National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : MATERIAL TESTING LABORATORY, ORDNANCE FACTORY AMBAJHARI, NAGPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 22/11/2022 to 15/01/2024 **Last Amended on** -

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	AL ALLOY	COPPER	WS/MTL/C-17
2	CHEMICAL- METALS & ALLOYS	AL ALLOY	Iron (Fe)	WS/MTL/C-16
3	CHEMICAL- METALS & ALLOYS	AL ALLOY	MAGNESIUM	WS/MTL/C-19
4	CHEMICAL- METALS & ALLOYS	AL ALLOY	MANGANESE	WS/MTL/C-18
5	CHEMICAL- METALS & ALLOYS	AL ALLOY	ZINC	WS/MTL/C-20
6	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	CHROMIUM	WS/MTL/C-13
7	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	COBALT	WS/MTL/C-15
8	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	MANGANESE	WS/MTL/C-11
9	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	MOLYBDENUM	WS/MTL/C-14
10	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	NICKEL	WS/MTL/C-12
11	CHEMICAL- METALS & ALLOYS	ALLOY STEEL	VANADIUM	WS/MTL/C-29
12	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Chromium	ASTM E1251-17a
13	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Copper	ASTM E1251-17a
14	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Iron	ASTM E1251-17a
15	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Lead	ASTM E1251-17a
16	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Magnesium	ASTM E1251-17a
17	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Manganese	ASTM E1251-17a
18	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Nickel	ASTM E1251-17a

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19	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Silicon	ASTM E1251-17a
20	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Tin	ASTM E1251-17a
21	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Titanium	ASTM E1251-17a
22	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Zinc	ASTM E1251-17a
23	CHEMICAL- METALS & ALLOYS	Aluminium Base Alloys	Zirconium	ASTM E1251-17a
24	CHEMICAL- METALS & ALLOYS	Copper & Copper Base Alloys	Copper	IS 3685
25	CHEMICAL- METALS & ALLOYS	COPPER ALLOY	Iron	WS/MTL/C-21
26	CHEMICAL- METALS & ALLOYS	COPPER ALLOY	LEAD	WS/MTL/C-23
27	CHEMICAL- METALS & ALLOYS	COPPER ALLOY	NICKEL	WS/MTL/C-22
28	CHEMICAL- METALS & ALLOYS	COPPER AND COPPER BASE ALLOYS	LEAD	IS 3685
29	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Aluminium	BSEN 15079
30	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Antimony	BSEN 15079
31	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Arsenic	BSEN 15079
32	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Bismuth	BSEN 15079
33	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Iron	BSEN 15079
34	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Lead	BSEN 15079
35	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Manganese	BSEN 15079
36	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Nickel	BSEN 15079
37	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Phosphorus	BSEN 15079

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38	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Silicon	BSEN 15079
39	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Tin	BSEN 15079
40	CHEMICAL- METALS & ALLOYS	Copper Base Alloys	Zinc	BSEN 15079
41	CHEMICAL- METALS & ALLOYS	Ferrous Material, alloys and products	Carbon	ASTM E1019
42	CHEMICAL- METALS & ALLOYS	High Speed Steel	CHROMIUM	JIS 1253
43	CHEMICAL- METALS & ALLOYS	High Speed Steel	COBALT	JIS 1253
44	CHEMICAL- METALS & ALLOYS	High Speed Steel	MOLYBDENUM	JIS 1253
45	CHEMICAL- METALS & ALLOYS	High Speed Steel	SULPHUR	JIS 1253
46	CHEMICAL- METALS & ALLOYS	High Speed Steel	TUNGSTEN	JIS 1253
47	CHEMICAL- METALS & ALLOYS	High Speed Steel	VANADIUM	JIS 1253
48	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Chromium	IS 228 Part 6
49	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Chromium	IS 228 Part 6
50	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Chromium	IS 228 Part 6
51	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Chromium	IS 228 Part 6
52	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Manganese	IS 228 Part 2
53	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Nickel	IS 228 Part 5
54	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Nickel	IS 228 Part 5
55	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Nickel	IS 228 Part 5
56	CHEMICAL- METALS & ALLOYS	Iron Base Alloys	Silicon	IS 228 Part 8

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57	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Aluminium	ASTM E415
58	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Carbon	ASTM E415
59	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Chromium	ASTM E415
60	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Copper	ASTM E415
61	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Manganese	ASTM E415
62	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Molybdenum	ASTM E415
63	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Nickel	ASTM E415
64	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Phosphorus	ASTM E415
65	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Silicon	ASTM E415
66	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Sulphur	ASTM E415
67	CHEMICAL- METALS & ALLOYS	Plain Carbon and Low Alloy Steel	Vanadium	ASTM E415
68	CHEMICAL- METALS & ALLOYS	Stainless Steel	Carbon	ASTM E1086
69	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	ASTM E1086
70	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	ASTM E1086
71	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	ASTM E1086
72	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	ASTM E1086
73	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	ASTM E1086
74	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	ASTM E1086
75	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	ASTM E1086

