



Aerospace NDT | Centre of Excellence in Welding | Training



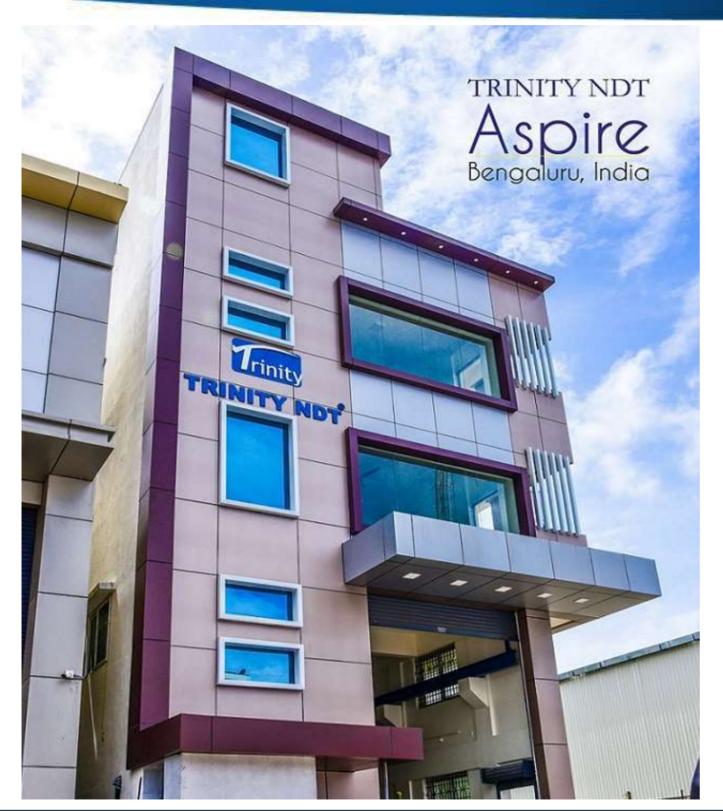


NABL ISO17025:2017 Accredited Lab
Cert No. TC 5934



# Experience World Class Quality Services

Making the World Better & Safer for Quality Life





Aerospace NDT Labs
Centre of Excellence in Welding
Training Centre &
Offices Complex at Bangalore, India



# NADCAP Accredited NDT Services

### NADCAP Accreditation for Aerospace NDT Services





#### TRINITY NDT ENGINEERS

491, SITE NO.12, 14TH CROSS, 4TH PHASE, PEENYA INDUSTRIAL AREA BANGALORE, KA 560058 India

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

#### NonDestructive Testing

Certificate Number: 21485204452 Expiration Date: 31 August 2022 Accreditation Length: 12 Months David L. Schutt, PhD
President

Performance Review Institute (PRI) | 161 Thorn Hill Road | Warrendale, PA 15086-7527





#### SCOPE OF ACCREDITATION

#### NonDestructive Testing

TRINITY NDT ENGINEERS

491, SITE NO.12, 14TH CROSS, 4TH PHASE, PEENYA INDUSTRIAL AREA BANGALORE, KA 560058

This certificate expiration is updated based on periodic audits. The current expiration date and scope of accreditation are listed at: www.eAuditNet.com - Online QML (Qualified Manufacturer Listing).

In recognition of the successful completion of the PRI evaluation process, accreditation is granted to this facility to perform the following:

#### AC7000 - AUDIT CRITERIA FOR NADCAP ACCREDITATION

AC7114 Rev N - Nadcap Audit Criteria for NonDestructive Testing (NDT) Suppliers
Accreditation (to be used on audits before 02 May 2021)

AC7114/1 Rev M - Nadcap Audit Criteria for NonDestructive Testing Facility Penetrant Survey (to be used on audits before 02 May 2021)

AC7114/2 Rev M - Nadcap Audit Criteria for NonDestructive Testing Magnetic Particle Survey (to be used on audits before 02 May 2021)



### NADCAP - Scope of Accreditation

t-frm-0004 29-May-20



# NABL ISO17025:2017 & ISO9001:2015 QMS Certifications and Approvals





#### National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)



#### NABL

#### CERTIFICATE OF ACCREDITATION

#### TRINITY NDT ENGINEERS

has been assessed and accredited in accordance with the standard

#### ISO/IEC 17025:2017

#### "General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

#491, SITE NO. 12, 14TH CROSS, 4TH PHASE, PEENYA INDUSTRIAL AREA, BENGALURU, KARNATAKA, INDIA

in the field of

#### TESTING

Certificate Number:

TC-5934

Issue Date:

14/08/2019

Valid Until:

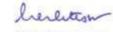
13/08/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL





