



ASR METALLURGY PRIVATE LIMITED

A State of the Art Metal Testing
&
Research Laboratory



CORPORATE
PROFILE



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



Metal Testing Laboratory
in Jharkhand

#startupindia

An initiative under the
"Startup India" Program



"Be Assured"

INDEX

SL.	PARTICULARS	PAGE NO.
1.	Introduction	1-2
2.	Vision, Mission & Quality Policy	3-4
3.	Profile of Board of Directors	5-6
4.	Experienced & Motivated Team	8-9
5.	Repository of Experience	10
6.	Our Products & Services : Non Destructive, Destructive - Chemical Analysis, Mechanical Testing Metallurgical Testing	11-13
7.	Products & Services : Third Party Inspection Services (TPI)	14
8.	List of Equipment : NTD & Destructive Testing	15-16



About US

ASR Metallurgy Private Limited was launched in 2018 under the Startup India initiative and is dedicated to providing Destructive testing services, Non – Destructive (NDT) testing services as well as Third Party Inspection (TPI) services. Our founders are distinguished graduates from renowned institutions like IIT, IIM and BIT and have significant expertise in material testing from their previous association with major steel producers and laboratories across India.

Located in the industrial city of Jamshedpur, Jharkhand, ASR's testing laboratory is well-placed amidst strategic manufacturing zones, allowing us to serve the heavy industries as well as MSMEs effectively. 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. ASR has in-house facility for preparation of samples using high-end precision tools and tackles.

ASR has also built-up excellent facilities and expertise and has deployed sophisticated and precision machines for testing and analysis in the field of Non-Destructive (NDT) evaluation for both Onshore and Offshore projects. Be it a Fertilizer or Steel plant, Thermal power stations, Cement or Coal producing units, Refineries or Pipelines as well as Foundry/Casting/ Fabrication units and the Automobile sector, we have served varied customers catering to varied needs, improvising and providing innovative solutions.

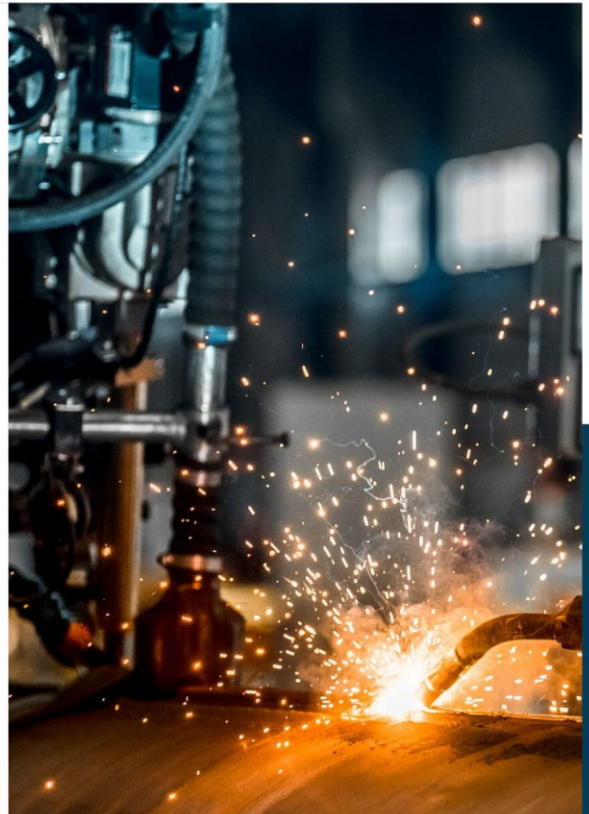
ASR METALLURGY

A State of the Art Metal Testing & Research Laboratory

ASR also provides Third Party Inspection (TPI) services, which are provided to ensure timely and cost-effective delivery of products to the clients. To facilitate Third party inspection services conforming to the international standards and statutory requirements ensuring quality, timely and cost-effective solutions to the clients, we have technically qualified personnel for facilitation.

