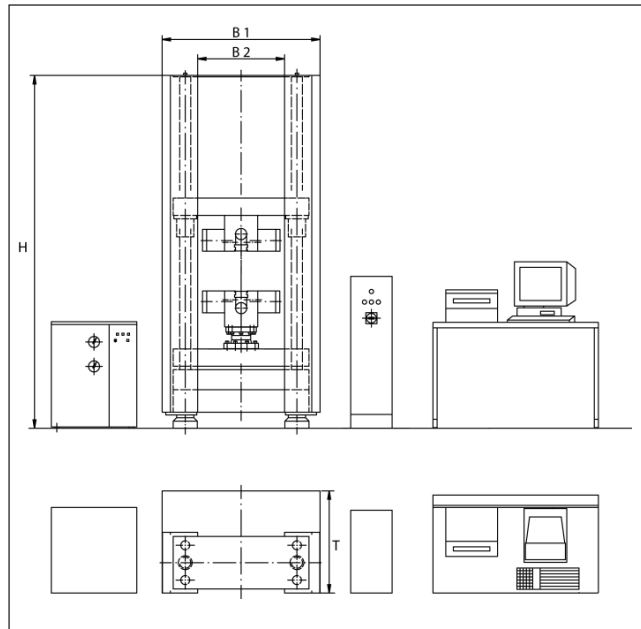


Product Information

Materials Testing Machine Z300E - 300 kN / Z400E - 400 kN



Key benefits of the Zwick Z300E and Z400E Materials Testing Machine

- Gripping and testing of the most varied specimen lengths without problem because of the large travel path with comparatively low construction height.
- Precise long-time operation in tensile and compression direction by low maintenance and playfree prestressed ball-lead screw drive.
- Maintenance free drive technology and low-noise drive through use of a brush-free AC motor.

Further advantages

- Robust and stiff 4-column load frame.
- Exact determination of even small forces through large measurement ranges (from 0.6 kN to 300 kN in Class 1, from 3 kN to 300 kN in Class 0.5 / from 0.8 kN to 400 kN in Class 1, from 4 kN to 400 kN in Class 0.5) without changing equipment.
- Standard testing is reduced to „one-button operation“ with the Zwick testing software *testXpert*[®].

- Exact and correct determination of the material characteristics through high resolution and channel synchronous measurement technology. Range switching is not necessary since up to 1.2 million digits force signal resolution are available over the entire range.
- Use of the entire Zwick accessories program through modular construction of the entire system (e.g. attachment of the most varied extension measurement systems, specimen grips and other work units).
- Simple adaptation of testing tools for new requirements by using a T-slot or bolting system (e.g. using a calibration master load cell with the T-slot system).
- “The customer specific machine“: Adaption of the testing machine to customer specific requirements is always possible (e.g. test area dimensions, testing units, specimen grips, test speed ranges, testing software).

Product Information

Materials Testing Machine Z300E - 300 kN / Z400E - 400 kN

Model		Z300E	Z400E
Order no.		BXC-F0300EN.R04-001	BPC-F0400EN.R04
Maximum test force (nominal force)	[kN] [lb]	300 67500	400 90000
Columns		4 lead columns and 2 drive columns (ball-lead)	4 lead columns and 2 drive columns (ball-lead)
Stiffness of load frame			
Calculated: crosshead deflection and elongation of ball-lead screw drive	[kN/mm]	450	450
Measured: incl. load cell, hydraulic specimen grips and drive	[kN/mm]	200	200
Maximum crosshead travel			
without tools/grips TS	[mm]	1720	1720
with hydr. grips 8595 (incl. load cell)	[mm]	1118	1118
with wedge grips 8520 (incl. load cell)	[mm]	870	870
Test speed	[mm/min]	0.001 ... 250	0.001 ... 250
Dimensions of load frame			
Height H	[mm]	2540	2540
Width B1	[mm]	1145	1145
Depth T	[mm]	740	740
Dimensions test area			
Height	[mm]	1800	1800
Width B2	[mm]	630	630
Weight			
without tools/grips (with electronics)	[kg]	1900	1900
with grips	[kg]	2500	2500
Specific ground-bearing pressure	[kg/cm ²]	8.7	8.7
Force measurement accuracy		≥ 0.6 kN class 1	≥ 0.8 kN class 1
with load cell		≥ 3 kN class 0.5	≥ 4 kN class 0.5
Resolution of crosshead travel	[μm/impuls]	0.0309	0.0309
Position accuracy	[μm]	6	6

Environmental conditions

Operating temperature	[°C]	+10 ... +35	+10 ... +35
Storage temperature	[°C]	-25 ... +55	-25 ... +55
Humidity range	[%]	< 90 %, not condensing	< 90 %, not condensing
Electric connection voltage (< ± 10 % related to the connection voltage)	[V]	3 x 400 V~/N/PE	3 x 400 V~/N/PE
Short-period break-ins	[ms]	≤ 20	≤ 20
Limits for permanent interference		radio shielding grade A according to VDE 0871	radio shielding grade A according to VDE 0871
Mains frequency (± 1 % related to the nominal frequency of 50/60 Hz)	[Hz]	50 / 60	50 / 60
Power supply			
without specimen grips	[kVA]	7	7
with hydraulic grips	[kVA]	13	13
Color coating of load frame		RAL 7011 (iron grey) and RAL 7038 (achat grey)	RAL 7011 (iron grey) and RAL 7038 (achat grey)
Noise level at 1m distance	[dB(A)]	< 65	< 65