

Product Information

Materials testing machine with ball lead screw drive Z1200E



Figure: Zwick Z1200E with hydraulic grips

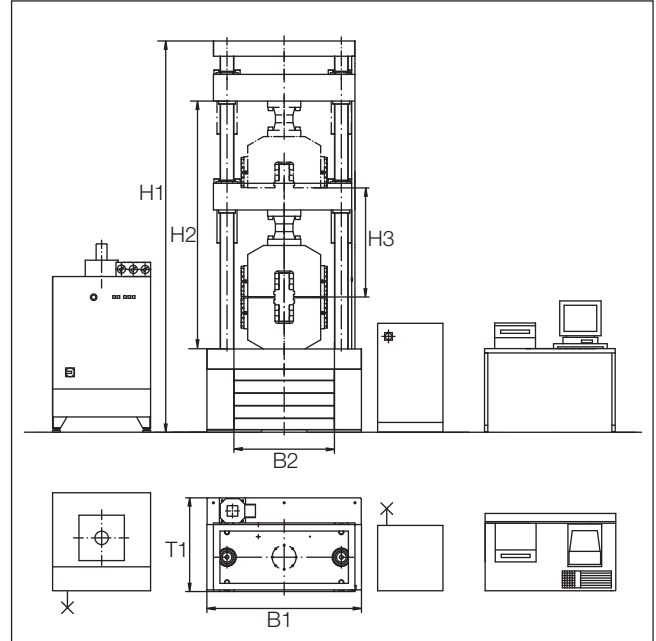


Figure: Drawing of Zwick Z1200E with hydraulic grips

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.

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).

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| Model | Z1200E |
|---|-------------------|
| Fmax [kN] | 1200 |
| [lb] | 270000 |
| Number of lead columns | 4 |
| Number of drive columns (ball lead screws) | 2 |
| Stiffness of load frame | |
| crosshead deflection and elongation of lead screw drive approx. [kN/mm] | 1200 |
| including load cell, hydraulic grips and drive approx. [kN/mm] | 450 |
| Dimensions of load frame | |
| H1 – Height [mm] | 3591 |
| B1 – Width [mm] | 1420 |
| T1 – Depth [mm] | 870 |
| Dimensions of test area | |
| H2 – Height [mm] | 2266 |
| B2 – Width [mm] | 800 |
| Test stroke max. | |
| without tools / specimen grips [mm] | 1960 |
| H3 – with hydraulic grips 8598 (including load cell) [mm] | 1000 |
| Test speed [mm/min] | 0.001 – 400 |
| Weight | |
| without tools / specimen grips (with electronics) [kg] | 5700 |
| with specimen grips [kg] | 7000 |
| Specific floor loading [kg/cm ²] | 2.1 |
| Resolution of crosshead travel [µm/Impuls] | 0.0041 |
| Position accuracy [µm] | 0.5 |
| Item no. | • 640006 |
| | (BPC-F1200EN.R16) |

| 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 ^{1 2} [V] | 400 |
| Mains frequency [Hz] | 50 / 60 |
| Drive power | |
| without specimen grips [kVA] | 20 |
| with hydraulic grips [kVA] | 28.5 |
| Fuse [A] | 50 |
| Noise level at 1 m distance [dB(A)] | < 70 |
| Color coating of rack | RAL 7011 (iron gray), RAL 7038 (agate gray) |

¹ Three phase AC motor (L1, L2, L3), neutral wire N, protective earth PE

² < ± 10 % related to the mains voltage