The Standard

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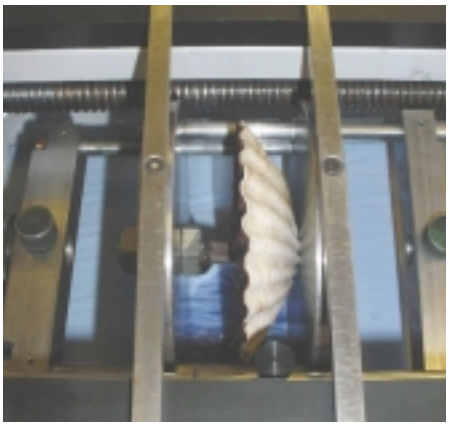
Conservation turns to materials testing



Ask most people to describe the kind of special materials you might test with a materials tester and how many would include shell in their answer? But, thanks to the work of two students using a Tinius Olsen machine to test shells, changes can be made to a fisheries policy that will help to conserve important shellfish stocks and maintain them for the future.

The story is based on the Isle of Man, a small self-governing island to the west of Britain, who's main claims to fame are perhaps the Manx breed of cat (notable for not having a tail) and the Isle of Man motorcycle TT races.

The island's Department of Agriculture Fisheries and Forestry initiated a project with the University of Liverpool's Marine Biology Department – based on the Island – to examine the effects of harvesting techniques on scallops. These are a type of shellfish found in the waters around the island and are harvested using a dredging method.

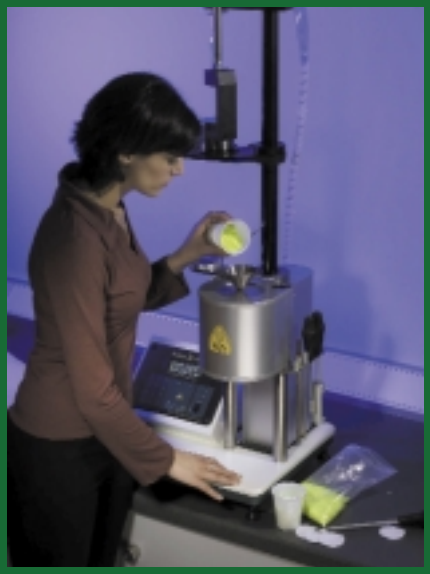
This involves dragging metal bars across the seabed causing the scallops to be flipped up into a net. Smaller, immature, scallops drop back through the net to continue growing. There was concern however, at how to assess the maximum size and weight of bars that could be used without damaging the shells of the younger shellfish.

Marine biology students Catherine Sinfield and Matthew Mosley were given the task of measuring the typical strength of scallop shells found in different areas. They needed a materials tester and as the University did not have one of its own on the island, they turned for help to the local further education college.

The College's materials science lecturer, John Marchment, takes up the story: "The Marine Biological Station does not have its own test equipment, so they asked us to help out. Using our H20KW machine with some specially developed grips, they were able to conduct tests on scallops of various ages collected from different fishery areas and record the data for subsequent analysis. The machine is a nice easy one to use," says John. "And the test results were invaluable in conducting the project."

The Tinius Olsen machine is regularly used by John's own students at the College and is also used by other businesses in the area. "Last time it was used by a firm of agricultural engineers for spring rake testing," says John. The practice seems to be an effective way to offset the costs of providing students with the latest equipment.

Fatigue-Free Melt Index Tester



The MP600 melt flow indexer is now available with the option of an automated purge system to reduce operator fatigue during extensive testing programmes. The purge system has been developed at the request of a major resin manufacturer that conducts hundreds of tests on a daily basis using its set of 40 MP600 machines.

When it was launched the MP600 won praise from organisations such as RAPRA which, following an evaluation of the machine described it as "particularly useful" and "a versatile addition to any company." This latest addition makes it suitable even for testing high numbers of samples.

The purging system uses an air actuated piston to clear any remaining material from the machine at the end of a test – rather than requiring the operator to perform the task manually. If a brush or cloth is fitted, cleaning can also be carried out automatically.

"The MP600 has been well received by those who have tried it out in their own test facilities and, in standard form, it is ideal for most users," points out UK sales manager Steve Taylor. "But where operators have to carry out high numbers of tests every day, purging by hand can become laborious. This new system allows the whole operation to be completed at the touch of a button."

Markers on the Tinius Olsen time graph

Some companies believe that change is good, but continuity is even better. Established in 1880 by namesake, Tinius Olsen, the inventor of testing machines, the Tinius Olsen Testing Machine Company (Horsham, PA, USA) has appointed a new President on the eve of its 125th year in business. Effective May 8, 2004, C. Robert Tait, III becomes President and will continue on as a member of the Board of Directors. He succeeds his own father, Robert Tait, Jr., who steps down after serving 32 years in Tinius Olsen senior management and 46 years overall with the company. The rest of Tinius Olsen's senior management team remains essentially unchanged.

Another recent change, that adds to the unique level of support that Tinius Olsen continues to provide, is the introduction of an FTP (File Transfer Protocol) area on our web site that allows us to support our customers and our sales and support agents around the world with updates and data almost instantaneously.

Additionally, Tinius Olsen continues to promote training and support of our own personnel; and recently our efforts were recognised with the Investment In People award in the UK.

Investors in People is the UK national Standard which sets out a level of good practice for training and development of people to achieve business goals. The Standard provides a national framework for improving business performance and competitiveness, through a planned approach to setting and communicating business objectives and developing people to meet these objectives. The result is - what people can and are motivated to do matches what the organisation needs them to do.

