ISO 9712 NDT Training Programs

NDT Personnel Certifications Program (Training & Examination Services)

Global Inspection and Certifications (GIC) is one of ‘the best and trustable Institution of quality inspection personnel training, examination and certifications’ based in Golden George Nagar, Nerkundram, Chennai-107, India which is comply with various International industrial code and standards.

GIC is approved by Global Veritas Certification Services (GVCS) is Authorised Training Organization (ATO) and Authorised Qualifying Body (AQB) for conventional and advanced NDT in India, Chennai. GVCS is an accredited certification body that offers the Personnel Certification in Non Destructive Testing in accordance with the international standard (ISO 17024) through the internationally recognized ISO 9712 standard. GIC is authorized to impart training and certify NDT personnel to GVCS PCP Scheme which complies with ISO 9712 requirements. The training institute in custom bulk with state-of-the-art technology providing ambient space, well equipped lecture hall, separate practical training rooms with necessary equipments, accessories, flawed samples for testing.

Our Training and examination process can cover all the major NDT methods. GIC offer conventional and advanced NDT level 2 and Level 3 Training program in Ultrasonic Testing (UT), Magnetic Particle Testing (MT), Dye Penetrant Testing Radiography (DPT), Phased Array Ultrasonic Testing (PAUT) Time of Flight Diffraction (TOFD), Eddy Current Testing (ECT – Tube & Welds) and Radiography Film Interpretation (RTFI) level 2.

GIC deliver courses and examinations, consultancy and inspection services to all major service industry sectors including Oil & Gas, Petrochemicals Refinery, Power Plants Aerospace, Steel Manufacturing, Fabrication, Construction, Offshore Rigs, Wind Mills, Steel Bridges Constructions and Heavy Engineering Division workshops in India and aboard in the field of QA/QC - Welding, Conventional and Advanced NDT, Coating/Painting, Integrity and Third Party Inspections and services. World class staffs deliver quality of training, inspection and assessment leading to internationally recognized qualification in demand by industry worldwide.

GIC is a Leading career development centre exclusively for Inspection Engineers, Inspectors, Supervisor and technicians giving Inspection job opportunities in India & overseas. (QA/QC - Welding, NDT, Coating/Painting, Integrity and TPI)

Mobile: +91 99404 38289    Email: info@gicgroups.com    Visit Web page: www.gicgroups.com
Available ISO 9712 Certifications Programs

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<td>Magnetic Particle Testing (MT)</td>
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<td>Welds</td>
</tr>
<tr>
<td>Penetrant Testing (PT)</td>
<td>2,3</td>
<td>Welds</td>
</tr>
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</table>

Associated with other well established organization - ISO 9712 NDT Methods

<table>
<thead>
<tr>
<th>NDT method</th>
<th>Level</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Radiation Safety (RS)</td>
<td>1</td>
<td>General</td>
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<tr>
<td>Radiography Testing (RT)</td>
<td>2,3</td>
<td>Welds</td>
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<tr>
<td>Phased Array Ultrasonic Testing (PAUT)</td>
<td>2,3</td>
<td>Welds</td>
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<tr>
<td>Time of flight Diffraction (TOFD)</td>
<td>2,3</td>
<td>Welds</td>
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<tr>
<td>Eddy current Testing (ET)</td>
<td>2,3</td>
<td>Welds</td>
</tr>
<tr>
<td>Eddy Current Testing – Tubes (ET)</td>
<td>2</td>
<td>Wrought</td>
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</tbody>
</table>

**ISO 9712 NDT Course Highlights:**

- Internationally recognized central certification in NDT.
- In full compliance with internationally recognized standard ISO 9712 requirements.
- Well trained and highly knowledgeable faculties.
- Excellent course notes & reference materials.
- Hand on practical experience in each NDT methods.
- Flexible timing for students requiring additional practical exposure with all practical laboratories in a day and seven days a week.
- Independent and fully autonomous Certification Council overseeing all Examinations ensuring the highest standards.
- NDT personnel qualification and procedure qualification demonstration and practices will be arranged on demand and/or request for QC personnel.

