 Steel Plate

API Spec 4F Drilling and Well Servicing Structures – Derricks; Masts; Crown Block Assemblies; Substructures; at PSL 1 and 2

API Spec 5B Threading, Gauging, and Thread Inspection of Casing, Tubing and Line Pipe Threads – Thread Gages

API Spec 5CT Casing and Tubing – Manufacturer of Casing or Tubing Plain End; Manufacturer of Casing or Tubing Threaded and Coupled; Manufacturer of Casing or Tubing Pup Joints; Manufacturer of Casing or Tubing Couplings; Manufacturer of Accessories; Processor of Casing or Tubing Plain End; Processor of Casing or Tubing Threaded and Coupled; Threader at Groups 1, 2, 3 and 4.

API Spec 5DP Drill Pipe - Drill Pipe Body; Tool Joints; Drill Pipe (Assembly)

API Spec 5L Line Pipe – Manufacturer of Line Pipe - Plain End at PSL 1; Manufacturer of Line Pipe - Plain End at PSL 2; Manufacturer of Line Pipe - Threaded and Coupled; Manufacturer of Line Pipe Couplings; Processor of Line Pipe - Plain End at PSL 1; Processor of Line Pipe - Plain End at PSL 2; Processor of Line Pipe - Threaded and Coupled; Threader.

API Spec 5LC CRA Line Pipe – Manufacturer of Alloy Pipe; Processor of Alloy Pipe

API Spec 5LCP Coiled Line Pipe – Coiled Line Pipe

API Spec 5LD CRA Clad or Lined Steel Pipe – Manufacturer of Clad Steel Pipe; Manufacturer of Lined Steel Pipe; Processor of Clad Steel Pipe; Processor of Lined Steel Pipe.

API Spec 5ST Coiled Tubing - Manufacturer of Coiled Tubing

API Spec 6A Wellhead and Christmas Tree Equipment – Manufacture of: Casing and Tubing Heads; Cross-Over Connectors; Tubing Head Adapters; Top Connectors; Tees and Crosses; Fluid-Sampling Devices; Adapter and Spacer Spools; Casing and Tubing Hangers; Valves; Chokes; Surface and Underwater Safety Valves; Surface and Underwater Safety Valve Actuators; Back Pressure Valves; Flanged Connectors; Threaded Connectors; Other End Connectors; Bull plugs; Valve Removal Plugs; Actuators; Ring Joint Gaskets at PSL 1 through 4

API Spec 6AV1 Verification Test of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Use – Testing Agency

API Spec 6D Pipeline Valves (Steel Gate, Plug, Ball, and Check Valves) – Gate Valves; Plug Valves; Ball Valves; Check Valves

API Spec 6DSS Subsea Pipeline Valves - Subsea Gate Valves; Subsea Plug Valves; Subsea Ball Valves; Subsea Check Valves

API Spec 6H End Closures, Connectors and Swivels – Pipeline Closures; Connectors; Couplings; Misalignment Devices (Swivels); Split Mechanical Fittings

API Spec 7-1 Rotary Drilling Equipment - Kelly Valves; Kelly's; Drill Stem Subs; Drill Collars; Heavy Weight Drill Pipe; Roller Bits; Blade Drag Bits; Diamond Bits; PDC Bits; Threading for Rotary Shouldered Connections

API Spec 7-2 Threading and Gauging of Rotary Shouldered Thread Connections - Rotary Shouldered Connection Gauges

API Spec 7B-11C Internal-Combustion Reciprocating Engines for Oil Field Service

API Spec 7F Oil Field Chain and Sprockets – Roller Chain

API Spec 7K Drilling Equipment – Rotary Tables, Kelly Bushings, Master Bushings, Rotary Slips, Rotary Hoses, Slush Pump Components, Draw works Components, Spiders Not Capable of Use as Elevators, Manual Tongs, Safety Clamps Not used as Hoisting Devices, Power Tongs

API Spec 7NRV Drill String Non-return Valves - Drill String Non Return Valves, Non Return Valve Subs, Non Return Valve Landing Nipples, Non Return Valve Equalizing Heads

API Spec 8A Drilling and Production Hoisting Equipment – Hoisting Sheaves, Traveling Blocks; Block-to-Hook Adapters, Connectors and Link Adapters, Drilling Hooks, Tubing and Sucker Rod Hooks; Elevator Links, Casing, Tubing and Drill Pipe Elevators, Spiders, Sucker Rod Elevators; Rotary Swivel Bail Adapters, Rotary Swivels; Deadline Tie-Downs; Heave Compensators; Kelly Spinners, When Used as Tension Member; Tension Members of Sub-Sea Handling Equipment

API Spec 8C Drilling and Production Hoisting Equipment – Hoisting Sheaves, Traveling Blocks and Hook Blocks; Block-to-Hook Adapters, Connectors and Link Adapters, Drilling Hooks, Tubing and Sucker Rod Hooks; Elevator Links, Casing, Tubing and Drill Pipe Elevators, Spiders (when capable of being used as elevators), Sucker Rod Elevators; Rotary Swivel Bail Adapters, Rotary Swivels; Power Swivels, Power Subs; Wireline Anchors; Heave Compensators; Kelly Spinners (when capable of being used as hoisting equipment); Pressure Vessels and Piping Mounted onto Hoisting Equipment at PSL 1 and 2



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## SPECIFICATION LIST FOR PIPING MATERIALS

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API Spec 9A Wire Rope – Bright or Drawn-Galvanized Wire Rope; Mooring Wire Rope; Torpedo Lines; Well-Measuring Wire; Well-Measuring Strand; Wire Guy Strand; Structural Rope and Strand

API Spec 10A Well Cements – API Well Cement Class A, Type [O]; Class B, Type [MSR, HSR]; Class C, Type [O, MSR, HSR]; Class D, Type [MSR, HSR]; Class E, Type [MSR, HSR]; Class F, Type [MSR, HSR]; Class G, Type [MSR, HSR]; Class H, Type [MSR, HSR]

API Spec 10D Bow-Spring Casing Centralizers – Casing Centralizers

API Spec 11AX Subsurface Sucker Rods, Pumps and Fittings – Pump and Pump Parts; Pump and Pump Parts without Tubing or Sucker Rod Threads; Seating Cups

API Spec 11B Sucker Rods – Steel Sucker Rods; FRP Sucker Rods; Couplings, Sub couplings and Polished Rod Connections; Polished Rods; Polished Rod Clamps; Stuffing Box and Pumping Tees; Sinkers Bars; Threads; Thread Gages

API Spec 11D1 Downhole Equipment - Packers; Bridge Plugs

API Spec 11E Pumping Units – Pumping Unit Structure; Pumping Unit Gear Reducer

API Spec 11IW Independent Wellhead Equipment – Independent Wellheads; Top Connectors; Tubing and Casing Slip Hangers; Tubing and Casing Mandrel Hangers; Packoffs; Belled Nipples; Connector Flanges; Stripper Adapters

API Spec 11V1 Gas Lift Valves, Orifices, Reverse Flow Valves and Dummy Valves – Gas Lift Valves; Reverse Flow (Check) Valves; Orifice Valves; Dummy Valves; Wireline Retrievable Valve Mandrels

API Spec 12B Bolted Tanks for Storage of Production Liquids – Storage Tanks

API Spec 12D Field Welded Tanks for Storage of Production Liquids – Storage Tanks

API Spec 12F Shop Welded Tanks for Storage and Production Liquids – Storage Tanks

API Spec 12J Oil and Gas Separators – Separators

API Spec 12K Indirect Type Oilfield Heaters – Heaters; Shells; Coils

API Spec 12L Vertical and Horizontal Emulsion Treaters – Treaters

API Spec 12P Fiberglass Reinforced Plastic Tanks – FRP Tanks

API Spec 13A Oil-Well Drilling-Fluid Materials – Barite; Barite 4,1 Hematite; Bentonite; Nontreated Bentonite; Attapulgit; Sepiolite; CMC-LVT; CMC-HVT; Starch; OCMA Grade Bentonite; PAC-LV; PAC-HV; Drilling-Grade Xanthan Gum

API Spec 14A Subsurface Safety Valve Equipment – Subsurface Safety Valves; Testing Agency

API Spec 14L Lock Mandrels and Landing Nipples - Lock Mandrels; Landing Nipples

API Spec 15HR High Pressure Fiberglass Line Pipe – Line Pipe; Couplings; Fittings; Flanges; Reducers and Adapters

API Spec 15LE Polyethylene Line Pipe (PE) – (PE) Line Pipe

API Spec 15LR Low Pressure Fiberglass Line Pipe – CC Line Pipe; FW Line Pipe

API Spec 16A Drill Through Equipment - Ram BOP; Ram Blocks, Packers, and/or Top Seals; Annular BOP; Annular Packing Units; Hydraulic Connectors; Drilling Spools; Adapters; Loose Connections; Clamps

API Spec 16C Choke and Kill Systems – Actuated Valve Control Lines; Articulated Choke & Kill Line; Drilling Choke Actuators; Drilling Choke Control Line exclusive of BOP Control Lines and Subsurface Safety Valve Control Lines; Drilling Choke Controls; Drilling Chokes; Flexible Choke and Kill Lines; Union Connections; Rigid Choke and Kill Lines; Swivel Joints; Choke and Kill Manifold Assemblies

API Spec 16D Control Systems for Drilling Well Control Equipment – Control Systems for Surface Mounted BOP Stacks; Hydraulic Control Systems for Subsea BOP Stacks; Electro-Hydraulic/Multiplex Control Systems for Subsea BOP Stacks; Diverter Control Systems; Emergency Backup BOP Control Systems; Auxiliary Equipment Control Systems and Interfaces

API Spec 16F Marine Drilling Riser Equipment

API Spec 16RCD Drill through Equipment (Rotating Control Devices)

API Spec 16R Marine Drilling Riser Couplings – Marine Drilling Riser Couplings

API Spec 17D Subsea Wellhead and Christmas Tree Equipment – Subsea Tree Equipment, Subsea Wellhead Equipment, Mudline Suspension System Equipment, Other Equipment at PSL 2, 3

API Spec 17E Subsea Production Control Umbilicals – Hose Umbilicals; Electrical Umbilicals; Electro-Hydraulic Umbilicals

API Spec 17F Subsea Production Control Systems - Subsea Production Control Systems

API Spec 17J Unbonded Flexible Pipe – Unbonded Flexible Pipe

API Spec 17K Bonded Flexible Pipe - Bonded Flexible Pipe

API Standard 547 General-Purpose Form-Wound Squirrel Cage Induction Motors - 250 Horsepower and Larger

API Standard 594 Check Valves

API Standard 599 Metal Plug Valves

API Standard 600 Bolted Bonnet Steel Gate Valves - Bolted Bonnet Steel Gate Valves

API Standard 602 Compact Steel Gate Valves, Globe Valves and Check Valves

API Standard 603 Corrosion-Resistant Bolted Bonnet Gate Valves

API Standard 608 Metal Ball Valves



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## SPECIFICATION LIST FOR PIPING MATERIALS

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BS (British Standards)

BS534 / Steel Pipes Fittings and Specials for Water and Gas and Sewage  
BS778 / Steel Pipes and Joints for Hydraulic Purposes  
BS879 / Steel Pipes and Joints for Hydraulic Purposes  
(HFS27/HFS35/ERW27/ERW26/HFS27/HFS35/ERW27/ERW26)  
BS1139 / Tubes for Use in Scaffolding  
BS1387 / Steel Tubes and Tubulars Suitable for Screwing to BS21 Pipe Threads  
(DN15/DN20/DN25/DN32/DN40/DN50/DN65/DN80/DN100/DN125/DN150/DN15/DN20/DN25/DN32/DN40)  
BS1717 / Steel Tubes for Cycle and Motor Cycle Purposes  
(CFSC3/CFSC4/CFSC6/ERWC1/ERWC2/ERWC3/ERWC5/CRWC1/CRWC2/CRWC3/CFSC3/C4)  
BS1864 / Stainless Steel Milk Pipes and Fittings  
(Gr.1/Gr.2/Gr.3/Gr.4/Gr.5/Gr.6/Gr.7/Gr.8/Gr.9/Gr.1/Gr.2/Gr.3/Gr.4/Gr.5/Gr.6/Gr.7/Gr.8/Gr.9)  
BS3059 PART1 / Steel Boiler and Superheater Tubes  
(HFS320/CFS320/ERW320/CEW320/HFS320/CFS320/ERW320/CEW320)  
BS3059 PART2 / Steel Boiler and Superheater Tubes  
(S1 360/S2 360/ERW360/CEW360/S1440/S2 440/ERW440/CEW440/S1 243/S2 243/ERW243/CEW243/ERW620)  
BS3600 / Dimensions and Masses Per Unit Length of Welded and Seamless Steel Pipes  
and for Pressure Purposes  
BS3601 / Steel Pipes and Tubes for Pressure Purposes Carbon Steel with Specified Room  
Temperature Properties (BW320/ERW320/ERW360/ERW430/S360/S430/SAW430/BW320/ERW320)  
BS3602 PART1 / Steel Pipes and Tubes for Pressure Purposes : Carbon and Carbon Manganese  
Steel with Specified Elevated Temperature Properties (HGS360/CFS360/CEW360/HFS430/CFS430/)  
BS3602 PART2 / Steel Pipes and Tubes for Pressure Purposes : Carbon and Carbon Manganese  
Steel with Specified Elevated Temperature Properties (SAW410/SAW460/SAW410/SAW460)  
BS3603 / Steel Pipes and Tubes for Pressure Purposes Carbon and Alloy Steel with  
Specified Low Temperature Properties (HFS410LT50/CFS410LT50/ERW410LT50)  
BS3604 / Steel Pipes and Tubes for Pressure Purposes Ferritic Alloy Steel with Specified Elevated  
Temperature Properties(JFS620-460/CFS620-460/ERW620-460/CEW620-460/HFS620-440/CFS620-440)  
BS3605 PART1 / Seamless and Welded Austenitic Stainless Steel Pipe and Tubes for  
Pressure Purposes(Seamless Pipes With Specified Room Temperature Properties)  
BS3605 PART2 / Seamless and Welded Austenitic Stainless Steel Pipe and Tubes for  
Pressure Purposes (Welded Pipes With Specified Room Temperature Properties)  
BS3606 / Steel Tubes for Heat Exchangers (ERW320/CEW320/CFS320/ERW440/CEW440/CFS440/ERW243)  
BS4127 / Light Gauge Stainless Steel Tubes(Round Pipe)  
BS4825 / Pipes and Fittings for the Food Industry  
BS5242 PART1 / Tubes for Fluid Power Cylinder Barrels (HP1/HP2/HP3/HP4/HP4/HP6/HP1/HP2/)  
BS5242 PART2 / Tubes for Fluid Power Cylinder Barrels (HP1/HP2/HP3/HP4/HP4/HP6/HP1)  
BS5242 PART3 / Tubes for Fluid Power Cylinder Barrels(for Mining)(HP1/HP2/HP3/HP4)  
BS6323 PART2 / Seamless and Welded Steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Hot finished welded steel tubes)  
BS6323 PART2 / Seamless and Welded Steel Tubes for Automobile Mechanical and General  
Engineer Purpose(Hot finished welded steel tubes) (Square. Rectangular Pipe)  
BS6323 PART3 / Seamless and Welded Steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Hot finished seamless steel tube)  
BS6323 PART4 / Seamless and Welded Steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Cold finished seamless tubes)  
BS6323 PART5 / Seamless and Welded Steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Electric resistance welded(including induction welded)steel tubes)  
BS6323 PART6 / Seamless and Welded steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Cold finished electric resistance welded (including induction welded) steel tubes)  
BS6323 PART6 / Seamless and Welded steel Tubes for Automobile Mechanical and General  
Engineer Purpose (Cold finished electric resistance welded (including induction welded) steel tubes)  
BS6323 PART7 / Seamless and Welded Steel Tubes for Automobile Mechanical and General



## SPECIFICATION LIST FOR PIPING MATERIALS

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Engineer Purpose (Submerged arc welded steel tubes)

BS6323 PART8 / Seamless and Welded Steel Tubes for Automobile Mechanical and General

Engineer Purpose(Longitudinally welded stainless steel tubes)

BS6323 PART8 / Seamless and Welded Steel Tubes for Automobile Mechanical and General

Engineer Purpose(Longitudinally welded stainless steel tubes)

BS6363 / Welded Cold Formed Steel Structural Hollow(34/26 / 43/36 / 50/45 /34/26 / 43/36 / 50/45)

BS7416 / Precision Finished Seamless Cold Drawn low Carbon Steel Tubes for Use in Hydraulic Fluid Power Systems

ASTM(ASTM International)

ASTM A53 / ASME SA53 / Pipe Steel Black and Hot Dipped Zinc Coated Welded and Seamless

ASTM A106 / ASME SA106 / Seamless Carbon Steel Pipe for High Temperature Service

ASTM A134 / ASME SA134 / Pipe Steel Electric Fusion(ARC) Welded(Sizes Nps 16 and Over)1

ASTM A135 / ASME SA135 / Pipe Steel Electric Fusion(ARC) Welded

ASTM A139 / ASME SA139 / Electric Resistance Welded Steel Pipe

ASTM A161 / ASME SA161/ Seamless Low Carbon And Carbon Molybdenum Steel Still Tubes For Refinery Service

ASTM A178 / ASME SA178 / Electric Resistance Welded Carbon Steel Boiler Tubes

ASTM A179 / Seamless Cold Drawn Low Carbon Steel Heat Exchanger and Condenser Tubes

ASTM A192 / ASME SA192 / Seamless Carbon Steel Boiler Tubes for High Pressure Service

ASTM A199 / ASME SA199 / Seamless Cold Drawn Intermediate Alloy Steel Heat Exchanger and Condenser Tubes

ASTM A200 / ASME SA200 / Seamless Intermediate Alloy Steel Still Tubes for Refinery Service

ASTM A209 / ASME SA209 / Seamless Carbon Molybdenum Alloy Steel Boiler and Superheater Tubes

ASTM A210 / ASME SA210 / Seamless Medium Carbon Steel Boiler and Superheater Tubes

ASTM A211 / ASME SA211 / Spiral Welded Steel or Iron Pipe

ASTM A213 / ASME SA213 / Seamless Ferritic and Austenitic Alloy Steel Boiler Superheater and Heat Exchanger Tubes

ASTM A214 / ASME SA214 / Electric Resistance Welded Carbon Steel Heat Exchanger and Condenser Tubes

ASTM A216 / ASME SA216 / Carbon Steel Castings Suitable for Fusion for High Temperature Service

ASTM A226 / ASME SA226 / Electric Resistance Welded Carbon Steel Boiler and Superheater Tubes for High Pressure Service

ASTM A249 / ASME SA249 / Welded Austenitic Steel Boiler Superheater Heat Exchanger and Condenser Tubes

ASTM A250 / ASME SA250 / Electric Resistance Welded Carbon Molybdenum Alloy Steel Boiler and Superheater Tubes

ASTM A252 / ASME SA252 / Welded and Seamless Steel Pipe Piles

ASTM A254 / ASME SA254 / Copper Brazed Steel Tubing

ASTM A268 / ASME SA268 / Seamless and Welded Ferritic Stainless Steel Tubing For General Service

ASTM A269 / ASME SA269 / Seamless and Welded Austenitic Stainless Steel Tubing for General Service

ASTM A270 / ASME SA270 / Seamless and Welded Austenitic Stainless Steel Sanitary Tubing

ASTM A271 / ASME SA271 / Seamless Austenitic Chromium Nickel Steel Still Tubes for Refinery Service

ASTM A312 / ASME SA312 / Seamless and Welded Austenitic Stainless Steel Pipe

ASTM A333 / ASME SA333 / Seamless and Welded Steel Pipe for Low Temperature Service

ASTM A334 /ASME SA334 / Seamless and Welded Carbon and Alloy Steel Tubes for Low Temperature Service

ASTM A335 / ASME SA335 / Seamless Ferritic Alloy Steel Pipe for High Temperature Service

ASTM A358 / ASME SA358 / Electric Fusion Welded Austenitic Chromium Nickel Alloy Steel Pipe for High Temperature Service1

ASTM A369 / ASME SA369 / Carbon and Ferritic Alloy Steel Forged and Bored Pipe for High Temperature Service

ASTM A376 / ASME SA376 / Seamless Austenitic Steel Pipe for High Temperature Central Station Service

ASTM A381 / ASME SA381 / Metal Arc Welded Steel Pipe for USE with High Pressure Transmission Systems

ASTM A405 / ASME SA405 / Seamless Ferritic Alloy Pipe Specially Heat Treated for High Temperature Service

ASTM A409 / ASME SA409 / Welded Large Diameter Austenitic Steel Pipe for Corrosive or High Temperature Service

ASTM A422 / ASME SA422 / Butt Welds in Still Tubes for Refinery Service

ASTM A423 / ASME SA423 / Seamless and Electric Welded Low Alloy Steel Tubes

ASTM A426 / ASME SA426 / Standard Specification for Centrifugally Cast Ferritic Alloy Steel Pipe for High Temperature Service1

ASTM A430 / ASME SA430 / Austenitic Steel Forged and Bored Pipe for High Temperature Service

ASTM A450 / ASME SA450 / General Requirements for Carbon Ferritic Alloy and Austenitic Alloy Steel Tubes1

ASTM A451 / ASME SA451 / Centrifugally Cast Austenitic Steel Pipe for High Temperature Service1



