



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - UNS N08120

Standard Specification for Nickel Alloy Forgings

Group - Non-Ferrous Nickel Alloys

Sub Group - UNS N08120 Nickel Alloy Forgings

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

Grade Belongs to the Industry - Forging

Chemical Composition			Chemical Composition		
Carbon	C %	0.020 - 0.100	Nickel	Ni %	35.000 - 38.000
Silicon	Si %	1.000 max.	Iron	Fe %	Balance
Manganese	Mn %	1.500 max.	-	-	-
Chromium	Cr %	23.000 - 27.000	-	-	-
Sulphur	S %	0.030 max.	-	-	-
Copper	Cu %	0.500 max.	Heat Treatment		
Phosphorus	P %	0.040 max.	As-Cast or Annealing or Age Hardning		
Aluminium	Al %	0.400 max.	Mechanical Properties		
Titanium	Ti %	0.200 max.	Tensile Strength in Mpa	621 min.	
Niobium	Nb %	0.400 - 0.900	Yield Strength in Mpa	276 min.	
Molybdenum	Mo %	2.500 max.	Elongation in %	30 min.	
Tungsten	W %	2.500 max.	Reduction of Area in %	-	
Cobalt	Co %	3.000 max.	Hardness in BHN	-	
Nitrogen	N %	0.150 - 0.300	Impact in Joule	-	
Boron	B %	0.010 max.			

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
B 163 N08120	ASTM	USA	Tube
B 407 N08120	ASTM	USA	Pipe and Tube
B 408 N08120	ASTM	USA	Rod and Bar
B 409 N08120	ASTM	USA	Plate, Sheet and Strip
SB-163 N08120	ASME	USA	Tube
B 564 N08120	ASTM	USA	Forging
-	-	-	-

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.

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