

# RADIOGRAPHIC TESTING



**TOMTEC NDT MARINE SERVICES PTE LTD**

**RADIOGRAPHIC TESTING (RT)** is an important part of the inspection and development process within Non-destructive testing industry. Radiographic testing is widely used in a variety of industry sectors including aerospace, power generation, construction, petroleum, chemical and automotive, and for all types of components and parts. The technique is commonly used on welded parts, castings, forgings, composites and is also used for corrosion mapping and the measurement of wall thickness. It is also used in the routine inspection of materials and component parts for the aircraft/aerospace, automotive, and shipbuilding industries. Radiography is recognized by



various organizations throughout the world as a reliable non-destructive inspection technique for revealing hidden defects that might lead to failure in service. Because of the penetration and absorption capabilities of X and gamma radiation, radiography is used to test a variety of non-metallic products and metallic products such as welds, castings, forgings and fabrications. Since it is capable of revealing discontinuities (variations in material composition, or density) in a variety of dissimilar materials, radiographic testing is one of the primary non-destructive test methods in use today. TOMTEC supplies a complete line of radiographic services for both shop and field applications. Our staff of qualified, certified, professional radiographers operate within strict safety parameters and produce high quality radiographs that allow us to utilize our interpretation skills honed through many years of experience to determine if an anomaly is actually a defect or can be accepted as per code requirements.

## Advantages

- ✓ Reveals the internal conditions of the material
- ✓ Applicable to most materials
- ✓ Discloses fabrication and assembly errors
- ✓ Reveals structural discontinuities
- ✓ Provides permanent visual representation of the object
- ✓ No destruction of the part being tested
- ✓ Detection of volumes or voids
- ✓ Compliance with local government and legal requirements
- ✓ Shop or field or onsite applications
- ✓ Very minimal or no part preparation required
- ✓ Good portability especially with gamma – ray sources
- ✓ Significant variations in composition can be detected



At TOMTEC, we ensure that all our technicians are competent and certified to internationally recognized standards. TOMTEC performs Radiographic Testing in accordance with Class Requirements, Client specific requirements, ASTM E94, AWS D1.1, ASME B31.1, ASME B31.3, API 1104, API 650, ASTM E1032, ASTM E1030, ASTM E1955, ASMT E1742, ASME BPVC Section V – Article 2, BS EN ISO 17636 – 1, BS EN 12681, BS EN ISO 10893 – 6 and similar national and international standards.

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