



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

## Material - UNI Fe E 420

**Standard Specification for Low Alloy Steel; Hot Finished Hollow Sections of Unalloyed Quality Steel and Special Alloy Steel for Structural Purposes**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - UNI Fe E 420 Low Alloy Steel; Hot Finished Hollow Sections of Unalloyed Quality Steel and Special Alloy Steel for Structural Purposes**

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

**Grade Belongs to the Industry - Steel**

Chemical Composition			Heat Treatment	
Carbon	C %	0.200 max.	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.500 max.		
Manganese	Mn %	1.600 max.		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	0.400 max.		
Nickel	Ni %	0.700 max.		
Molybdenum	Mo %	0.400 max.		
Copper	Cu %	0.600 max.		
Vanadium	V %	0.020 - 0.200		
Niobium	Nb %	0.015 - 0.060		
Aluminium	Al %	0.015 min.		
Titanium	Ti %	0.200 max.		
Iron	Fe %	Balance		
-	-	-		
			Mechanical Properties	
			Tensile Strength in Mpa	470 - 590
			Yield Strength in Mpa	400 min.
			Elongation in %	17 min.
			Reduction of Area in %	-
			Hardness in HRC	91 max.
			Impact in Joule	27 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J13855	UNS	USA	Casting
SA-487 6A	ASME	USA	Casting
SA-487 6B	ASME	USA	Casting
A487 6A	ASTM	USA	Casting
A487 6B	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.

**ONE STOP SOLUTION FOR METAL PARTS**