N. Venkateswaran Chief Executive Officer



#### NABL ISO/IEC 17025:2017 Accreditation

- Eddy Current testing
- Radiography Testing
- Ultrasonic Testing
- Liquid Penetrant testing
- Magnetic particle testing

For Scope of Accreditation Visit: www.trinityndt.com



This is to Certify that

Quality Management System

#### TRINITY NDT ENGINEERS

NO. 491, SITE NO: 12, 14TH CROSS, 4TH PHASE, PEENYA INDUSTRIAL AREA. BENGALURU, KARNATAKA-560058, INDIA

> has been independently assessed by DBS and is compliant with the requirement of

> > ISO 9001:2015

For the following scope of activities:

- ➤ MANUFACTURING AND SUPPLY OF WELDED COMPONENTS & STRUCTURES.
- > NON DESTRUCTIVE TESTING SERVICES
- > TRAINING, CERTIFICATION AND CONSULTATION SERVICES ON NDT AND
- ➤ SALES & SERVICES OF NDT & WELDING EQUIPMENTS, ACCESSORIES AND

#### Certificate Number: Q-2050200921015

Date of Certification: 21st September 2020 1st Surveillance Audit Due: 20th September 2021 2nd Surveillance Audit Due: 20th September 2022 20th September 2023

Certificate Expiry: This Certificate is property of DBS Certifications and remains valid

Head of Certification







The certificate remains the property of DBS Certifications Private Limited, to whom it must be returned upon request.

#### DBS CERTIFICATIONS PVT. LTD.

142; Ind Floor, Avtar Enclave, Paschim Vihar, Dehi - 110063, (INDIA) info@atiscertification.com, www.dtscertification.com

International Accreditation Service (IAS) 3050; Saturn Street Suite 100, Brea, Ca 92821-1732. United States of America



ISO9001:2015 QMS Certification for NDT, Welding & Training Services

#### Trinity NDT Labs Approved by Dassault Aviation, France & India





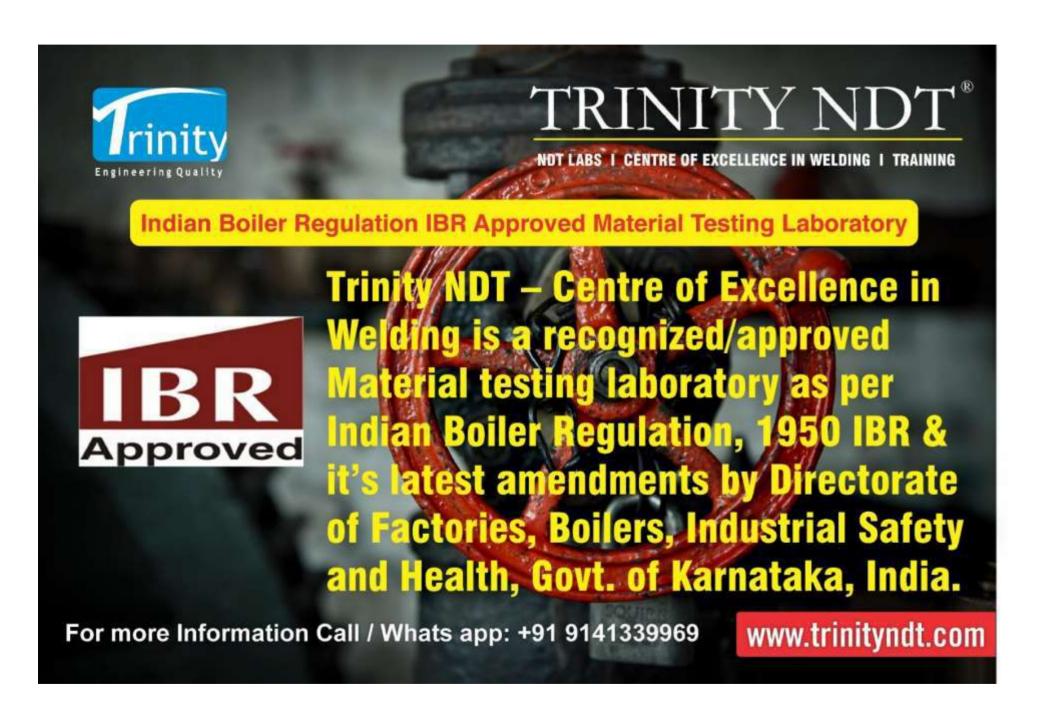
All NDT methods are approved by Dassault Aviation.

TRINITY NDT can perform these inspections at their Bengaluru facility and offer NDT agents to perform inspections at the DRAL site in Nagpur.

