SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA
Accreditation Standard	ISO/IEC 17025:2017
Certificate Number	TC-5363
Page No	1 of 16
Validity	27/03/2022 to 26/03/2024
Last Amended on	26/08/2022

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 & its alloys	Chromium	ASTM E1251
2	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Copper	ASTM E1251
3	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Iron	ASTM E1251
4	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Lead	ASTM E1251
5	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Magnesium	ASTM E1251
6	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Nickel	ASTM E1251
7	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Silicon	ASTM E1251
8	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Tin	ASTM E1251
9	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Titanium	ASTM E1251
10	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Zinc	ASTM E1251
11	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloy Steel	Vanadium	IS 8811
12	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Aluminum	ASTM E415
13	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Aluminum	IS 8811
14	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Carbon	ASTM E415
15	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Carbon	IS 8811
16	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Chromium	ASTM E415
17	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Chromium	IS 8811
18	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Cobalt	ASTM E415

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	2 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
19	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Cobalt	IS 8811
20	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Copper	ASTM E 415
21	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Copper	ASTM E 415:2017
22	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Manganese	IS 8811
23	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Molybdenum	ASTM E415
24	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Molybdenum	IS 8811
25	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Nickel	ASTM E415
26	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Nickel	IS 8811
27	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Niobium	ASTM E415
28	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Nitrogen	ASTM E415
29	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Phosphorus	ASTM E415
30	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Phosphorus	IS 8811
31	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Silicon	ASTM E415
32	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Silicon	IS 8811
33	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Sulphur	ASTM E415
34	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Sulphur	IS 8811
35	CHEMICAL- METALS & ALLOYS	Carbon & Low Alloys Steel	Titanium	IS 8811
36	CHEMICAL- METALS & ALLOYS	Cast Iron	Aluminum	ASTM E 1999
37	CHEMICAL- METALS & ALLOYS	Cast Iron	Aluminum	IS 15338

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	3 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
38	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	ASTM E1999
39	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	IS 15338
40	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	ASTM E 1999
41	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	IS 15338
42	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	ASTM E 1999
43	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	IS 15338
44	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	ASTM E 1999
45	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	IS 15338
46	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum	ASTM E 1999
47	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum	IS 15338
48	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	ASTM E 1999
49	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	IS 15338
50	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	ASTM E 1999
51	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	IS 15338
52	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	IS 15338
53	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulfur	ASTM E 1999
54	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulfur	IS 15338
55	CHEMICAL- METALS & ALLOYS	Cast Iron	Vanadium	IS 15338
56	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	BS EN 15079

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	4 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
57	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	BS EN 15079
58	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	BS EN 15079
59	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	BS EN 15079
60	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	BS EN 15079
61	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	BS EN 15079
62	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	BS EN 15079
63	CHEMICAL- METALS & ALLOYS	Manganese Steel	Manganese	ASTM E 2209
64	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Cobalt	ASTM E3047
65	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Aluminum	ASTM E3047
66	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Carbon	ASTM E3047
67	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Chromium	ASTM E3047
68	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Copper	ASTM E3047
69	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Iron	ASTM E3047
70	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Manganese	ASTM E3047
71	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Molybdenum	ASTM E3047
72	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Niobium	ASTM E3047
73	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Silicon	ASTM E3047
74	CHEMICAL- METALS & ALLOYS	Nickel & its alloys	Titanium	ASTM E3047
75	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Carbon	ASTM E1086

SCOPE OF ACCREDITATION

Laboratory Name : METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5363 **Page No** 5 of 16

Validity 27/03/2022 to 26/03/2024 **Last Amended on** 26/08/2022

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
76	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Carbon	IS 9879
77	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Chromium	ASTM E1086
78	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Chromium	IS 9879
79	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Cobalt	MSP-3.1 Issue-2, Dt. 29.03.
80	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Copper	ASTM E1086
81	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Copper	IS 9879
82	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Manganese	ASTM E1086
83	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Manganese	IS 9879
84	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Molybdenum	ASTM E1086
85	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Molybdenum	IS 9879
86	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Nickel	ASTM E1086
87	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Nickel	IS 9879
88	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Niobium	MSP-3.1 Issue-2, Dt. 29.03
89	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Nitrogen	IS 228 part 23
90	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Nitrogen	IS 228(Part 23)
91	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Phosphorous	ASTM E1086
92	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Phosphorus	IS 9879
93	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Silicon	IS 9879
94	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Sulphur	ASTM E1086

