Nondestructive Testing Solutions

X-R-I TESTING
DIVISION OF X-RAY INDUSTRIES, INC.
When the problem is hidden defects... the solution is X-R-I Testing

In the metalcasting and fabricating business it’s the things you can’t see that can hurt you the most. Flaws so tiny that they’re invisible to the untrained eye, or hidden beneath an otherwise flawless surface can turn into a manufacturing, legal and financial nightmare.

The solution lies in any one of a number of nondestructive testing (NDT) technologies that can find these problems before your customer does. X-R-I Testing and its parent company, X-Ray Industries, provide a full spectrum of NDT services for the aerospace, power generation, automotive, medical device, food and other industries.

Since 1941, we’ve gained a leadership position in the industry through our focus on technical expertise and customer service. With over six decades of experience to draw on, we are uniquely qualified and determined to meet our customer’s needs for accurate analyses, fast turnaround and competitive pricing.

Our Commitment
We recognize that your success is directly linked to your product’s integrity, safety, and reliability. Our mission is to reduce the potential danger to human life by assuring the integrity of our customers’ products. Our success is based on a set of core values that all of our team members are encouraged to follow. These values are:

- To act with honesty and integrity
- To treat people with respect, dignity and fairness
- To maintain our focus on service
- To remain committed to excellence in all that we do
- To encourage individual and team initiative
- To accept responsibility
Certified Quality

X-R-I Testing routinely performs inspection to some of the most stringent standards in the industries we serve. Audited by Performance Review Institute (PRI) to the "National Aerospace and Defense Contractors Accreditation". NADCAP accreditation is issued only after an extensive company-wide audit and multi-level review. In addition to NADCAP, X-R-I Testing maintains third party accreditations from ISO 9002 and AS9100.

X-R-I Testing’s methods and procedures are approved by the companies shown here:

AEROJET LIQUID ROCKET
ALCOA
ALCOA/HOWMET
ALLIED SIGNAL/HONEYWELL CORP.
ALLISON/ROLLS-ROYCE CORP.
ARGOTECH
BEECH AIRCRAFT
BEAVER AEROSPACE & DEFENSE INC.
BELL HELICOPTER
B.F. GOODRICH/AEROSPACE, AEROSTRUCTURES GROUP
BOEING, COMMERCIAL AIRPLANE GROUP
BOEING, AIRCRAFT & MISSILES, LONG BEACH & ST. LOUIS
ROCKETDYNE SPACE & COMMUNICATION
CURTISS WRIGHT CORP
DAIMLER CHRYSLER
De HAVILAND INC
DEFENSE RESEARCH INDUSTRIES
PENSKE/DETROIT DIESEL
FORD MOTOR CO.
GENERAL DYNAMICS/LAND SYSTEMS DIV.
GENERAL ELECTRIC

GENERAL MOTORS
HAMILTON/SUNSTRAND
HONEYWELL
LOCKHEED/MARTIN, FORT WORTH & GEORGIA
LORD CORPORATION
NORTHROP/GRUMMAN
PARKER HANNIFIN/PARKER AEROSPACE
PCC STRUCTURALS
UNITED TECHNOLOGIES CORP.
PRATT WHITNEY, CANADA & FLORIDA
PRATT WHITNEY AIRCRAFT ENGINES
ROCKWELL INTERNATIONAL
ROLLS ROYCE
SIKORSKY AIRCRAFT CORP
TEXTRON/LYCOMING
TRW
VICKERS/AEROQUIP
UNISTRUT
WILLIAMS INTERNATIONAL
WOODWARD PST
WOODWARD IGT
Nondestructive Testing Services

Whatever your material testing service requirements, X-R-I Testing facilities and trained personnel are immediately available to address them. Full-service locations are maintained at Troy, Michigan and Cleveland, Ohio. Typical testing services available at X-R-I’s full-service locations include:

Radiographic Inspection

Traditional radiography uses a source of penetrating radiation and an image detection device such as film. When X-rays pass through a part, shadows form on the film to reveal the part's internal characteristics.

X-R-I Testing's radiography capabilities range from a 20KeV microfocus to a 4MeV linear accelerator, plus Gamma-ray as well. X-R-I Testing has cabinet X-ray systems to accommodate fast turnaround on a production basis plus crane-equipped walk-in/ drive-in cells to handle large structures up to 10 tons.

We also offer high-quality digital filmless and real-time radiography, which lowers inspection costs with faster cycle time and the elimination of waste materials used in film development.

Radiographic testing is especially useful for inspection of castings, welded or brazed joints, composites, ceramics, electronic components, assemblies, plastics and dissimilar materials.

Magnetic Particle Inspection

Magnetic particle inspection is an extremely sensitive testing process used with ferrous materials to detect minute surface cracks. It can also detect some subsurface discontinuities. The process involves creating magnetic fields in a part and detecting the flux leakage at the site of any discontinuities.

Magnetic particle inspection is both fast and accurate making it ideal for large volume applications in the aerospace and automotive industries. X-R-I Testing offers both fixed and portable inspection systems.

Liquid Penetrant Inspection

One of the oldest forms of nondestructive testing, the process involves applying a penetrating liquid to the surface of a part which then collects in any surface cracks. After rinsing, a developer is applied that draws the penetrant out of the cracks making them visible to an inspector.

X-R-I Testing provides reliable, cost-effective liquid penetrant inspection services for both high volume applications and individual, large, complex parts.
Etching, Passivation, Cleaning, and Inspection

Chemical processing available from X-R-I Testing includes ultrasonic immersion cleaning, vapor degreasing, de-scaling, passivation, etching prior to penetrant inspection, and macro etch and temper (nital) inspection. These processes incorporate appropriate and rigorous quality assurance tests for material removal rates, acid concentration, and passivation effectiveness.

Ultrasonic Inspection

Subsurface discontinuities are located by transmitting ultra-high frequency sound waves through a part and evaluating the pattern of reflected energy. This is done via direct contact with the part or with the part immersed in a liquid.

Ultrasonic inspection of ferrous and non-ferrous parts is ideal for high volume production because it is fast which makes it cost-effective. At X-R-I Testing, ultrasonic inspection conforms to GE, FAA, Military, Nuclear and ASME specifications and prime contractor code requirements.

Customer Facility Management and Other Services

Since 1971, X-R-I TESTING has partnered with a select number of aerospace, power generation, and defense component manufacturers to provide on-site NDT capabilities at several locations throughout the U.S. This arrangement allows these manufacturers to focus their resources on their core competencies while benefiting from X-R-I Testing’s NDT expertise.

X-R-I Testing also uses its highly skilled staff to offer Level 3 Certification services including training, auditing and qualification examinations.
X-R-I Testing offers a full range of NDT services

- Film and Digital Radiography
- Magnetic Particle Inspection
- Liquid Penetrant Inspection
- Chemical Processing
- Ultrasonic Inspection
- NDT Training
- NDT Consulting Services

Visit us on the web at www.xritesting.com or call us at 866-XRI-4NDT.