# Appendix II

# **ASTM STAINLESS STEEL STANDARDS**

#### **Specifications**

A167	Plate, sheet and strip, chromium-nickel	A453	Bolting materials, high temperature, 50 to 120 ksi
A176	Plate, sheet and strip, chromium		yield strength with expansion coefficients compa-
A182	Forged flanges, fittings and valves		rable to austenitic steels
A193	Bolts	A473	Forgings
A194	Nuts	A478	Weaving wire, chromium-nickel
A213	Seamless ferritic and austenitic alloy boiler,	A479	Bars and shapes for use in boilers and other
	superheater and heat exchanger tubes		pressure vessels
A217	Castings, martensitic stainless and alloy	A480	General requirements for plate, sheet and strip
A240	Plate, sheet and strip for pressure vessels	A484	General requirements for bars, billets and forgings
A249	Tubes, welded boiler, superheater, heat-exchanger	A487	Castings suitable for pressure service, martensitic
	and condenser, austenitic	A492	Rope wire
A263	Clad plate, sheet and strip, chromium	A493	Cold heading and cold forging bar and wire
A264	Clad plate, sheet and strip, chromium-nickel	A498	Seamless and welded carbon, ferritic and austenitic
A268	Tubing, seamless and welded, ferritic		alloy heat exchanger tubes with integral fins
A269	Tubing, seamless and welded, austenitic	A511	Seamless mechanical tubing
A270	Sanitary tubing, austenitic	A530	Specialized carbon and alloy steel pipe, general
A271	Still tubes for refinery service, seamless, austenitic		requirements
A276	Bars and shapes	A554	Welded mechanical tubing
A297	Castings, iron-chromium, iron-chromium-nickel,	A555	General requirements for wire and wire rods
	heat resistant, for general application	A564	Bars and shapes, hot-rolled and cold-finished, age
A312	Pipe, austenitic		hardening
A313	Spring wire, chromium-nickel	A565	Bars, forgings and forging stock for high tempera-
A314	Bars and billets for forging		ture service, martensitic
A320	Bolting for low temperature service	A579	Superstrength alloy forgings
A336	Forgings for pressure and high temperature parts	A580	Wire
A351	Castings for pressure-containing parts, austenitic,	A581	Wire, free-machining
	austenitic-ferritic (duplex)	A582	Bars, hot-rolled or cold-finished, free-machining
A352	Castings for pressure-containing parts suitable for	A608	Centrifugally cast iron-chromium nickel high alloy
	low temperature service, ferritic and martensitic		tubing for pressure application at high tempera-
A356	Heavy-walled castings for steam turbines		tures
A358	Electric fusion welded pipe, austenitic	A632	Seamless and welded tubing, small diameter, for
A368	Wire strand		general service, austenitic
A376	Pipe for high-temperature central station service,	A638	Iron-base superalloy bars, forgings and forging
	austenitic		stock for high temperature service, precipitation
A403	Pipe fittings		hardening
A409	Welded large diameter pipe, austenitic	A666	Sheet, strip, plate and flat bar, for structural and
A426	Centrifugally-cast pipe, ferritic		architectural applications, austenitic
A430	Forged and bored pipe, austenitic	A688	Welded feedwater heater tubes, austenitic
A437	Alloy steel turbine-type bolting material specially	A693	Plate, sheet and strip, precipitation hardening
	heat treated for high temperature service	A705	Forgings, age hardening
A447	Castings for high temperature service, chromium-	A733	Welded and seamless carbon steel and austenitic
	nickel-iron		stainless steel pipe nipples
A450	General requirements for tubes, austenitic and	A743	Castings, iron-chromium, iron-chromium-nickel and
	ferritic		nickle-base, corrosion resistant, for general service
A451	Centrifugally cast austenitic steel pipe for high	A744	Castings, iron-chromium-nickel, for severe service
	temperature service	A747	Castings precipitation hardening