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	6 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
95	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Sulphur	IS 9879
96	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Titanium	MSP-3.1 Issue-2, Dt. 29.03
97	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Titanium	MSP-3.1 Issue-2, Dt. 29.03.
98	CHEMICAL- METALS & ALLOYS	Stainless steel & Alloys	Vanadium	MSP-3.1 Issue-2, Dt. 29.03
99	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	ASTM A370
100	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	ASTM E8
101	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	ASTM E8M
102	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	BS EN 1561
103	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	IS 1608 (Part 1)
104	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	ISO 6892 (Part 1)
105	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Elongation	SA 370
106	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	ASTM A370
107	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	ASTM E8
108	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	ASTM E8M
109	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	BS EN 1561

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA
Accreditation Standard	ISO/IEC 17025:2017
Certificate Number	TC-5363
Validity	27/03/2022 to 26/03/2024

Last Amended on 26/08/2022

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
110	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	IS 1608 (Part 1)
111	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	ISO 6892 (Part 1)
112	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	%Reduction of Area	SA 370
113	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	0.2% Proof Stress	ASTM A370
114	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	0.2% Proof Stress	ASTM E8
115	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	0.2% Proof Stress	ASTM E8M
116	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	0.2% Proof Stress	SA 370
117	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	ASRM E290
118	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	ASTM A370
119	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	BS EN ISO 7438
120	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	IS 1599
121	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	IS 1786
122	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Parent Metal)	SA 370
123	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	ASME Section IX

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	8 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
124	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	ASTM E190
125	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	AWS D1.1
126	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	Indian Boiler Regulation 1950
127	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	IS 3600 (Part 5)
128	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	IS 3600 (Part 6)
129	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Bend Test (Weld Metal)	ISO 5173
130	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Brinell Hardness Test (Ø10/3000kgf)	ASTM E10
131	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Brinell Hardness Test (Ø10/3000kgf)	BS EN ISO 6506 (Part 1)
132	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Brinell Hardness Test (Ø10/3000kgf)	IS 1500 (Part 1)
133	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (U Notch) Room Temperature to -196 Deg. Cent	IS 1499 (Part 1)
134	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (U Notch) Room Temperature to -196 Deg. Cent	ISO 148 (Part 1)
135	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (V Notch) Room Temperature to -196 Deg. Cent	IS 1757 (Part 1)
136	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (V Notch) Room Temperature to -196 Deg. Cent	ISO 148 (Part 1)
137	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (V Notch) Room Temperature to -196 Deg. Cent	SA 370

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA
Accreditation Standard	ISO/IEC 17025:2017
Certificate Number	TC-5363
Page No	9 of 16
Validity	27/03/2022 to 26/03/2024
Last Amended on	26/08/2022

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
138	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic material	Charpy Impact Test (V Notch) Room Temperature to -196 Deg. Cent	ASTM E23
139	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Charpy Impact Test (V Notch) Room Temperature to -196 Deg. Cent.	ASTM A370
140	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flaring Test / Drift Expansion Test	ASTM A370
141	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flaring Test / Drift Expansion Test	BS EN ISO 8493
142	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flaring Test / Drift Expansion Test	IS 2335
143	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flaring Test / Drift Expansion Test	SA 370
144	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flattening Test (Steel Tubes/Pipes)	BS EN ISO 8492
145	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flattening Test (Steel Tubes/Pipes)	IS 2328
146	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flattening Test (Steel Tubes/Pipes)	SA 370
147	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Flattening Test (Steel Tubes/Pipes)	ASTM A370
148	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Fracture Test (Weld Metal / Weld Joint)	AWS D1.1
149	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Fracture Test (Weld Metal / Weld Joint)	BS EN ISO 9017
150	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Fracture Test (Weld Metal / Weld Joint)	IS 3600 (Part 8)
151	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Fracture Test (Weld Metal/Weld Joint)	ASME Section IX

