

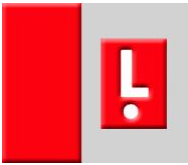


Logalkor Solutions

www.logalkor.com

LGZ Small Universal Tensile Testers





LGZ- series Standard Machines

For tension and compression

made of massive Aluminum and stainless steel ball bearings and ball screws

Z3-X500 3 kN small tensile tester movement 500mm distance 66mm

Z5-X500 5kN dto but 5kN

Z3-X1200 longer version with movement 1200 mm

Z5-X1200 5kN dto but 5kN

Z10-X700 10 kN version 700 mm movement with two guides width 400mm

Z10-X1200mm 10 kN version 700 mm movement with two guides width 600mm

Z10-X1200mm 10 kN version 1200 mm movement with two guides

Heavy machine, two guides width 428 movement 700mm or 1200mm

Z20-X700, Z20-X1200 20kN

Z30-X700, Z30-X1200 30kN

Z50- X700, Z50 -X1200 50 kN

AC-Servo System Stöber

Microprocessor controlled standalone (working without external computer)

Interface USB

2 line LCD shows force and distance for Standalone Modus

Measuring length with HP-Encoder

accuracy to be seen on LCD 0.01 mm (internal 0.0001 mm)

Standard load cell: 0.03% linearity with calibration certification

AD counter makes 24 Bit with 6.35 /sec With 50 Measurements per sec 21 Bit

Guaranteed Resolution with a standard load cell to be seen is $\pm 100\ 000$ parts with a rate of 50 Hz per second in standard delivery

resolution with 50 measures per second is $10\text{kN}/100000 = 0.1\text{N}$ or 0.022lbf pound

if it is necessary resolution can be switched up to 2 000 000 with less speed 6.25 values per second

– useful only with special high precision load cell

Optional we can add a second channel for a second load cell or an extensiometer

(10kN = 2248 pound)

Load Cell Data

MINIMUM RANGE	25%	b) service load	100%
COMBINED ERROR	< +/- 0.04%	c) max. permissible load	120%
NON REPEATABILITY FS	< +/- 0.01%	d) breaking load	>300%
Creep % FS 30 min. 20 MIN	< +/- 0.03	e) max. side load	100%
TEMPERATUR EFFECT 10°C		PROTECTION CLASS 50..1kN	IP64
on zero	< +/- 0.05 %	2kN ... 100kN	IP65
on span	< +/- 0.1 %	Potted and seal	50N ... 5000N
NOMINAL SENSITIVITY +/-0.01	3mV/Volt	Potted and metal seal	10kN ... 200kN
INPUT RESISTANCE	385 +/- 10 Ohm	NOMINAL TEMP. RANGE	- 10/+40 °C
OUTPUT RESISTANCE	350 +/- 3Ohm	SERVICE TEMP. RANGE	-20/+70 °C
ZERO BALANCE FS	+/-1.0%	CELL MATERIAL (Nickel Plated)	Tool Steel
SUPPLY VOLTAGE	5V - 15 Volt	CABLE	Ø5 x 5 meter



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Software for Stand Alone Usage

Machine is able to work without PC two Modes:

1) Constant speed regulation

During test machine shows actual values of force and load. After the test it shows the maximum value of the force and the max. extension.

Break force and Break Position is also visible

2) Constant force regulation

Machine tries to keep force constant during an adjustable time.