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containing and other applications for low temperature service  A771 Tubing for breeder reactor core components, austenitic  A774 As-welded fittings for general corrosive service at low and moderate temperatures, austenitic  A778 Welded tubular products, unannealed austenitic  A781 Castings, common requirements for general industrial use  A789 Seamless and welded tubing for general service, ferritic/austenitic  A790 Seamless and welded pipe, ferritic/austenitic  A791 Welded tubing, unannealed ferritic  A792 Rolled floor plate, austenitic  A793 Rolled floor plate, austenitic  A793 Rolled floor plate, austenitic  A794 Tubing for breeder reactor core components, and N08026 and N08026 and N08026 and N08026 and N08026 and N08026 alloy plate, sheet and strip  B463 UNS N08020, N08024 and N08026 alloy plate, sheet and strip  B464 Welded UNS N08020, N08024, and N08026 alloy pipe  B465 UNS N08020, N08024, and N08026 alloy spring wire  B466 Welded UNS N08020, N08024 and N08026 alloy spring wire  B471 UNS N08020, N08024 and N08026 alloy spring wire  B472 UNS N08020, N08024, N08026, N08367, N08926 and  R20033 nickel alloy billets and bars for reforging  R0194 R0195 R0196	A756	Anti-friction bearing steel	B407	Nickel-iron-chromium seamless pipe and tube
Ar71 Tubing for breeder reactor core components, austentitic and ferriticaustentitic articles and welded tubing for general corrosive service at low and moderate temperatures, austentitic articles and welded tubing for general corrosive service at low and moderate temperatures, austentitic articles and welded tubing frogeneral industrial use articles and welded tubing for general service, ferriticaustentitic general industrial use articles and welded tubing for general service, ferriticaustentitic general for general service, ferriticaustentitic general genera	A757	Castings, ferritic and martensitic for pressure-	B409	Nickel-iron-chromium plate, sheet and strip
Ar71 Tubing for breeder reactor core components, austentitic and ferriticaustentitic articles and welded tubing for general corrosive service at low and moderate temperatures, austentitic articles and welded tubing for general corrosive service at low and moderate temperatures, austentitic articles and welded tubing frogeneral industrial use articles and welded tubing for general service, ferriticaustentitic general industrial use articles and welded tubing for general service, ferriticaustentitic general for general service, ferriticaustentitic general genera			B462	Forged or rolled UNS N08020, N08024, N08026 and
austenitic A774 As-welded fittings for general corrosive service at low and moderate temperatures, austenitic A78 Welded tubular products, unannealed austenitic and strip Castings, common requirements for general industrial use A78 Seamless and welded tubing for general service, ferritic/austenitic A79 Seamless and welded tubing for general service, ferritic/austenitic A79 Seamless and welded tubing, interest tubes, austenitic A79 Rolled floor plate, austenitic A79 Rolled floor plate, austenitic A81 Single-or double-welded pipe, austenitic A81 Pipe fittings, ferritic/austenitic and ferritic austenitic and ferritic austenitic austenitic and ferritic austenitic ferritic austenitic ferritic austenitic ferritic austenitic ferritic austenitic ferritic austenitic ferritic austen		ture service		N08367 alloy pipe flanges, forged fittings, and
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A781 Castings, common requirements for general industrial use industrial use industrial use sand welded tubing for general service, ferritic/austenitic scamless and welded tubing for general service, ferritic/austenitic scamless and welded pipe, ferritic/austenitic B479 Welded tubing, unannealed ferritic B470 Welded tubing, unannealed ferritic B470 Welded for feedwater heater tubes, ferritic B471 Welded for feedwater heater tubes, ferritic B472 Welded for feedwater heater tubes, ferritic B473 Single-or double-welded pipe, austenitic B473 Single-or double-welded pipe, austenitic B474 Single-or double-welded pipe, austenitic B475 Single-or double-welded pipe, austenitic B476 Single-or double-welded condenser tubes, austenitic and ferritic B476 Single-or double-welded condenser sub-sa, austenitic Single-or double-welded condenser sub-sa, austenitic B476 Single-or double-welded condenser sub-sa, austenitic B476 Single-or double-welded condenser sub-sa, austenitic B476 Single-or double-welded single-or double-welded single-or double-welded single-or d	A774	As-welded fittings for general corrosive service at	B463	UNS N08020, N08024 and N08026 alloy plate, sheet
