

# NDE Services

Non-Destructive  
Examination Services for  
Industries and Companies  
Worldwide

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# ECE Global

*Your Global Partner in Engineering, Quality and Safety Compliance  
Design – Fabrication – Inspection – Certification*

ECE Global provides professional inspection services to assess the integrity of systems and components during fabrication or while in-service. We integrate into the life expectancy evaluations of your equipment and products and strive to detect deficiencies before they create a risk. Our goal is to validate quality and therewith the safety of your critical components, equipment and processes.

With over 35 years of experience in the inspection of products and systems, ECE Global level II and III certified technicians are dedicated to provide excellent services and proper reporting.

**ECE Global** combines **Experts**, **Competence** and **Experience** with **Technology**

## ECE Global NDE Services:



### Phased Array Ultrasonic Testing (PA)

Advanced ultra-sonic testing method utilizing transducers with 16 to 256 small individual elements with individual pulse technology. These may be arranged in a strip (linear array), a ring (annular array), a circular matrix (circular array), or a more complex shape. Often applied for weld inspection, general flaw detection, corrosion mapping, encoded inspections.

### Ultrasonic Testing (UT)

For the identification of defects associated with materials fabrication and defects from welding processes.

### Ultrasonic Thickness Testing (UTT)

UTT is applied to measure remaining wall thickness on piping, pressure vessels, storage tanks and other materials. It can be used to scan bolts, shafts and raw materials for imperfections.

### Positive Material Identification (PMI)

PMI can be applied on virtually any size or shape of pipe, plate, weld, welding materials, machined parts or castings. The material composition of base materials and alloys can be quickly and accurately validated on site.

### Magnetic Particle Inspection (MT)

MT is applied to detect surface and near-surface imperfections such as cracks, seams and laps in ferromagnetic materials, and is used to assess location, size, shape and extent of these imperfections.

### Liquid Penetrant Inspection (PT)

PT is applied to detect surface discontinuities in both ferromagnetic and non-ferromagnetic materials. In castings and forgings, these may be cracks or leaks in new products or fatigue cracks in in-service components.



### Leak Testing (LT)

In process and post-construction testing of piping and vessels to determine fitness for service.

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### **Radiographic Film Interpretation (RT)**

We read films and perform interpretations of thickness and density differences (material imperfections). Acceptance criteria defines whether the indication is non-acceptable (a defect) or not. Often applied for weld inspection, general flaw detection, corrosion mapping, and product validation.

### **Visual Testing (VT)**

Our certified inspectors are available for all phases of fabrication and construction surveillance as well as welder qualification and certification.

### **Borescope Inspection (BI)**

BI can be applied with fiber optic cameras and other instrumentation and recording systems to conduct inspections on equipment such as piping systems, pressure vessels, turbines, boilers, heat exchangers, castings and many more. The data can be recorded for after inspection viewing and storage.

### **Construction Surveillance**

Our CWIs and EU Welding Engineers support your products quality objectives.



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### **ECE understands what you expect - flexibility and customized solutions!**

We can change and adapt with your evolving needs because of the knowledge, experience, and passion of our staff.