

Laboratory Techno Weld, Sanjib Sarani, Aesby Industrial Estate, Durgapur, West Bengal

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5567

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Validity 08.05.2017 to 07.05.2019

Last Amended on 22.06.2018

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I.	METAL & ALLOYS			
1.	Plain Carbon Steel & Low alloy Steel	Carbon	IS 228 (Part-1)	0.05 % to 1.50 %
		Manganese	IS 228 (Part-2)	0.10 % to 1.50 %
		Silicon	IS 228 (Part-8)	0.05 % to 2.50 %
		Phosphorous	IS 228 (Part-3)	0.01 % to 0.30 %
		Sulphur	IS 228 (Part-9)	0.01 % to 0.20 %
		Nickel	IS 228 (Part-5)	0.10 % to 6.00 %
		Chromium	IS 228 (Part-6)	0.10 % to 5.00 %
2.	Iron Steels (Stainless Steel & Manganese, Nickel Chromium Iron Alloy)	Carbon	IS 228 (Part-1)	0.05 % to 2.50 %
		Silicon	IS 228 (Part-8)	0.05 % to 4.00 %
		Phosphorous	IS 228 (Part-3)	0.01 % to 0.30 %
		Nickel	IS 228 (Part-5)	0.10 % to 26.00 %
		Chromium	IS 228 (Part-6)	0.10 % to 25.00 %
		Molybdenum	IS 228 (Part-7)	1.00 % to 5.00 %
3.	Cast Iron	Carbon	IS 12308 (Part-11)	1.50 % to 4.00 %
		Manganese	IS 12308 (Part-10)	0.05 % to 2.50 %
		Silicon	IS 12308 (Part-6)	0.10 % to 4.00 %
		Phosphorous	IS 12308 (Part-5)	0.01 % to 0.50 %
		Sulphur	IS 12308 (Part-2)	0.01 % to 0.20 %

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MECHANICAL TESTING

I. MECHANICAL PROPERTIES OF METALS				
1.	Ferrous & Non-Ferrous Metal & Alloys	Tensile Strength	IS 1608	20 KN to 1000 KN
		Yield Strength	ASTM A 370	20 KN to 600 KN
		% Elongation		5 % to 60 %
		% Reduction in Area		2 % to 80 %
		Breaking Load Test		20 KN to 800 KN
		Bend Test	IS 1599 ASTM A 370	Mandrel Diameter 12 mm to 100 mm
		Brinell Hardness Test	IS:1500(Part-1) ASTM A 370	100 to 653 HBW (10/3000) 100 to 596 HBW (5/750)
		Rockwell Hardness Test	IS:1586(Part-1) ASTM A 370	20 HRC to 67.5 HRC 10 HRBW to 100 HRBW
2.	High Strength deformed Steel Bar	Weight Per Meter	IS 1786	0.1 kg to 10.0 kg
		Tensile Strength		20 KN to 1000 KN
		Yield Strength		20 KN to 600 KN
		% Elongation		5 % to 60 %
3.	Ferrous Alloys (Butt-Welded Plates)	Tensile Strength	ASTM Sec-IX IS 7307 (Part-1) IS 2825	20 KN to 1000 KN
		Bend Test (Face/Root/Side)	ASTM Sec-IX IS 7307 (Part-1) IS 7310 (Part-1) IS 7318 (Part-2)	Mandrel Diameter 12 mm to 100 mm
4.	Ferrous Alloys (Fillet-Welded Plates)	Fracture Test	ASTM-Sec-IX IS 7307 (Part-1)	Thickness 3 mm to 20 mm
		Macro Examination	IS 7310 (Part-1)	10X