

User Manual

UTM-65A/B



Universal Testing Machine

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MRC.11.16

Introduction

To user:

We appreciate it very much that you choose our product. Please read our manual carefully before you use it. We provide one year quality assurance and the consummation after-sale service. If during the using process, you discover any question, please promptly relate with us.

Thanks your trust and the support sincerely!

Special statement:

- This manual is not the requiremnet basis for the buyer.
- This operation manual final explanation power belongs to this company.

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[User Introduction]

1.1.Please read this manual carefully before you operate equipment and check equipment state which may cause damage through transports when you open packing.

1.2.Please carry on the experimental operation strictly according to the testing method which the instruction book gives.

1.3.Please operate the equipment in the equipment parameter area.

1.4.Instrument damage which causes because of the operators contrary operation, this company will not undertake any responsibility.

1.5.Personal injuries which causes because of the operators contrary operation, this company will not undertake any responsibility.

1.6.If instrument stops using for a long time, should check insulation resistance and also make sure safety ground before power on.

1.7. This instrument appears the breakdown in the use process, the user should relate promptly with this company, obtains us to maintenance and technical support.

[Warning labels]

In this manual, in view of the security considerations, please make sure that the user's attention, and use the following important display items, in order to prevent the occurrence of danger or accident, please be sure to observe the following danger, warning signs to remind:

No	Logo	Meaning	No	Logo	Meaning
1	4	Be careful to get an electric shock.	4	\bigwedge	Be careful operation.
2	Ŧ	Must be grounded!	5		It is prohibited to use flammable items.
3	~	Regular maintenance	6		Untouchable

[Equipment Structure]



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[Environmental Conditions]

- Working Environment Temperature : 20 ± 15 (Adhesive industry 23 ± 2);
- Working Environment Humidity : 80% (Adhesive industry 65%±5%) , No condensation phenomenon ;
- Power supply voltage is less than the rated voltage±10%, To ensure products can be normal used and ensured accuracy of test, suggest installing the voltage-stabilized source then use the machine ;
- This product should be installed on the basis of the stable level , Levelness should be better than 0.2mm/1000mm ;
- This product is properly installed, surrounding the surface should be not less than 0.7 m space ;
- Prohibited in the presence of corrosive gas, vibration and magnetic field under the condition of using this product.

[Technical Parameters **]**

Warning: it is strictly prohibited to exceed the rated load testing sensor, otherwise will completely damaged sensor !

Specification	UTM-65A	UTM-65B				
Resolution	1/250000	1/150000				
Test Speed	0.1-500mm/min	50-500mm/min				
Load Cell Capacity	2 kg \cdot 5kg \cdot 10kg \cdot 20kg \cdot 50	0kg、100kg、200kg、500kg				
Force Accuracy	<±0.5%					
Test Stroke	650mm (Not include grips)					
Dimension	500×500×1250r	nm (L×W×H)				
Weight	Abou	t 50kg				
Power	AC220V 50/60HZ					

Note: The sample max force can not exceed the machine load cell capacity.

[Computer Configuration **]**

*Central processing unit (CPU) is Intel Celeron(Celeron) abouve 2GHz.

Memory at least 512MB,Suggest using above 1GB.

*Hard-disk space is above 2GB.

Monitor resolution is above 1024 \times 768.

* Printer is compatible with the operating system. (If you need the output test report.)

*Applicable for Microsoft operating system Windows XP.

* If need to output Word test report, must install MicroSoft Word 2003.

[Software CD] There are two documents in the CD :

- * TM2101Vx.xx---This file is TM2101,Green software that no need to install,you can put it in the anywhere in the computer.
- ※ DriverV8.6----This file is drive program, must install this driver in the computer, then can run TM2101 software.

[Software set up]



Copy TM2101V2.42 Copy **Open old** To anywhere TM2101V2.41 data Open Paste data to **Delete desktop** TM2101V2.42 TM2101V2.42 TestMaster(old) Sent to the Finish Open **Right click** TM2101V2.42 desktop update **TestMater**

[Software upgrading] Example : From TM2101V2.41 update to TM2101V2.42

[Setting before test]

• Select sample data or edit a new sample, such as below :

Jser Settings	Force-Elong.	Force-T	ime Elong	ElongTime		ss-Strain	Force-Elong.	
SpecimenSelect	Rubber	•	dit					
Name	√ Rubber Rubber2	hape	GaugeLength (mm)	Area (mm/	a ^2)	Width (mm)	Thicknes (mm)	
Rubber	Metal	ctangle	100.000	1.00	0	1.000	1.000	

