



## Material - ASTM A608 Grade HH 33

### Standard Specification for Heat Resistant Alloy Steel Castings

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A608 Grade HH 33 Centrifugally Cast Iron-Chromium-Nickel High-Alloy Tubing

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.280 - 0.380	Solution Annealing	
Silicon	Si %	0.500 - 2.000		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.040 max.		
Chromium	Cr %	24.000 - 26.000		
Nickel	Ni %	12.000 - 14.000		
Molybdenum	Mo %	0.050 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b> Tensile Strength in Mpa   28 min. Yield Strength in Mpa   - Elongation in %   8 min. Reduction of Area in %   - Hardness in BHN   - Impact in Joule   -	
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-	-	-		
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-	-	-		
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
13505 Grade 9	IS	India	Casting
422936	CSN	Czech Republic	Casting
J93633	UNS	USA	Casting
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-	-	-	-
-	-	-	-
-	-	-	-

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

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