**Certification Scheme:**

- Certification is accordance with ISO 9712: 2012.

**Certification/Awarding Body/ Accredited by:**

Personal Certification Program / Global Veritas Certification Services (GVCS)
Ultrasonic Testing (UT)

Course Objectives:

- To explain the theoretical background of the techniques.
- To calibrate ultrasonic equipment and probes.
- To measure the thickness of steel plates and determine levels of attenuation.
- To locate and evaluate laminations and thickness measurements.
- To select the correct type of probe to examine welded butt joints in steel plate, pipe and aerospace components/structures.
- To report on the location and size of defects in typical welded butt joints.
- To interpret and evaluate the test result as per international applicable codes & standards.
- To meet the syllabus requirements for ISO 9712 Level 2.

Course Duration: Level 2: 12 Days

Entry Requirements:

No mandatory course entry requirements.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 120 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 12 months

Training Fees:

- Level 2: 30000 INR + GST
- Level 3: 15000 INR + GST

Examination Fees:

- Level 2: 15000 INR + GST
- Level 3: 15000 INR + GST

Course Content:

Magnetic Particle Testing (MT)

**Course Objectives:**

- To explain the basic principles of magnetic particle inspection methods.
- To carry out magnetic particle inspection.
- To write clear and concise inspection instructions and test reports.
- To meet syllabus requirements for ISO 9712 Level 2.

**Course Duration:** Level 2: 05 Days

**Entry Requirements:**

No mandatory course entry requirements.

**Training requirements:**

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 40 hours

**Certification requirements:**

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 03 months

**Training Fees:**

- Level 2: 10000 INR + GST
- Level 3: 15000 INR + GST

**Examination Fees:**

- Level 2: 15000 INR + GST
- Level 3: 15000 INR + GST

**Course Content:**

ISO & ASNT NDT Certification Programs - Introduction of Magnetic Particle Testing - Properties of magnetic fields - Principles of magnetism; magnetic fields; induction; permeability and reluctance; magnetization; lines of force, inspection equipment - equipment calibration - methods of testing; defect detection and evaluation - interpretation of indications - demagnetization - practical exercises; methods of assessing sensitivity - instruction writing - Product technology - Extensive practical element.
Dye Penetrant Testing (PT)

Course Objectives:

- To explain the basic principles of penetrant inspection methods.
- To carry out penetrant inspection using solvent-removable, water-washable and post-emulsifiable/removal processes.
- To write clear and concise inspection instructions and test reports.
- To meet syllabus requirements for ISO 9712 Level 2.

Course Duration:

Level 2: 05 Days

Entry Requirements:

No mandatory course entry requirements.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 40 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 03 months

Training Fees:

Level 2: 10000 INR + GST
Level 3: 15000 INR + GST

Examination Fees:

Level 2: 15000 INR + GST
Level 3: 15000 INR + GST

Course Content:

Radiography Testing (RT)

Course Objectives:

- To explain the basic theory of X - and gamma radiography.
- To select film type and energy levels, select and prepare techniques for a given specimen.
- To state the theory of film processing and carry out practical dark-room work.
- To have a working knowledge of basic radiation safety.
- To plot and evaluate film characteristics (sensitometry).
- To recognize film faults.
- To meet the syllabus requirements for ISO 9712 Level 2.

Course Duration:

Level 2: 12 Days

Entry Requirements:

Must hold, as a minimum, a basic Radiation Safety qualification.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:
- Level 2 - 120 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:
- Level 2 - 120 months

Training Fees :

Level 2: 30000 INR + GST
Level 3: 15000 INR + GST

Examination Fees :

Level 2: 15000 INR + GST
Level 3: 20000 INR + GST

Course Content:

Radiography Testing Film Interpretation (RTFI)

Course Objectives:

- To explain the basic theory of radiography.
- To state origin of defects.
- To state basic radiation safety principles.
- To explain principles relating to selection of films, energy levels and techniques.
- To evaluate radiographic sensitivity.
- To recognize and differentiate between film artifacts and defect indicators.
- To interpret radiographs.
- To meet the syllabus of ISO 9712 Level 2.

