

# TUBE & PIPE COMPARISON TABLE

Note /ASTM : American Society of Testing and Materials  
 ASME : American Society of Mechanical Engineers  
 (American National Standard)  
 JIS : Japanese Industrial Standard  
 BS : British Standard  
 DIN : Deutsche Industrie-Normen

## Carbon Steel Boiler and Heat Exchanger Tubes

ASTM	ASME	JIS G 3461	BS	DIN
A178 A	SA178 A	STB 340	3059-P1 320 3059-P2 360 3606 320	17175 st 35.8 17177 st 37.8
A179 A192 A214 A556 A2	SA179 SA192 SA214 SA556 A2			
A178 C A210 A1 A556 B2	SA178 C SA210 A1 SA556 B2	STB 410	3059-P2 440 3606 440	17175 st 45.8 17177 st 42.8
		STB 510		17175 19Mn 5
A178 D A210 C A556 C2	SA178 D SA210 C SA556 C2			

## Alloy Steel Boiler and Heat Exchanger Tubes

ASTM	ASME	JIS G 3462	BS	DIN
A209 T1 A250 T1	SA209 T1 SA250 T1	STBA 12	3606 243 3606 245	17175 15Mo3 17177 15Mo3
A209 T1a A250 T1a	SA209 T1a SA250 T1a	STBA 13		
A213 T2 A250 T2	SA213 T2 SA250 T2	STBA 20		17175 14MoV83
A213 T12 A250 T12	SA213 T12 SA250 T12	STBA 22	3606 620	17175 13CrMo44
A213 T11	SA199 T11 SA213 T11	STBA 23	3606 621	
A213 T22	SA199 T22 SA213 T22	STBA 24	3606 622	17175 10CrMo910
A213 T5	SA199 T5 SA213 T5	STBA 25	3606 625	
A213 T9	SA199 T9 SA213 T9	STBA 26	3059-P2 622-490	
A209 T1b A250 T1b A250 T11 A250 T22 A213 T5b A213 T5c A213 T17 A213 T21 A213 T23 A213 T91 A213 T92	SA209 T1b SA250 T1b SA250 T11 SA250 T22 SA213 T5b SA213 T5c SA213 T17 SA213 T21 SA213 T23 SA213 T91 SA213 T92		3059-P2 243 3059-P2 620-460 3059-P2 629-470 3059-P2 629-590 3059-P2 762 3059-P2 304S51 3059-P2 306S51 3059-P2 316S52 3059-P2 316S51 3059-P2 321S51 3059-P2 347S51 3059-P2 215S15	17175 17Mn4 17175 14MoV63 17175 X20CrMoV12•1

## Steel Heat Exchanger Tubes for Low Temperature Service

ASTM	ASME	JIS G 3464	BS	DIN
A334 1	SA334 1	STBL 380	3603 430LT	17173 TTst35N/V 17174 TTst35N/V
A334 3	SA334 3	STBL 450	3603 503LT	17173 10Ni14
A334 8	SA334 8	STBL 690	3603 509LT	17173 X8Ni9
A334 6 A334 7	SA334 6 SA334 7			17173 26CrMo4 17173 11MnNi53 17174 11MnNi53
A334 9	SA334 9			17173 13MnNi63 17174 13MnNi63
A334 11	SA334 11			17173 12Ni19 17174 12Ni19
A423 1 A423 2	SA423 1 SA423 2			(17174 10Ni14) (17174 X8Ni9)

## Steel Tubes for Fired Heater

ASTM	ASME	JIS G 3467	BS	DIN
A210 A1	SA210 A1	STFA 10		
A209 T1	SA209 T1	STFA 12		
A213 T12	SA213 T12	STFA 22		
A213 T11	SA213 T11	STFA 23		
A213 T22	SA213 T22	STFA 24		
A213 T5	SA213 T5	STFA 25		
A213 T9	SA213 T9	STFA 26		

