National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5731 **Page No** 1 of 7

Validity 21/02/2022 to 24/05/2023 **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	Aluminium & its alloys	Bismuth content	ASTM E1251-17a
2	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Chromium content	ASTM E1251-17a
3	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Copper content	ASTM E1251-17a
4	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Iron content	ASTM E1251-17a
5	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Lead content	ASTM E1251-17a
6	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Magnesium content	ASTM E1251-17a
7	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Manganese content	ASTM E1251-17a
8	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Silicon content	ASTM E1251-17a
9	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Tin content	ASTM E1251-17a
10	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Titanium content	ASTM E1251-17a
11	CHEMICAL- METALS & ALLOYS	Aluminium & its alloys	Zinc content	ASTM E1251-17a
12	CHEMICAL- METALS & ALLOYS	Cast Iron	Aluminium content	IS 15338
13	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon content	IS 15338
14	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium content	IS 15338
15	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper content	IS 15338
16	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese content	IS 15338
17	CHEMICAL- METALS & ALLOYS	Cast Iron	Molybdenum content	IS 15338
18	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel content	IS 15338

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5731 **Page No** 2 of 7

Validity 21/02/2022 to 24/05/2023 **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
19	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus content	IS 15338
20	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon content	IS 15338
21	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur content	IS 15338
22	CHEMICAL- METALS & ALLOYS	Cast Iron	Vanadium content	IS 15338
23	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Aluminium content	BS EN 15079
24	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Antimony content	BS EN 15079
25	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Arsenic content	BS EN 15079
26	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Bismuth content	BS EN 15079
27	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Chromium content	BS EN 15079
28	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Cobalt content	BS EN 15079
29	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Iron content	BS EN 15079
30	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Lead content	BS EN 15079
31	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Manganese content	BS EN 15079
32	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Nickel content	BS EN 15079
33	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Oxygen content	BS EN 15079
34	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Phosphorus content	BS EN 15079
35	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silicon content	BS EN 15079
36	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Silver content	BS EN 15079
37	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Tin content	BS EN 15079

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5731 **Page No** 3 of 7

Validity 21/02/2022 to 24/05/2023 **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
38	CHEMICAL- METALS & ALLOYS	Copper & its alloys	Zinc content	BS EN 15079
39	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Aluminium content	ASTM E 415
40	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Carbon content	ASTM E 415
41	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Carbon content (By Strohlein's apparatus)	IS 228 (Part -1)
42	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Chromium content	ASTM E 415
43	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Chromium content	IS 228 (Part-6)
44	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Cobalt content	ASTM E 415
45	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Copper content	ASTM E 415
46	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Manganese content	IS 228 (Part-2)
47	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Manganese content	ASTM E 415
48	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Molybdenum content	ASTM E 415
49	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Nickel content	ASTM E 415
50	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Nickel content	IS 228 (Part-5)
51	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Nitrogen content	ASTM E 415
52	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Phosphorus content	ASTM E 415
53	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Phosphorus content	IS 228 (Part-3)
54	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Silicon content	ASTM E 415
55	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Silicon content	IS 228 (Part-8)
56	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Sulphur content	ASTM E 415

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5731 **Page No** 4 of 7

Validity 21/02/2022 to 24/05/2023 **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
57	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Sulphur content	IS 228 (Part-9)
58	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Titanium content	ASTM E 415
59	CHEMICAL- METALS & ALLOYS	Low Alloy steel	Vanadium content	ASTM E 415
60	CHEMICAL- METALS & ALLOYS	Stainless steel	Aluminium content	IS 9879
61	CHEMICAL- METALS & ALLOYS	Stainless steel	Carbon content	IS 9879
62	CHEMICAL- METALS & ALLOYS	Stainless steel	Chromium content	IS 9879
63	CHEMICAL- METALS & ALLOYS	Stainless steel	Cobalt content	IS 9879
64	CHEMICAL- METALS & ALLOYS	Stainless steel	Copper content	IS 9879
65	CHEMICAL- METALS & ALLOYS	Stainless steel	Manganese content	IS 9879
66	CHEMICAL- METALS & ALLOYS	Stainless steel	Molybdenum content	IS 9879
67	CHEMICAL- METALS & ALLOYS	Stainless steel	Nickel content	IS 9879
68	CHEMICAL- METALS & ALLOYS	Stainless steel	Nitrogen content	IS 9879
69	CHEMICAL- METALS & ALLOYS	Stainless steel	Phosphorus content	IS 9879
70	CHEMICAL- METALS & ALLOYS	Stainless steel	Silicon content	IS 9879
71	CHEMICAL- METALS & ALLOYS	Stainless steel	Sulphur content	IS 9879
72	CHEMICAL- METALS & ALLOYS	Stainless steel	Tin content	IS 9879
73	CHEMICAL- METALS & ALLOYS	Stainless steel	Titanium content	IS 9879
74	CHEMICAL- METALS & ALLOYS	Stainless steel	Vanadium content	IS 9879
75	CHEMICAL- METALS & ALLOYS	Tool steel	Aluminium content	JIS G 1253

