

Product Information

Materials testing machines with hybrid drive Z1600Y and Z2000Y

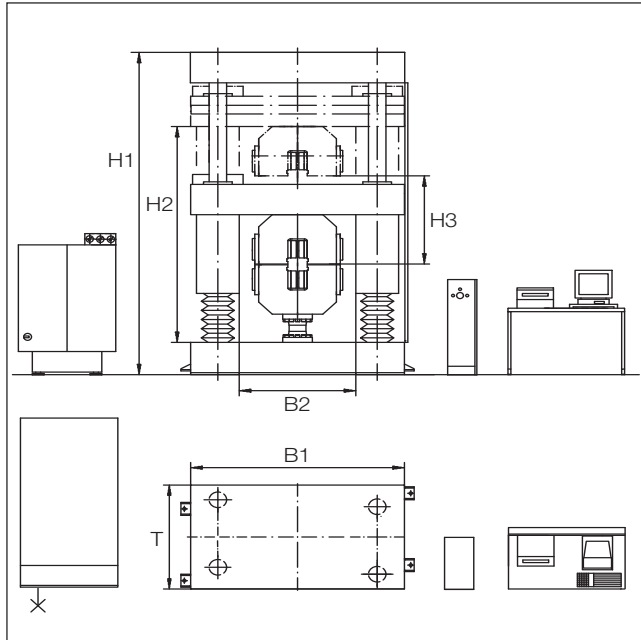


Figure: Zwick Z1600Y with hydraulic grips

Key benefits

- These patented materials testing machines are fitted with a hybrid drive and two hydraulic working cylinders, on each side of the test area.
- High-resolution, channel-synchronized measurement technology provides extremely precise, accurate determination of material characteristic values. No range-switching is necessary as load signal resolution is available over the whole range.
- Patented Zwick hybrid drive for large test loads covers the widest possible specimen range.
- Hybrid drive combines the advantages of hydraulic load application (simple load generation, robust, low wear) with mechanical precision (high positional accuracy of $\pm 1 \mu\text{m}$ under load).
- Hybrid drive concept separates load generation from drive control, allowing test conditions to be reproduced with a very high degree of accuracy.

Further advantages and features

- Wide measuring range allows precise determination of even small test loads without re-tooling.
- Long travel combined with comparatively low build-height ensures trouble-free specimen clamping and convenient testing over a wide range of specimen lengths.
- 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) can very easily be installed by means of a T-slot or screw system.
- Can be tailored to customers' specific requirements (e.g. test devices, specimen grips, test speed ranges, testing software).

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Model	Z1600Y	Z2000Y
Fmax [kN]	1600	2000
[lb]	360000	450000
Number of drive columns	2	2
Stiffness of load frame		
crosshead deflection and elongation of columns [kN/mm]	2200	2200
Dimensions of load frame		
H1 – Height [mm]	3725	3725
B1 – Width [mm]	2400	2400
T1 – Depth [mm]	1200	1200
Dimensions of test area		
H2 – Height [mm]	2495	2495
B2 – Width [mm]	1200	1200
Test stroke max.		
H3 – with hydraulic grips (including load cell) [mm]	1020	1020
Test speed [mm/min]	0.001 – 250	0.001 – 250
Weight		
without tools / specimen grips (with electronics) [kg]	19750	19750
including pair of specimen grips [kg]	22000	22000
Specific floor loading [kg/cm ²]	4.4	4.4
Accuracy grade of load cell		
0,5 from ... on [kN]	16	20
1 from ... on [kN]	3.2	4
Resolution of crosshead travel [µm/Impuls]	0.04	0.04
Item no.	• 016138 (BXC-F1600YN.R45-001)	• 640276 (BXC-F2000YN.R45-001)

Environmental conditions		
Operating temperature [°C]	+10 ... +35	+10 ... +35
Storage temperature [°C]	-25 ... +55	-25 ... +55
Humidity range (not condensing) [%]	≤ 90	≤ 90
Electrical connection		
Mains voltage 3 Ph/N/PE ^{1 2} [V]	400	400
Mains frequency [Hz]	50	50
Drive power [kVA]	24	24
Fuse [A]	40	40
Noise level in 1m distance [dB(A)]	76	76
Color coating of rack	RAL7011 (iron gray), RAL7038 (agate gray)	

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

² < ± 10 % related to the mains voltage