Zwick / Roell

Zwick
Materials Testing

Product Information

Materials testing machine with ball lead screw drive
Z330E / Z330RED

Figure: Zwick Z330E with hydraulic grips

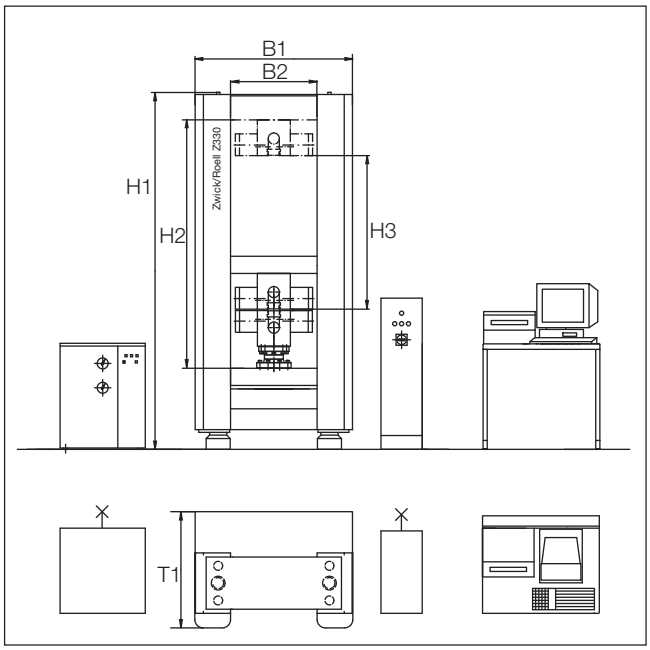

Figure: Drawing of Zwick Z330E with hydraulic grips

Key benefits

- These electro-mechanical materials testing machines are fitted with a ball lead screw drive.
- Wide measuring range allows precise determination of even small test loads without re-tooling.
- Long travel combined with comparatively low build-height provides trouble-free specimen clamping and user-friendly testing over a wide range of specimen lengths.
- Low-maintenance, pre-stressed ball lead screws ensure accurate, long-term tensile and compression testing.

Z330RED compact version

- The Z330RED is a variant of the Z330E with fixed lower test area. The package includes a stable base with levelling damper units.
- A cost-effective alternative to the Z330E for applications not requiring a large test area.

Further advantages and features

- The load frame is robust and extremely stiff.
- Standard tests using Zwick *testXpert*® software require only single-button operation.
- Modular design throughout the system allows the entire Zwick accessory range to be used, including a wide variety of extensometers, specimen grips and other test tools.
- Should new test requirements arise, additional test tools (e.g. calibration blocks) are easily installed via a T-slot or screw system.
- Can be tailored to customers' specific requirements (e.g. test area dimensions, test devices, specimen grips, test speed ranges, testing software).

Zwick / Roell

Zwick
Materials Testing

Product Information

Materials testing machine with ball lead screw drive
Z330E / Z330RED

Model	Z330E	Z330RED
Fmax [kN]	330	330
[lb]	74000	74000
Number of lead columns	4	4
Number of drive columns (ball lead screws)	2	2
Stiffness of load frame		
crosshead deflection and elongation of lead screw drive approx. [kN/mm]	450	450
including load cell, hydraulic grips and drive approx. [kN/mm]	200	200
Dimensions of load frame		
H1 – Height [mm]	2600	2600
B1 – Width [mm]	1145	1145
T1 – Depth [mm]	845	845
Base	–	505
Dimensions of test area		
H2 – Height [mm]	1800	1550
B2 – Width [mm]	630	630
Test stroke max.		
without tools / specimen grips [mm]	1630	1380
H3 – with hydraulic grips 8595 (including load cell) [mm]	1115	865
H4 – with wedge grips 8520 (including load cell) [mm]	835	560
Test speed [mm/min]	0.001 – 250	0.001 – 250
Weight		
without tools / specimen grips (with electronics) [kg]	2000	1700
with specimen grips [kg]	2600	2300
Specific floor loading [kg/cm²]	4	4
Resolution of crosshead travel [µm/Impuls]	0.0035	0.0035
Position accuracy [µm]	0.5	0.5
Item no.		
1 central test area	• **035349** (BXC-F0330EN.R04-001)	• **039754** (BPC-F0330ER.R04)
2 test areas [1]	• **019214** (BXC-F0330EN.K04-001)	

Environmental conditions	
Operating temperature [°C]	+10 ... +35
Storage temperature [°C]	-25 ... +55
Humidity range (not condensing) [%]	< 90
Electrical connection	
Mains voltage 3 Ph/N/PE [2 3] [V]	400
Mains frequency [Hz]	50 / 60
Drive power	
without specimen grips [kVA]	6
with hydraulic grips [kVA]	9
Fuse [kW]	16
Noise level at 1m distance [dB(A)]	< 65
Color coating of rack	RAL 7011 (iron gray), RAL 7038 (agate gray)

[1] With 2 test areas the height of the test area, the crosshead travel and the weight changes
[2] Three phase AC motor (L1, L2, L3), neutral wire N, protective earth PE
[3] < ± 10 % related to the mains voltage