Zwick / Roell

Zwick
Materials Testing

Product Information

Materials testing machine with hybrid drive Z600Y

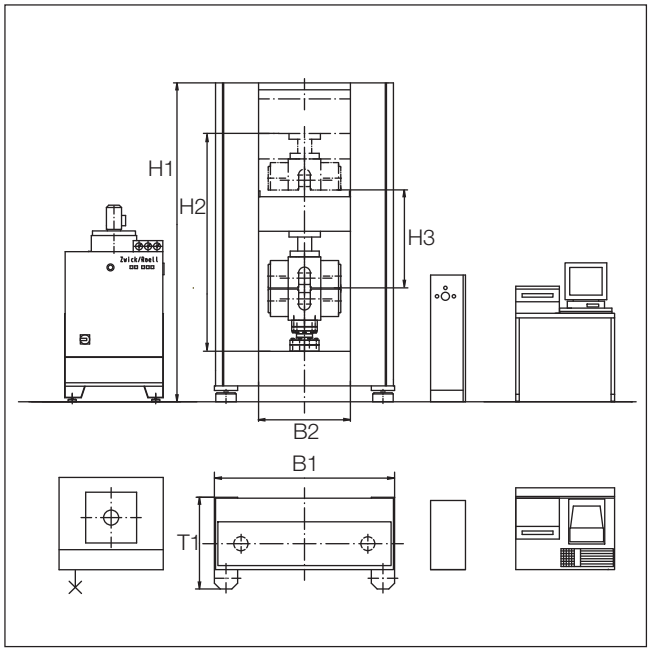

Figure: Drawing of Z600Y with hydraulic grips

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 ±1 µm 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	Z600Y
Fmax [kN]	600
[lb]	135000
Number of drive columns	2
Stiffness of load frame	
crosshead deflection and elongation of columns [kN/mm]	550
including load cell, hydraulic grips and drive [kN/mm]	260
Dimensions of load frame	
H1 – Height [mm]	2770
B1 – Width [mm]	1550
T1 – Depth [mm]	796
Dimensions of test area	
H2 – Height [mm]	1895
B2 – Width [mm]	790
Test stroke max.	
H3 – with hydraulic grips 8597 (including load cell) [mm]	850
Test speed [mm/min]	0.001 – 250
Weight	
without tools / specimen grips (with electronics) [kg]	2600
with specimen grips [kg]	3200
Specific floor loading [kg/cm²]	5.0
Accuracy grade of load cell	
0,5 from ... on [kN]	6
1 from ... on [kN]	1.2
Resolution of crosshead travel [µm/Impuls]	0.05
Item no.	• **003092** (BPC-F0600YN.R06)

Enviromental 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
Drive power [kVA]	8.5
Fuse [A]	25
Noise level in 1m distance [dB(A)]	67
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

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