

Worldwide Steel Specifications

Standardization organizations

INTERNATIONAL

ISO International Organization for Standardization

NORTH AMERICA

API American Petroleum Institute USA ASTM American Society for Testing and Materials USA AWWA American Water Works Association USA ANSI American National Standards Institute USA UL Underwriters Laboratories USA CSA Canadian Standards Canada SAE Society of Automotive Engineers

LATIN AMERICA

NBR Brazilian Standards Brazil NOM Mexican Bureau of Norms Mexico COVENIN Venezuelian Commission on Industrial Standards Venezuela IRAM Argentinian Standards Institute Argentina NAG Argentinian Standards Argentina

EUROPE

EN European Comittee for Standardization

WESTERN EUROPE

DIN German Standards Institute Germany BS British Standards United Kingdom NF AFNOR (French Association for Standardization) France UNI Italian National Standards Institute Italy UNE Spanish Standards Spain NEN Dutch Standards Netherlands SIS Swedish Standards Sweden SFS Finnish Standards Finland

EASTERN EUROPE AND MIDDLE EAST

ISIRI Institute of Standards and Industrial Research of Iran GOST Russian standards Russia TS Turkish Standards Turkey CSN Czech Standards Institute Czech Republic MSZ Hungarian Standards Hungary PN Polish Standards Poland BN Polish Standards Poland TU Ukrainian Standards Ukraine

ASIA

JIS Japanese Industrial Standards Japan KS Korean Standards Korea GB Chinese National Standards China SY Chinese National Standards China CNS Taiwan National Standards Taiwan YB China IS Indian Standards India SNI Indonesia National Standards Indonesia AS Australian Standards Australia

INTERNATIONAL

ISO International Organization for Standardization

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NORTH AMERICA

API American Petroleum Institute

<u>API Spec 2B</u> Structural Steel Pipe – Steel Pipe

API Spec 2C Offshore Cranes – Offshore Cranes

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

<u>API Spec 2H</u> Carbon Manganese Steel Plate for Offshore Platform Tubular Joints – Grade 42 Steel Plate; Grade 50 Steel Plate <u>API Spec 2MT1</u> 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

<u>API Spec 2Y</u> 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

<u>API Spec 4F Drining and Weil Servicing Structures – Demoks, Masts, Crown Block Assemblies, Substructures, at PSL 1 at API Spec 5B Threading, Gauging, and Thread Inspection of Casing, Tubing and Line Pipe Threads – Thread Gages</u>

<u>API Spec 5CT</u> 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)

<u>API Spec 5L</u> 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; Manufacturer of Line Pipe - Threaded and Coupled; Threader.

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

<u>API Spec 5LCP</u> 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 RP 5L 7 Unprimed internal fusion bonded epoxy coating of line pipe

API RP 5C 7 Recommanded practice for coiled tubing operations in oil and gas well services

API Spec 5ST Coiled Tubing - Manufacturer of Coiled Tubing

<u>API Spec 6A</u> 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; Bullplugs; Valve Removal Plugs; Actuators; Ring Joint Gaskets at PSL 1 through 4

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

<u>API Spec 6D</u> Pipeline Valves (Steel Gate, Plug, Ball, and Check Valves) – Gate Valves; Plug Valves; Ball Valves; Check Valves <u>API Spec 6DSS</u> Subsea Pipeline Valves - Subsea Gate Valves; Subsea Plug Valves; Subsea Ball Valves; Subsea Check Valves

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

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

<u>API Spec 7-2</u> Threading and Gauging of Rotary Shouldered Thread Connections - Rotary Shouldered Connection Gauges <u>API Spec 7B-11C</u> Internal-Combustion Reciprocating Engines for Oil Field Service

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

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

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

<u>API Spec 8A</u> 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 <u>API Spec 8C</u> 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

<u>API Spec 9A</u> 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]; Glass H, Type [MSR, HSR]

<u>API Spec 10D</u> Bow-Spring Casing Centralizers – Casing Centralizers

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

<u>API Spec 11B</u> Sucker Rods – Steel Sucker Rods; FRP Sucker Rods; Couplings, Subcouplings and Polished Rod Connections; Polished Rods; Polished Rod Clamps; Stuffing Box and Pumping Tees; Sinker Bars; Threads; Thread Gages

<u>API Spec 11D1</u> Downhole Equipment - Packers; Bridge Plugs

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

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

<u>API Spec 11V1</u> 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; Attapulgite;

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

<u>API Spec 16A</u> 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

<u>API Spec 16C</u> 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

<u>API Spec 16D</u> 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 <u>API Spec 16F</u> Marine Drilling Riser Equipment

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

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

<u>API Spec 17D</u> 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 API Standard 609 Butterfly Valves API Standard 650 Welded Tanks for Oil Storage - Steel Plates and Shop Built Tanks ASTM American Society for Testing and Materials A 53 Steel pipe, black and hot-dipped, zinc-coated, welded and seamless A 106 Seamless carbon steel pipe for high temperature service A 134 Electric-fusion arc-welded steel pipe (sizes NPS 16 and over) A 135 Electric-resistance-welded steel pipe A 139 Electric-fusion arc-welded steel pipe (NPS 4 and over) A 161 Seamless low-carbon and carbon-molybdenum steel still tubes for refinery service A 178 Electric-resistance welded carbon steel boiler tubes A 179 Seamless cold drawn low carbon steel heat exchanger and condenser tubes A 192 Seamless carbon steel boiler tubes for high-pressure service A 200 Seamless intermediate alloy steel still tubes for refinery service A 209 Seamless carbon-molybdenum alloy-steel boiler and superheater tubes A 210 Seamless medium-carbon steel boiler and superheater tubes A 213 Seamless ferritic and austenitic alloy steels boiler superheater, and heat-exchanger tubes A 214 Electric-resistance-welded carbon steel heat-exchanger and condenser tubes A 226 Electric-resistance-welded carbon steel boiler and superheater tubes for high-pressure service A 249 Welded austenitic steel boiler, superheater, heat-exchanger, and condenser tubes A 250 Electric-resistance-welded ferritic alloy-steel boiler and superheater tubes A 252 Welded and seamless steel pipes piles A 254 Copper brazed steel tubing A 268 Seamless and welded ferritic/martensitic stainless steel tubing for general service A 269 Seamless and welded austenitic stainless steel tubing for general service A 270 Seamless and welded austenitic stainless steel sanitary tubing A 271 Seamless austenitic chromium-nickel steel still tubes for refinery service A 312 Seamless and welded austenitic stainless steel pipes A 333 Seamless and welded steel pipe for low-temperature service A 334 Seamless and welded carbon and alloy steel tubes for low-temperature service A 335 Seamless ferritic alloy steel pipe for high-temperature service A 358 Electric fusion welded austenitic chromium nickel alloy steel pipe for high temperature service A 369 Carbon and ferritic alloy steel forged and bored pipe for high-temperature service A 376 Seamless austenitic steel pipe for high temperature central station service A 381 Metal-arc-welded steel pipe for use with high-pressure transmission systems A 409 Welded large diameter austenitic steel pipe for corrosive or high-temperature service A 423 Seamless and electric-welded low-alloy steel tubes A 426 Centrifugally cast ferritic alloy steel pipe for high temperature service A 430 Austenitic steel forged and bored pipe for high-temperature service A 450 General requirements for carbon, ferritic alloy, and austenitic alloy steel tubes A 451 Centrifugally cast austenitic steel pipe for high temperature service A 500 Cold formed welded and seamless carbon steel structural tubing in rounds and shapes A 501 Hot formed welded and seamless carbon steel structural tubing A 511 Seamless stainless steel mechanical tubing A 512 Cold drawn buttweld carbon steel mechanical tubing A 513 Electric-resistance-welded carbon and alloy steel mechanical tubing A 519 Seamless carbon and alloy steel mechanical tubing

A 523 Plain end seamless and electric-resistance-welded steel pipe for high-pressure pipe-type "cable circuits"

A 524 Seamless carbon steel pipes for atmospheric and lower temperatures

A 530 General requirements for specialized carbon and alloy steel pipe



A 539 Electric resistance-welded coiled steel tubing for gas and fuel oil lines

A 554 Welded stainless steel mechanical tubing

A 556 Seamless cold drawn carbon steel feedwater heater tubes

A 587 Electric-resistance-welded low-carbon steel pipe for the chemical industry

A 589 Seamless and welded carbon steel water-well pipe

A 595 Steel tubes, low-carbon, tapered for structural use

A 618 Hot formed welded and seamless high-strength low-alloy structural tubing

A 632 Seamless and welded austenitic stainless steel tubing (small-diameter) for general service

A 660 Centrifugally cast carbon steel pipe for high temperature service

A 671 Electric-fusion-welded steel pipe for atmospheric and lower temperatures

A 672 Electric-fusion-welded steel pipe for high-pressure service at moderate temperatures

A 688 Welded austenitic stainless steel feedwater heater tubes

A 691 Carbon and alloy steel pipes, electric-fusion-welded for high-pressure service at high temperatures

A 700 Practices for packaging, marking, and loading methods for steel products for domestic shipment

A 714 High strength low-alloy welded and seamless steel pipe

A 771 Austenitic stainless steel tubing for breeder reactor core components

A774 As welded wrought austenitic stainless steel fittings for general corrosive service at low and moderate temperature

A 778 Welded, unannealed austenitic stainless steel tubular products

A 787 Electric-resistance-welded metallic coated carbon steel mechanical tubing

A 789 Seamless and welded ferritic/austenitic stainless steel tubing for general service

A 790 Seamless and welded ferritic/austenitic stainless steel pipe

A 795 Black and hot-dipped zinc-coated (galvanized) welded and seamless steel pipe for fire protection use

A 803 Welded ferritic stainless steel feed water heater tubes

A 813 Single or double welded austenitic stainless steel pipe

A 814 Cold worked welded austenitic stainless steel pipe

A 822 Seamless cold drawn carbon steel tubing for hydraulic system service

A 826 Austenitic and ferritic stainless steel duct tubes for breeder reactor core compenents

A 847 Cold formed welded and seamless high strength, low alloy structural tubing with improved atmospheric corrosion resistance

A 851 High frequency induction welded, unannealed, austenitic steel condenser tubes

A 865 Steel pipe, black and hot-dipped, zinc-coated welded and seamless

A 872 Centrifugally cast ferritic/austenitic stainless steel pipe for corrosive environments

A 908 Stainless steel needle tubing

A 928 Ferritic/austenitic duplex stainless steel pipe electric fusion welded with addition of filler metal

B 111 Standard specification for copper and copper-alloy seamless condenser tubes and ferrule stock

B 161 Nickel seamless pipe and tube

B 163 Seamless nickel and nickel alloy condenser and heat exchanger tubes

B 165 Nickel copper alloy (UNS N04400)* seamless pipe and tube

B 167 Nickel chromium iron alloys (UNS N06600, N06601, and N06690) seamless pipe and tubes

B 337 Seamless and welded titanium and titanium alloy pipe

B 338 Seamless and welded titanium and titanium alloy tubes for condensers and heat exchangers

B 407 Nickel iron chromium alloy seamless pipe and tubes

B 423 Nickel iron chromium molybdenum copper alloy (UNSN08825 and N08221) seamless pipe and tube

B 444 Nickel chromium molybdenum columbium alloys, pipe and tubes

B 535 Nickel iron chromium silicon alloys (UNS N08330) seamless and welded pipe

B 622 Seamless nickel and nickel-cobalt alloy pipe and tube

B 626 Standard specification for welded nickel and nickel-cobalt alloy tube

B 668 Seamless tubes

B 673 UNS N08904, UNS N08925, and UNS N08926 welded pipe for general corrosion applications

B 674 Standard Specification for UNS N08904, UNS N08925, and UNS N08926 welded tube

B 676 Standard specification for UNS N08367 welded tube

B 677 UNS N08904 and UNS N08925 seamless pipe and tube

B 704 Welded UNS N06625 and UNS N08825 alloy tubes

B 705 Nickel alloy (UNS N06625 AND N08825) welded pipe

B 729 Seamless pipe and tube

F 1083 Pipe, steel, hot-dipped zinc-coated (galvanized) welded for fence structures

AWWA American Water Works Association

C 200 Steel water pipe, 6 inches (150 mm) and larger

C 203 Coal tar protective coatings and linings for steel water pipelines - enamel and tape - hot applied



