

Universal Testing Machines

Machines Universelles d'Essais

Universalprüfmaschine

Compression

Bending

Tensile

Fibre Cement

Gypsum Board

Wood Board

GFT 1 000...12 000 N



Quality Assurance and Process Control

Adapted for testing all types of materials and products, the GFT-range offers a unique solution for generating, filing and displaying quality data. It is built around a specially designed testing machine for a wide range of test modes: Tension, Compression, Bending, Punching, Peeling, Delamination, etc., 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 giving the user instant access to reports on any previously tested boards. 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 machine is compact, bench mounted, and built with a free-arm principle, making the positioning and removing of samples very easy - no studs or frames to avoid. The special machine design provides optimum stiffness resulting in accurate deformation measurements. Testing is controlled from the computer after keying in sample identification. During testing the load-deformation curve is simultaneously generated on the monitor.

The machine can be supplied with bending jigs, compression plates, tension grips etc. as required. The automatic positioning of the loading beam after each test virtually eliminates waiting time between tests.



QUALITY ASSURANCE

Specification

MODEL	GFT1000/2000/5000/12000 The system can be set-up to specific standards upon request
Max loading stroke length	200 mm as standard
Free-arm frame, extension length	300 mm as standard
Max Loading-cell-force	1000, 2000, 5000 or 12000 N
Force measuring resolution	0.1 N or 1 N
Loading speed control	selectable load- or deflection speed, and fully programmable cyclic loadings etc.
Loading speed-range	0- 300 mm/min
Deflection measuring resolution	0.001 mm
Sample supports	Optional bending jigs, tension grips, compression plates etc. as required
Supply voltage	220/240 V or 110/120 V, 50-60 Hz
Approx. weight (excluding control system)	90 kg
Computer control system	PC and additional hard-and software, and printer. The TRAM QA software makes the testing, filing and analysing of data extremely versatile - refer to the separate brochure for the software.
Data generation	<ul style="list-style-type: none"> • Real-time generation of load/deformation curve. Instant calculation of Breaking Load, Ultimate Deflection, Modulus Of Rupture, Stress at Proportionality limit, Modulus of Elasticity, Strain at Ultimate Load, Fracture Energy etc. • Up to 230 samples can be filed in each set, and additional data (f.x. weight/m², board-width, etc.) can be added to the set. A log is maintained on all data-sets, giving easy access to a specific set.
Data Presentation	The test results can be shown on the computer monitor or printed out in a table for each set of samples, together with average - and standard deviation values. Additionally a load deflection curve with all the specifics of a single test can be printed out. Various statistical analyses can be performed automatically, and results can be printed out in a lay-out according to your specification.

Specifications are subject to change without notice.

A stiff open frame construction, loading via a sealed ball-screw system and an accurate measure of the loading beam travel are the basis of the GFT-system. An IBM compatible computer with TRAM-QA Windows software makes the machine a powerful "automatic" system for generating, filing and displaying quality data for any production. Simple to use software will enable the operator to grow familiar with the test machine after a very short time even if he has no experience at all in operating a computer. The software is supplied in national languages as required.

Comprehensive electronic protection prevents the machine from overloading damage or driving out of limits. A simple calibration procedure is included in the software. For operation in dusty environments the system can be supplied with the computer and printer in a sealed tower arrangement.

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.

Due to the modular design of the equipment and the versatility of the software, tailored systems can be offered at a moderate price. Systems specially set up for board, sheet, and slab manufacturing industries can also be supplied.

Please contact TRAM or your local distributor for additional information.



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