

# NONDESTRUCTIVE TESTING

Laboratory Testing Inc. (LTI) inspects tubing, pipe, plates, castings, fasteners and many other items by nondestructive testing (NDT) methods to identify defects or inconsistencies without harming products:

- Ultrasonic testing
- Hydrostatic pressure testing
- X-ray inspection
- Magnetic particle inspection
- Liquid penetrant inspection
- Visual examination

LTI nondestructive testing is accredited by PRI Nadcap. Our NDT inspectors are certified to ASNT SNT-TC-1A, NAS410/MIL-STD-410, MIL-STD-2132 and Pratt & Whitney PWA-NDTQ to meet your industry requirements. Testing is performed to ASTM and MIL specifications, and a Certified Test Report is provided with each order. Strict quality procedures are followed during testing and results are evaluated by our certified NDT Level II and Level III technicians to ensure reliability.

## ULTRASONIC TESTING

### Immersion & Contact UT for All Size Materials

Ultrasonic testing (UT) is a reliable method of detecting internal and external defects and wall thickness discontinuities. LTI has equipment to test products of all shapes and sizes and has an extensive inhouse library of tubing, pipe, bar and plate reference standards for efficient turnaround.

- High-speed Immersion - Round stock from 1/8 in. to 6 5/8 in. diameter and up to 70 ft. long.
- Contact UT - Inspects other materials and parts in various shapes and sizes.



Immersion Ultrasonic Testing of tubing

## HYDROSTATIC PRESSURE TESTING



Hydrostatic Pressure Testing

### Testing for Leaks & Durability

Our technicians are equipped to do hydrostatic pressure testing to 10,000 PSI on pressure vessels such as pipe, tubing, and coils. Testing can be performed with water, oil, or air under water.

Laboratory Testing Inc. offers many additional services to meet your complete NDT inspection needs, from material preparation to packaging and shipping in accordance with ANSI N45.2.2 or customer specifications:

- Receipt inspection
- Cutting, trimming and deburring
- Material identification

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## MAGNETIC PARTICLE INSPECTION



Fluorescent Magnetic Particle Inspection

### Magnetizing Material to Attract Particles to Flaws

Magnetic particle inspection (MPI) identifies surface and near-surface flaws such as cracks, laps and seams in products that can be magnetized. Laboratory Testing technicians perform both fluorescent wet and visible dry methods of inspection. The fluorescent wet solution is used most frequently because the particles are small, yet easy to see, and the solution flows well to small leakage fields. Our equipment can handle products up to 12 feet long and has a maximum output of 6,300 amps.

## LIQUID PENETRANT INSPECTION

### Penetrant Inspection for Materials up to 25 Feet

Liquid penetrant inspection (LPI) is reliable for detecting surface defects on materials with a non-porous surface. Inspections at LTI are performed on products up to 25 feet long using fluorescent or visible penetrants with dip tanks, a dwell tank for pipe, tubing, bar, etc., and a large LPI and Visual Inspection room with high-intensity black lights.

We work with water-washable and post-emulsifiable fluorescent penetrants in sensitivity levels 2, 3 and 4. All orders are processed with the highest quality Magnaflux testing materials.

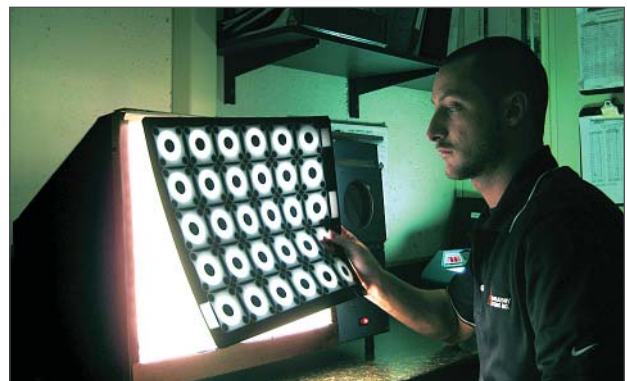


Fluorescent Liquid Penetrant Inspection

## X-RAY INSPECTION

### See What's Inside with X-ray

X-ray inspection is used to locate internal discontinuities, verify the integrity of internal components and determine the quality of welds. At LTI, our equipment can X-ray items large and small in our 20 ft. by 20 ft. radiography vault or our lead-lined cabinets for objects such as electronic parts. Digital (computed) and film (conventional) inspection methods are offered.



Conventional X-ray Inspection with film



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