With the industry's evolution towards more accurate and efficient testing methods, ASR Metallurgy will rise to meet these demands with reliable and precise testing services. Our team is composed of highly skilled professionals who bring a wealth of global and local experience to ensure the validity and accuracy of our testing results.

At ASR Metallurgy, we are committed to aiding businesses in certifying the quality of their products. Through our punctual, exact, and dependable testing services, we aim to empower companies to achieve their quality objectives and advancement in their respective fields.





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 business rely on for ensuring the integrity and performance of their metal products.

CORE VALUES :

- A ACCURACY**
Precision in every Test
- S SERVICE**
Excellence as a Standard
- R RELIABILITY**
Quality you can Trust

MISSION STATEMENT :

- A vow to never compromise on quality.
- Timely and cost-efficient service.
- To manage all stakeholders' aspirations with genuine intent.

ASR METALLURGY

A State of the Art Metal Testing & Research Laboratory



Quality Policy

To consistently exceed customer expectation by providing superior services in the field of Destructive, NDT as well TPI services. We continuously update knowledge, adapt technology changes as well for sustainable growth ensure our personnel are imparted timely up-dation so as to conform to the National as well as International standards.

ASR uses advanced tools to monitor the quality of the service and has deployed a customized ERP solution to ensure that we do not falter in any aspect when it comes to the service delivery.

Our emphasis on Safety, Quality, Employee health and continuous training ensures our standards of delivery are always maintained.

Further, the management and staff of this organization are firmly committed to comply with policies and procedures to achieve the highest possible quality standards by continually improving upon the effective norms.

PROFILE OF BOARD OF DIRECTORS :



Mr. Aseem Kandulna

MD & CEO

- **Expertise in Starting New Initiatives in Several Organization & Industry**
 - ❖ Developed the Financial Literacy campaign with AMFI; Implemented “Jan Dhan” & “Digital India” initiatives of Government of India
 - ❖ Currently, advising the Govt. of Jharkhand, MSME & NSIC for implementing “Start Up India” initiative in the state of Jharkhand.
 - ❖ Member of Confederation of Indian Industry (CII) of National Startup, Eastern and Jharkhand State Councils.
- **Experience of over 25 years**
 - ❖ Expertise in Process Management, Strategy & Planning, Business Development & Compliance.
 - ❖ Various positions held including Sr. VP & HOD- Remittances FINO Payments Bank, Head (Retail) L&T MF, UTI MF among others.
- **Education: BA (Eco) St. Xavier's College Ranchi; PGDM, IIM, Kozhikode**



Mr. Samir Ujjwal Kandulna

Director/CTO

- **Expertise in Quality Management Services**
 - ❖ Extremely passionate for steel, Mr. Samir has given 22 years to the industry while leading multilocal steel operations.
- **Strong knowledge of the Steel Services in India**
 - ❖ Prior to joining ASR, he was Head Quality/Process control in BMW group.
 - ❖ He has also worked with steel business groups like Essar Steel, Jindal Stainless and Bhushan groups.
- **Education: B.E (Metallurgy) from BIT Sindri, Dhandbad**



Mr. Raju Pramanick

Director (Non-Executive)

- **Expertise in Quality Management System**
 - ❖ Strong credentials in NABL, IATF, BIS, ISO, OHSAS Audit & Certification
- **Over 24 Years' Experience**
 - ❖ He has worked in several top Iron & Steel Organisation like Jindal SAW Ltd., Bhushan Steel & Strip Limited, Bhushan Power & Steel Limited, Apollo Trocoat Tubes Ltd, Bangalore.
 - ❖ Certified Auditor in ISO/IEC 17025:2017(NABL), Advanced Training in IATF 16949:2016, OHSAS 18001:2018; ISO 9001:2015; ISO 14001:2015 and SA 8000:2008
- **Education: M.Tech (Metallurgy) from IIT BHU, BE (Metallurgy) from NIT Nagpur**