- C 205 Cement-mortar protective lining and coating for steel water pipe 4 in. (100mm) and larger shop applied
- C 210 Liquid-epoxy coating systems for the interior and exterior of steel water pipelines
- C 213 Fusion-bonded epoxy coating for the interior and exterior of steel water pipelines
- C 214 Tape coating systems for the exterior of steel water pipelines
- C 605 Underground installations of polyvinyl chloride (PVC) pressure pipe and fittings for water

ANSI American National Standards Institute

B 1.20.1 Pipe threads, general purpose (inch)

B 2.1 Specification for welding procedure and performance qualification

- B 16.25 Butt welding ends
- **B 31.1** Power piping
- **B 31.3** Process piping
- B 31.4 Liquid transportation systems for hydrocarbons, liquid petroleum gas, anhydrous ammonia, and alcohols
- B 31.8 Gas transmission and distribution piping systems
- B 36.10 Welded and seamless wrought steel pipe
- B 36.19 Stainless steel pipes
- C 80.1 Rigid steel conduits zinc coated
- C 80.3 Electrical metallic tubing zinc coated
- C 80.6 Intermediate metal conduit zinc coated

UL Underwriters Laboratories

6 Rigid metal conduits 797 Electrical metallic tubing 1242 Intermediate metal conduit

CSA Canadian Standards

Z 245 - 1 Steel Line Pipe

SAE Society of Automotive Engineers

J 525 Welded and Cold Drawn Low-Carbon Steel Tubing Annealed for Bending and Flaring

- J 526 Welded Low-Carbon Steel Tubing
- J 527 Brazed double wall low-carbon steel tubing

AMS 5645 Steel bars, forgings, tubing, and rings, corrosion and heat resistant 18CR - 10NI - 0.40TI (SAE 30321) solution heat treated

AMS 5646 Steel, corrosion and heat resistant, bars, wire, forgings, tubing, and rings 18Cr - 11Ni - 0.60(Cb -Ta) (SAE 30347) solution heat treated

AMS 5648 Steel bars, forgings, tubing, and rings, corrosion and heat resistant 17CR - 12NI - 2.5MO (SAE 30316) solution heat treated

AMS 5651 Steel bars, forgings, tubing, and rings, corrosion and heat resistant 25CR - 20NI (SAE 30310) solution heat treated

AMS 5653 Steel bars, forgings, tubing, and rings, corrosion and heat resistant 17CR - 12NI - 2.5MO (SAE 30316L) solution heat treated

AMS 5732 Steel bars, wire, forgings, tubing, and rings, corrosion and heat resistant 15CR - 25.5NI - 1.2MO - 2.1TI - 0.006B - 0.30V consumable electrode melted 1800°F (982°C) solution and precipitation heat treated AMS 6415 Bars, forgings, and tubing 0.80Cr 1.8Ni 0.25Mo (0.38-0.43C)

LATIN AMERICA

NBR Brazilian Standards 21 220 1762

Web site: www.abnt.org.br

70 Carbon and alloy steel seamless tubes for mechanical applications

119 Cold rolled seamless low carbon steel tubes for heat exchangers and condensers

120 Manganese tubes electrically welded carbon steel for boilers

121 Electrically welded carbon steel tubes for boilers and super heaters for use under high-pressure conditions

123 Carbon and alloy steel tubes electrically welded for mechanical applications

5003 Steel plating for tubes used for oil and gas fluid transfer

5393 Carbon-molybdenum seamless steel tubes for boilers and super heaters

5443 Double thickness steel tubes for fluid conduction

5577 Steel tubes classified by their method of application

5578 Tubular steel products

5579 Shape and dimension superficial and internal deficiencies, in tubular steel products



5580 Carbon steel tubes for withworth threading, for common use in fluid conduction 5581 Low carbon and carbon-molybdenum seamless steel tubes for refinery furnaces 5582 Steel-chrome-molybdenum and chrome-molybdenum-silico seamless tubes for refinery furnaces 5583 Low carbon cold finished seamless steel tubes for heat exchangers 5584 Steel-chrome-molybdenum and chrome-molybdenum-silica cold finished seamless tubes, for heat exchangers 5585 Electrically welded carbon steel tubes for heat exchangers 5586 Carbon steel and alloy ferritic and austenitic steel tubes, seamless or welded, general requirements 5587 Steel tubes for conduction with an ANSI/ASME B1.20.1 thread - basic dimensions 5590 Carbon steel tubes welded or seamless, black or hot dip galvanised for fluid conduction 5591 High temperature carbon steel tubes - additional ISO requirements for application in boilers 5592 Medium carbon seamless steel tubes for boilers and super heaters 5594 Carbon steel seamless tubes for high pressure boilers and super heaters 5595 Carbon steel electrically welded tubes for boilers 5596 Carbon steel electrically welded tubes for high pressure boilers and super heaters 5597 Rigid carbon steel threaded electrical conduit and accessories with protective coating 5598 Rigid carbon steel electrical conduit with protective coating and NBR 6414 thread 5599 Precision made welded carbon steel tubes 5602 Steel tubes, seamless or welded, for low temperatures 5603 Ferritic seamless steel tubes for high temperature fluid conduction 5605 Carbon steel and alloy steel tubes, seamless or welded, for low temperature use (except fluid conduction) 5622 Carbon steel tubes with helical seam for use in water, air and low-pressure steam in industrial installations 5686 Carbon steel and alloy steel tubes for refinery furnaces - welded joints 5689 Materials for asphalt base coating used in steel tubes for water supply conduction 5690 Preparation of asphalt enamel used for steel tubes coating 5922 Steel tubes for fuel injection in diesel engines for use in road vehicles, tractors and similar vehicles 6154 Round steel tubes - flattening test 6205 Round steel tubes - flanging test 6206 Round steel tubes - widening test 6316 Chrome-nickel-steel seamless tubes for refinery furnaces 6321 Seamless carbon steel tubes for the conduction of high temperature fluids 6338 Round steel tubes - bending test 6358 Welded or seamless carbon steel and alloy steel tubes for thermal exchange (boilers, exchangers and furnaces) - basic dimensions 6591 Welded round, square, rectangular and special carbon steel tubes for industrial use 6640 Welded round carbon steel tubes, semi-tube smoothing test. 7433 Tubular steel products - determination of mechanical properties in tension 7543 Seamless or welded, austenitic stainless steel tubes for conduction 7734 Chrome molybdenum steel 4130 for seamless tubes of aeronautical quality 8261 Round, square or rectangular tubular section of cold rolled carbon steel, seamless or welded, for structural use 8476 Precision made seamless steel tubes 8860 Steel tubes - discontinuity detection by parasite currents (eddy - current) with magnetic saturation 8861 Stainless, austenitic and similar alloy steel tubes - discontinuity detection by parasite currents (eddy current) without magnetic saturation 9791 Flux velocity in steel tubes for naval construction

9797 Electrically welded carbon steel tubes for water supply conduction

9914 Plain end steel tubes for elastic joint

9915 Rubber sealing ring for steel tubes and connections with elastic joint

10252 Ferritic and austenitic seamless alloy steel tubes for boilers super heaters and heat exchangers

10515 Internal coating with cement mortar for carbon steel tubes and fittings

11745 Coal tar based material for the coating of steel tubes used for water supply

11796 Zinc coated steel tubes, PN 150, with a rapid coupling joint for irrigation

12015 Rapid coupling elastic joint for zinc coated steel tubes PN 150 for irrigation - performance check

12016 Zinc coated steel tubes, PN 150, with a rapid coupling joint for irrigation - determination of resistance to short term internal hydrostatic pressure

13061 Plain end steel tubes with elastic joint and nominal diameter between 700 mm and 1200 mm

13222 Application of asphalt enamel in steel tubes and parts used for water supply

13780 Application of a coal based tar enamel in steel tubes and parts used for water supply

NOM Mexican Bureau of Norms

http://www.klsteel.com

B 10 Black and hot-dipped galvanized welded carbon steel tubes for general service

B 056 Siderurgical industry - Flexible metal conduit

B 064 Cast iron soil pipe and fittings

B 137 Electric resistance-welded carbon steel tubes for low-pressure boilers.

B 177 Black and hot-dipped galvanized welded carbon steel tubes

NOM Mexican Bureau of Norms

B 199 Cold formed welded carbon steel structural tubing in rounds and shapes

B 200 Hot formed welded carbon steel structural tubes with a round or rectangular section

B 208 Steel tubes for the protection of electric cables (conduit) - heavy type

B 209 Steel tubes for the protection of electric cables (conduit) - semi-heavy type

B 210 Steel tubes for the protection of electric cables (conduit) - light and semi-light type

C 012 Fiber reinforced - Cement - Pressure pipes - specifications

C 028 Different forms to expand automotive tubing

C 340 Building industry - prestressed concrete pipes - water sampling for analysis and evaluation of potentially agresive parameters to the pipeline

D 037 Seamless steel fuel injection tubes used in the automotive industry

E 145 Plastic industry - PVC piping unplasticized poly (vinyl chloride) (PVC) pipes for pressure water supply -

english series - specifications

W 019 Tube - brass

W 028 Lead, cadmium and zinc pipes - test method

W 123 Copper and copper alloys products - connections and pipelines - hydrostatic test

W 124 Copper and copper alloys products - connections and pipelines - pneumatic test

COVENIN Venezuelian Commission on Industrial Standards

11 Galvanized pipe for electrical installations

538 Galvanized rigid steel tubes (conduit) for electrical installations

843 Seamless or welded carbon steel tubes for general service in pressurized fluid transportation

1478 Line tubing for general service in the petroleum industry

2063 Cold formed welded and seamless carbon steel structural tubing in rounds and shapes

2541 Casing and production tubing for general service in the petroleum industry

2577 Galvanized steel intermediate metallic tubing for electrical installations

2585 Electric resistance-welded carbon steel tubes for exhaust pipe manufacture for passenger and light commercial vehicles

3030 Seamless and welded carbon, ferritic alloy and austenitic alloy steel tubes. General requirements

3335 Black and hot-dipped galvanized seamless and welded, heavy carbon steel tubes

3336 Black and hot-dipped galvanized seamless and welded, carbon steel tubes for general service

IRAM Argentinian Standards Institute

2592 Electric resistance welded pipe

IAS U 500 - 25 Steel fluid transportation tubes for general service

IAS U 500 - 26 Black and hot-dipped galvanized seamless and welded, carbon steel tubes for fluid transportation

NAG Argentinian Standards

150 Steel pipes for gas transportation in internal installations

EUROPE

EN European Comittee for Standardization

39 Steel tubes for scaffolding

253 Preinsulated bonded pipe systems for underground hot water networks - pipe assembly of steel service pipes, polyurethane thermal insulation and outer casing of polyethylene

448 Preinsulated bonded pipe systems for underground hot water networks - fitting assemblies of steel service pipes, polyurethane thermal insulation and outer casing of polyethylene

489 Preinsulated bonded pipe systems for underground hot water networks - joint assembly for steel service pipes, polyurethane thermal insulation and outer casing of polyethylene

545 Ductile iron, pipes, fittings, accessories and their joints for water pipelines - requirements and test methods **598** Ductile iron pipes, fittings, accessories and their joints for sewerage application - requirements and test methods

640 Reinforced concrete pressure pipes and distributed reinforcement concrete pressure pipes (non-cylinder type), including joints and fittings

641 Reinforced concrete pressure pipes, cylinder type, including joints and fittings



642 Prestressed concrete pressure pipes, cylinder and non-cylinder, including joints, fittings and specific requirements for prestressing steel for pipes

969 Ductile iron pipes, fittings accessories and their joints for gas pipelines - requirements and test methods **1057** Copper and copper alloys - seamless, round copper tubes for water and gas in sanitary and heating applications

1127 Stainless steel tubes - dimensions, tolerances and conventional masses per unit length

9455 - 12 Soft soldering fluxes - test methods - steel tube corrosion test

10208 Steel pipes for pipelines for combustible fluids - technical delivery conditions

10208 - 1 Steel pipes for pipelines for combustible fluids - technical delivery conditions - pipes of requirement class A

10208 - 2 Steel pipes for pipelines for combustible fluids - technical delivery conditions - pipes of requirement class B

10210 - 1/2 Hot finished structural hollow sections of non-alloy and fine grain structural steel

10210 - 1 Hot finished structural hollow sections of non-alloy and fine grain structural steels - technical delivery requirements

10210 - 2 Hot finished structural hollow sections of non-alloy and fine grain structural steels - tolerances, dimensions and sectional properties