Course Duration:

Level 2: 07 Days

Entry Requirements:

No mandatory course entry requirements.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 56 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 06 months

Training Fees:

- Level 2: 15000 INR + GST
- Level 3: 15000 INR + GST

Examination Fees:

- Level 2: 15000 INR + GST
- Level 3: 15000 INR + GST

Course Content:

Phased Array Ultrasonic Testing (PAUT)

Course Objectives:

- To explain the theoretical background of phased array applications.
- To correctly select probe/wedge to examine welded butt joints.
- To calibrate and set up the phased array ultrasonic equipment.
- To locate and evaluate flaws in the weld body, HAZ, and parent metal lamination.
- To analyses scan data for location and size of defects in typical welded butt joints.
- To accurately report weld condition.
- To differentiate defects from geometric features.
- To compile a written instruction.
- To meet the ISO 9712 syllabus requirements.

Course Duration: Level 2: 12 Days

Entry Requirements:

ISO 9712 candidates must be qualified to a Minimum of ISO 9712 Level 2 Ultrasonic Testing.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 120 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 12 months

Training Fees:

Level 2: 50000 INR + GST
Level 3: 20000 INR + GST

Examination Fees:

Level 2: 20000 INR + GST
Level 3: 15000 INR + GST

Course Content:

ISO & ASNT NDT Certification Programs - Reminisc of Ultrasonic Testing and Advanced ultrasonic technologies - Principle of phased array inspection; phased array equipment and probes; familiarisation of PAUT equipments - preparation of scan plans - phased array inspection calibrations - velocity, Wedge delay, sensitivity, TCG and encoder - data scanning with phased array probes; data collection and data analysis; data integrity - scan Representations - software familiarity; use of software tools for defect detection and sizing; data analysis; Interpretation & Evaluation - Acceptance Criteria procedures for verification of flaw existence and position; reporting; welding Processes and weld defects - number of practical exercises on test specimens containing simulated flaws.
Time of Flight Diffraction (TOFD)

Course Objectives:

- To understand the theoretical background and limitations of ToFD applications.
- To correctly select probe/wedge to examine welded butt joints.
- To calibrate and set up the ToFD ultrasonic equipment.
- To locate and evaluate flaws in the weld body and HAZ.
- To differentiate defects from geometric features.
- To analyse scan data for location and size of defects in typical welded butt joints.
- To understand and apply digital processing processes (SAFT, linearization, averaging, filters etc).
- To compile written instructions.
- To meet syllabus requirements for ISO 9712 Level 2.

Course Duration: Level 2: 08 Days

Entry Requirements:
ISO 9712 candidates must be qualified to a Minimum of ISO 9712 Level 2 Ultrasonic Testing.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:
- Level 2 - 80 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:
- Level 2 - 12 months

Training Fees :

- Level 2: 50000 INR + GST
- Level 3: 20000 INR + GST

Examination Fees :

- Level 2: 20000 INR + GST
- Level 3: 15000 INR + GST

Course Content:

ISO & ASNT NDT Certification Programs - Reminisce of Ultrasonic Testing and Advanced ultrasonic technologies - TOFD theory and principles of diffraction - TOFD technique - TOFD equipment and probes - principle of TOFD inspection; software familiarisation - preparation of scan plans - TOFD inspection calibrations and optimising PCS and angles - data scanning with TOFD probes; TOFD data acquisition and interpretation, analysis; use of software tools for defect detection, flaw location and sizing; data analysis; Interpretation & Evaluation - acceptance Criteria - limitations of detection and resolution - procedures for verification of flaw existence and position; reporting; TOFD applications - welding processes and weld defects - number of practical exercises on test specimens containing simulated flaws.
Eddy Current Testing (ECT) - Tubes Inspection

**Course Objectives:**

- To detect corrosion, erosion, cracks, surface and near-surface defects in tubes.
- To write clear and concise inspection instructions and test reports.
- To meet the syllabus requirements of ISO 9712 Level 2.

