TEN

Tensile testing machine

Specially designed for the mineral wool industry, this universal tension tester offers a unique solution for generating, filing and displaying quality data. It is built around a rigid frame with a ball screw drive pulling down in the specimen, and it offers the user a fast and effective way of generating and presenting a quality report. Additionally it offers a data filing and retrieving system providing the user instant access to reports on any previously tested samples. Much more than just the strength/elasticity test results can be included in the quality report. The Tram-QA software offers a simple way to incorporate all relevant quality parameters in a system of tables that can be set up for almost any application. It is ideally suited to quality assurance and process control as well as research and development. It is capable of performing a wide range of complex testing procedures and can be set up for relevant international or national standards.

The special machine design provides optimum stiffness resulting in accurate deformation measurements. Testing is controlled from the computer after keying in sample identification. During the testing the load/deformation curve is simultaneously generated on the monitor. All registrations and calculations are performed automatically by the PC and stored on the hard disk for later reference and/or statistical analysis. The reporting and calculation of data can be setup to match the users individual needs. Additionally the system incorporates a facility to connect it to an external device such as a balance so that results can be directly transferred to the system for further processing.

The machine is supplied with grips to suit the products to be tested. Automatic positioning of the loading beam virtually eliminates the waiting time between tests.

Bent Tram A/S

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Specification

Model	TEN 1000N	TEN 2000N	TEN 5000N
Loadcell Capacity	1000 N	2000 N	5000 N
Weight	75 kg		
Max stroke length	500 mm		
Daylight between columns	600 mm		
Resolution	0.01 N	0.02 N	0.05 N
Supply Voltage	220/240 V or 110/120 V, 50-60 Hz		
Deformation resolution	0.0100 mm		
Control system	USB-connection to PC. The TRAM QA software makes the testing, filing and analyzing of data extremely versatile - refer to the separate brochure for the software.		

Standards

EN 1608	Thermal insulation products for building applications - Determination of tensile strength parallel to faces

Full compliance with the European standard EN1608. Closed, dust proof construction with very few movable parts exposed. The measurement process is controlled by the computer. This makes it easy to change tension speed, reaction to measured results etc. In the apparatus measuring time is optimized - only five manual operations are needed:

The grips are effectively shielded when open. The operation of the grips is manual in order to prevent the operator from getting hurt by an accidental closing of the grips. The tensile strength is automatically logged in the computer upon the end of measurement. This optimizes measuring/calculation time and secures measuring data. The software is very flexible, and when sample thickness, weight and ignition loss are part of the setup, tensile strength is immediately available. The measurement is furthermore displayed as a tension curve (which is also saved in the computer for further investigation). This gives the possibility of evaluating elasticity and other properties. A statistical module for long term evaluation of data is available as an additional option.

Comprehensive electronic protection prevents the machine from overloading damage or driving out of limits. A simple calibration procedure is included in the software. Due to the modular design of the equipment and the versatility of the software, tailored systems can be offered at a moderate price. Systems for other board, sheet and slab manufacturing industries can also be supplied.

The equipment offers a great opportunity to improve quality management through instantaneous data generation. In spite of the highly advanced and automatic testing procedure operation is easy.

Please contact Bent Tram A/S or your local distributor for additional information.

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