

## Material: DIN G X 12 CrMo 10-1

### Standard Specification for Steel Castings for Petroleum and Natural Gas Plants

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** DIN G X 12 CrMo 10-1 Steel Castings for Petroleum and Natural Gas Plants

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

**Grade Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.080 - 0.150	Normalizing or Annealing or Hardening + Tempering	
Silicon	Si %	0.300 - 0.500		
Manganese	Mn %	0.500 - 0.800		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	9.000 - 10.000		
Molybdenum	Mo %	1.100 - 1.400		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	640 - 840
-	-	-	Yield Strength in Mpa	410 min.
-	-	-	Elongation in %	18 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	27 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA-217 Grade C12	ASME	USA	Casting
A426 Grade CP9	ASTM	USA	Casting
J82090	UNS	USA	Casting
1.7389	DIN	Germany	Casting
A217 Grade C12	ASTM	USA	Casting
A217 Grade C12A	ASTM	USA	Casting
A217 J84090	ASTM	USA	Casting

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