National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : RAMACHANDRA ENTERPRISES, PLOT # 143 WIP PHASE 1, SIDCO INDUSTRIAL ESTATE, THIRUCHIRAPALLI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-8874 **Page No** 1 of 7

Validity 12/03/2022 to 11/03/2024 **Last Amended on** 10/05/2022

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	Carbon Steel and Low Alloy Steel	Molybdenum	ASTM E 415
2	CHEMICAL- METALS & ALLOYS	carbon Steel and Low Alloy Steel	Nickel	ASTM E 415
3	CHEMICAL- METALS & ALLOYS	Ferritic & Austenitic	Molybdenum	ASTM E 1086
4	CHEMICAL- METALS & ALLOYS	Ferritic and Austenitic	Copper	ASTM E 1086
5	CHEMICAL- METALS & ALLOYS	Ferritic and Austenitic	Nickel	ASTM E 1086
6	CHEMICAL- METALS & ALLOYS	Ferritic and Austenitic	Sulphur	ASTM E 1086
7	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic	Carbon	IS 9879
8	CHEMICAL- METALS & ALLOYS	Ferritic steel and Austenitic steel	Carbon	ASTM E1086
9	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Chromium	ASTM E 1086
10	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Chromium	IS 9879
11	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Copper	IS 9879
12	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Manganese	ASTM E1086
13	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Manganese	IS 9879
14	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Molybdenum	IS 9879
15	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Nickel	IS 9879
16	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Phosphorous	ASTM E 1086
17	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Phosphorous	IS 9879
18	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Silicon	ASTM E1086

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19	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Silicon	IS 9879
20	CHEMICAL- METALS & ALLOYS	Ferritic Steel and Austenitic Steel	Sulphur	IS 9879
21	CHEMICAL- METALS & ALLOYS	Palin Carbon Steel and Low Alloy Steel	Carbon	ASTM E 415
22	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel & Low Alloy Steel	Sulphur	IS 8811
23	CHEMICAL- METALS & ALLOYS	Plain Carbon steel and Alloy Steel	Copper	IS 8811
24	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Aluminium	IS 8811
25	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Aluminum	ASTM E 415
26	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Arsenic	ASTM E 415
27	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Arsenic	IS 8811
28	CHEMICAL- METALS & ALLOYS	Plain Carbon steel and Low Alloy Steel	Carbon	IS 8811
29	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Chromium	ASTM E 415
30	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Chromium	IS 8811
31	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Copper	ASTM E 415
32	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Manganese	IS 8811
33	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Molybdenum	ASTM E 415
34	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Molybdenum	IS 8811
35	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Nickel	IS 8811
36	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Niobium	ASTM E 415
37	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Niobium	IS 8811

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38	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Phosphorous	ASTM E 415
39	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Phosphorous	IS 8811
40	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Silicon	ASTM E 415
41	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Silicon	IS 8811
42	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Sulphur	ASTM E 415
43	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Titanium	ASTM E 415
44	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Titanium	IS 8811
45	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Vanadium	ASTM E 415
46	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Steel	Vanadium	IS 8811
47	CHEMICAL- METALS & ALLOYS	Plain Carbon Steel and Low Alloy Sttel	Manganese	ASTM E 415
48	CHEMICAL- METALS & ALLOYS	Positive Material Identification	Chromium, Nickel, Molybdenum, Vanadium, Manganese, Niobium, Titanium, Copper	ASME Section - I
49	CHEMICAL- METALS & ALLOYS	Positive material Identification	Chromium, Nickel, Molybdenum, Vanadium, Manganese, Niobium, Titanium, Copper	ASTM E 1916
50	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Pipes, Tubes, Plates, Sections & Weld Joints	Bend Test	ISO 5173
51	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Pipes, Tubes, Plates, Sections and weld joints	Vickers Hardness Test	IS 1501 part - 1
52	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plate, Tubes, Pipes & Weld Joints	Brinell Hardness Test	ASTM E 10
53	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes	Tensile Test - Tensile Strength	ASTM E-8

