National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : R & D LABORATORY, VARDHMAN SPECIAL STEELS LIMITED, C-58 PHASE III, FOCAL POINT, LUDHIANA, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-7438 **Page No** 1 of 3

Validity 25/08/2021 to 24/08/2023 **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	Carbon Steel & Alloy Steel	Aluminium	ASTM E 415
2	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Antimony	ASTM E 415
3	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Arsenic	ASTM E 415
4	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Boron	ASTM E 415
5	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Calcium	ASTM E 415
6	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Carbon	ASTM E 1019
7	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Carbon	ASTM E 415
8	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Chromium	ASTM E 415
9	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Cobalt	ASTM E 415
10	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Copper	ASTM E 415
11	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Hydrogen	IS 228 (Part 22)
12	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Manganese	ASTM E 415
13	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Molybdenum	ASTM E 415
14	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Nickel	ASTM E 415
15	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Niobium	ASTM E 415
16	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Nitrogen	ASTM E 1019
17	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Oxygen	ASTM E 1019
18	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Phosphorous	ASTM E 415

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19	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Silicon	ASTM E 415
20	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Sulphur	ASTM E 415
21	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Sulphur	ASTM E1019
22	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Tin	ASTM E 415
23	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Titanium	ASTM E 415
24	CHEMICAL- METALS & ALLOYS	Carbon Steel & Alloy Steel	Vanadium	ASTM E 415
25	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	% Elongation	IS 1608 part1
26	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	% Reduction in Area	IS 1608 part1
27	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Material & Products	Brinell Hardness (10/3000)	IS 1500 (Part 1)
28	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	Charpy 'U' Notch Impact (-) 100 Degree celcius to Ambient Temprature	IS 1499
29	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	Izod Impact (at ambient temperature)	IS 1598
30	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	Rockwell Hardness	IS 1586 (Part-1)
31	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & products	Rockwell Hardness	IS 1586 (Part-1)
32	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	Ultimate Tensile strength	IS 1608 part1
33	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous material & Products	Yield Stress	IS 1608 - 1

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34	MECHANICAL-METALLOGRAPHY TEST	Ferrous material & Products	Average Grain Size (By Microscopic method) Magnification :100x	IS 4748
35	MECHANICAL-METALLOGRAPHY TEST	Ferrous material & Products	Average Grain Size (by Microscopic Method) (Magnification 100x)	ASTM E 112
36	MECHANICAL-METALLOGRAPHY TEST	Ferrous material & products	Depth of Decarburization (By Microscopic method) Magnification : 100x	IS 6396
37	MECHANICAL-METALLOGRAPHY TEST	Ferrous material & Products	Inclusion Rating Magnification: 100x	IS 4163
38	MECHANICAL-METALLOGRAPHY TEST	Ferrous material & Products	Microstructural Analysis	ASM Handbook (Vol 9) Metallograpghy & Microstructures
39	MECHANICAL-METALLOGRAPHY TEST	Ferrous Materials & Products	Inclusion Rating	ASTM E 45
40	MECHANICAL-METALLOGRAPHY TEST	Steel	Carbide Structure by means of diagram series (Microscopic Examination)	SEP 1520