**Course Duration**: Level 2: 10 Days

**Entry Requirements:**

No Mandatory Course Entry Requirements.

**Training requirements:**

The minimum required duration of training, which includes both theoretical and practical elements is:
- Level 2 - 80 hours

**Certification requirements:**

The minimum duration for experience prior to or following success in the qualification examination is:
- Level 2 - 12 months

**Training Fees:**

- Level 2: 40000 INR + GST
- Level 3: 20000 INR + GST

**Examination Fees:**

- Level 2: 20000 INR + GST
- Level 3: 15000 INR + GST

**Course Content:**

ISO & ASNT NDT Certification Programs - Introduction to eddy current testing, eddy current principles, factors affecting eddy current testing, direction and distribution of eddy current in article, eddy current equipment requirements, eddy current method, discontinuity testing, eddy current method control and test system development, testing of tubes and cylindrical components, tube testing-signal analysis. Practical eddy current examination of tubing as found in condensers, heat exchangers and air conditioning unit.
Eddy Current Testing (ECT) - Welds Inspection

Course Objectives:

- To detect cracks, surface and near-surface, in aircraft components, structures, tubes and welds.
- To detect corrosion and thinning in non-magnetic materials.
- To grade and sort materials on the basis of conductivity and permeability.
- To write clear and concise inspection instructions and test reports.
- To meet the syllabus requirements of ISO 9712 Level 2.

Course Duration: Level 2: 10 Days

Entry Requirements:

No mandatory course entry requirements.

Training requirements:

The minimum required duration of training, which includes both theoretical and practical elements is:

- Level 2 - 80 hours

Certification requirements:

The minimum duration for experience prior to or following success in the qualification examination is:

- Level 2 - 12 months

Training Fees:

Level 2: 50000 INR + GST  
Level 3: 20000 INR + GST

Examination Fees:

Level 2: 20000 INR + GST  
Level 3: 15000 INR + GST

Course Content:

ISO & ASNT NDT Certification Programs - Introduction to Eddy current testing, Eddy current principles, Factors affecting eddy current testing, Direction and Distribution of Eddy current in article, Eddy current Equipment requirements, Eddy current method, Discontinuity testing, Eddy current method control and Test system development, interpretation of the signal, defect sizing.
ISO 9712 NDT LEVEL 3

Course Objectives:

- To state the responsibilities of a Level 3 as directed by the relevant scheme.
- To state the parameters relating to inspection of welds, forgings and castings.
- To be familiar with the main certification scheme requirements.
- To explain the principles of the major complementary NDT methods.
- To prepare for chosen method exam at Level 3 through revision and assessment in general and sector specific terms.
- To devise and write NDT procedures and instructions for the inspection of component and/or weld configurations in the chosen method.
- To meet the syllabus requirements for ISO 9712 Level 2.

Course Duration:

Contact the Training organization with the details of your qualifications.

Entry Requirements:

ISO 9712 mandates training hours prior to Level 3 examination. It is strongly recommended that prospective Level 3 candidates ascertain their exact training requirements by contacting the training centre with details of ISO 9712 qualifications held and other supporting documentation.

Exam exemptions may be available; these shall be obtained directly from CB using the Exemption form.

It is strongly recommended that ISO 9712. Level 2 certification in the method sought is achieved prior to undertaking Level 3 exams; this will significantly reduce the training hour requirements.