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54	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Bend Test	ASME Sec. IX
55	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Bend Test	ASTM E-190
56	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Bend Test	IBR
57	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Bend Test	IS 1599
58	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Charpy- Impact Test (-80° C to Room Temperature)	IS 1757-Part 1
59	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Macro Examination	BS EN ISO 5614-1
60	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Macro Examination	ISO 17639
61	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Tensile Test	AWS D1.1
62	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Tensile Test - % Reduction in Area	IS 1608 Part 1
63	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joint	Tensile Test - Yield Strength	IS 1608 Part 1
64	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Impact Test	BS EN ISO 15614-1
65	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Impact Test	ISO 9016
66	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	TENSILE TEST	BS EN ISO 15614-1
67	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - % Elongation	IS 1608 Part 1

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68	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - % Reduction in Area	ASTM E-8
69	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - 0.2 % Proof Strength	IS 1608 Part 1
70	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - Tensile Strength	ASME SEC IX.
71	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - Tensile Strength	IBR
72	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Tensile Test - Tensile Strength	IS 1608 Part 1
73	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates section, Tubes & Pipes, Weld Joints	Vickers Hardness Test	BS EN ISO 15614-1
74	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plates, Pipes, Sections, Tubes & Weld Joints	Charpy Impact Test (-80°C to Room Temperature)	ISO 148-1
75	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plates, Section, Tubes & Pipes	Tensile Test - 0.2% Yield Stress by extensometer method	ASME SA370
76	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plates, Tubes, Pipes, Sections	Tensile Test - Tensile Strength	ASME SA370
77	MECHANICAL-MECHANICAL PROPERTIES OF METALS	steel Plates, Tubes, Pipes, sections & weld joints	Bend Test	BS EN ISO 5614-1
78	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plates, Tubes, Pipes, Sections & Weld Joints	Hardness Test	ISO 9015-1
79	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Plates, Tubes, Pipes, Sections & Weld Joints	Tensile Test - Tensile Strength	ISO 4136
80	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections ,Tubes, Pipes	Tensile Test - % Elongation	ASME SA370
81	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections ,Tubes, Pipes	Tensile Test - % Elongation	ASTM E-8

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82	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections ,Tubes, Pipes	Tensile Test - % Reduction in Area	ASME SA370
83	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections ,Tubes, Pipes	Tensile Test - 0.2% yield stress by extensometer method	ASME E8
84	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections ,Tubes, Pipes	Tensile Test - Yield Strength by offset method (software)	ASME SA 370
85	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel plates,sections Tubes, Pipe	Bend Test	ASME SA370
86	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Brinell Hardness Test	ASTM E10
87	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Brinell Hardness Test	IS1500 - Part 1
88	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Brinell Hardness Test	IS1500 -Part 1
89	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Rockwell Hardness Test- B Scale	ASTM E18
90	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Rockwell Hardness Test- B Scale	IS 1586 - Part 1
91	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Rockwell Hardness Test- C Scale	ASTM E18
92	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Rockwell Hardness Test- C Scale	IS 1586 part1
93	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Vickers Hardness Test	ASTM E92
94	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Vickers Hardness Test	ASTM E92
95	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Products and Weld Joints	Vickers Hardness Test	IS 1501 Part 1

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96	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Tubes	Flaring Test	ASME SA450
97	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Tubes	Flaring Test	IS 2335
98	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Tubes & Pipes	Flattening Test	ASME SA450
99	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Steel Tubes & Pipes	Flattening Test	IS 2328
100	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Welded samples	Bend Test	AWS D1.1
101	MECHANICAL-METALLOGRAPHY TEST	Steel plates section, Tubes & Pipes, Weld Joint	Macro Examination	ASTM E 381
102	MECHANICAL-METALLOGRAPHY TEST	Steel plates section, Tubes & Pipes, Weld Joint	Micro Examination - Grain size Measurement	ASTM E 112
103	MECHANICAL-METALLOGRAPHY TEST	Steel plates section, Tubes & Pipes, Weld Joint	Micro Structural Analysis	ASM Hand Book Vol-9
104	MECHANICAL-METALLOGRAPHY TEST	Steel plates section, Tubes & Pipes, Weld Joint	Non Metallic Inclusion Rating by Method A	ASTM - E45
105	MECHANICAL-METALLOGRAPHY TEST	Steel Plates, Sections ,Tubes, Pipes & Weld Joints	Macro Examination	ASTM E340