Mr. Dharendra Kumar Pandey

Director (Non-Executive)

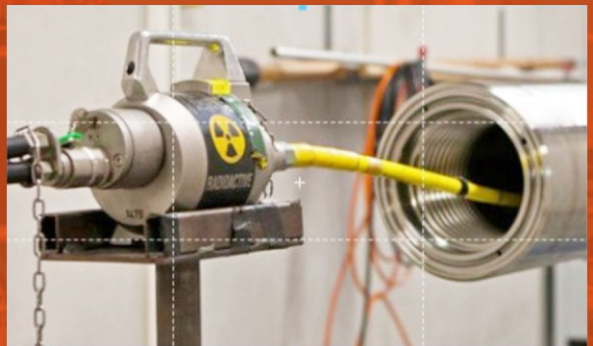
- **Expertise in Testing Laboratory Chemical and Mechanical**
 - ❖ An expert in Mechanical Testing & Chemical Testing
 - ❖ Strong Knowledge of Steel Sector Core Testing
- **Over 21 years of Experience**
 - ❖ He has worked several top iron & Steel Organisation in India as well as abroad which include Bhushan Power & Steel Limited, Jharsuguda, AGIS Abu Dhabi, UAE, KAM Steel, Nigeria
 - ❖ Worked as Head of Department KAM Steel Integrated Company Ltd, Nigeria, Africa
- **Education: M.Sc. (Organic Chemistry), PGDCA (NIIT), MBA(Marketing).**



Dr Amar E Tigga

Director (Non-Executive)

- Expertise in HR, Marketing & Mining Operations
- Over 25 years of Experience
- Education: B. TECH & M. TECH (Mining) & PhD from IIT(ISM), Dhanbad; PGDM, IIM (C).

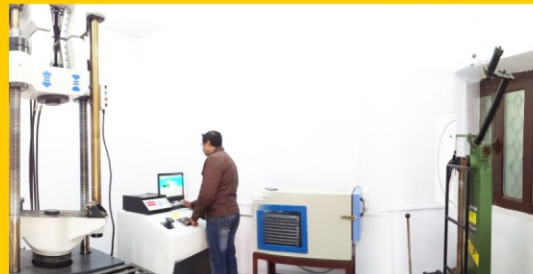


EXPERIENCED AND MOTIVATED TEAM

Name & Designation	Responsibility Matrix & Qualification	Years of Experience
Mr. K P Mandal HOD-NDT Services	B.Sc. Radiology Safety Officer (RSO) approved by BARC (AERB). ASNT NDT Level III (RT/UT/MPT/LPT) ASNT NDT Level II (VT/ECT), CWI (ISNT)	30 Years
Mr. Bapuni Mohapatro Head - Projects	B Sc., MBA & Industrial Radiographer approved by BARC (AERB) Mumbai. ASNT NDT Level III (RT/UT)	21 Years
Mr. A K Mandal (QA / QC Manager - NDT)	B.Sc. Engg., AWS, CSWIP 3.1, API - Inspector, ASNT NDT Level - II (RT/UT/MPT/LPT), NACE.	34 Years
Mr. Sarbeshwar Pradhan Manager (Projects)	ASNT Level-II in RT, MPT, DPT. Having 26 years' experience in the field of NDT & PWHT	26 Years
Mr. Komara Tatayya Suresh (Project Coordinator)	ASNT Level-II in RT, UT, MPT, DPT. & PCN-RTFI, MPT	22 Years
Mr. Rahul Kumar Mishra RSO (Site-In-Charge)	ASNT NDT Level-III RT, UT, MPT, DPT (Cert.No.244952), Internal Quality Auditor.	15 Years
Mr. Dipuna Parida , Senior Manager (NDT-Quality Technical)	ASNT NDT Level-III RT, UT, MPT, DPT (Cert.No.226097), Internal Quality Auditor.	15 Years
Mr Durgesh Patel , RSO (Site-In-Charge)	B.Sc. RT Level II (BARC), ASNT Level II (RT/UT/MPT/LPT/VT)	08 Years
Md. T. R. Ansari RSO (Site-In-Charge)	B.Sc., RT Level II (BARC). Qualified PAUT Technician, ASNT Level II (RT/UT/MPT/LPT/VT)	08 Years
Mr. Pushpendu Mandal	B.Sc., RT Level II (BARC). ASNT Level II (RT/UT/MPT/LPT/VT)	08 Years



