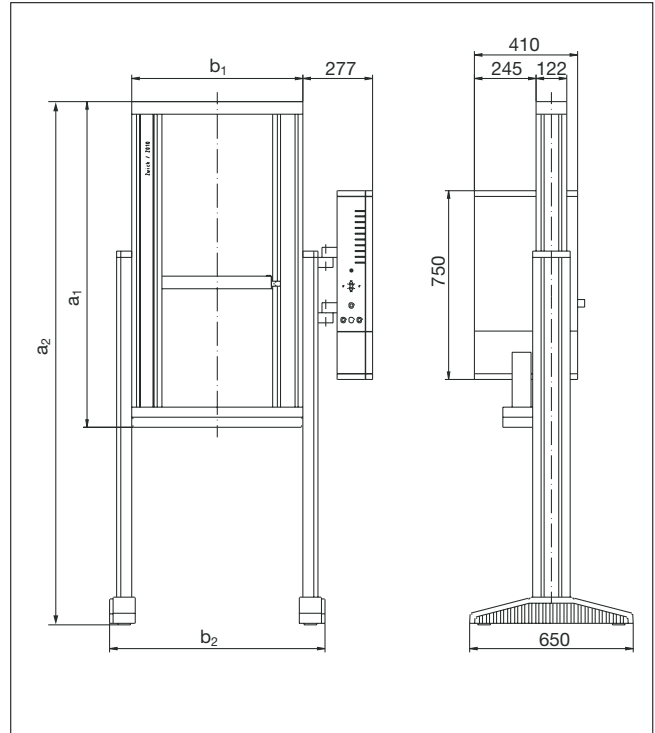


Product Information

Table-top machines Z005 up to Z020 of the Allround-Line



Picture and drawing include machine with leg profiles (option)

General advantages of the Allround-Line with the Zwick electronics *testControl*

System of simplest operation

- Operation with standard PC and *testXpert*® software for highest operator comfort, analysis and statistical data processing
- Operation without PC via option „Stand Alone“ with colour display and direct data management
- Automatic sensor detection and intelligent help for all dangerous and error situations

System of most modern technology

- Highest machine availability by use of maintenance free AC servo drives with direct mains supply and real time operating system
- Controlled drive and positioning through adaptive control and fully automatic controller adjustment
- Testing to standards at rapid processes via 500 Hz online test data transmission

System with modular design

- Modular system for mechanics, software and electronics for low price configurations to suit requirements

- One additional module slot for connecting a further measurement system, optionally 3 additional slots

System with future

- High investment security through individual configuration possibilities
- Compatibility concept for continuous component expansion
- Continuous further development of the „system test machine“
- ISO 9000 and CE conformity

Special advantages of the table-top machines

- Setup on a table or on leg profiles for positioning the test area at optimum operating height
- Value for money solution for standard test tasks
- Wide, easy accessible test area
- Compact construction through patented aluminium profile load frame construction with concentric arrangement of the drive lead screw and crosshead guide
- T-slots for simple mounting of machine accessories

Product Information

Table-top machines Z005 up to Z020 of the Allround-Line

Data	Value
Load frame	
Finish	RAL 7011 iron grey and RAL 7038 agate grey
Ambient temperature	+ 10 ... + 35 °C
Air humidity	20 ... 90 %
Drive system	
Positioning, repetition accuracy	± 2 µm
Permissible feedback energy at cyclic tests	Diagram available upon request
Measurement and control electronics	
Force measurement	Grade 0.5 / 1 see load cell, to DIN EN ISO 7500-1 (DIN 51220, DIN 51302), ISO R147, ASTM E4, BS 1610 Grade A, NF A 03-501
Measurement range	up to 165 % of F_N
Real resolution in tensile / compression direction	162.000 ... 912.000 points
Recording rate, internal	500 Hz
Test data group transmission rate to the PC	100 (500 optional) Hz
Zero-point correction	Automatic at measurement begin
Measurement signal runtime correction for all channels	Yes
Output interface	RS 232
Required PC connection (for PC operation)	COM 1
Power ratings	
Mains frequency	50/60 Hz

testControl plus

Description	Order item
Option <i>testControl plus</i> : Additional basic equipment of the measurement and control electronics <i>testControl</i> with two slots.	TC-OPPLUS

Options on request, e.g.