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- ASTM A452 / ASME SA452 / Centrifugally Cast Austenitic Steel Cold Wrought Pipe for High Temperature Service
- ASTM A498 / ASME SA498 / Seamless and Welded Carbon Ferritic and Austenitic Alloy Steel Heat-Exchanger Tubes With Integral Fins<sup>1</sup>
- ASTM A500 / ASME SA500 / Cold Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes(Round Pipe)
- ASTM A500 / ASME SA500 / Cold Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes(Square . Rectangular pipe)
- ASTM A501 / ASME SA501 / Hot Formed Welded and Seamless Carbon Steel Structural Tubing
- ASTM A511 / ASME SA511 / Seamless Stainless Steel Mechanical Tubing
- ASTM A512 / ASME SA512 / Cold Drawn Butt weld Carbon Steel Mechanical Tubing
- ASTM A513 / ASME SA513 / Electric Resistance Welded Carbon and Alloy Steel Mechanical Tubing
- ASTM A519 / ASME SA519 / Seamless Carbon and Alloy Steel Mechanical Tubing
- ASTM A520 / ASME SA520 / Supplementary Requirements for Seamless and Electric Resistance Welded Carbon Steel Tubular Products for High-Temperature Service Conforming to ISO Recommendations for Boiler Construction<sup>1</sup>
- ASTM A523 / ASME SA523 / Plain end Seamless and Electric Resistance Welded Steel Pipe for High Pressure Pipe Type Cable Circuits
- ASTM A524 / ASME SA524 / Seamless Carbon Steel Pipe for Atmospheric and Lower Temperatures
- ASTM A530 / ASME SA530 / Standard Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe<sup>1</sup>
- ASTM A539 / ASME SA539 / Electric Resistance Welded Coiled Steel Tubing for Gas and Fuel Oil Lines
- ASTM A554 / ASME SA554 / Welded Stainless Steel Mechanical Tubing(Round Pipe)
- ASTM A554 / ASME SA554 / Welded Stainless Steel Mechanical Tubing(Square . Rectangular pipe)
- ASTM A556 / ASME SA556 / Seamless Cold Drawn Carbon Steel Feedwater Heater Tubes
- ASTM A557 / ASME SA557 / Electric Resistance Welded Carbon Steel Feedwater Heater Tubes
- ASTM A587 / ASME SA587 / Electric Welded Low Carbon Steel Pipe for the Chemical Industry
- ASTM A589 / ASME SA589 / Seamless and Welded Carbon Steel Water Well Pipe
- ASTM A595 / ASME SA595 / Steel Tubes Low Carbon Tapered for Structural Use
- ASTM A608 / ASME SA608 / Centrifugally Cast Iron Chromium Nickel High Alloy Tubing for Pressure Application at High Temperature
- ASTM A618 / ASME SA618 / Hot Formed Welded and Seamless High Strength Low Alloy Structural Tubing
- ASTM A632 / ASME SA632 / Seamless and Welded Austenitic Stainless Steel Tubing(Small Diameter)for General Service
- ASTM A660 / ASME SA660 / Centrifugally Cast Carbon Steel Pipe for High Temperature Service
- ASTM A671 / ASME SA671 / Electric Fusion Welded Steel Pipe for Atmospheric and Lower Temperature
- ASTM A672 / ASME SA672 / Electric Fusion Welded Steel Pipe for High Pressure Service at Moderate Temperatures
- ASTM A688 / ASME SA688 / Welded Austenitic Stainless Steel Feedwater Heater Tube
- ASTM A691/ ASME SA691 / Carbon And Alloy Steel Pipe Electric Fusion Welded for High Pressure Service at High Temperatures
- ASTM A692 / ASME SA692 / Seamless Medium Strength Carbon Molybdenum
- ASTM A714 / ASME SA714 / High Strength Low Alloy Welded and Seamless Steel Pipe
- ASTM A727 / ASME SA727 Forgings, Carbon Steel, for piping components with Inherent Notch Toughness<sup>1</sup>
- ASTM A731 / ASME SA731 / Seamless and Welded Ferritic Stainless Steel Pipe
- ASTM A733 / ASME SA733 / Standard Specification for Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples<sup>1</sup>
- ASTM A771 / ASME SA771 / Austenitic Stainless Steel Tubing for Breeder Reactor Core Components
- ASTM A778 / ASME SA778 / Welded Un-annealed Austenitic Stainless Tubular Products
- ASTM A787 / ASME SA787 / Standard Specification for Electric Resistance Welded Metallic Coated Carbon Steel Mechanical Tubing<sup>1</sup>
- ASTM A789 / ASME SA789 / Seamless and Welded Ferritic/Austenitic Stainless Steel Pipe for General Service
- ASTM A790 / ASME SA790 / Welded Un-annealed Ferritic Stainless Steel Tubing
- ASTM A791 / ASME SA791 / Welded Un-annealed Ferritic Stainless Steel Tubing
- ASTM A795 / ASME SA795 / Black and Hot-Dipped Zinc Coated(Galvanized) Welded and Seamless Steel Pipe for Fire Protection USE<sup>1</sup>
- ASTM A803 / ASME SA803 / Welded Ferritic Stainless Steel Feed Water Heater Tubes
- ASTM A813 / ASME SA813 / Single or Double Welded Austenitic Stainless Steel Pipe
- ASTM A814 / ASME SA814 / Cold Worked Welded Austenitic Stainless Steel Pipe
- ASTM A822 / ASME SA822 / Seamless Cold Drawn Carbon Steel Tubing For Hydraulic System Service



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ASTM A826 / ASME SA826 / Austenitic and Ferritic Stainless Steel Duct Tubes for Breeder Reactor Core Components  
ASTM A847 / ASME SA847 / Cold Formed Welded and Seamless High Strength Low Alloy Structural Tubing With Improved Atmospheric Corrosion Resistance  
ASTM A851 / ASME SA851 / High Frequency Induction Welded Un-annealed Austenitic Steel Condenser Tubes  
ASTM A865 / ASME SA865 / Threaded Couplings Steel Black or Zinc Coated (Galvanized) Welded or Seamless for Use in Steel Pipe Joints<sup>1</sup>  
ASTM A872 / ASME SA872 / Centrifugally Cast Ferritic/Austenitic Stainless Steel Pipe for Corrosive Environments  
ASTM A908 / ASME SA908 / Stainless Steel Needle Tubing<sup>1</sup>

JIS (Japan Industrial Standards)

JIS G3442 Galvanized Steel Pipes for Water Service (SGPW)  
JIS G3447 Stainless Steel sanitary Pipes (SUS 304TBS/304LTBS/ 316TBS/316LTBS)  
JIS G3448 Light Gauge Stainless Steel Pipes for Ordinary Piping (SUS304TPD/316TPD)  
JIS G3452 Carbon Steel Pipes for Ordinary Piping (SGP)  
JIS G3454 Carbon Steel Pipes for Pressure Service (STPG 370/STPG 410)  
JIS G3455 Carbon Steel Pipes for High Pressure Service (STS 370/STS 410/STS 480)  
JIS G3456 Carbon Steel Pipes for High Temperature Service (STPT370/STPT410/STPT480)  
JIS G3457 Arc Welded Carbon Steel Pipes (STPY400)  
JIS G3458 Alloy Steel Pipes (STPA 12/ 20/ 22/ 23/ 24/ 25/ 26)  
JIS G3459 Stainless Steel Pipes (SUS 304TP/304HTP/304LTP/309TP/309STP)  
JIS G3460 Steel Pipes for Low Temperature Service (STPL 380/STPL 450/STPL 690)  
JIS G3468 Arc Welded Large Diameter Stainless Steel Pipes (SUS304TPY /304LTPY)  
JIS G3469 Polyethylene coated Steel Pipes (P1H /P2S/P1F)  
JIS G3461 Carbon Steel Tubes for Boiler and Heat Exchanger (STB 340/STB 410/STB 510)  
JIS G3462 Alloy Steel for Boiler and Heat Exchanger Tubes (STBA12/ 13/ 20/ 22)  
JIS G3463 Stainless Steel for Boiler and Heat Exchanger Tubes (SUS304TB/304HTB/316TB)  
JIS G3464 Steel Heat Exchanger Tubes for Low Temperature Service (STBL380/ 450/690)  
JIS G3467 Steel Tubes for Fired Heater (STF 410/STFA 12/ 22/ 23/ 24/ 25/ 26)  
JIS G3131 Hot-Roll mild steel plates, sheet and strip (HR Pipe SPHC/SPHD/SPHE)  
JIS G3141 Cold-reduced carbon steel sheets and strip (CR Pipe SPCC/SPCD/SPEC)  
JIS G3441 Alloy steel tubes for machine purposes (SCR420TK/SCM415TK/418TK/420TK)  
JIS G3444 Carbon steel tubes for general structural purposes (STK290/STK400/500/490)  
JIS G3445 Carbon steel tubes for machine structural purposes (STKM11A/12A/13A/14A)  
JIS G3446 Stainless steel pipes for machine and structural purposes (SUS304TKA) ROUND  
  
JIS G3466 Carbon steel Square for general structural purposes (STKR 400/STKR 490)  
JIS G3471 Corrugated steel pipes and sections (SCP1R/SCP 1 RS/SCP 2 R/SCP 3 RS/SCP2E)  
JIS G3472 Electric Resistance Welded Carbon Steel Tubes for Automobile Structural Purposes  
JIS G3473 Carbon Steel Tubes Cylinder Barrels (STC370/STC440/STC510A/STC510B/STC540)  
JIS G3474 High Tensile Strength Steel Tubes for Tower Structural Purposes (STKT540/590)  
JIS G4051 Carbon steel for Machine Structural Use (S45C Pipe)  
JIS A5525 Steel pipes piles (SPS290/SPS400/SPS500/SPS490/SPS540)  
JIS A5530 Steel pipe sheet piles (SKY 400/SKY 490)  
JIS G3429 Seamless Steel Tubes for High Pressure Gas Cylinder (STH 11/STH 12/STH 21..)  
JIS G3465 Seamless Steel Tubes for Drilling (STM-C 540/STM-C 640 /STM-R 590/STM-R 690)  
JIS G4903 Seamless nickel-chromium-iron alloy pipes (NCF600TP/NCF625TP/NCF690TP)  
JIS G4904 Seamless nickel-chromium-iron alloy heat exchanger tubes (NCF600TB/NCF625TB)  
IS C8305 Rigid steel conduits (G 16/G 22/G 28/G 36/G 42/G 54/G 70/G 82)  
  
JIS C8380 Plastic coated steel pipes for cable ways (G16LL/G16LT/G 22LL/G 22LT/G 28LL8LT)  
JIS G4805 Seamless Pipe High Carbon Chromium Bearing Steel Pipe (SUJ-2)



## SPECIFICATION LIST FOR PIPING MATERIALS

DIN (Deutsches Institute for Normung)

- DIN1615 / Welded Circular Unalloyed Steel Tubes Not Subject To Special Requirements  
DIN1626 / Welded Circular Tubes of Non Alloy Steels with Special Quality Requirements  
(USt37.0/St37.0/St44.0/St52.0)  
DIN1628 / Welded Circular Tubes of Non Alloy Steels with Very High Quality Requirements  
(St37.4/St44.4/St52.4)  
DIN1629 / Seamless Circular Tubes of Non Alloy Steels with Special Quality Requirements  
(St 37.0/St 44.0/St 52.0/1.0254/1.0256/1.0421)  
DIN1630 / Seamless Circular Tubes of Non Alloy Steels with Very High Quality Requirements  
(St 37.4/St 44.4/St 52.4/1.0255/1.0257/1.0581)  
DIN2391-1 / Seamless Precision Steel Tubes (St30Si/St30A1/St35/St45/St52)  
DIN2391-2 / Seamless Precision Steel Tubes (St30Si/St30A1/St35/St45/St52)  
DIN2393-1 / Welded Precision Steel Tubes  
(St28/USt28/RSt28/St34-2/US34-2/RSt34-2/St37-2/USt37-2/RSt37-2/St44-2/St52-3)  
DIN2393-2 / Welded Precision Steel Tubes  
(St28/USt28/RSt28/St34-2/US34-2/RSt34-2/St37-2/USt37-2/RSt37-2/St44-2/St52-3)  
DIN2394-1 / Welded And Sized Precision Steel Tubes  
(St28/USt28/RSt28/St34-2/US34-2/RSt34-2/St37-2/USt37-2/RSt37-2/St44-2/St52-3)  
DIN2394-2 / Welded And Sized Precision Steel Tubes  
(St28/USt28/RSt28/St34-2/US34-2/RSt34-2/St37-2/USt37-2/RSt37-2/St44-2/St52-3)  
DIN2395-1 / Rectangular and Square Electric Welded Precision Steel Tubes  
DIN2395-2 / Rectangular and Square Electric Welded Precision Steel Tubes (St 34.2/St 37.2/St 52.3)  
DIN2395-3 / Rectangular and Square Electric Welded Precision Steel Tubes  
DIN2402 Pipelines Nominal Widths Grading Pipework; grading of nominal sizes  
DIN2403 Marking of pipes according to fluid transported  
DIN2413 Part1 Design of steel pressure pipes  
DIN2413 Part2 Design of steel bends used in pressure pipelines  
DIN2440 / Steel Tubes Medium Weight Suitable for Screwing (St33.2)  
DIN2441 / Steel Tubes Heavy Weight for Suitable for Screwing (St33.2)  
DIN2444 / Zinc Coatings on Steel Tubes  
DIN2445-1 / Seamless Steel Tubes for Dynamic Loads Hot Finished Tubes Nominal Pressures 100 to 400  
DIN2445-2 / Seamless Steel Tubes for Dynamic Loads Basis for Calculation of Straight Tubes  
(St 35,4/St 52.4)
- DIN2448 / Seamless Steel Pipes and Tubes  
DIN2449 / Seamless Steel Pipes and Tubes  
DIN2450 / Seamless Steel Tubes in St 35 Dimensions and Range of Application
- DIN2458 / Welded Steel Pipes and Tubes  
DIN2460 / Steel Pipes for Water Pipelines  
DIN2462 / Seamless Tubes Of Stainless Steel (1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)  
DIN2463 / Welded Tubes of Austenitic Stainless Steel  
(X5CrNi189/X2CrNi189/X5CrNiMo1810/X2CrNiMo1810/X2CrNiMo1812/X5CrNiMo1812/X10CrNiTi189)  
DIN2916 Bending Radii for seamless and Welded Steel Tubes  
DIN2917 Seamless steel tubes for superheated pipelines and headers  
DIN17100 / Steels for General Structural Purposes  
(St33/St37.2/USt37.2/RSt37.2/St37.3/St44-2/St44-3/St50-2/St60-2/St52-33/St50-2/St60-2/St70-2)  
DIN17102 / Weldable Normalized Fine Grain Structural Steels  
(StE255/WStE255/TStE255/EstE255/StE285/WStE285/TStE285/EstE285/)  
DIN17119 / Welded Cold Formed Square And Rectangular Steel Tubes for Structural Steel work  
(St 37-2/St 37-3/St 44-2/St 44-3/St 52-3/WStSt 37-2/WStSt 37-3/WStSt 52-3)  
DIN17120 / Welded Circular Steel Tubes for Structural Steelwork  
(USt37-2/RSt37-2/St37-2/St44-2/St44-3/St52-3)  
DIN17121 / Seamless Circular Steel Tubes for Structural Steelwork  
(RSt37-2/St37-3/St44-2/St44-3/St52-3)



• BDL PROJECT SUPPLY •

## SPECIFICATION LIST FOR PIPING MATERIALS

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- DIN17123 / Welded Circular Fine Grain Steel Tubes for Structural Steelwork  
(StE225/TStE255/ESStE255/StE285/StE355/TStE355/ESStE355/StE420/TStE420/ESStE420)
- DIN17124 / Carbon and Ferritic Alloy Steel Forged and Bored Pipe for High Temperature Service  
(StE255/TStE255/ESStE255/StE285/TStE285/ESStE285/StE355/TStE355/ESStE355/StE420/TStE420/ESStE420)
- DIN17172 / Steel Pipes for Pipe Lines for the Transport of Combustible Fluids and Gases  
(StE210.7/StE240.7/StE290.7/StE320.7/StE360.7/StE385.7/StE415.7/StE290.7TM/StE207.7TM/StE360.7TM)
- DIN17173 / Seamless Circular Tubes Made From Steels with Low Temperature Service  
(TSt35N/TSt35V/26CrMo4/11MnNi53/13MnNi63/10Ni14/12Ni19/X8Ni19)
- DIN17174 / Seamless Steel Tubes for Elevated Temperatures  
(TTSt 35 N/TTSt 35 V/11 MnNi 5 3/13 MnNi 6 3/10 Ni 14/12 Ni 19/X 8 Ni 9/1.0356/1.6212/1.6217/1.5637/1.5680)
- DIN17175 / Electrical Resistance Or Induction Welded Steel Tubes for Elevated Temperature  
(St35.8/St45.8/17Mn4/19Mn5/15Mo3/13CrMo910/10CrMo910/14MoV63/X20CrMoV121)
- DIN17176 Seamless circular steel tubes for hydrogen service at elevated temperatures and pressures Technical delivery condition
- DIN17177 / Electrically Resistance or Induction Welded Steel Tubes for Elevated Temperature  
(St37.8/St42.8/15Mo3)
- DIN 17178 Welded circular fine grain steel tubes subject to special requirements Technical delivery conditions
- DIN 17179 Seamless circular fine grain steel tubes subject to special requirements Technical delivery conditions
- DIN17455 / General Purpose Welded Circular Stainless Steel Tubes (Round Pipe)  
( 1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)
- DIN17455 / General Purpose Welded Circular Stainless Steel Tubes (Square. Rectangular Pipe)  
( 1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)
- DIN17456 / General Purpose Seamless Circular Stainless Steel Tubes  
( 1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)
- DIN17457 / Welded Circular Austenitic Stainless Steel Tubes Subject to Special Requirements  
( 1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)
- DIN17458 / Seamless Circular Austenitic Stainless Steel Tubes Subject to Special Requirements  
(1.4301 / 1.4306 / 1.4311 / 1.4541 / 1.4550 / 1.4401 / 1.4404 / 1.4571)
- DIN17671 / Wrought Copper and Copper Alloy Tubes Properties
- DIN 59410 Hollow Sections for Structural Steel Engineering of Formed Square and Rectangular Steel Tubes Dimensions, Weights, Permissible Deviations, Static Values
- DIN 59411 Hollow Sections for Structural Steel Engineering Cold Formed Welded Square and Rectangular Steel Tubes Dimension, Weights, Permissible Deviations, Static Values
- ISO(International organization for Standardization)
- ISO 65 / Carbon Steel Tubes Suitable for Screwing in Accordance with ISO 7/1 (TS/TW)
- ISO 559 / Welded or Seamless Steel Tubes for Water Sewage and Gas (TSO/TWO/TS1/TW1/TS4/TW4/TS9/TW9)
- ISO 2604-2 / Steel Products for Pressure Purposes PART2 Wrought Seamless Tubes  
(TS1/TS2/TS4/TS5/TS6/TS9/TS9H/TS10/TS13/TS14/TS15)
- ISO 2604-3 / Steel Products for Pressure Purpose Parts Electric Resistance and Induction Welded Tubes  
(TW1/TW2/TW4/TW5/TW6/TW9/TW9H/TW10/TW13/TW14)
- ISO 2604-5 / Steel Products for Pressure Purposes PART5 Longitudinally Welded Austenitic stainless Steel Tubes  
(TW46/TW47/TW50/TW53/TW57/TW58/TW60/TW61/TW69)
- ISO 2937 / Plain End Seamless Steel Tubes for Mechanical Application (TS1/TS4/TS9/TS18/C35)





## SPECIFICATION LIST FOR PIPING MATERIALS

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- ISO 2938 / Hollow Steel Bars for Machining (Gr1/Gr2)
- ISO 3183 / Oil and Natural Gas Industries Steel Line Pipe (E17/E21/E24-1/E24-2)
- ISO 3304 / Plain end Seamless Precision Steel Tubes (R28/R33/R37/R42/R50)
- ISO 3305 / Plain end Welded Precision Steel Tubes (R28/R33/R37/R44/R50)
- ISO 3306 / Plain end as Welded and Sized Precision steel Tubes (R28/R33/R37/R44/R50)
- KS(Korean Standards)
- KS D 3507 Carbon Steel Pipes for Ordinary Piping (SPP ZINC WATER)
- KS D 3507 Carbon Steel Pipes for Ordinary Piping (SPP BLACK)
- KS D 3537 Galvanized Steel Pipes for Water Service (SPPW)
- KS D 3562 Carbon Steel Pipes for Pressure Service (SPPS 370/SPPS 410)
- KS D 3564 Carbon Steel Pipes for High Pressure Service (SPPH 370/SPPH 410/SPPH 480)
- KS D 3569 Steel Pipes for Low Temperature Service (SPLT 380/SPLT 450/SPLT 690)
- KS D 3570 Carbon Steel Pipes for High Temperature Service (SPHT370/SPHT410/SPHT480)
- KS D 3573 Alloy Steel Pipes (SPA 12/SPA 20/SPA 22/SPA 23/SPA 24/SPA 25/SPA 26)
- KS D 3576 Stainless Steel Pipes (STS304TP/STS304HTP/STS304LTP/STS309TP/STS309STP)
- KS D 3583 Arc Welded Carbon Steel Pipes (SPW 400)
- KS D 3585 Stainless Steel sanitary Pipes (STS 304TBS/STS 304LTBS/STS 316TBS)
- KS D 3588 Arc Welded Large Diameter Stainless Steel Pipes (STS 304 TPY/STS 304 LTPY)
- KS D 3589 Polyethylene coated Steel Pipes (P1H/P2S/P1F)
- KS D 3595 Light Gauge Stainless Steel Pipes for Ordinary Piping (STS 304 TPD/STS 316 TPD)
- KS D 3563 Carbon Steel Tubes for Boiler and Heat Exchanger (STBH 340/STBH 410/ 510)
- KS D 3571 Steel Heat Exchanger Tubes for Low Temperature Service (STLT380/STLT450)
- KS D 3572 Alloy Steel for Boiler and Heat Exchanger Tubes (STHA 12/STHA 13/STHA 20)
- KS D 3577 Stainless Steel for Boiler and Heat Exchanger Tubes (STS 304TB/STS 304HTB)
- KS D 3587 Steel Tubes for Fired Heater (STF410/STFA12/STFA22/STFA23/STFA24/STFA25)
- KS D 3517 Carbon steel tubes for machine structural purposes (STKM 11A/STKM 12A)
- KS D 3536 Stainless steel pipes for machine and structural purposes (STS430TKA/430TKC)
- KS D 3536 Stainless steel pipes for machine and structural purposes (STS304TKA/430TKC)
- KS D 3566 Carbon steel tubes for general structural purposes (SPS 290/SPS 400/SPS 500)
- KS D 3568 Carbon steel Square for general structural purposes (SPSR 400/SPSR 490)
- KS D 3574 Alloy steel tubes for machine purposes (SCr 420 TK/SCM 415 TK/SCM 418 TK)



## SPECIFICATION LIST FOR PIPING MATERIALS

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KS D 3590 Corrugated steel pipes and sections (SCP 1 R/SCP 1 RS/SCP 2 R/SCP 3 RS)

KS D 3598 Electric Resistance Welded Carbon Steel Tubes for Automobile Structural Purposes (STAM 290GA/STAM 290GB/STAM 340G/STAM 390G/440G/470G/500G)

KS D 3618 Carbon Steel Tubes Cylinder Barrels (STC 370/STC 440/STC 510 A/STC 510 B)

KS D 3780 High Tensile Strength Steel Tubes for Tower Structural Purposes (STKT 540)

KS F 4602 Steel pipes piles (SPS30/SPS41/SPS51/SPS50/SPS55)

KS F 4605 Steel pipe sheet piles (SKY 400/SKY 490)

KS D 3575 Seamless Steel Tubes for High Pressure Gas Cylinder (STHG11/STHG12/STHG21)

KS D 3757 Seamless nickel-chromium-iron alloy heat exchanger tubes (NCF 600 TB)

KS D 3758 Seamless nickel-chromium-iron alloy pipes (NCF600TP/NCF625TP/NCF690TP)

