



UNIVERSAL TESTING MACHINE

Made In Thailand

BRAVO
By Tech Quality Co.,Ltd.

The Stealth MS Pro Series desktop Universal Testing Machine are designed to test a wide spectrum of materials including metal wire & foil, plastics, rubber, textiles, paper, yarn, adhesives, ceramics, timber, foods, composites & finished components in tension, compression, flexural or shear . Maximum frame capacities are from 20N to 5KN In compliance with various international standards, such as ASTM, BS EN, JIS, ISO, IEC, TISI

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Features

1. Panasonic servo motor drive set
2. "NTS" Load cell grade 0.05%
3. 10 Point calibration adjustment
4. High Accuracy Ball Screw
5. Force Resolution 1/500,000 FS
6. Force measurement range 0.1% to 100%FS
7. Data Transfer Rate to PC 1 kHz..
8. Automatically sample Height measurement
9. Modern extruded profile High-quality load-frame design
10. Load Measuring System EN ISO 7500:2015 Class 0.5
11. USB or Wireless Communication
12. Smart Control Box



Simple to use Test Setup

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

Multi-control mode

- Constant speed
- Constant Displacement
- Constant Force
- Constant Stress & Strain
- Multi-step control

Applications

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

Test Types

Tensile Testing • Compression Testing • Flexural Testing • Friction • Insertion/Extraction • Peeling • Tearing • Creep/Relaxation

Specifications : Bench-top frame to apply loads - from 1 KN to 5 KN capacity

Model : Stealth	MS1 Pro	MS1/LL Pro	MS2 Pro	MS5 Pro	Remark
Capacity (KN)	1	1	2	5	
Load Accuracy (%) FS	0.1	0.1	0.1	0.1	
Crosshead Speed (mm/min)	0.05 - 1500	0.05 - 1500	0.05 - 1500	0.05 - 1000	
Speed Accuracy (%) FS	0.2	0.2	0.2	0.2	
Extension Resolution (mm)	0.001	0.001	0.001	0.001	
Crosshead Travel (mm)	560	1300	560	850	
Throat Depth (mm)	90	90	90	90	
Weight Approx (kg)	35	70	45	70	
Plug 'n' Play, automatic identification of BRAVO series load cells					
The Windows® 10 (64 Bit) compatible Black Hole Software					
Power 220Vac/ 50Hz					
Operating Temperature 5° to 35°C (41° to 95°F)					
Warranty 1 Year					

Sample Information

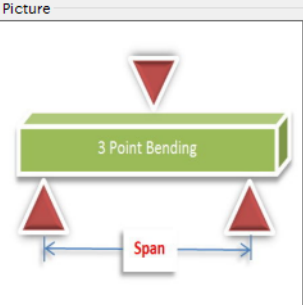
Sample

Shape
 3 Point Bending
 Rectangular
 Annular
 Circular
 3 Point Bending

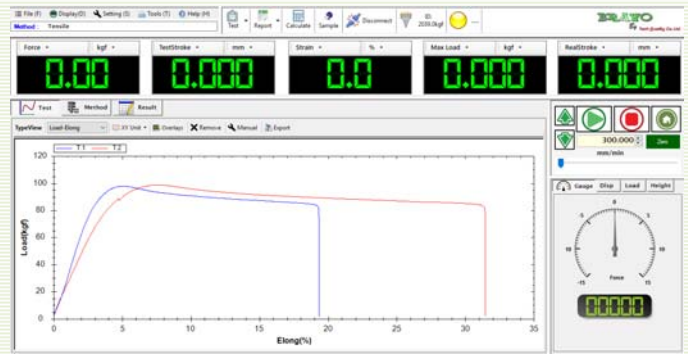
Number
 1 OK Cancel

Parameter(mm)
 Width: 10.000 Thickness: 10.000 ID: 0.0 OD: 0.0
 Gauge Length: 50.000 Diameter: 0.0 Span length: 50.000

Auto Select Tab Number

Picture

 Area(mm) 100.000

Software & Report



Excel csv ,Excel , PDF User design Reports

Statistic Reports

Template

HOME

New Save SaveAs Report Column Statics Images HeaderAdd Remove

Template Name

Header Value

Min
 Max
 Mean
 SD
 COV

Multi-stage testing with Black Hole software

Program Toolbox 1.0.0.4

New Open Save Delete Add Update Verify Remove Templates :