• Choose test methods or edit a new test methods, such as below:

	ProjectSelect	Compression Test	Ed	it			
Stage	e Direction	Tensile Test Peel Test	hift Conditior	ControlValue	PauseTime	ControlPara	extProcesC
1	Compress	✓ Compression Test	Elong.>=	50.000mm	0.000min	100.00	End

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Choose test result or edit a new test result, such as below :

ResultS	elect	Tenslie Strengt	th 💌		Edit			
No.	N	Tenslie Stre Peel Test	ength	ngth	Elongation per (ce Fo %	rce @ Peak (kqf)	
		Bendingl Te	est					
		✓ Tenslie Stre	ength					

[Execute test]

Click **Test** button,Start test,the button in machine will turn to green in suction state,it means it is in testing,and wait the testing finish automatically.

Test result

Finishing test, the test result will save automatically, and Will automatically get the test results. And you can choose other test result item to obtain other test item result.

[Menu Introduction]

XUnit system

Press menu **Setting** → **Unit**

In the unit setting, you can choose unit, choose unit accuracy. Unit system determines the units of the whole system, all the test result is based on the unit.



*****Connect computer

Press **Setting** \rightarrow **Online** \rightarrow Choose correct COM connector to connect computer, such as below :



If connect failure, windows will pop up failure, if connect successfully, it will not pop up. The software will be online automatically in the first time, if connect in success, the software will connect automatically at this COM connector. It can only test in online success.

%Read Data From Machine

Press Setting → Calibration

When you first use the machine and software, you need to calibrate the machine, Read the date from machine to software. Input password rixine, Click ReadFromChip, then OK to save it.

					Calibration				
					ForceSensor	Disp.Sensor	Rubber Extensometer	Metals Extensometer	SystemSetting
IM2101(C) inage Set User 15- 14-	ting Zero Jnit Calibration Dnline Dther	View Help Ctrl+U Ctrl+Shift+C Ctrl+O	kgf Force Force-Time		Spec N Rev Rev Pro	edLimit Max 0 Min: 0 verseDir.Tensile verseDir.Up&Dc vbation	mm/min mm/min &CompressStiffness Coe. ^{wvn} Pulse Output Max. Fedi	0.0000 mm/t 50000 Hz CalibrationPassword	FditRegistCode
13					Up 0.2 Speedm	Stop 0. 000 0.4 0.6 0. m/min)	Down Read ReadFr	itetoChip IFromChip omComputer OK	ZeroForce ZeroStroke ZeroElongation ZeroAll Cancel
MRC LT	TD.	TEL	: 972-3-5595252	Email: mrc@mr	FAX : 972-3	-5594529			12

***Calibration**(About one year a time, once you find the test data is not accurate, you need to calibration the machine)

- Click Setting \rightarrow Calibration , Input password rixine, to enter the menu to calibrate.
- Press Force Sensor ;
- The Measurement is used to input the load cell size, it means max capacity.
- Click **Clear**, Write 0 into the standard weight (it is 0 calibration),
- ◆ Click Snap ;
- Input the correct standard weight in the standard weight.
- Put on the weight , after stable, click **Snap**,
- At last click Write to chip,
- Click OK ,return to the main menu,take off the weight,click Clear ,then put on the weights again to verify the force value, If the deviation is larger, Repeat the calibration steps.

	Force So	ensor					
Calibration							×
ForceSensor	Disp.Se	ensor	Rubber Exter	nsometer	Metals Exte		
					(0.00	Fill stand	ard weight
Channel	^ M	easure	ment 50	ka Mi	nForce: 0.0		rement
50.000kg							
0.000kg		DValu	e 0	Curr Valu	0.0000	ka	
0.000kg		i valu	0			×9	
0.000kg			St	andardWe	ight 0.00000) 😑 kg	
				1			
			AD_Value	itandard	Weight(kg		
		1	8403796	0.0	0000		
		2	8448086	1.0	0000	L Click	here,write to chip
		3	0	0.0	0000		
		4	0	0.0	0000	Cla	
		5	0	0.0	0000		
	-	6	0	0.0	0000		
					/	/	
					/		
				Wri	tetoChip		ZeroForce
Up	Stop	2	Down	Read	FromChip		ZeroStroke
	0.00)()				2	erotiongation
2				ReadFro	omComputer		ZaroAll
1.1.1.1		1					ZeroAll
0 0.2 Spee∲m	0.4 0 m/min)).6 0.	8 1			ОК	Cancel

XLanguage Switcher

Click $View \rightarrow Language$, can change language, there is Simple language, traditional Chinese and English.

