National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : QUALITY CONTROL LAB, DIFFUSION ENGINEERS LIMITED, PLOT NO. T/5 & 6, HINGNA MIDC AREA, NAGPUR, MAHARASHTRA, INDIA

Accreditation Standard ISO/IEC 17025:2017

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Validity 12/05/2023 to 11/05/2025 **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	Cast Iron	Aluminium	JIS - G 1253
2	CHEMICAL- METALS & ALLOYS	Cast Iron	Boron	JIS - G1253
3	CHEMICAL- METALS & ALLOYS	Cast Iron	Carbon	ASTM E 1999
4	CHEMICAL- METALS & ALLOYS	Cast Iron	Chromium	ASTM E 1999
5	CHEMICAL- METALS & ALLOYS	Cast Iron	Copper	ASTM E 1999
6	CHEMICAL- METALS & ALLOYS	Cast Iron	Manganese	ASTM E 1999
7	CHEMICAL- METALS & ALLOYS	Cast iron	Molybdenum	ASTM E 1999
8	CHEMICAL- METALS & ALLOYS	Cast Iron	Nickel	ASTM E 1999
9	CHEMICAL- METALS & ALLOYS	Cast Iron	Phosphorus	ASTM E 1999
10	CHEMICAL- METALS & ALLOYS	Cast Iron	Silicon	ASTM E 1999
11	CHEMICAL- METALS & ALLOYS	Cast Iron	Sulphur	ASTM E 1999
12	CHEMICAL- METALS & ALLOYS	Cast Iron	Tungsten	JIS - G1253
13	CHEMICAL- METALS & ALLOYS	Cast Iron	Vanadium	ASTM E 1999
14	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Aluminium	SOP/DE/CHEM/02
15	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Carbon	SOP/DE/CHEM/02
16	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Chromium	SOP/DE/CHEM/02
17	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Copper	SOP/DE/CHEM/02
18	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Iron	SOP/DE/CHEM/02

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19	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Manganese	SOP/DE/CHEM/02
20	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Molybdenum	SOP/DE/CHEM/02
21	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Nickel	SOP/DE/CHEM/02
22	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Niobium	SOP/DE/CHEM/02
23	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Phosphorus	SOP/DE/CHEM/02
24	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Silicon	SOP/DE/CHEM/02
25	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Sulphur	SOP/DE/CHEM/02
26	CHEMICAL- METALS & ALLOYS	Cobalt Alloys	Tungsten	SOP/DE/CHEM/02
27	CHEMICAL- METALS & ALLOYS	Copper alloys	Copper	SOP / DE/ CHEM /3
28	CHEMICAL- METALS & ALLOYS	Copper alloys	Phosphorus	IS 440
29	CHEMICAL- METALS & ALLOYS	Copper alloys	Tin	IS 4667 Part-2
30	CHEMICAL- METALS & ALLOYS	Ferro Chromium	Silicon (Si)	SOP/DE/CHEM-ICP/04
31	CHEMICAL- METALS & ALLOYS	Ferro chrome	Chromium	IS 13452 (Part-5&6)
32	CHEMICAL- METALS & ALLOYS	Ferro chrome	Phosphorus	IS 13452 (part 7)
33	CHEMICAL- METALS & ALLOYS	Ferro chrome	Silicon	IS 13452 (Part-1&2)
34	CHEMICAL- METALS & ALLOYS	Ferro Chromium	Phosphorus (P)	SOP/DE/CHEM-ICP/04
35	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Carbon	ASTM E 1019
36	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Chromium	IS 228 Part-6
37	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Manganese	IS 228 Part-2