Directions: Compress Speed:Unit 99:mm/min Break Type Load Shift <= Target 1:kgf

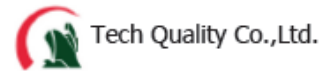
Step	Direct	Control Break Type	Speed:mm/min	Target:Unit
1	Tensile	PreLoad	1000:mm/min	1:N
2	Tensile	Load	50:mm/min	15:N
3	Tensile	Stroke	300:mm/min	29:mm
4	Tensile	Stress	20:mm/min	10:kgf/mm2
5	Compress	Load	99:mm/min	1:kgf

Multi Display & Decimal Point

Displays Toolbox

Display	Variable	Unit	Decimal
Display 1	Force	kgf	3
Display 2	Max Load	kgf	3
Display 3	RealStroke	mm	3
Display 4	Force	kgf	3
Display 5	RealStroke	mm	6

Force
 RealStroke
 Max Load
 Strain
 Stress
 TestStroke
 Load @ Break
 Elong @ Break
 Elong @ MaxLoad
 Strength



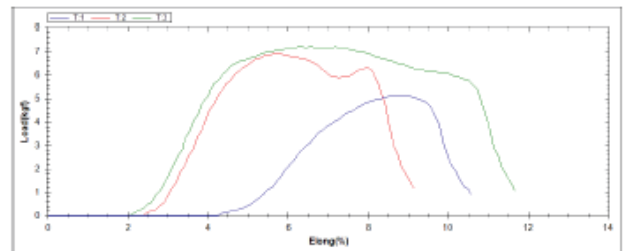
Test By Mr. Nukool Boonklam

Test Standard ASTM D882 Thin Plastic Sheet

Temperature 25C

Humidity 55%

No	Date	Gauge Length (mm)	Thickness (mm)	Width (mm)	Max Load (kgf)	Strength (MPa)	Elong @ Break (%)
T1	28/5/2016	50.0000	10.0000	10.0000	5.1071	0.5008	80.5000
T2	28/5/2016	50.0000	10.0000	10.0000	6.1985	0.6078	13.3882
T3	28/5/2016	50.0000	10.0000	10.0000	5.0235	0.4928	100.5581
T4	28/5/2016	50.0000	10.0000	10.0000	5.0285	0.4951	101.2256
T5	28/5/2016	50.0000	10.0000	10.0000	6.3144	0.5888	118.5042
T6	28/5/2016	50.0000	10.0000	10.0000	6.0218	0.5905	83.9473
T7	28/5/2016	50.0000	10.0000	10.0000	5.0229	0.4928	80.2068
T8	28/5/2016	50.0000	10.0000	10.0000	4.9101	0.3853	65.4156
T9	28/5/2016	50.0000	10.0000	10.0000	6.0268	0.5920	96.4304
T10	28/5/2016	50.0000	10.0000	10.0000	5.1286	0.5030	10.5700
T11	28/5/2016	50.0000	10.0000	10.0000	6.9259	0.6792	9.1414
T12	28/5/2016	50.0000	10.0000	10.0000	7.2118	0.7072	11.6477
Min		50	10	10	4.9101	0.3853	9.1414
Max		50	10	10	7.2118	0.7072	118.5042
Mean		50	10	10	5.8439	0.5538	64.9901
SD		0	0	0	0.8152	0.0887	41.8927
COV		0	0	0	16.2148	16.2145	64.182



