



National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



SCOPE OF ACCREDITATION

Laboratory Name BETZ ENGINEERING & TECHNOLOGY ZONE, 21, DHARAKESWARI NAGAR 1 ST STREET, SEMBAKAM, CHENNAI, TAMIL NADU, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number TC-5030 Page No. : 1 / 8

Validity 23/05/2019 to 22/05/2021 Last Amended on -

S.No	Discipline / Group	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing/ Limits of Detection
Permanent Facility					
1	MECHANICAL-MECHANICAL PROPERTIES OF METALS	ALuminium & Alloy PRODUCTS	% Reduction in Area	ASTM E 8: 2016	10 % to 90 %
2	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium & Alloy products	Yield Strength	ASTM E8: 2016	40 MPa to 300 MPa
3	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium & Aluminium alloy products	% Elongation	ASTM E8: 2016	2 % to 80 %
4	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium & Aluminium Alloy welded products	Bend Test (Root, Face & Side)	AWS D 1.2: 2014	Qualitative(Mandrel dia 12 to 50 mm)
5	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium & Aluminium Alloy Welded products	% Elongation	AWS D1.2: 2014	2 % to 80 %
6	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium alloy Welded products	% Elongation	AWS D1. 2: 2014	2 % to 80 %
7	MECHANICAL-MECHANICAL PROPERTIES OF METALS	Aluminium alloy Welded products	% Reduction in Area	AWS D1.2: 2014	10 % to 90 %



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8	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium alloy productd	Tensile Strength	ASTM E 8: 2016	50 MPa to 300 MPa
9	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Aluminium and Aluminium alloy Welded products	Yield Strength	AWS D1.2: 2014	40 Mpa to 400
10	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Auminium & Alloy Material And welded Material	Yield Strength	AWS D1.2: 2014	40 to 600
11	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous alloy productd	Yield Strength	ASTM A370 E8: 2018	40 MPa to 600 MPa
12	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous alloy products	Tensile strength	ASTM A370. E 8: 2018	100 MPa to 750 MPa
13	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous alloy Welded products	% Elongation	ASME SEC 9: 2017	2 % to 80 %
14	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Rockwell Hardness Test (A Scale) HRA	ASTM E 18: 2018	20 HRA to 90 HRA



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15	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Rockwell Hardness Test (C Scale)	ASME section 2 Part A: 2017	20 HRC to 65 HRC
16	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Alloys	Rockwell Hardness Test (C Scale) HRC	ASTM A370 E 18: 2018	20 HRC to 65 HRC
17	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Ferrous Alloys Welded products	% Reduction in Area	ASME SEC 9: 2017	10 % to 90 %
18	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Metallic Material, Ferrous And Alloy Material (Steel, Stainless Steel & welded Material) aluminium & Alloy Material And welded Material	% Reduction in Area	ASTM E8/E8M: 2015	10 % to 90 %
19	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel plates and bars	Bend Test	ASTM A370: 2018	Qualitative (Mandrel dia 12 to 50 mm)
20	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel products	% Elongation	ASTM A370 E 8: 2016	2 % to 80 %
21	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel welded productd	% Reduction in Area	API 1104: 2016	10 % to 90 %



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22	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel Welded products	% Elongation	API 1104: 2016	2 % to 80 %
23	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel Welded products	Tensile Strength	API 1104: 2016	50 to 750
24	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Steel Welded products	Yield Strength	API 1104: 2016	40 MPa to 600 MPa
25	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded Steel	Rockwell Hardness Test (A Scale)	ASTM E 18: 2018	20 HRA to 90 HRA
26	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded steel	Tensile Strength	ASME SEC IX AWS D1. 1: 2017/2015	50 MPa to 750 MPa
27	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded Steel	Tensile Strength	AWS D1.1: 2015	50 to 750
28	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded steel	Yield Strength	ASME SEC 9: 2017	40 MPa to 600 MPa



