

Product Information

Floor testing machines Z250 of the AllroundLine with lateral test area



AllroundLine Z250 SNS (lateral test area)

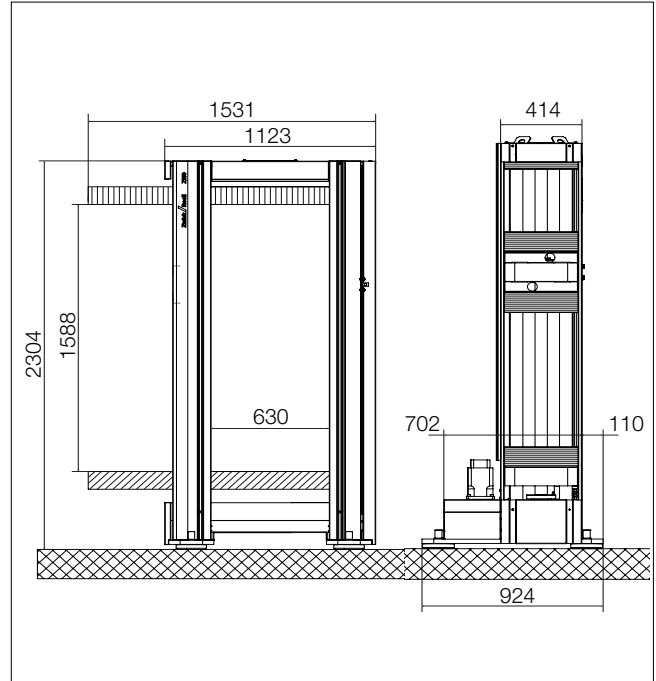


Illustration: AllroundLine Z250 SNS (lateral test area)

General advantages of AllroundLine with Zwick testControl II electronics

Modern load-frame design

- Drive is via maintenance-free, digitally controlled AC drive technology, which in combination with the innovative motor feedback system ensures excellent constant velocity properties, even at very low speeds.
- Mechanical connections with large mating surfaces and robustly dimensioned components ensure a high level of machine stiffness, which in combination with precise crosshead guidance minimizes undesirable mechanical influences on the specimen.

Innovative electronics

The new testControl II measurement and control electronics provide the ideal basis for precise, reproducible test results. Impressive features include new drive technology, high measured-value acquisition-rates and a high level of modularity (full details on Page 2).

Highest safety standards

The statutory safety requirements of the EC Machinery Directive are implemented in all AllroundLine machines, which then receive the EC Declaration of Conformity. Only the latest safety technologies and proven industrial components are used. A very high level of safety is guaranteed for user, test results, specimen material and testing system.

Future-proof

Modular design means that the testing system can be re-equipped or upgraded whenever required. Moreover, the testControl II control electronics are compatible with the future generation of Zwick software, with spare parts available for a minimum of ten years after the product has been discontinued.

Key advantages of the lateral test area

- Operating height can be set at a convenient level in both test areas
- Avoids the need for re-equipping, saving time and money
- Provides maximum application options while occupying a minimum of space

Product Information

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Type	Z250 SNS
Item number	1018386
Load frame	
Test load F_N in tensile/compression direction	
Test area	250 kN
Lateral test area	50 kN
High	2304 mm
Width	1531 mm
Width with electronics console	1772 mm
Depth	924 mm
Test area width ⁽¹⁾	
Test area	630 mm
Lateral test area	630 mm
Test area height ⁽²⁾	
Size: lower, crosshead bottom	1588 mm
Test area height lateral test area ⁽²⁾	
Size: lower, crosshead bottom	1588 mm
Overall weight with electronics	1870 kg
Finish	RAL 7021 black grey and RAL 7038 agate grey
Ambient temperature	+10 ... +35 °C
Air humidity (non-condensing)	20 ... 90 %
Noise level at maximum test speed	70 dB (A)
Drive system	
Motor	AC servo-motor with concentrated windings Hiperface® motor feedback system
Motor holding brake	yes
Input signal, set-value preset	digital (real-time Ethernet, EtherCAT®)
Controller / Cycle time	adaptive / 1000 Hz
Positioning, repetition accuracy on the crosshead	± 2 µm
Crosshead speed up to 110% of the test load ($V_{min} \dots V_{Nom}$)	0.00005 ... 600 mm/min
Increased crosshead return speed (at reduced force)	1000 mm/min
Drive system's travel resolution	0.19227 nm

A high-quality DCSC measurement module for a load cell is included in delivery (occupies one module bus slot).

⁽¹⁾ Test area width: the daylight between the side panels.

⁽²⁾ Test area height: the max. distance of the moving crosshead to the upper, i.e. lower crosshead, without any mountings.

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Type	Z250 SNS
Item number	1018386
Measurement and control electronics	
Number of slots available for measurement and control modules	2 synchronized module bus slots (expandable to 5)* 1 synchronised PCIe slot
Force measurement	grade 0.5 / 1 see load cell, to DIN EN ISO 7500-1, ASTM E4,
Calculated resolution (for example in tensile / compression direction)	24 bits
Data acquisition rate, internal	400 kHz
Test data transmission rate to the PC	500 Hz (optional 2000 Hz)
Zero-point correction	automatically at measurement begin
Measurement signal runtime correction for all channels	yes
Interface for PC	Ethernet
Eco Mode	yes, power section automatically switched off (time adjustable)
CE conformity	yes, according to machine guidelines 2006/42/EG
Power ratings	
Mains frequency	50/60 Hz
Electrical connections	400 V +/-10% (3Ph, N, PE)
Power rating	6 kVA

A high-quality DCSC measurement module for a load cell is included in delivery (occupies one module bus slot).

testControl II - options, e.g.

Description	Item number
Option testControl II plus: Expansion of electronics to 6 slots.	1008208
2000 Hz Online test data transmission: Increasing the test data transmission from 500 Hz (standard) to 2000 Hz. The test data is transmitted to testXpert II, and is processed in real-time.	057860
Display remote control for testControl II for effective, ergonomic operation of the materials testing machine	057984