<p>Mr. Koushik Chakraborty Lab In-Charge (Destructive Testing)</p>	<p>B.Tech (Mechanical) . Mechanical Tests (Tensile, Hardness, Impact, Flattening, Case depth) of Steel Samples. PQR , WPS of welded samples as per ASME, EN standards Corrosion Test (Coating , Salt Spray Test).Qualified NABL Internal auditor for ISO/IEC 17025:2017</p>	<p>24 Years</p>
<p>Mr. Raj Prasad Das Manager (Metallography & Scientific Services)</p>	<p>B Tech (Metallurgy), Multi level experience in Metallurgical Testings, Optical Metallurgical Microscope, Image Analysing, Micro Vickers, Rockwell , Brinell Hardness Test, Chemical Composition through OES</p>	<p>09 Years</p>
<p>Mr. Abhishek Banerjee (Sales Head)</p>	<p>B. Tech (Mechanical)</p>	<p>08 Years</p>



Life Member of
ASNT, ISNT & AWS



American Welding Society

ASR METALLURGY

A State of the Art Metal Testing & Research Laboratory



REPOSITORY OF EXPERIENCE :

ASNT/ISNT NDT LEVEL – III

- RADIOGRAPHY TESTING : 2 Person
- ULTRASONIC TESTING : 2 Person
- DYE PENETRANT TESTING : 2 Person
- MAGNETIC PARTICLE TESTING : 2 Person
- VISUAL TESTING : 1 Person

ASNT/ISNT NDT LEVEL – II

- RADIOGRAPHY TESTING : 5 Person
- ULTRASONIC TESTING : 10 Person
- DYE PENETRANT TESTING : 5 Person
- MAGNETIC PARTICLE TESTING : 5 Person
- VISUAL TESTING : 2 Person

EN/ISO-9712 NDT LEVEL – II

- RADIOGRAPHY TESTING : 2 Person
- ULTRASONIC TESTING : 2 Person
- DYE PENETRANT TESTING : 5 Person
- MAGNETIC PARTICLE TESTING : 5 Person
- VISUAL TESTING : 2 Person

OUR PRODUCT & SERVICES

NON-DESTRUCTIVE TESTS:

Ultrasonic Test, Radiography Test (Both Gamma & X-Ray), Magnetic Particle Test, DPT, Visual Test, Eddy Current, Positive Material Identification PMI, PWHT and PAUT Equipment.

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



ASR METALLURGY

A State of the Art Metal Testing & Research Laboratory

DESTRUCTIVE TESTS:

CHEMICAL ANALYSIS:

Through Spectrometer for Fe & Al base metals with wide range of CRMs.

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
Inter Granular Corrosion Testing (IGC) Practice 'A' & 'E'	ASTM A262

MECHANICAL TESTING:

Hardness in (HV, HRA, HRB, HRC, BHN) scales, YS, UTS, %E, Bend Test, Compression Test, Impact Test at controlled temperature (Charpy), Case Depth, etc.

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 / Re-bend for TMT	IS :1786

METALLURGICAL TESTING :

- Macroscopic Examination (Macro etching, Grain flow, Weld qualification, surface finish, digital imaging).
- Microscopic Examination (Grain size, Phase estimation, surface finish, digital imaging, Non-metallic Inclusion, Decarburization depth).