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29	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded Steel products	Bend Test (Root, Face & Side)	ASME SEC. 9 AWS D 1.1: 2017 / 2015	Qualitative(Mandrel dia 12 to 50 mm)
30	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded Steel products	Bend Test (Root, Face & Side)	API 1104: 2016	Qualitative(Mandrel dia 12 to 50 mm)
31	MECHANICAL- MECHANICAL PROPERTIES OF METALS	Welded Steel products	Tensile Strength	ASME SEC 9: 2016	50 MPa to 650 MPa
32	NON-DESTRUCTIVE- METALS & ALLOYS	Castings, Forgings & Welded Joints	Florescent and Non Florescent	ASME SEC V Article 7 & 25: 2017	Qualitative
33	NON-DESTRUCTIVE- METALS & ALLOYS	Castings, Forgings & Welded Joints	MT - yoke, head shot, prod techniques- wet and dry - Florescent & Non Florescent	ASTM E709: 2015	Qualitative
34	NON-DESTRUCTIVE- METALS & ALLOYS	Ferrous and Non-Ferrous Materials	Sorting of materials	ASTM E566: 2019	Qualitative
35	NON-DESTRUCTIVE- METALS & ALLOYS	Ferrous and Non-Ferrous Materials	Sub-surface Flaw Detection	ASTM E426: 2016	Qualitative
36	NON-DESTRUCTIVE- METALS & ALLOYS	forgings, Ferrous Alloys	Flaw Detection	ASTM A388: 2018	Qualitative
37	NON-DESTRUCTIVE- METALS & ALLOYS	Liquid Penetrant Examination of Materials & Welds	PT - solvent removable- Visible & Florescent technique	ASME SEC V Article 6 & 24 SE 165: 2017	Qualitative
38	NON-DESTRUCTIVE- METALS & ALLOYS	Non-Ferrous Materials	Sorting of Materials	ASTM 703: 2014	Qualitative(demonstration photo is available in other section.)



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39	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME SEC V Article 4,5 & 23: 2017	Qualitative
40	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME B 31.1: 2018	Qualitative
41	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME B31.3: 2014	Qualitative
42	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASTM A745: 2015	Qualitative
43	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Thickness Measurement	ASME. SE-797: 2017	Qualitative



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Site Facility					
1	NON-DESTRUCTIVE-METALS & ALLOYS	Castings, Forgings & Welded Joints	Florescent and Non Florescent	ASME SEC V Article 7 & 25: 2017	Qualitative
2	NON-DESTRUCTIVE-METALS & ALLOYS	Castings, Forgings & Welded Joints	MT - yoke, head shot, prod techniques- wet and dry - Florescent & Non Florescent	ASTM E709: 2015	Qualitative
3	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous and Non-Ferrous Materials	Sorting of materials	ASTM E566: 2019	Qualitative
4	NON-DESTRUCTIVE-METALS & ALLOYS	Ferrous and Non-Ferrous Materials	Sub-surface Flaw Detection	ASTM E426: 2016	Qualitative
5	NON-DESTRUCTIVE-METALS & ALLOYS	forgings, Ferrous Alloys	Flaw Detection	ASTM A388: 2018	Qualitative
6	NON-DESTRUCTIVE-METALS & ALLOYS	Liquid Penetrant Examination of Materials & Welds	PT - solvent removable- Visible & Florescent technique	ASME SEC V Artice 6 & 24 SE 165: 2017	Qualitative
7	NON-DESTRUCTIVE-METALS & ALLOYS	Non-Ferrous Materials	Sorting of Materials	ASTM 703: 2014	Qualitative(demonstration photo is available in other section.)
8	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME SEC V Article 4,5 & 23: 2017	Qualitative
9	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME B 31.1: 2018	Qualitative
10	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASME B31.3: 2014	Qualitative



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11	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Flaw Detection	ASTM A745: 2015	Qualitative
12	NON-DESTRUCTIVE-METALS & ALLOYS	Weld Joints, Castings, Forgings, Metals And Alloys, Non-Ferrous	Thickness Measurement	ASME. SE-797: 2017	Qualitative