INVESTOR IN PEOPLE

Diary dates – where to see us later this year

Your local Tinius Olsen representative will let you know of the important events happening in your area, but here is a list of the next major international events we will be attending. Check out our web site www.tiniusolsen.com for other dates later in the year.

Sept 20-23	**Petro-Chem Expo** Bejing, China
Sept 22-26	**TATEF** International metalworking technologies exhibition, Istanbul, Turkey
Sept 29-30	**MEDTEC** Medical device show, Galway, Ireland

Crispy, crunchy, gooey, or munchy easily measured with Tinius Olsen!

The food industry has given a positive response to the H1KF food test machine launched just last year. Processors and manufacturers looking to establish repeatable tests for the crispness, stickiness or any other desired texture for their foods or food ingredients have welcomed the machine and its associated equipment.

The H1KF features surgical grade stainless steel construction for hygiene and ease of cleaning, and is offered with a range of probes, shear cells and extrusion cells, enabling users to check everything from hardness and stickiness to chewiness of the foods under test.

Options include Warner Bratzler cells for cutting/slicing meats and vegetables, Back Extrusion cells for testing the consistency of materials to be extruded, such as doughs, fillings or purees and Conical Probes for tests such as spreadability.

Sales and marketing director, Martin Wheeler comments, “Our customers have highly developed strategies for adding value and maintaining quality and, since it was launched last year, the H1KF has been enthusiastically received as a valuable tool to help achieve these strategies.”

Buoyant sales forecast for metals test equipment in 2004

Although hindsight is the only exact science, many senior staff at Tinius Olsen are forecasting that 2004 will see an upturn in sales of metals testing equipment, particularly in Europe and the Far East. Their optimism is based on improving economic fundamentals and the feedback from a number of key customers.

“All the signs point to an improvement in trading conditions during the year,” says the company’s head of marketing, Wayne Hayward. “This is reflected in discussions with our key customers who all say much the same thing: there is strong interest in orders from their customers but everyone is just waiting to see who is going to move first.”

The fierce competition in recent years has not been without its casualties, but it seems the metals sector is now ready for growth, so Tinius Olsen has positioned itself to be ready for an increased demand in the latest testing equipment. Forging closer links between the company’s UK and European arm and the US parent has made it easier to introduce the equipment and software developed for the steel industries of North America. These products complement the smaller capacity test machines that continue to be developed in the UK.

“We can now offer test machines with capacities from 10kN up to 3000kN, we have introduced new software created especially for metals testing, and we are in the process of introducing other types of equipment for metals testing that will be launched later this year,” says Mr Hayward.

EP600 Software makes controlling multiple melt indexers as simple as 1, 2...10!

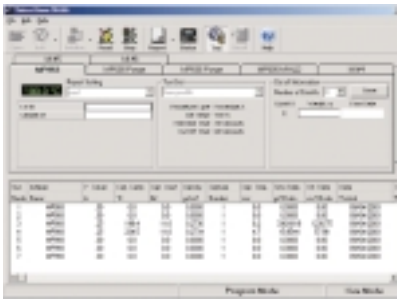
In a traditional polymer testing laboratory, you are likely to find several melt indexers, perhaps an impact testing machine and a tensile testing machine, or even a heat deflection temperature testing machine from Tinius Olsen.

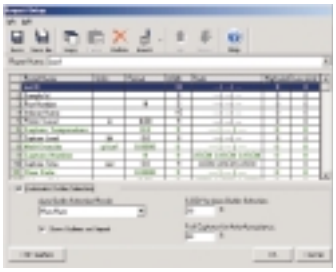
Typically, operators spend more time charging, operating and cleaning their melt indexers than anything else, so Tinius Olsen has developed tools to ease some of this burden and help increase the accuracy and repeatability of the data from these melt indexers.

Tinius Olsen's EP600 software is powerful data acquisition and data analysis software that is used with our melt indexers to give increased flexibility in the set-up of the test, reporting of the data, and the storage or recall of the data that these machines produce. The recall part of the software has built-in statistical process control functions that can produce, and print, familiar types of batch reports.

The real power of the EP600 software can best be seen when multiple melt indexers are connected to the pc based software. Users can set up the test parameters (temperature, orifice diameter, etc.), capture parameters (number of captures, piston travel, loads etc.), report parameters (customer, supplier, batch identifiers etc.) and recall of test results for each melt indexer, and up to ten separate melt indexers, running different polymers and/or different test setups (whether they be procedure A or procedure B etc.), can be controlled by the software at the same time.

This increased level of control and data recording means that operators are able to better spend their time charging and cleaning their melt indexers to ensure the increased accuracy is recognised.





Tinius Olsen Ltd.
6 Perrywood Business Park, Honeycrock Lane, Salfords, Redhill, Surrey RH1 5DZ, UK
Tel: +44 (0)1737 765001 Fax: +44 (0)1737 764768 Email: sales@tiniusolsen.co.uk www. www.tiniusolsen.com

Tinius Olsen Inc.
Corporate Headquarters,1065 Easton Road, P O Box 1009, Horsham, PA 19044-8009 USA
Tel: (215) 675 7100 Fax: (215)441 0899 Email: info@tiniusolsen.com www.tiniusolsen.com

Faxback

To the USA on +1 215 441 0899
To the UK on +44 (0) 1737 764768

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