KS C 8401 Rigid steel conduits (G16/G22/G28/G36/G42/G54/G70/G82/G92/G104)

KS E 3114 Seamless Steel Tubes for Drilling (STM-C 540/STM-C 640/STM-R 590/R 690)

NF(Norme Francise)

NF A49-111 / Steel Tubes Plain end Seamless Tubes of Commercial Quality for General Purposes at Medium Pressure (TU37a)

NF A49-112 / Steel Tubes Plain end Seamless Hot Rolled Tubes with Special Delivery Conditions (TUE220A/TUE235A)

NF A49-115 / Steel Tubes Seamless Plain end Tubes for Pipe Lines and General Use Ferritic And Austenitic Stainless Steels (TUZ2CN18-10/TUZ6CN18-09//TUZ6CND17-11)

NF A49-141 / Steel Tubes Seamless Plain end Tubes for Pipe Lines and General Use Ferritic and Austenitic Stainless Steels (TS37a)

NF A49-142 / Steel Tubes Longitudinally Pressure Welded Plain Ended And Hot Finished Tubes (TES185A/TSE235A/TSE250A/TSE275A)

NF A49-145 / Steel Tubes Hot Finished welded Tubes Suitable for Threading (TS334-1)

NF A49-146 / Steel Tubes Unthreaded Plain Ended Welded Tubes for Liquids (TS34-a)

NF A49-148 / Steel Tubes Plain end Longitudinally Welded Tubes for Pipe Lines and General use Ferritic Stainless Steels (TSZ5CT14/TSZ6CT17/TSZ6CT17/TSZ18C17)

NF A49-150 / Steel Tubes Welded Tubes Intended to be Coated of Protected for use in Water Piping Systems (TSE235)

NF A49-175 / Steel Tubes Plain end Longitudinally Welded Tubes for Pipe Lines and General use Austenitic Stainless Steel (TSZ2CN18-10/TSZ6CN18-09/TSZ3CNT18-10)

NF A49-207 / Steel Tubes Seamless or Longitudinally Welded Stainless Steel Tubes For Exchangers in Aircraft Construction (TSZ2CN18-10/TUZ2CN8-10/TSZ6CNNb18-12)

NF A49-210 / Steel Tubes Seamless Cold Drawn Tubes for Fluid Piping

(TU37B/TU42B)

NF A49-211 / Steel Tubes Seamless Plain end Unalloyed Steel Tubes for Fluid Piping at Elevated Temperatures (TUE220/TUE250/TUE275)

NF A49-212 / Steel Tubes Seamless Unalloyed Steel Tubes for Use At Medium Temperatures (TU37C/TU42C)



## SPECIFICATION LIST FOR PIPING MATERIALS

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NF A49-213 / Steel Tubes Seamless Unalloyed and Mo Crmo Alloy Steel Tubes for Use at High Temperatures (TU37C/TU42C/TU42CR/TU48C/TU48CR/RU52C/TU15D3/TU15CD2-05)

NF A49-214 / Steel Tubes Seamless Austenitic Steel Tubes for use at High Temperatures (Z6CN19-10/Z3CND17-12B/Z6CNT18-12B/Z6CNNb18-12B/)

NF A49-215 / Steel Tubes Seamless Tubes For Ferritic NonAlloy And Alloy Heat Exchangers (TU37C/TU42C/TU48C/TU15D3/TU15CD2-05/TU10CD5-05/TU10CD9-10)

NF A49-217 / Steel Tubes Seamless Tubes for Heat Exchangers (TUZ12C13/TUZ10C17/TUZ2CN1810/TUZ2CN1810AZ/TUZ3CN1809/TUZ1CNS1815)

NF A49-218 / Steel Pipes Seamless Pipes for Furnaces Austenitic Stainless Steels

(TUZ6CN18-09/TUZ2CN18-10/TUZ6CNT18-10/TUZ6CNNb18-10/TUZ6CND17-11/TUZ2CND17-12)

NF A49-230 / Steel Tubes Plain end Seamless Tubes for Pressure Vessels and Piping Systems Used at Low Temperatures (TU42BT/TU17N2/TU10N9/TU10N14/TUZ6N9)

NF A49-240 / Steel Tubes Longitudinally Butt welding Plain End for Pressure Vessels and Pipe Systems Used at Low Temperatures (TS42BT/TS17N2/TS10N9)

NF A49-241 / Steel Tubes Longitudinally Pressure Welded Tubes D 168.3mmMax in not Alloyed and Low Alloyed at Medium Elevated Temperatures(TS37C/TS42C/TSE24W3)

NF A49-242 / Steel Tubes Longitudinally Pressure Welded Tubes D 168.3mmMax in not Alloyed and Low Alloyed at Medium Elevated Temperatures

(TS37C/TS42C/TSE24W3/TSE36WB3)

NF A49-243 / Steel Tubes Longitudinally Pressure Welded Tubes D 168.3mm in not Alloyed and Ferritic Alloyed Steels Used at Elevated Temperatures

(TS37C/TS42C/TS48C/TS52C/TS15D3/TS15CD2-05/TS15CD4-05)

NF A49-245 / Steel Tubes Longitudinally Welded Tubes For Ferric Non Alloy and Alloy Steel Heat Exchangers (TS34C/TS37C/TS42C/TS48C/TS24W3)

NF A49-249 / Steel Tubes Longitudinally Welded Plain End Tubes for Food Industry Austenitic Stainless Steels (TSZ6CN18-09/TSZ2CN18-10/TSZ2CND17-12/TSZ2CND17-11)

NF A49-250 / Steel Tubes Welded Plain End Tubes of Commercial Quality with or Without Special Delivery ConditionsD168.3mmMax (TSE24a/TSE26b)

NF A49-253 / Steel Tubes Longitudinally Fusion Welded Non Alloy and Ferritic Alloy Steel Tubes for use at Elevated Temperatures (TS37CP/TS42CP/TS48CP/TS52CP)

NF A49-310 / Steel Tubes Seamless Precision Tubes for Mechanical Application

(TU37-b/TU52-b/TU56-b)

NF A49-311 / Steel Tubes Seamless for Mechanical Application

(TU37-b/TU52-b/TU56-b/TUXC35)

NF A49-312 / Steel Tubes Seamless Tubes for Mechanical Application Supplementary Series (TU52-b/TUXC35)

NF A49-317 / Steel Tubes Seamless Plain end Tubes for Engineering Use Austenitic Stainless Steel (TUZ2CN18-10/TUZ2CN17-12)

NF A49-321 / Steel Tubes Jacks for Hydraulic Transmissions Cold Rolled

(TU37b/TU52b/TU52BT/TU18/MDV5/TU17/MV5)



## SPECIFICATION LIST FOR PIPING MATERIALS

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NF A49-322 / Steel Tubes Jacks for Hydraulic Transmissions Cold Rolled or Cold Drawn Seamless Tubes Type Suitable for Grinding in (TU37b/TU52b/TU17/MV5)

NF A49-323 / Steel Tubes Jacks for Hydraulic Transmissions Cold Rolled or Cold Drawn Seamless Tubes Type Ready for Use (TU37b/TU52b/TU52BT/TU17/MV5)

NF A49-326 / Steel Tubes Jacks for Pneumatic Transmissions Cold Drawn Seamless Tubes Type Suitable for Grinding in (TU37b/TU52b/TU52BT)

NF A49-327 / Steel Tubes Jacks for Pneumatic Transmissions Cold Drawn Seamless Tubes Type Ready for Use (TU37b/TU52b)

NF A49-330 / Steel Tubes Seamless Cold Drawn Tubes for Hydraulic and Pneumatic Power Systems

(TU37b/TU52b/TU42BT/TU17N2/TU10N14)

NF A49-341 / Steel Tubes Precision Welded Tubes for Mechanical Application

(TS30o/TS30a/TS34a/TS7a/TS42a/TS47a)

NF A49-343 / Steel Tubes Longitudinally Welded Tube D 168.3mmMax for Engineering Use (TS37b/TS815M5/TS18/MDV5)

NF A49-400 / Longitudinally Electric Resistance Welded Unalloyed Steel Tubes D 17.2Min 406.4mmMax for the Transport of Pressurized Fluids

(TSE220/TSE250/TSE290/TSE320/TSE360Nb/TSE360B/TSE415Nb/TSE415V)

NF A49-401 / Steel Tubes Longitudinally Fusion Welded Non Alloy and Micro Alloy Steel Tubes for Fluid Transporting Pipes and Pressure Vessels

(TSE220/TSE250/TSE290/TSE320/TSE360/TSE415/TSE450/TSE480)

NF A49-402 / Steel Tubes Spiral Fusion Welded Non Alloy and Micro Alloy Steel Tubes for Fluid Transporting Pipes and Pressure Vessels

(TSE220/TSE250/TSE290/TSE320/TSE360/TSE415/TSE450/TSE480)

NF A49-501 / Steel Tubes Seamless or Welded Hot Finished Structural Hollow Sections

(TUTSE235-2/TUTSE235-3/TUTSE235-4/TUTSE275-2/TUTSE275-3/TUTSE175-4/TSE295-2)

NF A49-541 / Steel Tubes Cold Finished Welded Structural Hollow Sections

(TSE235-2/TSE235-3/TSE235-4/TSE275-2/TSE275-3/TSE275-4)

NF A49-643 / Steel Tubes Round Square and Rectangular Steel Tubes for Ordinary Longitudinally Pressure Welded and Cold Formed From Flat Products

(TS30-1/TS30-2/TS34-2/TS37-2/TS42-2/TS47-2/TS335D/TS390D/TS445D) (Round)

NF A49-643 / Steel Tubes Round Square and Rectangular Steel Tubes for Ordinary Longitudinally Pressure Welded and Cold Formed From Flat Products

(TS30-1/TS30-2/TS34-2/TS37-2/TS42-2/TS47-2/TS335D/TS390D/TS445D) (Square. Rectangular)

NF A49-645 / Steel Tubes Structural Welded Tubes Circular Square Rectangular or Oval in Ferritic or Austenitic Stainless Steels (TSZ2CN18-10/TSZ6CN18-09/TSZ6CND17) (Round)

NF A49-645 / Steel Tubes Structural Welded Tubes Circular Square Rectangular or Oval in Ferritic or Austenitic Stainless Steels (TSZ2CN18-10/TSZ6CN18-09/TSZ6CND17) (Square. Rectangular)

NF A49-647 / Steel Tubes Structural Welded Tubes Circular Square Rectangular or Oval in Ferritic or Austenitic Stainless Steels (TSZ2CN18-10/TSZ6CN18-09/TSZ6CND17-11) (Round)



## SPECIFICATION LIST FOR PIPING MATERIALS

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NF A49-647 / Steel Tubes Structural Welded Tubes Circular Square Rectangular or Oval in Ferritic or Austenitic Stainless Steels (TSZ2CN18-10/TSZ6CN18-09/TSZ6CND17-11) (Square. Rectangular)

### GOST RUSSIA STANDARD

Smooth Seamless Steel Tubes

GOST 8731-74 Seamless Hot-Deformed Steel Tubes. Technical requirements.

GOST 8732-78 Seamless hot-deformed steel tubes. Range.

GOST 8733-74 Seamless cold and warm deformed steel tubes. Technical requirements.

GOST 8734-75 Seamless cold and warm deformed steel tubes. Range.

GOST 9567-75 Precision tubes steel. Range.

GOST 9940-72 Seamless hot deformed tubes made of corrosion resistant steel.

GOST 9941-72 Seamless cold and warm deformed tubes made of corrosion Resistant steel.

GOST 10498-63 Especially thin walled seamless tubes made of corrosion resistant (stainless) steel.

GOST 1060-76 Steel seamless cold-deformed tubes for shipbuilding. Technical requirements.

GOST 5654-76 Steel seamless hot-deformed tubes for shipbuilding. Technical requirements.

GOST 550-75 Steel seamless steel tubes for petroleum processing and petrochemical industry.

GOST 14162-69 Small-sizes steel tubes (capillary).

GOST 10192-62 Bimetallic seamless tubes. Range.

GOST 21945-76 Seamless hot-deformed steel tubes made of alloys on the basis of titanium. Technical requirements.

GOST 21729-76 Seamless cold-deformed and hot-deformed tubes made of structural carbon and alloyed steel.

GOST 22786-77 Bimetallic seamless tubes for shipbuilding. Technical requirements

GOST 631-75 Internal-external upset drill tubes with couplings.

GOST 8467-57 Drill tubes for geology-exploring with nipple connections.

GOST 632-64 Casing tubes with couplings.

GOST 6238-77 Casing and coring tubes for geology-exploring drilling and nipples to them. Technical requirements.

GOST 633-63 Tubing pipes with couplings.

GOST 10704-76 Electrically welded steel tubes, line-weld. Range.

GOST 10706-76 Electrically welded steel tubes, line-weld. Technical requirements.

GOST 10707-73 Electrically welded cold-drawn and cold-rolled steel tubes. Technical requirements.

GOST 11068-64 Electrically welded stainless steel tubes

GOST 3262-75 Steel tubes for water and gas supply with couplings.

GOST 8696-74 Electrically welded steel tubes with spiral seams for general purposes

GOST 5005-65 Electrically welded steel tubes for car cardan shafts.



## SPECIFICATION LIST FOR PIPING MATERIALS

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- GOST 11249-73 Steel rolled up soldered double-layer tubes.
- GOST 12132-66 Electrically welded and seamless steel tubes for automotive and bicycle industries.
- GOST 20295-74 Welded steel tubes for main oil and gas pipelines.
- GOST 13663-68 Shaped steel tubes. Technical requirements.
- GOST 3664-68 Steel tubes star-shaped. Range.
- GOST 13665-68 Corrugated steel tubes. Range.
- GOST 13666-68 Many-ribbed steel tubes. Range.
- GOST 13667-68 Ribbed steel tubes. Range.
- GOST 13668-68 Steel tubes with inside splines. Range.
- GOST 8639-82 Square steel tubes. Range.
- GOST 8642-68 Oval steel tubes. Range.
- GOST 8644-68 Flat-sided oval steel tubes. Range.
- GOST 8645-68 Rectangular steel tubes. Range.
- GOST 11681-65 Bended stainless steel tubes. Range.
- GOST 11682-65 Bended stainless steel tubes. Technical requirements.
- TU 14-3-190-82 SEAMLESS STEEL TUBES FOR ELEVATED TEMPERATURES (10)
- TU 14-3-460-74 SEAMLESS STEEL TUBES FOR ELEVATED TEMPERATURES (20)(12H1MF/15HM )
- GOST 10192-62 Bimetallic seamless tubes. Range.
- GOST 21945-76 Seamless hot-deformed steel tubes made of alloys on the basis of titanium. Technical requirements.
- GOST 21729-76 Seamless cold-deformed and hot-deformed tubes made of structural carbon and alloyed steel.
- GOST 22786-77 Bimetallic seamless tubes for shipbuilding. Technical requirements
- GOST 20295-74 Welded steel tubes for main oil and gas pipelines.
- GOST 13663-68 Shaped steel tubes. Technical requirements.
- GOST 3664-68 Steel tubes star-shaped. Range.
- GOST 13665-68 Corrugated steel tubes. Range.
- GOST 13666-68 Many-ribbed steel tubes. Range.
- GOST 13667-68 Ribbed steel tubes. Range.
- GOST 13668-68 Steel tubes with inside splines. Range.
- GOST 8639-82 Square steel tubes. Range.
- GOST 8642-68 Oval steel tubes. Range.
- GOST 8644-68 Flat-sided oval steel tubes. Range.



## SPECIFICATION LIST FOR PIPING MATERIALS

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GOST 8645-68 Rectangular steel tubes. Range.

GOST 11681-65 Bended stainless steel tubes. Range.

GOST 11682-65 Bended stainless steel tubes. Technical requirements.

TU 14-3-190-82 SEAMLESS STEEL TUBES FOR ELEVATED TEMPERATURES (10)

TU 14-3-460-74 SEAMLESS STEEL TUBES FOR ELEVATED TEMPERATURES (20)(12H1MF/15HM )

AWWA (American Water Works Association)

AWWA C200-97: Steel Water Pipe-6 In. (150 mm) and Larger

AWWA C203-02: Coal-Tar Protective Coatings & Linings for Steel Water Pipelines, Enamel & Tape, Hot-pap. (Incl. add. C203a-99)

AWWA C205-00: Cement-Mortar Protective Lining and Coating for Steel Water Pipe- 4 In. (100 mm) and Larger-Shop

AWWA C206-97: Field Welding of Steel Water Pipe

AWWA C207-01: Steel Pipe Flanges for Waterworks Service- Sizes 4 In. Through 144 In. (100 mm Through 3,600 mm)

AWWA C208-01: Dimensions for Fabricated Steel Water Pipe Fittings

AWWA C209-00: Cold-applied Tape Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipe

AWWA C210-97: Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines

AWWA C213-01: Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines

AWWA C214-00: Tape Coating Systems for the Exterior of Steel Water Pipelines

AWWA C215-99: Extruded Polyolefin Coatings for the Exterior of Steel Water Pipelines

AWWA C216-00: Heat-Shrinkable Cross-Linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fitting

AWWA C217-99: Cold-applied Tape Coatings for Ext. Spec. Sect., Conn., and Fittings for Buried/Submerged Steel Water Pipelines

AWWA C218-02: Coating the Exterior of Aboveground Steel Water Pipelines and Fittings

AWWA C219-01: Bolted, Sleeve-Type Couplings for Plain-End Pipe

AWWA C220-98: Stainless-Steel Pipe, 4 In. (100 mm) and Larger (Includes addendum C220a-99)

AWWA C221-01: Fabricated Steel Mechanical Slip-Type Expansion Joints

AWWA C222-99: Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings

AWWA C223-02: Fabricated Steel and Stainless Steel Taping Sleeves

AWWA C224-01: Two-layer Nylon-11 Based Polyamide Coating System for Interior and Exterior of Steel Water Pipe and Fittings

AWWA C225-03: Fused Polyolefin Coating Systems for the Exterior of Steel Water Pipelines

SAE(Society of Automotive Engineers)

SAE J242a Metric Thread Fuel Injection Tubing Connections

SAE J246 Spherical and Flanged Sleeve (Compression) Tube Fittings

SAE J349 Detection of Surface Imperfections in Ferrous Rods, Bars, tubes, and wires

SAE J356 Welded Flash-Controlled Low-Carbon Steel Tubing Normalized for Bending, Double Flaring, and Beading



## SPECIFICATION LIST FOR PIPING MATERIALS

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- SAE J371 Drain, Fill, and Level Plugs for Off-Road, Self-Propelled work machines
- SAE J398 Fuel Tank Filler Conditions Passenger Car, Multi-Purpose passenger vehicles, and Light Duty Trucks
- SAE J401 Selection and Use of Steels
- SAE J402 SAE Numbering System for Wrought or Rolled Steel
- SAE J403 Chemical Compositions of SAE Carbon Steels
- SAE J404 Chemical Compositions of SAE Alloy Steels
- SAE J405 Chemical Compositions of SAE Wrought Stainless Steels
- SAE J406 Methods of Determining Hardenability of Steels
- SAE J409 Product Analysis-Permissible Variations from Specified chemical analysis of a Heat or Cast of Steel
- SAE J411 Carbon and Alloy Steels
- SAE J412 General Characteristics and Heat Treatments of Steels
- SAE J413 Mechanical Properties of Heat Treated Wrought Steels
- SAE J422 Microscopic Determination of Inclusions in Steels
- SAE J424 Method for Determining Breakage Allowances for Sheet Steel
- SAE J463 Wrought Copper and Copper Alloys
- SAE J476a Dry seal Pipe Threads
- SAE J512 Automotive Tube Fittings
- SAE J513 Refrigeration Tube Fittings General Specifications
- SAE J514 Hydraulic Tube Fittings : Title: Hydraulic Tube Fittings
- SAE J515 Specification For Hydraulic O-Ring Materials, Properties, and Sizes For Metric and Inch Stud Ends, Face Seal Fitting and Four-Screw Flange Tube Connections
- SAE J518 Hydraulic Flanged Tube, Pipe, and Hose Connections, Four-Bolt split flange Type :  
Title: Hydraulic Flanged Tube, Pipe, and Hose Connections, Four-Bolt split flange Type
- SAE J521 Fuel Injection Tubing Connections
- SAE J524 Seamless Low-Carbon Steel Tubing Annealed for Bending and flaring
- SAE J525 Welded and Cold Drawn Low-Carbon Steel Tubing Annealed for bending and Flaring
- SAE J526 Welded Low-Carbon Steel Tubing
- SAE J527 Brazed Double Wall Low-Carbon Steel Tubing
- SAE J528 Seamless Copper Tube
- SAE J529 Fuel Injection Tubing
- SAE J530 Automotive Pipe Fittings
- SAE J531 Automotive Pipe, Filler, and Drain Plugs : Title: Automotive Pipe, Filler, and Drain Plugs





## SPECIFICATION LIST FOR PIPING MATERIALS

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- SAE J533 Flares for Tubing
- SAE J534 Lubrication Fittings
- SAE J554 Electric Fuses (Cartridge Type)
- SAE J562 Non-metallic Loom
- SAE J830 Fuel Injection Equipment Nomenclature
- SAE J844 Non-metallic Air Brake System Tubing
- SAE J846 Coding Systems for Identification of Fluid Conductors and Connectors
- SAE J926 Hydraulic Pipe Fittings
- SAE J935 High Strength Carbon and Alloy Die Drawn Steels
- SAE J962 Formed Tube Ends for Hose Connections
- SAE J1037 Windshield Washer Tubing
- SAE J1047 Tubing-Motor Vehicle Brake System Hydraulic
- SAE J1065 Nominal Reference Working Pressures for Steel Hydraulic Tubing View Document
- SAE J 1086 Numbering Metals and Alloys
- SAE J1131 Performance Requirements for SAE J844 Non-metallic Tubing and Fitting Assemblies Used in Automotive Air Brake Systems
- SAE J1140 Filler Pipes and Openings of Motor Vehicle Fuel Tanks
- SAE J1149 Metallic Air Brake System Tubing and Pipe
- SAE J1207 Measurement Procedure for Determination of Silencer Effectiveness in Reducing Engine Intake or Exhaust Sound Level
- SAE J1231 Formed Tube Ends for Hose Connections and Hose Fittings
- SAE J1290 Automotive Hydraulic Brake System-Metric Tube Connections
- SAE J1394 Metric Non-metallic Air Brake System Tubing
- SAE J1392 Steel, High Strength, Hot Rolled Sheet and Strip, Cold Rolled Sheet, and Coated Sheet
- SAE J1418 Fuel Injection Pumps. High Pressure Pipes (Tubing) for Testing
- SAE J1442 High-Strength, Hot-Rolled Steel Bars
- SAE J1453 Fitting. O-Ring Face Seal
- SAE J1611 (R) Operator Controls. Horizontal Earth boring Machines
- SAE J1615 Thread Sealants
- SAE J1644 Metallic Tube Connections for Fluid Power and General Use-Test Methods for Threaded Hydraulic Fluid Power Connectors
- SAE J1650 Seamless Copper-Nickel 90-10 Tubing
- SAE J1659 Vehicle Testing Requirements for Replacement Refrigerants for CFC-12 (R-12) Mobile Air-Conditioning Systems



