



ASR Metallurgy Pvt Ltd.

(Laboratory's scope Accredited to NABL with standard ISO/IEC 17025:2017)

Metal Testing Laboratory in Jharkhand



An initiative under the "Start Up India" program















A State of the Art Metal
———— Testing & Research Laboratory ————





About us:

ASR Metallurgy Pvt. Ltd., a Start-up initiative under the "Start Up India" program of the Govt. of India. Started in the Year 2019 and Head-quartered at the strategic location in Jamshedpur, Jharkhand, the state-of-the-art laboratory facilitates Basic to Advanced Metal Tests.

We boast a laboratory furnished with the latest machines and technology from around the world, facilitating a comprehensive array of tests particularly for stainless steel, alloy steels, and aluminum alloys, with plans to expand our services to a broader range of metals.

Our Vision:-

Our vision at ASR Metallurgy is to establish ourselves as a leading name in the metal testing industry, renowned for our exceptional quality, reliability, and dedication to customer satisfaction. We strive to be the trusted partner that businesses rely on for ensuring the integrity and performance of their metal products.

Core Values:

Α	S	R
ACCURACY	SERVICE	RELIABILTY
Precision in every Test	Excellence as a Standard	Quality you can Trust





Metallurgical Characterization:

Type of Test	Test Method
Microstructure Analysis	ASTM E112, ASM Hand Book, ISO 17639
Grain Size Measurement	IS 4748, ASTM E112
Inclusion Rating	IS 4163, ASTM E45
Macro Etch Testing	ASTM A340, IS 13015, IS3600
Flake Analysis & Nodularity Analysis	ASTM A247, IS 7754
Coating Thickness	IS:3203, ASTM B487
Decarburized Layer Depth	ASTM E1077, IS 6396
Effective & Total Case Depth	IS 6416
Volume Fraction	ASTM 1245
Welds & Welded Test Specimens	ASME Sec IX, API 1104, AWS D1.1













Mechanical Characterization:

Type of Test	Test Method
Tensile / Yield / % Elongation % RA Test / 0.2% Proof Stress	IS:1608,ASTM E8, ISO 4136
Bend Test(Side, Face, Root)	IS:1599, IS:2329, ASTM A370
Compression Test	IS 7906 P-5
Proof Load Test(Nuts Bolts)	IS :1367, ASTM A370
Hardness Test By (Micro Vickers's, Vickers, Rockwell & Brinell)	ASTM E384, IS:1500, ASTM E10, IS:1501,IS:1586, ASTM A370 ASTM E92
Charpy Impact Testing	IS:1757, ISO 148
Flattening Test	IS:2328
Welds & Welded Test Specimens	ASME Sec IX, API 1104, AWS D1.1
Bend / Rebend for TMT	IS :1786













Chemical Characterization:

Type of Test	Test Method
Chemical Composition of Low Alloy Steel	ASTM E415, IS 8811
Chemical Composition of Cast Iron	ASTM E1999
Chemical Composition of Tool Steel	JIS G1253
Chemical Composition of Stainless Steel	IS 9879
Chemical Composition of Aluminum Alloy	ASTM E1251, IS 11035
Salt Spray Test	ASTM B-117
Zinc Coating Test	IS-277 , IS 6745











Non- Destructive Tests:

Type of Test	Test Method
Radiography Test (Source IR192 Gamma Ray & X-Ray)	ISO 17636 P-1, IS; 1182, IS: 4853, IS: 2595 ASME SEC V AR II, ASTM E1030 E1032, ASTM E 94
Ultrasonic Test (UT)	EN 10160, EN 10228-3 & 4, EN 17640 EN 12680-1, ASTM A609, IS 7666 IS 11630, IS 3664, IS 7343, ASTM E2375 IS 11626, ASTM A388, ASTM E 114, IS 8791 ASTM A745, ASTM E 164, ASTM E 273 ASTM E 213, ASTM A 435, ASTM A578 ASTM A577, IS 6394, IS 4225, IS 4260 ASTM E 797
Magnetic Particle Test (MPT)	EN 1369, ISO 17638, EN 10228-1, ASTM E709 IS 7743, IS 5334, IS 3703, IS 6752, ASTM A275
Liquid Penetration Test (LPT)	ISO 3452-1, EN 10228-2, ASTM E165 ASTM E 1220, ASTM E 1417, IS 3658
Eddy Current (Magnetic Flux)	EN 10246-3
Visual Test (VT)	ISO 17637













We are offering Training courses on the following subjects:

- NDT Level II Certification (UT,RT,MPT,LPT,VT & Eddy Current)
- Mechanical Characterization of Metals (Tensile Test, Hardness, Bend, Compression Load Test, Impact Charpy Test, Case Depth)
- Metallurgical Characterization of Metals (Microstructure of metals, Non-metallic Inclusion, Grain Size, Decarburization layer depth, Macro examination, Flake Analysis, Nodularity etc)
- Chemical Test (Chemical Composition through Optical Emission Spectrometer, Coating Test, Salt Spray Test, CRMs etc.

Faculties:

- Mr. K.P.Mandal B.Sc (Chemistry) More Than 25 years of experience in NDTTechnology (ASNT NDT Level III in UT, RT, MPT, DPT, RT,)
- Mr. K.Chakraborty B.Tech Mech having more than 25 Years of experience in destructive testing (Chemical & Mechanical Test)
- Mr. Ritu Raj- B.Tech Metallurgical Engineering having more than 7
 Years of experience in Metallurgical Characterization
 (Metallography)









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