XMaterial Edit

According to Specimen select ,you can choose the sample you need,or you can click Edit to modify the specimen:

Sp	ecimenSelect	Rubber	-	Edit					
	Name	√ Rubber Rubber2		hape	GaugeLength (mm)	/ (m			
	Rubber	Metal		ctangle	100.000	1			



*****Control methods

According to **Project Select** to choose the test methods, or click **Edit** to modify or add the test methods. Such as below:

Proje	ctSelect Co	mpression	▼ Edit						
Stage	Direction	ControlType	ControlValue	hift Conditio	n Con	olValue			
1	Compress FixSpeed		L00.000mm/mir	Elong.>=	50	00mm			
						<u> </u>			
Projec	t					\checkmark			_
Name Tensile T	List _ FestMetho	d ControlParameters							
Peel Test	t Stag Din	me: Tensile Test	ControlValue Si	hift ConditionValue	e PauseTir	m Zero Co	ontrolParaNext	ProcessCycleTir	meNextProcess
Compres Tensile T	ssion 1 1 Tensi	le 💌 FixSpeed 💌	100 mm/mir Breal	< 🔻 50 %	0	min No Zero 🔻	100 Next	•	
	2 Tensi	le 🔻 FixSpeed 🔹	NaN mm/mir Force	e> ▼ NaN kg	gf NaN	min No Zero 💌	100 To1s	t 💌 0	Next
	3 Tensi	le 🔻 FixSpeed 🔻	NaN mm/mir Force	e> ▼ NaN k	gf NaN	min No Zero 💌	100 To2n	d 🔻 0	Next 💌
	4 Tensi	le 🔻 FixSpeed 💌	NaN mm/mir Force	▼ NaN k	gf NaN	min No Zero 💌	100 To3r	d 🔻 0	Next 💌
	5 Tensi	le 🔻 FixSpeed 💌	NaN mm/mir Force	e> ▼ NaN k	gf NaN	min No Zero 💌	100 To1s	t 💌 0	Next 💌
	6 Tensi	le 🔻 FixSpeed 💌	NaN mm/mir Force	> 🔹 NaN k	gf NaN	min No Zero 💌	100 To3r	d 🔻 0	End 💌

Control mode value : It is control methods.

Switching condition value : To achieve a certain way the required conditions.

Conversion condition : It is up to the percentage value switching conditions began to transform into the next action.

Name list : Lists all the existing test methods

Pre-tightening force : default for maximum speed if not selected

Add: Add a new test method

Delete: delete the selected test method

Confirm:save all the changes

Cancell:don't save the changes

*****Controls parameter

According to Project Selected	,you can choose one test methods. Then click Edit Then will
appear below chart:	

NameList	-	TestMethod	ControlParamet	ers												
Tensile Test Peel Test Compression		Name: Stag Direction 1 Compre	Compression Ter on ControlTyp FixSpeed	it De (ControlVa 100	lue mm/m	Shift ir Elong.>	Conditic 50	nValue P mm	'auseTir 0	m Zer min No Z	ro (Iero ▼	ControlPa	raNextPr End	rocessCycleTi	imeNextProces

Click **Control Parameters** will appear below following dialog:

Ide Test Test Direction Name: Compression Test Sensor Force 50.0kg Force 50.0kg Force Elong. Stroke Rubber Extensomete SwitchValue: 25 mm Directions Force Reverse Force Reverse No Reverse No Reverse Absolute Elong. Reverse No Reverse No Reverse No Reverse No Reverse No Reverse Potection SurpassForce Protection SurpassForce SurpassForce 100 SurpassElong. 7911300000 mm SawpBeRate Higher Higher High Middle Lower SavePath: C\Save C\Save ForceResolution:	meList TestMethod ControlParameters			
Sensor Force \$0.0kg FilterCoe: 5 Elong. Stroke Rubber Extensomete Metals Extensometer SwitchValue: 25 mm Directions Force No Reverse Absolute Stroke Reverse No Reverse Absolute Elong. Reverse No Reverse Absolute Elong. Reverse No Reverse Absolute Elong. Reverse No Reverse Absolute Protection % of Measuring To Stroke Zero Position To limit SurpassElong. 7911300000 mm To Stroke Zero Position To limit SampleRate Higher Higher Low Lower SavePath: SavePath: SurpassElong. Pop-up a pressage When to limit C\Save Pops up broken gaugelenth input window at test end Auto zero stroke before test Pops up broken gaugelenth input window at test end Auto display multiple result	Test Name: Compression Test			
SwitchValue: 25 mm Directions Force Reverse No Reverse Absolute Stroke Reverse No Reverse Absolute Elong. Reverse No Reverse Absolute Protection % of Measuring P1 20 P3 5 Protection % of Measuring To Stroke Zero Position To limit SurpassForce 100 % of Measuring To Stroke Zero Position To limit SurpassElong. 7911300000 mm mm Closed loop Control Auto zero force before test SampleRate Higher High Middle Low Low Pops up broken gaugelenth input window at test end SavePath: C:\Save ForceResolution: ForceResolution: ForceResolution:	Sensor Force 50.0kg Elong, ® Stroke © Rubber Extensomete® Metals Extensometer	FilterCoe:: 5 BreakCutPoint: 0 Return Const. 500 mm/min		
Directions Force Reverse No Reverse Absolute Stroke Reverse No Reverse Absolute Protection No Reverse Absolute Visitional % of Measuring No SurpassForce 100 SurpassStroke 7911300000 mm % of Measuring To Stroke Zero Position To limit SurpassElong. 7911300000 mm mm Closed loop Control Auto zero force before test SampleRate Auto zero stroke before test Auto zero stroke before test Auto zero stroke before test SavePath: Muto display multiple result ForceResolution: ForceResolution:	SwitchValue: 25 mm	ReturnDecelerateCoe.: 20		
Protection Image: Complete in the second	Directions Force Reverse Stroke Reverse Elong, Reverse Directions No Reverse No Reverse No Reverse No Reverse No Reverse No Reverse No Reverse No Reverse Absolute Absolute No Reverse Absolute No Reverse Absolute	P1 20 P3 5 P2 50000 P4 1		
Image: SurpassForce 100 % of Measuring Image: SurpassStroke 7911300000 mm Image: SurpassElong. 7911300000 mm Image: SampleRate Image: SampleRate Image: SampleRate Image: Whigher High Image: Middle Image: Low Image:	Protection	Auto return after test complete To Stroke Zero Position O To limit		
SampleRate ✓ Auto zero elong. Before test Higher High Middle Low Lower ✓ Auto zero elong. Before test SavePath: ✓ Auto zero stroke before test C:\Save ✓ Auto display multiple result ForceResolution: ✓ ForceResolution:	SurpassForce100% of MeasuringSurpassStroke7911300000mmSurpassElong.7911300000mm	 Auto save after test complete Pop-up a message When to limit Closed loop Control Auto zero force before test 		
SavePath: C:\Save C:\	SampleRate	✓ Auto zero elong. Before test ✓ Auto zero stroke before test		
C:\Save	SavePath:	 Pops up proken gaugelentn input window at test end Auto display multiple result ForceResolution: 		
	C:\Save			

Sensors: the choice of force and displacement sensors

Direction: strength, stroke, and the displacement value is taken negative or take absolute value.

Protection: when the force value exceeds the protection value, the machine will stop

automatically, choose it, it means the protection function is starting.

Sampling rate: mining point number per second, for a long time constant load test can choose low sampling rate.

Save the path test results: the test data will be stored in the directory path.

Filter coefficients: filtering unstable data, to 0 or 1 said no filtering.

Fracture to remove points: remove the last few sample point when the sample is broken.

Force resolution: the higher the resolution, the higher the precision.

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FAX : 972-3-5594529 Email: mrc@mrclab.com Name list: lists all the existing test methods. Use the default value: use the default system control parameters Add: add a set of control parameters Delete: delete a selected set of control parameters Confirm:save all the changes Cancellation: don't save the changes

ЖTest Result

According to **Result Select** select a group test result, or click **Edit** to add or edit the test result, such as below :

ResultSelect	Tenslie Strength	Edit	
No.	Peel Test Bendingl Test ✓ Tenslie Strength	nsile Strength (kPa)	Elongation p



Name list: lists all the existing test results

Add: add a set of test results

Delete: delete a selected set of test results

Confirm:save all the changes

Cancel: don't save the changes

Interval setting, automatic take Settings, and other tabs can fill in according to the demand.

₩Word Report generation

Finish testing, click **Add record**, choose the saved raw data, and then click **Word** report to generate a word report, this report to named again then can save, or can not save directly.

