GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-213 Grade T92

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 Grade T92 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 %	0.070 - 0.130
Manganese	Mn %	0.300 - 0.600
Phosphorus	P %	0.020 max.
Sulphur	S %	0.010 max.
Silicon	Si %	0.500 max.
Nickel	Ni %	0.400 max.
Chromium	Cr %	8.500 - 9.500
Molybdenum	Mo %	0.300 - 0.600
Vanadium	V %	0.150 - 0.250
Boron	B %	0.001 - 0.006
Niobium	Nb %	0.040 - 0.090
Nitrogen	N %	0.030 - 0.070
Aluminium	Al %	0.020 max.
Tungsten	W %	1.500 - 2.000
Titanium	Ti %	0.001 max.

Chemical Composition		
Zirconium	Zr %	0.010 max.
Iron	Fe%	Balance
-	-	-
-	-	-
-	-	-
Heat Treatment		
Normalising & Tempering		
Mechanical Properties		
Tensile Strength in Mpa	620 min.	
Yield Strength in Mpa	440 min.	
Elongation in %	20 min.	
Reduction of Area in %	-	
Hardness in BHN	250 max.	
Impact in Joule	-	

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
K92460	UNS	USA	Steel
SA-335 Grade P92	ASME	USA	Steel and Tubing
X10CrWMoVNb9-2 1.4901	EN	European Union	Steel
A 213 Grade T92	ASTM	USA	Steel and Tubing
A 369 Grade FP92	ASTM	USA	Pipe and Forging
A 182 F 92	ASTM	USA	Forging and Pipe
A 335 Grade P911	ASTM	USA	Steel

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

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.