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38	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Molybdenum	IS 228 Part-7
39	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Phosphorus	IS 228 Part-3
40	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Silicon	IS 228 Part-8
41	CHEMICAL- METALS & ALLOYS	Ferro Metal & Alloys	Sulphur	ASTM E 1019
42	CHEMICAL- METALS & ALLOYS	Ferro Molybdenum	Molybdenum	IS 12614 Part 1
43	CHEMICAL- METALS & ALLOYS	Ferro Molybdenum	Molybdenum (Mo)	SOP/DE/CHEM-ICP/04
44	CHEMICAL- METALS & ALLOYS	Ferro Molybdenum	Phosphorus (P)	SOP/DE/CHEM-ICP/04
45	CHEMICAL- METALS & ALLOYS	Ferro Molybdenum	Silicon	IS 12614 Part 3
46	CHEMICAL- METALS & ALLOYS	Ferro Molybdenum	Silicon (Si)	SOP/DE/CHEM-ICP/04
47	CHEMICAL- METALS & ALLOYS	Ferro Vanadium	Vanadium	ASTM E 365
48	CHEMICAL- METALS & ALLOYS	Ferro-Boron	Boron	IS 3295 Part-2
49	CHEMICAL- METALS & ALLOYS	Ferro-Boron	Silicon	IS 3295, Part-1
50	CHEMICAL- METALS & ALLOYS	Ferro-Manganese	Manganese	IS 13938 Part 2
51	CHEMICAL- METALS & ALLOYS	Ferro-Manganese	Phosphorus	IS 13938 Part 3
52	CHEMICAL- METALS & ALLOYS	Ferro-Manganese	Silicon	IS 13938 Part 1
53	CHEMICAL- METALS & ALLOYS	Ferro-Tungsten	Silicon	IS 1559
54	CHEMICAL- METALS & ALLOYS	Ferro-Tungsten, Fused Tungsten Carbide	Tungsten	IS 1559
55	CHEMICAL- METALS & ALLOYS	Ferro-Vanadium	Silicon	ASTM E 365
56	CHEMICAL- METALS & ALLOYS	Nickel alloys	Aluminium	ASTM E3047

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57	CHEMICAL- METALS & ALLOYS	Nickel Alloys	Boron	ASTM E3047
58	CHEMICAL- METALS & ALLOYS	Nickel Alloys	Carbon	ASTM E3047
59	CHEMICAL- METALS & ALLOYS	Nickel alloys	Chromium	ASTM E3047
60	CHEMICAL- METALS & ALLOYS	Nickel alloys	Cobalt	ASTM E3047
61	CHEMICAL- METALS & ALLOYS	Nickel alloys	Copper	ASTM E3047
62	CHEMICAL- METALS & ALLOYS	Nickel alloys	Iron	ASTM E3047
63	CHEMICAL- METALS & ALLOYS	Nickel Alloys	Manganese	ASTM E3047
64	CHEMICAL- METALS & ALLOYS	Nickel alloys	Molybdenum	ASTM E3047
65	CHEMICAL- METALS & ALLOYS	Nickel alloys	Niobium	ASTM E3047
66	CHEMICAL- METALS & ALLOYS	Nickel alloys	Phosphorus	ASTM E3047
67	CHEMICAL- METALS & ALLOYS	Nickel Alloys	Silicon	ASTM E3047
68	CHEMICAL- METALS & ALLOYS	Nickel alloys	Sulphur	ASTM E3047
69	CHEMICAL- METALS & ALLOYS	Nickel alloys	Titanium	ASTM E3047
70	CHEMICAL- METALS & ALLOYS	Nickel alloys	Tungsten	ASTM E3047
71	CHEMICAL- METALS & ALLOYS	Nickel alloys	Vanadium	ASTM E3047
72	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Aluminium	ASTM E 415
73	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Boron	ASTM E 415
74	CHEMICAL- METALS & ALLOYS	Plain Carbon & Low alloy steel	Carbon	ASTM E 415
75	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Chromium	ASTM E 415