The TRINITY NDT Training and Certification Center is recognized by Dassault Aviation and can be used to certify NDT operators at the DRAL facility

Trinity NDT is an approved NDT Services & Training services Provider for M/s. Dassault Aviation, France and India

### Trinity NDT - Material Testing Labs are IBR Approved as per Indian Boiler Regulation 1950







by Directorate of Factories, Boilers, Industrial Safety & Health, Government of Karnataka, India

#### SERVICES CERTIFICATE FROM SOUTH WESTERN RAILWAYS



#### SOUTH WESTERN RAILWAY

Office of the Deputy Chief Engineer (Central)Construction, # 18, Miller's Road, Benson town post, Bangalore-560 046

No. W. 352/CN/BNC/ROB 40 & 41

Date: 17th August 2012

#### CERTIFICATE

#### TO WHOM SO EVER IT MAY CONCERN

This is to certify that M/s. Trinity NDT Engineers, Plot No. V-22(A), 6th Main, 2nd Stage, Peenya Industrial Estate, Bangalore – 500 058 have done the Third Party inspection for composite girder work at Level Crossing No. 40 & 41, Tumkur as per RDSO/IS specifications for M/s. KPR Constructions, Bangalore.

M/s. Trinity NDT Engineers has tested the steel work of 160 Tonnes including testing of all raw materials, WPS, PQR & WPQ preparation. They are having fully established material testing lab with RT, UT, MT, PT, VT & Welder Qualification Test facilities at Peenya Industrial Estate, with highly Qualified & Certified ASNT Level II /III, Welding Inspection Engineers. They have well experienced professionals & facilities for testing of steel structures.

M/s. Trinity NDT Engineers have successfully completed the third party inspection, material testing works, Welding Inspection satisfactorily as per the departmental requirements.

(P. SELVAM)

EXECUTIVE ENGINEER

BRIDGES, CONSTRUCTION

BANGALORE CANTONMENT

ENCURSE ENGINEZA

CONSTRUCTION HANGES

ENCURSE ENGINEZA

CONSTRUCTION HANGES

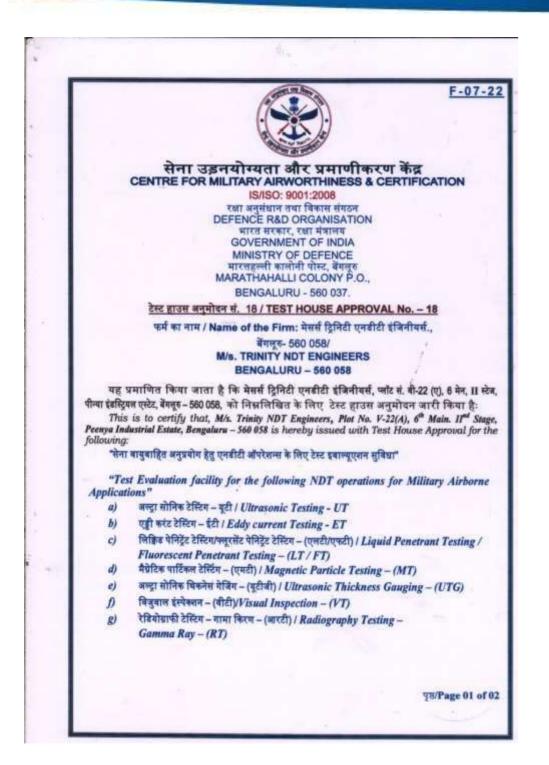
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Trinity NDT has successfully executed Third party inspection, NDT, Welders' Qualification & Welding Inspection of Composite Girder Works for South Western Railways (Indian Railways)





Trinity NDT is an approved NDT Testing laboratory for M/s. Centre For Military Airworthiness & Certification (CEMILAC),

Ministry of Defense, Government of India.

#### Trinity NDT Labs Approved by Hindustan Aeronautics Ltd - HAL

हेतिकॉप्टर पमआरओ प्रभाग हेतीकाप्टर काम्प्लेक्स हिन्दुस्तानपरीनाटिक्सलिगिटेड वंगसूर-560017, शादत Fax (केक्स): 91-80-2231 4354



HELICOPTER MRO DIVISION
Helicopter Complex
HINDUSTAN AERONAUTICS LIMITED
Bangalore-560 017, India
Ph. (ganv): 91-80-2231 8813, 2232 2002

No. H-MRO/ALH/OS/2015/062

Dated: 29,07,2015

To

M/S TRINITY NDT ENGINEERS
TRINITY INSTITUTE OF NDT TECHNOLOGY
PLOT NO. V-22(A), BESIDE KSSIDC COMPLEX
2™ STAGE, PEENYA INDUSTRIAL ESTATE
BANGALORE – 560 058

Sub: Vendor Registration - SUBCONTRACT

Dear Sir.

