







## MT50 Pro Series Universal Testing Machine

The Stealth MT50 Pro Series desktop Universal Testing Machineare designed to test a wide spectrum of materials includingmetal wire & foil, plastics, rubber, textiles, paper, yarn, packaging, adhesives, ceramics, timber, foods, composites & finished components in tension, compression, flexural or shear . Maximum frame capacities are 50KN In compliance with various international standards, such as ASTM, BS EN, JIS, ISO, IEC, TISI, DIN





#### Features

- 1. Panasonic servo motor drive set
- 2. UK and USA or JAPAN Brand Load cell grade 0.05%
- 3.10 Point calibration adjustment
- 4.High Accuracy Ball Screw
- 5.Load Resolution 1/500000
- 6.Force measurement range 0.1% to 100%FS
- 7.Data sampling rate 1,000 Hz
- 8. Automatically sample Height measurement

9.Modern extruded profile High-quality load-frame design

10. Load Measuring System EN ISO 7500-1 Class 0.5, ASTM E4

- 11.Dual-X Asis Graph and multi Graph Display
- 12.32-bit A/D converter/ EEPROM Plug
- 13.Standard Library Test Method
- 14.Calibration LAB ISO:17025
- 15. Position control resolution 10nm
- 16. Position measurement accuracy ±50um or 0.1%
- of indicate value when position more than 20 mm

#### Simple to use Test Setup

Limit Testing Break Testing Loop Testing Preload Setup Elongation Auto Return, Over Load Protection

#### Muli-control mode

- Constant speed
- Position
- Load Rate
- Constant Stress & Strain
- Multi-step control
- USB Interface

#### Applications

Metal, Plastic, Rubber, Textile, Synthetic, Wire, Cable, Food, Packaging, Autopart, Spring, AeroSpace, Woods, Composit, Aluminium etc.

#### Specifications: Bench-top frame to apply loads - from 50 KN capacity

Model : Stealth	MT50 Pro	
Capacity (KN)	50	
Load measurement Accuracy +/-0.5% Indicated test force	0.5	
Min. Load Resolution	1/109	
Crosshead Speed (mm/min)	0.0001 - 500	
Crosshead Speed Accuracy +/-0.1% of reading	0.1	
Extension Resolution (µm per encoder count)	0.0003	
Crosshead Travel (mm)	1,000	
Crosshead Travel Extended (mm)	1,308	
Frame rigidity	95 kN/mm	
Weight Approx (kg)	290	
Load measurement system : EN ISO 7500-1:2015, Class 0.5 ASTM E4		
Plug 'n' Play, automatic identification of BRAVO series load cells		
The Windows <sup>®</sup> 11 compatible Black Hole Software with USB Interface		
Single phase 200-230VAC 50Hz		
Operating Temperature 5° to 35°C & Humidity 20% to 80% Non-condensing		
Warranty 1 Year		

Tensile Testing Compressive Testing Flexural Testing / Friction Shear / Peeling Insertion / Extraction Creep/Relaxation Cyclic test

**Test Types** 

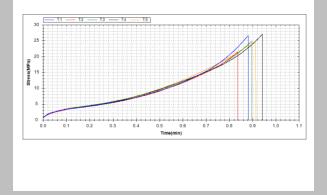


#### Excel , PDF User design reports

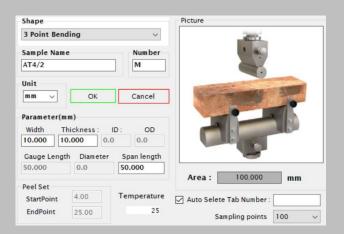
#### Tech Quality Co.,Ltd

Address :	2/13 Sukapiban 2 Rd., Pravet , Bangkok 10250
	Thailand.
Tel :	+662 3286878 (Auto)
Website :	www.tech-quality.com
ID LINE :	@techquality

