Solutions for Materials Testing
Machines • Software • Calibration • Service
Quality is the most important goal in manufacturing. A thorough testing regimen can determine the suitability of a material for a particular application, its ability to be processed, and any potential production issues. Since our founding in 1880, we have helped thousands of manufacturers with solutions for their research and development, and quality control testing needs.

The Tinius Olsen group of companies is still family owned and managed by direct descendents of our corporate namesake, the inventor of the universal testing machine. Today we are global leaders in the design and manufacture of many kinds of materials testing equipment. Not only has our product range changed and expanded, but so has the way we acquire and display test data. We have some of the most sophisticated testing software available on the market, and our developers work hand-in-hand with customers to tailor that software to unique testing and production needs. Similarly, our A2LA and UKAS accredited field calibration and service teams have expanded their capabilities and services to meet the needs and expectations of our customers.

Fig 1: Torsional test of cold rolled steel using a 1,000 N.m (10,000 in.lb) LoTorq tester.

Fig 2: Tensile test of thin aluminum stock using a 25 kN (5,000 lbf) horizontal tester. These testers can be fully automated with the use of pick-and-place robots.

Fig 3: Tensile test of copper tube using a 150 kN (30,000 lbf) hydraulic Super L and an LVDT extensometer.

Fig 4: Tensile test of steel plate using a 600 kN (120,000 lbf) hydraulic tester and LVDT extensometer.

Fig 5: Tensile test of bolts using a 300 kN (60,000 lbf) hydraulic Super L tester

Fig 6: Pendulum impact tester with 406 J (300 ft.lb) available energy configured for Charpy style specimens.

Fig 7: Pit mounted (with floor shown in cut away) 3,000 kN (600,000 lbf) hydraulic Super L tester.

Fig 8: Steel plate being tested in 100kN (20,000 lbf) H100kT electromechanical tester, using an LVDT type extensometer to measure initial strain.
Globally recognized for excellence in the metals industry, Tinius Olsen has achieved similar results with test machines developed specifically for the plastics industry. In addition, our light force test machines address the testing needs of many other industries including textiles, medical, automotive, aerospace, food, packaging, rubber, adhesives, composites, construction and paper.

Not only can we design and build systems to hold your test specimens, but we can also develop software routines for test control and data analysis in formats that can be stand-alone test reports or as an integral part of manufacturing and process control software.

Our equipment is time tested with thousands of installations around the world operating without interruption for decades. We also have a retrofit program to ensure that Tinius Olsen and other make machines we refurbish remain robust and current for decades to come.

Tinius Olsen has a test system and routine to match your needs, including equipment for tensile, compression, flexural, puncture, tear, peel, shear, melt index, impact, heat deflection temperature, Vicat penetration, stiffness, brittleness, or frictional testing. Tinius Olsen is an essential resource for anyone with materials to test and data to report.

Fig 9: Impact test on plastic samples using the Model IT504 tester – as shown configured for Izod specimens.

Fig 10: Model H5kT being used to determine the flexural strength of a printed circuit board.

Fig 11: Model MP600 testing for the melt flow index of plastic resin.

Fig 12: Model 603 HDTM deflection temperature and Vicat penetration temperature tester.

Fig 13: Compression test on a model H25kS of a motorcycle crash helmet.

Fig 14: Tensile pull test of workgloves being performed on an H10kT.

Fig 15: Plastic samples being tested for stiffness properties.

Fig 16: Tensile test of a stuffed toy being performed on an H5kT.

Fig 17: Part of our production facilities in our UK plant.
Software

Building on our long history of providing solutions to an enormous variety of testing problems, Tinius Olsen offers a comprehensive range of software products, each designed to make testing simple, precise, and efficient, no matter whether the material is metal, polymer, paper, textile, composite, concrete, rubber, or micro components.

We go far beyond basic module changes for unique applications; our specific and focused application software products have been developed in close cooperation with our customers around the world.

Several valuable features are common to all, the most important being the ability to further customize the testing parameters used to collect and document testing data and, in most instances, control the machine as well. If your test involves tension, compression, flexure and bending, puncture, friction, impact, softening, extrusion, shear, tear, or peel, then Tinius Olsen has a platform that can best suit your needs.

All versions of our focused application software are rich with standard features that improve productivity and enable you to build, access and use powerful testing databases. These include:

- Use of powerful, robust, modern databases.
- Generation of user customized reports.
- Standard SPC programs.
- Recall and reanalysis of raw data.
- User configurable machine parameters and control settings.

Contact Your Local Representative:

Tinius Olsen
1065 Easton Road
Horsham, PA 19044 USA
(215) 675-7100
Fax (215) 441-0899
www.TiniusOlsen.com
info@TiniusOlsen.com

6 Perrywood Business Park
Honeycrock Lane, Salfords
Redhill, Surrey RH1 5DZ England
+44 (0) 1737 765001
Fax +44 (0) 1737 764768