Reference is made to your application for Vendor registration Dt 03<sup>90</sup> JULY 2015

We are pleased to inform you that M/s. TRINITY NDT ENGINEERS have been registered as approved subcontractor as per details given below:

SI.no	Details	REMARKS
01	Vendor Code	IN08000137
02	Date of Registration	29.07.2015
03	Validity of Registration	5 YEARS, 28.07.2020
04	Registration category OEM/ Authorized distributor/ Stockist	SUBCONTRACTOR
05	Registration granted for Stores/ Services	SERVICES
06	Category of Stores/ services for	NDT CHECKS  - MAGNETIC PARTICLE TESTING  - DYE PENETRANT TESTING  - RADIOGRAPHY TESTING  - ULTRASONIC TESTING

- Your registration at HAL-\_HELICOPTER-MRO DIVISION will be governed by HAL rules, directives etc. for Vendor Registration.
- This registration will be renewed after the validity period at the discretion of HAL HELICOPTER –MRO Division.
- Please note that this registration does not guarantee your firm/company, award of any/all the orders/contracts or inclusion on a particular tender list. Further, this registration shall not be a binding on HAL- Division to float the enquiries only to the registered vendors.



Trinity NDT is an approved NDT Services Provider for M/s. Hindustan Aeronautics Ltd (HAL), Bangalore, India

Page 1 of 2

### Personnel Qualifications & Certifications | Trinity NDT

#### Our NDT Personnel have following Certifications

#### As per ASNT SNT-TC-1A in Level II & III

- Ultrasonic Testing
- Magnetic Particle Testing
- Penetrant Testing
- Radiography Testing
- Visual Testing
- Eddy Current Testing

#### As Per NAS 410 Level II & III

- Penetrant Testing
- Magnetic Particle Testing

#### As per ISO 9712 Level II

- Penetrant Testing
- Magnetic Particle Testing



#### Our Welding Personnel have following Certifications

IWE - International Welding Engineer

IWT - International Welding Technologist

CSWIP 3.1 - Welding Inspector

AWS CWI - Welding Inspector

### **Facilities Outline**



- Radiography testing Gamma & X-Ray facilities RT Enclosure
- Ultrasonic testing
- Eddy Current testing
- Magnetic particle testing & Aerospace MT facility
- Penetrant Testing & Aerospace FPI Testing
- Ultrasonic thickness gauging & Visual Weld Inspections
- International Welding Engineer IWE & IWT, CSWIP 3.1 Certified Welding Inspector (TWI, UK) Services
   & Welder Qualification Tests as per AWS, ASME & ISO standards
- ASNT NDT Level III Consulting in ET, MT, PT, RT, UT & VT
- NDT Level I, II Training & Certification as per ASNT SNT-TC-1A
- Centre of Excellence in Welding IWE / IWT Services, Training of Welders & Welding Inspectors
- Sales NDT Equipments, Accessories, MPT & DPT consumables



# Aerospace NDT Services

### Aerospace NDT - NADCAP Accredited MPI & FPI Labs





- Water Washable and Post Emulsifiable Stationery type Liquid/Dye penetrant inspection system with S2, S3 & S4 sensitivities for testing small to large size components/structures
- Stationery Bench type Magnetic Particle testing facility for testing of components up to 1.2m length PLC controlled, AC, HWDC, DC up to 6000A capacity that meets Aerospace standard ASTM E 1444 latest edition and other national, international standards and customer specifications

### Magnetic Particle Testing MPI - NADCAP Accredited





- Stationery Magnetic particle testing equipment with AC, DC, HWDC
   Max amperage 6000 amps that meets ASTM E 1444 Standard.
- Stationery wet horizontal type equipment with head shot, coils, solenoids, central conductors with AC, HWDC, DC and up to 2 Seconds variable shot facility meets Aerospace NDT standards
- UV lights that meet international standards and specifications
- In built demagnetizing equipment and digital Hall Effect Gauss meter for magnetic field strength measurement
- Experienced NAS 410 Level I, II certified professionals
- In house ASNT NDT Level III / NAS 410 Level III on Magnetic particle testing for monitoring Aerospace Magnetic particle inspection facility

### Fluorescent Penetrant Testing FPI - NADCAP Accredited





- Specialized Fluorescent Penetrant Inspection station for aerospace applications that meets ASTM F 1417 standard
- Stationery penetrant testing station Water Washable and Post Emulsifiable S2, S3, S4 sensitivity penetrant capability for components/structures up to 600mm size.
- Ultrasonic cleaning equipments for pre-cleaning of components before application of penetrant
- Alkaline cleaning equipment and solutions for Aerospace pre-cleaning applications
- Experienced NAS 410 Level II certified professionals
- In-house ASNT NDT Level III / NAS 410 Level III in Penetrant testing for preparing, approving NDT procedures and providing consultancy services

