GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A213 TP309Cb

Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A213 TP309Cb Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes

Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries

Grade Belongs to the Industry - Steel Tubes

Chemical Composition		
Carbon	C %	0.080 max.
Manganese	Mn %	2.000 max.
Phosphorus	P %	0.045 max.
Sulphur	S %	0.030 max.
Silicon	Si %	1.000 max.
Chromium	Cr %	22.000 - 24.000
Nickel	Ni %	12.000 - 16.000
Niobium	Nb %	0.010 - 1.100
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	515 min.
Yield Strength in Mpa	205 min.
Elongation in %	35 min.
Reduction of Area in %	-
Hardness in HBW	192 max.
Impact in Joule	-

Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
A 814 Grade TP 309Cb	ASTM	USA	Steel and Pipe
A 943 TP309Cb	ASTM	USA	Steel and Pipe
A 276 309Cb	ASTM	USA	Bars and Shapes
A 314 309Cb	ASTM	USA	Bars and Forging
A 358 309Cb	ASTM	USA	Steel and Pipe
A 312 TP309Cb	ASTM	USA	Steel and Pipe
A 249 TP 309Cb	ASTM	USA	Steel and Tubing

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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