A781 Castings, common requirements for general industrial use surface and welded tubing for general service, ferritic/austentitic sand welded pipe, ferritic/austentitic sand welded tubing, unannealed ferritic sand welded floor plate, austentitic sand sand strip for more sand welded pipe, austentitic sand sand sand sand sand sand sand sand		low and moderate temperatures, austenitic		and strip
industrial use AR9 Scamless and welded tubing for general service, ferritic/austenitic Scamless and welded pipe, ferritic/austenitic Scamless and welded pipe, ferritic/austenitic B471 UNS N08020, N08024, N08026 alloy spring wire LNS N08020, N08024, N08026 alloy spring wire LNS N08020, N08024, N08026, N08326 alloy spring wire R01064 floor plate, austenitic R0303 nickel alloy biltes and bars for reforging and wire Lold-worked welded pipe, austenitic R041 Single-or double-welded pipe, austenitic R052 Defermed ferritic/austenitic and martensitic R054 Duct tubes for breeder reactor core components, austenitic and ferritic R054 Duct tubes for breeder reactor core components, austenitic and ferritic austenitic and austenitic and austenitic and austenitic and austenitic and austenitic austeni	A778	Welded tubular products, unannealed austenitic	B464	Welded UNS N08020, N08024, and N08026 alloy
A789 Seamless and welded rubing for general service, ferritic/austenitic artic/austenitic B479 Seamless and welded pipe, ferritic/austenitic B479 Welded tubing, unannealed ferritic B479 Welded floor plate, austenitic B479 Welded floor plate, austenitic B479 Welded floor plate, austenitic B479 Welded feedwater heater tubes, ferritic B4813 Single-or double-welded pipe, austenitic B4814 Cold-worked welded pipe, austenitic B4815 Pipe fittings, ferritic, ferritic/austenitic and martensitic A816 Duct tubes for breeder reactor core components, austenitic and ferritic austenitic and forgings for use in core components are vibes, austenitic and ferritic a	A781	Castings, common requirements for general		pipe
A790 Seamless and weltded pipe, ferritic/austenitic A791 Welded tubing, unannealed ferritic A791 Welded tubing, unannealed ferritic A792 Rolled floor plate, austenitic A793 Welded floor plate, austenitic A794 Welded floor plate, austenitic A803 Welded feedwater heater tubes, ferritic A813 Single-or double-welded pipe, austenitic A814 Cold-worked welded pipe, austenitic A815 Pipe fittings, ferritic, ferritic/austenitic A816 Pipe fittings, ferritic, ferritic/austenitic A817 Diversible and forgings for use in core components, austenitic and ferritic A818 Bars, billets and forgings for use in core components A819 High-frequency, induction-welded condenser ubbes, austenitic A819 High-frequency, induction-welded condenser ubes, austenitic A820 Centrifugally cast pipe for corrosive environments, ferritic/austenitic A837 Centrifugally cast pipe for corrosive environments, ferritic/austenitic A839 Borated stainless steel plate, sheet and strip for nuclear applications A849 Spary-formed seamless pipe, for machining A850 Plate, sheet and strip, from methal induced to the propertic of the		industrial use	B468	Welded UNS N08020, N08024 and N08026 alloy