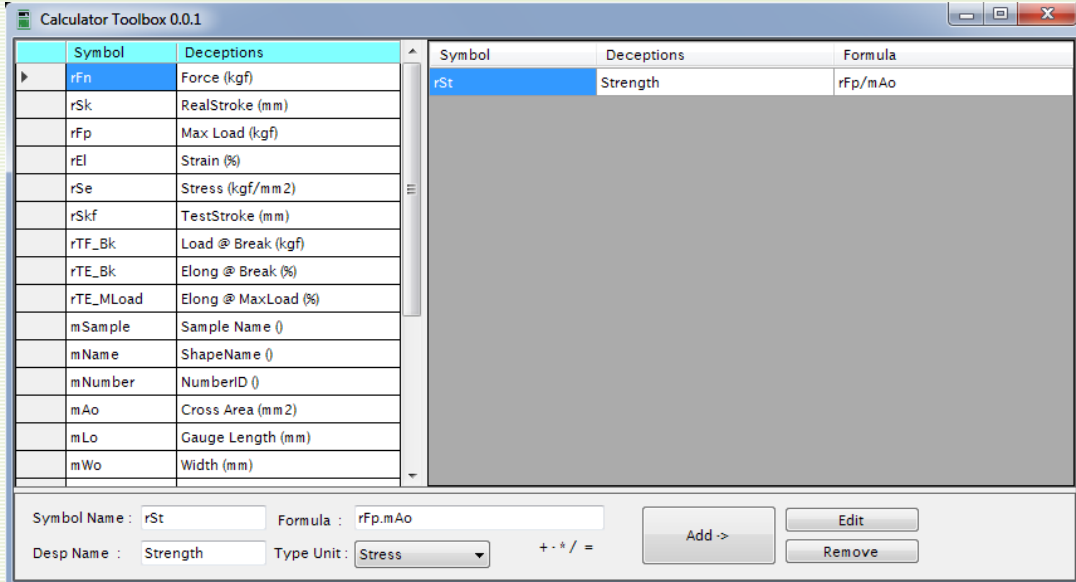
Auto test setup & load protect

Auto Zero before Test Return Speed : 100.0 mm/min

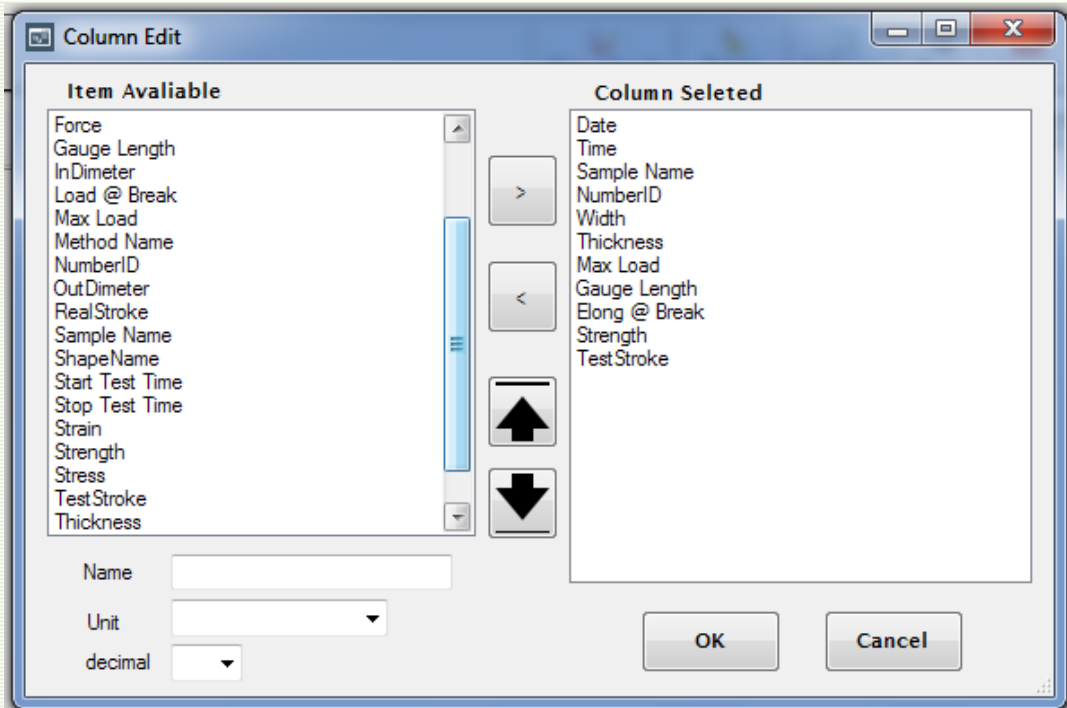
Auto Save after Test Complete Load Protect : 90 %

