

Test Stand PCE-UTU 2



Material Test Stand PCE-UTU 2

Power testing machine for tensile test / Creation of a stress-strain diagram /

Various designs / Controlled DC motor / Breakerrecognition / Variable test speed / Force regulation/ Complex configuration possibilities

The material test stand PCE-UTU 2 is a professional testing machine for the execution of tensile, compressive and bending tests. By means of these tests, the material test stand can determine important material characteristics, e.g. elongation, yield strength or tensile strength of the sample. With the material test stand PCE-UTU 2, tensile tests with a maximum force of 2 kN are possible. These tensile tests are a standardized, destructive process that is used in material testing. Standardized samples with a defined cross-sectional area are stretched and broken by force. The elongation of the specimens by the material test stand is free of bumps and by uniform force. Among other things, the material test stand offers the possibility to determine the yield strengths, the tensile strength and the elongation at break of the tensile specimen. After the measurement, the material test stand provides detailed results, which are shown in the software, e.g. as a stress-strain diagram.

Let us advise you in order to get the best fit for your specific application.

- ▶ Measuring range: 0.04 ... 2 kN
- ▶ Accuracy class: 0.5
- ▶ Extensive configuration options
- ▶ Controlled DC motor
- ▶ Variable test speed
- ▶ Powder coated housing parts
- ▶ Breaking detection
- ▶ Maximum value memory

Specifications

Technical Specifications

Material Test Stand PCE-UTU 2

Rated load	2000 N
Accuracy class	0.5 / EN 7500-1
Drive	controlled DC motor
Test speed	0.001 ... 500 mm/min, Resolution: 1 µm
Distance measurement	incremental
Standard stroke	1000 mm (Without tensioning and tensioning adapters)
Work-life	450 mm
Supply	230 V AC, 50 Hz
Framework	2 ground guide columns
	2 ball circulating spindles
	Column cover with bellows seal
	Limit switch for travel limit
	Powder coated housing parts
	Colour: RAL 7035
Safety devices	Enclosure from Makrolon
	Safety switching contact
Measurements	HxWxD 1330 x 650 x 530 mm
Weight	ca. 140 kg

Force transducer for

UPM

Installed underneath the mobile traverse for compressive and tensile forces.

Measuring range	0.04 ... 2 kN
Nominal value	2 mV/V
Relative characteristic deviation	$\leq \pm 0.1 \%$
Relative linearity deviation	$\leq \pm 0.02 \%$
Relative creep error	$\leq \pm 0.03 \%$ after 30 min
	$\leq \pm 0.07 \%$ after 8 h
Accuracy class	to EN ISO 7500-1, Class 0.5
Overload	50 %
Protection class	IP 67
TEDS module	integrated, to IEEE 1451-4 automatic sensor detection

Control and evaluation

electronics

Measured value acquisition	1 kHz
Display	LC-Display
Interface	RS-232

More information

More product info



Similar products



Subject to change

	Force regulation
	Distance regulation
	Manual positioning
	Processing of a programmed sequence
	Specification of the crosshead speed
	Return to the starting position
Functions	Cycles
	Presetting limits for force / distance / time
	Resetting the force / distance indicator to 0
	Adjustable control factor
	Breaking recognition
	Maximum value memory
	For 2 force transducer: choice of the work area

Intelligent measuring and control electronics

Processor	32 bit RISC architecture
Control circuit	> 1 kHz
TEDS module	Automatic sensor detection Standard IEEE 1451-4
Interface	USB 2.0
	2 x 24 bit A/D converter for strain gauge transducers Sampling rate: > 50 kHz
A/D converter	2 x 10 bit A/D converter for processing additional signals Sampling rate: > 50 kHz 1 x Incremental signal input for distance / angle measurement

Software

	<ul style="list-style-type: none"> - Toolbox for free programming of test sequences - Toolbox for free programming of calculations - Freely configurable real-time graph with three axis overlay, free scaling and manual evaluation function - Freely configurable report format with integration of image files
Functions	<ul style="list-style-type: none"> - Order and lot-bound storage or export of test sequences, calculation results and raw material data - Integrated user management - Can be automated - Networkable - Multilingual - Machine-bound license, multi workplace
Basic configuration for material testing	<ul style="list-style-type: none"> 1 x Test template for tensile tests 1 x Test template for compressive, flexural or alternating load tests 1 x Test template for testing compression or tension springs

Subject to change