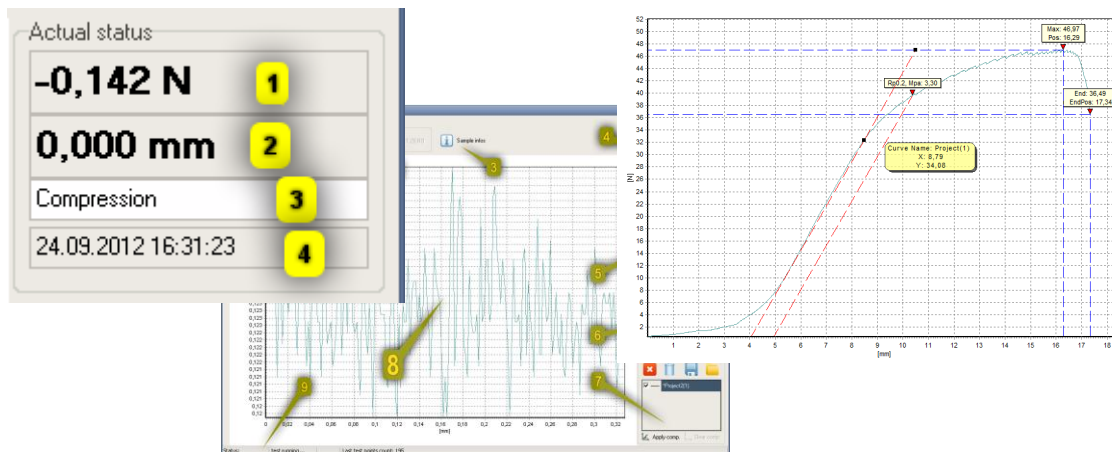
Program in machine can be changed via PC and USB (via Downloader)

Languages switchable on LCD: German, English, Spanish, French Danish, Italian

Windows Programm

Program for Microsoft Windows XP, Windows 7, 8 to move machine, collect and save data is included in basis delivery

It also contains a printout and statistic



Sound

28 dBA without load

41 dBA with a speed of 100mm/min

56 dBA with a speed of 500mm/min

Scope of delivery

Machine, Loadcell, 220 Volt cable, USB cable, Software on CD, Description, CE conformity declaration, Package

All machine from family LGZ3-LGZ10 have a Trafo for 110/220V

We deliver a Voltage selector. For Z3 and Z10 to work on 110-115V and 220-240V with 50-60Hz net.

Standard machines are configured to work in 220V mode

Warranty 1 year without travel cost



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	LGZ3		LGZ5		LGZ10		LGZ20		LGZ50		LGZ100	
Max speed [mm/Min]	700		700		600		1600		1600		1000	
min speed [mm/Min]	1		1		1		0.03		0.03		0.02	
Smallest free distance [mm]	66		66		200		209		209		228	
Adapter Size [mm]	15.9		15.9		15.9		31.8		31.8		40/12	
Motor [Watt]	50		90		170		800		1600		2400	
Voltage [-V]	220/110		220/110		220/110		380		380		380	
Motor type	DC		DC		DC		AC-Servo		AC-Servo		AC-Servo	
Producer	Maxon		Maxon		Maxon		Stöber		Stöber		Stöber	
Movement [mm]	500	1200	500	1200	700	1200	700	1200	700	1200	700	1200
Weight [kg]	36	37	55	56	80	105	235	260	245	270	380	420
Dimensions [mm]	1036 390 300	1677 390 300	1036 390 300	1677 390 300	1226 *640 *240	1726 640 240	1317 1071 433	1837 1071 433	1317 1071 433	1837 1071 433	1450 1090 590	2050 1090 590
Packing Dimensions [mm]	1150 *500 *400	1800 *500 *400	1150 *500 *400	1800 *500 *400	1315 *740 *400	1916 740 400	1900 1200 800	1900 1200 800	1900 1200 800	1900 1200 800	1600 1200 800	2100 1200 800