Auto Return to home after Test 18.00 kgf

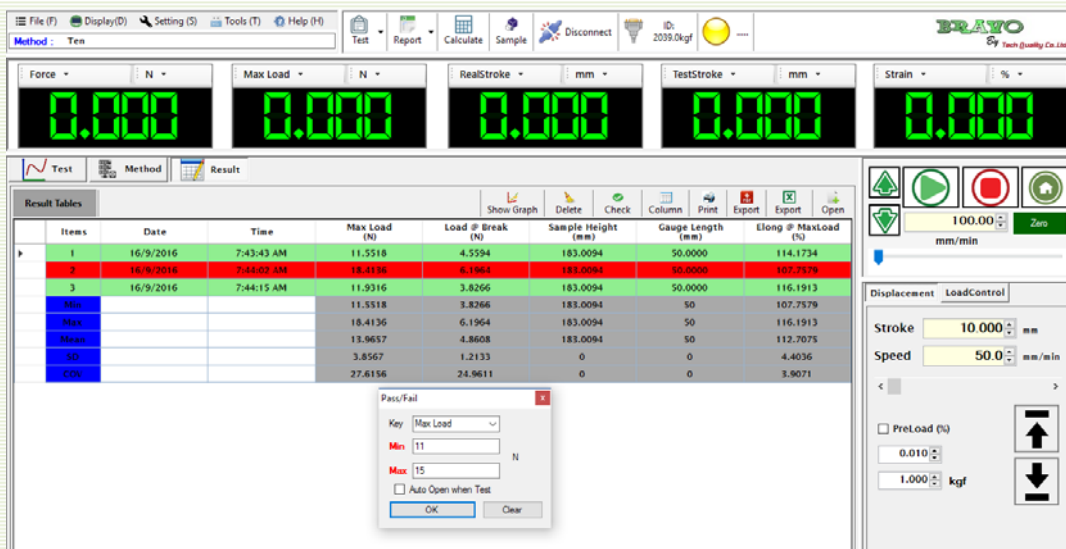
Formula Design by user



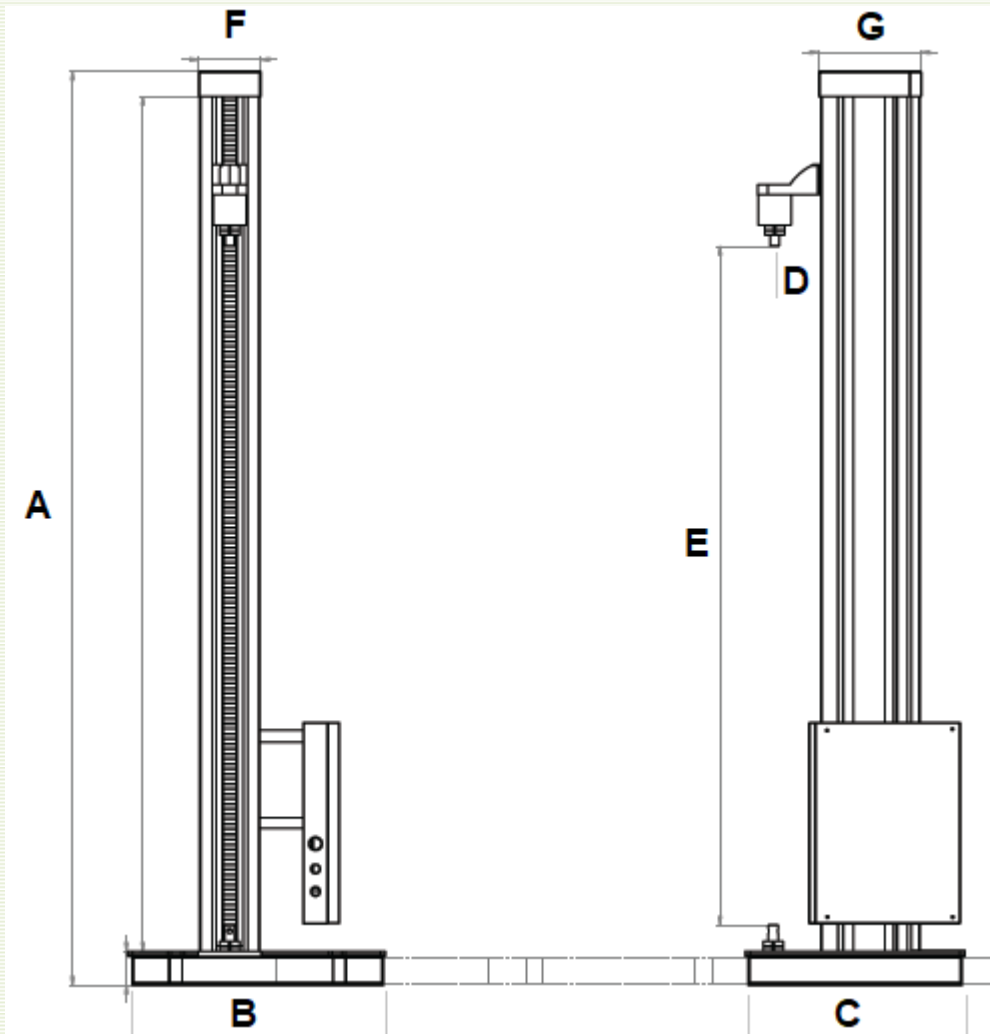
Selectable Result



Results can be color coded for immediate pass/fail recognition.



Dimension



unit (unit)		MS1 Pro	MS1/LL	MS2 Pro	MS5 Pro
A	Machine Height	1078	1818	1078	1378
B	Machine Width	510	510	510	510
C	Machine Depth	440	440	440	440
D	Throat Depth	90	90	90	90
E	Crosshead Travel	560	1300	560	850
F	Column Width	120	120	120	120
G	Column Depth	200	200	200	200

Ordering Information

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