## Alloy Steel Tubes for Generator Boiler

ASTM	ASME	KA	BS	DIN
		KA-STBA 21		
A213 T23	SA213 T23	KA-STBA 24J1		
A213 T91	SA213 T91	KA-STBA 28		

# TUBE & PIPE COMPARISON TABLE

Note /ASTM : American Society of Testing and Materials  
 ASME : American Society of Mechanical Engineers  
 (American National Standard)  
 JIS : Japanese Industrial Standard  
 BS : British Standard  
 DIN : Deutsche Industrie-Normen

## Carbon Steel Pipes for Pressure Service

ASTM	ASME	JIS G 3454	BS	DIN
A53 A	SA53 A	STPG 370	3601 320	1626 ust37.0
A135 A	SA135 A		3601 360	1626 st37.0 1629 st37.0
A53 B	SA53 B	STPG 410	3601 430	1626 st44.0
A135 B	SA135 B			1629 st44.0
				1626 st52.0 1629 st52.0

## Alloy Steel Pipes for High Temperature Service

ASTM	ASME	JIS G 3458	BS	DIN
A335 P1	SA335 P1	STPA 12		17175 15Mo3 17177 15Mo3
A335 P2	SA335 P2	STPA 20	3604 P1 660	
A335 P12	SA335 P12	STPA 22	3604 P1 620-440	17175 13CrMo44
A335 P11	SA335 P11	STPA 23	3604 P1 621	
A335 P22	SA335 P22	STPA 24	3604 P1 622	17175 10CrMo910
A335 P5	SA335 P5	STPA 25	3604 P1 625	
A335 P9	SA335 P9	STPA 26	3604 P1 629-470	
A335 P5b/P5c	SA335 P5b/P5c		3604 P1 591	17175 14MoV63
A335 P15	SA335 P15		3604 P1 629-590	17175 X20CrMoV12•1
A335 P21	SA335 P21		3604 P1 762	
A335 P91	SA335 P91			
A335 P92	SA335 P92			

## Carbon Steel Pipes for High Pressure Service

ASTM	ASME	JIS G 3455	BS	DIN
		STS 370		1630 st37.4
		STS 410		1630 st44.4
		STS 480		1630 st52.4

## Steel Pipes for Low Temperature Service

ASTM	ASME	JIS G 3460	BS	DIN
A333 1	SA333 1	STPL 380	3603 430LT	17173 TTst35N 17173 TTst35V
A334 1	SA334 1			17174 TTst35N 17174 TTst35V
A333 3	SA333 3	STPL 450	3603 503LT	17173 10Ni14
A333 8	SA333 8	STPL 690	3603 509LT	17173 X8Ni9
A333 4, A334 3	SA333 4, SA334 3			17173 26CrMo4
A333 6, A334 6	SA333 6, SA334 6			17173 11MnNi53 17174 11MnNi53
A333 7, A334 7	SA333 7, SA334 7			17173 13MnNi63 17174 13MnNi63
A333 9, A334 8	SA333 9, SA334 8			17173 12Ni19 17174 12Ni19
A333 10, A334 9	SA333 10, SA334 9			17174 10Ni14
A333 11, A334 11	SA333 11, SA334 11			17174 X8Ni9

## Carbon Steel Pipes for High Temperature Service

ASTM	ASME	JIS G 3456	BS	DIN
A106 A	SA106 A	STPT 370	3602 P1 360	17175 st35.8 17177 st37.8
A106 B	SA106 B	STPT 410	3602 P1 430	17175 st45.8 17177 st42.8
A106 C	SA106 C	STPT 480	3602 P1 500Nb	17175 17Mn4 17175 19Mn5

## Alloy Steel Pipes for High Pressure Service

GB 5310, CNB-9
12Cr1MoV

## Alloy Steel Pipes for Generator Piping

ASTM	ASME	KA	BS	DIN
A335 P23	SA335 P23	KA-STPA 24J1		
A335 P91	SA335 P91	KA-STPA 28		