

Material Grades and Standards

Castings, Forgings and Bars

According ASTM and ASME standards



Valves	Material														
	Carbon steel			Alloy steel			Stainless steel			(Super)Duplex			Incolloy/Inconel		
	ASTM/ ASME Standard	Material Grade	Application	ASTM/ ASME Standard	Material Grade	Application	ASTM/ ASME Standard	Material Grade	Application	ASTM/ ASME Standard	Material Grade	Application	ASTM/ ASME Standard	Material Grade	Application
Castings	A/SA 216	WCB	Ambient/low Temperature (A/SA 352, A/SA 350), Moderate Temperature and High Temperature (A/SA 216, A/SA 105) service	A/SA 217	WC6	High-Temperature and High-Pressure service	A/SA 351	CF8	High temperature and general corrosive service	A/SA 351	CK3MCuN	General corrosive service, resistance to stress corrosion cracking			Service temperatures up to, including and above 1100°F (593°C), resistance to creep and rupture, controlled grain size for optimum properties
		WCC			WC9			CF8M			CD3MN				
	A/SA 352	LCC			CI2			CF3			CE8MN				
		LCB			CI2A			CF3M			CD4MCuN				
										A/SA 995	CD3MWCuN (6A)				
Forgings	A/SA 105		Ambient/low Temperature (A/SA 352, A/SA 350), Moderate Temperature and High Temperature (A/SA 216, A/SA 105) service	A/SA 182	F11 Cl. 2	High-Temperature and High-Pressure service	A/SA 182	F304	High temperature and general corrosive service	A/SA 182	F44	General corrosive service, resistance to stress corrosion cracking	B/SB 564	N06600 (600)	Service temperatures up to, including and above 1100°F (593°C), resistance to creep and rupture, controlled grain size for optimum properties
	A/SA 350	LF2			F22 Cl. 3			F316			F51			N08800 (800)	
					F21			F304L			F53			N06625 (625)	
					F9			F316L			F55			N08825 (825)	
					F91										
Bars	A/SA 105		Ambient/low Temperature (A/SA 352, A/SA 350), Moderate Temperature and High Temperature (A/SA 216, A/SA 105) service	A/SA182	F9	High-Temperature and High-Pressure service	A/SA 182	F304 (L)	High temperature and general corrosive service	A/SA 182	F44	General corrosive service, resistance to stress corrosion cracking	B/SB 166	N06600 (600)	Service temperatures up to, including and above 1100°F (593°C), resistance to creep and rupture, controlled grain size for optimum properties
	A/SA350	LF2			F91			F316 (L)			F51		B/SB 408	N08800 (800)	
							A/SA 479	F304 (L)			F53		B/SB 446	N06625 (625)	
								F316 (L)		A/SA 478	S31254		B/SB 425	N08825 (825)	
											S31803				
											S32750				