A799 Kelded tubing, unannealed ferritic A791 Rolled floor plate, austenitic A792 Rolled floor plate, austenitic A793 Rolled floor plate, austenitic A794 Rolled floor plate, austenitic A795 Rolled floor plate, austenitic A796 Rolled floor plate, austenitic A797 Rolled floor plate, austenitic A798 Rolled floor plate, austenitic A799 Rolled floor plate, austenitic A790 Rolled floor plate, sheet and strip for nents A791 Rolled floor plate, sheet and strip, free machining A792 Plate, sheet and strip, free machining A793 Rolled floor plate, sheet and strip for metal, ferritic/austenitic (alley) Rolled floor governments, and welded tubing, austenitic formium-nickel-silicon alloy A794 Seamless and welded pipe, austenitic chromium-nickel-silicon alloy A795 Porformed and plain bars for reforging and tube A796 Control of the floor floor governments for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Gamess and kelded nipe, austenitic chromium-nickel-silicon alloy A799 Seamless and welded pipe, austenitic chromium-nickel-silicon alloy A799 Seamless and welded pipe, austenitic chromium-nickel-nolybdenum requirements for general industrial use A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A799 Guide for specifying harmonized standard grade compositions for wrought stainless steels A790 Seamless nickel and nickel alloy condenser and heat exchanger tubes A790 Guide for specifying harmonized standard grade compositions for wrought stainless steels A790 Seamless nickel and nickel alloy condenser and heat exchanger tubes A790 Seamless nick	A789	Seamless and welded tubing for general service,		tubes
A791 Rolled floor plate, austenitic A803 Welded feedwater heater tubes, ferritic A813 Single-or double-welded pipe, austenitic A814 Cold-worked welded pipe, austenitic A815 Pipe fittings, ferritic, ferritic/austenitic and martensitic A816 Duct tubes for breeder reactor core components, austenitic and ferritic A817 Bars, billets and ferritic A818 Bars, billets and ferritic A819 Duct tubes for breeder reactor core components, austenitic and ferritic A819 Bars, billets and ferritic A820 Duct tubes for breeder reactor core components, austenitic and ferritic A821 Bars, billets and ferritic A821 Bars, billets and ferritic A822 Duct tubes for breeder reactor core components, austenitic and ferritic A823 Bars, billets and forgings for use in core components, austenitic and ferritic A824 Bars, billets and forgings for use in core components, austenitic and ferritic A825 Bars billets and ferritic and wive liked UNS N08020, N08024 and N08024 and N08024 and N08026 nickel alloy pine welded UNS N08020, N080204 and N08026 nickel alloy por nound weaving wire A826 Duct tubes for breeder reactor core components, austenitic and ferritic austenitic and ferritic bear austenitic and martensitic work welded pipe austenitic and martensitic work welded pipe austenitic and martensitic austenitic and ferritic bear austenitic and wavel in the pipe ferritic/austenitic austenitic austenitic and ferritic bear austenitic and wavel austenitic and wavel austenitic and wavel austenitic and martensitic and wavel austenitic and martensitic austenitic and martensitic austenitic and martensitic austenitic and and ferritic bear austenitic and wavel austenitic and martensitic austenitic and martensitic austenitic and martensitic austenitic and martensitic austenitic and and strip for nuclear applications and strip for nuclear applications and wheels, precipitation hardening disks and wheels, precipitation hardening and wheels and strip, free machining and wheels and strip, free machining and provided and provided and provided and provided and provide		ferritic/austenitic	B471	UNS N08020, N08024 and N08026 alloy spring wire
A939 Welded floor plate, austenitic A810 Welded feedwater heater tubes, ferritic's A811 Single-or double-welded pipe, austenitie A812 Cold-worked welded pipe, austenitic A813 Single-or double-welded pipe, austenitic A814 Pipe fittings, ferritic, ferritic/austenitic and martensitic A826 Duct tubes for breeder reactor core components, austenitic and ferritic A827 Bars, billets and forgings for use in core components A828 Bars, billets and forgings for use in core components A829 Ligh-frequency, induction-welded condenser tubes, austenitic A829 Centrifugally cast pipe for corrosive environments, ferritic/austenitic A829 Centrifugally cast pipe for corrosive