

재료규격 대비표

ASTM		K S		J I S	
규격	등급	기호	기호 (구)	기호 (신)	
A 27	Mild-to Medium-Strength Carbon Steel Casting				
	Gr. 60 - 30	SC 42	SC 42		
	Gr. 65 - 35	SC 46	SC 46		
	Gr. 70 - 36	SC 49	SC 49		
A 48	Gray Cast Castings				
	CI No. 20A~C	GC 15	FC 15		
	CI No. 30A~C	GC 20	FC 20		
	CI No. 35A~C	GC 25	FC 25		
	CI No. 40A~C	GC 30	FC 30		
A 53	Welded and Seamless Pipe				
	Gr.A, Type S.	SPPS 38-S	STPG 38-S	STPG 370-S	
	Gr.B, Type S.	SPPS 42-S	STPG 42-S	STPG 410-S	
	Gr.A, Type E.	SPPS 38-E	STPG 38-E	STPG 370-E	
	Gr.B, Type E.	SPPS 42-E	STPG 42-E	STPG 410-E	
A 105	Forgings. Carbon Steel for Piping Components				
		SF 50	SF 50	SF 490	
		SF 50	SF 50PV	SF 490PV	
		SF 45	SF 45	SF 440	
		SM 30C	S 30 C		
		SM 25C	S 25 C		
A 106	Seamless Carbon Steel Pipe for High-Temperature Service				
	Gr. A	SPPH 38	STS 38	STS 370	
		SPHT 38-S	STPT 38-S	STPT 370-S	
	Gr. B	SPPH 42	STS 42	STS 410	
		SPHT 42-S	STPT 42-S	STPT 410-S	
	Gr. C	SPPH 49	STS 49		
		SPHT 49-S	STPT 49-S		
A 126	Gray Iron Castings for Valves, Flanges and Pipe Fittings				
	CI. A	GC 15	FC 15		
	CI. B	GC 20	FC 20		

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A 126	Cl. C	GC 25	FC 30		
		GC 30	FC 30		
A 181	Forged or Rolled Steel Pipe Flanges, Forged Fittings and, Valve & Parts for General Service				
	Gr. I	SF 40	SF 40		
		SF 45	SF 45PV		
	Gr. II	SF 50	SF 50		
		SF 50	SF 50PV		
A 182	Forged or Rolled Steel Pipe Flanges, Forged Fittings &, Valve & Parts for High-Temp. Services				
	F 304	STSF 304	SUSF 304		
	F 304H	STSF 304H	SUSF 304H		
	F 304L	STSF 304L	SUSF 304L		
	F 316	STSF 316	SUSF 316		
	F 316H	STSF 316H	SUSF 316H		
	F 316L	STSF 316L	SUSF 316L		
	F 321	STSF 321	SUSF 321		
	F 321H	STS 321H	SUSF 321H		
	F 347	STS 347	SUSF 347		
	F 347H	STS 347H	SUSF 347H		
A 192	Seamless Carbon Steel Boiler Tubes for High-Pressure Services				
		STH 35-SC	STB 35-SC		
		STH 35-SH	STB 35-SH		
		STH 33-SH	STB 33-SH		
A 193	Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Services				
	Gr. B5	SNB 5	SNB 5		
	Gr. B7	SNB 7	SNB 7		
	Gr. B16	SNB 16	SNB 16		
A 194	Carbon & Alloy Steel Nuts for Bolts for High-Pressure and High-Temperature Services				
	Gr. 2H	SM 45C	S 45C		
	Gr. 3	SNB 5	SNB 5		
	Gr. 4	-	-		
A 204	Pressure Vessel Plates, Alloy Steel, Molybdenum Alloy Steel Plates for Pressure Vessels				