No	Date	Time	Sample Name	Max Load (N)	Strength (MPa)	Elong @ Break	Stress @ 300% (MPa)
T1	15/11/2564	2:12:39 PM	AT4/2	13.3078	26.6156	636.8040	5.1382
T2	15/11/2564	2:17:27 PM	AT4/2	10.7363	21,4727	648.4660	4.9046
T3	15/11/2564	2:25:10 PM	AT4/2	12.3998	24.7996	616.2240	5.4528
T4	15/11/2564	2:28:01 PM	AT4/2	13.5199	27.0398	651.0140	5.1001
T5	15/11/2564	2:31:34 PM	AT4/2	12.3998	24,7996	620.5360	5.4051
Min				10.7363	21,4727	616.2240	4.9046
Max				13.5199	27.0398	651.0140	5.4528
Mean				12.4727	24.9455	634.6088	5.2002
SD				1.0977	2,1953	15.8273	0.2275
COV				8,8008	8,8006	2,4940	4 3750



### Sample Information



### **Statistic Reports**

New	Sove	Save As Repo		Statics Ir Min Max	ages HeaderAdd Remon	
	1	Header		Mean	alue	-
•		Address : Tel :	2/13 5	COV Mdn	. Bangkok 10250 Thailand.	100
		Webste :	www.te	ch-quality.com		
		ID LINE :	@tech	quality		

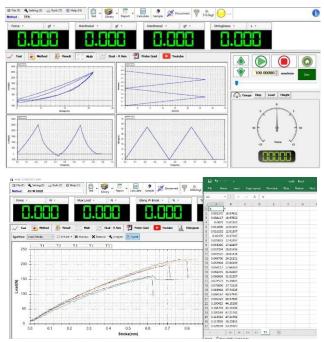
### Multi Display & Decimal Point

Display				$\times$		
	Variable		Uni	t	Dec	imal
Display 1	Force	~	N	~	2	$\sim$
Display 2	Max Load	~	Ν	~	3	~
Display 3	Stress @ Elong	$\sim$	MPa	~	3	~
Display 4	Elong @ Break	~	%	~	3	~
Display 5	Strength	~	MPa	~	3	~

### Multi-stage testing with Bravo software

Ne	w Open	Save Delete	=+ ∷ Add Update	Vertify Remove	Templates
_	npress 🔻	Speed:Unit 99 mm/min	Break Type	Shift Ta	arget 1:kgf
	Step	Direct	0 . IB I T		
	Jiep	Direct	Control Break Type	Speed:mm/min	Target:Unit
Þ	1	Tensile	PreLoad	Speed:mm/min 1000:mm/min	Target:Unit
•	1 2		1	-	
Þ	1	Tensile	PreLoad	1000:mm/min	1:N
•	1 2	Tensile Tensile	PreLoad Load	1000:mm/min 50:mm/min	1:N 15:N

### Multi Graph Display



## Auto test setup & load protect

Auto Zero before Test Auto Save after Test Complete Auto Return to home after Test	Setting <u>Return Speed :</u> 900.0 mm/min
Auto Return to Limit after Test	Sensor O Stroke O Rut



## Library

## Probe Guide

YouTube

Guide



## Formula Design By User

Symbol	Deceptions	<u>^</u>	Symbol	Deceptions	Formula
rFn	Force (kgf)		rSt	Strength	rFp/mAo
rSk	RealStroke (mm)				
rFp	Max Load (kgf)				
rEl	Strain (%)				
rSe	Stress (kgf/mm2)	E			
rSkf	TestStroke (mm)				
rTF_Bk	Load @ Break (kgf)				
rTE_Bk	Elong @ Break (%)				
rTE_MLoad	Elong @ MaxLoad (%)				
mSample	Sample Name ()				
m Nam e	ShapeName ()				
mNumber	NumberID ()				
mAo	Cross Area (mm2)				
mLo	Gauge Length (mm)				
mWo	Width (mm)	-			
ymbol Name : r	St Formula : rF	p.mAo			Edit

\_ D \_X

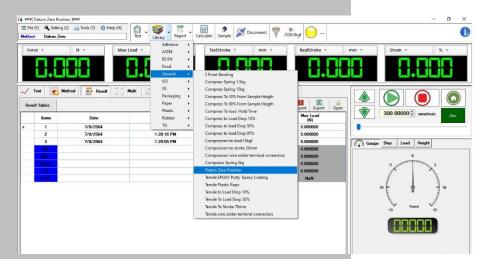
#### Item Avaliable Column Seleted Date Force \* Gauge Length Time Sample Name InDimeter Load @ Break > NumberID Max Load Width Method Name Thickness NumberID Max Load OutDimeter Gauge Length RealStroke Elong @ Break Sample Name Strength ShapeName TestStroke Start Test Time Stop Test Time Strain Strength Stress TestStroke Thickness Name ÷ Unit ОК Cancel decimal •