environments, ferritic/austenitic A839 Borated stainless steel plate, sheet and strip for nuclear application, duplex (austenitic/ferritic) A849 Inon-base superalloy forgings for turbine rotor disks and wheels, precipitation hardening A840 Spary-formed seamless pipe, austenitic homoium-nickel-silicon alloy A940 Spray-formed seamless pipe, austenitic homoium-nickel-silicon alloy A941 Spray-formed seamless pipe, austenitic homoium-nickel-silicon alloy A940 Spray-formed and plain bars for concrete reinforcement nockel-silicon alloy A950 Common requirements for general industrial use A960 Common requirements for general industrial use A960 Common requirements for swrought staeles gipe, austenitic chromium-requirements for general industrial use A960 Common requirements for wrought steel pipe filtings A968 Bars and shapes, chromium-nickel-silicon alloy A968 Bars and shapes, chromium-nickel and nickel alloy condenser and have and trip and wire A969 Common requirements for wrought steel pipe filtings A968 Bars and shapes, chromium-nickel and nickel alloy condenser and have and wire A969 Common requirements for wrought steel pipe filtings A968 Bars and shapes, chromium-nickel-silicon alloy A968 Bars and shapes, chromium-nickel and nickel alloy condenser and have and wire A969 Common requirements for wrought steel pipe filtings A960 Common requirements for wrought steel	A790		B472	UNS N08020, N08024, N08026, N08367, N08926 and
Melded feedwater heater tubes, ferritic   Single-or double-welded pipe, austenitic   Single-or double-or	A791	Welded tubing, unannealed ferritic		R20033 nickel alloy billets and bars for reforging
A813 Single-or double-welded pipe, austenitic A814 Cold-worked welded pipe, austenitic A815 Pipe fittings, ferritic, furtitic/austenitic and martensitic A826 Duct tubes for breeder reactor core components, austenitic and ferritic A827 Description of the properties	A793		B473	UNS N08020, N08024 and N08026 nickel alloy bar
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martensitic  Duct tubes for breeder reactor core components, austenitic and ferritic  A826 Duct tubes for breeder reactor core components, austenitic and ferritic  B351 Nickel-chromium-silicon alloy (N08330) billets and bars nents  B351 Welded nickel-iron-chromium alloy pipe  B353 Welded nickel-iron-chromium alloy pipe  B354 Welded nickel-iron-chromium alloy pipe  B355 Nickel-iron-chromium-silicon alloy (N08330 and N08311 alloy tubes, austenitic  Centrifugally cast pipe for corrosive environments, ferritic/austenitic  A872 Centrifugally cast pipe for corrosive environments, ferritic/austenitic  A887 Borated stainless steel plate, sheet and strip for nuclear applications  A889 Castings, iron-chromium-nickel-molybdenum, for general application, duplex (austenitic/ferritic)  A890 Castings, iron-chromium-nickel-molybdenum, for general application, duplex (austenitic/ferritic)  A891 Iron-base superalloy forgings for turbine rotor disks and wheels, precipitation hardening  A898 Plate, sheet and strip, free machining  A899 Pipe, electric fusion welded with addition of filler metal, ferritic/austenitic (duplex)  A940 Spray-formed seamless pipes, austenitic  A941 Spray-formed seamless pipe, ferritic/austenitic  A942 Spray-formed seamless pipe, ferritic/austenitic  A943 Spray-formed seamless pipe, ferritic/austenitic  A944 Spray-formed seamless pipe, ferritic/austenitic  A945 Seamless and welded tubing, austenitic chromium-nickel-silicon alloy  A945 Seamless and welded tubing, austenitic chromium-nickel-silicon alloy  A945 Seamless and welded pipe, austenitic chromium-nickel-silicon alloy  A950 Peformed and plain bars for concrete reinforcement nickel-silicon alloy  A951 Nickel-iron-chromium-nickel-indopy and notation alloy sologologologologologologologologologolo				* * *
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.021	components	Forgin	ngs (ASTM Volume 02.04)
4955	Deformed and plain bars for concrete reinforcement	B462	Forged or rolled UNS N08020, N08024, N08026 and
1755	01.04	D <del>1</del> 02	