SCOPE OF ACCREDITATION

Laboratory Name : METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5363 **Page No** 10 of 16

Validity 27/03/2022 to 26/03/2024 **Last Amended on** 26/08/2022

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
152	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Full Size Breaking Load Test (Bolt / Stud)	ASTM A370
153	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Full Size Breaking Load Test (Bolt / Stud)	IS 1367 (Part 3)
154	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Full Size Breaking Load Test (Bolt / Stud)	ISO 898 (Part 1)
155	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Full Size Breaking Load Test (Bolt / Stud)	SA 193
156	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Full Size Breaking Load Test (Bolt / Stud)	SA 370
157	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Nick Break Test (Weld Metal/ Weld Joint)	ASME Section IX
158	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Nick Break Test (Weld Metal/ Weld Joint)	IS 3600 (Part 8)
159	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Nominal Mass of TMT Bar	IS 1786
160	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Nut)	ASTM A370
161	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Nut)	IS 1367 (Part 6)
162	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Nut)	ISO 898 (Part 2)
163	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Nut)	SA 194
164	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Nut)	SA 370
165	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Bolt / Stud)	ASTM A370

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA
Accreditation Standard	ISO/IEC 17025:2017
Certificate Number	TC-5363
Page No	11 of 16
Validity	27/03/2022 to 26/03/2024
Last Amended on	26/08/2022

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
166	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Bolt / Stud)	ISO 898 (Part 1)
167	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Bolt / Stud)	SA 370
168	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Stud / Bolt)	IS 1367 (Part 3)
169	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Proof Load Test (Stud / Bolt)	SA 193
170	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rebend Test of TMT bar (Reinforcement bar)	IS 1786
171	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (B Scale)	ASTM E18
172	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (B Scale)	BS EN ISO 6508 (Part 1)
173	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (B Scale)	IS 1586 (Part 1)
174	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (C Scale)	ASTM E18
175	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (C Scale)	BS EN ISO 6508 (Part 1)
176	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Rockwell Hardness Test (C Scale)	IS 1586 (Part 1)
177	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	ASME Section IX
178	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	AWS D1.1
179	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	BS EN ISO 15614 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	12 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
180	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	BS EN ISO 5178
181	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	IS 3600 (Part 3)
182	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Strength	ISO 4136
183	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	ASTM A370
184	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	ASTM E8
185	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	ASTM E8M
186	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	BS EN 1561
187	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	IS 1608 (Part 1)
188	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Parent Metal)	ISO 6892 (Part 1)
189	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile test (Parent Metal)	SA 370
190	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tensile Test (Weld Metal)	Indian Boiler Regulation 1950
191	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Tube to Tubesheet Mock up (Pull out / Push out, Location of Fracture, Breaking Load)	ASME Section VIII (Div. 1)
192	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	ASTM A370
193	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	ASTM E8

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA
Accreditation Standard	ISO/IEC 17025:2017
Certificate Number	TC-5363
Page No	13 of 16
Validity	27/03/2022 to 26/03/2024
Last Amended on	26/08/2022

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
194	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	ASTM E8M
195	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	BS EN 1561
196	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	IS 1608 (Part 1)
197	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	ISO 6892 (Part 1)
198	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Ultimate Tensile Strength (Parent Metal)	SA 370
199	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test	ASTM E92
200	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV 5)	BS EN ISO 6507 (Part 1)
201	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV 5)	IS 1501
202	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV10)	ASTM E92
203	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV10)	BS EN ISO 6507 (Part 1)
204	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV10)	IS 1501
205	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV30)	ASTM E92
206	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV30)	BS EN 1043 (Part 1)
207	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV30)	BS EN ISO 6507 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name : METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5363 **Page No** 14 of 16