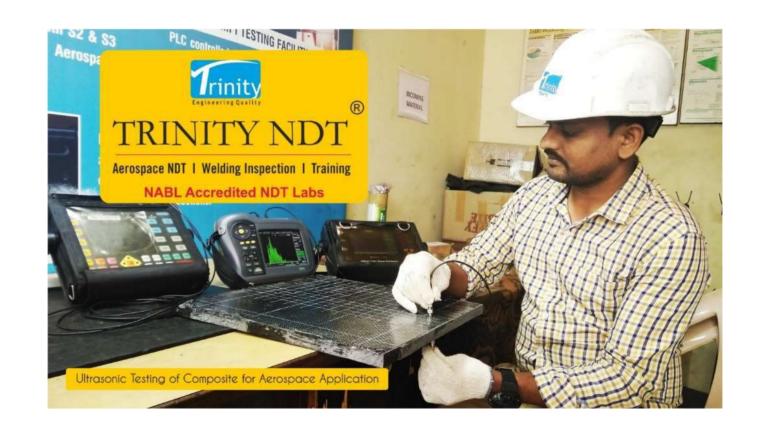


# NABL ISO17025:2017 Accredited NDT Services

### **Ultrasonic Testing Facilities**



- Ultrasonic flaw detection equipments with built-in DGS curves, AVG, AWS flaw sizing techniques for welds and other materials
- Dry scan Inspection equipment suitable for Aerospace composite materials Ultrasonic Testing
- Ultrasonic inspection professionals qualified and certified to Level I, II as per Employer Written practice framed to the requirements of ASNT recommended practice SNT-TC-1A
- Experienced in house ASNT NDT Level III on Ultrasonic Testing for providing techniques establishment, procedure preparation, approval and consultancy services



### Ultrasonic Thickness Gauging





- On-site Ultrasonic thickness gauging services for assessing corrosion in process plant, piping & equipment and casting difficult to reach areas.
- Equipped with state of art ultrasonic thickness gauges suitable for high precision and high temperatures applications including thickness measurements of Boiler pipes, tubes and heat exchangers.
- Thickness measurements on one side accessibility containing components with great accuracy.
- Professionals with skills and capabilities to inspect onsite jobs for thickness measurement during in-service inspections.

### Radiography Testing Facilities





- Iridium 192 Gamma Ray Testing Facility
- State of art X-Ray Equipment
- RT Enclosure for 24X7 Services Licensed by AERB up to 100 Curie Ir 192 and Dark Room Facility
- Radiography Safety officers (RSO) and Radiographers certified by Bhabha Atomic Research Centre(BARC), Atomic Energy Regulatory Board-AERB, Government of India, Mumbai
- RT / RTFI Level I, II certified professionals as per ASNT recommended practice SNT-TC-1A & Written practice
- In house ASNT NDT Level III with RT UT MT PT VT ET Certifications
- Onsite Radiography testing facilities
- Technical NDT Level III Consulting Services for procedure preparations and approval

### Magnetic Particle Testing





- Stationery Magnetic particle testing equipment with AC, DC, HWDC
   Max amperage 6000 amps.
- Stationery wet horizontal type equipment with head shot, coils, solenoids, central conductors with AC, HWDC, DC and up to 2 Seconds variable shot facility meets Aerospace NDT standards
- Prod type equipment for onsite magnetic particle testing of Weld joints and castings in rough condition
- UV lights that meet international standards and specifications
- In built demagnetizing equipment and digital Hall Effect Gauss meter for magnetic field strength measurement
- Experienced MT Level I, II certified professionals
- In house ASNT NDT Level III on Magnetic particle testing for monitoring complete Magnetic particle inspection facility

### Penetrant Testing





- Specialized Fluorescent Penetrant Inspection station for aerospace applications that meets ASTM E 1417 standard
- Stationery penetrant testing station Water Washable and Post Emulsifiable S2, S3, S4 sensitivity penetrant capability for components/structures up to 600mm size.
- Ultrasonic cleaning equipments for pre-cleaning of components before application of penetrant
- Alkaline cleaning equipment and solutions for Aerospace pre-cleaning applications
- Solvent removable penetrants for portable onsite applications e.g. weld joints, machined components etc
- Experienced PT Level II certified professionals
- In-house ASNT NDT Level III in Penetrant testing for preparing, approving NDT procedures and providing consultancy services