## SPECIFICATION LIST FOR PIPING MATERIALS

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- SAE J1677 Tests and Procedures for SAE Low-Carbon Steel and Copper nickel Tubing
- SAE J 1684 Test Method for Evaluating the Electrochemical Resistance of Coolant System Hoses and Materials
- SAE J1737 Test Procedure to Determine the Hydrocarbon Losses from Fuel Tubes, Hoses, Fittings, and Fuel Line Assemblies by Recirculation
- SAE J 1755 Guidelines for Usage of Stainless Steel and Bimetal for exterior automotive Bright Trim
- SAE J1781 Materials for Fluid Systems of Marine Vehicles
- SAE J1944 Truck and Bus Multipurpose Vehicle Windshield Washer System
- SAE J1949 Road Vehicles. High Pressure Fuel Injection Pipe Connections with 60 Degree Female Cone
- SAE J1958 Diesel Engine Steel Tubes for High-Pressure Fuel Injection Pipes (Tubing)
- SAE J1991 Standard of Purity for Use in Mobile Air-Conditioning Systems
- SAE J2022 Classification, Nomenclature, and Specification Definitions for Horizontal Earth boring Machines
- SAE J2027 Standard for Protective Covers for Gasoline Fuel Line Tubing
- SAE J2043 Non-metallic Fuel System Tubing
- SAE J2044 Quick Connector Specification for Liquid Fuel and Vapour/Emissions Systems
- SAE J2045 Performance Requirements for Fuel System Tubing Assemblies
- SAE J2244/1 Connection for Fluid Power and General Use. Ports and Stud Ends with ISO 261 Threads: Part 1 : Port with O-Ring Seal in Truncated Housing
- SAE J2244/2 Connection for Fluid Power and General Use. Ports and stud Ends with ISO 261 Threads and O-Ring Sealing : Part 2 : Heavy-Duty (S Series) Stud Ends. Dimensions, Design, Test Methods, and Requirements
- SAE J2254 Fluid Power Piping Cleaning Process
- SAE J2260 Non-metallic Fuel System Tubing with One or More Layers
- SAE J2305 Safety for Horizontal Earth boring Machines
- SAE J2405 Low-Permeation Fuel Fill and Vent Tube
- SAE J2435 Welded Flash Controlled, SAE 1021 Carbon Steel Tubing, Normalized for Bending, Double Flaring, and Beading
- SAE J2467 Welded and Cold-Drawn, SAE 1021 Carbon Steel Tubing Normalized for Bending and Flaring
- SAE J2494 Push-to-Connect Tube Fittings for Use in the Piping of Vehicular Air Brake
- SAE J2494-2 Dimensional Specifications for Non-Metallic Body Push-to- Connect Fittings Used on a Vehicular Air Brake
- SAE J2494-3 Performance Requirements for SAE J 844 Non-metallic Air Brake Tubing and Push to Connect Fitting Assemblies Used in Vehicular Air Brake Systems
- SAE J2494-4 Cartridge Cavity
- SAE J2551 Recommended Practices for Fluid Conductor Metallic Tubing Applications
- SAE J2583 Directional Drilling Planning and Mapping Nomenclature
- SAE J2599 Fuel Filler Pipe Assembly Design Practice to Meet Low Evaporative Emission Requirements



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## SPECIFICATION LIST FOR PIPING MATERIALS

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SAE J2613 Welded Flash Controlled, High Strength Low Alloy Steel Hydraulic Tubing, Sub-Critically Annealed for Bending, Double Flaring, and Bending

SAE J2614 Welded and Cold-Drawn, High Strength Low Alloy Steel Hydraulic Tubing, Sub-Critically Annealed for Bending and Flaring

SAE J2658 Metallic Tube Conductor Assemblies for Fluid Power and General Use~Test Methods for Hydraulic Fluid Power Metallic Tube Assemblies

SAE J24714 Fluid Systems-Connector Tubes~General Specification and Part Standard

GB STANDARD(China Standard)

Seamless Steel Pipe

GB T17395 Seamless Steel Pipe

GB T8162 Structure Pipe 10 20 35 45 40Mn2 45Mn2 27SiMn 20Cr 40Cr 20CrMo 35CrMo 38CrMoA1 50CrV 30CrMnSi

GB T14975 Structure for Stainless seamless Tube mechanical structure, fluid pipeline, passing heat equipment of boiler heat converter, congealed equipment, catalytic pipeline 0Cr18Ni9 1Cr18Ni9 00Cr19Ni10 0Cr18Ni10Ti 0Cr18Ni11Nb 0Cr17Ni12Mo2 00Cr17Ni14Mo2 0Cr18Ni12Mo2Ti 1Cr18Ni12Mo2Ti 0Cr18Ni12Mo3Ti 1Cr18Ni12Mo3Ti 1Cr18Ni9Ti 0Cr19Ni13Mo3 00Cr19Ni13Mo3 0Cr13 1Cr17 1Cr13 2Cr13

GB T8163 Seamless Pipe For Fluid Pipe 10 20 Q295 Q345

GB T14976 Stainless Seamless Pipe For Fluid Pipe 0Cr18Ni9 00Cr19Ni10 0Cr23Ni13 0Cr25Ni20 0Cr18Ni10Ti 0Cr18Ni11Nb 0Cr17Ni12Mo2 00Cr17Ni14Mo2 0Cr19Ni13Mo3 00Cr19Ni13Mo3 0Cr18Ni12Mo2Ti 1Cr18Ni12Mo2Ti 1Cr18Ni12Mo2Ti 0Cr18Ni12Mo3Ti 1Cr18Ni12Mo3Ti 0Cr18Ni12Mo2Cu2 00Cr18Ni14Mo2Cu2 0Cr13 0Cr26Ni5Mo2

GB T3090 Small Diameter Stainless Steel Pipe 1Cr18Ni9Ti

GB T3089 Stainless-steel super-thin thickness and seamless steel pipe 00Cr18Ni10 1Cr18Ni9Ti 00Cr17Ni14Mo2 1Cr18Ni12Mo2Ti 1Cr18Ni12Mo3Ti

GB T3639 Cold Rolled Precision Seamless Pipe 10 20 35 45 16Mn

GB3094 Cold Rolled Seamless Specials Pipe ( Oval Square Rectangular Hexagon) 10 15 20 25 30 35 40 45 50 09MnV 16Mn 15MnV

YB T5053 Seamless Pipe For Automotive Bushing 45 45Mn2 40Cr 20CrNi3A

GB T5312 Carbon Steel or Carbon Manganese Steel Seamless Pipe for Ship Building Q320 Q360 Q410 Q460 Q490 Q500 Q510

GB T3093 High Pressure Seamless Pipe For diesel engine 20A

GB T8713 Precision In Diameter Seamless Steel Pipe For Fluid Power Cylinder 10 20 35 45 16Mn

GB T3087 Seamless Steel Pipe For Low and Medium Pressure Boiler 10 20

GB T5130 Seamless Steel Pipe For High Pressure Boiler 20G 20MnG 25MnG 15MoG 20MoG 12CrMoG 15CrMoG 12Cr2MoG 12Cr1MoVG 12Cr2MoWVTiB 12Cr3MoVSiTiB 10Cr9Mo1VNb 1Cr18Ni9 1Cr19Ni11Nb

GB T13296 Stainless Seamless Steel for Boiler and Heat Exchanger Tubes 0Cr18Ni9 1Cr19Ni9 00Cr19Ni10 2Cr23Ni13 0Cr23Ni13 0Cr23Ni13 2Cr25Ni20 0Cr17Ni12Mo2 1Cr17Ni12Mo2 0Cr17Ni14Mo2 0Cr19Ni13Mo3 00Cr19Ni13Mo3 1Cr18Ni9Ti 0Cr18Ni10Ti 1Cr18Ni11Ti 0Cr19Ni11Nb 1Cr19Ni11Nb 0Cr18Ni13Si4 1Cr18Ni12Mo2Ti 0Cr18Ni12Mo2Ti 1Cr18Ni12Mo2Ti 1Cr18Ni12Mo3Ti 0Cr26Ni5Mo2 1Cr17 00Cr27Mo 1Cr25Ti

GB T6479 High Pressure Seamless Pipe For Chemical Fertilizer Equipment High Pressure seamless Pipe for Fertilizer Equipment 10 20G 16Mn 15MnV 10MoWVNb 12CrMo 15CrMo 1Cr5Mo 12Cr2Mo

GB T9948 Seamless steel tube for petroleum cracking 10 20 12CrMo 15CrMo 1Cr2Mo 1Cr5Mo 1Cr19Ni9 1Cr19Ni11Nb



## SPECIFICATION LIST FOR PIPING MATERIALS

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YB T5052 Geological Drilling Pipe Seamless Pipe For Diamond Core Boring DZ65-27MnMoVB

GB T17396 Hot Rolled Seamless Pipe For Hydraulic Cylinder 20 35 45 27SiMn 30MnNbRE

BQB 232 Tubes for Perforating Gun

### WELDED PIPE

GB T13793 Butt weld Electric Resistance Welded Pipe 08F 08 10F 10 15F 15 20 Q195 Q195A Q195B Q235A Q235B

GB 11258 Fluoride Resin Coated Double Wall Steel Pipes for Automobiles 08 08F 08A1

GB T3091 Welded Pipe And For the Low Pressure Fluids & Galvanized (Zinc Coated) Welded Pipe And For the Low Pressure Fluids Q195 Q215 Q235A

GB T3092 Welded Pipe And For the Low Pressure Fluids & Galvanized (Zinc Coated) Welded Pipe And For the Low Pressure Fluids Q195 Q215 Q235A

GB T14980 Large Diameter Electric Welded For the Low Pressure Fluids For the Low Pressure Fluids Q215 Q235A Q235B

GB T12771 Stainless Steel Welded Pipe For the Low Pressure Fluids 1Cr18Ni9 0Cr19Ni9 0Cr19Ni11 0Cr25Ni20 0Cr17Ni12Mo2 00Cr17Ni14Mo2 0Cr18Ni11Ti 0Cr18Ni11Nb 00Cr17 00Cr18Mo2 0Cr13

YB T4102 Welded Pipe For the Low Pressure Fluids For Low and Middle Boiler 10 20

YB 4103 Carbon Steel Tubes for Boiler and Heat Exchanger 10

YB T5209 Electric Resistance Welded Steel Pipe For Power Transmission Shaft 08Z 15TiZ 20Z 25Z

GB T12700 Stainless Steel Welded Pipe For Machine Structural Purposed 00Cr19Ni11 00Cr17Ni14Mo2 0Cr19Ni9 1Cr18Ni9 1Cr18Ni9Ti 0Cr17Ni12Mo2 0Cr18Ni11Nb 0Cr25Ni20 1Cr17 1Cr15 0Cr13 1Cr13

GB T13792 Electric Welded Steel Pipe For Conveyor Support Q215 Q235

YB T4028 Pump Electric Welded Steel Pipe For Deep Subsurface Water

GB T14291 Electric Welded Steel Pipe For Mining Fluid Q235A Q235B

GB T3640 General Carbon Conduits Pipe Clip

GB T3641 P3 Zinc Coated Metal Smoke Tube

GB T3642 S type brazed Stainless Metal Smoke Tube 1Cr18Ni9Ti

SGG262 Cold Rolled Minute Steel Pipe for Automobile, and Shock Absorber of Motorcycle 10 20 35 45

Others

EDM Electrode Tubes

STAINLESS HOLLOW BAR

DUPLEX STAINLESS STEEL PIPE

AS 1074 STEEL TUBES AND TUBULARS FOR ORDINARY SERVICE

AS 1163 STRUCTURAL STEEL HOLLOW SECTIONS

UL 6 RIGID METAL CONDUIT

ANSI C80.1 RIGID METAL CONDUIT

CSA C22.2 RIGID METAL CONDUIT



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## SPECIFICATION LIST FOR PIPING MATERIALS

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S45C PIPE (Carbon Steel for Machine Structural Use PIPE)

HR PIPE (Hot Rolled Pipe)

CR PIPE (Cold Rolled Pipe)

CGI PIPE (Cold Rolled Galvanized Iron Pipe)

HGI PIPE (Hot Rolled Galvanized Iron Pipe)

ASTM B1-01(2007) Standard Specification for Hard-Drawn Copper Wire

ASTM B2-00(2005)e1 Standard Specification for Medium-Hard-Drawn Copper Wire

ASTM B3-01(2007) Standard Specification for Soft or Annealed Copper Wire

ASTM B5-00(2005) Standard Specification for High Conductivity Tough-Pitch Copper Refinery Shapes

ASTM B6-07 Standard Specification for Zinc

ASTM B8-04 Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft

ASTM B9-90(2003) Standard Specification for Bronze Trolley Wire

ASTM B16/B16M-05 Standard Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines

ASTM B19-05 Standard Specification for Cartridge Brass Sheet, Strip, Plate, Bar, and Disks

ASTM B21/B21M-06 Standard Specification for Naval Brass Rod, Bar, and Shapes

ASTM B22-02 Standard Specification for Bronze Castings for Bridges and Turntables

ASTM B23-00(2005) Standard Specification for White Metal Bearing Alloys (Known Commercially as "Babbitt Metal")

ASTM B26/B26M-05 Standard Specification for Aluminium-Alloy Sand Castings

ASTM B29-03 Standard Specification for Refined Lead

ASTM B30-06a Standard Specification for Copper Alloys in Ingot Form

ASTM B32-04 Standard Specification for Solder Metal

ASTM B33-04 Standard Specification for Tinned Soft or Annealed Copper Wire for Electrical Purposes

ASTM B36/B36M-06 Standard Specification for Brass Plate, Sheet, Strip, And Rolled Bar

ASTM B37-03 Standard Specification for Aluminium for Use in Iron and Steel Manufacture

ASTM B39-79(2004) Standard Specification for Nickel

ASTM B42-02e1 Standard Specification for Seamless Copper Pipe, Standard Sizes

ASTM B43-98(2004) Standard Specification for Seamless Red Brass Pipe, Standard Sizes

ASTM B47-95a(2007) Standard Specification for Copper Trolley Wire

ASTM B48-00(2005)e1 Standard Specification for Soft Rectangular and Square Bare Copper Wire for Electrical Conductors

ASTM B49-98(2004) Standard Specification for Copper Rod Drawing Stock for Electrical Purposes

ASTM B61-02 Standard Specification for Steam or Valve Bronze Castings



## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B62-02 Standard Specification for Composition Bronze or Ounce Metal Castings
- ASTM B63-07 Standard Test Method for Resistivity of Metallically Conducting Resistance and Contact Materials
- ASTM B66/B66M-06 Standard Specification for Bronze Castings for Steam Locomotive Wearing Parts
- ASTM B67-05 Standard Specification for Car and Tender Journal Bearings, Lined
- ASTM B68-02 Standard Specification for Seamless Copper Tube, Bright Annealed
- ASTM B68M-99(2005) Standard Specification for Seamless Copper Tube, Bright Annealed [Metric]
- ASTM B69-01a(2005) Standard Specification for Rolled Zinc
- ASTM B70-90(2007) Standard Test Method for Change of Resistance With Temperature of Metallic Materials for Electrical Heating
- ASTM B75-02 Standard Specification for Seamless Copper Tube
- ASTM B75M-99(2005) Standard Specification for Seamless Copper Tube [Metric]
- ASTM B76-90(2007) Standard Test Method for Accelerated Life of Nickel-Chromium and Nickel-Chromium-Iron Alloys for Electrical Heating
- ASTM B77-07 Standard Test Method for Thermoelectric Power of Electrical-Resistance Alloys
- ASTM B78-90(2007) Standard Test Method of Accelerated Life of Iron-Chromium-Aluminium Alloys for Electrical Heating
- ASTM B80-07 Standard Specification for Magnesium-Alloy Sand Castings
- ASTM B84-07 Standard Test Method for Temperature-Resistance Constants of Alloy Wires for Precision Resistors
- ASTM B85-03 Standard Specification for Aluminium-Alloy Die Castings
- ASTM B86-06 Standard Specification for Zinc and Zinc-Aluminium (ZA) Alloy Foundry and Die Castings
- ASTM B88-03 Standard Specification for Seamless Copper Water Tube
- ASTM B88M-05 Standard Specification for Seamless Copper Water Tube [Metric]
- ASTM B90/B90M-07 Standard Specification for Magnesium-Alloy Sheet and Plate
- ASTM B91-07 Standard Specification for Magnesium-Alloy Forgings
- ASTM B92/B92M-07 Standard Specification for Unalloyed Magnesium Ingot and Stick For Remelting
- ASTM B93/B93M-07 Standard Specification for Magnesium Alloys in Ingot Form for Sand Castings, Permanent Mould Castings, and Die Castings
- ASTM B94-07 Standard Specification for Magnesium-Alloy Die Castings
- ASTM B96/B96M-06 Standard Specification for Copper-Silicon Alloy Plate, Sheet, Strip, and Rolled Bar for General Purposes and Pressure Vessels
- ASTM B98/B98M-03 Standard Specification for Copper-Silicon Alloy Rod, Bar and Shapes
- ASTM B99/B99M-06 Standard Specification for Copper-Silicon Alloy Wire for General Applications
- ASTM B100-03a Standard Specification for Wrought Copper-Alloy Bearing and Expansion Plates and Sheets for Bridge and Other Structural Use
- ASTM B101-07 Standard Specification for Lead-Coated Copper Sheet and Strip for Building Construction
- ASTM B102-00(2005) Standard Specification for Lead- and Tin-Alloy Die Castings
- ASTM B103/B103M-07 Standard Specification for Phosphor Bronze Plate, Sheet, Strip, and Rolled Bar
- ASTM B105-05 Standard Specification for Hard-Drawn Copper Alloy Wires for Electric Conductors



## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B106-96(2002)e1 Standard Test Methods for Flexivity of Thermostat Metals
- ASTM B107/B107M-07 Standard Specification for Magnesium-Alloy Extruded Bars, Rods, Profiles, Tubes, and Wire
- ASTM B108-06 Standard Specification for Aluminium-Alloy Permanent Mould Castings
- ASTM B111/B111M-04 Standard Specification for Copper and Copper-Alloy Seamless Condenser Tubes and Ferrule Stock
- ASTM B114-07 Standard Test Method for Temperature-Resistance Constants of Sheet Materials for Shunts and Precision Resistors
- ASTM B115-00(2004) Standard Specification for Electrolytic Copper Cathode
- ASTM B116-95(2007) Standard Specification for Figure-9 Deep-Grooved and Figure-8 Copper Trolley Wire for Industrial Haulage
- ASTM B117-07 Standard Practice for Operating Salt Spray (Fog) Apparatus
- ASTM B121/B121M-01(2006) Standard Specification for Leaded Brass Plate, Sheet, Strip, and Rolled Bar
- ASTM B122/B122M-06 Standard Specification for Copper-Nickel-Tin Alloy, Copper-Nickel-Zinc Alloy (Nickel Silver), and Copper-Nickel Alloy Plate, Sheet, Strip, and Rolled Bar
- ASTM B124/B124M-06 Standard Specification for Copper and Copper Alloy Forging Rod, Bar, and Shapes
- ASTM B127-05 Standard Specification for Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip
- ASTM B129-07 Standard Specification for Cartridge Brass Cartridge Case Cups
- ASTM B130-02 Standard Specification for Commercial Bronze Strip for Bullet Jackets
- ASTM B131-07 Standard Specification for Copper Alloy Bullet Jacket Cups
- ASTM B134/B134M-05 Standard Specification for Brass Wire
- ASTM B135-02 Standard Specification for Seamless Brass Tube
- ASTM B135M-00(2006) Standard Specification for Seamless Brass Tube [Metric]
- ASTM B136-84(2003) Standard Method for Measurement of Stain Resistance of Anodic Coatings on Aluminium
- ASTM B137-95(2004) Standard Test Method for Measurement of Coating Mass Per Unit Area on Anodically Coated Aluminium
- ASTM B138/B138M-06 Standard Specification for Manganese Bronze Rod, Bar, and Shapes
- ASTM B139/B139M-07 Standard Specification for Phosphor Bronze Rod, Bar, and Shapes
- ASTM B140/B140M-07 Standard Specification for Copper-Zinc-Lead (Red Brass or Hardware Bronze) Rod, Bar, and Shapes
- ASTM B148-97(2003)e1 Standard Specification for Aluminium-Bronze Sand Castings
- ASTM B150/B150M-03 Standard Specification for Aluminium Bronze Rod, Bar, and Shapes
- ASTM B151/B151M-05 Standard Specification for Copper-Nickel-Zinc Alloy (Nickel Silver) and Copper-Nickel Rod and Bar
- ASTM B152/B152M-06a Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar
- ASTM B153-05 Standard Test Method for Expansion (Pin Test) of Copper and Copper-Alloy Pipe and Tubing
- ASTM B154-05 Standard Test Method for Mercurous Nitrate Test for Copper Alloys
- ASTM B159/B159M-05 Standard Specification for Phosphor Bronze Wire
- ASTM B160-05 Standard Specification for Nickel Rod and Bar
- ASTM B161-05 Standard Specification for Nickel Seamless Pipe and Tube
- ASTM B162-99(2005) Standard Specification for Nickel Plate, Sheet, and Strip
- ASTM B163-04 Standard Specification for Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tubes



## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B164-03 Standard Specification for Nickel-Copper Alloy Rod, Bar, and Wire
- ASTM B165-05 Standard Specification for Nickel-Copper Alloy (UNS N04400)\* Seamless Pipe and Tube
- ASTM B166-06 Standard Specification for Nickel-Chromium-Iron Alloys (UNS N06600, N06601, N06603, N06690, N06693, N06025, and N06045)\* and Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617) Rod, Bar, and Wire
- ASTM B167-06 Standard Specification for Nickel-Chromium-Iron Alloys (UNS N06600, N06601, N06603, N06690, N06693, N06025, and N06045)\* and Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617) Seamless Pipe and Tube
- ASTM B168-06 Standard Specification for Nickel-Chromium-Iron Alloys (UNS N06600, N06601, N06603, N06690, N06693, N06025, and N06045) and Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617) Plate, Sheet, and Strip
- ASTM B169/B169M-05 Standard Specification for Aluminium Bronze Sheet, Strip, and Rolled Bar
- ASTM B170-99(2004) Standard Specification for Oxygen-Free Electrolytic Copper—Refinery Shapes
- ASTM B171/B171M-04e1 Standard Specification for Copper-Alloy Plate and Sheet for Pressure Vessels, Condensers, and Heat Exchangers
- ASTM B172-01a(2007)e1 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electrical Conductors
- ASTM B173-01a(2007)e1 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members, for Electrical Conductors
- ASTM B174-02(2007)e1 Standard Specification for Bunch-Stranded Copper Conductors for Electrical Conductors
- ASTM B176-04 Standard Specification for Copper-Alloy Die Castings
- ASTM B177-01(2006)e1 Standard Guide for Engineering Chromium Electroplating
- ASTM B179-06 Standard Specification for Aluminium Alloys in Ingot and Molten Forms for Castings from All Casting Processes
- ASTM B183-79(2004)e1 Standard Practice for Preparation of Low-Carbon Steel for Electroplating
- ASTM B187/B187M-06 Standard Specification for Copper, Bus Bar, Rod, and Shapes and General Purpose Rod, Bar, and Shapes
- ASTM B188-02 Standard Specification for Seamless Copper Bus Pipe and Tube
- ASTM B189-05 Standard Specification for Lead-Coated and Lead-Alloy-Coated Soft Copper Wire for Electrical Purposes
- ASTM B193-02 Standard Test Method for Resistivity of Electrical Conductor Materials
- ASTM B194-01e1 Standard Specification for Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar
- ASTM B196/B196M-07 Standard Specification for Copper-Beryllium Alloy Rod and Bar
- ASTM B197/B197M-07 Standard Specification for Copper-Beryllium Alloy Wire
- ASTM B199-07 Standard Specification for Magnesium-Alloy Permanent Mould Castings
- ASTM B200-85(2004) Standard Specification for Electrodeposited Coatings of Lead and Lead-Tin Alloys on Steel and Ferrous Alloys
- ASTM B201-80(2004) Standard Practice for Testing Chromate Coatings on Zinc and Cadmium Surfaces
- ASTM B206/B206M-07 Standard Specification for Copper-Nickel-Zinc (Nickel Silver) Wire and Copper-Nickel Alloy Wire
- ASTM B208-06 Standard Practice for Preparing Tension Test Specimens for Copper Alloy Sand, Permanent Mould, Centrifugal, and Continuous Castings
- ASTM B209-07 Standard Specification for Aluminium and Aluminium-Alloy Sheet and Plate
- ASTM B209M-07 Standard Specification for Aluminium and Aluminium-Alloy Sheet and Plate [Metric]





## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B210-04 Standard Specification for Aluminium and Aluminium-Alloy Drawn Seamless Tubes
- ASTM B210M-05 Standard Specification for Aluminium and Aluminium-Alloy Drawn Seamless Tubes [Metric]
- ASTM B211-03 Standard Specification for Aluminium and Aluminium-Alloy Bar, Rod, and Wire
- ASTM B211M-03 Standard Specification for Aluminium and Aluminium-Alloy Bar, Rod, and Wire [Metric]
- ASTM B212-99(2006) Standard Test Method for Apparent Density of Free-Flowing Metal Powders Using the Hall Flow meter Funnel
- ASTM B213-03 Standard Test Method for Flow Rate of Metal Powders
- ASTM B214-07 Standard Test Method for Sieve Analysis of Metal Powders
- ASTM B215-04 Standard Practices for Sampling Metal Powders
- ASTM B216-97(2003) Standard Specification for Tough-Pitch Fire-Refined Copper—Refinery Shapes
- ASTM B221-06 Standard Specification for Aluminium and Aluminium-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
- ASTM B221M-07 Standard Specification for Aluminium and Aluminium-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes [Metric]
- ASTM B223-03 Standard Test Method for Modulus of Elasticity of Thermostat Metals (Cantilever Beam Method)
- ASTM B224-04 Standard Classification of Coppers
- ASTM B226-04 Standard Specification for Cored, Annular, Concentric-Lay-Stranded Copper Conductors
- ASTM B227-04 Standard Specification for Hard-Drawn Copper-Clad Steel Wire
- ASTM B228-04 Standard Specification for Concentric-Lay-Stranded Copper-Clad Steel Conductors
- ASTM B229-04 Standard Specification for Concentric-Lay-Stranded Copper and Copper-Clad Steel Composite Conductors
- ASTM B230/B230M-07 Standard Specification for Aluminium 1350-H19 Wire for Electrical Purposes
- ASTM B231/B231M-04 Standard Specification for Concentric-Lay-Stranded Aluminium 1350 Conductors
- ASTM B232/B232M-01e1 Standard Specification for Concentric-Lay-Stranded Aluminium Conductors, Coated-Steel Reinforced (ACSR)
- ASTM B233-97(2007) Standard Specification for Aluminium 1350 Drawing Stock for Electrical Purposes
- ASTM B234-04 Standard Specification for Aluminium and Aluminium-Alloy Drawn Seamless Tubes for Condensers and Heat Exchangers
- ASTM B234M-04 Standard Specification for Aluminium and Aluminium-Alloy Drawn Seamless Tubes for Condensers and Heat Exchangers [Metric]
- ASTM B236M-07 Standard Specification for Aluminium Bars for Electrical Purposes (Bus Bars) [Metric]
- ASTM B236-07 Standard Specification for Aluminium Bars for Electrical Purposes (Bus Bars)
- ASTM B237-01(2006) Standard Specification for Refined Antimony
- ASTM B240-07 Standard Specification for Zinc and Zinc-Aluminium (ZA) Alloys in Ingot Form for Foundry and Die Castings
- ASTM B241/B241M-02 Standard Specification for Aluminium and Aluminium-Alloy Seamless Pipe and Seamless Extruded Tube
- ASTM B242-99(2004)e1 Standard Guide for Preparation of High-Carbon Steel for Electroplating
- ASTM B243-06 Standard Terminology of Powder Metallurgy
- ASTM B244-97(2002) Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminium and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments
- ASTM B246-05 Standard Specification for Tinned Hard-Drawn and Medium-Hard-Drawn Copper Wire for Electrical Purposes
- ASTM B247-02a Standard Specification for Aluminium and Aluminium-Alloy Die Forgings, Hand Forgings, and Rolled Ring Forgings



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ASTM B247M-02a Standard Specification for Aluminium and Aluminium-Alloy Die Forgings, Hand Forgings, and Rolled Ring Forgings

[Metric]

ASTM B248-07 Standard Specification for General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet, Strip, and Rolled Bar

ASTM B248M-07 Standard Specification for General Requirements for Wrought Copper and Copper-Alloy Plate, Sheet, Strip, and Rolled Bar

[Metric]

ASTM B249/B249M-06 Standard Specification for General Requirements for Wrought Copper and Copper-Alloy Rod, Bar, Shapes and Forgings

ASTM B250/B250M-07 Standard Specification for General Requirements for Wrought Copper Alloy Wire

ASTM B251M-97(2003) Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube [Metric]

ASTM B251-02e1 Standard Specification for General Requirements for Wrought Seamless Copper and Copper-Alloy Tube

ASTM B252-92(2004) Standard Guide for Preparation of Zinc Alloy Die Castings for Electroplating and Conversion Coatings

ASTM B253-87(2005)e1 Standard Guide for Preparation of Aluminium Alloys for Electroplating

ASTM B254-92(2004)e1 Standard Practice for Preparation of and Electroplating on Stainless Steel

ASTM B258-02 Standard Specification for Standard Nominal Diameters and Cross-Sectional Areas of AWG Sizes of Solid Round Wires Used as Electrical Conductors

ASTM B263-04 Standard Test Method for Determination of Cross-Sectional Area of Stranded Conductors

ASTM B265-06b Standard Specification for Titanium and Titanium Alloy Strip, Sheet, and Plate

ASTM B267-07 Standard Specification for Wire for Use In Wire-Wound Resistors

ASTM B271-06 Standard Specification for Copper-Base Alloy Centrifugal Castings

ASTM B272-07 Standard Specification for Copper Flat Products with Finished (Rolled or Drawn) Edges (Flat Wire and Strip)

ASTM B275-05 Standard Practice for Codification of Certain Nonferrous Metals and Alloys, Cast and Wrought

ASTM B276-05e1 Standard Test Method for Apparent Porosity in Cemented Carbides

ASTM B277-95(2006) Standard Test Method for Hardness of Electrical Contact Materials

ASTM B279-04 Standard Test Method for Stiffness of Bare Soft Square and Rectangular Copper and Aluminium Wire for Magnet Wire Fabrication

ASTM B280-03 Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service

ASTM B281-88(2001) Standard Practice for Preparation of Copper and Copper-Base Alloys for Electroplating and Conversion Coatings

ASTM B283-06 Standard Specification for Copper and Copper-Alloy Die Forgings (Hot-Pressed)

ASTM B286-07 Standard Specification for Copper Conductors for Use in Hook-up Wire for Electronic Equipment

ASTM B294-92(2006) Standard Test Method for Hardness Testing of Cemented Carbides

ASTM B296-03 Standard Practice for Temper Designations of Magnesium Alloys, Cast and Wrought

ASTM B298-07 Standard Specification for Silver-Coated Soft or Annealed Copper Wire

ASTM B299-01 Standard Specification for Titanium Sponge

ASTM B301/B301M-04 Standard Specification for Free-Cutting Copper Rod, Bar, Wire and Shapes

ASTM B302-07 Standard Specification for Threadless Copper Pipe, Standard Sizes



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- ASTM B306-02 Standard Specification for Copper Drainage Tube (DWV)
- ASTM B308/B308M-02 Standard Specification for Aluminium-Alloy 6061-T6 Standard Structural Profiles
- ASTM B311-93(2002)e1 Test Method for Density Determination for Powder Metallurgy (P/M) Materials Containing Less Than Two Percent Porosity
- ASTM B312-96(2002) Standard Test Method for Green Strength for Compacted Metal Powder Specimens
- ASTM B313/B313M-02e1 Standard Specification for Aluminium and Aluminium-Alloy Round Welded Tubes
- ASTM B315-06 Standard Specification for Seamless Copper Alloy Pipe and Tube
- ASTM B316/B316M-02 Standard Specification for Aluminium and Aluminium-Alloy Rivet and Cold-Heading Wire and Rods
- ASTM B317/B317M-07 Standard Specification for Aluminium-Alloy Extruded Bar, Rod, Tube, Pipe, Structural Profiles, and Profiles for Electrical Purposes (Bus Conductor)
- ASTM B319-91(2004) Standard Guide for Preparation of Lead and Lead Alloys for Electroplating
- ASTM B320-60(2003)e1 Standard Practice for Preparation of Iron Castings for Electroplating
- ASTM B322-99(2004) Standard Guide for Cleaning Metals Prior to Electroplating
- ASTM B324-01(2007) Standard Specification for Aluminium Rectangular and Square Wire for Electrical Purposes
- ASTM B327-01(2005) Standard Specification for Master Alloys Used in Making Zinc Die Casting Alloys
- ASTM B328-96(2003)e1 Standard Test Method for Density, Oil Content, and Interconnected Porosity of Sintered Metal Structural Parts and Oil-Impregnated Bearings
- ASTM B329-06 Standard Test Method for Apparent Density of Metal Powders and Compounds Using the Scott Volumeter
- ASTM B330-07 Standard Test Method for Fisher Number of Metal Powders and Related Compounds
- ASTM B331-95(2002) Standard Test Method for Compressibility of Metal Powders in Uniaxial Compaction
- ASTM B333-03 Standard Specification for Nickel-Molybdenum Alloy Plate, Sheet, and Strip
- ASTM B335-03 Standard Specification for Nickel-Molybdenum Alloy Rod
- ASTM B338-06a Standard Specification for Seamless and Welded Titanium and Titanium Alloy Tubes for Condensers and Heat Exchangers
- ASTM B339-00(2005) Standard Specification for Pig Tin
- ASTM B343-92a(2004)e1 Standard Practice for Preparation of Nickel for Electroplating with Nickel
- ASTM B344-01 Standard Specification for Drawn or Rolled Nickel-Chromium and Nickel-Chromium-Iron Alloys for Electrical Heating Elements
- ASTM B345/B345M-02 Standard Specification for Aluminium and Aluminium-Alloy Seamless Pipe and Seamless Extruded Tube for Gas and Oil Transmission and Distribution Piping Systems
- ASTM B348-06a Standard Specification for Titanium and Titanium Alloy Bars and Billets
- ASTM B349/B349M-03 Standard Specification for Zirconium Sponge and Other Forms of Virgin Metal for Nuclear Application
- ASTM B350/B350M-02(2006) Standard Specification for Zirconium and Zirconium Alloy Ingots for Nuclear Application
- ASTM B351/B351M-07 Standard Specification for Hot-Rolled and Cold-Finished Zirconium and Zirconium Alloy Bars, Rod, and Wire for Nuclear Application
- ASTM B352/B352M-02(2006) Standard Specification for Zirconium and Zirconium Alloy Sheet, Strip, and Plate for Nuclear Application



## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B353-07 Standard Specification for Wrought Zirconium and Zirconium Alloy Seamless and Welded Tubes for Nuclear Service (Except Nuclear Fuel Cladding)
- ASTM B354-05 Standard Terminology Relating to Uninsulated Metallic Electrical Conductors
- ASTM B355-06 Standard Specification for Nickel-Coated Soft or Annealed Copper Wire
- ASTM B359/B359M-02(2006) Standard Specification for Copper and Copper-Alloy Seamless Condenser and Heat Exchanger Tubes With Integral Fins
- ASTM B360-01 Standard Specification for Hard-Drawn Copper Capillary Tube for Restrictor Applications
- ASTM B361-02 Standard Specification for Factory-Made Wrought Aluminium and Aluminium-Alloy Welding Fittings
- ASTM B362-91(2003) Standard Test Method for Mechanical Torque Rate of Spiral Coils of Thermostat Metal
- ASTM B363-06a Standard Specification for Seamless and Welded Unalloyed Titanium and Titanium Alloy Welding Fittings
- ASTM B364-96(2002) Standard Specification for Tantalum and Tantalum Alloy Ingots
- ASTM B365-98(2004) Standard Specification for Tantalum and Tantalum Alloy Rod and Wire
- ASTM B366-04be1 Standard Specification for Factory-Made Wrought Nickel and Nickel Alloy Fittings
- ASTM B367-06 Standard Specification for Titanium and Titanium Alloy Castings
- ASTM B368-97(2003)e1 Standard Method for Copper-Accelerated Acetic Acid-Salt Spray (Fog) Testing (CASS Test)
- ASTM B369-06 Standard Specification for Copper-Nickel Alloy Castings
- ASTM B370-03 Standard Specification for Copper Sheet and Strip for Building Construction
- ASTM B371/B371M-06 Standard Specification for Copper-Zinc-Silicon Alloy Rod
- ASTM B372-97(2003) Standard Specification for Seamless Copper and Copper-Alloy Rectangular Waveguide Tube
- ASTM B373-00(2006) Standard Specification for Aluminium Foil for Capacitors
- ASTM B374-06 Standard Terminology Relating to Electroplating
- ASTM B379-04 Standard Specification for Phosphorized Coppers—Refinery Shapes
- ASTM B380-97(2007) Standard Test Method of Corrosion Testing of Decorative Electrodeposited Coatings by the Corrodekote Procedure
- ASTM B381-06a Standard Specification for Titanium and Titanium Alloy Forgings
- ASTM B386-03 Standard Specification for Molybdenum and Molybdenum Alloy Plate, Sheet, Strip, and Foil
- ASTM B387-90(2001) Standard Specification for Molybdenum and Molybdenum Alloy Bar, Rod, and Wire
- ASTM B388-06 Standard Specification for Thermostat Metal Sheet and Strip
- ASTM B389-81(2004) Standard Test Method for Thermal Deflection Rate of Spiral and Helical Coils of Thermostat Metal
- ASTM B390-92(2006) Standard Practice for Evaluating Apparent Grain Size and Distribution of Cemented Tungsten Carbides
- ASTM B391-03 Standard Specification for Niobium and Niobium Alloy Ingots
- ASTM B392-03 Standard Specification for Niobium and Niobium Alloy Bar, Rod, and Wire
- ASTM B393-05 Standard Specification for Niobium and Niobium Alloy Strip, Sheet, and Plate
- ASTM B394-03 Standard Specification for Niobium and Niobium Alloy Seamless and Welded Tubes
- ASTM B395/B395M-02 Standard Specification for U-Bend Seamless Copper and Copper Alloy Heat Exchanger and Condenser Tubes
- ASTM B398/B398M-02(2007) Standard Specification for Aluminium-Alloy 6201-T81 Wire for Electrical Purposes



## SPECIFICATION LIST FOR PIPING MATERIALS

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- ASTM B399/B399M-04 Standard Specification for Concentric-Lay-Stranded Aluminium-Alloy 6201-T81 Conductors
- ASTM B400-04 Standard Specification for Compact Round Concentric-Lay-Stranded Aluminium 1350 Conductors
- ASTM B401-04 Standard Specification for Compact Round Concentric-Lay-Stranded Aluminium Conductors, Steel-Reinforced (ACSR/COMP)
- ASTM B403-07 Standard Specification for Magnesium-Alloy Investment Castings
- ASTM B406-96(2005) Standard Test Method for Transverse Rupture Strength of Cemented Carbides
- ASTM B407-04 Standard Specification for Nickel-Iron-Chromium Alloy Seamless Pipe and Tube
- ASTM B408-06 Standard Specification for Nickel-Iron-Chromium Alloy Rod and Bar
- ASTM B409-06e1 Standard Specification for Nickel-Iron-Chromium Alloy Plate, Sheet, and Strip
- ASTM B411/B411M-06 Standard Specification for Copper-Nickel-Silicon Alloy Rod and Bar
- ASTM B413-97a(2003) Standard Specification for Refined Silver
- ASTM B415-98(2007) Standard Specification for Hard-Drawn Aluminium-Clad Steel Wire
- ASTM B416-98(2007) Standard Specification for Concentric-Lay-Stranded Aluminium-Clad Steel Conductors
- ASTM B417-00(2006)e1 Standard Test Method for Apparent Density of Non-Free-Flowing Metal Powders Using the Carney Funnel
- ASTM B418-06 Standard Specification for Cast and Wrought Galvanic Zinc Anodes
- ASTM B422-06 Standard Specification for Copper-Aluminium-Silicon-Cobalt Alloy, Copper-Nickel-Silicon-Magnesium Alloy, Copper-Nickel-Silicon Alloy, Copper-Nickel-Aluminium-Magnesium Alloy, and Copper-Nickel-Tin Alloy Sheet and Strip
- ASTM B423-05 Standard Specification for Nickel-Iron-Chromium-Molybdenum-Copper Alloy (UNS N08825 and N08221)\* Seamless Pipe and Tube
- ASTM B424-05 Standard Specification for Ni-Fe-Cr-Mo-Cu Alloy (UNS N08825 and UNS N08221)\* Plate, Sheet, and Strip
- ASTM B425-99(2005) Standard Specification for Ni-Fe-Cr-Mo-Cu Alloy (UNS N08825 and UNS N08221) Rod and Bar
- ASTM B427-02 Standard Specification for Gear Bronze Alloy Castings
- ASTM B428-93(2004) Standard Test Method for Angle of Twist in Rectangular and Square Copper and Copper Alloy Tube
- ASTM B429/B429M-06 Standard Specification for Aluminium-Alloy Extruded Structural Pipe and Tube
- ASTM B430-97(2006)e1 Standard Test Method for Particle Size Distribution of Refractory Metal Powders and Related Compounds by Turbidimetry
- ASTM B432-04 Standard Specification for Copper and Copper Alloy Clad Steel Plate
- ASTM B434-06 Standard Specification for Nickel-Molybdenum-Chromium-Iron Alloys (UNS N10003, UNS N10242)\* Plate, Sheet, and Strip
- ASTM B435-06 Standard Specification for UNS N06002, UNS N06230, UNS N12160, and UNS R30556 Plate, Sheet, and Strip
- ASTM B438/B438M-05 Specification for Bronze Powder Metallurgy (P/M) Bearing (Oil-Impregnated)
- ASTM B439-07 Standard Specification for Iron-Base Powder Metallurgy (PM) Bearings (Oil Impregnated)
- ASTM B440-00(2005) Standard Specification for Cadmium
- ASTM B441-04 Standard Specification for Copper-Cobalt-Beryllium, Copper-Nickel-Beryllium, and Copper-Nickel-Lead-Beryllium Rod and Bar (UNS Nos. C17500, C17510, and C17465)
- ASTM B443-00(2005) Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625) and Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219)\* Plate, Sheet, and Strip



## SPECIFICATION LIST FOR PIPING MATERIALS

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ASTM B444-06 Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloys (UNS N06625 and UNS N06852) and Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219) Pipe and Tube

ASTM B446-03 Standard Specification for Nickel-Chromium-Molybdenum-Columbium Alloy (UNS N06625), Nickel-Chromium-Molybdenum-Silicon Alloy (UNS N06219), and Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06650)\* Rod and Bar

ASTM B447-07 Standard Specification for Welded Copper Tube

ASTM B449-93(2004) Standard Specification for Chromates on Aluminium

ASTM B452-02 Standard Specification for Copper-Clad Steel Wire for Electronic Application

ASTM B453/B453M-05 Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Rod, Bar, and Shapes

ASTM B455-05 Standard Specification for Copper-Zinc-Lead Alloy (Leaded-Brass) Extruded Shapes

ASTM B456-03 Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium

ASTM B457-67(2003) Standard Test Method for Measurement of Impedance of Anodic Coatings on Aluminium

ASTM B462-06 Specification for Forged or Rolled UNS

N06030,N06022,N06035,N06200,N06059,N06686,N08020,N08024,N08026,N08367,N10276,N10665, N10675,N10629, N08031,N06045, N06025, & R20033 Alloy Pipe Flanges, Forged Fitting, & Values & Parts for Corrosive

ASTM B463-04 Standard Specification for UNS N08020, UNS N08026, and UNS N08024 Alloy Plate, Sheet, and Strip

ASTM B464-05 Standard Specification for Welded UNS N08020, N08024, and N08026 Alloy Pipe

ASTM B465-04 Standard Specification for Copper-Iron Alloy Plate, Sheet, Strip, and Rolled Bar

ASTM B466/B466M-07 Standard Specification for Seamless Copper-Nickel Pipe and Tube

ASTM B467-88(2003) Standard Specification for Welded Copper-Nickel Pipe

ASTM B468-04 Standard Specification for Welded UNS N08020, N08024, and N08026 Alloy Tubes

ASTM B470-02(2007) Standard Specification for Bonded Copper Conductors for Use in Hook-up Wires for Electronic Equipment

ASTM B472-04a Standard Specification for Nickel Alloy Billets and Bars for Reforging

ASTM B473-07 Standard Specification for UNS N08020, UNS N08024, and UNS N08026 Nickel Alloy Bar and Wire

ASTM B474-03 Standard Specification for Electric Fusion Welded Nickel and Nickel Alloy Pipe

