



# HUNG TA INSTRUMENT CO., LTD.

## *Computer Servo Control Material Testing Machine*



**Advanced Testing Systems**  
helping engineers worldwide develop safer,  
more reliable materials and components.

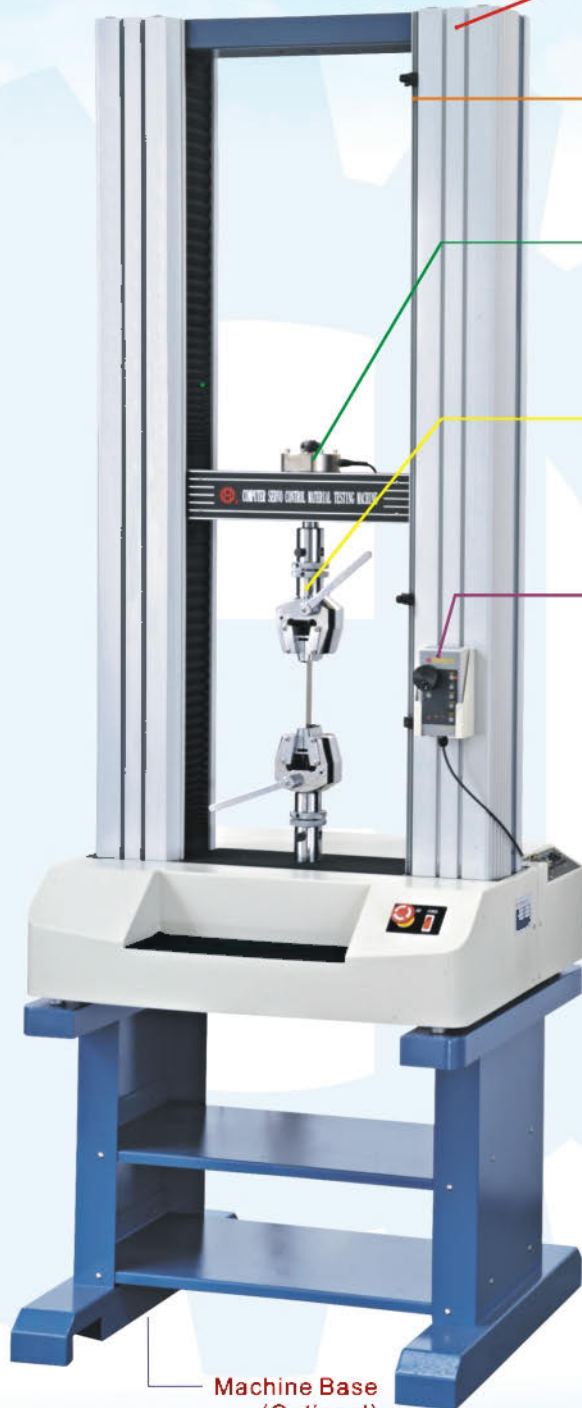




# HT-2402 Series Computer Servo Control Material Testing Machine

## Computer Universal Testing Machine – Main Body & Control System

- **High Precision, High Accuracy, High Stability** Material Testing Machine – able to do tensile, compression, flexural and bending test.
- ISO 9001 and CE certified, superior products fabricated by highly trained and experienced personnel.



Cap.: 1 ~ 50 kN

Machine Base  
(Optional)

### High Strength Structure

High strength aluminum alloy combined with streamlined design, elegant, bright and generous.

### High Stability

Using Ball screw, less loss of kinetic energy and eliminating noise.

### High Precision Load Cell

Features a low-profile load cell, with stable load induction, high accuracy, high stability, and a safety factor of 150 %.

### Standardization

A range of testing grips specification standardized modular replacement design, switch grips easily and fast for different testing samples.

### Easy Operation

Superior function with quick operation, and testing speed range is from 0.005 ~ 500 or 1000 mm/min.



# HT-2402 Series

# HT-2402 Series (1 ~ 20 kN)

\* S = Standard \* SH = Special Height \* W = Special Width \* HW = Special Height & Width

Type	HT-2402S05	HT-2402SH05	HT-2402SW05	HT-2402SHW05	HT-2402S2	HT-2402SH2
Capacity Selection (kN)	1, 2, 5				10, 20	
Force Resolution	1/200,000 (HUNG TA Interface card)					
The Force Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$					
Testing Speed Range (mm/min)	0.005 ~ 1000 mm / min				0.005 ~ 500 mm / min	
Crosshead Speed Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$					
Effective Testing Width (mm)	420		800		420	
Crosshead Working Table Distance (mm)	1350	1850	1350	1850	1290	1795
Power Supply	AC Servo Motor & Servo Driver					
Power	1 $\phi$ 220V, 0.4 kW				1 $\phi$ 220V, 0.75 kW	
Machine Dimension (W x D x H) (cm)	74 x 68 x 170	74 x 68 x 220	125 x 68 x 170	125 x 68 x 220	81 x 68 x 170	81 x 68 x 220
Machine Weight (Without Machine Stand) (kg)	140	160	180	200	300	320
Standard Accessories	Tensile Grip x 1 Set, Tool Kit x 1 Set, Operation Manual x 1 Set, Warranty Paper x 1 Set, TAF Certificate Report x 1 Set					
Optional Accessories	Extensometer	Refer to the specifications of HT-9160, HT-9161, HT-8160 (Optional)				
	Thermostat Chamber	Refer to the specifications of HT-8747 (Optional)				
	Grip	Refer to the brochure of grips and fixtures, or provide specifications or actual samples for design and manufacture (Optional)				
	Machine Stand	HT-2402 Machine Stand (Optional, around 30kg)				