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76	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Cobalt	ASTM E 415
77	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Copper	ASTM E 415
78	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Manganese	ASTM E 415
79	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Molybdenum	ASTM E 415
80	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Nickel	ASTM E 415
81	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Nitrogen	ASTM E 415
82	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Phosphorus	ASTM E 415
83	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy Steel	Silicon	ASTM E 415
84	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Sulphur	ASTM E 415
85	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Tin	ASTM E 415
86	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Tungsten	JIS - G1253
87	CHEMICAL- METALS & ALLOYS	Plain Carbon & low alloy steel	Vanadium	ASTM E 415
88	CHEMICAL- METALS & ALLOYS	Stainless Steel	Boron	JIS - G1253
89	CHEMICAL- METALS & ALLOYS	Stainless steel	Carbon	ASTM E 1086
90	CHEMICAL- METALS & ALLOYS	Stainless Steel	Chromium	ASTM E 1086
91	CHEMICAL- METALS & ALLOYS	Stainless Steel	Cobalt	JIS - G1253
92	CHEMICAL- METALS & ALLOYS	Stainless Steel	Copper	ASTM E 1086
93	CHEMICAL- METALS & ALLOYS	Stainless Steel	Manganese	ASTM E 1086
94	CHEMICAL- METALS & ALLOYS	Stainless Steel	Molybdenum	ASTM E 1086

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95	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nickel	ASTM E 1086
96	CHEMICAL- METALS & ALLOYS	Stainless Steel	Nitrogen	JIS - G1253
97	CHEMICAL- METALS & ALLOYS	Stainless Steel	Phosphorus	ASTM E 1086
98	CHEMICAL- METALS & ALLOYS	Stainless Steel	Silicon	ASTM E 1086
99	CHEMICAL- METALS & ALLOYS	Stainless Steel	Sulphur	ASTM E 1086
100	CHEMICAL- METALS & ALLOYS	Stainless Steel	Titanium	JIS - G1253
101	CHEMICAL- METALS & ALLOYS	Stainless Steel	Vanadium	JIS - G1253
102	CHEMICAL- METALS & ALLOYS	Weld Metal.	Diffusible Hydrogen Content	IS 11802
103	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	% Elongation	IS 1608 Part-1
104	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	% Reduction in area	IS 1608 Part-1
105	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	0.2 % Proof Stress	IS 1608 Part-1
106	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	Bend Test	IS 1599
107	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	Charpy V-Notch Impact (from -50 °C to Room. Temperature)	IS 1757 Part-1
108	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	Micro Hardness	ASTM E 384
109	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	Rockwell Hardness (HRA)	IS 1586 Part-1
110	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel	Rockwell Hardness (HRB)	IS 1586 Part-1

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111	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Rockwell Hardness (HRC)	IS 1586 Part-1
112	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Ultimate Tensile Strength	IS 1608 Part-1
113	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel	Yield Strength	IS 1608 Part-1
114	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	% Elongation	AWS B 4.0
115	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	% Reduction in Area	AWS B 4.0
116	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	0.2 proof Stress	AWS B 4.0
117	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	Bend Test	AWS B 4.0
118	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	Ultimate Tensile Strength.	AWS B 4.0
119	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Weld Material (Ferrous)	Yield Strength	AWS B4.0
120	MECHANICAL-METALLOGRAPHY TEST	Austenitic and duplex Ferritic-Austenitic Cr-Ni stainless steel & weld metals	Ferrite content	ISO 8249
121	MECHANICAL-METALLOGRAPHY TEST	Welding Electrode, Flux Core Wire, Welding Consumables.	Metal Recovery	IS 13043
122	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens & Ferrous alloys products.	Microstructural Examination	ASM Handbook Vol. 9
123	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens & Ferrous alloys products.	Air jet Erosion Test (Erosion Test by Solid Particle Impingement)	ASTM G76
124	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens & Ferrous alloys products.	Dry Sand Abrasion Test	ASTM G65
125	MECHANICAL-METALLOGRAPHY TEST	Welds & welded test specimens & Ferrous alloys products.	Macroetch Test	ASTM E 340