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1700	Bais and snapes, emonitum-meker-sineon anoy		valves and parts for corrosive high-temperature
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3472	STM Volume 02.04)  LING NOROZO NIOROZA NIOROZA NIORZAZ NIOROZA 2004	B472	UNS N08020, N08024, N08026, N08367, N08926 and
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2472	R20033 nickel alloy billets and bars for reforging	B564	Nickel alloy forgings
3473	UNS N08020, N08024 and N08026 nickel alloy bar	74	
2511	and wire		ASTM Volume 01.01)
3511	Nickel-iron-chromium-silicon alloy bars and shapes	A312	Pipe, austenitic
3512	Nickel-chromium-silicon alloy (N08330) billets	A358	Electric fusion welded pipe, austenitic
	and bars	A376	Pipe for high-temperature central station service,
3649	Ni-Fe-Cr-Mo-Cu low carbon alloy (N08904), Ni-Fe-		austenitic
	Cr-Mo-Cu-N low carbon alloys (N08925, N08031	A409	Welded large diameter pipe, austenitic
	and N089260) and Cr-Ni-Fe-N low carbon alloy	A426	Centrifugally-cast pipe, ferritic
	(R20033) bar and wire	A430	Forged and bored pipe, austenitic
3672	Nickel-iron-chromium-molybdenum-columbium	A530	Specialized carbon and alloy steel pipe, general
	stablilized (N08700) bar and wire		requirements
3691	Iron-nickel-chromium-molybdenum alloys (N08366	A733	Welded and seamless carbon steel and austenitic
	and N08367) rod, bar and wire		stainless steel pipe nipples
		A790	Seamless and welded pipe, ferritic/austenitic
Casting	gs (ASTM Volume 01.02)	A813	Single- or double-welded pipe, austenitic
<b>A</b> 217	Castings, martensitic stainless and alloy	A814	Cold-worked welded pipe, austenitic
<b>A</b> 297	Castings, iron-chromium, iron-chromium-nickel,	A815	Pipe fittings, ferritic, ferritic/austenitic and
	heat resistant, for general application		martensitic
<b>A</b> 351	Castings for pressure-containing parts, austenitic,	A872	Centrifugally cast pipe for corrosive environments,
	austenitic-ferritic (duplex)		ferritic/austenitic
<b>A</b> 352	Castings for pressure-containing parts suitable for	A928	Pipe, electric fusion welded with addition of filler
	low temperature service, ferritic and martensitic		metal, ferritic/austenitic (duplex)
<b>A</b> 356	Heavy-walled castings for steam turbines	A943	Spray-formed seamless pipe, austenitic
<b>\44</b> 7	Castings for high temperature service, chromium-	A949	Spray-formed seamless pipe, ferritic/austenitic
	nickel-iron	A954	Seamless and welded pipe, austenitic chromium-
<b>A</b> 487	Castings suitable for pressure service, martensitic	1100	nickel-silicon alloy
A608	Centrifugally cast iron-chromium nickel high alloy	A960	Common requirements for wrought steel pipe
	tubing for pressure application at high tempera-	11000	fittings
	tures		nungs
<b>1743</b>	Castings, iron-chromium, iron-chromium-nickel and	Pine (A	ASTM Volume 02.04)
17 13	nickle-base, corrosion resistant, for general service	B407	· · · · · · · · · · · · · · · · · · ·
<b>\</b> 744	Castings, iron-chromium-nickel, for severe service	B462	Nickel-iron-chromium seamless pipe and tube
<b>1</b> 747	Castings, precipitation hardening	D <del>4</del> 02	Forged or rolled UNS N08020, N08024, N08026 and
\757	Castings, precipitation hardening Castings, ferritic and martensitic for pressure-		N08367 alloy pipe flanges, forged fittings, and
1/3/			valves and parts for corrosive high-temperature
	containing and other applications for low tempera-	D464	service
<b>\</b> 781	ture service	B464	Welded UNS N08020, N08024, and N08026 alloy
1/01	Castings, common requirements for general	D.47.4	pipe
. 000	industrial use	B474	Electric fusion welded UNS N08020, N08024 and
1890	Castings, iron-chromium-nickel-molybdenum, for		N08026 nickel alloy pipe
067	general application, duplex (austenitic/ferritic)	B514	Welded nickel-iron-chromium alloy pipe (N08330
<b>\</b> 957	Investment castings, steel and alloy, common		and N08332) seamless pipe and tube
	requirements for general industrial use	B546	Electric fusion welded Ni-Cr-Co-Mo alloy (N06617),
			Ni-Fe-Cr-Si alloys (N08330 and N08332), Ni-Cr-Fe
			alloy (N06025), and Ni-Cr-Fe-Si alloy (N06045) pipe