### **Eddy Current Testing**

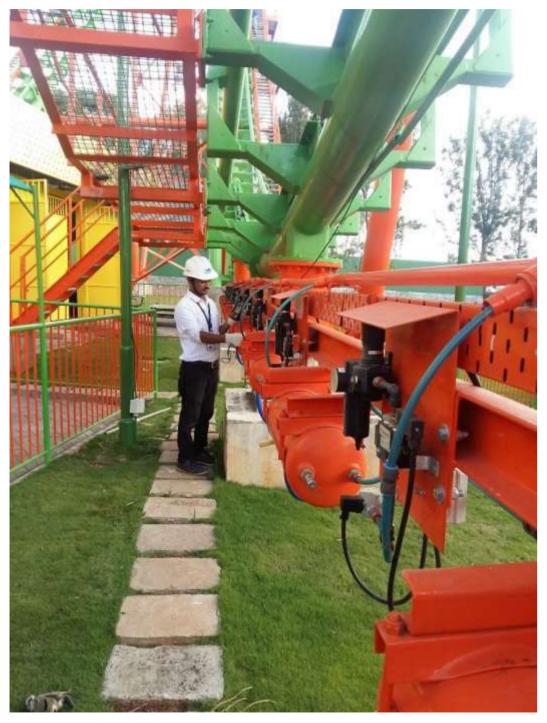






- Advanced Eddy Current Dual frequency flaw detectors to inspect metallic parts and perform highly reliable flaw detection of surface and near-surface defects.
- Eddy current inspection Equipped with external outputs
- Digital conductivity and coating thickness measurement capability
- Specialized equipment and ability to use rotating scanners
- Dual frequency capabilities for high end applications Testing of Heat Exchanger Tubes
- Eddy Current inspection professionals certified to Level I, II as per ASNT recommended practice SNT-TC-1A, and are approved by leading third party inspection authorities
- In house ASNT NDT Level III on Eddy Current Testing for monitoring day to day activities, procedure preparation and approval of eddy current test procedures and functionalities of equipment

### Visual Inspection





- Visible Light meters
- Welding Gauges for inspection of weld joints
- Magnifiers,
- Lenses and other measuring instruments and equipments for precise control of surface quality.
- NDT Level I, II certified professionals as per written practice that meets SNT-TC 1A
- In-house ASNT NDT Level IIIs for providing inspection and consulting services.
- Experienced CSWIP Certified Welding Inspectors & International Welding Engineers certified by The International Institute of Welding

### **ASNT NDT Level III Consulting**





- NDT Level III consulting services on UT, MT, PT, RT, VT and ET.
- Selection of right nondestructive testing method/s and techniques suitable for the application
- Selection of suitable equipment for specific purpose
- Preparation of NDT inspection procedures for various inspection methods, clients and jobs
- Preparation of written practice and NDT procedures based on International, National Codes, Standards and specifications
- Preparation of Test report formats and NDE technique sheets
- Preparation of advanced NDT procedures such as Ultrasonic testing of TKY joints, Immersion Ultrasonic testing procedure and Aerospace NDT procedures

### **ASNT NDT Level III Consulting**





#### Continued..

- •Procedures for Advanced NDT methods such as Magnetic Particle Testing (MPT), Ultrasonic testing (UT), Liquid Penetrant Testing(PT), Radiographic Testing, Positive Material Identification (PMI) and Hardness Testing.
- Preparation of written practices as per ASNT recommended practice SNT-TC-1A
- Review of all inspection procedures
- •Review of procedures based on International, National or in-house Standards & Specifications.
- •Training and certification of personnel as per employer's written practice
- ASME code stamp certification consulting services

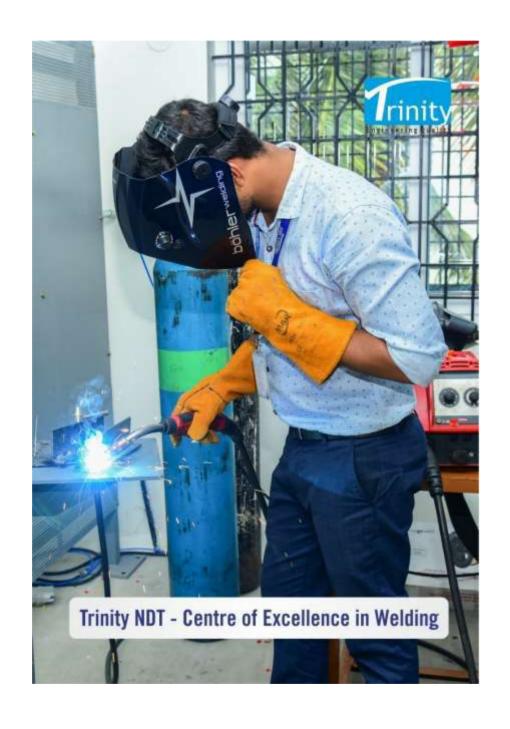


### CENTRE OF EXCELLENCE IN WELDING

Workshops | Fabrication | Welder Qualification | Training



### CENTRE OF EXCELLENCE IN WELDING





The 'Centre of Excellence in Welding' established by Trinity NDT is a state of art welding excellence centre established to provide professional services on

