GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - BS 1501-1 223 Grade 490

Standard Specification for Carbon and Carbon Manganese Steel

Group - Ferrous Mild Steel Alloys

Sub Group - BS 1501-1 223 Grade 490 Carbon and Carbon Manganese Steel

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

Grade Belongs to the Industry - Steel and Plate

Chemical Composition		
Carbon	C %	0.200 max.
Silicon	Si %	0.100 - 0.500
Manganese	Mn %	0.900 - 1.600
Phosphorus	P %	0.030 max.
Sulphur	S %	0.030 max.
Niobium	Nb %	0.010 - 0.060
Chromium	Cr %	0.250 max.
Copper	Cu %	0.300 max.
Molybdenum	Mo %	0.100 max.
Nickel	Ni %	0.750 max.
Cr + Cu + Mo + Ni	Cr% + Cu% + Mo% + Ni%	0.500 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-

Heat Treatment
As-Raw or Normalizing

Mechanical Properties	
Tensile Strength in Mpa	490 - 610
Yield Strength in Mpa	355 min.
Elongation in %	21 min.
Reduction of Area in %	-
Hardness in HB	-
Impact in Joule	61 @ RT

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Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
1503 221-430	B.S.	United Kingdom	Steel
1503 224-460	B.S.	United Kingdom	Steel
1503 164-490	B.S.	United Kingdom	Steel
4880 08GB	BDS	Bulgaria	Steel
10113-2 S 275 N	EN	European Union	Steel
EN 10113-2 S 275 N	DIN	Germany	Steel
EN 10113-2 S 275 N	UNI	Italy	Steel

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

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