10216 - 1 Seamless steel tubes for pressure purposes

10216 - 2 Seamless steel tubes for pressure purposes - technical delivery conditions - unalloyed and alloyed steels with specified elevated temperature properties

10216 - 4 Seamless steel tubes for pressure purposes - technical delivery conditions - unalloyed and alloyed steels with specified low temperature properties

10216 - 5 Seamless steel tubes for pressure purposes - stainless steel tubes

10217 - 1 Welded steel tubes for pressure purposes - technical delivery conditions - unalloyed steels with specified room temperature properties

Carbon steel tubes suitable for welding or threading

10217 - 2 Welded steel tubes for pressure purposes - technical delivery conditions - unalloyed and alloyed steels with specified elevated temperature properties and the steel tubes for pressure purposes - technical delivery conditions - unalloyed and alloyed steels with

10217 - 4 Welded steel tubes for pressure purposes - technical delivery conditions - ERW unalloyed and alloyed steels with specified low temperature propertie

10217 - 5 Welded steel tubes for pressure purposes - technical delivery conditions - submerged arc welded unalloyed and alloyed steels with specified elevated temperature properties

10217 - 7 Welded steel tubes for pressure purposes - technical delivery conditions - stainless steels

10219 - 1/2 Cold formed welded structural hollow sections of non-alloy and fine grain steels

10219 - 1 Cold formed welded structural hollow sections of non-alloy and fine grain steels - technical delivery conditions **10219 - 2** Cold formed welded structural hollow sections of non-alloy and fine grain steels - tolerances, dimensions

and sectional properties

10220 Seamless and welded steel tubes - dimensions and masses per unit length

10224 Steel pipes, joints and fittings for the conveyance of aqueous liquids including potable water

10225 Weldable structural steels for fixed offshore structures

10232 Metallic materials - tubes (in full section) - bend test

10233 Metallic materials - tubes - flattening test

10234 Metallic materials - tubes - drift expanding test

10235 Metallic materials - tubes - flanging test

10236 Metallic materials - tubes - ring expanding test

10237 Metallic materials - tubes - ring tensile test

10240 Internal and/or external protective coatings for steel tubes - specification for hot dip galvanized coatings applied in automatic plants

10246 - 1 Non destructive testing of steel tubes - automatic electromagnetic testing of seamless and welded (except submerged arc welded) ferromagnetic steel tubes for verification of hydraulic leak-tightness

10246 - 4 Non destructive testing of steel tubes - automatic full peripheral magnetic transducer/flux leakage testing of seamless ferromagnetic steel tubes for the detection of transverse imperfections

10246 - 5 Non destructive testing of steel tubes - automatic full peripheral magnetic transducer/flux leakage testing ofseamless and welded (except submerged arc welded) ferromagnetic steel tubes for the detection of

longitudinal emperfections

10246 - 6 Non destructive testing of steel tubes - automatic full peripheral ultrasonic testing of seamless steel tubes for he detection of transverse imperfections

10246 - 7 Non destructive testing of steel tubes - automatic full peripheral ultrasonic testig of seamless and welded (except submerged arc welded) steel tubes for the detection of longitudinal imperfections

10246 - 8 Non destructive testing of steel tubes - automatic ultrasonic testing of the weld seam of electric resistance and induction welded steel tubes for the detection of longitudinal imperfections

10246 - 9 Non destructive testing of steel tubes - automatic ultrasonic testing of the weld seam of submerged arcwelded steel tubes for the detection of longitudinal and/or transverse imperfections



10246 - 10 Non destructive testing of steel tubes - radiographic testing of the weld seam of submerged arc-welded steel tubes for the detection of imperfections

10246 - 14 Non destructive testing of steel tubes - automatic ultrasonic testing for the detection of laminal imperfections for seamless and welded (except submerged arc-welded) steel tubes

10246 - 15 Non destructive testing of steel tubes - automatic ultrasonic testing of strip/plate used in the manufacture of welded steel tubes for the detection of laminar imperfections

10246 - 16 Non destructive testing of steel tubes - automatic ultrasonic testing of the area adjacent to the weld seam of welded steel tubes for the detection of laminal imperfections

10246 - 17 Non destructive testing of steel tubes - ultrasonic testing of tube ends of seamless and welded steel tubes for the detection of laminar imperfections

10246 - 18 Non destructive testing of steel tubes - magnetic particle inspection of the tube ends for the detection of laminar imperfections of the detection of seamless and welded steel tubes

10255 Carbon steel tubes suitable for welding or threading

10256 Non destructive testing of steel tubes - qualification and competence of levels 1 and 2 non destructive testing personnel

10297 - 1 Steel tubes for general mechanical applications

10305 - 1 Precision steel tubes

11960 Petroleum and natural gas industries - steel pipes for use as casing or tubing for wells

11961 Petroleum and natural gas industries - steel pipes for use as drill pipes - specification

WESTERN EUROPE

DIN German Standards Institute

1263 Lead waste pipes and bends for drainage systems

1615 Welded circular unalloyed steel tubes not subject to special requirement - technical delivery conditions **1626** Welded circular unalloyed steel tubes subject to special requirements - technical delivery conditions

1628 High performance welded circular unalloyed steel tubes - technical delivery conditions

1629 Seamless circular unalloyed steel tubes subject to special requirements - technical delivery conditions

1630 High performance seamless circular unalloyed steel tubes - technical delivery conditions

1651 Free cutting steels - technical conditions of delivery

1754 - 1 Copper tubes - seamless drawn, dimension ranges and coordination of tolerances

1754 - 2 Copper tubes - seamless drawn, preferred dimensions for general purposes

1754 - 3 Copper tubes - seamless, preferred dimensions for pipelines

1755 - 1 Copper wrought alloy tubes - seamless drawn - dimension ranges and coordination of tolerances

1755 - 2 Copper wrought alloy tubes drawn - preferred dimensions for general purposes

1755 - 3 Copper wrought alloy tubes, seamless drawn - preferred dimensions for pipelines

1785 Wrought copper and copper alloy tubes for condensers and heat axchangers

2391 Steel seamless precision tubes

2391 - 1/2 Seamless precision steel tubes

2393 - 1/2 Welded precision steel tubes

2394 - 1/2 Welded and sized precision steel tubes

2395 - 1/2/3 Rectangular and square welded precision steel tube or hollow sections

2395 - 1 Rectangular and square welded steel hollow sections - dimensions

2395 - 2 Rectangular and square welded precision steel tube - technical terms of delivery for general use

2395 - 3 Rectangular and square electric-welded precision steel tubes - dimensions and technical conditions of

delivery for tubes to be used in motor vehicle construction

2410 - 1 Tubes - general review of standards for steel tubes

2413 - 1/2 Design of steel pressure pipes

2440 Steel tubes medium-weight suitable for screwing

2441 Steel tubes heavy-weight suitable for screwing

2442 Steel tubes of specified quality suitable for screwing; nominal pressure 1 to 100

2444 Zinc coating on steel tubes, quality standard for hot dip galvanizing of steel tubes for installation purposes

2445 - 1/2 Seamless steel tubes for dynamic loads

2445 - 1 Seamless steel tubes for dynamic loads - hot finished tubes, nominal pressure 100 to 400

2445 - 2 Seamless steel tubes for dynamic loads - cold drawn tubes, nominal pressures 64 to 400

2448 Seamless steel pipes and tubes - dimensions, conventional masses per unit length

2449 Seamless steel tubes in ST 00, dimensions and range of application

2458 Welded steel pipes and tubes, dimensions, conventional masses per unit length

2460 Steel water pipes

2470 - 1/2 Steel gas pipelines - Part 1 : for permissible working pressures up to 16 bar - pipes and fittings - Part 2 : for permissible working pressures exceeding 16 bar - requirements for pipeline components

2470 - 1 Steel gas pipelines for permissible working pressures up to 16 bar - pipes and fittings





concentric test coils and the single-frequency method 54141 - 2 Non-destructive testing - eddy current testing of pipes and tubes - reference method for the determination and calibration of the properties of an eddy current testing system using concentric test coils 54141 - 3 Non-destructive testing - eddy current testing of pipes and tubes - procedure 59370 Steel sections - bright square edge angles - dimensions, permissible deviations, weights 59413 Cold rolled steel sections - permissible variations on dimensions, form and weight 59755 Nickel and nickel alloy tubes - dimensions **BS British Standards** 21 Pipe threads 31 Steel conduit and fittings for electrical wiring 534 Steel pipes, joints and specials for water and sewage 729 Hot dip galvanized coatings on iron and steel articles 778 Steel pipes and joints for hydraulic purposes 806 Design and construction of ferrous piping installations for and in connection with land boilers 879 - 1 Steel tubes for casing - water well casing 879 - 2 Thermoplastics tubes for casing and slotted casing - water well casing 970 Specification for wrought steels for mechanical and allied engineering purposes 1139 - 1/1.1 Metal scaffolding - tubes - steel tube 1139 - 1/1.2 Metal scaffolding - tubes - aluminium tube 1387 Screwed and socket steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads 1615 Method for specifying anodic oxidation coatings on aluminium and its alloys 1717 Steel tubes for cycle and motorcycle purposes 3059 - 1/2 Steel boiler and superheater tubes 3059 - 1 Steel boiler and superheater tubes - low tensile carbon steel tubes without specified elevated temperature properties 3059 - 2 Steel boiler and superheater tubes - carbon, alloy and austenitic stainless steel tubes with specified elevated temperature properties 3074 Nickel and nickel alloys - seamless tubes 3600 Dimensions and masses per unit length of welded and seamless steel pipes and tubes for pressure purposes 3601 Carbon steel pipes and tubes with specified room temperature properties for pressure purposes 3602 - 1/2 Steel pipes and tubes for pressure purposes - carbon and carbon manganese steel with specified elevated temperature properties 3602 - 1 Steel pipes and tubes for pressure purposes - carbon and carbon manganese steel with specified elevated temperature properties - seamless and electric resistance welded including induction welded tubes 3602 - 2 Steel pipes and tubes for pressure purposes - carbon and carbon manganese steel with specified elevated temperature properties - longitudinally arc welded tubes 3603 Carbon and alloy steel pipes and tubes with specified low temperature properties for pressure purposes 3604 - 1/2 Steel pipes and tubes for pressure purposes - ferritic alloy steel with specified elevated temperature properties 3604 - 1 Steel pipes and tubes for pressure purposes - ferritic alloy steel with specified elevated temperature properties - seamless and electric resistance welded 3604 - 2 Steel pipes and tubes for pressure purposes - ferritic alloy steel with specified elevated temperature properties - longitudinally arc welded tubes **3605 - 1/2** Austenitic stainless steel pipes and tubes for pressure purposes 3605 - 1 Austenitic stainless steel pipes and tubes for pressure purposes - seamless tubes 3605 - 2 Austenitic stainless steel pipes and tubes for pressure purposes - longitudinally welded tubes 3606 Steel tubes for heat exchangers 3889 - 1A/2A Methods for non-destructive testing of pipes and tubes 3889 - 1 Methods for non-destructive testing of pipes and tubes - methods of automatic ultrasonic testing for the detection of imperfections in wrought steel tubes 3889 - 2A Methods for non-destructive testing of pipes and tubes - automatic eddy current testing of wrought steel tubes 4027 Sulfate-resisting portland cement requirements for composition, strength, physical and chemical properties of three strength classes

4127 Light gauge stainless steel tubes, primarily for water applications

4147 Bitumen based hot applied coating materials for protecting iron and steel including suitable primers where required

4164 Coal tar based hot applied coating materials for protecting iron and steel including a suitable primer **4568 - 1/2** Steel conduit and fittings with metric threads of ISO form for electrical installations



4568 - 1 Steel conduit and fittings with metric threads of ISO form for electrical installations - steel conduit bends and couplers

4568 - 2 Steel conduit and fittings with metric threads of ISO form for electrical installations - fittings and components

4825 - 1 to 5 Stainless steel tubes and fittings for the food inductry and other hygienic applications

4825 - 5 Stainless steel tubes and fittings for the food inductry and other hygienic applications - recessed ring joint type couplings

4848 - 2/4/5 Hot rolled structural steel sections

4848 - 2 Hot rolled structural steel sections - hot finished hollow sections

4848 - 4 Hot rolled structural steel sections - equal and unequal angles

5242 - 1/2 Tubes for fluid power cylinder barrels

5242 - 1 Tubes for fluid power cylinder barrels - steel tubes with specially finished surfaces

