

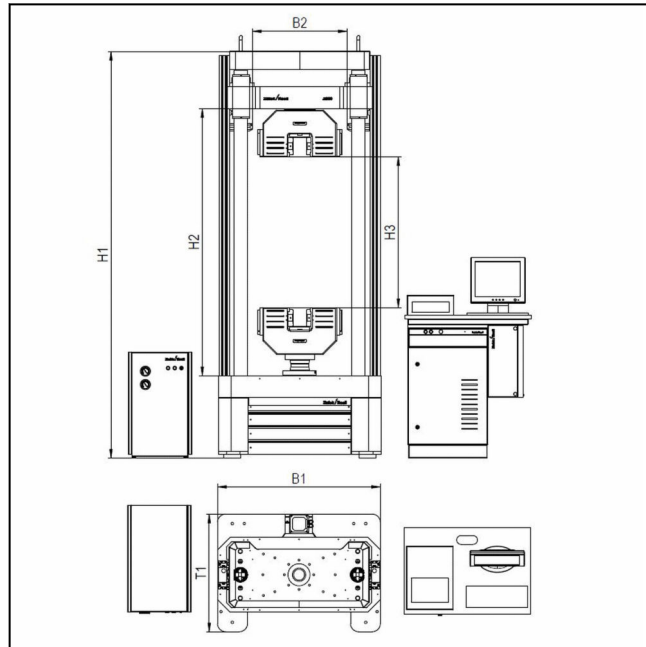
Product Information

Materials testing machine Z600E with testControl II

CTA: 66565 66566



Z600E with hydraulic grips



Drawing: Z600E with hydraulic grips

Advantages and features

Modern load-frame design

- The robust load-frame features four hard-chromed guide-columns and massive base and moving cross-heads, ensuring excellent guidance properties and a high level of machine stiffness.
- Maintenance-free digitally controlled AC drive technology combined with an innovative motor feedback system allows excellent constant speed characteristics to be achieved even at extremely low speeds.
- The backlash-free pre-stressed precision ball-screws with digitally controlled AC servo drive allow virtually maintenance-free operation.
- The large test area combined with low overall height enables specimens and components with a wide range of lengths to be tested.
- The testing machine is positioned directly on the ground with no foundation.

Operator convenience

- Convenient operating height for specimen insertion with grips installed.
- testXpert III's intelligent test environment concept reduces set-up times and increases productivity.

Innovative electronics

- The new testControl II measurement and control electronics provide the ideal basis for precise, reproducible test results.
- Developed in-house by ZwickRoell, the electronics impress through maximum accuracy, high measured-value rates and flexible modularity.

Satisfying the most demanding safety requirements

- Compliance with the statutory safety requirements of the EC Machinery Directive is ensured in all materials testing machines, while an EC Declaration of Conformity accompanies every machine supplied.
- Only the latest safety technology and proven industrial components are used.
- The highest degree of safety for the operator, test results, specimen material, and testing system are guaranteed.

Future-proof

- Modular design means that the testing system can be re-equipped or upgraded whenever required.
- Moreover, testControl II control electronics are compatible with future-generation ZwickRoell software.
- Even after a product has been discontinued, spare parts remain available for a minimum of 10 years.

Product Information

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Description	Value
Load frame	
Paint finish	RAL 7011 iron gray and RAL7038 agate gray
Ambient temperature	+10 ... +35 °C
Humidity (non-condensing)	20 ... 90 %
Drive	
Motor	AC servo motor with concentrated windings, Hiperface® motor feedback system
motor holding brake	yes
Control, set-value specification	digital (real-time Ethernet, EtherCAT®)
Controller/cycle time	adaptive / 1000 Hz
Repeat positioning accuracy on crosshead	± 1.0 µm
Measurement and control electronics	
Number of slots available for measurement and control module	5 synchronized module bus slots, 1 synchronized PCIe slot ¹⁾
Force measurement	Class 0.5 from 1% of Fmax / Class 1 from 0.2 % of Fmax, as per EN ISO 7500-1, ASTM E4, JIS B 7721
Calculated resolution (e.g. load cell in tensile/compression direction)	24 bit
Measured-value sampling-rate, internal	400 kHz
Measured-value transmission rate to PC	500 (optionally 2000) Hz
Zero-point correction	automatic, at start of measurement
Measurement signal runtime correction for all channels	yes
Interface to PC	Ethernet
Eco mode?	yes, power unit automatically switched off (time adjustable)
CE compliance?	yes, as per Machinery Directive 2006/42EC
Electrical supply data	
Mains supply frequency	50/60 Hz
Electrical supply	400 +/- 10 % V, 3Ph/PE
Power consumption	9 kVA

1) A high-quality DCSC measurement module for one load cell is included in delivery (occupies one module bus slot).

Options¹⁾

Description
Display-equipped remote control for testControl II
Measured-value transmission-rate increase from standard 500 Hz to 2000Hz
Add-on table unit for electronics cabinet, with CPU-holder
ZwickRoell extensometer attachment (see catalog)
Leveling feet
Front/rear safety device
Lead-screw guard
Side test-area

¹⁾ See catalog for item numbers and further details

Product Information

Materials testing machine Z600E with testControl II

Product data

Type	Stand- ard	H1-500	H1+500	H1 +1000	B1+400	2 test areas	
Item number	1004693	1011837	1011835	1011838	1011792	1011892	
Load frame							
Test load F_N in tensile and compression directions	600	600	600	600	600	600	kN
Number of guide columns	4	4	4	4	4	4	
Number of lead screw drives	2	2	2	2	2	2	
Rigidity of the load frame at H2 = 1000 mm	925	925	925	853	781	853	kN/mm
Height - H1	3050	2550	3550	4050	3050	3075	mm
Width - B1	1220	1220	1220	1220	1620	1220	mm
Depth - T1	880	880	880	980	850	880	mm
Test area width - B2	710	710	710	710	1110	710	mm
Test area height - H2	2000	1500	2500	3000	2000	2000	mm
Test stroke - H3 (with hydraulic grips)	1130	630	1630	2130	1130	1130	mm
Weight without accessories	2930	2700	3100	3260	4100	3350	kg
With hydraulic grips	3600	3350	3760	3920	4740	4000	kg
Specific floor loading (with hydraulic grips)	4.3	4.0	4.5	4.7	5.7	4.8	kg/cm ²
Noise level at maximum test speed	<70	<70	<70	<70	<70	<70	dBA
Drive							
Crosshead speed	0.00005 to 400	0.00005 to 400	0.00005 to 400	0.00005 to 400	0.00005 to 400	0.00005 to 400	mm/min
Increased crosshead return speed (at reduced force)	520	520	520	520	520	520	mm/min
Drive system's travel resolution	0.000193	0.000193	0.000193	0.000193	0.000193	0.000193	µm

Overview of load frame

CTA: 74983

