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Thirty Years in the Making

Laboratory Testing Inc celebrated its 30th Anniversary this year, and we have our customers to thank for helping to make this possible. During that time, LTI evolved from a small six-person nondestructive testing lab to our current full-service testing and metrology company. Many expansions and investments in technology since 1984 allowed



the company to grow to a 91,500 sq. ft. facility with 150 employees today.

Read the full **History of Laboratory Testing Inc.** on our website at <http://www.labtesting.com/about/history/>

Holiday Hours

LTI will be closed the following days for end-of-year holidays:

- Thursday - November 27th
- Friday - November 28th
- Wednesday - December 24
- Thursday - December 25
- Thursday - January 1, 2015

Enjoy the Holidays!

Contact LTI

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Even Beer Kegs Undergo Testing

Laboratory Testing Inc. is ready to work with customers to meet their unusual challenges, whenever possible. A unique opportunity came up when Geemacher LLC, asked us to burst test the new 1/2 bbl (15.5 gallon) and 1/6 bbl (5.16 gallon) stainless steel beer kegs they planned to manufacture. They wanted to be sure the kegs could withstand an extreme overpressure and meet the quality specifications the beer industry requires. "The burst test is necessary to ensure the quality of the manufacturing," says Dan Heisig, Plant & Engineering Manager of Geemacher. "Burst testing is a quick way to determine that the welds and material meet or exceed all design parameters."

The Test Results

We knew LTI had the equipment and expertise to complete the burst test and chose to do the testing outdoors as a precaution, since we were uncertain how the kegs would rupture. In fact, the very first keg was tested inside an empty drum for protection from the unknown. LTI performed the tests by filling the kegs with water and then pressurizing them until the kegs burst, which occurred at 850 PSI for the 15.5 gallon and 1,500 PSI for the 5.16 gallon kegs. In each case, the keg remained in one piece but the burst occurred at the top of the keg along the weld next to the tap, and could be seen from a distance as a tall spray of water into the air.



Water released upon bursting

Kegs Manufactured in the USA

Geemacher, located in Pottstown, PA, specializes in serving small craft breweries with high quality stainless steel kegs. The company was founded in 2007 as an importer and reseller of kegs from China, but decided to pursue manufacturing to fulfill the craft brewing industry's call for USA manufactured kegs. Dan Heisig says that since 2012, they have been the only company in the United States that manufactures stainless steel beer kegs.



Burst along weld near tap

Experience with Similar Testing

A similar test is routinely performed in LTI's Nondestructive Testing Department. Standard hydrostatic pressure testing entails filling a test vessel with liquid, bleeding out air and then pressurizing the piece to specified pounds per square inch (PSI). Once the pressure level is reached, our technicians thoroughly examine the vessel for leaks or permanent changes in shape. It is extremely rare to have a piece rupture or burst during this test.

The company is currently selling to over a thousand breweries in North America. Geemacher's first full-scale production run of the new 1/2 bbl and 1/6 bbl stainless steel kegs ran in October 2014.

LAB NEWS

Could You Benefit From Our New Services?

LTI recently added the following to our extensive list of services:

- Tensile Testing to 600,000 lbs.
- Contamination Control Certification Services
- Moisture Content Analysis

Tensile Testing to 600,000 lbs.

Tensile testing capabilities for specimens and fasteners have been increased with the purchase of a 600,000 lb. test machine. Previously, the maximum load capacity of our equipment ranged from 100 lbs. up to 400,000 lbs.



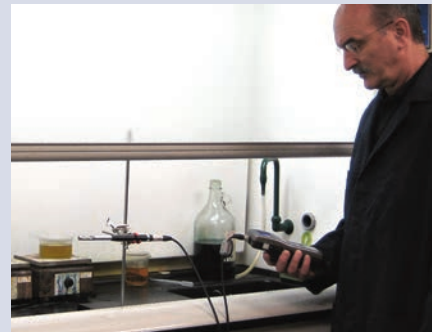
Both the 600K and 400K machines are housed in their own separate room, which was built earlier this year. Any size tensile test specimen can be prepared in our Machine Shop.