ASTM B475-07 Standard Specification for UNS N08020, UNS N08024, and UNS N08026 Nickel Alloy Round Weaving Wire

ASTM B476-01(2006) Standard Specification for General Requirements for Wrought Precious Metal Electrical Contact Materials

ASTM B477-97(2002) Standard Specification for Gold-Silver-Nickel Electrical Contact Alloy

ASTM B478-85(2003) Standard Test Method for Cross Curvature of Thermostat Metals

ASTM B479-06 Standard Specification for Annealed Aluminium and Aluminium-Alloy Foil for Flexible Barrier, Food Contact, and Other Applications

ASTM B480-88(2006) Standard Guide for Preparation of Magnesium and Magnesium Alloys for Electroplating

ASTM B481-68(2003)e1 Standard Practice for Preparation of Titanium and Titanium Alloys for Electroplating

ASTM B482-85(2003) Standard Practice for Preparation of Tungsten and Tungsten Alloys for Electroplating

ASTM B483/B483M-03 Standard Specification for Aluminium and Aluminium-Alloy Drawn Tubes for General Purpose Applications

ASTM B487-85(2007) Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopically Examination of a



## SPECIFICATION LIST FOR PIPING MATERIALS

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### Cross Section

ASTM B488-01(2006) Standard Specification for Electrodeposited Coatings of Gold for Engineering Uses

ASTM B489-85(2003) Standard Practice for Bend Test for Ductility of Electrodeposited and Auto catalytically Deposited Metal Coatings on Metals

ASTM B490-92(2003) Standard Practice for Micrometre Bend Test for Ductility of Electrodeposits

ASTM B491/B491M-06 Standard Specification for Aluminium and Aluminium-Alloy Extruded Round Tubes for General-Purpose Applications

ASTM B493-01(2003) Standard Specification for Zirconium and Zirconium Alloy Forgings

ASTM B494/B494M-03 Standard Specification for Primary Zirconium

ASTM B495-05 Standard Specification for Zirconium and Zirconium Alloy Ingots

ASTM B496-04 Standard Specification for Compact Round Concentric-Lay-Stranded Copper Conductors

ASTM B497-00(2006) Standard Guide for Measuring Voltage Drop on Closed Arcing Contacts

ASTM B498/B498M-98(2002) Standard Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminium Conductors, Steel Reinforced (ACSR)

ASTM B499-96(2002) Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals

ASTM B500/B500M-98(2002) Standard Specification for Metallic Coated Stranded Steel Core for Aluminium Conductors, Steel Reinforced (ACSR)

ASTM B501-04 Standard Specification for Silver-Coated, Copper-Clad Steel Wire for Electronic Application

ASTM B502-02(2007) Standard Specification for Aluminium-Clad Steel Core Wire for Aluminium Conductors, Aluminium-Clad Steel Reinforced

ASTM B504-90(2007) Standard Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method

ASTM B505/B505M-07 Standard Specification for Copper Alloy Continuous Castings

ASTM B507-86(2003) Standard Practice for Design of Articles To Be Electroplated on Racks

ASTM B508-07 Standard Specification for Copper Alloy Strip for Flexible Metal Hose

ASTM B511-01(2005) Standard Specification for Nickel-Iron-Chromium-Silicon Alloy Bars and Shapes

ASTM B512-04 Standard Specification for Nickel-Chromium-Silicon Alloy (UNS N08330) Billets and Bars

ASTM B514-05 Standard Specification for Welded Nickel-Iron-Chromium Alloy Pipe

ASTM B515-95(2002) Standard Specification for Welded UNS N08120, UNS N08800, UNS N08810, and UNS N08811 Alloy Tubes

ASTM B516-03 Standard Specification for Welded Nickel-Chromium-Iron Alloy (UNS N06600, UNS N06603, UNS N06025, and UNS N06045 Tubes

ASTM B517-05 Standard Specification for Welded Nickel-Chromium-Iron-Alloy (UNS N06600, UNS N06603, UNS N06025, and UNS N06045) Pipe

ASTM B520-93(2007) Standard Specification for Tin-Coated, Copper-Clad Steel Wire for Electronic Application

ASTM B521-98(2004) Standard Specification for Tantalum and Tantalum Alloy Seamless and Welded Tubes

ASTM B522-01(2006) Standard Specification for Gold-Silver-Platinum Electrical Contact Alloy



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- ASTM B523/B523M-07 Standard Specification for Seamless and Welded Zirconium and Zirconium Alloy Tubes
- ASTM B524/B524M-99(2005) Standard Specification for Concentric-Lay-Stranded Aluminium Conductors, Aluminium-Alloy Reinforced (ACAR, 1350/6201)
- ASTM B527-06 Standard Test Method for Determination of Tap Density of Metallic Powders and Compounds
- ASTM B528-05 Standard Test Method for Transverse Rupture Strength of Metal Powder Specimens
- ASTM B530-02 Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Electrodeposited Nickel Coatings on Magnetic and Nonmagnetic Substrates
- ASTM B532-85(2007) Standard Specification for Appearance of Electroplated Plastic Surfaces
- ASTM B533-85(2004) Standard Test Method for Peel Strength of Metal Electroplated Plastics
- ASTM B534-07 Standard Specification for Copper-Cobalt-Beryllium Alloy and Copper-Nickel-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar
- ASTM B535-06 Standard Specification for Nickel-Iron-Chromium-Silicon Alloys (UNS N08330 and N08332) Seamless Pipe and Tube
- ASTM B536-07 Standard Specification for Nickel-Iron-Chromium-Silicon Alloys (UNS N08330 and N08332) Plate, Sheet, and Strip
- ASTM B537-70(2007) Standard Practice for Rating of Electroplated Panels Subjected to Atmospheric Exposure
- ASTM B539-02e1 Standard Test Methods for Measuring Resistance of Electrical Connections (Static Contacts)
- ASTM B540-97(2002) Standard Specification for Palladium Electrical Contact Alloy
- ASTM B541-01(2006) Standard Specification for Gold Electrical Contact Alloy
- ASTM B542-07 Standard Terminology Relating to Electrical Contacts and Their Use
- ASTM B543-07 Standard Specification for Welded Copper and Copper-Alloy Heat Exchanger Tube
- ASTM B545-97(2004)e1 Standard Specification for Electrodeposited Coatings of Tin
- ASTM B546-04 Standard Specification for Electric Fusion-Welded Ni-Cr-Co-Mo Alloy (UNS N06617), Ni-Fe-Cr-Si Alloys (UNS N08330 and UNS N08332), Ni-Cr-Fe-Al Alloy (UNS N06603), Ni-Cr-Fe Alloy (UNS N06025), and Ni-Cr-Fe-Si Alloy (UNS N06045) Pipe
- ASTM B547/B547M-02 Standard Specification for Aluminium and Aluminium-Alloy Formed and Arc-Welded Round Tube
- ASTM B548-03 Standard Test Method for Ultrasonic Inspection of Aluminium-Alloy Plate for Pressure Vessels
- ASTM B549-04 Standard Specification for Concentric-Lay-Stranded Aluminium Conductors, Aluminium-Clad Steel Reinforced (ACSR/AW)
- ASTM B550/B550M-07 Standard Specification for Zirconium and Zirconium Alloy Bar and Wire
- ASTM B551/B551M-07 Standard Specification for Zirconium and Zirconium Alloy Strip, Sheet, and Plate
- ASTM B552-98(2004) Standard Specification for Seamless and Welded Copper--Nickel Tubes For Water Desalting Plants
- ASTM B555-86(2007) Standard Guide for Measurement of Electrodeposited Metallic Coating Thicknesses by Dropping Test
- ASTM B556-90(2007) Standard Guide for Measurement of Thin Chromium Coatings by Spot Test
- ASTM B557-06 Standard Test Methods for Tension Testing Wrought and Cast Aluminium- and Magnesium-Alloy Products
- ASTM B557M-07 Standard Test Methods for Tension Testing Wrought and Cast Aluminium- and Magnesium-Alloy Products [Metric]
- ASTM B558-79(2003) Standard Practice for Preparation of Nickel Alloys for Electroplating
- ASTM B559-93(2007) Standard Specification for Nickel-Coated, Copper-Clad Steel Wire for Electronic Application
- ASTM B560-00(2005) Standard Specification for Modern Pewter Alloys





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- ASTM B561-94(2005) Standard Specification for Refined Platinum
- ASTM B562-95(2005) Standard Specification for Refined Gold
- ASTM B563-01(2006) Standard Specification for Palladium-Silver-Copper Electrical Contact Alloy
- ASTM B564-06a Standard Specification for Nickel Alloy Forgings
- ASTM B565-04 Standard Test Method for Shear Testing of Aluminium and Aluminium-Alloy Rivets and Cold-Heading Wire and Rods
- ASTM B566-04a Standard Specification for Copper-Clad Aluminium Wire
- ASTM B567-98(2003) Standard Test Method for Measurement of Coating Thickness by the Beta Backscatter Method
- ASTM B568-98(2004) Standard Test Method for Measurement of Coating Thickness by X-Ray Spectrometry
- ASTM B569-04 Standard Specification for Brass Strip in Narrow Widths and Light Gage for Heat-Exchanger Tubing
- ASTM B570-06 Standard Specification for Copper-Beryllium Alloy (UNS Nos. C17000 and C17200) Forgings and Extrusions
- ASTM B571-97(2003) Standard Practice for Qualitative Adhesion Testing of Metallic Coatings
- ASTM B572-06 Standard Specification for UNS N06002, UNS N06230, UNS N12160, and UNS R30556 Rod
- ASTM B573-06 Standard Specification for Nickel-Molybdenum-Chromium-Iron Alloys (UNS N10003, N10242)\* Rod
- ASTM B574-06e1 Standard Specification for Low-Carbon Nickel-Chromium-Molybdenum, Low-Carbon Nickel-Molybdenum-Chromium-Tantalum, Low-Carbon Nickel-Chromium-Molybdenum-Copper, and Low-Carbon Nickel-Chromium-Molybdenum-Tungsten Alloy Rod
- ASTM B575-06 Standard Specification for Low-Carbon Nickel-Chromium-Molybdenum, Low-Carbon Nickel-Chromium-Molybdenum-Copper, Low-Carbon Nickel-Chromium-Molybdenum-Tantalum, and Low-Carbon Nickel-Chromium-Molybdenum-Tungsten Alloy Plate, Sheet, and Strip
- ASTM B576-94(2005) Standard Guide for Arc Erosion Testing of Electrical Contact Materials
- ASTM B577-93(2004)e1 Standard Test Methods for Detection of Cuprous Oxide (Hydrogen Embrittlement Susceptibility) in Copper
- ASTM B578-87(2004) Standard Test Method for Microhardness of Electroplated Coatings
- ASTM B579-73(2004) Standard Specification for Electrodeposited Coatings of Tin-Lead Alloy (Solder Plate)
- ASTM B580-79(2004) Standard Specification for Anodic Oxide Coatings on Aluminium
- ASTM B581-02 Standard Specification for Nickel-Chromium-Iron-Molybdenum-Copper Alloy Rod
- ASTM B582-02 Standard Specification for Nickel-Chromium-Iron-Molybdenum-Copper Alloy Plate, Sheet, and Strip
- ASTM B584-06a Standard Specification for Copper Alloy Sand Castings for General Applications
- ASTM B587-06 Standard Specification for Welded Brass Tube
- ASTM B588-88(2006) Standard Test Method for Measurement of Thickness of Transparent or Opaque Coatings by Double-Beam Interference Microscope Technique
- ASTM B589-94(2005) Standard Specification for Refined Palladium
- ASTM B591-04 Standard Specification for Copper-Zinc-Tin and Copper-Zinc-Tin-Iron-Nickel Alloys Plate, Sheet, Strip, and Rolled Bar
- ASTM B592-01(2006) Standard Specification for Copper-Zinc-aluminium-Cobalt Alloy, Copper-Zinc-Tin-Iron Alloy Plate, Sheet, Strip, and Rolled Bar
- ASTM B593-96(2003)e1 Standard Test Method for Bending Fatigue Testing for Copper-Alloy Spring Materials
- ASTM B594-06 Standard Practice for Ultrasonic Inspection of Aluminium-Alloy Wrought Products for Aerospace Applications



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- ASTM B595-95(2006) Standard Specification for Sintered Aluminium Structural Parts
- ASTM B596-89(2006) Standard Specification for Gold-Copper Alloy Electrical Contact Material
- ASTM B598-98(2004) Standard Practice for Determining Offset Yield Strength in Tension for Copper Alloys
- ASTM B599-92(2003)e1 Standard Specification for Nickel-Iron-Chromium-Molybdenum-Columbium Stabilized Alloy (UNS N08700) Plate, Sheet, and Strip
- ASTM B600-91(2002)e1 Standard Guide for Descaling and Cleaning Titanium and Titanium Alloy Surfaces
- ASTM B601-07 Standard Classification for Temper Designations for Copper and Copper Alloys—Wrought and Cast
- ASTM B602-88(2005) Standard Test Method for Attribute Sampling of Metallic and Inorganic Coatings
- ASTM B603-07 Standard Specification for Drawn or Rolled Iron-Chromium-Aluminium Alloys for Electrical Heating Elements
- ASTM B604-91(2003)e1 Standard Specification for Decorative Electroplated Coatings of Copper Plus Nickel Plus Chromium on Plastics
- ASTM B605-95a(2004) Standard Specification for Electrodeposited Coatings of Tin-Nickel Alloy
- ASTM B606-02 Standard Specification for High-Strength Zinc-Coated (Galvanized) Steel Core Wire for Aluminium and Aluminium-Alloy Conductors, Steel Reinforced
- ASTM B607-91(2003) Standard Specification for Autocatalytic Nickel Boron Coatings for Engineering Use
- ASTM B608-07 Standard Specification for Welded Copper-Alloy Pipe
- ASTM B609/B609M-99(2004) Standard Specification for Aluminium 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes
- ASTM B610-00e1 Standard Test Method for Measuring Dimensional Changes of Metal Powder Specimens
- ASTM B611-85(2005) Standard Test Method for Abrasive Wear Resistance of Cemented Carbides
- ASTM B613-76(2006) Standard Guide for Preparing Specifications for Miniature Brushes of Composite Materials for Sliding Electric Contacts
- ASTM B614-05 Standard Practice for Descaling and Cleaning Zirconium and Zirconium Alloy Surfaces
- ASTM B615-79(2006) Standard Practice for Measuring Electrical Contact Noise in Sliding Electrical Contacts
- ASTM B616-96(2006) Standard Specification for Refined Rhodium
- ASTM B617-98(2004) Standard Specification for Coin Silver Electrical Contact Alloy
- ASTM B618/B618M-07 Standard Specification for Aluminium-Alloy Investment Castings
- ASTM B619-06 Standard Specification for Welded Nickel and Nickel-Cobalt Alloy Pipe
- ASTM B620-03 Standard Specification for Nickel-Iron-Chromium-Molybdenum Alloy (UNS N08320) Plate, Sheet, and Strip
- ASTM B621-02(2006) Standard Specification for Nickel-Iron-Chromium-Molybdenum Alloy (UNS N08320) Rod
- ASTM B622-06 Standard Specification for Seamless Nickel and Nickel-Cobalt Alloy Pipe and Tube
- ASTM B624-07 Standard Specification for High-Strength, High-Conductivity Copper-Alloy Wire for Electronic Application
- ASTM B625-05 Standard Specification for UNS N08925, UNS N08031, UNS N08932, UNS N08926, UNS N08354, and UNS R20033 Plate, Sheet, and Strip
- ASTM B626-06 Standard Specification for Welded Nickel and Nickel-Cobalt Alloy Tube
- ASTM B628-98(2004) Standard Specification for Silver-Copper Eutectic Electrical Contact Alloy
- ASTM B629-77(2003) Standard Practice for Preparation of Molybdenum and Molybdenum Alloys for Electroplating



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- ASTM B630-88(2006) Standard Practice for Preparation of Chromium for Electroplating with Chromium
- ASTM B631-93(2004) Standard Specification for Silver-Tungsten Electrical Contact Materials
- ASTM B632/B632M-02 Standard Specification for Aluminium-Alloy Rolled Tread Plate
- ASTM B633-07 Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel
- ASTM B634-88(2004)e1 Standard Specification for Electrodeposited Coatings of Rhodium for Engineering Use
- ASTM B635-00(2004)e1 Standard Specification for Coatings of Cadmium-Tin Mechanically Deposited
- ASTM B636-84(2006)e1 Standard Test Method for Measurement of Internal Stress of Plated Metallic Coatings with the Spiral Contractometer
- ASTM B637-06 Standard Specification for Precipitation-Hardening Nickel Alloy Bars, Forgings, and Forging Stock for High-Temperature Service
- ASTM B639-02 Standard Specification for Precipitation Hardening Cobalt-Containing Alloys (UNS R30155 and UNS R30816) Rod, Bar, Forgings, and Forging Stock for High-Temperature Service
- ASTM B640-07 Standard Specification for Welded Copper Tube for Air Conditioning and Refrigeration Service
- ASTM B643-00(2005) Standard Specification for Copper-Beryllium Alloy Seamless Tube
- ASTM B644-05 Standard Specification for Copper Alloy Addition Agents
- ASTM B645-07 Standard Practice for Linear-Elastic Plane-Strain Fracture Toughness Testing of Aluminium Alloys
- ASTM B646-06a Standard Practice for Fracture Toughness Testing of Aluminium Alloys
- ASTM B647-84(2006) Standard Test Method for Indentation Hardness of Aluminium Alloys by Means of a Webster Hardness Gage
- ASTM B648-78(2006) Standard Test Method for Indentation Hardness of Aluminium Alloys by Means of a Barcol Impressor
- ASTM B649-06 Standard Specification for Ni-Fe-Cr-Mo-Cu-N Low-Carbon Alloys (UNS N08925, UNS N08031, UNS N08354, and UNS N08926), and Cr-Ni-Fe-N Low-Carbon Alloy (UNS R20033) Bar and Wire, and Ni-Cr-Fe-Mo-N Alloy (UNS N08936) Wire
- ASTM B650-95(2002) Standard Specification for Electrodeposited Engineering Chromium Coatings on Ferrous Substrates
- ASTM B651-83(2006) Standard Test Method for Measurement of Corrosion Sites in Nickel Plus Chromium or Copper Plus Nickel Plus Chromium Electroplated Surfaces with Double-Beam Interference Microscope
- ASTM B652/B652M-04 Standard Specification for Niobium-Hafnium Alloy Ingots
- ASTM B653/B653M-06 Standard Specification for Seamless and Welded Zirconium and Zirconium Alloy Welding Fittings
- ASTM B654/B654M-04 Standard Specification for Niobium-Hafnium Alloy Foil, Sheet, Strip, and Plate
- ASTM B655/B655M-04 Standard Specification for Niobium-Hafnium Alloy Bar, Rod, and Wire
- ASTM B657-05 Guide for Metallographic Identification of Microstructure in Cemented Carbides
- ASTM B658/B658M-06 Standard Specification for Seamless and Welded Zirconium and Zirconium Alloy Pipe
- ASTM B659-90(2003) Standard Guide for Measuring Thickness of Metallic and Inorganic Coatings
- ASTM B660-02 Standard Practices for Packaging/Packing of Aluminium and Magnesium Products
- ASTM B661-06 Standard Practice for Heat Treatment of Magnesium Alloys
- ASTM B662-94(2006) Standard Specification for Silver-Molybdenum Electrical Contact Material
- ASTM B663-94(2006) Standard Specification for Silver-Tungsten Carbide Electrical Contact Material
- ASTM B664-90(2006) Standard Specification for 80 % Silver-20 % Graphite Sliding Contact Material



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- ASTM B665-03 Standard Guide for Metallographic Sample Preparation of Cemented Tungsten Carbides
- ASTM B666/B666M-01 Standard Practice for Identification Marking of Aluminium and Magnesium Products
- ASTM B667-97(2003)e1 Standard Practice for Construction and Use of a Probe for Measuring Electrical Contact Resistance
- ASTM B668-05 Standard Specification for UNS N08028 Seamless Pipe and Tube
- ASTM B670-02 Standard Specification for Precipitation-Hardening Nickel Alloy (UNS N07718) Plate, Sheet, and Strip for High-Temperature Service
- ASTM B671-81(2005) Standard Specification for Refined Iridium
- ASTM B672-02 Standard Specification for Nickel-Iron-Chromium-Molybdenum-Columbium Stabilized Alloy (UNS N08700) Bar and Wire
- ASTM B673-05e1 Standard Specification for UNS N08925, UNS N08354, and UNS N08926 Welded Pipe
- ASTM B674-05 Standard Specification for UNS N08925, UNS N08354, and UNS N08926 Welded Tube
- ASTM B675-02(2007) Standard Specification for UNS N08367 Welded Pipe
- ASTM B676-03 Standard Specification for UNS N08367 Welded Tube
- ASTM B677-05 Standard Specification for UNS N08925, UNS N08354, and UNS N08926 Seamless Pipe and Tube
- ASTM B678-86(2006) Standard Test Method for Solderability of Metallic-Coated Products
- ASTM B679-98(2004)e1 Standard Specification for Electrodeposited Coatings of Palladium for Engineering Use
- ASTM B680-80(2004) Standard Test Method for Seal Quality of Anodic Coatings on Aluminium by Acid Dissolution
- ASTM B682-01 Standard Specification for Standard Metric Sizes of Electrical Conductors
- ASTM B683-01(2006) Standard Specification for Pure Palladium Electrical Contact Material
- ASTM B684-97(2002) Standard Specification for Platinum-Iridium Electrical Contact Materials
- ASTM B685-01(2006) Standard Specification for Palladium-Copper Electrical Contact Material
- ASTM B686/B686M-07 Standard Specification for Aluminium Alloy Castings, High-Strength
- ASTM B687-99(2005)e1 Standard Specification for Brass, Copper, and Chromium-Plated Pipe Nipples
- ASTM B688-96(2004) Standard Specification for Chromium-Nickel-Molybdenum-Iron (UNS N08366 and UNS N08367) Plate, Sheet, and Strip
- ASTM B689-97(2003) Standard Specification for Electroplated Engineering Nickel Coatings
- ASTM B690-02(2007) Standard Specification for Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367) Seamless Pipe and Tube
- ASTM B691-02 Standard Specification for Iron-Nickel-Chromium-Molybdenum Alloys (UNS N08366 and UNS N08367) Rod, Bar, and Wire
- ASTM B692-90(2006) Standard Specification for 75 % Silver-25 % Graphite Sliding Contact Material
- ASTM B693-91(2006) Standard Specification for Silver-Nickel Electrical Contact Materials
- ASTM B694-03 Standard Specification for Copper, Copper-Alloy, Copper-Clad Bronze (CCB), Copper-Clad Stainless Steel (CCS), and Copper-Clad Alloy Steel (CAS) Sheet and Strip for Electrical Cable Shielding
- ASTM B695-04 Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel
- ASTM B696-00(2004)e1 Standard Specification for Coatings of Cadmium Mechanically Deposited
- ASTM B697-88(2005) Standard Guide for Selection of Sampling Plans for Inspection of Electrodeposited Metallic and Inorganic Coatings