Validity 27/03/2022 to 26/03/2024 **Last Amended on** 26/08/2022

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
208	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Vickers Hardness Test (HV30)	IS 1501
209	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Wedge Load Test (Bolt)	ASTM A370
210	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Wedge Load Test (Bolt)	IS 1367 (Part 3)
211	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Wedge Load Test (Bolt)	ISO 898 (Part 1)
212	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Wedge Load Test (Bolt)	SA 193
213	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Wedge Load Test (Bolt)	SA 370
214	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	ASTM A370
215	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	ASTM E8
216	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	ASTM E8M
217	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	BS EN 1561
218	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	IS 1608 (Part 1)
219	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	ISO 6892 (Part 1)
220	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Material	Yield Stress	SA 370
221	MECHANICAL-METALLOGRAPHY TEST		Macro Examination of Metal	ASTM E381

SCOPE OF ACCREDITATION

Laboratory Name : METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5363 **Page No** 15 of 16

Validity 27/03/2022 to 26/03/2024 **Last Amended on** 26/08/2022

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
222	MECHANICAL-METALLOGRAPHY TEST	Case hardened steel	Case depth measurement by microscopic method	IS 6416
223	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Distribution	ASTM A247
224	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Nodularity	ASTM A247
225	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Nodule Count	ASTM A247
226	MECHANICAL-METALLOGRAPHY TEST	Corrosion Test	IGC Practice B	ASTM A 262
227	MECHANICAL-METALLOGRAPHY TEST	Corrosion Test	IGC Practice C	ASTM A 262
228	MECHANICAL-METALLOGRAPHY TEST	Duplex Stainless Steel	Detection of Inter Metallic Phases Method - A	ASTM A923
229	MECHANICAL-METALLOGRAPHY TEST	ferrous materials & its alloys	Depth of decarburization	ASTM E1077
230	MECHANICAL-METALLOGRAPHY TEST	Ferrous materials & its alloys	Depth of decarburization	IS 6396
231	MECHANICAL-METALLOGRAPHY TEST	Macro Examination of Metals	Macro Examination of Metal	ASM Handbook Vol.9
232	MECHANICAL-METALLOGRAPHY TEST	Metal Coating	Coating Thickness	ASTM B487
233	MECHANICAL-METALLOGRAPHY TEST	Metal Coating	Coating Thickness	ASTM B499
234	MECHANICAL-METALLOGRAPHY TEST	Metal Coating	Coating Thickness	IS 3203
235	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Average Grain Size	ASTM E112
236	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Average Grain Size	IS 4748
237	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	IGC Practice "E"	ASTM A262
238	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	IGC Practice ''A"	ASTM A262
239	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Inclusion Rating	ASTM E45
240	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Inclusion Rating	IS 4163

SCOPE OF ACCREDITATION

Laboratory Name :	METAL HEAT TREATERS & ENGINEERS (MATERIAL TESTING LABORATORY), PLOT NO. 1803/9, ROAD A-32, PHASE IV, GIDC ESTATE, VITHAL UDYOGNAGAR, ANAND, GUJARAT, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5363	**Page No**	16 of 16
Validity	27/03/2022 to 26/03/2024	**Last Amended on**	26/08/2022

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
241	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Macro Examination of Metal	ASTM E340
242	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Macro Examination of Weld Joint	Indian Boiler Regulation 1950
243	MECHANICAL-METALLOGRAPHY TEST	Metallic Material	Microstructure	ASM Handbook Vol.9
244	MECHANICAL-METALLOGRAPHY TEST	Metallic materials	Macro Examination of Weld Joint	BS EN ISO 17639
245	MECHANICAL-METALLOGRAPHY TEST	Nickel base and chromium bearing alloys	Corrosion Test Method A	ASTM G28-02
246	MECHANICAL-METALLOGRAPHY TEST	Nickel base and chromium bearing alloys	Corrosion Test Method B	ASTM G28-02
247	MECHANICAL-METALLOGRAPHY TEST	Stainless Steel & Duplex Stainless Steel	Volume Fraction by Systematic Point Count	ASTM E562
248	MECHANICAL-METALLOGRAPHY TEST	Welds & Welded test specimens	Macro Examination of Weld Joint	ASME Section IX
249	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens	Macro Examination of Weld Joint	IS 3600 (Part 9)
250	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens	Micro Structure Analysis	ASM METALS HANDBOOK VOLUME - 9