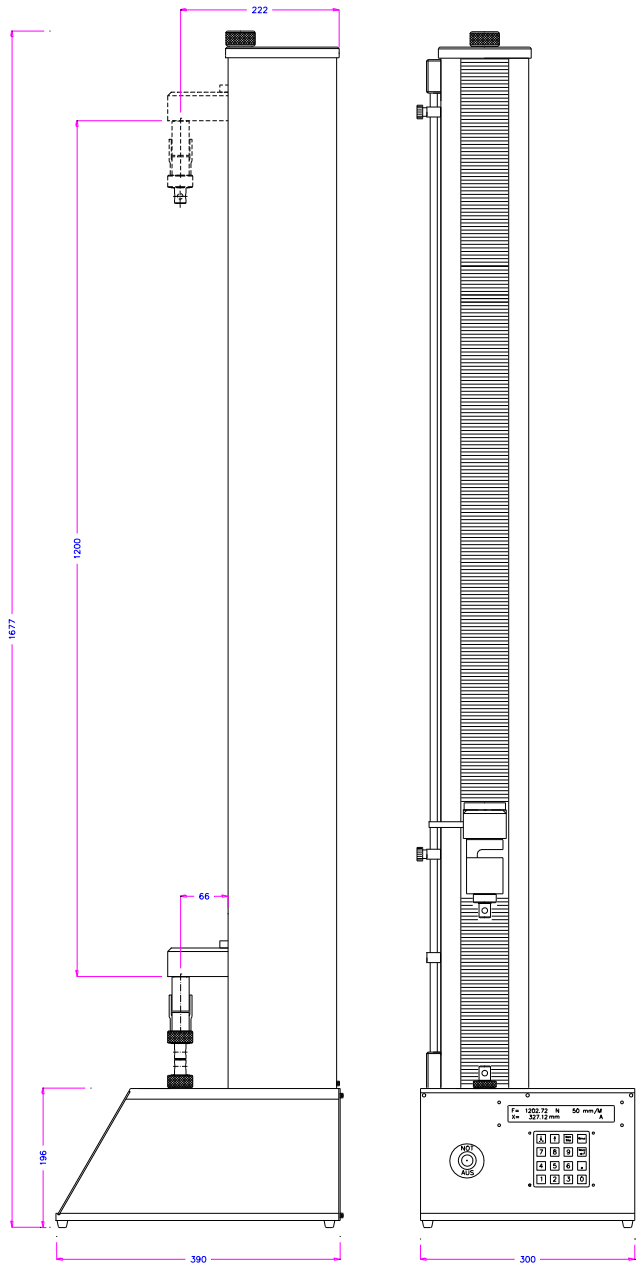


LGZ3- LG Z5-X500 3kN, 5 kN version 500mm movement small universal tensile tester



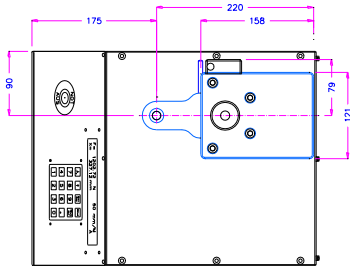
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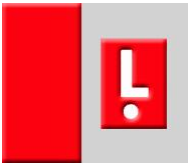