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- ASTM B698-02 Standard Classification for Seamless Copper and Copper Alloy Plumbing Pipe and Tube
- ASTM B699-86(2003) Standard Specification for Coatings of Cadmium Vacuum-Deposited on Iron and Steel
- ASTM B700-97(2002) Standard Specification for Electrodeposited Coatings of Silver for Engineering Use
- ASTM B701/B701M-06 Standard Specification for Concentric-Lay-Stranded Self-Damping Aluminium Conductors, Steel Reinforced (ACSR/SD)
- ASTM B702-93(2004) Standard Specification for Copper-Tungsten Electrical Contact Material
- ASTM B703-05 Standard Test Method for Apparent Density of Powders Using Arnold Meter
- ASTM B704-03 Standard Specification for Welded UNS N06625, UNS N06219 and UNS N08825 Alloy Tubes
- ASTM B705-05 Standard Specification for Nickel-Alloy (UNS N06625, N06219 and N08825) Welded Pipe
- ASTM B706-00(2006) Standard Specification for Seamless Copper Alloy (UNS No. C69100) Pipe and Tube
- ASTM B708-05 Standard Specification for Tantalum and Tantalum Alloy Plate, Sheet, and Strip
- ASTM B709-04 Standard Specification for Iron-Nickel-Chromium-Molybdenum Alloy (UNS N08028)\* Plate, Sheet, and Strip
- ASTM B710-04 Standard Specification for Nickel-Iron-Chromium-Silicon Alloy Welded Pipe
- ASTM B711-05 Standard Specification for Concentric-Lay-Stranded Aluminium-Alloy Conductors, Steel Reinforced (AACSR) (6201)
- ASTM B712-93(2006) Standard Guide for Determination of Sodium and Potassium Content For Silver-Cadmium Oxide Contact Materials
- ASTM B715-96(2001) Standard Specification for Sintered Copper Structural Parts for Electrical Conductivity Applications
- ASTM B717-96(2006) Standard Specification for Refined Ruthenium
- ASTM B718-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Plate, Sheet, and Strip
- ASTM B719-00(2005) Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Bar
- ASTM B722-06 Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Seamless Pipe and Tube
- ASTM B723-00(2005) Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Welded Pipe
- ASTM B724-00(2006) Standard Test Method for Indentation Hardness of Aluminium Alloys by Means of a Newage, Portable, Non-Calliper-Type Instrument
- ASTM B725-05 Standard Specification for Welded Nickel (UNS N02200/UNS N02201) and Nickel Copper Alloy (UNS N04400) Pipe
- ASTM B726-02(2006) Standard Specification for Nickel-Chromium-Molybdenum-Cobalt-Tungsten-Iron-Silicon Alloy (UNS N06333) Welded Tube
- ASTM B727-04 Standard Practice for Preparation of Plastics Materials for Electroplating
- ASTM B729-05 Standard Specification for Seamless UNS N08020, UNS N08026, and UNS N08024 Nickel-Alloy Pipe and Tube
- ASTM B731-96(2006) Standard Specification for 60 % Palladium-40 % Silver Electrical Contact Material
- ASTM B733-04 Standard Specification for Autocatalytic (Electroless) Nickel-Phosphorus Coatings on Metal
- ASTM B734-97(2003)e1 Standard Specification for Electrodeposited Copper for Engineering Uses
- ASTM B735-06 Standard Test Method for Porosity in Gold Coatings on Metal Substrates by Nitric Acid Vapour



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- ASTM B736-00(2006) Standard Specification for Aluminium, Aluminium Alloy and Aluminium-Clad Steel Cable Shielding Stock
- ASTM B737-05 Standard Specification for Hot-Rolled and/or Cold-Finished Hafnium Rod and Wire
- ASTM B738-03 Standard Specification for Fine-Wire Bunch-Stranded and Rope-Lay Bunch-Stranded Copper Conductors for Use as Electrical Conductors
- ASTM B739-03 Standard Specification for Nickel-Iron-Chromium-Silicon Alloy Welded Tube
- ASTM B740-02 Standard Specification for Copper-Nickel-Tin Spinodal Alloy Strip
- ASTM B742-90(2006) Standard Specification for Fine Silver Electrical Contact Fabricated Material
- ASTM B743-06 Standard Specification for Seamless Copper Tube in Coils
- ASTM B744/B744M-05 Standard Specification for Aluminium Alloy Sheet for Corrugated Aluminium Pipe
- ASTM B745/B745M-97(2005) Standard Specification for Corrugated Aluminium Pipe for Sewers and Drains
- ASTM B746/B746M-02(2007) Standard Specification for Corrugated Aluminium Alloy Structural Plate for Field-Bolted Pipe, Pipe-Arches, and Arches
- ASTM B747-07 Standard Specification for Copper-Zirconium Alloy Sheet and Strip
- ASTM B748-90(2006) Standard Test Method for Measurement of Thickness of Metallic Coatings by Measurement of Cross Section with a Scanning Electron Microscope
- ASTM B749-03 Standard Specification for Lead and Lead Alloy Strip, Sheet, and Plate Products
- ASTM B750-07 Standard Specification for GALFAN (Zinc-5 % Aluminium-Mischmetal) Alloy in Ingot Form for Hot-Dip Coatings
- ASTM B751-03 Standard Specification for General Requirements for Nickel and Nickel Alloy Welded Tube
- ASTM B752-06 Standard Specification for Castings, Zirconium-Base, Corrosion Resistant, for General Application
- ASTM B753-07 Standard Specification for Thermostat Component Alloys
- ASTM B754-89(2005) Standard Test Method for Measuring and Recording the Deviations from Flatness in Copper and Copper Alloy Strip
- ASTM B755-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Tungsten Alloys (UNS N06110) Plate, Sheet, and Strip
- ASTM B756-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Tungsten Alloy (UNS N06110) Rod and Bar
- ASTM B757-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Tungsten-Alloys (UNS N06110) Welded Pipe
- ASTM B758-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Tungsten Alloys (UNS N06110) Welded Tube
- ASTM B759-00(2006) Standard Specification for Nickel-Chromium-Molybdenum-Tungsten Alloys (UNS N06110) Pipe and Tube
- ASTM B760-86(1999) Standard Specification for Tungsten Plate, Sheet, and Foil
- ASTM B761-06 Standard Test Method for Particle Size Distribution of Metal Powders and Related Compounds by X-Ray Monitoring of Gravity Sedimentation
- ASTM B762-90(2005) Standard Test Method of Variables Sampling of Metallic and Inorganic Coatings
- ASTM B763-04 Standard Specification for Copper Alloy Sand Castings for Valve Applications
- ASTM B764-04 Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP Test)
- ASTM B765-03 Standard Guide for Selection of Porosity and Gross Defect Tests for Electrodeposits and Related Metallic Coatings
- ASTM B766-86(2003) Standard Specification for Electrodeposited Coatings of Cadmium



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- ASTM B767-88(2006) Standard Guide for Determining Mass Per Unit Area of Electrodeposited and Related Coatings by Gravimetric and Other Chemical Analysis Procedures
- ASTM B768-99(2004) Standard Specification for Copper-Cobalt-Beryllium Alloy and Copper-Nickel-Beryllium Alloy Strip and Sheet
- ASTM B769-07 Standard Test Method for Shear Testing of Aluminium Alloys
- ASTM B770-05 Standard Specification for Copper-Beryllium Alloy Sand Castings for General Applications
- ASTM B771-87(2006) Standard Test Method for Short Rod Fracture Toughness of Cemented Carbides
- ASTM B772-97(2003) Standard Guide for Specifying the Chemical Compositions for Electrical Contact Materials (Arcing and Nonarcing)
- ASTM B773-96(2002)e1 Standard Guide for Ultrasonic C-Scan Bond Evaluation of Brazed or Welded Electrical Contact Assemblies
- ASTM B774-00(2005) Standard Specification for Low Melting Point Alloys
- ASTM B775-02 Standard Specification for General Requirements for Nickel and Nickel Alloy Welded Pipe
- ASTM B776-07 Standard Specification for Hafnium and Hafnium Alloy Strip, Sheet, and Plate
- ASTM B777-99 Standard Specification for Tungsten Base, High-Density Metal
- ASTM B778-02(2007) Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminium Conductors (AAC/TW)
- ASTM B779-03 Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminium Conductors, Steel-Reinforced (ACSR/TW)
- ASTM B780-98(2004) Standard Specification for 75% Silver, 24.5% Copper, 0.5% Nickel Electrical Contact Alloy
- ASTM B781-93a(2006) Standard Guide for Silver-Cadmium Oxide Contact Material
- ASTM B783-04 Standard Specification for Materials for Ferrous Powder Metallurgy (P/M) Structural Parts
- ASTM B784-01(2006) Standard Specification for Modified Concentric-Lay-Stranded Copper Conductors for Use in Insulated Electrical Cables
- ASTM B786-02a Standard Specification for 19 Wire Combination Unilay-Stranded Aluminium Conductors for Subsequent Insulation
- ASTM B787/B787M-04 Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation
- ASTM B788/B788M-04 Standard Practice for Installing Factory-Made Corrugated Aluminium Culverts and Storm Sewer Pipe
- ASTM B789/B789M-99(2005) Standard Practice for Installing Corrugated Aluminium Structural Plate Pipe for Culverts and Sewers
- ASTM B790/B790M-00(2006) Standard Practice for Structural Design of Corrugated Aluminium Pipe, Pipe-Arches, and Arches for Culverts, Storm Sewers, and Other Buried Conduits
- ASTM B792-01(2005)e1 Standard Specification for Zinc Alloys in Ingot Form for Slush Casting
- ASTM B793-03 Standard Specification for Zinc Casting Alloy Ingot for Sheet Metal Forming Dies and Plastic Injection Moulds
- ASTM B794-97(2003) Standard Test Method for Durability Wear Testing of Separable Electrical Connector Systems Using Electrical Resistance Measurements
- ASTM B795-93(2002)e1 Standard Test Method for Determining the Percentage of Alloyed or Unalloyed Iron Contamination Present in Powder Forged (P/F) Steel Parts
- ASTM B796-02 Standard Test Method for Non-metallic Inclusion Content of Powders Intended for Powder Forging (P/F) Applications
- ASTM B797-93(2007) Standard Test Method for Surface Finger Oxide Penetration Depth and Presence of Interparticle Oxide Networks in Powder Forged (P/F) Steel Parts
- ASTM B798-95(2005) Standard Test Method for Porosity in Gold or Palladium Coatings on Metal Substrates by Gel-Bulk Electrograph



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- ASTM B799-95(2005) Standard Test Method for Porosity in Gold and Palladium Coatings by Sulphurous Acid/Sulphur-Dioxide Vapour
- ASTM B800-05 Standard Specification for 8000 Series Aluminium Alloy Wire for Electrical Purposes-Annealed and Intermediate Tempers
- ASTM B801-07 Standard Specification for Concentric-Lay-Stranded Conductors of 8000 Series Aluminium Alloy for Subsequent Covering or Insulation
- ASTM B802/B802M-02 Standard Specification for Zinc-5% Aluminium-Mischmetal Alloy-Coated Steel Core Wire for Aluminium Conductors, Steel Reinforced (ACSR)
- ASTM B803-02 Standard Specification for High-Strength Zinc-5% Aluminium-Mischmetal Alloy-Coated Steel Core Wire for Aluminium and Aluminium-Alloy Conductors, Steel Reinforced
- ASTM B804-02(2007) Standard Specification for UNS N08367 and UNS N08926 Welded Pipe
- ASTM B805-06 Standard Specification for Precipitation Hardening Nickel Alloys Bar and Wire
- ASTM B806-06 Standard Specification for Copper Alloy Permanent Mould Castings for General Applications
- ASTM B807/B807M-06 Standard Practice for Extrusion Press Solution Heat Treatment for Aluminium Alloys
- ASTM B808-05 Standard Test Method for Monitoring of Atmospheric Corrosion Chambers by Quartz Crystal Microbalances
- ASTM B809-95(2003) Standard Test Method for Porosity in Metallic Coatings by Humid Sulphur Vapour ("Flowers-of-Sulphur")
- ASTM B810-01a(2006) Standard Test Method for Calibration of Atmospheric Corrosion Test Chambers by Change in Mass of Copper Coupons
- ASTM B811-02(2007) Standard Specification for Wrought Zirconium Alloy Seamless Tubes for Nuclear Reactor Fuel Cladding
- ASTM B812-96(2002)e1 Standard Test Method for Resistance to Environmental Degradation of Electrical Pressure Connections Involving Aluminium and Intended for Residential Applications
- ASTM B813-00e1 Standard Specification for Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube
- ASTM B814-06 Standard Specification for Nickel-Chromium-Iron-Molybdenum-Tungsten Alloy (UNS N06920) Plate, Sheet, and Strip
- ASTM B815-02(2006) Standard Specification for Cobalt-Chromium-Nickel-Molybdenum-Tungsten Alloy (UNS R31233) Rod
- ASTM B816-00(2004)e1 Standard Specification for Coatings of Cadmium-Zinc Mechanically Deposited
- ASTM B817-03 Standard Specification for Powder Metallurgy (P/M) Titanium Alloy Structural Components
- ASTM B818-03 Standard Specification for Cobalt-Chromium-Nickel-Molybdenum-Tungsten Alloy (UNS R31233) Plate, Sheet and Strip
- ASTM B819-00(2006) Standard Specification for Seamless Copper Tube for Medical Gas Systems
- ASTM B820-04e1 Standard Test Method for Bend Test for Determining the Formability of Copper and Copper Alloy Strip
- ASTM B821-02(2007) Standard Guide for Liquid Dispersion of Metal Powders and Related Compounds for Particle Size Analysis
- ASTM B822-02 Standard Test Method for Particle Size Distribution of Metal Powders and Related Compounds by Light Scattering
- ASTM B823-01 Standard Specification for Materials for Nonferrous Powder Metallurgy (P/M) Structural Parts
- ASTM B824-04 Standard Specification for General Requirements for Copper Alloy Castings
- ASTM B825-02 Standard Test Method for Coulometric Reduction of Surface Films on Metallic Test Samples
- ASTM B826-03 Standard Test Method for Monitoring Atmospheric Corrosion Tests by Electrical Resistance Probes
- ASTM B827-05 Standard Practice for Conducting Mixed Flowing Gas (MFG) Environmental Tests
- ASTM B828-02 Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings
- ASTM B829-04a Standard Specification for General Requirements for Nickel and Nickel Alloys Seamless Pipe and Tube





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- ASTM B830-97(2003) Standard Specification for Uniform Test Methods and Frequency
- ASTM B831-05 Standard Test Method for Shear Testing of Thin Aluminium Alloy Products
- ASTM B832-93(2003) Standard Guide for Electroforming with Nickel and Copper
- ASTM B833-06 Standard Specification for Zinc and Zinc Alloy Wire for Thermal Spraying (Metallizing) for the Corrosion Protection of Steel
- ASTM B834-95(2003) Standard Specification for Pressure Consolidated Powder Metallurgy Iron-Nickel-Chromium-Molybdenum (UNS N08367) and Nickel-Chromium-Molybdenum-Columbium (Nb) (UNS N06625) Alloy Pipe Flanges, Fittings, Valves, and Parts
- ASTM B835-04 Standard Specification for Compact Round Stranded Copper Conductors Using Single Input Wire Construction
- ASTM B836-00(2005) Standard Specification for Compact Round Stranded Aluminium Conductors Using Single Input Wire Construction
- ASTM B837-01 Standard Specification for Seamless Copper Tube for Natural Gas and Liquefied Petroleum (LP) Gas Fuel Distribution Systems
- ASTM B839-04 Standard Test Method for Residual Embrittlement in Metallic Coated, Externally Threaded Articles, Fasteners, and Rod—  
Inclined Wedge Method
- ASTM B840-99(2004) Standard Specification for Electrodeposited Coatings for Zinc Cobalt Alloy Deposits
- ASTM B841-99(2004) Standard Specification for Electrodeposited Coatings for Zinc Nickel Alloy Deposits
- ASTM B842-99(2005) Standard Specification for Electrodeposited Coatings for Zinc Iron Alloy Deposits
- ASTM B843-07 Standard Specification for Magnesium Alloy Anodes for Cathodic Protection
- ASTM B844-98(2004) Standard Guide for Silver-Tin Oxide Contact Material
- ASTM B845-97(2003) Standard Guide for Mixed Flowing Gas (MFG) Tests for Electrical Contacts
- ASTM B846-06a Standard Terminology for Copper and Copper Alloys
- ASTM B848-05 Specification for Powder Forged (P/F) Ferrous Materials
- ASTM B849-02(2007) Standard Specification for Pre-Treatments of Iron or Steel for Reducing Risk of Hydrogen Embrittlement
- ASTM B850-98(2004) Standard Guide for Post-Coating Treatments of Steel for Reducing the Risk of Hydrogen Embrittlement
- ASTM B851-04 Standard Specification for Automated Controlled Shot Peening of Metallic Articles Prior to Nickel, Autocatalytic Nickel, or Chromium Plating, or as Final Finish
- ASTM B852-07 Standard Specification for Continuous Galvanizing Grade (CGG) Zinc Alloys for Hot-Dip Galvanizing of Sheet Steel
- ASTM B853-07 Standard Specification for Powder Metallurgy (PM) Boron Stainless Steel Structural Components
- ASTM B854-98(2004) Standard Guide for Measuring Electrical Contact Intermittences
- ASTM B855-06 Standard Test Method for Volumetric Flow Rate of Metal Powders Using Arnold Meter and Hall Funnel
- ASTM B856-03 Standard Specification for Concentric-Lay-Stranded Aluminium Conductors, Coated Steel Supported (ACSS)
- ASTM B857-02 Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminium Conductors, Coated-Steel Supported (ACSS/TW)
- ASTM B858-06 Standard Test Method for Ammonia Vapour Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys
- ASTM B859-03 Standard Practice for De-Agglomeration of Refractory Metal Powders and Their Compounds Prior to Particle Size Analysis
- ASTM B860-07 Standard Specification for Zinc Master Alloys for Use in Hot Dip Galvanizing
- ASTM B861-06a Standard Specification for Titanium and Titanium Alloy Seamless Pipe
- ASTM B862-06be1 Standard Specification for Titanium and Titanium Alloy Welded Pipe



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- ASTM B863-06a Standard Specification for Titanium and Titanium Alloy Wire
- ASTM B864/B864M-00(2007) Standard Specification for Corrugated Aluminium Box Culverts
- ASTM B865-04 Standard Specification for Precipitation Hardening Nickel-Copper-Aluminium Alloy (UNS N05500) Bar, Rod, Wire, Forgings, and Forging Stock
- ASTM B866-95(2003) Standard Test Method for Gross Defects and Mechanical Damage in Metallic Coatings by Polysulfide Immersion
- ASTM B867-95(2003) Standard Specification for Electrodeposited Coatings of Palladium-Nickel for Engineering Use
- ASTM B868-96(2002)e3 Standard Practice for Contact Performance Classification of Electrical Connection Systems
- ASTM B869-07 Standard Specification for Copper-Clad Steel Electrical Conductor for CATV Drop Wire
- ASTM B870-02 Standard Specification for Copper-Beryllium Alloy Forgings and Extrusions Alloys (UNS Nos. C17500 and C17510)
- ASTM B871-01(2007) Standard Test Method for Tear Testing of Aluminium Alloy Products
- ASTM B872-06 Standard Specification for Precipitation-Hardening Nickel Alloys Plate, Sheet, and Strip
- ASTM B873-01(2007) Standard Test Method for Measuring Volume of Apparent Density Cup Used in Test Methods ASTM B212, ASTM B329, and ASTM B417
- ASTM B874-96(2003) Standard Specification for Chromium Diffusion Coating Applied by Pack Cementation Process
- ASTM B875-96(2003) Standard Specification for Aluminium Diffusion Coating Applied by Pack Cementation Process
- ASTM B877-96(2003) Standard Test Method for Gross Defects and Mechanical Damage in Metallic Coatings by the Phosphomolybdic Acid (PMA) Method
- ASTM B878-97(2003) Standard Test Method for Nanosecond Event Detection for Electrical Contacts and Connectors
- ASTM B879-97(2003)e1 Standard Practice for Applying Non-Electrolytic Conversion Coatings on Magnesium and Magnesium Alloys
- ASTM B880-03 Standard Specification for General Requirements for Chemical Check Analysis Limits for Nickel, Nickel Alloys, and Cobalt Alloys
- ASTM B881-05 Standard Terminology Relating to Aluminium- and Magnesium- Alloy Products
- ASTM B882-05 Specification for Pre-Paginated Copper for Architectural Applications
- ASTM B883-05 Standard Specification for Metal Injection Moulding (MIM) Ferrous Materials
- ASTM B884-05 Standard Specification for Niobium-Titanium Alloy Billets, Bar, and Rod for Superconducting Applications
- ASTM B885-97(2003) Standard Test Method for Presence of Foreign Matter on Printed Wiring Board Contacts
- ASTM B886-03 Standard Test Methods for Determination of Magnetic Saturation (Ms) of Cemented Carbides
- ASTM B887-03 Standard Test Method for Determination of Coercivity (Hcs) of Cemented Carbides
- ASTM B888-06 Standard Specification for Copper Alloy Strip for Use in Manufacture of Electrical Connectors or Spring Contacts
- ASTM B890-07 Standard Test Method for Determination of Metallic Constituents of Tungsten Alloys and Tungsten Hard metals by X-Ray Fluorescence Spectrometry
- ASTM B891-98(2004) Standard Specification for Seamless and Welded Titanium and Titanium Alloy Condenser and Heat Exchanger Tubes With Integral Fins
- ASTM B892-03 Standard Specification for ACuZinc5 (Zinc-Copper-Aluminium) Alloy in Ingot Form for Die Castings
- ASTM B893-98(2003) Specification for Hard-Coat Anodizing of Magnesium for Engineering Applications



