

# UCT

## Universal compression and tension testing machine



UCT 50kN



UCT 50kN with secondary testingspace

The \$Name is fully controlled from the accompanying PC with the professional Tram-QA software that can run virtually any test fully automatically and at the same time automatically collect testing results and store them in a database. Tram-QA offers the user a fast and effective way of generating and presenting a quality report. Additionally, Tram-QA offers a data filing and retrieving system giving the user instant access to reports on any previously tested samples. Much more than just the strength 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 spreadsheet that can be set up for virtually 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 bench-mounted machine is compact, and it can be supplied with different stroke lengths, and optional a second testing positions above the travelling beam. The machine is built around a two-spindle design. This machine design provides optimum stiffness resulting in accurate deformation measurements. Testing is controlled from the computer and a test is started by pressing a single key after keying in the sample identification, if any. During the testing the load-deformation curve is simultaneously generated on the monitor.

The machine is supplied with grips and loading plates to suit the products to be tested. Automatic positioning of the loading beam virtually eliminates the waiting time between tests. Additionally it incorporates a facility to connect it to an external device such as a balance so that results can be directly transferred to system for further processing.



Bent Tram A/S

Halkjaervej 20B, DK-9200 Aalborg SV

+45 98120499

mail@tram.dk

www.benttram.com

# UCT

## Universal compression and tension testing machine

### Specification

Model	UCT 50kN	UCT 10kN	UCT 300kN	UCT 20kN
Loadcell Capacity	50000 N	10000 N	300000 N	20000 N
Weight	155 kg	155 kg	850 kg	155 kg
Max stroke length	500 mm	500 mm	1300 mm	500 mm
Daylight between columns	450 mm			
Vertical daylight	650 mm	650 mm	1300 mm	650 mm
Frame stiffness	50 kN/mm	50 kN/mm	200 kN/mm	50 kN/mm
Resolution	0.25 N	0.05 N	1.50 N	0.12 N
Supply Voltage	230V 50Hz or 115V 60Hz			
Speed Range	0.00005mm/min - 500mm/min	0.00005mm/min - 500mm/min	0.00005mm/min - 200mm/min	0.00005mm/min - 500mm/min
Height	1260 mm	1260 mm	2340 mm	1260 mm
Width	750 mm	750 mm	1040 mm	750 mm
Depth	310 mm	310 mm	700 mm	310 mm
Force measuring error	Less than 0.5% of actual value from max. force down to 1/1000 of max. force			
Second testing space	Optional second testing space above the travelling beam			
Addistional sensors	Optional Thickness gauge, Extensometer, extra loadcells, balance etc. can be connected			
Loading speed control	Selectable load- or travelling speed. Programmable loading sequence for semiautomatic testing as well as automatic fast return.			
Deformation resolution	0.0001 mm			
Control system	USB-connection to PC. The Tram-QA software makes the testing, filing and analysing of data extremely versatile - refer to the separate brochure for the software			



Bent Tram A/S

Halkjaervej 20B, DK-9200 Aalborg SV

+45 98120499

mail@tram.dk

www.benttram.com

# UCT

## Universal compression and tension testing machine

### Standards

EN 12089	Thermal insulating products for building applications - Determination of bending behaviour
ASTM D2412	Standard Test Method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading
ISO 14125	Fibre-reinforced plastic composites - Determination of flexural properties
ASTM D638	Standard Test Method for Tensile Properties of Plastics
ISO 8336	Fibre-cement flat sheets -- Product specification and test methods
EN 826	Thermal insulating products for building applications - Determination of compression behaviour
ISO 6892	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
EN 6892	Metallic materials - Tensile testing - Part 1: Method of test at room temperature
ISO 6259-3	Thermoplastics pipes -- Determination of tensile properties -- Part 3: Polyolefin pipes
ASTM D3330	Standard Test Method for Peel Adhesion of Pressure-Sensitive Tape
EN 1939	Self adhesive tapes. Measurement of peel adhesion from stainless steel or from its own backing
ISO 29862	Self adhesive tapes -- Determination of peel adhesion properties
EN 10002	Tensile testing of metallic materials - Method of test at ambient temperature
EN 302-1	Adhesives for load-bearing timber structures - Test methods - Part 1: Determination of longitudinal tensile shear strength
EN 1607	Thermal insulation products for building applications - Determination of tensile strength perpendicular to faces
DIN 55440	Packaging test, compression test, test with a constant conveyance-speed
ISO 6383-1	Film and sheeting - Determination of tear resistance - Trouser tear method
EN 320	Particleboards and fibreboards - Determination of resistance to axial withdrawal of screws
EN 12430	Thermal insulating products for building applications - Determination of behaviour under point load
EN ISO 527	Plastics - Determination of tensile properties
GOST 11262-80	Plastics. Tensile strength test method

An extraordinarily stiff frame construction, loading via a sealed ball-screw system and an accurate measure of the loading beam travel is the basis of the UCT. 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 professional-version is supplied in National languages as required. A simple calibration procedure is included in the software. Furthermore it has an advanced overload protection system that prevents damaging the loadcells.

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. Special systems for board, sheet and slab manufacturing industries can also be supplied.

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



Bent Tram A/S

Halkjaervej 20B, DK-9200 Aalborg SV

+45 98120499

mail@tram.dk

www.benttram.com