5242 - 2 Tubes for fluid power cylinder barrels - non ferrous metallic tubes with specially finished bores 6258 Hollow steel bars for machining

6323 - 1 to 8 Seamless and welded steel tubes for automobile, mechanical and general engineering purposes

6323 - 1 Seamless and welded steel tubes for automobile, mechanical and general engineering purposes - general requirements

6323 - 4 Seamless and welded steel tubes for automobile, mechanical and general engineering purposes - specific requirements for cold finished seamless steel tubes

6323 - 5 Seamless and welded steel tubes for automobile, mechanical and general engineering purposes - specific requirements for electric resistance welded (including induction welded) steel tubes

6323 - 6 Seamless and welded steel tubes for automobile, mechanical and general engineering purposes - specific requirements for cold finished electric resistance welded (including induction welded) steel tubes

7668 Weldable structural steels - hot finished structural hollow section in weather resistant steels

NF AFNOR (French Association for Standardization)

A 49 - 111 Steel tubes-plain end seamless tubes of commercial quality for general purposes at medium pressure - dimensions - technical delivery conditions

A 49 - 112 Steel tubes-plain end seamless hot rolled tubes with special delivery conditions - dimensions - technical delivery conditions

A 49 - 115 Steel tubes - hot finished seamless tubes suitable for threading dimensions - technical delivery conditions A 49 - 117 Steel tubes - seamless plain end tubes for pipe-lines and other uses - ferritic and austenitic stainless steels dimensions - technical delivery conditions

A 49 - 141 Steel tubes - welded plain end tubes of commercial quality for general use at medium pressure - dimensions - technical delivery conditions

A 49 - 142 Steel tubes - longitudinally welded plain end tubes inferior or equal to 168,3 mm in unalloyed steels with special delivery conditions - dimensions - technical delivery conditions

A 49 - 145 Steel tubes - hot finished welded tubes suitable for threading - dimensions - technical delivery conditions A 49 - 146 Steel tubes - unthreaded plain ended welded tubes for liquid - dimensions - technical delivery conditions

A 49 - 147 Steel tubes - plain end longitudinally welded tubes for pipelines and general use - austenitic stainless steels - dimensions - technical delivery conditions

A 49 - 148 Steel tubes - plain end longitudinally welded tubes for pipe lines and general use - ferritic stainless steels - dimensions - technical delivery conditions

A 49 - 150 Steel tubes - welded tubes to be coated or protected for water piping systems - dimensions - technical delivery conditions

A 49 - 160 Steel tubes. Welded tubes for heating panels encased in concrete. Dimensions. Technical delivery conditions.

A 49 - 207 Steel tubes - seamless or longitudinally welded stainless steel tubes for heat exchanger in aircraft construction - dimensions - technical delivery conditions

A 49 - 210 Steel tubes - seamless cold drawn tubes for fluids piping - dimensions - technical delivery conditions

A 49 - 211 Steel tubes - seamless plain-end tubes in unalloyed steels for fluid piping elevated temperatures -

dimensions - technical delivery conditions

A 49 - 213 Steel tubes - seamless unalloyed and MO or CR-MO alloyed tubes for use at elevated temperatures - dimensions (with normal tolerances) - technical delivery conditions

A 49 - 214 Steel tubes - seamless austenitic steel tubes for use at elevated temperatures - dimensions (with normal tolerances) - technical delivery conditions

A 49 - 215 Steel tubes - seamless tubes for unalloyed or ferritic alloyed steel heat exchangers - dimensions - technical delivery conditions

A 49 - 217 Steel tubes - seamless tubes for heat exchangers - stainless austenitic and ferritic steels - dimensions - technical delivery conditions

A 49 - 218 Steel tubes - seamless tubes for furnaces austenitic stainless steels - dimensions with normal or reduced tolerances - technical delivery conditions

A 49 - 230 Steel tubes - plain end seamless tubes for pressure vessels and piping systems used at low temperatures dimensions - technical delivery conditions A 49 - 240 Steel tubes - plain ended steel tubes longitudinally welded without fusion for pressure vessels and piping systems at low temperatures - dimensions - technical delivery conditions A 49 - 241 Steel tubes - longitudinally pressure welded plain end tubes in non alloyed steel grades for fluid piping up to 425°C - diameters from 21,3 mm to 168,3 mm - dimensions technical A 49 - 242 Steel tubes - longitudinally pressure welded tubes, D less than or equal to 168,3mm in unalloyed and low alloyed steels grades, used at moderate temperatures dimensions - technical delivery conditions A 49 - 243 Steel tubes - longitudinally pressure welded tubes, D less than or equal to 168,3mm in unalloyed or ferritic alloved steels grades, used at elevated temperatures dimensions - technical delivery conditions A 49 - 244 Steel tubes. Welded austenitic stainless and austenitic ferritic steel rolled tubes for pressure service dimensions - technical delivery conditions. A 49 - 245 Steel tubes. Longitudinally pressure welded tubes from non alloy and ferritic alloy steels for heat exchangers in diameters from 15,9 mm and 76,1 mm inclusive - dimensions - technical delivery conditions. A 49 - 247 Steel tubes - longitudinally welded tubes for heat exchangers austenitic stainless steels - dimensions technical delivery conditions A 49 - 249 Steel tubes - longitudinally welded plain end tubes for the food industry - austenitic stainless steels dimensions - technical delivery conditions A 49 - 250 Steel tubes - welded plain end tubes of commercial quality with or without special delivery conditions dimensions (D greater than or equal to 168,3 mm) - technical delivery conditions A 49 - 252 Steel tubes - welded unalloyed steel tubes of diameter 168.3 to 1220 mm used at medium elevated temperatures - dimensions - technical delivery conditions A 49 - 253 Steel tubes - longitudinally fusion welded unalloyed and ferritic alloyed steel tubes for use at elevated temperatures - dimensions - technical delivery conditions A 49 - 310 Steel tubes - seamless precision tubes for mechanical application - dimensions - technical delivery conditions A 49 - 311 Steel tubes - seamless tubes for mechanical application - dimensions - technical delivery conditions A 49 - 312 Steel tubes - seamless tubes for mechanical application - supplementary series - dimensions - technical delivery conditions A 49 - 317 Steel tubes - seamless plain end tubes for mechanical uses - austenitic stainless steels - dimensions technical delivery conditions A 49 - 323 Steel tubes - jacks for hydraulic transmissions - cold rolled or cold drawn seamless tubes - "ready for use" dimensions - technical delivery conditions A 49 - 330 Steel tubes - seamless cold drawn tubes for hydraulic and pneumatic power systems - dimensions technical delivery conditions A 49 - 341 Steel tubes - precision welded tubes for mechanical application - dimensions - technical delivery conditions A 49 - 342 Steel tubes - welded steel tubes with improved machinability for mechanical machined parts - dimensions dechnical delivery requirements. A 49 - 343 Steel tubes - longitudinally welded tubes D<=168.3mm for engineering use - dimensions - technical delivery conditions A 49 - 400 Steel tubes - longitudinally electric resistance welded unalloyed steel tubes 17,2<=406,4 mm for the transport of pressurized fluids - dimensions - technical delivery conditions A 49 - 401 Steel tubes - longitudinally arc welded unalloyed steel pipes for fluid transporation piping and pressure vessels - dimensions - technical delivery conditions A 49 - 402 Tubes en acier - tubes soudes helicoidalement par fusion en aciers non allies et micro allies pour canalisations de transport de fluide et appareils a pression - dimensions - conditions techniques A 49 - 646 Steel tubes - round, square and rectangular precision steel tubes longitudinally induction welded from hot or cold-rolled flat products, coated or not coated - dimensions - technical delivery conditions. 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663 Seamless unalloyed steel tubes - plain tubes for general service - quality, specifications and testing

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5462 Seamless steel tubes - tubes for boilers, appliances and piping for high-pressure, high-temperature heating systems - quality, specifications and testing

5745 Hot dip zinc coating of steel tubes - specifications and testing

5949 Low temperature service

6125 Conical gas threads for cable conduit tubes and relative fittings for explosion-proof electrical equipment (ADPE). (ICS code: 21.040.30)

6363 Seamless and welded steel tubes for water pipes

6904 Seamless tubes of special alloyed corrosion and heat resisting stainless tubes

7091 Welded unalloyed steel tubes - plain tubes for general service

7287 Plain end seamless tubes of basic unalloyed steel

7288 Plain end non alloy steel welded tubes (ICS code: 23.040.10)

7683 Cable conduit tubes and threaded fittings for explosion-proof electrical equipment - seamless and welded tubes of unalloyed, zinc-coated steel

7684 Cable conduit tubes and threaded fittings for explosion-proof electrical equipment - zinc-coated or cadmiumcoated unalloyed steel sleeves

7729 Plain end unalloyed steel seamless tubes of quality for mechanical applications

7810 Cold formed, flat steel products for metallic structures - hollow sections - quality, specifications and testing

7811 Cold formed steel products for metallic structures - circular hollow sections - dimensions and properties

7812 Cold formed steel products for metallic structures - square hollow sections - dimensions and properties

7813 Cold formed steel products for metallic structures - rectangular hollow sections - dimensions and properties

7946 Plain end welded steel precision tubes (ICS code: 23.040.10)

7947 Plain end welded externally calibrated, precision steel tubes

8488 Steel tubes for pipelines - petroleum and natural gas industries

8863 Unalloyed steel seamless and welded tubes suitable for screwing in accordance with UNI ISO 7.1

8913 Welded steel tubes for the automotive industry (ICS code: 77.140.75)

9099 Steel tubes used for underground or underwater piping. Extruded external polyethylene coating. (ICS code: 77.140.75)

10191 External fusion-bonded polyethylene coating - tubular steel products used for buried or submerged piping

ISO 7.1 Pipe threads where pressure-tight joints are made on the threads - dimensions, tolerances and designation

UNE Spanish Standards

19 040 Carbon steel tubes for threading - measurements and masses - normal series

19 041 Carbon steel tubes for threading - measurements and masses - heavy series

19 042 Carbon steel tubes for threading - measurements and masses - light 1 series

19 043 Carbon steel tubes for threading - measurements and masses - light 2 series

19 045 Welded carbon steel tubes for threading - tolerances and characteristics

19 047 Galvanised welded steel tubes for water supply (hot and cold)

19 049 - 1 Tubos de acero inoxidable para instalaciones interiores de agua fria y calient - tubos

19 051 Welded steel tubes (not galvanized) for interior water installations

36 086 Steel tubes, high frequency longitudinally seamed

36 593 Plain end welded precision steel tubes - technical conditions for delivery

36 594 Plain end as welded and sized precision steel tubes - technical conditions for delivery

36 595 Square and rectangular steel tubes for ordinary uses, longitudinally pressure welded, cold formed and

externally calibrated - dimensions - technical delivery conditions

36 864 Steel tubes, longitudinally welded, for pipelines and for reception installations of gaseous-fuel used no higher than 4 bar

NEN Dutch Standards

2769 Steel tubing for construction and scaffolding - requirements and testing methods

3257 Steel conveyance pipes and sockets

6902 External polyethylene coating for underground steel pipes and fittings

SIS Swedish Standards

MNC 525 Steel - semi-manufactured products - tubes

MNC 811 Structural steels - tubes

MNC 831 Pressure vessel steels - tubes

 $\textbf{SMS 326} \ \textbf{Seamless and welded steel tubes suitable for screwing - medium series}$