- Supplementary crossheads
- Safety shields
- Precision crosshead guide
- Leg profiles
- 500 Hz Online test data processing and further options for the electronics
- Test equipment

Product Information

Table-top machines Z005 up to Z020 of the Allround-Line

Order item	T1- FR005TN.A50	T1- FR005TH.A50	T1- FR005TE.A50 ¹²	T1- FR005TNW.A50	T1- FR005THW.A50	T1- FR005TEW.A50 ¹²	T1- FR010TN.A50	T1- FR010TH.A50	T1- FR010TE.A50 ¹²	T1- FR010TNW.A50	T1- FR010THW.A50	T1- FR010TEW.A50 ¹²	
Load frame													
Test load F_N in tensile / compression direction	5	5	5	5	5	5	10	10	10	10	10	10	kN
Test area width	440	440	440	640	640	640	440	440	440	640	640	640	mm
Height of the lower test area, without accessories	1058	1458	1807	1018	1418	1787	1058	1458	1807	1018	1418	1787	mm
Height of the upper test area, without accessories /supplem. crosshead required)	1034	1434	1805	994	1394	1785	1034	1434	1805	994	1394	1785	mm
Height without leg profiles a_1	1299	1699	2059	1319	1719	2099	1299	1699	2059	1319	1719	2099	mm
Height with leg profiles a_2	1545 ... 2114	1814 ... 2714	2174 ... 3054	1565 ... 2134	1834 ... 2734	2214 ... 3094	1545 ... 2114	1814 ... 2714	2174 ... 3054	1565 ... 2134	1834 ... 2734	2214 ... 3094	mm
Width without leg profiles b_1	680	680	680	880	880	880	680	680	680	880	880	880	mm
Width with leg profiles b_2 (and electronics console) ¹⁾	856 (1045)	856 (1045)	856 (1045)	1056 (1245)	1056 (1245)	1056 (1245)	856 (1045)	856 (1045)	856 (1045)	1056 (1245)	1056 (1245)	1056 (1245)	mm
Depth without leg profiles	410	410	410	410	410	410	410	410	410	410	410	410	mm
Depth with leg profiles	650	650	650	650	650	650	650	650	650	650	650	650	mm
Overall weight with electronics console, without leg profiles	150	160	175	220	235	250	150	160	175	220	235	250	kg
Noise level at maximum speed	67	67	67	≤ 70	≤ 70	≤ 70	64	64	64	≤ 70	≤ 70	≤ 70	dB(A)
Drive system													
Crosshead speed	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	mm/min
$V_{min} \dots V_{Nom}$... 3000	... 3000	... 3000	... 3000	... 3000	... 3000	... 2000	... 2000	... 2000	... 2000	... 2000	... 2000	
Accuracy of the set speed	0.03	0.03	0.03	0.03	0.03	0.03	0.005	0.005	0.005	0.005	0.005	0.005	% of v_{Nom}
Drive system's travel resolution	0.041	0.041	0.041	0.041	0.041	0.041	0.0272	0.0272	0.0272	0.0272	0.0272	0.0272	μm
Power ratings													
Electrical connections ³⁾	230	230	230	230	230	230	230	230	230	230	230	230	V(Ph,N,PE)
Power rating	2	1.9	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	kVA

¹⁾ For electronics with option „Stand Alone“ increases the width by 45 mm

²⁾ Leg profiles are included in the scope of supply of this test machine

³⁾ Power supply: 230 V: 50/60 Hz, 1Ph/N/PE

Product Information

Table-top machines Z005 up to Z020 of the Allround-Line

Order item	T1- FR020TN.A50	T1- FR020TH.A50	T1- FR020TE.A50 ²	T1- FR020TNW.A50	T1- FR020THW.A50	T1- FR020TEW.A1K ²	
Load frame							
Test load F_N in tensile / compression direction	20	20	20	20	20	20	kN
Test area width	440	440	440	640	640	640	mm
Height of the lower test area, without accessories	1058	1458	1807	1018	1418	1787	mm
Height of the upper test area, without accessories /supplem. crosshead required)	1034	1434	1805	994	1394	1785	mm
Height without leg profiles	1299	1699	2059	1319	1719	2099	mm
Height with leg profiles	1545 ... 2114	1814 ... 2714	2174 ... 3054	1565 ... 2134	1834 ... 2734	2214 ... 3094	mm
Width without leg profiles	680	680	680	880	880	880	mm
Width with leg profiles (and electronics console) ⁽¹⁾	856 (1045)	856 (1045)	856 (1045)	1056 (1245)	1056 (1245)	1056 (1245)	mm
Depth without leg profiles	410	410	410	410	410	410	mm
Depth with leg profiles	650	650	650	650	650	650	mm
Overall weight with electronics console, without leg profiles	150	160	175	220	235	250	kg
Noise level at maximum speed	61	61	61	61	61	64	dB(A)
Drive system							
Crosshead speed	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	mm/min
$v_{min} \dots v_{Nom}$... 1000	... 1000	... 1000	... 1000	... 1000	... 2000	
Accuracy of the set speed	0.003	0.003	0.003	0.003	0.003	0.009	% of v_{Nom}
Drive system's travel resolution	0.0136	0.0136	0.0136	0.0136	0.0136	0.0543	μm
Power ratings							
Electrical connections ⁽³⁾	230	230	230	230	230	230	V
Power rating	2.1	2.1	2.1	2.1	2.1	2.6	kVA

⁽¹⁾ For electronics with option „Stand Alone“ increases the width by 45 mm

⁽²⁾ Leg profiles are included in the scope of supply of this test machine

⁽³⁾ Power supply: 230 V: 50/60 Hz, 1Ph/N/PE