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- ASTM B894-03 Standard Specification for ACuZinc5 (Zinc-Copper-Aluminium) Alloy Die Castings
- ASTM B895-05 Test Methods for Evaluating the Corrosion Resistance of Stainless Steel Powder Metallurgy (P/M) Parts/Specimens by Immersion in a Sodium Chloride Solution
- ASTM B896-99(2005) Standard Test Methods for Evaluating Connectability Characteristics of Electrical Conductor Materials
- ASTM B897-03 Standard Specification for Configuration of Zinc and Zinc Alloy Jumbo and Block Ingot
- ASTM B898-05e1 Standard Specification for Reactive and Refractory Metal Clad Plate
- ASTM B899-06 Standard Terminology Relating to Non-ferrous Metals and Alloys
- ASTM B900-04 Standard Practice for Packaging of Copper and Copper Alloy Mill Products for U.S. Government Agencies
- ASTM B901-04 Standard Specification for Compressed Round Stranded Aluminium Conductors Using Single Input Wire Construction
- ASTM B902-04a Standard Specification for Compressed Round Stranded Copper Conductors, Hard, Medium-Hard, or Soft Using Single Input Wire Construction
- ASTM B903-00(2005) Standard Specification for Seamless Copper Heat Exchanger Tubes With Internal Enhancement
- ASTM B904-00(2004) Standard Specification for Autocatalytic Nickel over Autocatalytic Copper for Electromagnetic Interference Shielding
- ASTM B905-00(2005) Standard Test Methods for Assessing the Adhesion of Metallic and Inorganic Coatings by the Mechanized Tape Test
- ASTM B906-02(2006) Standard Specification for General Requirements for Flat-Rolled Nickel and Nickel Alloys Plate, Sheet, and Strip
- ASTM B907-05 Standard Specification for Zinc, Tin and Cadmium Base Alloys Used as Solders
- ASTM B908-03 Standard Practice for the Use of Colour Codes for Zinc Casting Alloy Ingot
- ASTM B909-00(2006) Standard Guide for Plane Strain Fracture Toughness Testing of Non-Stress Relieved Aluminium Products
- ASTM B910/B910M-07 Standard Specification for Annealed Copper-Clad Steel Wire
- ASTM B911/B911M-05 Standard Specification for ACSR Twisted Pair Conductor (ACSR/TP)
- ASTM B912-02 Standard Specification for Passivation of Stainless Steels Using Electro polishing
- ASTM B913-05 Standard Test Method for Evaluation of Crimped Electrical Connections to 16-Gauge and Smaller Diameter Stranded and Solid Conductors
- ASTM B914-03e2 Standard Practice for Colour Codes on Zinc and Zinc Alloy Ingot for Use in Hot-Dip Galvanizing of Steel
- ASTM B915-01(2007) Standard Test Method for Measuring Static Heat Resistance of Self-Cleaning Oven Coating
- ASTM B916-01(2007) Standard Test Method for Adherence of Porcelain Enamel Coatings to Sheet Metal
- ASTM B917/B917M-07 Standard Practice for Heat Treatment of Aluminium-Alloy Castings from All Processes
- ASTM B918-01 Standard Practice for Heat Treatment of Wrought Aluminium Alloys
- ASTM B919-01(2006) Standard Specification for Welded Copper Heat Exchanger Tubes With Internal Enhancement
- ASTM B920-01(2006)e1 Standard Practice for Porosity in Gold and Palladium Alloy Coatings on Metal Substrates by Vapours of Sodium Hypochlorite Solution
- ASTM B921-02 Standard Specification for Non-hexavalent Chromium Conversion Coatings on Aluminium and Aluminium Alloys
- ASTM B922-02 Standard Test Method for Metal Powder Specific Surface Area by Physical Adsorption
- ASTM B923-02 Standard Test Method for Metal Powder Skeletal Density by Helium or Nitrogen Pycnometry
- ASTM B924-02(2006) Standard Specification for Seamless and Welded Nickel Alloy Condenser and Heat Exchanger Tubes With Integral Fins



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- ASTM B925-03 Standard Practices for Production and Preparation of Powder Metallurgy (P/M) Test Specimens
- ASTM B926-03 Standard Method for Pinhole Determination in Aluminium and Aluminium Alloy Plain Foil by Means of a Light Table
- ASTM B927-03 Standard Specification for Brass Rod, Bar, and Shapes
- ASTM B928/B928M-07 Standard Specification for High Magnesium Aluminium-Alloy Sheet and Plate for Marine Service and Similar Environments
- ASTM B929-05 Standard Specification for Copper-Nickel-Tin Spinodal Alloy Rod and Bar
- ASTM B930-03 Standard Test Method for Rating Grain Size and Frequency of Abnormally Large Grains in Cemented Tungsten Carbides (Hard metals)
- ASTM B931-03 Standard Test Method for Metallographically Estimating the Observed Case Depth of Ferrous Powder Metallurgy (P/M) Parts
- ASTM B932-04 Standard Specification for Low-Carbon Nickel-Chromium-Molybdenum-Gadolinium Alloy Plate, Sheet, and Strip
- ASTM B933-04 Standard Test Method for Micro indentation Hardness of Powder Metallurgy (P/M) Materials
- ASTM B934-04a Standard Test Method for Effective Case Depth of Ferrous Powder Metallurgy (P/M) Parts Using Micro indentation Hardness Measurements
- ASTM B935-05 Standard Guide for Steam Treatment of Ferrous Powder Metallurgy (P/M) Materials
- ASTM B936-04e1 Standard Specification for Copper-Chromium-Iron-Titanium Alloy Plate, Sheet, Strip and Rolled Bar
- ASTM B937-04 Standard Specification for Copper-Beryllium Seamless Tube (UNS Nos. C17500 and C17510)
- ASTM B938-04 Standard Specification for Copper-Beryllium Alloy Forgings and Extrusions (UNS Nos. C17500 and C17510)
- ASTM B939-05 Standard Test Method for Radial Crushing Strength, K, of Powder Metallurgy (P/M) Bearings and Structural Materials
- ASTM B940-05 Standard Practice for Testing Non-Chromate Coatings on Zinc and Cadmium Surfaces
- ASTM B941-05 Standard Specification for Heat Resistant Aluminium-Zirconium Alloy Wire for Electrical Purposes
- ASTM B942-05 Standard Guide for Specification and Quality Assurance for the Electrical Contact Performance of Crimped Wire Terminations
- ASTM B943-05 Standard Specification for Zinc and Tin Alloy Wire Used in Thermal Spraying for Electronic Applications
- ASTM B944-06 Standard Specification for Copper-Beryllium Welded Heat Exchanger and Condenser Tube (UNS No. C17510)
- ASTM B945-06 Standard Practice for Aluminium Alloy Extrusions Press Cooled from an Elevated Temperature Shaping Process for Production of T1, T2, T5 and T10-Type Tempers
- ASTM B946-06 Standard Test Method for Surface Finish of Powder Metallurgy (P/M) Products
- ASTM B947-06 Standard Practice for Hot Rolling Mill Solution Heat Treatment for Aluminium Alloy Plate
- ASTM B949-06 Standard Specification for General Requirements for Zinc and Zinc Alloy Products
- ASTM B950-06 Standard Guide for Editorial Procedures and Form of Product Specifications for Copper and Copper Alloys
- ASTM B951-07 Standard Practice for Codification of Unalloyed Magnesium and Magnesium-Alloys, Cast and Wrought
- ASTM B952-07 Standard Specification for Zinc Alloys in Ingot Form for Spin Casting
- ASTM B953-07 Standard Practice for Sampling Magnesium and Magnesium Alloys for Spectrochemical Analysis
- ASTM B954-07 Standard Test Method for Analysis of Magnesium and Magnesium Alloys by Atomic Emission Spectrometry
- ASTM B956-07 Standard Specification for Welded Copper and Copper-Alloy Condenser and Heat Exchanger Tubes with Integral Fins

### **Standards of Pipes and Fittings**



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The ASME - American Society of Mechanical Engineers - ASME/ANSI B16 Standards covers pipes and fittings in cast iron, cast bronze, wrought copper and steel.

### **ASME/ANSI B16.1 - 1998 - Cast Iron Pipe Flanges and Flanged Fittings**

This Standard for Classes 25, 125, and 250 Cast Iron Pipe Flanges and Flanged Fittings covers:

- (a) pressure-temperature ratings,
- (b) sizes and method of designating openings of reducing fittings,
- (c) marking,
- (d) minimum requirements for materials,
- (e) dimensions and tolerances,
- (f) bolt, nut, and gasket dimensions and
- (g) Tests.

### **ASME/ANSI B16.3 - 1998 - Malleable Iron Threaded Fittings**

This Standard for threaded malleable iron fittings Classes 150, and 300 provides requirements for the following:

- (a) pressure-temperature ratings
- (b) size and method of designating openings of reducing fittings
- (c) marking
- (d) materials
- (e) dimensions and tolerances
- (f) threading
- (g) coatings

### **ASME/ANSI B16.4 - 1998 - Cast Iron Threaded Fittings**

This Standard for gray iron threaded fittings, Classes 125 and 250 covers:

- (a) pressure-temperature ratings
- (b) size and method of designating openings of reducing fittings
- (c) marking
- (d) material
- (e) dimensions and tolerances
- (f) threading, and
- (g) coatings

### **ASME/ANSI B16.5 - 1996 - Pipe Flanges and Flanged Fittings**

The ASME B16.5 - 1996 Pipe Flanges and Flange Fittings standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, testing, and methods of designating openings for pipe flanges and flanged fittings.

The standard includes flanges with rating class designations 150, 300, 400, 600, 900, 1500, and 2500 in sizes NPS 1/2 through NPS 24, with requirements given in both metric and U.S units. The Standard is limited to flanges and flanged fittings made from cast or forged materials, and blind flanges and certain reducing flanges made from cast, forged, or plate materials. Also included in this Standard are requirements and recommendations regarding flange bolting, flange gaskets, and flange joints.

### **ASME/ANSI B16.9 - 2001 - Factory-Made Wrought Steel Butt-welding Fittings**

This Standard covers overall dimensions, tolerances, ratings, testing, and markings for wrought factory-made butt-welding fittings in sizes NPS 1/2 through 48 (DN 15 through 1200).

### **ASME/ANSI B16.10 - 2000 - Face-to-Face and End-to-End Dimensions of Valves**

This Standard covers face-to-face and end-to-end dimensions of straightway valves, and centre-to face and centre-to-end dimensions of angle valves. Its purpose is to assure installation interchangeability for valves of a given material, type size, rating class, and end connection

### **ASME/ANSI B16.11 - 2001 - Forged Steel Fittings, Socket-Welding and Threaded**

This Standard covers ratings, dimensions, tolerances, marking and material requirements for forged fittings, both socket-welding and threaded.

### **ASME/ANSI B16.12 - 1998 - Cast Iron Threaded Drainage Fittings**

This Standard for cast iron threaded drainage fittings covers:

- (a) size and method of designating openings in reducing fittings
- (b) marking
- (c) materials
- (d) dimensions and tolerances



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- (e) threading
- (f) ribs
- (g) coatings
- (h) Face bevel discharge nozzles, input shafts, base plates, and foundation bolt holes (see Tables 1 and 2).

### **ASME/ANSI B16.14 - 1991 - Ferrous Pipe Plugs, Bushings and Locknuts with Pipe Threads**

This Standard for Ferrous Pipe Plugs, Bushings, and Locknuts with Pipe Threads covers:

- (a) pressure-temperature ratings;
- (b) size;
- (c) marking;
- (d) materials;
- (e) dimensions and tolerances;
- (f) threading; and
- (g) Pattern taper.

### **ASME/ANSI B16.15 - 1985 (R1994) - Cast Bronze Threaded Fittings**

This Standard pertains primarily to cast Class 125 and Class 250 bronze threaded pipe fittings. Certain requirements also pertain to wrought or cast plugs, bushings, couplings, and caps. This Standard covers:

- (a) pressure-temperature ratings;
- (b) size and method of designating openings of reducing pipe fittings;
- (c) marking;
- (d) minimum requirements for casting quality and materials;
- (e) dimensions and tolerances in U.S. customary and metric (SI) units;
- (f) Threading.

### **ASME/ANSI B16.18 - 1984 (R1994) - Cast Copper Alloy Solder Joint Pressure Fittings**

This Standard for cast copper alloy solder joint pressure fittings designed for use with copper water tube, establishes requirements for:

- (a) Pressure-temperature ratings;
- (b) Abbreviations for end connections;
- (c) Sizes and method of designating openings of fittings;
- (d) Marking;
- (e) Material;
- (f) Dimensions and tolerances; and
- (g) Tests.

### **ASME/ANSI B16.20 - 1998 - Metallic Gaskets for Pipe Flanges-Ring-Joint, Spiral-Wound, and Jacketed**

This standard covers materials, dimensions, tolerances, and markings for metal ring-joint gaskets, spiral-wound metal gaskets, and metal jacketed gaskets and filler material. These gaskets are dimensionally suitable for use with flanges described in the reference flange standards ASME/ANSI B16.5, ASME B16.47, and API-6A. This standard covers spiral-wound metal gaskets and metal jacketed gaskets for use with raised face and flat face flanges. Replaces API-601 or API-601.

### **ASME/ANSI B16.21 - 1992 - Non-metallic Flat Gaskets for Pipe Flanges**

This Standard for non-metallic flat gaskets for bolted flanged joints in piping includes:

- (a) types and sizes;
- (b) materials;
- (c) Dimensions and allowable tolerances.

### **ASME/ANSI B16.22 - 1995 - Wrought Copper and Copper Alloy Solder Joint Pressure Fittings**

The Standard establishes specifications for wrought copper and wrought copper alloy, solder-joint, seamless fittings, designed for use with seamless copper tube conforming to ASTM B 88 (water and general plumbing systems), B 280 (air conditioning and refrigeration service), and B 819 (medical gas systems), as well as fittings intended to be assembled with soldering materials conforming to ASTM B 32, brazing materials conforming to AWS A5.8, or with tapered pipe thread conforming to ASME B1.20.1. This Standard is allied with ASME B16.18, which covers cast copper alloy pressure fittings. It provides requirements for fitting ends suitable for soldering. This Standard covers:



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- (a) pressure temperature ratings;
- (b) abbreviations for end connections;
- (c) size and method of designating openings of fittings;
- (d) marking;
- (e) material;
- (f) dimension and tolerances; and
- (g) Tests.

### **ASME/ANSI B16.23 - 1992 - Cast Copper Alloy Solder Joint Drainage Fittings (DWV)**

The Standard establishes specifications for cast copper alloy solder joint drainage fittings, designed for use in drain, waste, and vent (DWV) systems. These fittings are designed for use with seamless copper tube conforming to ASTM B 306, Copper Drainage Tube (DWV), as well as fittings intended to be assembled with soldering materials conforming to ASTM B 32, or tapered pipe thread conforming to ASME B1.20.1. This standard is allied with ASME B16.29, Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV. It provides requirements for fitting ends suitable for soldering. This standard covers:

- (a) description;
- (b) pitch (slope);
- (c) abbreviations for end connections;
- (d) sizes and methods for designing openings for reducing fittings;
- (e) marking;
- (f) material; and
- (g) Dimensions and tolerances.

### **ASME/ANSI B16.24 - 1991 (R1998) - Cast Copper Alloy Pipe Flanges and Flanged Fittings**

This Standard for Classes 25, 125, 250, and 800 Cast Iron Pipe Flanges and Flanged Fittings covers:

- (a) pressure temperature ratings,
- (b) sizes and methods of designating openings for reduced fittings,
- (c) marking,
- (d) minimum requirements for materials,
- (e) dimensions and tolerances,
- (f) bolt, nut, and gasket dimensions, and
- (g) Tests.

### **ASME/ANSI B16.25 - 1997 - Butt-welding Ends**

- The Standard covers the preparation of butt welding ends of piping components to be joined into a piping system by welding. It includes requirements for welding bevels, for external and internal shaping of heavy-wall components, and for preparation of internal ends (including dimensions and tolerances). Coverage includes preparation for joints with the following.
  - (a) no backing rings;
  - (b) split or non-continuous backing rings;
  - (c) solid or continuous backing rings;
  - (d) consumable insert rings;
  - (e) Gas tungsten arc welding (GTAW) of the root pass. Details of preparation for any backing ring must be specified in ordering the component.

### **ASME/ANSI B16.26 - 1988 - Cast Copper Alloy Fittings for Flared Copper Tubes**

This standard for Cast Copper Alloy Fitting for Flared Copper Tubes covers:

- (a) pressure rating;
- (b) material;
- (c) size;
- (d) threading;



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- (e) Marking.

### **ASME/ANSI B16.28 - 1994 - Wrought Steel Butt-welding Short Radius Elbows and Returns**

This Standard covers ratings, overall dimensions, testing, tolerances, and markings for wrought carbon and alloy steel butt-welding short radius elbows and returns. The term wrought denotes fittings made of pipe, tubing, plate, or forgings.

### **ASME/ANSI B16.29 - 1994 - Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings (DWV)**

The standard for wrought copper and wrought copper alloy solder joint drainage fittings, designed for use with copper drainage tube, covers:

- (a) Description,
- (b) Pitch (slope),
- (c) Abbreviations for End Connections,
- (d) Sizes and Method of Designating Openings for Reducing Fittings,
- (e) Marking,
- (f) Material,
- (g) Dimensions and Tolerances.

### **ASME/ANSI B16.33 - 1990 - Manually Operated Metallic Gas Valves for Use in Gas Piping Systems Up to 125 psig**

General This Standard covers requirements for manually operated metallic valves sizes NPS 1.2 through NPS 2, for outdoor installation as gas shut-off valves at the end of the gas service line and before the gas regulator and meter where the designated gauge pressure of the gas piping system does not exceed 125 psi (8.6 bar). The Standard applies to valves operated in a temperature environment between .20 degrees F and 150 degrees F (.29 degrees C and 66 degrees C). Design This Standard sets forth the minimum capabilities, characteristics, and properties, which a valve at the time of manufacture must possess, in order to be considered suitable for use in gas piping systems.

### **ASME/ANSI B16.34 - 1996 - Valves - Flanged, Threaded, and Welding End**

This standard applies to new valve construction and covers pressure-temperature ratings, dimensions, tolerances, materials, non-destructive examination requirements, testing, and marking for cast, forged, and fabricated flanged, threaded, and welding end, and wafer or flangeless valves of steel, nickel-base alloys, and other alloys shown in Table 1. Wafer or flangeless valves, bolted or through-bolt types, that are installed between flanges or against a flange shall be treated as flanged end valves.

### **ASME/ANSI B16.36 - 1996 - Orifice Flanges**

This Standard covers flanges (similar to those covered in ASME B16.5) that have orifice pressure differential connections. Coverage is limited to the following:

- (a) welding neck flanges Classes 300, 400, 600, 900, 1500, and 2500
- (b) slip-on and threaded Class 300
  
- Orifice, Nozzle and Venturi Flow Rate Meters

### **ASME/ANSI B16.38 - 1985 (R1994) - Large Metallic Valves for Gas Distribution**

The standard covers only manually operated metallic valves in nominal pipe sizes 2 1/2 through 12 having the inlet and outlet on a common centre line, which are suitable for controlling the flow of gas from open to fully closed, for use in distribution and service lines where the maximum gage pressure at which such distribution piping systems may be operated in accordance with the code of federal regulations (cfr), title 49, part 192, transportation of natural and other gas by pipeline; minimum safety standard, does not exceed 125 psi (8.6 bar). Valve seats, seals and stem packing may be non-metallic.

### **ASME/ANSI B16.39 - 1986 (R1998) - Malleable Iron Threaded Pipe Unions**

This Standard for threaded malleable iron unions, classes 150, 250, and 300, provides requirements for the following:

- (a) design
- (b) pressure-temperature ratings
- (c) size
- (d) marking
- (e) materials
- (f) joints and seats
- (g) threads
- (h) hydrostatic strength
- (i) tensile strength
- (j) air pressure test
- (k) sampling
- (l) coatings





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- (m) dimensions

### **ASME/ANSI B16.40 - 1985 (R1994) - Manually Operated Thermoplastic Gas**

The Standard covers manually operated thermoplastic valves in nominal sizes 1.2 through 6 (as shown in Table 5). These valves are suitable for use below ground in thermoplastic distribution mains and service lines. The maximum pressure at which such distribution piping systems may be operated is in accordance with the Code of Federal Regulation (CFR) Title 49, Part 192, Transportation of Natural and Other Gas by Pipeline; Minimum Safety Standards, for temperature ranges of .20 deg. F to 100 deg. F (.29 deg. C to 38 deg. C). This Standard sets qualification requirements for each nominal valve size for each valve design as a necessary condition for demonstrating conformance to this Standard. This Standard sets requirements for newly manufactured valves for use in below ground piping systems for natural gas [includes synthetic natural gas (SNG)], and liquefied petroleum (LP) gases (distributed as a vapour, with or without the admixture of air) or mixtures thereof.

### **ASME/ANSI B16.42 - 1998 - Ductile Iron Pipe Flanges and Flanged Fittings, Classes 150 and 300**

The Standard covers minimum requirements for Class 150 and 300 cast ductile iron pipe flanges and flanged fittings. The requirements covered are as follows:

- (a) pressure-temperature ratings
- (b) sizes and method of designating openings
- (c) marking
- (d) materials
- (e) dimensions and tolerances
- (f) bolts, nuts, and gaskets
- (g) tests

### **ASME/ANSI B16.44 - 1995 - Manually Operated Metallic Gas Valves for Use in House Piping Systems**

This Standard applies to new valve construction and covers quarter turn manually operated metallic valves in sizes NPS 1/2-2 which are intended for indoor installation as gas shutoff valves when installed in indoor gas piping between a gas meter outlet & the inlet connection to a gas appliance.

### **ASME/ANSI B16.45 - 1998 - Cast Iron Fittings for Solvent Drainage Systems**

The Standard for cast iron drainage fittings used on self-aerating, one-pipe Solvent drainage systems, covers the following:

- (a) description
- (b) sizes and methods for designating openings for reducing fittings
- (c) marking
- (d) material
- (e) pitch
- (f) design
- (g) dimensions and tolerances
- (h) tests

### **ASME/ANSI B16.47 - 1996 - Large Diameter Steel Flanges: NPS 26 through NPS 60**

This Standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, and testing for pipe flanges in sizes NPS 26 through NPS 60 and in ratings Classes 75, 150, 300, 400, 600, and 900. Flanges may be cast, forged, or plate (for blind flanges only) materials. Requirements and recommendations regarding bolting and gaskets are also included.

### **ASME/ANSI B16.48 - 1997 - Steel Line Blanks**

The Standard covers pressure-temperature ratings, materials, dimensions, tolerances, marking, and testing for operating line blanks in sizes NPS 1/2 through NPS 24 for installation between ASME B16.5 flanges in the 150, 300, 600, 900, 1500, and 2500 pressure classes.

### **ASME/ANSI B16.49 - 2000 - Factory-Made Wrought Steel Butt-welding Induction Bends for Transportation and Distribution Systems**

This Standard covers design, material, manufacturing, testing, marking, and inspection requirements for factory-made pipeline bends of carbon steel materials having controlled chemistry and mechanical properties, produced by the induction bending process, with or without tangents. This Standard covers induction bends for transportation and distribution piping applications (e.g., ASME B31.4, B31.8, and B31.11) Process and power piping have differing requirements and materials that may not be appropriate for the restrictions and examinations described herein, and therefore are not included in this Standard.