SMS 327 Seamless and welded steel tubes suitable for screwing - heavy series

SMS 328 Steel tubes - tube sockets

SMS 887 Seamless steel tubes for mechanical application

SMS 1777 Seamless and welded steel tubes - dimensions and weights

SMS 1786 Seamless non-screwed steel tubes for general purposes



SMS 1795 Seamless steel tubes - cold worked precision steel tubes SMS 1886 Welded non-screwed steel tubes for general purposes SMS 1895 Welded steel tubes - cold worked precision steel tubes SMS 3008 Seamless and welded stainless steel tubes - tubes for the food industry SS 1787 Seamless steel tubes for pressure purposes SS 1887 Welded steel tubes for pressure purposes SS 2353 Cold drawn precision steel tubes for fluid power system SS 2874 Lighting columns of steel tubes - columns designed for recreation grounds SS 3001 Seamless stainless steel tubes SS 3002 Welded stainless steel tubes SS 3044 Seamless and welded stainless precision steel tubes SS 11 43 05 Non-destructive testing - eddy current testing - steel - tubes SS 21 97 01 Steel tubes for pressure purposes - technical delivery requirements SS 21 97 03 Steel tubes for pressure purposes - technical delivery requirements SS 21 97 11 Stainless steels - tubes for pressure purposes - test category I - technical delivery requirements SS 21 97 13 Stainless steels - tubes for pressure purposes - test category II - technical delivery requirements SS 21 97 16 Stainless steel tubes - welded tubes for pressure purposes - technical delivery requirements SS 21 97 17 Stainless steel tubes - welded tubes for pressure purposes - technical delivery requirements SS 21 97 18 Stainless steel tubes - welded tubes for pressure purposes - technical delivery requirements SS ISO 8535-1 Compression-ignition engines - steel tubes for high-pressure fuel injection pipes - requirements for seamless colddrawn single-wall tubes SS-HD 1039 Steel tubes for falsework and scaffolds - requirements and tests SFS Finnish Standards 2005 ISO 4200 Plain end steel tubes, welded and seamless - general tables of dimensions and masses per unit length 2006 Seamless steel tubes, dimensions and weights 2007 Welded steel tubes - dimensions 2009 Seamless precision steel tubes, cold drawn and cold rolled - dimensions 2010 Steel tubes - tolerance systems 2144 Seamless steel tubes - steel Fe 00 2145 Seamless steel tubes - steel Fe 35 2146 Seamless steel tubes - steel Fe 45 2147 Seamless steel tubes - steel Fe 52 2148 Seamless steel tubes - steel Fe 55 2167 Welded steel pipes for gas, water and sewage 2230 Hydraulic piping - coupling threads, joint surfaces and tubes 2249 Wrought copper and copper alloys - seamless copper tubes for general purposes **2680** Pipes and fittings of grey iron for waste water - technical requirements for delivery 2681 Pipes of grey iron for waste water - dimensions 2689 Pipes for waste water - double branches diam. 80 2690 Pipes for waste water - corner branches diam. 87,5 2692 Pipes for waste water - inspection pipes 2693 Pipes for waste water - elbow diam. 87,5 for toilet 2694 Pipes for waste water - branches diam. 87,5 for toilet 2695 Pipes for waste water - straight connections for toilel 2723 Pipes and fittings of grey iron for waste water - joining pieces 3312 Steel tubes, medium-weight - suitable for screwing 3313 Steel tubes, heavy-weight for screwing 3314 Hot dip galvanized zinc-coatings on steel tubes 3347 Materials for pressure vessels - steel pipes 3511 Pipes for waste water - single branches diam. 45, 67,5 and 87,5 3512 Pipes for waste water - straight connections for toilet 3513 Pipes for waste water - straight connections for toilet 3514 Pipes for waste water - S-pipe 3980 Welded stainless steel mechanical tubing - dimensions and sectional properties 4161 Welded stainless steel pipes - dimensions, weights, pressure factors and technical delivery requirements 4174 Steel tubes - T-connections 4753 Service piping - fire fighting system indoors DN 50 4754 Service piping - fire fighting system outdoors 2 x DN 80 5128 Steel tubes - welded precision tubes - dimensions and material 5322 Steel tubes - extruded T-pipes



5590 Austenitic stainless steel piping - vacuum pipes - reinforcement ring

EASTERN EUROPE AND MIDDL

ISIRI Institute of Standards and Industrial Research of Iran

3360 Home gas pipes

3765 Water pipes

GOST Russian standards

550 Seamless steel tubes for petroleum processing and petrochemical industry - specifications

631 Internal-external upset drill pipes with couplings - specifications

632 Casing pipes with couplings - technical conditions

633 Tubing pipes and couplings - specifications

800 Bearing tubes - technical requirements

1060 Cold deformed seamless steel tubes for shipbuilding - specifications

3262 Water-supply and gas-supply steel pipes - technical conditions

5005 Steel electrowelded cold-deformed pipes for cardan shafts - specifications

6238 Casing and coring pipes for geology-exploring drilling and nipples for them - specifications

7909 Drill prospecting pipes and sockets - specifications

8639 Square steel pipes - range

8645 Rectangular steel tubes - range

8696 General-purpose electrically-welded spiral seam steel pipes - specifications

8731 Seamless hot rolled steel pipes - technical requirements

8732 Seamless hot deformed steel pipes - range of sizes

8733 Seamless cold and warm deformed tubes - technical requirements

8734 Seamless steel tubes cold deformed - range

9567 Precision steel tubes - range

9940 Seamless hot deformed tubes made of corrosion resistant steel

9941 Seamless cold and warm deformed tubes of corrosion-resistant steel - specifications

10498 Especially thin-walled seamless tubes from corrosion-resistant steel - specifications

10704 Electrically welded steel line-weld tubes - range

10705 Electrically welded steel tubes - specifications

10706 Electrically welded steel line-weld tubes - technical requirements

10707 Steel cold formed electrically welded tubes - technical conditions

11017 Steel seamless tubes for high pressure service - technical conditions

11068 Electrically tubes made of corrosion resistant steel - specifications

11249 Steel rolled up soldered double-layer tubes - technical conditions

13663 Shaped steel tubes - technical requirements

14162 Steel tubes of small dimensions (capillary) - specifications

19277 Seamless steel tubes for oil and fuel-lines - specifications

20295 Steel welded pipes for main oil and gas pipelines

21729 Cold deformed and hot-deformed structural carbon and alloyed steel tubes

21945 Seamless hot rolled tubes from alloys based on titanium - specifications

22897 Seamless cold deformed pipes from alloys based on titanium - specifications

23270 Tubes-billets for mechanical treatment - specifications

24030 Corrosion resistant steel seamless tubes for power engineering industry - specifications

26250 Drill pipes for borehole tools with removable core lifts - specifications

TS Turkish Standards

301 Seamless and welded steel pipes with thread

302 Seamless precision steel tubes

346 Seamless, circular, unalloyed steel tubes for special purposes

381 Seamless steel pipes - temperature and pressure resistant

416 Welded steel pipes for general purposes

914 Internal and external galvanizing

1997 Flat - spiral welded unalloyed steel tubes

2169 Underground steel pipes corrosion protection rules

4356 Rules for hot applied bituminous coatings for corrosion protection of steel pipes

4357 Rules for hot applied coal tar based coatings for corrosion protection of steel pipes

5130 Copper brazed double wall steel tubes

5139 Rules for applied polyethylen coating for corrosion protection of steel pipes

5140 Rules for applied coal-tar epoxy coating for corrosion of steel pipes



5141 Rules of cathodic protection of underground steel pipeline

5317 Welded square and rectangular steel tubes

- 5437 Welding ends preparation of ends of steel tubes and fittings for welding
- 5481 Non destructive testing methods eddy current examination of steel pipes and tubes
- 6047 Line pipes, steel for oil and natural gas industries
- 6438 Welded precision steel tubes
- 6475 Rectangular and square, welded, precision steel tubes for general use
- 6476 Welded and sized precision steel tubes
- 6814 Tubes stainless steel dimension, tolerance and unit length values
- 7402 Steel tubes tolerance systems
- 7433 Steel tubes and tubular shaped accessories with circular cross section symbols to be used in specifications
- 7600 Stove pipes, stoves pipe elbows, stove pipe rosette-sheet steel
- 8054 Natural gas pipeline steel piping systems design rules
- 8322 Seamless circular steel tubes for low (sud zero) temperature services
- 8481 Steel tubes for falsework and working scaffolds
- 8590 Concrete protective coating of steel water pipes
- 8843 Steel tubes for heat exchangers welded
- 8844 Steel tubes for heat exchangers seamless
- 8845 Steel tubes for rolls for conveyor belt idlers
- 8955 Natural gas service liner rules for design and installation of steel line pipes
- 9341 Steel pipes for water pipelines
- 9800 Steel tubes for furniture round, oval, square and rectangular section
- 10038 Natural gas pipeline steel piping installation rules
- 10485 Line pipes, steel ultra high test heat treated, for petroleum and natural gas industries pipe lines
- **10670** Flexible corrugated stainless steel tubes for gas burning appliances (up to 1,6 Mpa)
- **11004** Steel tubes electric pressure welded (used at elevated temperatures)
- 11298 Rectangular and square, welded, precision steel tubes (used in motor vehicles)
- **11348** Zinc coating on steel tubes hot dip galvanized
- ISO DIS 11961 Petroleum and natural gas industries steel pipes for use as drill pipes specification

CSN Czech Standards Institute

- 13 0072 Piping, marking of pipelines in plants according to the flowing liquids
- 38 6410 Gas piping of high pressure and very high pressure
- 38 6413 Medium-pressure gas mains and service pipes for middle-low pressure
- 38 6420 Industrial gas lines
- 42 0144 Spiral weld steel pipes
- 42 0165 Seamless carbon and alloy-steel tubes for low-temperature service
- 42 0250 Hot formed seamless carbon and alloy-steel tubes
- 42 0251 Seamless carbon and alloy-steel tubes for high-temperature service
- 42 0252 Seamless ferritic and austenitic steel tubes
- 42 0260 Cold drawn precision seamless carbon and alloy steel tubes
- 42 5710 Steel tubes suitable for screwing medium series
- 42 5711 Steel tubes suitable for screwing heavy series
- 42 5715 Hot formed seamless steel tubes
- 42 5716 Hot formed seamless steel with small tolerances
- 42 5720 Hot formed seamless square and rectangular steel tubes (including dimensions)
- 42 5738 Spiral weld steel pipes
- 42 5750 Seamless hot formed ferritic and austenitic steel tubes
- 42 5780 Seamless spigot steel tubes
- 42 5782 Seamless spigot steel tubes for butt-welding
- 42 5792 Steel tubes with double borders and rotary flange
- 42 6710 Cold drawn seamless carbon and alloy steel tubes with normal tolerances
- 42 6711 Precision seamless steel tubes
- 42 6712 Precision seamless steel tubes with increased accurancy
- 42 6730 Precision hexagonal seamless steel tubes (including dimensions)
- 42 6750 Seamless precision cold-formed ferritic and austenitic steel tubes

MSZ Hungarian Standards

- 17 Seamless tubes from unalloyed steels with increased quality requirements
- 29 Seamless tubes from unalloyed steels for general purposes



99 Seamless steel tubes - dimensions and masses per unit length

- 120 1/2/3 Steel tubes suitable for screwing
- **120 1** Steel tubes suitable for screwing heavy series tubes
- 120 2 Steel tubes suitable for screwing medium series
- 120 3 Steel tubes suitable for screwing light series tubes
- 185 Longitudinal welded steel tubes dimensions
- 186 1/2 Longitudinal welded steel tubes
- 186 1 Longitudinal welded steel tubes commercial quality tubes
- 186 2 Longitudinal welded steel tubes ligh quality tubes
- 326 Hot rolled channel sections dimensions
- 382 1/2 Calibrated longitudinal welded steel tubes
- 382 1 Calibrated longitudinal welded steel tubes dimensions
- 382 2 Calibrated longitudinal welded steel tubes technical specification
- 2898 1/2 Cold drawn or cold rolled seamless precision steel tubes
- 2898 1 Cold drawn or cold rolled seamless precision steel tubes dimensions and masses per unit length
- 2898 2 Cold drawn or cold rolled seamless precision steel tubes technical requirements
- 2978 1/2 Cold drawn or cold rolled welded precision steel tubes
- 2978 1 Cold drawn or cold rolled welded precision steel tubes dimensions and masses per unit length
- 2978 2 Cold drawn or cold rolled welded precision steel tubes technical specification
- 3156 Drill pipes
- **3160** Steel casing with whitworth threads
- **3741** Spiral weld steel pipes with high quality requirements
- 3770 Spiral weld steel pipes with special quality requirements
- 4051 Seamless steel tubes with special quality requirements
- **4398** Longitudinally welded stainless and heat resisting steel tubes
- 4747 Steel tubes for elevated temperatures
- 7262 Cold formed steel sections general technical requirements and tolerances
- 7328 Cold formed hollow steel sections dimensions
- 17718 Rolled steel bell sections for mine safety framing

PN Polish Standards

- 75 / H 74253 Steel seamless flanged pipes
- 76 / G 44001 Flanged pipes for hydraulic filling
- 80 / H 74219 Steel seamless tubes for general application
- 83 / H 84017 Weather resistant tubes
- 84 / H 74220 Steel seamless tubes cold-rolled and drawn
- 85 / H 74252 Steel seamless boiler tubes
- 91 / H 74240 Steel seamless precision tubes