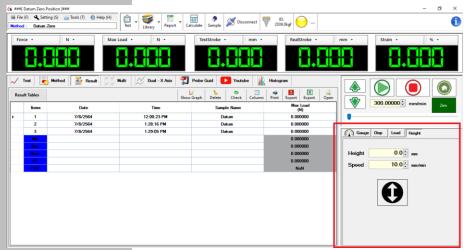
Results can Be color Coded for Immediate Pass/fail recognition



## Selectable Result

Column Edit

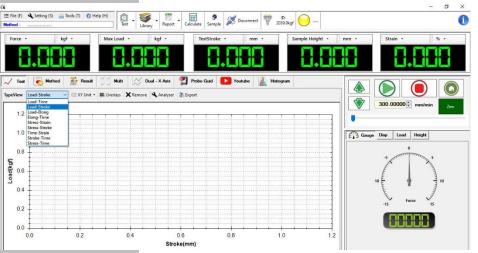




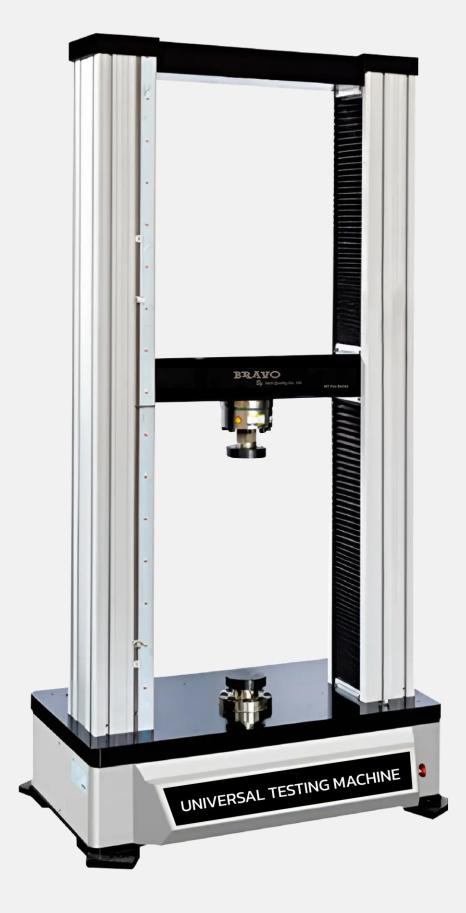


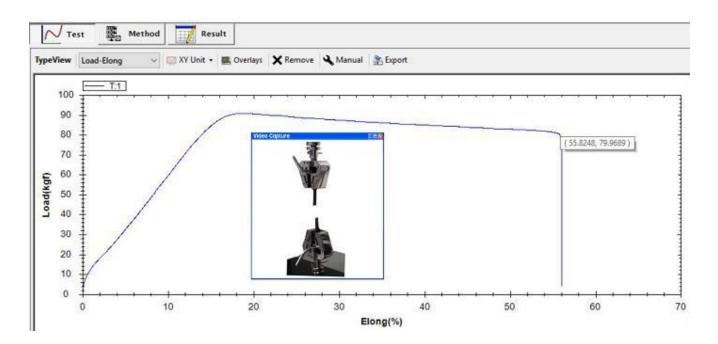
# Type View

- Force x Length
- Stress x Strain
- Strain x Time







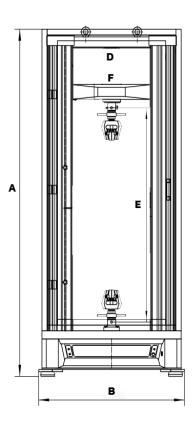


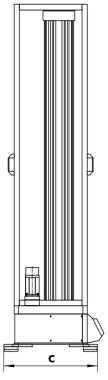


### Video and still capture

Video Capture and Synchronisation System enables UTM users to view 20fps video recordings frame by frame. It's a fantastic tool for teaching physical material test for those new to the field, or to help yougain a frame-by-frame understanding of your product strength.

<u>Dim</u>	<u>ension</u>	mm
Α	Machine Height	1780
В	Machine Width	850
С	Machine Depth	550
D	Between Columns	450
E	Crosshead Travel	1000





Ordering Information
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