*Word Report template modify,

a \cdot Such as below photos, choose **Test Result**, Will occur **Edit** item,

TM2101(C)			
Manage Setting Zero View Help 0.000 kgf 0.	000 mm Elong.	0.000 mm Stroke	0.000 kgf MaxForce
User Settings Force-Elong, Force-Time	ElongTime Stress-Strain	Force-Elong. Multi-Graph	TestResult Up Down
ResultSelect Tenslie Strength Edit No. Max Force (kgf) Tenslie Strength (kPa)	Elongation perce (%	entSpecimen AnalysisWithCurre	Zero Back Test
			Pause TakeExte
			UpFindZerd DownFindZ UpDistance DownDistan
			TestTime 00:00:00
			Speed(mm/min)
•			→ →
OpenRecord ClearSelectRecord Add	Record PrintReport	EditReport OutputWord	F2 F7 JReport F3 F8 F4 F9 Data F5 F10. View-Options- View-Options-
			ManualSanp,

b · Click **Edit** , The dialog box diagram below appears, click **Others** \rightarrow **Open** :

NameList	Test Result	Interval Settings	Auto Snap Settings	Others				
est								
ngl Test	the 1st No	n-Proportional E	xt. Point		Mark the Max. F	orce on the graph		
e Strength	From	15 %	of Max. Force		Mark the Upper	Yield point on the graph		
	to	45 04	of Max Force		Mark the Lower	Yield point on the graph		
	10	43 70	or wax. Force		Mark the 1st No	on-Proportional Ext. Point		
	offset	0.2 %	of Gauge Length		Mark the 2nd N	on-Proportional Ext. Point		
					Mark the Manua	al Snap point on the graph		
	the 2nd No	on-Proportional I	ext. Point		Mark the Young	's modulus on the graph		
	From	15 %	of Max. Force		Mark the 1st No	on-Proportional Ext. Original Lin		
	to	45 %	of Max. Force		Mark the 2nd N	on-Proportional Ext. Original Li		
	offect	0.5 %	of Gauge Length		Mark the 2nd N	on-Proportional Ext. Line		
	onset		of dauge cengar			on rroportional exa cine		
	Young's m	odulus			Show the Maxin	um Value		
			(1) F		Show the maxim	um Value		
	The 1st	15 %	of Max. Force		Show the Mean Value			
	The 2nd	45 %	of Max. Force		Show the Mean Value Show the Mean Value excluding Max&Min			
	Report Temp	olate:				11		
	T4En.doc		▼ Open		Chauthe Desulation CDEV			
	Gragh to prin	nt selec <mark>t</mark>		Chamthe Coefficient of Variation (CV)				
	Force-Elor	ng. Force-Time	ElongTime Stres	Show the Coeffi				
	Automatically	y switches when	start test		Curve offsets: 0	mm		
-	No chang	e O For	ce-Elong. O Ford	e-Time		OK		
Conclic Strongth	C ElongTir	ne 🔘 Stre	ss-Strain OCust	om OMultiGragh				

c · Click **Open** open the Word Report template , you can modify the report template, and then save



it.Note:You can not delete the table in the report template, or it the error will occur.Such as below:

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[Appendix 2: commonly used shortcut]

Shortcuts	Function	Shortcuts	Function
F2	Up	Ctrl + Q	Exit
F3	Down	Ctrl + U	System of units
F4	Stop	Ctrl + Shift + C	calibration
F5	Clear	Ctrl + F	Power to zero
F6	Return	Ctrl + S	Stroke to zero
F7	Start Test	Ctrl + E	Displacement to zero
F8	Finish Test	Ctrl + Shift + Z	All return to zero
F9	Pause/continue testing	Ctrl + Shift + O	options
F10	Manual take	Ctrl + Shift + A	activation
Ctrl + R	Registered	Ctrl + H	help
Ctrl + L	Login		

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[The appendix 3: common failures and solutions]

※ Click test and reminder"Online failure"

Online failure shows that the software failed to connected to the machine successfully,Check whether the serial port is connected with the computer,Whether the machine electricity,In ensuring the cables without problems,Click menu"Setting" "Online",Choose COM to connect the machine,if you do not know the COM connector,can choose COM connector one by one until succeed.If still can not connect successfully,exit the software and close the machine power,and restart to connect.

