National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 1 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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- CORROSION TESTS	Coated Metallic Materials	Salt Spray Test	ASTM B117
2	CHEMICAL- CORROSION TESTS	Coated Metallic Materials	Salt Spray Test	ISO 9227
3	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Chromium	ASTM E1251
4	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Chromium	IS 11035
5	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Copper	ASTM E1251
6	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Copper	IS 11035
7	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Iron	ASTM E1251
8	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Iron	IS 11035
9	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Lead	ASTM E1251
10	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Magnesium	ASTM E1251
11	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Magnesium	IS 11035
12	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Manganese	ASTM E1251
13	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Manganese	IS 11035
14	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Nickel	ASTM E1251
15	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Silicon	ASTM E1251
16	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Silicon	IS 11035
17	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Tin	ASTM E1251
18	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Titanium	ASTM E1251

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 2 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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	Aluminium & its Alloys	Titanium	IS 11035
20	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Zinc	ASTM E1251
21	CHEMICAL- METALS & ALLOYS	Aluminium & its Alloys	Zinc	IS 11035
22	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Carbon	IS 9879
23	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Chromium	IS 9879
24	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Manganese	IS 9879
25	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Molybdenum	IS 9879
26	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Nickel	IS 9879
27	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Phosphorus	IS 9879
28	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Silicon	IS 9879
29	CHEMICAL- METALS & ALLOYS	Austenitic & Ferritic Stainless Steel	Sulphur	IS 9879
30	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Carbon	ASTM E1086
31	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Chromium	ASTM E1086
32	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Copper	ASTM E1086
33	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Manganese	ASTM E1086
34	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Molybdenum	ASTM E1086
35	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Nickel	ASTM E1086
36	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Phosphorus	ASTM E1086
37	CHEMICAL- METALS & ALLOYS	Austenitic Stainless Steel	Silicon	ASTM E1086

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 3 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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	Austenitic Stainless Steel	Sulphur	ASTM E1086
39	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	ASTM E1999
40	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	IS 15338
41	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	ASTM E1999
42	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	IS 15338
43	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	ASTM E1999
44	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	IS 15338
45	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	ASTM E1999
46	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	IS 15338
47	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum	ASTM E1999
48	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	ASTM E1999
49	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	IS 15338
50	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	ASTM E1999
51	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	IS 15338
52	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	ASTM E1999
53	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	IS 15338
54	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur	ASTM E1999
55	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur	IS 15338
56	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Aluminium	BS EN 15079

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	4 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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	Aluminium	WI/CHE/03d Issue No.: 4, July 26, 2016
58	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Antimony	BS EN 15079
59	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Antimony	WI/CHE/03d, Issue No.: 4, July 26, 2016
60	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	BS EN 15079
61	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron	WI/CHE/03d Issue No.: 4, July 26, 2016
62	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	BS EN 15079
63	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead	WI/CHE/03d Issue No.: 4, July 26, 2016
64	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	BS EN 15079
65	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese	WI/CHE/03d Issue No.: 4, July 26, 2016
66	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	BS EN 15079
67	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel	WI/CHE/03d Issue No.: 4, July 26, 2016
68	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus	BS EN 15079
69	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphours	WI/CHE/03d Issue No.: 4, July 26, 2016
70	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	BS EN 15079
71	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon	WI/CHE/03d Issue No.: 4, July 26, 2016
72	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	BS EN 15079
73	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin	WI/CHE/03d Issue No.: 4, July 26, 2016
74	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	BS EN 15079
75	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc	WI/CHE/03d Issue No.: 4, July 26, 2016

