National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : METAL ENGINEERING & TESTING & RESEARCH CENTRE (METARCH), HOWRAH AMTA ROAD, KANTALIA, HOWRAH, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5182 **Page No** 1 of 5

Validity 23/02/2022 to 22/02/2024 **Last Amended on** 13/07/2022

S.No	Discipline / Group	Materials or Products tested	Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed	Test Method Specification against which tests are performed and / or the techniques / equipment used
Permanent Facility				
1	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Chromium	IS 504 (Part 8)
2	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Copper	IS 504 (Part 3)
3	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Iron	IS 504 (Part 2)
4	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Lead	IS 504 (Part 1)
5	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Magnesium	MH/In Hs Chem/Mg(Al)/01, Issue No 01, Dt 30.12.10
6	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Manganese	IS 504 (Part 5)
7	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Nickel	IS 504 (Part 5)
8	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Silicon	IS 504 (Part 1)
9	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Tin	IS 504 (Part 9)
10	CHEMICAL- METALS & ALLOYS	Aluminium & Aluminium Base Alloys	Zinc	I 504 (Part 4)
11	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	12308 (Part II)
12	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	IS 12308 (Part 8)
13	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	IS 12308 (Part 15)
14	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	12308 (Part 10)
15	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	IS 12308 (Part 7)
16	CHEMICAL- METALS & ALLOYS	Cast Iron	Phousporus	IS 12308 (Part 5)
17	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	IS 12308 (Part 6)
18	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Aluminium	MH/In Hs Chem/Al(Cu)/05, Issue No 01, Dt. 31.05.15

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19	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Copper	IS 3685 (RA 2012)
20	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Copper	IS 440 (RA 2012)
21	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Iron	IS 3187
22	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Lead	IS 3187
23	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Manganese	IS 3187
24	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Nickel	IS 3685
25	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Phosphorus	IS 3685
26	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Silicon	IS 3685
27	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Tin	MH/In Hs Chem/Sn (Cu)/04, Issue No 01, Dt. 09.02.15
28	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Zinc	IS 3685
29	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Carbon	IS 228 (Part 1)
30	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Chromium	IS 228 (Part 6)
31	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Copper	IS 228 (Part 15)
32	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Manganese	IS 228 (Part 2)
33	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Molybenum	MH/In-Hs Chem/Mo(LAS)02, Issue No 01, Dt. 16.01.13
34	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Nickel	IS 228 (Part 5)
35	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Phosphorus	IS 228 (Part 8)
36	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Silicon	IS 228 (Part 8)
37	CHEMICAL- METALS & ALLOYS	Low Alloy Steel & Plain Carbon Steel	Sulphur	IS 228 (Part 9)

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38	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	IS 228 (Part 1)
39	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	IS 228 (Part 6)
40	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	IS 228 (Part 15)
41	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	MH/In Hs/Chem/Mn(SS)/03, Issue No 1, Dt. 09.02.15
42	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	IS 228 (Part 7)
43	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	IS 228 (Part 5)
44	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phousphorus	IS 228 (Part 3)
45	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	IS 228 (Part 8)
46	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	IS 228 (Part 9)
47	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non ferrous)	Re bend Test	IS 1786
48	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	Rockwell Hardness	IS 1586 (Part 1)
49	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	Rockwell Hardness	IS 1586 (Part 1)
50	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non ferrous)	Tensile Strength	IS 1608 (Part 1)
51	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Bend Test	IS 1599
52	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Brinell Hardness (10/3000)	IS 1500 (Part 1)
53	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Yield Strength	IS 1608 (Part 1)

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54	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Brinell Hardness (2.5/187.5)	IS 1500 (Part 1)
55	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	% Reduction of Area	BS EN 10002-1
56	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	Tensile Strength	ASME SEC 9
57	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	Tensile Strength	ASTM A 370
58	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	Tensile Strength	BS EN 10002-1
59	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Yield Strength	ASTM A 370
60	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous), Steel, Cast Iron, Copper, Copper Alloys & Aluminium Alloys	Yield Strength	BS EN 10002-1
61	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous)	Bend Test	ASME SEC IX
62	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	% Elongation	ASTM A 370
63	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	% Elongation	IS 1608(Part 1)
64	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	% Reduction of Area	IS 1608 (Part 1)
65	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials (Ferrous & Non Ferrous)	%Elongation	BS EN 10002
66	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Designation of Microstructure of Graphite in Cast Iron-Form, distribution and size.	IS 7754
67	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Micro structural Analysis	ASM Hand Book, Vol 9

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68	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Micro structural Analysis	IS 7739 (Part 5)
69	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials	Estimation of Average Grain size by Comparison	IS 4748
70	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials	Macro structural Analysis	ASTM E 340
71	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials	Microstructural Analysis	IS 7739 (Part 1& 4)
72	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials in steel	Non metallic Inclusion rating By 'Method A'	IS 4163
73	NON-DESTRUCTIVE-METALS & ALLOYS	Castings	Ultrasonic Testing (contact method)	IS 9595, IS 7666, ASME SEC V ART23 SA 609
74	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous Materials	Magnetic Particle Testing (Yoke, Wet & Dry, Non fluorescent Technique)	ASME SEC V ART 7/ IS 5334 / IS 3703/ IS 10724 /IS 10543 / AWS D1.1/ AWS D1. 5
75	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous/Non ferrous Materials	Penetrant Testing (Visible, solvent removable technique)	ASME SEC V ART 6 /AWS D1.1 / AWS D1.5
76	NON-DESTRUCTIVE-METALS & ALLOYS	Forging	Ultrasonic Testing (contact method)	ASME SEC V ART 5 / IS 3664 / IS 8791
77	NON-DESTRUCTIVE-METALS & ALLOYS	Plate	Ultrasonic Testing (contact method)	IS 11630/ EN 10160 / ASME SEC V ART 23 SA 578
78	NON-DESTRUCTIVE-METALS & ALLOYS	Plate, Forging weld, Casting	Ultrasonic Testing (Contact Method)	ASME SEC ART 23 SE 797
79	NON-DESTRUCTIVE-METALS & ALLOYS	Weld	Ultrasonic Testing (contact method)	EN ISO 17640 / AWS D1. 5 / AWS D1. 1 / ASME SEC V ART 4