Z3-X1200

Z5-X1200

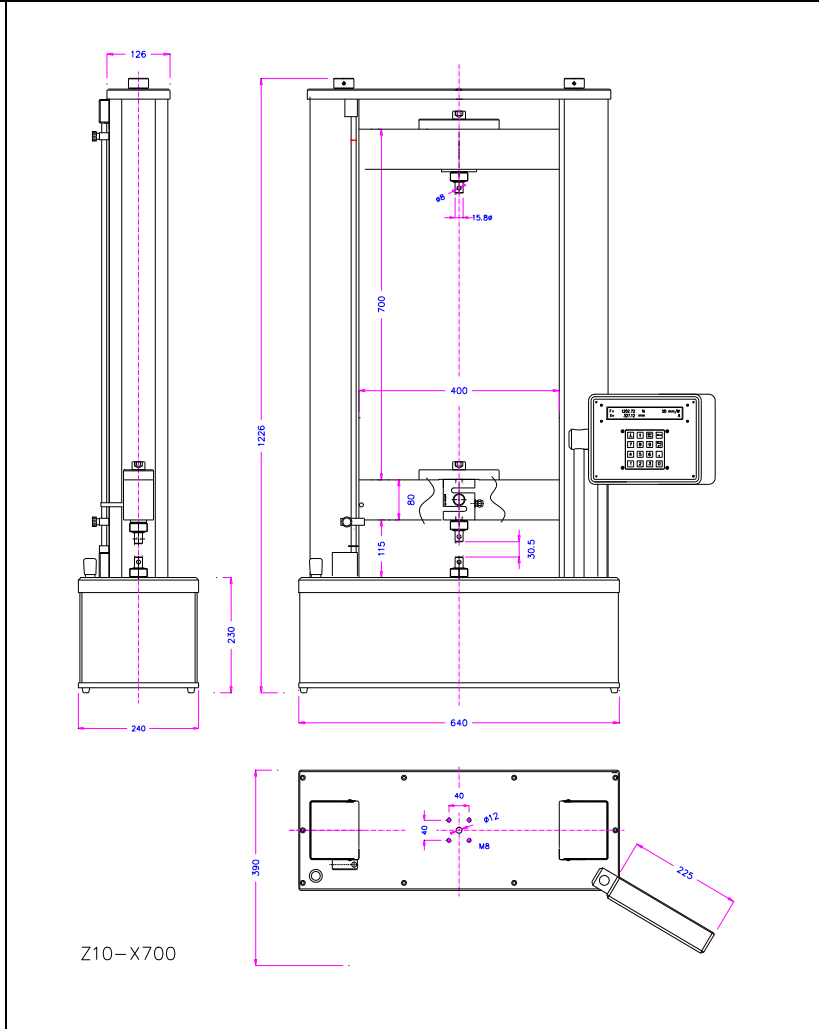


LGZ3- LGZ5-X1200 1200mm



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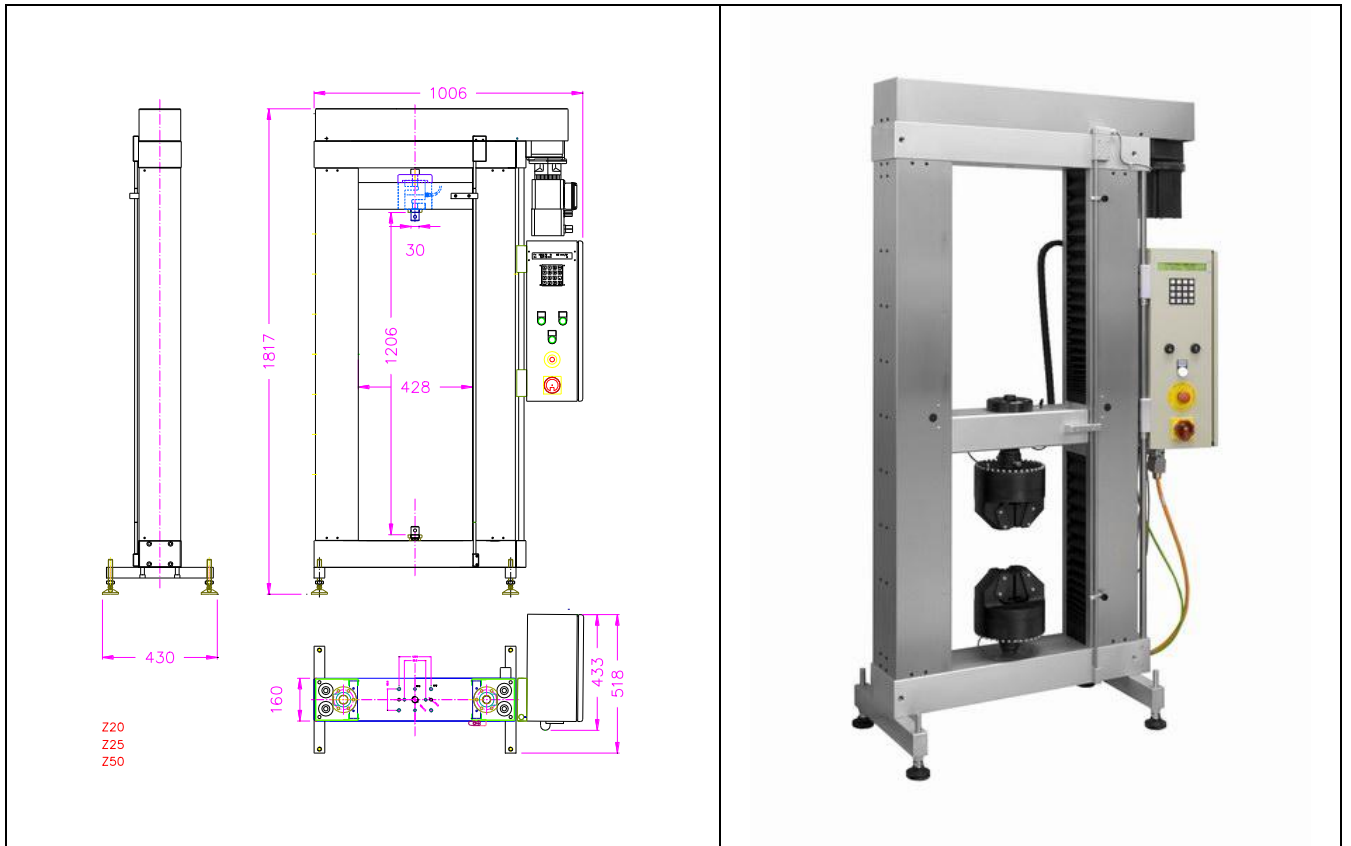