- a. Preparation of WPS, PQR to qualify and certify welders to International Standards, welding processes,
- b. International Welding Engineer IWE, International Welding Technologist IWT services,
- c. Consulting on ISO3834 and EN15085 international standards,
- d. Welding Inspection services,
- e. Training of trainers in welding, training of Welders and certification,
- f. Organizing International welding training courses.

### Welder Qualification Tests







**Welder Qualification Tests** 

Establishing WPS, PQR, WPQ as per International Codes

For details on how we can Qualify Your welders Contact us NOW

- International Welding Engineers (IWE) & CSWIP 3.1 (TWI, UK) certified welding inspection experts
- Establishing WPS, Conducting and witnessing welder qualification tests and documenting the qualifications as per codes, specification and standards.
- Experienced welding professionals for qualifying as per ASME Sec IX, AWS D1.1, AWS D1.2, EN ISO 15614 Specification and qualification of welding procedures for metallic materials, welding procedure test.
- Panel of experts on Repair Welding of critical engineering components
- •Trinity NDT Centre of Welding Equipped with latest Welding machines and work shop for training of welding for skill improvement 33

### **Professional Welding & Fabrication Services**





#### Centre of Excellence in Welding by Trinity NDT is equipped with

- Professionally Qualified & Certified Welders to Weld Ferrous, Aluminium and Stainless Steel Materials
- Facility equipped with State of Art equipment SMAW, GMAW, GTAW and FCAW Processes - Industry 4.0 Ready Welding Equipment
- 5 T EOT Crane facility for Handling Materials
- Welders Training Facility
- In-house NDT Facility for X-ray, Radiography & NDT on-time
- International Welding Engineer IWE & CSWIP 3.1 Welding Inspectors for evaluation of Welding Process and Quality

### Team at Trinity NDT





**Ravi Kumar T** 

Ravi Kumar. T, CEO - Trinity NDT Engineers, Bangalore, India

A graduate in Metallurgical Engineering, International Welding Engineer IWE from International Institute of Welding – IIW, ASNT NDT Level III in Radiography (RT), Ultrasonic testing (UT), Magnetic Particle Testing (MT), Liquid Penetrant Testing (PT), Visual Testing(VT) and Eddy Current Testing(ET) from the American Society for Nondestructive Testing Inc.(ASNT), Ohio, USA and BARC Certified Radiography Site Incharge and Radiological Safety Officer with over 25 Years of NDT experience.

Immediate Past Chairman – The Indian Institute of Welding, Bengaluru Branch, Vice Chairman – Indian Society for Non-destructive testing (ISNT), ISNT Bengaluru Chapter, Member of The American Society for Non-destructive Testing (ASNT), Ohio, USA, Member of Aeronautical Society of India, Associate Member of Institution of Engineers (India)-Kolkata, Chartered Engineer, Member of Indian Institute of Metals (IIM)-Kolkata, Executive committee member of IIM Bangalore Chapter.

### Team at Trinity NDT





**Shiva Kumar R** 

**Shiva Kumar**. **R**, Director - 'Trinity NDT Engineers', Bangalore, India

He is an International Welding Technologist IWT from International Institute of Welding -IIW and CSWIP 3.1 Certified Welding Inspector from TWI, UK

He holds **bachelor**'s degree in Mechanical Engineering from MSRIT, Bangalore, Chartered Engineer, NDT Level II in UT, MT, PT, RT & VT, Certified Radiographer from BARC, Mumbai and member of Institution of Engineers (India)-Kolkata, Vice Chairman - The Indian Institute of Welding (IIW), Life member of Indian Society for Nondestructive Testing-ISNT, and Executive committee member of IIM & ISNT Bangalore Chapter. Currently Joint Secretary, Peenya Industries Association and Council Member Peenya Gymkhana.

