A group of Non-Destructive Testing
ASNT Level - III Approved.
GSTIN : **20GJAPM9333P1ZV**
MSME REGD: **UDYAM-JH-01-0048248**

GNNS

GN.NDT SERVICES

Ensuring quality, safety, and reliability of industrial products and structures.

Business Profile

Company Profile
Bokaro Steel City, India

A group of Non-Destructive Testing
ASNT Level - III Approved .
GSTIN : 20GJAPM9333P1ZV
MSME REGD: UDYAM-JH-01-0048248

Atual Mustafa

ASNT LEVEL II (UT, RT, MPT, PT)

Address :

Plot Number - 505,
Gousn Nagar, Makhdumpur,
Bokaro Steel City, Jharkhand
Mobile Number : **+91-7519978368**
E-mail: **gnndtservices4662@gmail.com**

Table Of Content

Business Profile

Contact Information

Introduction

What we do

Problems to solve

Services we offer

Ultrasonic Testing (UT)

Radiographic Testing (RT)

Magnetic Particle Testing (MTP)

Liquid Penetrant Testing (LPT)

Ultrasonic Thickness Measurement (UTG)

Stress Relieving Testing (SR)

Positive Material Identification (PMI)

Clients and Projects

Introduction

Non-Destructive Testing (NDT) refers to a group of analysis techniques used to evaluate the properties of a material, component, or system without causing damage. Unlike destructive testing, which compromises the integrity of the tested item, NDT allows the item to remain in service after inspection.

GN NDT SERVICES is customer focused and technology driven organization offering products and services in the areas of oil & gas field equipments, Engineering Systems, Marine Industry, Products and Instrumentation fundamentals extract for process industries. With changing technologies & infrastructures, we have continued to deliver strategic advice, trainings and professional business services to our customers. A trusted partner for ‘Business’ & ‘Technology’ objectives-governance, strategy and structured outcomes in alignment with business requirements.

What we do

We offer experienced and cost effective professional guidance and provide quality independent and confidential services.

Problems to solve

1. ULTRASONIC TESTING (UT)
2. RADIOGRAPHIC TESTING (RT)
3. MAGNETIC PARTICLE TESTING (MPT)
4. LIQUID PENETRANT TESTING (LPT)
5. ULTRASONIC THICKNESS MEASUREMENT (UTG)
6. STRESS RELIEVING TESTING (SR)
7. POSITIVE MATERIAL IDENTIFICATION (PMI)


Services We Offer

ULTRASONIC TESTING (UT)

01

Ultrasonic testing (UT) is a family of non-destructive testing techniques based on the propagation of ultrasonic waves in the object or material tested. In most common UT applications, very short ultrasonic pulse-waves with center frequencies ranging from 0.1-15 MHz, and occasionally up to 50 MHz, are transmitted into materials to detect internal flaws or to characterize materials. A common example is ultrasonic thickness measurement, which tests the thickness of the test object, for example, to monitor pipework corrosion. Ultrasonic testing is often performed on steel and other metals and alloys, though it can also be used on concrete, wood and composites, albeit with less resolution. It is used in many industries including steel and aluminum construction, metallurgy, manufacturing, aerospace, automotive and other transportation sectors.

To identify a leak, ferrous particles, either dry or in a wet suspension, are applied to a part. These are attracted to an area of flux leakage and form what is known as an indication, which is evaluated to determine its nature, cause, and course of action, if any.

RADIOGRAPHIC TESTING (RT)

02

Industrial radiography is a method of non-destructive testing where many types of manufactured components can be examined to verify the internal structure and integrity of the specimen.

Industrial Radiography can be performed utilizing either X-rays or gamma rays. Both are forms of electromagnetic radiation. The difference between various forms of electromagnetic energy is related to the wavelength.

X and gamma rays have the shortest wavelength and this property leads to the ability to penetrate, travel through, and exit various materials such as carbon steel and other metals.

MAGNETIC PARTICLE TESTING (MPT)

03

Magnetic particle Inspection (MPI) is a non-destructive testing (NDT) process for detecting surface and slightly subsurface discontinuities in ferromagnetic materials such as iron, nickel, cobalt, and some of their alloys. The process puts a magnetic field into the part. The piece can be magnetized by direct or indirect magnetization. Direct magnetization occurs when the electric current is passed through the test object and a magnetic field is formed in the material. Indirect magnetization occurs when no electric current is passed through the test object, but a magnetic field is applied from an outside source. The magnetic lines of force are perpendicular to the direction of the electric current, which may be either alternating current (AC) or some form of direct current (DC) (rectified AC).

The presence of a surface or subsurface discontinuity in the material allows the magnetic flux to leak, since air cannot support as much magnetic field per unit volume as metals.