Z10-X700 10kN 700mm 400mm width



LGZ10-X700-W600 600mm width

LGZ10-X1200 + TH126+BW



Z20
Z25
Z50

**Strong Universal Tensile Tester LGZ20 and LGZ50
(TH175-50 pneumatic wedge grip 50kN)**



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LGZ20- LGZ25- LGZ30- LGZ50-X700
700mm movement



LGZ100-X700





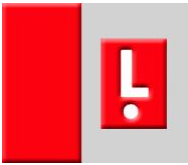
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Optional



Z-Mp Miniprinter



Example for a local testreport

Willemsen Prüfservice

Kalibrierlaboratorium für Werkstoffprüfmaschine "Kraft"

Willemsen Prüfservice Daimlerstrasse 47 D-76316 Malsch	Tel.: +49 / (0)7246 - 943 314 Fax: +49 / (0)7246 - 943 315 Email: Antonius.Willemsen.WPS@t-online.de
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Kalibrierschein	Kalibrierzeichen	2006 WPS 0261 08-06
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Seite 1 von 3

Gegenstand:	Kraftaufnehmer 3 kN
Machine	TH2730-04-585-2006
Hersteller:	Nordic Transducer
Typ:	Z-Profil - PA610
Seriennummer:	51 61 48 (2.983 mV/V / KF=1.000)
Auftraggeber:	Thümler GmbH 90455 Nürnberg
Standort:	Montage 1. Stock Rechts
Auftragsnummer:	125/2006/0260 (Abnahme)
Anzahl der Seiten des Kalibrierscheines:	3
Datum der Kalibrierung:	31-08-2006
Gültig bis:	Ende 08-2007

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen bedürfen der Genehmigung des ausstellenden Kalibrierlaboratoriums.

