



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

## Material - CSN 13030

### Standard Specification for Low Alloyed Manganese Steel

Group - Ferrous Mild Steel Alloys

Sub Group - CSN 13030 Low Alloyed Manganese Steel

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

Grade Belongs to the Industry - Steel

Chemical Composition			Heat Treatment	
Carbon	C %	0.140 - 0.200	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.150 - 0.400		
Manganese	Mn %	1.000 - 1.400		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	0.300 max.		
Nickel	Ni %	0.300 max.		
Molybdenum	Mo %	0.100 max.		
Copper	Cu %	0.300 max.		
Iron	Fe %	Balance		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa      440 - 570 Yield Strength in Mpa        235 min. Elongation in %                19 min. Reduction of Area in %       - Hardness in HB                127 - 166 Impact in Joule                400 J @ RT	
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1.0457	EN	European Union	Pipes
1.0484	DIN	Germany	Pipes
J13005	UNS	USA	Casting
20MB5	AFNOR NF	France	Cold Rolled, Strip
230 - 450 W	JIS	Japan	Casting
3	AS	Australia	Hot Rolled Bar
A487 2A	ASTM	USA	Casting

**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.

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