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 CaseDepth	IS 6416
Volume Fraction	ASTM 1245
Welds & Welded Test Specimens	ASME Sec IX, API 1104, AWS D1.1



THIRD PARTY INSPECTION (TPI)

Third party inspection services are provided to ensure timely and cost-effective delivery of products to the clients. Third party inspection services conforming to the international standards and statutory requirements ensuring quality, timely and cost-effective solutions to the clients.

Third Party Conformity Assessment

Highly experienced team of engineers and quality inspectors at ASR conducts inspection of goods at various stages to review and verify for the following:

□ **Mechanical & Metallurgical Inspection**

- ❖ Tensile Test
- ❖ Compression Test
- ❖ Proof Load Test
- ❖ Hardness Test- Rockwell, Brinell, Vickers & Micro Vickers Test
- ❖ Chemical Test Fe & Al Base (OES Analysis, Wet Lab Chemistry)
- ❖ Salt Spray Test
- ❖ Zinc Coating Test
- ❖ Tube Bend Test, Flattening, Drift Expansion Test
- ❖ Metallography Analysis
- ❖ Microstructure, Grain Size, Inclusion Rating, Case Depth, Coating Thickness, Nodularity, Flake, Decarburization layer depth, Macro etching, Weld Penetration
- ❖ WPS, WPQR & EQT as per ASME Sec IX, ISO 15614, API 1104, AWS D1.1
- ❖ Macro-etching, Weld penetration

□ **Non Destructive Test Inspection (Pipelines, Boiler, Pressure Vessel, Fabricational Items)**

- ❖ Radiography Test (Source IR192 Gamma Ray & X-Ray)
- ❖ Ultrasonic Test
- ❖ Magnetic Particle Test
- ❖ Liquid Penetration Test
- ❖ PWHT
- ❖ Visual Testing

- Inspection of Cold Rolled, CRCA & Galvanized Coils/Sheets
- Dimension Checking
- Marking and Identification
- Packing & Shipment
- Test Reports

LIST OF EQUIPMENT:

Non-Destructive Testing:

□ Inspection & Testing Equipment:

- ❖ X-RAY 250 kV : **06 Units**
- ❖ X-RAY 300 kV : **02 Units**
- ❖ Gamma Ray – ROLI – 3 (Ir-192) : **04 Units**
- ❖ D-Meter (Ultrasonic Thickness Gauge), MODSONIC Make : **04 Units**
- ❖ Ultrasonic Thickness Gauge- OLYMPUS, USA Make : **01 Units**
- ❖ Digital Ultrasonic Flaw Detector, MODSONIC Make : **0 12 Nos.**
- ❖ MPI-YOKE Machine with Black Light, Magnaflux Make : **4 Units**
- ❖ Portable Hardness Tester, Optel Make : **02 Nos.**
- ❖ Dye Penetrant Test : **As required**
- ❖ PWHT Temperature Recorder : **20 Nos.**
- ❖ Positive Material Identification PMI, Make: NITON : **01 Nos.**
- ❖ PAUT Equipment (Olympus MX-2 with Splitter) : **01 Nos**
- ❖ MVB-PA Series Portable Videoboroscope : **01 Nos.**



DESTRUCTIVE TEST EQUIPMENT:

Name of Instrument	Working Range	Make
Optical Emission Spectrometer	140 to 670 nm (Fe & Al Base)	AMETEK (GERMANY)
Universal Testing Machine	600 KN	FIE
Universal Testing Machine	50 KN	SHANTA ENGG.
Vickers Hardness Tester	1 Kg TO 50 Kg	FIE
Micro Vickers Hardness Tester	10 gms to 1 Kg	FIE
Digital Rockwell Hardness Tester	60,100, 150 kgs	FIE
Optical Brinell Hardness Tester	250 to 3000 kgs	FIE
Impact Charpy Tester with Cooling Chamber & Profile Projector	0 to 300 J (Up-to-196°C)	FIE
Microscope with Image Analyzing & Archiving system	800X	MetagraphX (ITALY)
Stereo Microscope with Image Analyzing & Archiving system	10X, 20X	Chennai Metco
Salt Spray Testing	270 Ltrs	Auto Test India
Inter Granular Corrosion (IGC)	Practice 'A' & 'E'	Caltech Instruments

