

				CHEMICAL COMPOSITION								
TYPE	IS GRADE	MUKAND GRADE	EQUIVALENT STANDARD	C	Si	Mn	P	S	Ni	Cr	Mo	Others
Alloy Steel Casting for Pressure Containing Parts suitable for high Temperature Service (Contd.)	IS:3038 Grade 2		BS 1398 Grade A	0.25 Max	0.20-0.50	0.50-1.00	0.040 Max	0.045 Max.	0.40 Max.	0.35 Max.	0.40-0.70	Cu 0.30Max. V 0.05Max. W 0.10Max. Ni + Cr + Cu + V + W 1.0Max.
	IS:3038 Grade 3			0.11-0.19	0.20-0.50	0.50-1.00	0.040 Max	0.045 Max.	0.40 Max.	0.50-0.70	0.40-0.60	V 0.20-0.35 Cu 0.30Max W 0.10Max Ni + Cu + W 1.0Max
		M9	CSN 422744.1	0.12-0.18	0.25-0.50	0.50-0.65	0.050Max.	0.050Max.	0.40Max.	0.5-0.65	0.4-0.5	V 0.20-0.30
	IS: 3038 Grade 4		BS 1398 Grade B	0.20Max.	0.60Max.	0.50-0.80	0.040Max.	0.045Max.	0.40Max.	1.00-1.50	0.45-0.65	V 0.05Max. Cu 0.30Max. W 0.10Max. Ni+V+Cu+W 1.0Max.
	IS:3038 Grade 5			0.18Max.	0.60Max.	0.40-0.80	0.040Max.	0.045Max.	0.40Max.	2.00-2.75	0.90-1.20	Al 0.20Max. May be C 0.15Max. And Cr 2.50Max. V 0.05Max. W 0.10Max. Cu 0.30Max. Ni+V+W+Cu 1.0Max.
			ASTM A217 Grade WC9 BS 1398 Grade C	0.18Max.	0.60Max.	0.40-0.70	0.050Max.	0.050Max.	0.40Max.	2.0-2.75	0.9-1.20	-

	IS: 3038 Grade 6	M10	ASTM A217 Grade CS BS 1462	0.20Max.	0.75Max.	0.40-0.70	0.040Max.	0.045Max.	0.40Max.	4.0-6.5 (4.0-6.0 BS 1462)	0.45-0.65	Cu 0.30Max. V 0.05Max. W 0.10Max. Ni+Cu+V+W 1.0Max.
Carbon Steel Castings for Surface Hardening	IS:2707 Grade 1		BS 1760 Grade A	0.40-0.50	0.60Max.	1.0Max.	0.050Max.	0.050Max.	0.40Max.	0.25Max.	0.15Max.	Cu 0.30Max. Ni+Cr+ Mo+Cu + 0.8Max.
	IS:2707 Grade 2		BS 1760 Grade B	0.50-0.60	0.60Max.	1.0Max.	0.050Max.	0.050Max.	0.40Max.	0.25Max.	0.15Max.	Cu 0.30Max. Ni+Cr+ Mo+Cu + 0.8Max.
One percent Chromium Steel Coating for Abrasion Resistance	IS:4896 Grade 1		BS 1956 Grade A & B	0.45-0.55	0.75Max.	0.50-1.00	0.060Max.	0.060Max.	-	0.80-1.20	-	-
	IS:4896 Grade 2		BS 1956 Grade C	0.55-0.65	0.75Max.	0.50-1.00	0.060Max.	0.060Max.	-	0.80-1.20	0.20-0.40	-
	IS:4896 Grade 3			0.90/1.20	0.75Max.	0.50-1.00	0.060Max.	0.060Max.	-	0.80-1.50	-	-
Manganese Steel Coatings				1.00-1.40	0.8Max.	11.0-14.0	0.10Max.	0.060Max.	-	-	-	-
			BS:1457	1.00-1.30	1.0Max.	11.0 Min	0.07Max.	0.060Max.	-	-	-	-
			ASTM A128 Grade A	1.00-1.35	1.0Max.	11.0 Min	0.07Max.	-	-	-	-	-