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76	CHEMICAL- METALS & ALLOYS	TOOL STEEL - HSS	MANGANESE	JIS 1253
77	CHEMICAL- METALS & ALLOYS	TOOL STEEL - HSS	PHOSPHORUS	JIS 1253
78	CHEMICAL- METALS & ALLOYS	TOOL STEEL - HSS	SILICON	JIS 1253
79	CHEMICAL- METALS & ALLOYS	TOOL STEEL -HSS	CARBON	JIS 1253
80	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Alloy Steel	Bend Test	IS 1599
81	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium Alloys	Bend Test	IS 1599
82	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium Alloys	Elongation	IS 1608 (PART I)
83	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium Alloys	Proof Stress (0.1%, 0.2%)	IS 1608 (PART I)
84	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium Alloys	Reduction of Area	IS 1608 (PART I)
85	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium Alloys	Tensile Strength	IS 1608 (PART I)
86	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper and Copper Alloys	Bend Test	IS 1599
87	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper and Copper Alloys	Elongation	IS 1608 (PART I)
88	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper and Copper Alloys	Reduction of Area	IS 1608 (PART I)
89	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper and Copper alloys	Tensile strength	IS 1608 (PART I)
90	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Copper and Copper alloys	Yield Strength	IS 1608 (PART I)

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91	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Brinell Hardness Tests (10 mm/3000 kgf)	IS 1500 Part 1
92	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Brinell Hardness Tests (5mm/750kgf)	IS 1500 Part 1
93	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Rockwell Hardness Test	IS 1586 Part 1
94	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Vickers Hardness Tests (HV10)	IS 1501 Part 1
95	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Vickers Hardness Tests (HV30)	IS 1501 Part 1
96	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Vickers Hardness Tests (HV5)	IS 1501 Part 1
97	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non- Ferrous metals	Vickers Hardness Tests (HV 10)	IS 1501 (Part 1)
98	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non-Ferrous Material	Brinell Hardness Tests (10mm/1000kgf)	IS 1500 Part 1
99	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non-Ferrous Material	Vickers Hardness Tests (HV30)	IS 1501 Part 1
100	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Non-Ferrous Material	Vickers Hardness Tests (HV5)	IS 1501 Part 1
101	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Elongation	IS 1608 (PART I)
102	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Proof Stress (0.1% & 0.2%)	IS 1608 (PART I)
103	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Reduction of Area	IS 1608 (PART I)
104	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Tensile Strength	IS 1608 (PART I)

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105	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Yield Stress	IS 1608 (PART I)
106	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Grain Size (Microscopic Method)	ASTM E 112(Comparison method)
107	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Grain Size (Microscopic Method)	IS 4748
108	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Macrostructure	ASTM E381
109	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Macrostructure	IS 11371
110	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Micro structural	ASM Handbook Vol. 9
111	MECHANICAL-METALLOGRAPHY TEST	Alloy Steel	Micro Structural	Metal Handbook Vol. 7 - 8th Edition
112	MECHANICAL-METALLOGRAPHY TEST	Aluminium and Aluminium alloys	Grain Size (Microscopic Method)	ASTM E112
113	MECHANICAL-METALLOGRAPHY TEST	Aluminium and Aluminium alloys	Macrostructure	ASTM E340
114	MECHANICAL-METALLOGRAPHY TEST	Aluminium and Aluminium alloys	Macrostructure	IS 12573
115	MECHANICAL-METALLOGRAPHY TEST	Aluminium and Aluminium alloys	Micro Structural	ASM Handbook Vol. 9
116	MECHANICAL-METALLOGRAPHY TEST	Aluminium and Aluminium alloys	Micro Structural	Metal Handbook Vol. 7 - 8th Edition
117	MECHANICAL-METALLOGRAPHY TEST	Copper and Copper Alloy	Grain Size (Microscopic Method)	ASTM E112 (Comparison method)
118	MECHANICAL-METALLOGRAPHY TEST	copper and copper alloy	Macrostructure	ASTM E340
119	MECHANICAL-METALLOGRAPHY TEST	copper and copper alloy	Micro Structural	ASM Handbook Vol. 9,
120	MECHANICAL-METALLOGRAPHY TEST	Copper and Copper Alloys	Micro Structural	Metal Handbook Vol. 7 - 8th Edition
121	MECHANICAL-METALLOGRAPHY TEST	Steel Products	Inclusion Rating	ASTM E45 Method A&D
122	MECHANICAL-METALLOGRAPHY TEST	Steel Products	Inclusion Rating	IS 4163

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123	NON-DESTRUCTIVE-METALS & ALLOYS	Aluminium Alloys : Cast Billets, Extruded Rods, Flats, Tubes & Profiles	Ultrasonic Testing (Normal Beam)	AMS 2630 B
124	NON-DESTRUCTIVE-METALS & ALLOYS	Aluminium Alloys: Cast Billets	Ultrasonic Testing	HAL Specn. LUT 7 ISSUE 'B'
125	NON-DESTRUCTIVE-METALS & ALLOYS	Aluminium Alloys: Welds and Castings	X-Ray Radiography (260 KV max)	IS 2595
126	NON-DESTRUCTIVE-METALS & ALLOYS	Aluminium Alloys: Welds and Forgings	Liquid Penetrant	IS 3658
127	NON-DESTRUCTIVE-METALS & ALLOYS	Aluminum Alloys: Cast Billets, Extruded Rods, Flats, Tubes & Profiles	Ultrasonic Testing	IS 3664