GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-213 S21500

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

Group - Ferrous Stainless Steel Alloys

Sub Group - ASME SA-213 S21500 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 - Tubing

Chemical Composition		
Carbon	C %	0.060 - 0.150
Manganese	Mn %	5.500 - 7.000
Phosphorus	P %	0.045 max.
Sulphur	S %	0.030 max.
Silicon	Si %	0.200 - 1.000
Chromium	Cr %	14.000 - 16.000
Nickel	Ni %	9.000 - 11.000
Molybdenum	Mo %	0.800 - 1.200
Niobium	Nb %	0.750 - 1.250
Boron	B %	0.003 - 0.009
Vanadium	V %	0.150 - 0.400
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-

Heat Treatment
Solution Annealing

Mechanical Properties	
Tensile Strength in Mpa	540 min.
Yield Strength in Mpa	230 min.
Elongation in %	35 min.
Reduction of Area in %	-
Hardness in BHN	192 max.
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
A 213 S21500	ASTM	USA	Steel and Tubing
A 959 S21500	ASTM	USA	Steel
10269 1.4982	EN	European Union	Steel
3059-2 215 S 15	B.S.	United Kingdom	Steel and Tubing
3605-1 CFS 215S15	B.S.	United Kingdom	Steel, Pipe and Tubing
3605-1 HFM 215S15	B.S.	United Kingdom	Steel, Pipe and Tubing
3605-1 HFS 215S15	B.S.	United Kingdom	Steel, Pipe 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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