BN Polish Standards

- 75 / 0648 60 Steel seamless pipes with tapered socket
- 79 / 0656 01 Cold formed closed sections (welded)
- 82 / 0442 04 Flanged pipes for hydraulic filling
- 84 / 0648 81 Low alloy steel seamless tubes for operation at elevated temperature
- 85 / 0648 62 Steel seamless pipes for shipbuilding
- 85 / 0648 82 Hot rolled steel seamless tubes for mining hydraulic cylinders dimensions
- 85 / 0648 83 Constructional steel seamless tubes with improved quality and for machining

TU Ukrainian Standards

- 1104 138100 Corrosion resistant gas line pipes
- 14 152 19 Electrically welded carbon steel pipes
- 14 152 21 Electrically welded rectangular (square) carbon steel pipes
- 14 159 233 Electric welded water and gas pipe from carbon steel
- 14 161 126 Seamless cold worked titan-based alloy tubing
- 14 161 128 Gas-lift pipes with threaded coupling and polymer seal
- 14 161 140 Casing pipes with buttress thread
- 14 3 143 Steel tubing for tubular rivets
- 14 3 156 6 Spiral welded pipes corrosion resistant water pipelines
- 14 3 190 Electric longitudinal welded pipes stainless steel
- 14 3 197 Seamless pipes made of corrosion-resistant steel grades with improved surface quality
- 14 3 251 Seamless tubes for plants of chemical and oil- chemical industry relative pressure



- 14 3 328 Tubes of special forms for motor-car industry
- 14 3 349 Seamless thin-walded finned pipes (4 fins)
- 14 3 460 Electric longitudinal welded pipes stainless steel
- **14 3 474** Thin-walled cold deformed pipes from carbon and alloy steel
- 14 3 491 External upset geological prospecting drill pipes without threading
- 14 3 514 Casing pipes with FUM band seal of threaded joints
- 14 3 523 Steel pipes with polyethylene linng and connectors for them
- 14 3 615 Seamless cold worked titan-based alloy tubing
- 14 3 721 Spiral welded pipes gas-oil line pipes
- 14 3 796 Seamless cold-finished tubes for steam boilers and pipelines from corrosion resistance steel grade
- 14 3 808 Spiral welded pipes nuclear power station pipelines
- 14 3 820 Seamless cold worked titan-based alloy tubing
- 14 3 876 Steel non-threaded cold-finished tubes for shells with demountable core receivers
- 14 3 913 Longitudinal one seam submerged arc welded pipe for oil-gas
- 14 3 954 Spiral welded pipes eating system pipelines
- 14 3 1128 Seamless hot worked steel pipe for gas-lift pipeline systems and oil and gas field equipment
- 14 3 1141 Brazed rolled-up double-ply steel tubing
- 14 3 1165 Square and rectangular tubing alloyed steel
- 14 3 1171 Square and rectangular tubing alloyed steel
- 14 3 1219 Bimetallic centrifugal-casted pipes, steel 30 outside
- 14 3 1228 Steel flat-oval drawn tubes
- 14 3 1282 Pump-compressor pipes with couplings smooth and high pressure-sealed with increased plasticity and coldresistance
- 14 3 1318 Clad high precision pipes from corrosion-resistant grade of steel
- 14 3 1354 Steel non threaded pipes for casing and core geological prospecting pipes
- 14 3 1364 Spiral welded pipes 75 Atmospheres Gas Line Pipes
- 14 3 1424 Longitudinal one seam submerged arc welded pipe for oil-gas
- 14 3 1464 Longitudinal double seam submerged arc welded pipe for oil-gas
- 14 3 1487 Casing pipes in ERW modification (OTTM thread)
- 14 3 1534 Pump-compressor pipes with couplings smooth with polymer seal
- 14 3 1571 Drill pipes with welded tool-joints

14 - 3 - 1588 Pump-compressor pipes with couplings - smooth and high pressure-sealed with increased plasticity and coldresistance

- 14 3 1600 Hor-worked pipe made out of steel grade 20UCh
- 14 3 1601 Seamless hot rolled Pipes steel coupling pipes
- 14 3 1611 Casing geological prospecting pipes with gauged ends with right-handed threading
- 14 3 1618 Seamless hot rolled pipes gas lifting system, gas-oil deposit equipment cold-resistant
- 14 3 1649 Thermally insulated oil and gas well pipes
- 14 3 1667 Casing pipes with polymer seals
- 14 3 1701 Seamless hot rolled pipes oil transfer
- 14 3 1736 Casing pipes with increased plasticity and cold resistance
- 14 3 1747 Centrifugal-casted pipes
- 14 3 1760 Seamless hot rolled pipes gas-oil pipelines, municipal economy, mechanical engineering
- 14 3 1762 Drill pipes with welded tool-joints having a reduced diameter
- 14 3 1772 Pump-compressor pipes
- 14 3 1780 Cold finished clad thin-walded pipes of large diameters made of corrosion-resistant grade of steel
- 14 3 1801 Seamless hot worked steel pipe for gas-lift pipe systems and oil and gas field equipment of northern regions
- 14 3 1831 Seamless hydrogen-sulfate-resistant pipe made out of steel grade 12GF-PV
- 14 3 1840 Spiral welded pipes corrosion water pipelines
- 14 3 1849 Drill pipes with welded tool-joints
- 14 3 1850 Drill pipe with pipe end upset
- 14 3 1865 Seamless hot rolled pipes for mechanized mine fasteners
- 14 3 1873 Longitudinal double seam submerged arc welded pipe for oil-gas
- 14 3 1894 Cold-finished tubes of variable section
- 14 3 1895 Longitudinal one seam submerged arc welded pipe for oil-gas
- 14 3 1918 Casing and core pipes for geological prospecting drilling and nipples for them Nippel joint with right-handed trapezium-shaped threading
- 14 3 1919 Geological prospecting drill pipes and couplings
- 14 3 1927 Drill pipes with prior mounted joints and couplings.
- 14 3 1938 Longitudinal double seam submerged arc welded pipe for oil-gas
- 14 3 1963 Seamless hot rolled pipes pipe laying of wells and constructions



39 - 0147016 - Casing pipes in ERW modification (buttress thread)

39 - 0147016 - Pipe for general maintenance of drill holes

- U 322 8 14 Longitudinal one seam submerged arc welded pipe for oil-gas
- U 322 8 21 Longitudinal one seam submerged arc welded pipe for oil-gas
- Y 322 8 10 Longitudinal one seam submerged arc welded pipe for oil-gas

ASIA

JIS Japanese Industrial Standards

- A 5525 Steel pipe piles
- C 8305 Rigid steel conduits
- G 3429 Seamless steel tubes for high pressure gas cylinder
- G 3441 Alloy steel tubes for machine purposes
- G 3442 Galvanized steel pipes for water service
- **G 3443** Coated steel pipe for water service
- G 3444 Carbon steel tubes for general structural purposes
- G 3445 Carbon steel tubes for machine structural purposes
- **G 3446** Stainless steel tubes for structure purposes
- G 3447 Stainless steel sanitary tubing
- G 3448 Light gauge stainless steel pipes for ordinary piping
- G 3452 Carbon steel pipes for ordinary piping
- G 3454 Carbon steel pipes for pressure service
- G 3455 Carbon steel pipes for high pressure service
- G 3456 Carbon steel pipes for high temperature service
- G 3457 Arc welded carbon steel pipes
- G 3458 Alloy steel pipes
- G 3459 Stainless steel pipes
- G 3460 Steel pipes for low temperature service
- G 3461 Carbon steel boilers and heat-exchanger tubes
- G 3462 Alloy steel boiler and heat-exchanger tubes
- G 3463 Stainless steel boiler and heat-exchanger tubes
- G 3464 Steel heat exchanger tubes for low temperature service
- G 3465 Seamless steel tubes for drilling
- G 3466 Carbon steel square pipes for general structural purposes
- G 3467 Steel tubes for fire heater
- G 3468 Arc welded large diameter stainless steel pipes
- G 3469 Polyethylene coated steel pipes
- G 3472 Electric resistance welded carbon steel tubes for automobile structural purposes
- G 3473 Carbon steel tubes for cylinder barrels
- G 3474 High tensile strength steel tubes for tower structural purposes
- G 3491 Alsphalt protective coatings for steel water pipe
- G 3492 Coal-tar enamel protective coating for steel water pipe
- G 4903 Seamless nickel-chromium-iron alloy pipes
- G 4904 Seamless nickel-chromium-iron alloy heat exchanger tubes
- H 4631 Titanium pipes and tubes for ordinary piping

KS Korean Sandards

- B 0222 Taper pipe threads
- C 8401 Rigid steel conduits
- D 3507 Carbon steel pipes for ordinary piping
- D 3517 Carbon steel tubes for machine structural purposes
- D 3536 Stainless steel tubes for machine and structural purposes
- D 3537 Galvanized steel pipes for water service
- D 3562 Carbon steel pipes for pressure service
- D 3563 Carbon steel tubes for boiler and heat exchanger
- D 3564 Carbon steel pipes for high pressure service
- D 3565 Coated steel pipes for water works
- D 3566 Carbon steel tubes for general structural purposes
- D 3568 Carbon steel square pipes for general structural purposes
- D 3569 Steel pipes for low temperature service
- D 3570 Carbon steel pipes for high temperature service
- D 3571 Steel heat exchanger tubes for low temperature service



- **D 3572** Alloy steel boiler and heat exchanger tubes
- D 3573 Alloy steel pipes
- D 3574 Alloy steel tubes for machine purposes
- D 3575 Seamless steel tubes for high pressure gas cylinder
- D 3576 Stainless steel pipes
- D 3577 Stainless steel tubes for high pressure gas cylinder
- D 3583 Arc welded carbon steel pipes
- D 3584 Seamless steel oil well casing, tubing and drill pipe
- D 3585 Stainless steel sanitary tubing
- D 3587 Steel tubes for fired heater
- D 3588 Arc welded large diameter stainless steel pipes
- D 3589 Polyethylene coated steel pipes
- D 3595 Light gauge stainless steel pipes for ordinary piping
- D 3598 Electric resistance welded carbon steel tubes for automobile structural purposes
- D 3607 Polythylene coated steel pipes by powder fusion
- D 3608 Steel pipes coated on the interior and exterior with epoxy powder coatings for water works
- D 3618 Carbon steel tubes for cylinder barrels
- D 3619 Polyethylene powder lining steel pipes for water works
- D 3620 Fluoride resin coated double wall steel pipe for water works
- D 3623 Corrosion resistance welded steel pipes for water service
- D 3626 Coated steel pipes for water service
- D 3628 Stainless steel flexible pipes
- D 3757 Seamless nickel chromium iron alloy heat exchanger tubes
- D 3758 Seamless nickel chromium iron alloy pipes
- D 3759 Titanium-palladium alloy pipes and tubes for ordinary piping and heat exchanger
- D 3760 Galvanized steel pipes for vinyl housing
- D 3761 Unplasticized polyvinyl chloride lining steel pipes
- D 3780 High tensile strength steel tubes for tower structural purposes
- D 4602 Steel pipe piles
- D 8306 Alsphalt protective coatings for steel water pipe
- D 8307 Coal-tar enamel protective coating for steel water pipe
- D 8502 Liquid epoxy resin coating
- F 4602 Steel pipe piles
- F 8001 Steel pipe supports
- F 8002 Steel pipe scaffolding
- F 8003 Prefabricated steel pipe scaffolding
- V 3983 Dredging pipe

GB Chinese National Standards

- T8163 Pipe for liquid transportation
- T8162 Structure pipe
- T5312 Tube for shipbuilding
- T8713 Cold drawn high precision tube
- 3087 Seamless steel tubes for low and medium pressure boiler
- 3091 Galvanized welded steel pipe for low-pressure service
- 3092 Welded steel pipe for low pressure service
- **3093** High-pressure seamless steel tubes for diesel engine
- 3094 Cold drawn seamless special-shape steel pipe
- T3639 Cold drawn or cold rolled precision seamless steel tubes
- 5310 Seamless steel tubes and pipes for high pressure boiler
- 5312 Carbon steel seamless steel tubes for ship
- 6479 High pressure seamless steel tubes for chemical fertilizer equipments
- 6728 Square and rectangular tubing (dimension and weight)
- 8162 Hot rolled seamless tubes for pipeline, vessel and equipment structures
- 8163 Fluid transfering pipe
- 9711 Spirally submerged arc welded steel pipe for oil and naturel gas
- 9948 Seamless steel tubes for petroleum cracking
- 13296 Seamless stainless steel tubes for boiler and heat exchanger
- 13792 Longitudinally welded pipe
- 13793 Longitudinal pipe
- 14291 Longitudinally welded pipe