To identify a leak, ferrous particles, either dry or in a wet suspension, are applied to a part. These are attracted to an area of flux leakage and form what is known as an indication, which is evaluated to determine its nature, cause, and course of action, if any.

LIQUID PENETRANT TESTING (LPT)

04

Liquid penetrant testing a widely applied and low-cost inspection method used to locate surface-breaking defects in all non-porous materials (metals, plastics, or ceramics).

The penetrant may be applied to all non-ferrous materials and ferrous materials, although for ferrous components Magnetic-particle inspection is often used instead for its subsurface detection capability.

LPI is used to detect casting, forging and welding surface defects such as hairline cracks, surface porosity, leaks in new products, and fatigue cracks on in-service components.

ULTRASONIC THICKNESS MEASUREMENT (UTG)

05

One of the most widespread NDT methods in mechanical equipment of industrial installations for the characterization of erosion and deterioration is the thickness measurements with the Ultrasonic method.

We offer high level thickness measurement services on pipes, pressure vessels, broilers, tanks etc, by experienced and certified inspectors.

STRESS RELIEVING TESTING (SR)

06

Stress relieving is a form of post weld heat treatment. In stress relieving we heat a material to specific temperature for a specified amount of time in order to reduce or eliminate residual stresses; and then cool it at a slow enough rate to prevent these stresses from redeveloping.

POSITIVE MATERIAL IDENTIFICATION (PMI)

07

PMI (Positive Material Identification) testing is the analysis of materials to determine the chemical composition of a metal or alloy at particular (usually multiple) steps of alloy manufacturing or in-process alloy installation.

Knowing the exact composition and grade of an alloy enables suppliers, plant workers, and other responsible parties in the chain of custody of components to match alloy specifications that are chosen for their specific properties such as heat resistance, corrosion resistance, durability, etc.

Having the right alloy in the right place is essential in places like petroleum refineries and chemical plants, because the right alloy with the right properties is often all that stands between a safe, efficient operation and lost time and revenue.

Worked in Rourkela NDT services for CLIENTS & PROJECTS

01

LARSEN & TOUBRO LIMITED
Engineering Construction & Contracts Division

- KERENDARI 'A' COAL MINING PROJECT
- HPCLRUF, Item: Solid Pitch Handing System, SILO
- VEDANTA LIMITED, 5MTPA Alumina Relinery Expansion Project, Lanjigarh
- 1.5 MPTPA, COKE OVEN BATTERY COMPLEX UNDER FACE-II EXPANSION, TSL, KALINGANAGAR
- Aditya FRP Phase II Project , Aditya Aluminium, Lapanga

02

POWER MECH
Growth Unlimited

POWER MECH GROWTH LTD.

- KURMITAR IRONORE HANDLING PLANT, ORISHA MINING CORPORATION
- 4X600MW VEDANTA IPP, JHARSUGUDA -768202

03

Welding Alloys

WELDING ALLOYS

- SMS - II, MSRS, ROURKELA STEEL PLANT, ROURKELA

Worked in Rourkela NDT services for **CLIENTS & PROJECTS**

04

SIXD
SIMPLIFYING DIMENSIONS

SIXD

- JINDAL STEEL PVT. LTD. ANGUL
- JINDAL STEEL PVT. LTD. RAIPUR

05

TF
TRIDENT

TRIDENT

- 3X800MW PATRATU SUPER THERMAL POWER PROJECT.
- [FGD] PACKAGE FOR SINGRAULI SUPER THERMAL POWER STATION, STAGE-I & II [5X200MW+2X500MW].
- ODISHA MINING CORPORATION LIMITED, KURMITAR IRON ORE MINING PRIVATE LIMITED, IRON ORE HANDLING AND EVACUATION SYSTEM.

06

Baid Engineers Pvt. Ltd.

BAID ENGINEERS PVT. LTD.

- NTPC, NORTH KARANPURA SUPER THERMAL POWER PROJECT (3X660MW)
- NTPC, PAKRI BARWADIH COAL MINING PROJECTS
- 3 X 120 TPH CFBC BOILERS AND AUXILIARIES, HALDIA

CEO

Ataul Mustafa

Driven by a lifelong fascination with engineering, I pursued and completed a Diploma in Mechanical Engineering, laying the foundation for a career rooted in precision and innovation. Over the 8 + years experience, I've developed deep expertise in Non-Destructive Testing (NDT), mastering a wide range of methods that ensure safety, reliability, and quality across critical sectors.

My work has contributed to enhancing standards in Aerospace, Automotive, Construction, Oil & Gas, and Manufacturing—making these industries not only more efficient but also safer and more sustainable places to work.

Thank you.