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	5 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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	Iron & Steel	Aluminium	JIS G 1253
77	CHEMICAL- METALS & ALLOYS	Iron & Steel	Boron	JIS G 1253
78	CHEMICAL- METALS & ALLOYS	Iron & Steel	Carbon	JIS G 1253
79	CHEMICAL- METALS & ALLOYS	Iron & Steel	Chromium	JIS G 1253
80	CHEMICAL- METALS & ALLOYS	Iron & Steel	Cobalt	JIS G 1253
81	CHEMICAL- METALS & ALLOYS	Iron & Steel	Copper	JIS G 1253
82	CHEMICAL- METALS & ALLOYS	Iron & Steel	Lead	JIS G 1253
83	CHEMICAL- METALS & ALLOYS	Iron & Steel	Manganese	JIS G 1253
84	CHEMICAL- METALS & ALLOYS	Iron & Steel	Molybdenum	JIS G 1253
85	CHEMICAL- METALS & ALLOYS	Iron & Steel	Nickel	JIS G 1253
86	CHEMICAL- METALS & ALLOYS	Iron & Steel	Niobium	JIS G 1253
87	CHEMICAL- METALS & ALLOYS	Iron & Steel	Nitrogen	JIS G 1253
88	CHEMICAL- METALS & ALLOYS	Iron & Steel	Phosphorus	JIS G 1253
89	CHEMICAL- METALS & ALLOYS	Iron & Steel	Silicon	JIS G 1253
90	CHEMICAL- METALS & ALLOYS	Iron & Steel	Sulphur	JIS G 1253
91	CHEMICAL- METALS & ALLOYS	Iron & Steel	Titanium	JIS G 1253
92	CHEMICAL- METALS & ALLOYS	Iron & Steel	Tungsten	JIS G 1253
93	CHEMICAL- METALS & ALLOYS	Iron & Steel	Vanadium	JIS G 1253
94	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Aluminium	ASTM E415

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	6 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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	Low carbon, Medium carbon & High carbon steel	Aluminium	IS 8811
96	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Boron	ASTM E415
97	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Boron	IS 8811
98	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Carbon	ASTM E415
99	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Carbon	IS 8811
100	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Chromium	ASTM E415
101	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Chromium	IS 8811
102	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Cobalt	ASTM E415
103	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Cobalt	IS 8811
104	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Copper	ASTM E415
105	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Copper	IS 8811
106	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Manganese	ASTM E415
107	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Manganese	IS 8811
108	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Molybdenum	ASTM E415
109	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Molybdenum	IS 8811
110	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Nickel	ASTM E415
111	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Nickel	IS 8811
112	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Niobium	ASTM E415
113	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Niobium	IS 8811

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	7 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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
114	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Phosphorous	IS 8811
115	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Phosphorus	ASTM E415
116	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Silicon	ASTM E415
117	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Silicon	IS 8811
118	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Sulphur	ASTM E415
119	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Titanium	ASTM E415
120	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Titanium	IS 8811
121	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Vanadium	ASTM E415
122	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel	Vanadium	IS 8811
123	CHEMICAL- METALS & ALLOYS	Low carbon, Medium carbon & High carbon steel)	Sulphur	IS 8811
124	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Carbon Steels & Alloys Steel - Threaded Fasteners (Bolt, Screw and Studs)	Proof Load	IS 1367 (Part 3)
125	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Carbon Steels & Alloys Steel - Threaded Fasteners (Bolt, Screw and Studs)	Proof Load	ISO 898-1
126	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Carbon Steels & Alloys Steel - Threaded Fasteners (Nut)	Proof Load	IS 1367 (Part 6)
127	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Carbon Steels & Alloys Steel - Threaded Fasteners (Nut)	Proof Load	ISO 898-2
128	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Duplex, Austenite/ Ferritic Stainless Steels	Charpy Impact Test Method B	ASTM A923
129	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Materials	Bend Test	ASTM E290

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	8 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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
130	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Bend Test	IS 1599
131	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Bend Test	ISO 7438
132	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 10/3000)	ISO 6506-1
133	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 10/500)	ASTM E10
134	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 10/500)	IS 1500 (Part 1)
135	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 10/500)	ISO 6506-1
136	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 2.5/187.5)	ASTM E10
137	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 2.5/187.5)	IS 1500 (Part 1)
138	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 2.5/187.5)	ISO 6506-1
139	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 2.5/62.5)	ASTM E10
140	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 5/ 750)	ISO 6506-1
141	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 5/750)	ASTM E10
142	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW 5/750)	IS 1500 (Part 1)
143	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW10/ 3000)	IS 1500 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 9 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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
144	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Brinell Hardness (HBW10/3000)	ASTM E10
145	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Charpy Impact Test V Notch (Temp: -196°C to 30°C)	ASTM E23
146	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRA	ASTM E18
147	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRA	IS 1586 (Part 1)
148	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRA	ISO 6508-1
149	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRBW	ASTM E18
150	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRBW	IS 1586 (Part 1)
151	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRBW	ISO 6508-1
152	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRC	ASTM E18
153	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRC	IS 1586 (Part 1)
154	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Rockwell Hardness HRC	ISO 6508-1
155	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Elongation): Load 0.4 kN to 400 kN	ASTM E8/8M
156	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Elongation): Load 0.4 kN to 400 kN	IS 1608 (Part 1)
157	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Elongation): Load 0.4 kN to 400 kN	ISO 6892-1