- * Does the software always pop up over a period of time "has been to use period, please contact the manufacturer", how should solve?
- Software is over a period of time, please contact the manufacturer, registration code, to register the software can be normal use.
- X Click"Up"or"Down", the running speed is different from the setting speed.
- ※ Please do "User preference"->" controls parameter"->" Speed Feedback Control
 System"delete"√", If there is no joint displacement encoder or displacement has not been
 calibrated,please do not open "Speed Feedback Control System".
- X Click"Test", the machine just run for a while, sample just force went down.
- ※ Please do"User preference"->"controls parameter"->"Initial judgment proportion"set the value bigger,Don't judge fracture when below this value,So as not to in the first test for wrong judgment when fracture and downtime.
- X I didn't connect the encoder, can the machine automatically return? No encoder, the machine will not travel value, the machine return is accomplished by value detection trip back to the trip of zero, all couldn't return without travel value, meet the encoder is necessary to return function.
- ※ Click"Up"or"Down", the machine running direction and does not conform to the Settings, the direction is opposite.
- ※ Please do "Setting"->"Calibration"->"System Settings" has "Up and down the reverse direction"choose "√",and then click "Write to card" ∘

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- ※ In test methods choose "Tensile" Or "Compression" machine run direction and does not conform to the Settings, the direction is opposite.
- * Please do"Setting"->"Calibration"->"System Settings""Reverse tension compression direction"choose"\", then click "write to card",

[Appendix 4: part of the test results calculation formula]

• **Ring Stiffness** S_i = (0.0186+0.025 Y_i/d_i) F_i/L_iY_i

According to standard GB/T 9647-2003 the determination of thermoplastic pipe ring stiffness is calculated, use above formula to calculate a,b,c sample ring stiffness. F_i ----- Relative to the pipe 3.0% deformation force value, the unit is KN.

 L_i ----- Sample length , the unit is m.

 Y_i ----- Deformation , unit is m,equal to 3.0% deformation, such as: $Y/d_i = 0.03$

When you fill the sample information, please fill the inner diameter into the gauge length, input the pipe length in the Width, fill 3 in the "Take constant elongation" of "take the set point automatically".

- Elasticity modulus = Elastic period of any two points of stress difference/strain difference According to GB8653-1988 calculation , Calculation of elastic modulus in two points"Test result"—"Others" to set.
- **Tensile Strength** = Max force/Area.
- **Break length gauge**:Length gauge after sample break, need to input by hand.
- Percentage elongation after breaking = (gauge length after breaking-original gauge length)/original gauge.
- **Upper Yield strength**= The upper force on the yield point/Area.
- Lower Yield strength= The lower force on the yield point/Area.

Explanation:For there is no obvious yield of materials, usually take 0.2% stress of plastic strain as its yield strength, the first rule non-proportional elongation strenth is Rp0.2.

- Regulation non-proportional elongation strength =non-proportional elongation point force /area.
- **Regulation total elongation strength** = total elongation point force/ area.
- Shear strength = Max force / (gauge length*width).
- Shear modulus = (Elastic Young's modulus * Area / gauge length) * thickness / (gauge length * width).
- Max bending strength = 3 * Max force * gauge length / (2 * width * thickness* thickness).
- Flexural Modulus=(elastic Young's modulus*area/gauge length)*gauge length*gauge length/gauge length/(4*width*width*width)

[Annex 5: random attachment packing list]

Name	CD	Grips	Peel steel plates	Power line	Data line
Qty	1	1	3	1	1

[The appendix 6: contact us **]**

If there is any problem when you use the machine, please contact us, We will serve you wholeheartedly. In order to help solve the problem, please write send email to us, we will solve it as soon as possible.

Product Warranty Card

Thank you for choosing our products, in order to ensure that your products will be able to get our high quality after-sales service, so please check the following and fill in the following form:

Product No : <u>S/NO.</u>	
Product Model :	
Guarantee time : Y	ear 1 Month To Year 1 Month , Guarntee time
One year.	
User name '	Tel ·
User name :	Tel:
User address :	Fax :
User address : Date used :YearMonth	Fax : _Date Inspection :
User address : Date used :YearMonth	Fax : Date Inspection :
User address : Date used :YearMonth (Above information, user please fill it.)	Fax : Date Inspection :
User address : Date used :YearMonth (Above information, user please fill it.)	Fax : Date Inspection :

Product warranty record :

Date	Fault phenomenon	Solve Result	Handling person	Inspection

Attention item :

The guarantee time is one year. During this time, if your machine has any problem, you can consult us for

free(Except the consumables).

* The following situations is not in the scope of the warranty, We will take the charges.

1. Equipment failure or damage due to force majeure factors,

2.Because of equipment failure or damage caused by user's improper operation,

3.Because of the change of user removed, modified, equipment structure, circuit, or as a result of customer modify equipment related parameters of equipment failure.