Stempel	Datum	Leiter des Laboratorium	Bearbeiter/Prüfer
W.P.S. Daimlerstr. 47 76316 MALSCH	31-08-2006	 Antonius Willemsen	 Antonius Willemsen



Willemsen Prüfservice Kalibrierschein "Kraft"

2006
WPS
0261
08-06

Seite 2 von 3

Kalibriereinrichtung: 5 kN 1110AF - DKD-K-15501-N 0904-05-10

Anschlussmessunsicherheit: 0,07 % der eingestellten Kraftstufe

Angaben zur Kalibrierung

Umgebungstemperatur: 22 °C

Angaben zum Aufnehmer

Nullsignal: -0,00294 mV/V Krafteinleitung: DIN 376

Angaben zum Kabel

Länge: 3,15 m Verlängerung: Keine

Ausführung: 6 - adrig Ausgeberanschluss: 6-Leiter

Angaben zum Ausgeber

Verstärkertyp: USB-1 S. Nummer: 237

Messbereich: +/- 7,5 mV/V Messstelle: Kanal 1

Speisespannung: 5V DC Filter: Keine

Kalibriersignal: 3,78397 mV/V Anschlussart: 6-Leiter

Angaben zum Anzeiger

Anzeigertyp: Notebook Software: ISO 7500

Kalibrierverfahren

- 1- 3-malige Vorbelastung vor Kalibrierung in der jeweiligen Kraftrichtung mit 100 % der Nennkraft.
- 2- Dokumentieren der Anzeigewerte bei zunehmender Kraft: Messreihe R1, R2 und R3.



Willemsen Prüfservice Kalibrierschein "Kraft"

Seite 3 von 3

2006
WPS
0261
08-06

Tabelle 1		Anzeigewerte in Richtung:			Druck in N	
Kraft in N	unveränderte Einbaulage			Mittelw.	Anz. Abw. in %	rel. Spannsw. in +/-%
	R1	R2	R3			
0	0,0	0,0	0,0	0,0	0,0	0,00
300	300,290	299,900	300,040	300,077	0,03	0,13
600	600,800	600,060	600,400	600,420	0,07	0,12
1.200	1.199,600	1.199,000	1.198,400	1.199,000	-0,08	0,10
2.000	1.998,000	1.999,400	1.999,400	1.998,933	-0,05	0,07
3.000	2.997,000	2.997,500	2.998,000	2.997,500	-0,08	0,03
0	0,000	0,000	0,000	0,000		

Tabelle 2		Relative Restanzeigen bezogen auf Kalibrierhöchstkraft.			
	R1	R2	R3	Mittelw.	
	0,00	0,00	0,00	0,00	

Ergebnisse sind auf 0,01 % gerundet

Tabelle 3		Anzeigewerte in Richtung:			Zug in N	
Kraft in N	unveränderte Einbaulage			Mittelw.	Anz. Abw. in %	rel. Spannsw. in +/-%
	R1	R2	R3			
0	0,0	0,0	0,0	0,0	0,0	0,00
300	299,700	299,000	299,400	299,367	-0,21	0,23
600	598,600	598,000	597,200	597,933	-0,34	0,23
1.200	1.195,600	1.196,600	1.197,000	1.196,400	-0,30	0,12
2.000	1.994,000	1.994,000	1.994,400	1.994,133	-0,29	0,02
3.000	2.991,100	2.991,100	2.991,500	2.991,233	-0,29	0,01
0	0,000	0,000	0,000	0,000		

Tabelle 4		Relative Restanzeigen bezogen auf Kalibrierhöchstkraft.			
	R1	R2	R3	Mittelw.	
	0,00	0,00	0,00	0,00	

Ergebnisse sind auf 0,01 % gerundet



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Videos on youtube	
http://www.youtube.com/my_videos_edit?ns=1&video_id=rfBVbZLSV9I	Z10 how Menu works on tensile tester
http://www.youtube.com/my_videos_edit?ns=1&video_id=vCEDAM73IG0	Z10 how to fix grip and sample in tensile tester
http://www.youtube.com/my_videos_edit?ns=1&video_id=H2-3eP7H3JU	Z10 how to set constant force regulation on tensile tester
http://www.youtube.com/my_videos_edit?ns=1&video_id=7Rm7jjNw0aM	Z10 how to make a test with tensile tester
http://www.youtube.com/my_videos_edit?ns=1&video_id=xHcOG2hYQLQ	Z10 tensile test of a rope and Windows Program