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 10 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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
158	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Reduction in Area): Load 0.4 kN to 400 kN	ASTM E8/8M
159	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Reduction in Area): Load 0.4 kN to 400 kN	IS 1608 (Part 1)
160	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Reduction in Area): Load 0.4 kN to 400 kN	ISO 6892-1
161	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Ultimate Tensile Strength) : Load 0.4 kN to 400 kN	ASTM E8/8M
162	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Ultimate Tensile Strength): Load 0.4 kN to 400 kN	IS 1608 (Part 1)
163	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Ultimate Tensile Strength): Load 0.4 kN to 400 kN	ISO 6892-1
164	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Yield Stress, 0.1% to 1% Proof Stress): Load 0.4 kN to 400 kN	ASTM E8/8M
165	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Yield Stress, 0.1% to 1% Proof Stress): Load 0.4 kN to 400 kN	IS 1608 (Part 1)
166	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Tensile Test (Yield Stress, 0.1% to 1% Proof Stress): Load 0.4 kN to 400 kN	ISO 6892-1
167	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 10)	ASTM E92
168	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 10)	IS 1501 (Part 1)
169	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 10)	ISO 6507-1
170	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 30)	ASTM E92
171	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 30)	IS 1501 (Part 1)

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 11 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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
172	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 30)	ISO 6507-1
173	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 5)	ASTM E92
174	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 5)	IS 1501 (Part 1)
175	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Metallic Materials	Vickers Hardness (HV 5)	ISO 6507-1
176	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Bend Test	ASTM A370
177	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Brinell Hardness (HBW 5/750)	ASTM A370
178	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Brinell Hardness (HBW10/ 3000)	ASTM A370
179	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Charpy Impact Test 'V' Notch (Temp:- 196 °C to 30 °C)	ASTM A370
180	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Load Test (Pull Out Load Test , Push out Load Test)	ASTM A370
181	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Nick Break Test	ASTM A370
182	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Proof Load	ASTM A370
183	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Rockwell Hardness HRA	ASTM A370
184	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Rockwell Hardness HRBW	ASTM A370
185	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Rockwell Hardness HRC	ASTM A370

SCOPE OF ACCREDITATION

Laboratory Name : ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5859 **Page No** 12 of 14

Validity 30/06/2022 to 29/06/2024 **Last Amended on** 16/05/2023

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
186	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Tensile Test (Elongation): Load 0.4 kN to 400 kN	ASTM A370
187	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Tensile Test (Reduction in Area): Load 0.4 kN to 400 kN	ASTM A370
188	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Tensile Test (Ultimate Tensile Strength) : Load 0.4 kN to 400 kN	ASTM A370
189	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products	Tensile Test (Yield Stress, 0.1% to 1% Proof Stress): Load 0.4 kN to 400 kN	ASTM A370
190	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds in Metallic Materials	All weld Tensile Test (Elongation): Load 0.4 kN to 400 kN	ASTM A370
191	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds in Metallic Materials	All weld Tensile Test (Reduction in Area): Load 0.4 kN to 400 kN	ASTM A370
192	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds in Metallic Materials	All weld Tensile Test (Ultimate Tensile Strength): Load 0.4 kN to 400 kN	ASTM A370
193	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds in Metallic Materials	All weld Tensile Test (Yield Stress, 0.1% to 1% Proof Stress): Load 0.4 kN to 400 kN	ASTM A370
194	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welds in Metallic Materials	Nick Break Test	IS 2825
195	MECHANICAL-METALLOGRAPHY TEST	Austenitic Stainless Steel	Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels, Test Practice-C.	ASTM A262
196	MECHANICAL-METALLOGRAPHY TEST	Austenitic Stainless Steels	Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels , Test Practice-A Oxallic Acid Etch Test	ASTM A262
197	MECHANICAL-METALLOGRAPHY TEST	Austenitic Stainless Steels	Detecting Susceptibility to intergranular attack in Austenitic Stainless Steels, Test Practice-B.	ASTM A262

