GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASME SA-249 TP321H

Standard Specification for Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser Tubes

Group - Ferrous Stainless Steel Alloys

Sub Group - ASME SA-249 TP321H Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser Tubes

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

Grade Belongs to the Industry - Tubing

Chemical Composition		
Carbon	C %	0.040 - 0.100
Manganese	Mn %	2.000 max.
Phosphorus	P %	0.045 max.
Sulphur	S %	0.030 max.
Silicon	Si %	1.000 max.
Chromium	Cr %	17.000 - 19.000
Nickel	Ni %	9.000 - 12.000
Nitrogen	N %	0.100 max.
Titanium	Ti %	0.010 - 0.700
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 HB	183 max.
Impact in Joule	-

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
S32109	UNS	USA	Steel
J 405 321H	SAE	USA	Steel
G 4319 SUS 321 HFB	JIS	Japan	Steel and Forging
G 3463 SUS 321 HTB	JIS	Japan	Steel and Tubing
D 3576 STS 321HTP	KS	Korea	Steel and Pipe
A 213 TP321H	ASTM	USA	Steel and Tubing
A 249 TP321H	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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