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A 204	Gr. A	SBB 46M	SB 46M		
	Gr. B	SBB 49M	SB 49M		
A 209	Seamless Carbon-Molybdenum Alloy Steel Boiler and Superheater Tubes				
	Gr. T1	STHA 12 SC/SH	STBA 12 SC/SH		
	Gr. T1a	STHA 13 SC/SH	STBA 13 SC/SH		
A 210	Seamless Medium-Carbon Steel Boiler and Superheater Tubes				
	Gr. A1	STH 42. SC	STB 42. SC		
		STH 42. SH	STB 42. SH		
A 213	Seamless Ferritic and Austenitic Alloy Steel Boiler, Superheater and Heat Exchanger Tubes				
	Gr. TP304	STS 304 TB			
	Gr. TP304H	STS 304 HTB			
	Gr. TP304L	STS 304 LTB			
	Gr. TP316	STS 316 TB			
	Gr. TP316H	STS 316 HTB			
	Gr. TP316L	STS 316 LTB			
	Gr. TP321	STS 321 TB			
	Gr. TP347	STS 347 TB			
A 216	Carbon Steel Castings Suits Suitable for Fusion Welding for High-Temp. Service				
	Gr. WCA	SC 42	SC 42		
		SCW 42	SCW 42		
		SCPH 1	SCPH 1		
	Gr. WCB	SC 49	SC 42		
		SCW 49	SCW 49		
		SCPH 2	SCPH 2		
	Gr. WCC	SCW 49	SCW 49		
A 234	Piping Fittings of Wrought Carbon Steel and Alloy for Moderate and Elevated Temperature				
	Gr. WPA		PG 370		
	Gr. WPB		PG 410		
A 240	Chromium and Chromium-Nickel Stainless Steel Plates, Sheet, and Strip, for Fusion-Welded Unfired Pressure Vessel				
	Type 304	STS 304	SUS 304		

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A 240	Type 304L	STS 304L	SUS 304L		
	Type 316	STS 316	SUS 316		
	Type 316L	STS 316L	SUS 316L		
	Type 321	STS 321	SUS 321		
	Type 347	STS 347	SUS 347		
	Type 410	STS 410	SUS 410		
	Type 429	STS 429	SUS 429		
A266	Carbon Steel Forgings for Seamless Drums, Heads, and Other Pressure Vessel Components				
	Cl. 1	SF 45	SF 45		
	Cl. 2	SF 50	SF 50		
A268	Seamless and Welded Ferritic Stainless Steel Tubing for General Service				
	Gr. TP329	STS 329J1TB	SUS 329J1TB		
	Gr. TP410	STS 410TB	SUS 410TB		
	Gr. TP430	STS 430TB	SUS 430TB		
A278	Gray Iron Castings for Pressure Containing Parts for Temperature up to 650°F (345°C)				
	Cl. No. 20	GC 15	FC 15		
	Cl. No. 30	GC 20	FC 20		
	Cl. No. 35	GC 25	FC 25		
	Cl. No. 40	GC 30	FC 30		
A283	Low and Intermediate-Tensile Strength Carbon Steel Plates of Structural Quality				
	Gr. C	SB 41	SS 41	SS 400	
	Gr. D	SB 41	SS 41	SS 400	
A285	Low and Intermediate-Tensile Strength Carbon Steel Plates for Pressure Vessels				
	Gr. B	SBB 35	SB 35		
	Gr. C	SBB 42	SB42		
A 302	Manganese-Molybdenum and Manganese-Molybdenum-Nickel Alloy Steel Plate for Pressure Vessel				
	Gr. A	SBV 1A	SBV 1A		
	Gr. B	SBV 1B	SBV 1B		
	Gr. C	SBV 2	SBV 2		
	Gr. D	SBV 2	SBV 3		
A 312	Seamless and Welded Austenitic Stainless Steel Pipe				

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A 312	Gr. TP 304	STS 304TP	SUS 304TP		
	Gr. TP 304L	STS 304LTP	SUS 304LTP		
	Gr. TP 316	STS 316TP	SUS 316TP		
	Gr. TP 316L	STS 316LTP	SUS 316LTP		
	Gr. TP 321	STS 321TP	SUS 321TP		
	Gr. TP 347	STS 347TP	SUS 347TP		
A 320	Alloy Steel Bolting Materials for Low-Temperature Service				
	Gr. B8	STS 304B	SUS 304B		
	Gr. B8C	STS 347B	SUS 347B		
	Gr. B8M	STS 316B	SUS 316B		
A 335	Seamless Ferritic Alloy Steel Pipe for High-Temperature Service				
	Gr. P1	SPA 10	STPA 12		
	Gr. P5	SPA 24	STPA 25		
	Gr. P9	SPA 25	STPA 26		
A 336	Alloy Steel Forgings for Seamless Drum, Heads, and Other Pressure Vessels				
	Cr.CIF 8	STSF 304	SUSF 304		
	Cr.CIF8M	STSF 316	SUSF 316		
	Cr.CIF8T	STSF 321	SUSF 321		
A 351	Austenitic Steel Castings for High-Temperature Service				
	Gr. CF3	SSC 19A	SCS 19A		
	Gr. CF3M	SSC 16A	SCS 16A		
	Gr. CF8	SSC 13A	SCS 13A		
	Gr. CF8C	SSC 21A	SCS 21A		
	8M	SSC 14A	SCS 14A		
A 356	Heavy-Walled Carbon and Low-Alloy Steel Castings for Steam Tubines				
	Gr. 1	SCPH 2	SCPH 2		
	Gr. 2	SCPH 11	SCPH 11		
	Gr. 6	SCPH 21	SCPH 21		
	Gr. 9	SCPH 23	SCPH 23		
A 387	Pressure Vessel Plates, Alloy Steel, Chromium-Molybdenum				
	Gr. 2Cl.1	—	SCMV1A		
	Gr. 2Cl.2	—	SCMV1NT		