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	13 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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
198	MECHANICAL-METALLOGRAPHY TEST	Austenitic Stainless Steels	Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels, Test Practice-E.	ASTM A262
199	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Compacted Graphite cast iron - Classification	ISO 16112
200	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Designation of Microstructure of Graphite in Cast Iron	IS 7754 : 1975 Ra
201	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Evaluating the microstructure of Graphite in Iron Castings	ASTM A247
202	MECHANICAL-METALLOGRAPHY TEST	Cast Iron	Graphite Classification by visual analysis	ISO 945-1
203	MECHANICAL-METALLOGRAPHY TEST	Duplex Austenite/ Ferritic Stainless Steels	Detecting Detrimental Intermetallic Phase test Method A	ASTM A923
204	MECHANICAL-METALLOGRAPHY TEST	Duplex, Austenite/ Ferrite Stainless Steel	Detecting Detrimental Intermetallic Phase test Method C	ASTM A923
205	MECHANICAL-METALLOGRAPHY TEST	Metal, Metal Alloys & Products	Microstructure Analysis	ASM Handbook Vol.9
206	MECHANICAL-METALLOGRAPHY TEST	Metal, Metal Alloys & Products	Testing Local Thickness of Electrocoated Coatings by Microscopic Method	IS 3203
207	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials	Determining Volume Fraction by Systemetic Manual Point Count	ASTM E562
208	MECHANICAL-METALLOGRAPHY TEST	Metallic Materials	Determining Average Grain Size	ASTM E112
209	MECHANICAL-METALLOGRAPHY TEST	Nickel- Rich, Chromium Bearing-Alloys	Detecting Susceptibility to Intergranular Corrosion Test, Method A.	ASTM G28
210	MECHANICAL-METALLOGRAPHY TEST	Painted, Plated, Coated Panels & Products	Determination of Coating Thickness by microscopic method (Method-4)	IS 101 (Part 3/Sec2) Method 4
211	MECHANICAL-METALLOGRAPHY TEST	Special Steels	Non-metallic inclusions	DIN 50602
212	MECHANICAL-METALLOGRAPHY TEST	Stainless Steels & Related Alloys	Creviice Corrosion Test Practice B- Ferric chloride Crevice Test	ASTM G48

SCOPE OF ACCREDITATION

Laboratory Name :	ELCA QUALITY SYSTEMS & CALIBRATIONS PVT. LTD., SPV COMPOUND, PLOT NO.-9, MIDC, SHIROLI, KOLHAPUR, MAHARASHTRA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5859	**Page No**	14 of 14
Validity	30/06/2022 to 29/06/2024	**Last Amended on**	16/05/2023

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
213	MECHANICAL-METALLOGRAPHY TEST	Stainless Steels & Related Alloys	Pitting Corrosion Test: Practice A - Ferric chloride Pitting Test	ASTM G48
214	MECHANICAL-METALLOGRAPHY TEST	Steel Bars, Billets, Blooms & Forgings	Macroetch Testing	ASTM E381
215	MECHANICAL-METALLOGRAPHY TEST	Steels	Determining the Inclusion Content	ASTM E45
216	MECHANICAL-METALLOGRAPHY TEST	Steels	Determination of Content of Non-Metallic Inclusions	IS 4163
217	MECHANICAL-METALLOGRAPHY TEST	Steels	Determination of the apparent Grain Size	EN ISO 643
218	MECHANICAL-METALLOGRAPHY TEST	Steels	Determination of the apparent Grain Size	IS 4748
219	MECHANICAL-METALLOGRAPHY TEST	Steels	Estimating the Depth of Decarburization	ASTM E1077
220	MECHANICAL-METALLOGRAPHY TEST	Steels	Measuring Case Depth of Steel by Microscopic Method	IS 6416
221	MECHANICAL-METALLOGRAPHY TEST	Steels	Measuring Decarburized Depth of Steel	IS 6396