Course Content:

ISO & ASNT and other NDT Certification Programs:

Basic exam - product technology (materials, cast, wrought, welding, heat treatments, etc); certification scheme information; revision of NDT methods at Level 2.

Main method exams - general preparation and revision of chosen method at Level 3; sector specific preparation and revision of the NDT method including use of applicable standards; NDT procedure preparation and creation with use of applicable standards and specifications.

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<tr>
<th>S.No</th>
<th>Section</th>
<th>Training Hours*</th>
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<tbody>
<tr>
<td>01</td>
<td>BASIC</td>
<td>80</td>
</tr>
<tr>
<td>02</td>
<td>Ultrasonic Testing (welds)</td>
<td>40</td>
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<tr>
<td>03</td>
<td>Magnetic Particle Testing (welds)</td>
<td>32</td>
</tr>
<tr>
<td>04</td>
<td>Liquid Penetrant Testing (welds)</td>
<td>24</td>
</tr>
<tr>
<td>05</td>
<td>PAUT (welds)</td>
<td>40</td>
</tr>
<tr>
<td>06</td>
<td>TOFD (welds)</td>
<td>40</td>
</tr>
<tr>
<td>07</td>
<td>Eddy Current Testing (welds)</td>
<td>48</td>
</tr>
<tr>
<td>08</td>
<td>Eddy Current Testing (Tubes)</td>
<td>48</td>
</tr>
</tbody>
</table>

*Based on the Exemptions and Gap analysis reduction of number of hours is permitted and shall be decided by the Training organization.*
General Program Information

Note: Certification will not be issued until successful completion of the examination and the required experience is achieved.

All classroom training sessions will be conducted in fully air-conditioned and well-equipped classrooms. Practical training will be conducted in well-ventilated and well-lit rooms.

The normal training will start at 9.00 A.M. and end at 6.00 P.M. There will be two coffee / tea breaks and a lunch break in-between.

Flexible timing for students requiring additional theory and practical exposure will be arranged on request.

Well trained and highly knowledgeable faculties.

The maximum number of students per batch will be restricted to 08.

Registration will be on the first cum the first serve basis. Registration will be confirmed only for students making full payment of the training fee.

Course & preparatory material will be supplied upon request only for students who register by paying full training fee. Each student is eligible for one set of hard copy notes only and students collecting the hard copy material should bring the same with them for use during the training.

Candidates who register for both MT & PT will enjoy a discount of 10% on the published training fee for each method (MT & PT).

If corporate companies sponsoring 5 or more candidates for any training program; GIC will offer corporate discount of 10% of the training fee.

NDT personnel qualification and procedure qualification demonstration and practices will be arranged on demand and/or request for QC personnel.
**ISO 9712 NDT Training & Examination Price (INR) List 2018**

The above fees are exclusive of GST which will be charged extra at actual.

<table>
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<tr>
<th>S.NO</th>
<th>Method</th>
<th>Level</th>
<th>Training Fees</th>
<th>Exam Fees</th>
<th>Total</th>
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<tr>
<td>1</td>
<td>Ultrasonic Testing (welds)- Plate and Pipe</td>
<td>II</td>
<td>30000</td>
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<td>45000</td>
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<td></td>
<td>Welds</td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>Magnetic Particle Testing (Welds)</td>
<td>II</td>
<td>10000</td>
<td>15000</td>
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<td>3</td>
<td>Liquid Penetrant Testing (Welds)</td>
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<td>10000</td>
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<td>4</td>
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<td>30000</td>
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<td>5</td>
<td>Radiographic Film Interpretation (Dense / Light)</td>
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<td>6</td>
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<td>7</td>
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<td>8</td>
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<td>15000</td>
<td>30000</td>
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<td>20</td>
<td>Re Examination Fee ( All Methods theory only)</td>
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<td>-</td>
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<td>21</td>
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<td>II</td>
<td>-</td>
<td>10000</td>
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</tr>
</tbody>
</table>

For more information; kindly contact to us

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