He has more than 20 years of NDT & Welding related experience

### Major Clients













































































### TRINITY INSTITUTE OF NDT TECHNOLOGY

A Professional Institute for NDT & Welding Courses



www.facebook.com/trinityndt.in

www.trinityndt.com

### World Class Training Infrastructure





### TRINITY NDT ASPIRE

A State of Art - Acoustic Auditorium

### **Training & Certification Courses**



NDT Training Facility

#### NDT Level I, II Certifications on

- Radiographic testing
- Ultrasonic testing
- Magnetic Particle testing
- Liquid/Dye penetrant testing
- Visual Inspection
- Ultrasonic thickness Gauging
- Eddy Current Testing

Welders' Skill Training

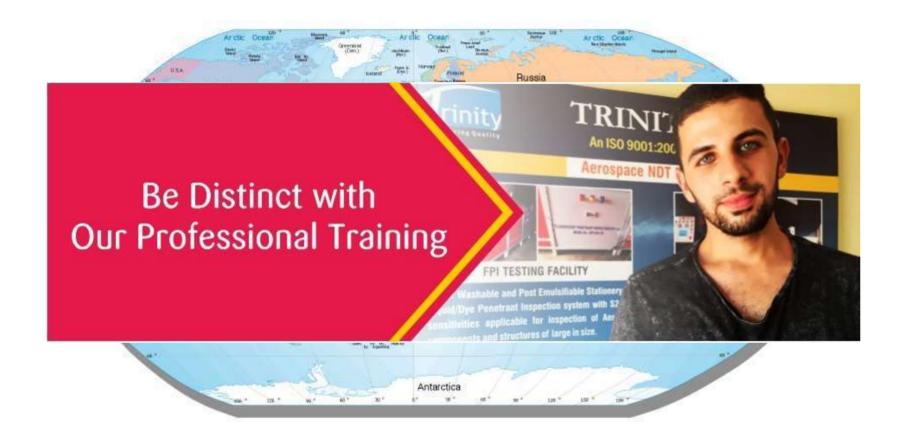
**Welding Inspector Courses** 





Trinity NDT - Welders' Training Facility

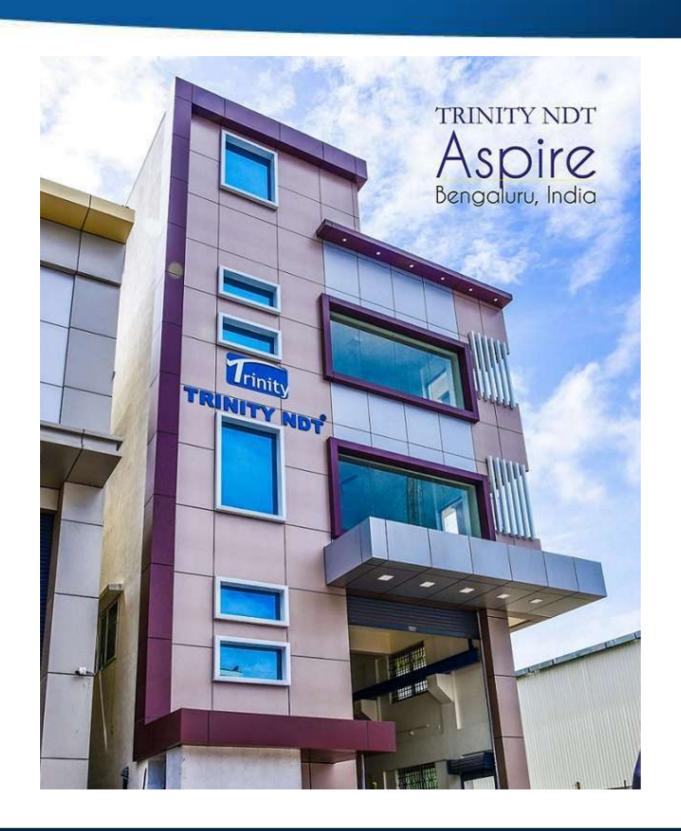
### Training Participants from 40+ Countries



- Saudi Arabia
- USA
- Thailand
- Singapore
- Malaysia
- South Africa
- Nigeria
- Papua New guinea
- United Arab Emirates (UAE)
- Oman
- Pakistan
- Bhutan
- Nepal
- Sudan
- Syria
- Cameroon
- Dubai
- Iraq and many more nationals…



### **Quick Contacts**





# Live Chat Now at www.trinityndt.com

### Whats App Now

NDT Services: +91 98441 29439,

72040 29439

Welding Services: 91413 39969

Training Services: 91413 39994

#### E-mail

info@trinityndt.com welding@trinityndt.com



# TRINITY NDT ENGINEERS

Aerospace NDT Labs | Centre of Excellence in Welding | Training

#491, Site No.12, 14<sup>th</sup> Cross, 4<sup>th</sup> Phase, Peenya Industrial Area,
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E: info@trinityndt.com | w: www.trinityndt.com

Trinity NDT® is a registered Service Mark of 'Trinity NDT Engineers'

Making the World Better & Safer for Quality Life