14975 Stainless steel seamless tubes for structures
14976 Stainless steel seamless pipes for fluid transport
14980 Major diameter welded steel pipe for low pressure liquid service
T17396 Hot rolled seamless tubes for hydraulic cylinder

SY Chinese National Standards

5036 Spirally submerged - arc welded steel pipe for pressure service
5037 Spirally submerged - arc welded steel pipe for ordinary fluid
5038 Spirally ERW line pipe for pressure fluid service - mill hydrostatic test pressure
5039 Spirally ERW line pipe for general low - pressure fluid service - mill hydrostatic test pressure
5040 Spirally submerged - arc welded steel pipe for piling
5297 Longitudinal pipe
5384 Longitudinal pipe

YΒ

T5052 Geological drilling pipe T5035 Seamless steel tube for auto semi-shaft casing n1 Tube for cannon 235 Geological Drilling Tube 2056 Welded steel pipes for low pressure use 2606 Rigid steel conduits 4028 Welded Steel Pipe for Deep-Well Dump 4178 Welded steel pipes 4435 Carbon steel tubes for general structural purposes 4437 Carbon steel tubes for machine structural purposes 4626 Carbon steel pipes for pressure service 5802 Stainless steel tube for mechanical and structural purposes 6445 Carbon steel pipes for ordinary piping 7141 Carbon steel square pipes for general structural purposes 7883 Stainless steel boiler and heat-exchanger tubes **Z 12** Bearing tube

IS Indian Standards

- **1161** Steel tubes for structural purposes
- 1239 Mild steel tubes, tubulars and other wrought steel fittings
- 1914 1/4 Carbon steel boilers tubes and superheater tubes
- 1978 Line pipes
- **1979** High test line pipe
- 2039 1/3 Steel tubes for bicycle and allied purposes
- **2416** Boiler and superheater tubes for marine and naval purposes
- **3074** Steel tubes for automotive purposes
- 3589 Seamless or electrically welded steel pipes for water, gas and sewage (169,3 to 2032 mm outside diameter)
- 3601 Steel tubes for mechanical and general engineering purposes
- 3609 Chrome molybdenum steel, seamless, boiler and superheater tubes
- 4270 Steel tubes used for water wells
- 4516 Elliptical mild tubes
- 4711 Methods for sampling of steel pipes, tubes and fittings
- 4712 Forged steels, socket-welding
- 4922 Hollow steel section for structural use
- 4923 Hollow steel tubes (suitable for welding for aircraft purposes)
- 5429 Dimensions for steel tubes for automotive purposes
- **5433** Oil well steel casing pipes and couplings
- 5504 Spiral welded pipes
- **5929** Inspection and testing procedure for circular steel tubes for aircraft purposes
- 6011 Carbon steel tubes for use on board ships for pressure services
- 6286 Tubes for low temperature service
- 6392 Seamless ferritic alloy steel pipes for high temperature steam service
- 6631 Steel pipes for hydraulic purposes
- 6647 Drill pipes for use in oil or natural gas wells
- 6913 Stainless steel tubes for the food and beverage industry
- **7138** Steel tubes for furniture purposes



7174 Carbon steel tubes for use on board ships for working pressure 0,7 to 1,7 N / mm

8036 Mild steel transformer cooling tubes

8119 Copper brazed steel tubing

9158 Cold drawn high pressure fluid power cylinder tubes

9295 Steel tubes for idler for belt conveyers

10577 Lancing pipes

11714 - 1/5 Steel tubes for heat exchangers

11722 Thin walled flexible quick coupling pipes

12620 Seamless steel tubes for manufacturing high pressure gas cylinders

12791 High carbon chromium (bearing) steel tubes for the manufacture of bearing races

SNI Indonesia National Standards

05 - 0069 Union pipe (conduit)

07 - 0039 Zinc coated steel pipes - specification and test method

- 07 0067 Carbon steel pipes for machines structures specification and test method
- 07 0068 Carbon steel pipes for general structure specification and test method
- 07 0071 Spiral welded steel pipes specification and test method
- 07 0242 Specification and test method of seamless steel pipes for steam boilers and superheaters
- 07 0537 Steel pipes for petroleum and natural gas pipeline
- 07 0728 High tested steel pipes for petroleum and natural gas pipeline
- 07 1313 Steel pipes for water supply interior layer using cement mix
- 07 1343 Coal for enamel exterior protective coatings steel pipes
- 07 1857 Grey cast iron ground pipe
- 07 2858 Stainless steel pipes
- 07 3074 Cast iron drainage pipes and fittings spigot series
- 07 3081 Ductile cast iron pipes and accessories for non pressure pipes lines

07 - 3090 Straight circular sheet metal ducts with a lock type spiral seam and straight rectangular sheet metal duct for air distribution

AS Austra<mark>lian</mark> Stan<mark>dard</mark>s

1074 Steel tubes and tubulars for ordinary service

1163 Structural steel hollow sections

1281 Cement mortar lining of steel pipes and fittings

1396 Steel water bore casing

1450 Steel tubes for mechanical purposes

1518 Extruded high density polyethylene protective coating for pipes

1579 Arc welded steel pipes and fittings for water and waste water

1722 - 1 Pipe threads of whitworth form - sealing pipe threads

1722 - 2 Pipe threads of whitworth form - fastening pipe threads

2885-1 Pipelines - Gas and liquid petroleum Part 1: Design and Construction

4041 Pressure piping

4118 - 2.1 Fire sprinkler systems - piping - General

4750(INT)-200 Electrogalvanized (zinc) coatings on ferrous hollow sections

Coating Specifications:

CAN/CSA-Z245.20 External Fusion Bond Epoxy Coating for Steel Pipe

CAN/CSA Z245.21 External Polyethylene Coating for Pipe

LDIN 30670 Polyethylene Sheathing of Steel Tubes and of Steel Shaped Fittings

DNV-RP-F106 Factory Applied External Pipeline Coatings For Corrosion Control

EN 10286 Steel tubes and fittings for onshore and offshore pipelines –External three layer extruded polypropylene based coatings.

AS 3862 External Fusion-Bonded Epoxy Coating for Steel Pipes

AS/NZS 1518 External Extruded High-Density Polyethylene Coating System for Pipes

AS/NZS 1516 Cement Mortar Lining of Pipelines In Situ

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 & Tpae, 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 papli 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-paplied Tpae Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipe

AWWA C210: Liquid-Epoxy Coating Systems 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-paplied Tpae 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 C222-99: Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings

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

ISO/DIS 21809, Petroleum and natural gas industries -- External coatings for buried or submerged pipelines used in pipeline transportation systems - Part 1: Polyolefin coatings (3- layer PE and 3- layer PP)

-Part 2: Fusion-bonded epoxy coatings

IPS-G-TP-335 Material and Construction Standard for Three Layer Polyethylene Coating System BS 5493-Polyurethane

		Heavy	Plate Sp	pecifica	tion		
Low Alloy High Strength Steel Plate	12Mn , Q295 (A , B)	A572MGr.42	SS490	S275JR S275N	St44-3	43A	Fe430A
		A633MGr.A		S275NL		43B	Fe430B
	16Mn 14MnNd	A572MGr.50	SM490A	S355JR S355JO	St52-3	50A	E355DD
	Q345 (A.B.C.D.E)	A633MGr.C	SM490B	S355J2G3 S355J2G4		50B 50C	E355E Fe510B
	1.1 .	A633MGr.D	SM490C	S355K2G3 S355K2G4		50D 50DD	Fe510D
	1 Bar			S355N S355NL			2
	15MnV	A633MGr.50	SM490 (YA , YB)		StE380	50F	
	Q390 (A.B.C.D.E)	A572	SM520B				
	1 4	新年1 (3)(2)	SM520C		T' T		#1
	15MnVN	A572MGr.60	and the second	S420N	StW420		E420DD
	Q420 (A.B.C.D.E.)	A633MGr.E		S420NL			E420E
	WH60/Q460	A572MGr.65	SM570	S460N	StE460	55C	E460CC
	(C.D.E)	Sec.		S460NL		55EE	E460DD
	16 10	and the second second				1000	E460E
Steel Plate for Bridge Application	16Mnq 14 <mark>MnN</mark> dq	A709MGr.50	SM490 (A.B.C)	S355J2G3	St52-3	50B	E355DD
	16MnCUq	A572MGr.50	SM490YA	S355K2G3	StE355	50C	E355E
		A633MGr.D	SM490YB	. gr		50D	
			SM520B			50DD	
			SM520C				
	15MnVq				StE380		
	15MnVNq	A572MGr.60			StE420		
		A633MGr.E					

Heavy Plate Specification

	100						
Alloy Structural	40Cr	5140	SCr4400	41Cr4	41Cr4	25CrMo4	41Cr4
Steel	20Mn2	1524	SMn420	25CrMo4	13CrMo45	34CrMo4	22Mn6
	40Mn2	1340	SMn438	34CrMo4	25CrMo4	42CrMo4	42Mn6
	15CrMo	4130	SMn443	42CrMo4	34CrMo4		34CrMo4
	30CrMo	4137	SCM430		42CrMo4		42CrMo4
	35CrMo	4140	SCM435				
	42CrMo		SCM440	5			
	45 , SM45	1045	S45C S48C	1C45	1C45	1C45	C45E4
	50 , SM48 , SM50	1050	S50C S53C	1C50	1C50	1C50	C50E4
	55 . SM53 , SM55	1055	S55C S58C	1C55	1C55	1C55	C55E4
	SM3Gr2Mo	P20	SCr440	41Cr4	41Cr4		41Cr4
	40Cr	5140				二日二	
<u>jiy</u>	Q235 (A.B.C.D)	A283MGr.C	SS400	S235JR S235JO	St37-2	40 <mark>A 4</mark> 0B	Fe360 (A.B.C.D)
	Q275	A283MGr.D	SM400 (AB)	S235J2G3	St37-3	40C 40D	Fe430A
	20	1020	<mark>SS</mark> 490	1C22	1C22	1C22	C <mark>25E</mark> 4
	25	1025	S20C S22C	1C25	1C25	1C25	C30E4
	30	1030	S25C S28C	1C30	1C30	1C30	C35E4
	35	1035	S30C S33C	1C35	1C35	1C35	C40E4
	40	1040	S35C S38C	1C40	1C40	1C40	C45E4
1	45	1045	S40C S43C	1C45	1C45	1C45	C50E4
	50	1050	S45C S48C	1C50	1C50	1C50	C55E4
	55	1055	S50C S53C	1C55	1C55	1C55	SL, SM
	50Mn	1053	S55C S58C	2C50	2C50	2C50	
	The Carton	Same States	SWRH52B	- or the state	15		
Structural Steel Plate	HBS235 (Z)	A572MGr.42	SN400A	S235JO	St37-2	40B	Fe430A
for High Buildings		A633MGr.A	SN400B	S235J2G3	St37-3	40D	Fe430B
			SN400C				
	HBS345 (Z)	A572MGr.50	SN490B	S355J2G3	St52-3	355D	E355DD
			SN490C	S355K2G3	StE355	355E	E355E
				S355N		355EM	
				S355NL		355EMZ	
Ship-building	CCS	GL	ABS	DNV	BV	KR	LR
plate				2	2.		