ASTM		K S	J I S	
규 격	등 급	기 호	기 호 (구)	기 호 (신)
A 387	Gr. 5Cl.1	–	SCMV6A	
	Gr. 5Cl.2	–	SCMV6NT	
	Gr. 11Cl.1	–	SCMV3A	
	Gr. 11Cl.2	–	SCMV3NT	
A 403	Wrought Austenitic Stainless Steel Piping Fitting			
	Gr. WP304		SUS304	
A 426	Centrifugally Cast Ferritic Alloy Steel Pipe for High-Temperature Service			
	Gr. CP1	SCPH11A	SCPH11A	
	Gr. CP12	SCPH21A	SCPH21A	
	Gr. CP22	SCPH32A	SCPH32A	
	Gr. CPCA15	SSC1A	SSS1A	
A 430	Austenitic Steel Forged and Bored Pipe for High-Temperature Service			
	Gr. FP304	STS 304TP	SUS 304TP	
	Gr. FP304H	STS 304HTP	SUS 304HTP	
	Gr. FP316	STS 316TP	SUS 316TP	
	Gr. FP316H	STS 316HTP	SUS 316HTP	
	Gr. FP321	STS 321TP	SUS 321TP	
	Gr. FP321H	STS 321HTP	SUS 321HTP	
	Gr. FP347	STS 347TP	SUS 347TP	
A 447	Chromium-Nickel-Iron Alloy Casting for High-Temperature Service			
	Type 11	–	SCH 13	
A 451	Centrifugally Cast Austenitic Steel Pipe for High-Temperature Service			
	Gr.CPF8	SSC 13A	SCS 13A	
	Gr.CPF8M	SSC 14A	SCS 14A	
	Gr.CPH20	SSC 17A	SCS 17A	
	Gr.CPK20	SSC 18A	SCS 18A	
	Gr.CPF8C	SSC 21A	SCS 21A	
A 508	Quenched and Tempered Vacuum Treated Carbon & Alloy Steel Forgings for Pressure Vessel			
	Cl. 1	SFVW 1	SFVW 1	
	Cl. 2	SFVW 2	SFVW 2	
	Cl. 3	SFVW 3	SFVW 3	

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규 격	등 급	기 호	기 호 (구)	기 호 (신)	
A 515	Carbon Steel Plates for Pressure Vessels for Intermediate and Higher Temperature Service				
	Gr. 55	SBB 35	SB 35		
	Gr. 60	SBB 42	SB 42		
	Gr. 65	SBB 46	SB 46		
	Gr. 70	SBB 49	SB 49		
A 516	Carbon Steel Plates for Pressure Vessels for Moderate and Lower Temperature Service				
	Gr. 60	SPPV 24	SPV 24		
		SGV 42	SGV 42		
	Gr. 65	SGV 46	SGV 46		
	Gr. 70	SPPV 32	SPV 32		
		SGV 49	SGV 49		
A 524	Seamless Carbon Steel Pipe for Atmospheric and Lower Temperatures				
	Gr. 1	SPPS 38-S	STPG38-S	STPG370-S	
		SPPH 38	STS38	STPG370	
	Gr. 11	SPPS 42-S	STPG42-S	STPG410-S	
		SPPH 42	STS42	STPG410	
A 533	Manganese Molybdenum and Manganese Molybdenum Nickel Alloy Steel Plates. Quenched and Tempered for Pressure Vessels				
	Gr. ACI.1	SQV 1A	SQV 1A		
	Gr. ACI.2	SQV 1B	SQV 1B		
	Gr. BCI.2	SQV 2A	SQV 2A		
	Gr. CCI.1	SQV 2B	SQV 2B		
		SQV 3A	SQV 3A		