Contamination Control Certification

Contamination Control Certification Services are now offered through LTI Metrology and performed by a 30-year veteran of the industry, Rick Gastner. Testing and NIST-traceable certificates will meet your safety and regulatory requirements.

The following services are available with 24-7 technical support and fast appointments scheduled directly with your technician:

- Hood testing
- Clean room certification
- USP 797 testing
- Viable microbial sampling
- Particle count
- Ventilation assessments
- Custom training modules



Visit our website Contamination Control Certification page to complete a FREE Assessment questionnaire. We will get back to you with a recommended action plan.

Moisture Content Analysis

Customers often want to know if they are purchasing unwanted moisture when they buy materials. In welding, moisture in flux can lead to porosity, a problem that can result in an unacceptable weld. In answer to these needs, LTI's Chemistry Lab is now performing Moisture Content Analysis.



This test reveals the percentage of moisture in a given sample and can be performed on a number of inorganic materials, including welding fluxes, ores, ferroalloys and chemical samples. Laboratory Testing's Moisture Analysis conforms to:

- AWS A4.4 M
- MIL-E-23765/2E
- EB 4906 Rev A

Call or email us for a quote or more information on any of these services.

Visit our Show Booths

Look for LTI at these trade shows:

Power-Gen International

December 9-11, 2014
Orlando, FL
Booth: 3854

LTI inspects materials that go into new power generation sites and analyzes parts that fail or need repair at existing facilities. We perform all required testing for upgrading existing sites and for the utilization of unqualified source material.

NACE Corrosion 2015

March 16-19, 2015
Dallas, TX
Booth: 13044

Corrosion testing to ASTM specs can help you select appropriate materials and protective treatments for your products. It can also provide answers when a corrosion problem or failure occurs. Ask for details.

NCSLI Chooses LTI for Meeting

LTI was the chosen meeting location for the NCSLI International Philadelphia Section in late October. Their full-day event focused on risk assessment, measurement uncertainty for pressure and metrology updates. Presentations by representatives from NIST, NASA and Fluke Calibration were included, and the day ended with a tour of LTI's materials testing, non-destructive testing and metrology labs.

NCSLI International was formed in 1961 to help measurement laboratories work together to solve their common problems. The organization has over 1000 members around the world and helps advance measurement science, promotes education and skill development, and provides tools and resources.



NCSLI Members Gather at LTI

LTI Articles Published by Quality Magazine

In the past few months, Quality Magazine ran two articles from employees of Laboratory Testing Inc. on the following test methods:

- Fatigue Crack Growth Testing
- Magnetic Particle Inspection

"Fatigue Crack Growth Testing 101" by Senior Engineer Guy Connelly was published in June 2014. The article is presented in three easy-to-read sections explaining this fatigue testing process:

- Fatigue Crack Growth Specimen
- Test Apparatus
- Method and Results

Quality Magazine ran the article titled "Choose the Most Reliable MPI Method for Your Business"



A testing method to determine the rate of growth of a crack under repeated loading. By Guy Connelly



Choose the Most Reliable MPI Method for Your Business

Magnetic particle inspection methods vary in terms of ease of use as well as the level of detail.

By Richard S. Goodwin

by NDT Manager Rich Goodwin in the October 2014 issue. The author provides information about three different Magnetic Particle Inspection methods and compares the level of detail in their test results when performed on the same test piece.

LTI has thirty years of experience providing testing services to help our customers ensure the quality of purchased materials and finished products. Our certified reports are the documentation customers need to answer questions, meet quality program requirements or satisfy a purchaser's request for certification.

Read the complete articles on our website at <http://www.labtesting.com/category/articles/>

The Sales Team Continues to Grow



Glen Hicks brings his vast background in the metals industry to LTI, including years of sales to the commercial nuclear power generation and fossil fuel co-generation markets.

Chris Meclary joins LTI with experience selling for tubing, forging and machining companies to the non-ferrous metal, aerospace, nuclear, medical and automotive industries.



Eric Baum has worked closely with companies in aerospace, medical and other industries for over ten years selling high-performance metal mill products and precision machining.