SCOPE OF ACCREDITATION

Laboratory Name :	QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5731	**Page No**	5 of 7
Validity	21/02/2022 to 24/05/2023	**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
76	CHEMICAL- METALS & ALLOYS	Tool steel	Carbon content	JIS G 1253
77	CHEMICAL- METALS & ALLOYS	Tool steel	Cobalt content	JIS G 1253
78	CHEMICAL- METALS & ALLOYS	Tool steel	Manganese content	JIS G 1253
79	CHEMICAL- METALS & ALLOYS	Tool steel	Molybdenum content	JIS G 1253
80	CHEMICAL- METALS & ALLOYS	Tool steel	Nickel content	JIS G 1253
81	CHEMICAL- METALS & ALLOYS	Tool steel	Phosphorus content	JIS G 1253
82	CHEMICAL- METALS & ALLOYS	Tool steel	Silicon content	JIS G 1253
83	CHEMICAL- METALS & ALLOYS	Tool steel	Sulphur content	JIS G 1253
84	CHEMICAL- METALS & ALLOYS	Tool steel	Tungsten content	JIS G 1253
85	CHEMICAL- METALS & ALLOYS	Tool steel	Vanadium content	JIS G 1253
86	CHEMICAL- METALS & ALLOYS	Tool stool	Chromium content	JIS G 1253
87	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Yield Stress (YS)	IS 1608 (Part - 1)
88	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys (for small diameter / thickness samples)	Tensile strength (TS)	IS 1608 (Part - 1)
89	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	0.2% Proof Stress (0.2 Ps)	IS 1608 (Part - 1)
90	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Brinell Hardness Test	IS 1500 (Part - 1)
91	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Brinell Hardness Test	IS 1500 (Part - 1)
92	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Percentage Elongation (% EL)	IS 1608 (Part - 1)

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5731 **Page No** 6 of 7

Validity 21/02/2022 to 24/05/2023 **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
93	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Rockwell Hardness Test	IS 1586 (Part - 1)
94	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Rockwell Hardness Test	IS 1586 (Part - 1)
95	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Rockwell Hardness Test	IS 1586 (Part - 1)
96	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Tensile strength (TS)	IS 1608 (Part - 1)
97	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Vickers Hardness Test	IS 1501 (Part - 1)
98	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Vickers Hardness Test	IS 1501 (Part - 1)
99	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Vickers Hardness Test	IS 1501 (Part - 1)
100	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys	Vickers Hardness Test	IS 1501 (Part - 1)
101	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys (for small diameter / thickness samples)	Percentage Elongation (% EL)	IS 1608 (Part - 1)
102	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous & Non-Ferrous metals & Alloys (for small diameter / thickness samples)	Yield Stress (YS)	IS 1608 (Part - 1)
103	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	Izod Impact Test	IS 1598
104	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	U Notch Charpy Test	IS 1499
105	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Ferrous materials, alloys & products	V Notch Charpy Test (at room temperature)	IS 1757(Part - 1)
106	MECHANICAL-METALLOGRAPHY TEST	All products of Aluminium alloys	Macro structural analysis (Peripheral Grain Growth)	IS 12573

National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	QUALITY CONTROL LABORATORY, GUN AND SHELL FACTORY, COSSIPORE, KOLKATA, WEST BENGAL, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-5731	**Page No**	7 of 7
Validity	21/02/2022 to 24/05/2023	**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
107	MECHANICAL-METALLOGRAPHY TEST	Copper materials, alloys & products	Average Grain Size	ASTM E112