B673	UNS N08904, N08925, and N08926 welded pipe	A778	Welded tubular products, unannealed austenitic
B675	UNS N08366 and N08367 welded pipe	A789	Seamless and welded tubing for general service,
<b>B67</b> 7	UNS N08904, N08925 and N08926 seamless pipe		ferritic/austenitic
T- 400	and tube	A791	Welded tubing, unannealed ferritic
B690	Iron-nickel-chromium-molybdenum alloys (N08366	A803	Welded feedwater heater tubes, ferritic
	and N08367) seamless pipe and tube	A803	Welded feedwater heater tubes, ferritic
B710	Nickel-iron-chromium-silicon alloy welded pipe	A826	Duct tubes for breeder reactor core components,
B729	Seamless UNS N08020, N08026 and N08024, nickel		austenitic and ferritic
	alloy pipe and tube	A851	High-frequency, induction-welded condenser
			tubes, austenitic
	Sheet and Strip (ASTM Vol. 01.03)	A908	Needle tubing
A167	Plate, sheet and strip, chromium-nickel	A953	Seamless and welded tubing, austenitic chromium-
A176	Plate, sheet and strip, chromium		nickel-silicon alloy
A240	Plate, sheet and strip for pressure vessels		
A263	Clad plate, sheet and strip, chromium		ASTM Volume 02.04)
A264	Clad plate, sheet and strip, chromium-nickel	B163	Seamless nickel and nickel alloy condenser and
A666	Sheet, strip, plate and flat bar, for structural and		heat exchanger tubes
	architectural applications, austenitic	B407	Nickel-iron-chromium seamless pipe and tube
A693	Plate, sheet and strip, precipitation hardening	B468	Welded UNS N08020, N08024 and N08026 alloy
A793	Rolled floor plate, austenitic		tubes
A887	Borated stainless steel plate, sheet and strip for	B515	Welded UNS N08800, N08810 and N08811 alloy
	nuclear applications		tubes
A895	Plate, sheet and strip, free machining	B535	Nickel-iron-chromium-silicon alloys (N08330 and
A946	Plate, sheet and strip, chromium-nickel-silicon alloy		N08332) seamless pipe and tube
A947M	Textured sheet	B674	UNS N08904, N08925 and N08926 welded tube
		B676	UNS N08366 and N08367 welded tube
	Sheet and Strip (ASTM Vol. 02.04)	B677	UNS N08904, N08925 and N08926 seamless pipe
B409	Nickel-iron-chromium plate, sheet and strip		and tube
B599	Nickel-iron-chromium-molybdenum-columbium	B690	Iron-nickel-chromium-molybdenum alloys (N08366
5.45	stabilized alloy (N08700) plate, sheet and strip		and N08367) seamless pipe and
B625	UNS N08904, N08925, N08031, N08932, N09926 and	B729	Seamless UNS N08020, N08026 and N08024, nickel
D 600	R20033 plate, sheet and strip		alloy pipe and tube
B688	Chromium-nickel-molybdenum-iron (N08366 and	B739	Nickel-iron-chromium-silicon alloy welded tube
	N08367) plate, sheet and strip		
77. I. (A	CITIZEN I OF OF		and Wire Rod (ASTM Volume 01.03)
	ASTM Volume 01.01)	A313	Spring wire, chromium-nickel
A213	Seamless ferritic and austenitic alloy boiler,	A368	Wire strand
. 2.40	superheater and heat exchanger tubes	A478	Weaving wire, chromium-nickel
A249	Tubes, welded boiler, superheater, heat-exchanger	A492	Rope wire
1000	and condenser, austenitic	A493	Cold heading and cold forging bar and wire
A268	Tubing, seamless and welded, ferritic	A555	General requirements for wire and wire rods
A269	Tubing, seamless and welded, austenitic	A580	Wire
A270	Sanitary tubing, austenitic	A581	Wire, free-machining
A271	Still tubes for refinery service, seamless, austenitic		
A450	General requirements for tubes, austenitic and		nd Wire Rod (ASTM Volume 02.04)
4.400	ferritic	B471	UNS N08020, N08024 and N08026 alloy spring wire
A498	Seamless and welded carbon, ferritic and austenitic	B473	UNS N08020, N08024 and N08026 nickel alloy bar
4.51.1	alloy heat exchanger tubes with integral fins		and wire
A511	Seamless mechanical tubing	B475	UNS N08020, N08024 and N08026 nickel alloy
A554	Welded mechanical tubing		round weaving wire
A608	Centrifugally cast iron-chromium nickel high alloy	B649	Ni-Fe-Cr-Mo-Cu low carbon alloy (N08904), Ni-Fe-
	tubing for pressure application at high tempera-		Cr-Mo-Cu-N low carbon alloys (N08925, N08031
A (22	tures		and N089260) and Cr-Ni-Fe-N low carbon alloy
A632	Seamless and welded tubing, small diameter, for	P	(R20033) bar and wire
A COO	general service, austenitic	B672	Nickel-iron-chromium-molybdenum-columbium
A688	Welded feedwater heater tubes, austenitic	D	stablilized (N08700) bar and wire
A771	Tubing for breeder reactor core components,	B691	Iron-nickel-chromium-molybdenum alloys (N08366
	austenitic		and N08367) rod, bar and wire

