



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - ASTM A 29 1117

**Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel and Bar**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - ASTM A 29 1117 Class A Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel and Bar**

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

**Grade Belongs to the Industry - Steel and Bar**

Chemical Composition			Heat Treatment	
Carbon	C %	0.140 - 0.200	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	1.000 - 1.300		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.080 - 0.130		
Lead	Pb %	0.150 - 0.350		
Silicon	Si %	0.100 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa      430 - 480 Yield Strength in Mpa      230 min. Elongation in %      15 min. Reduction of Area in %      40 - 47 Hardness in HB      121 - 248 Impact in Joule      -	
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-	-	-		
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G11170	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1117	SAE	USA	Steel, Bar, Forging and Tubing
1117	AISI	USA	Steel and Bar
SUM 31	JIS	Japan	Steel
A 576 1117	ASTM	USA	Steel and Bar
SA-311 1117 Class A	ASME	USA	Steel and Bar
A 576 11L17	ASTM	USA	Steel and Bar

**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)**

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.

**ONE STOP SOLUTION FOR METAL PARTS**