

## Product Information

### Materials testing machine Z150 of the AllroundLine



Z150 TL

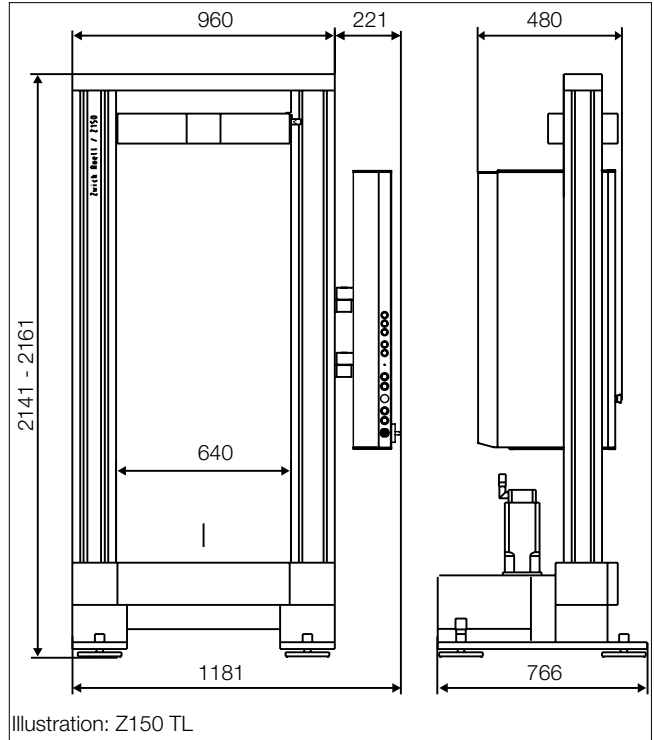


Illustration: Z150 TL

#### 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.
- The materials testing machines are equipped with a patented, flexurally stiff hollow profile with guide cylinder, while long crosshead guides with a large surface area provide extremely precise guidance. This combination minimizes undesirable mechanical influences on the specimen.
- Integral T-slots in the profile ensure flexible mounting options.

##### High level of operator convenience

- Ergonomics are top priority when it comes to operating the new AllroundLine machine.
- Adjustable for optimum ergonomic configuration; modular design allows adaptation as and when required.
- Base design features damping elements with leveling facility plus space for lift truck access - easily adapted to suit the installation site.

#### 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.

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Type	Z150 TL	
Item number	1004503	
<b>Load frame</b>	Test load $F_N$ in tensile/compression direction	150 kN
	Height (with base) x Width (with electronics console) x Depth	2141 (2161) mm x 960 (1181) mm x 766 mm
	Test area width	640 mm
	Height of the lower test area, without accessories	1535 mm
	Height of the upper test area, without accessories	1545 mm (top crosshead required)
	Overall weight with electronics console	750 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 speed	64 dB(A)
<b>Drive system</b>	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 test load ( $v_{min} ... v_{Nom}$ )	0.0001 ... 900 mm/min
	Increased crosshead return speed (at reduced force)	1500 mm/min
	Drive system's travel resolution	0.28841 nm
<b>Measurement &amp; control electronics</b>	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 (e.g. 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 by default switched off (time adjustable)
	CE conformity	yes, according to machine guidelines 2006/42/EG
<b>Power ratings</b>		
Mains frequency	50/60 Hz	
Electrical connections	400V +/-10% (3Ph, N, PE)	
Power rating	5.5 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	<b>1008208</b>
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.	<b>057860</b>
Display remote control for testControl II for effective, ergonomic operation of the materials testing machine	<b>057984</b>
Base to place a Zwick table-top machine, with a drawer	<b>325288</b>
Options on request, e.g.: CE-compliant electrically lockable safety device, mounting platforms	