# **Stainless Steel Specifications According** to Product Type

#### **Architectural Applications**

A666 Sheet, strip, plate and flat bar, for structural and architectural applications, austenitic (ASTM Volume 01.03)

A947M Textured sheet (ASTM Vol. 01.03)

#### **Bearings (ASTM Volume 01.05)**

A756 Anti-friction bearing steel

#### **Bolts and Nuts (ASTM Volume 01.01)**

A193 Bolts A194 Nuts

A320 Bolting for low temperature service

A437 Alloy steel turbine-type bolting material specially heat treated for high temperature service

A453 Bolting materials, high temperature, 50 to 120 ksi yield strength with expansion coefficients comparable to austenitic steels

#### Fasteners (ASTM Volume 15.08)

F593 Bolts, hex cap screws and studs

F594 Nuts

F738M Metric bolts, screws and studs

F836M Metric nuts

F837 Socket head cap screws

F879M Metric socket button and flat countersunk cap

screws

F880 Socket set screws

#### Fittings, Flanges & Valves (ASTM Volume 01.01)

A182 Forged flanges, fittings and valves

A403 Pipe fittings

A774 As-welded fittings for general corrosive service at low and moderate temperatures, austenitic

A815 Pipe fittings, ferritic, ferritic/austenitic and martensitic

Fittings, Flanges & Valves (ASTM Volume 02.04)

B366 Factory-made wrought nickel and nickel alloy fittings

fittings

B462 Forged or rolled UNS N08020, N08024, N08026 and N08367 alloy pipe flanges, forged fittings, and valves and parts for corrosive high-temperature service

#### Floor Plate (ASTM Volume 01.03)

A793 Rolled floor plate, austenitic

## **Industrial Wire Cloth, Screens & Perforated Plate (ASTM Vol. 14.02)**

E437 Industrial wire cloth and screens (square opening series)

E454 Industrial perforated plate and screens (square opening series)

E674 Industrial perforated plate and screens (round opening series)

#### Needle Tubing (ASTM Volume 01.01)

A908 Needle tubing

#### **Nuclear Applications**

F1350

A771 Tubing for breeder reactor core components, austenitic (01.01)

A826 Duct tubes for breeder reactor core components, austenitic and ferritic (01.01)

A831 Bars, billets and forgings for use in core components (01.03)

A887 Borated stainless steel plate, sheet and strip for nuclear applications (01.03)

#### Sanitary Tubing (ASTM Volume 01.01)

Surgical fixation wire

A270 Sanitary tubing, austenitic

#### **Surgical Implant Materials (ASTM Volume 13.01)**

F55 Surgical implants, bar and wire F56 Surgical implants, sheet and strip F138 Surgical implants, bar and wire, special quality F139 Surgical implants, sheet and strip, special quality F352 Lock washers (surgical implants) Forgings for surgical implants F621 F642 Flexible wire for surgical fixations for soft tissue F745 Shot/bar/ingot for cast/solution treated implants F899 Billet, bar and wire for surgical instruments F1079 Inserted and noninserted surgical scissors F1314 Bar and wire for surgical implants, nitrogenstrengthened high manganese high chromium