MAJOR NDT PROJECTS SUCCESSFULLY COMPLETED DURING LAST ONE YEAR

PROJECT	CUSTOMER	TYPE OF JOB	INSPECTION AGENCY
Creation of surface facilities and pipeline networks for CBM, Jharia, Jharkhand	EQUINOX ENGG. LTD.	NDTWorks (RT)	ONGC LTD.
Piping 3", 4", 6" Dia Gail site, Kadma, Jamshedpur	ADRON INFRA	NDTWorks (RT)	GAIL (I) LTD.
Oil & Propane gas Tank Deoghar, Jharkhand	Access Alloy s	NDTWorks (RT)	IOCL Ltd.
Boiler 3" Dia. Wall Panel Burner mounting tube, Jamshedpur, Jharkhand	TBWES LTD.	NDTWorks (RT)	TATA STEEL LTD.
ROOF PLATE, Jojobera, Jharkhand	TATA POWER LTD.	NDTWorks (RT. UT)	TATA PROJECTS LTD.
NAT Projects, Alstom Transportation, Vadodara, Gujarat	Alstom Transportation Ltd.	NDT Works (UT, MPT, PT) at Vadodara, Gujarat	Alstom Transportation Ltd.
Agra Kanpur Metro Projects, Alstom Transportation, Kanpur, UP	Alstom Transportation Ltd.	NDT Works (MPT,PT) at Kanpur, UP	Alstom Transportation Ltd.
Amreli Junagadh Pipeline Project, Junagadh, Gujarat	Torrent Gas Pvt Ltd	NDT Works (UT) at Junagadh, Gujarat	Torrent Gas Pvt Ltd
Shubham CNG Station pipeline project - 4" & 8" Dia, Chittorgarh	Adani Total Gas Ltd	NDT Works (RT,UT) at Chittorgarh, Rajasthan	Adani Total Gas Ltd
ACE Pipeline Project-Bina Kanpur Pipeline Projects- 18" - 14 Kms-	ACE Pipe line	NDT Works (RT,UT)	IOCL Ltd
IOCL Gujarat Refinery Projects- 12", 8", 6", 4"	Advance Infrastructure Pvt Ltd	NDT Works (RT, UT)	IOCL Ltd
Konkan LNG Limited	M/s. Sopan O & M Company Pvt Ltd	NDT Works (RT,UT,PMI)	Konkan LNG Limited
IOCL Mundra Projects - 12"	Vectras Enprocon Pvt. Ltd.	NDT Works (RT, UT,)	IOCL Ltd
L&T Ltd, Khurja	L&T Ltd	NDT Works (UT)	L&T Ltd
Shubham CNG Station, 8" & 12" Dia Chitturgarh	JAY BHERUNATH CONSTRUCTION	NDT Works (RT, UT)	Adani Ltd
Laying of Steel Pipeline CGD Project, 12" DIA, Kishanganj	NAAD TRADERS	NDT Works (RT, UT)	HPCL Ltd
Laying of 3LPE Coated Carbon steel pipeline 4", 8", 12" dia in Krishnagiri	Aargee Pipeline Services Pvt Ltd	NDT Works (RT, UT)	IOCL Ltd

Some projects completed in partnership with **M/s. SIEVERT NDT INSPECTION SERVICES** Kalyan, Thane, Maharashtra, a company with which **ASR Metallurgy** has a MoU of JV.



Affiliations:



ASR METALLURGY PVT. LTD.

Registered Office : 195, North New Layout, Sonari, Jamshedpur (Jharkhand) - 831011, India

Ph.: +91 657 2220609, Mob.: +91 9031022898, +91 8092714428

Website : www.asrmetallurgy.co.in

E-mail : samir@asrmetallurgy.co.in | koushik@asrmetallurgy.co.in