A	А	А	NVA	А	А	A
В	В	В	NVB	В	В	В
С	С	С	NVD	С	С	С
D	D	D	NVE	D	D	D
A32	A32	AH32	NVAH32	AH32	AH32	AH32
D32	D32	DH32	NDH32	DH32	DH32	DH32
E32	E32	EH32	NVEH32	EH32	EH32	EH32
F32	F32	FH32	NVFH32	FH32	FH32	FH32
A36	A36	AH36	NVAH36	AH36	AH36	AH36
D36	D36	DH36	NVDH36	DH36	DH36	DH36
E36	E36	EH36	NVEH36	EH36	EH36	EH36
F36	F36	FH36	NVFH36	FH36	FH36	FH36

Pressure Vessel Plate	
ASTM A20/A20M Standard Specification for General Requirements for Steel Plates for Pressure Vessels	
ASTM A202/A202M Standard Specification for Pressure Vessel Plates, Alloy Steel, Chromium-Manganese-Silicon	A202(GrA.B)
ASTM A203/A203M Standard Specification for Pressure Vessel Plates, Alloy Steel, Nickel	A203(GrA.B.D.E.F)
ASTM A204/A204M Standard Specification for Pressure Vessel Plates, Alloy Steel, Molybdenum	A204(GrA.B.C)
ASTM A225/A225M Standard Specification for Pressure Vessel Plates, Alloy Steel, Manganese-Vanadium-Nickel	A225(GrC.D)
ASTM A240/A240M Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications	
ASTM A283/A283M Standard Specification for Pressure Vessel Plates, Carbon Steel, Low- and Intermediate-Tensile Strength	A283(GrA.B.C)
ASTM A285/A285M Standard Specification for Pressure Vessel Plates, Carbon Steel, Low- and Intermediate-Tensile Strength	A285(GrA.B.C)
ASTM A299/A299M Standard Specification for Pressure Vessel Plates, Carbon Steel, Manganese-Silicon	A299(GrA.B)
ASTM A302/A302M Standard Specification for Pressure Vessel Plates, Alloy Steel, Manganese-Molybdenum and Manganese-Molybdenum-Nickel	A302(GrA.B.C.D)
ASTM A353/A353M Standard Specification for Pressure Vessel Plates, Alloy Steel, 9 Percent Nickel, Double-Normalized and Tempered	
ASTM A387/A387M Standard Specification for Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum	A387(Gr2.11.12.21.21L.22.22L.5.9. 91.911)
ASTM A414/A414M Standard Specification for Steel, Sheet, Carbon, for Pressure Vessels	A414(GrA.B.C.D.E.F.G)
ASTM A455/A455M Standard Specification for Pressure Vessel Plates, Carbon Steel, High-Strength Manganese	
ASTM A515/A515M Standard Specification for Pressure Vessel Plates, Carbon Steel, for Intermediate- and Higher-Temperature Service	A515(Gr60.65.70)

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ASTM A516/A516M Standard Specification for Pressure Vessel Plates, Carbon Steel, for Moderate- and Lower-Temperature Service	A516(Gr55.60.65.70)
ASTM A517/A517M Standard Specification for Pressure Vessel Plates, Alloy Steel, High-Strength,Quenched and Tempered	A517(GrA.B.C.J) 1.25in,A517(GrH.K.M.S.T) 2in,A517GrP 4in A517GrF 2.5in,A517(GrE.Q) 6in
ASTM A533/A533M Standard Specification for Pressure Vessel Plates, Alloy Steel,	A533(GrA.B.C.D)
Quenched and Tempered, Manganese-Molybdenum and Manganese-Molybdenum-Nickel	A533(CL1.2.3)
ASTM A537/A537M Standard Specification for Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel	A537(CL1.2.3)
ASTM A542/A542M Standard Specification for Pressure Vessel Plates, Alloy Steel, Quenched-and-Tempered, Chromium-Molybdenum, and Chromium-Molybdenum-Vanadium	A542(CL1.2.3.4.4a)
ASTM A543/A54 <mark>3M S</mark> tandard Specification for Pressure Vessel Plates, Alloy Steel, Quenched and Tempered Nickel- Chromium-Molybdenum	A543(CL1.2.3)
ASTM A553/A553M Standard Specification for Pressure Vessel Plates, Alloy Steel, Quenched and Tempered 8 and 9 Percent Nickel	A553(Type1.11)
ASTM A612/A612M Standard Specification for Pressure Vessel Plates, Carbon Steel, High Strength, for Moderate and Lower Temperature Service	
ASTM A645/A645M Standard Specification for Pressure Vessel Plates, Five Percent Nickel Alloy Steel, Specially Heat Treated	
ASTM A662/A662M Standard Specification for Pressure Vessel Plates, Carbon-Manganese-Silicon Steel, for Moderate and Lower Temperature Service	A662(GrA.B.C)
ASTM A724/A724M Standard Specification for Pressure Vessel Plates, Carbon-Manganese-Silicon Steel, Quenched and Tempered, for Welded Layered Pressure Vessels	A724(GrA.B.C)
ASTM A734/A734M Standard Specification for Pressure Vessel Plates, Alloy Steel and High-Strength Low-Alloy Steel, Quenched-and-Tempered	A734(TypeA.B)
ASTM A735/A735M Standard Specification for Pressure Vessel Plates, Low-Carbon Manganese-Molybdenum-Columbium Alloy Steel, for Moderate and Lower Temperature Service	A735(CL1.2.3.4)
ASTM A736/A736M Standard Specification for Pressure Vessel Plates, Low-Carbon Age-Hardening Nickel-Copper-Chromium -Molybdenum-Columbium and Nickel-Copper-Manganese- Molybdenum-Columbium Alloy Steel	A736GrA/A736(CL1.2.3)
	A736GrC/A736(CL1.3)
ASTM A737/A737M Standard Specification for Pressure Vessel Plates, High-Strength, Low-Alloy Steel	A737(GrB.C)
ASTM A738/A738M Standard Specification for Pressure Vessel Plates, Heat-Treated, Carbon-Manganese-Silicon Steel, for Moderate and Lower Temperature Service	A738(GrA.B.C.D.E)
ASTM A782/A782M Standard Specification for Pressure-Vessel Plates, Quenched-and-Tempered, Manganese-Chromium- Molybdenum-Silicon Zirconium Alloy Steel	A782(CL1.2.3)
ASTM A832/A832M Standard Specification for Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum-Vanadium	A832(Gr21V.22V.23V)

ASTM A841/A841M Standard Specification for Steel Plates for Pressure Vessels, Produced by Thermo-Mechanical Control Process (TMCP)	A841(GrA.B.C.D.E.F)
	A841(CL1.2.3.4.5.6.7.8)
ASTM A844/A844M Standard Specification for Steel Plates, 9 % Nickel Alloy, for Pressure Vessels, Produced by the Direct-Quenching Process	
BS EN 10028-1:2003 Flat products made of steels for pressure purposes-Part 1: General requirements	
BS EN 10028-2:2003 Flat products made of steels for pressure purposes-Part 2: Non-alloy and alloy steels with specified elevated temperature properties	P235GH,P265GH,P295GH,P355G H,16Mo3,18MnMo4-5,20MnMoNi4- 5,15NiCuMoNb5-6-4,13CrMo4-5,1 3CrMoSi5-5,10CrMo9-10,12CrMo9 -10,X12CrMo5,13CrMoV9-10,12Cr MoV12-10,X10CrMoVNb9-1
BS EN 10028-3:2003 Flat products made of steels for pressure purposes-Part 3:Weldable fine grain steels-normalized	P275NH,P275NL1,P275NL2 P355N,P355NH,P355NL1,P355NL 2 P460NH,P460NL1,P460NL2
BS EN 10028-4:2003 Flat products made of steels for pressure purposes-Part 4:Nickel alloy steels with specified low temperature properties	11MnNi5-3, <mark>13M</mark> nNi6-3,15NiMn6,12 Ni14,X12Ni5,X7Ni9,X8Ni9
BS EN 10028-5:2003 Flat products made of steels for pressure purposes-Part 5:Weldable fine grain steels, thermomechanically rolled	P355M,P355ML1,P355ML2
	P420M,P420ML1,P420ML2 P460M,P460ML1,P460ML2
BS EN 10028-6:2003 Flat products made of steels for pressure purposes-Part 6:Weldable fine grain	P355Q,P355QH,P355QL1,P355QL 2
steels,quenched and tempered	P460Q,P460QH,P460QL1,P460QL 2
	P500Q,P500QH,P500QL1,P500QL 2
	P690Q,P690QH,P690QL1,P690QL 2

SA-515 Steel Plate Grades 55, 60, 65 and 70 as rolled and normalized Carbon Steel Plates for Intermediate Temperatures.

SA-516 Steel Plate Grades 55, 60, 65 and 70 as rolled and normalized Carbon Steel Plates for Moderate and Lower Temperatures. (Down to -50 deg. F)

SA-537 Steel Plate Class 1 and Class 2 Heat Treated (50k & 60k min. yield respectively) Carbon - Manganese - Silicon Steel Plates - Heat Treated.

SA-285 Steel Plate Grades A, B and C as rolled for tanks and pressure vessels Low and Intermediate Strength Carbon Steel

Plates.

SA-387 Steel Plate, Grades 5, 9, 11, 12, 22 and 91 Class 1 and 2 for elevated temp + corrosion Chromium - Molybdenum Alloy Steel Plates.

SA-203 Steel Plate Grades A, B, D, E and F Nickle Alloy Steel Plates. For low temperatures (-150 deg F)

SA-204 Steel Plate Grades A, B and C - Medium to high temp. Carbon - Molybdenum Alloy Steel Plates.

SA-302 Steel Plate Grades B, C and D - Heat Treated (80k min. tensile) Manganese - Molybdenum - Nickel Alloy Steel Plates.

Abrasion Resistant Steel Plate

AA-200 Steel Plate (AR200) 3/16 inch through 1-1/2 inch thick in 72 inch and 120 inch widths.

AA-400 Steel Plate (AR400) 3/16 inch through 2 inches thick in 72 inch, 96 inch and 120 inch widths.

AA-500 Steel Plate (AR500) 1/4 inch through 1-1/2 inches thick in 72 inch and 120 inch widths.

ASTM A-514 Structural Quality Steel Plate (90k-100k min-yield) 3/16 inch through 6 inches thick. 72 inch through 120 inch width.

Marine and Offshore Construction Steel Plate

API-2H Steel Plate (Grade 50, with Supplements) Also, API-2Y-60 Steel Plate

Supplement 1 - Ultrasonically tested to SA-578 Level II.

Supplement 3 - Physicals, tested per plate.

Supplement 4 - Through Thickness Tensile Test (Z directional).

Supplement 5 - .006 Max Sulphur, with Inclusion Shape Control.

Supplement 12 - Notch Toughness using drop weight - 5/8 inch and thicker.

REFERENCE: API-2H Steel Plate Grade 50, also dual certified and triple certified to corresponding grades of ASTM A633 Steel Grade C, ASTM A131 Steel, ABS Steel Grades DH36/EH36, as well as to ASTM SA537 Class I, Normalized (modified) and Mil-S-22698.

3/8 inch through 4 inches thickness in 96 to 150 inch widths, and lengths up to 600" long API-2MT1 Steel Plate As Rolled Steel Plate with Improved Toughness

ABS AMERICAN BUREAU OF SHIPPING SHIPBUILDING AND NAVAL STEEL PLATE A-36/ABS Grade AH36, ABS Grade DH36 and ABS Grade EH36

HY80 and HY100 MILITARY AND NAVAL GRADE STEEL PLATE Military (MILSPEC MIL-S-16216-K) Grade Steel Plate 3/16 inch through 4 inch thickness in up to 120 inch widths and 480 inch lengths.

Constructional and Structural Steel Plate

STM A656 Steel Plate Grade 80 Type 7 3/8 inch through 3/4 inch thickness in 96 inch widths and 360 inch lengths.

ASTM A514 Steel Plate (Quenched and Tempered) 3/16 inch through 6 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A572 Steel Plate (Grades 50/60) 3/16 inch through 4 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A588 Steel Plate (Grades A/B) 3/16 inch through 4 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A633 Steel Plate

http://www.klsteel.com



3/8 inch through 4 inch thickness in up to 151 inch widths and 600 inch lengths.

High Strength Low Alloy Carbon Steel Plate

ASTM A656 Grade 80 Type 7 Steel Plate Structural Steel Plate with Improved Formability 3/8 inch through 3/4 inch thickness in 96 inch widths and 360 inch lengths.

ASTM A514 Structural Steel Plate High Yield Strength, Quenched and Tempered Alloy Steel Plate 3/16 inch through 6 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A572 Structural Steel Plate (Grades 50/60) High-Strength Low-Alloy Columbium-Vanadium Steel Plate 3/16 inch through 4 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A588 Structural Steel Plate (Grades A/B) High-Strength Low-Alloy Steel Plate 3/16 inch through 4 inch thickness in up to 120 inch widths and 480 inch lengths.

ASTM A633 Structural Steel Plate Normalized High-Strength Low-Alloy Steel Plate 3/8 inch through 4 inch thickness in up to 151 inch widths and 480 inch lengths.