# HT-2402 Series (10 ~ 50 kN)

\* S = Standard \* SH = Special Height \* W = Special Width \* HW = Special Height & Width

Type	HT-2402W2	HT-2402HW2	HT-2402S5	HT-2402SH5	HT-2402W5	HT-2402HW5
Capacity Selection (kN)	10, 20		50			
Force Resolution	1/200,000 (HUNG TA Interface card)					
The Force Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$					
Testing Speed Range (mm/min)	0.005 ~ 500 mm / min					
Crosshead Speed Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$					
Effective Testing Width (mm)	800		420		800	
Crosshead Working Table Distance (mm)	1295	1795	1295	1795	1295	1795
Power Supply	AC Servo Motor & Servo Driver					
Power	1 $\phi$ 220V, 0.75 kW		3 $\phi$ 220V, 1.0 kW (380V / 415V Optional)			
Machine Dimension (W x D x H) (cm)	138 x 68 x 170	138 x 68 x 220	81 x 68 x 170	81 x 68 x 220	138 x 68 x 170	138 x 68 x 220
Machine Weight (Without Machine Stand) (kg)	350	370	300	320	350	370
Standard Accessories	Tensile Grip x 1 Set, Tool Kit x 1 Set, Operation Manual x 1 Set, Warranty Paper x 1 Set, TAF Certificate Report x 1 Set					
Optional Accessories	Extensometer	Refer to the specifications of HT-9160, HT-9161, HT-8160 (Optional)				
	Thermostat Chamber	Refer to the specifications of HT-8747 (Optional)				
	Grip	Refer to the brochure of grips and fixtures, or provide specifications or actual samples for design and manufacture (Optional)				
	Machine Stand	HT-2402 Machine Stand (Optional, around 30kg)				



# HT-2402 Series Computer Universal Testing Machine (Floor Standing)

**HUNG TA** Testing Machines:

The accuracy and precision conforms to the requirement for international standards.

## Accuracy Certifications

ASTM E4      GB / T 7314-2005

ASTM E8-04      ISO 7500 -1:2004

BS 1610      ISO 6892-1:2009

CNS 9471 / 9470      JIS B 7721-2002

EN10002-1      JIS Z 22410-2008

GB / T 228-2010      JJG 139-1999

GB / T 232-2010      JB/T 6146-2007

GB / T 17200-1997      JB/T 7797-1995

GB / T 16491-2008



**HT-2402W25**

## HT-2402

Computer Servo Control  
Material Testing Machine  
Cap.: 50 ~ 250 kN



**HT-2402W10**

## HT-2402

Computer Servo Control  
Material Testing Machine  
Cap.: 50 ~ 250 kN



## HT-2328

Computer Type Single Column  
Universal Materials Testing Machine  
Cap.: 0.2 ~ 2 kN



# HT-2402 Series (50 ~ 250 kN)

\* S = Standard \* SH = Special Height \* W = Special Width \* HW = Special Height & Width

Type	HT-2402S10	HT-2402SH10	HT-2402SW10	HT-2402HW10	HT-2402S25	HT-2402SH25	HT-2402W25	HT-2402HW25
Capacity Selection (kN)	50, 100				250			
Force Resolution	1/200,000 (HUNG TA Interface card)							
The Force Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$							
Testing Speed Range (mm/min)	0.005 ~ 500 mm / min				0.05 ~ 200 mm / min			
Crosshead Speed Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$							
Effective Testing Width (mm)	560		800		560		800	
Crosshead Working Table Distance (mm)	1250	1750	1250	1750	1440	1940	1440	1940
Power Supply	AC Servo Motor & Servo Driver							
Power	3 $\phi$ 220V, 2 kW / 3 $\phi$ 220V, 3 kW (380V / 415V Option)				3 $\phi$ 220V, 4.5 kW (380V / 415V Option)			
Machine Dimension (W x D x H) (cm)	112x76x210	112x76x260	162x76x210	162x76x260	118x86x248	118x86x298	142x86x248	142x86x298
Machine Weight (kg)	900	1000	1000	1200	1380	1450	1450	1650
Standard Accessories	Tensile Grip x 1 Set, Tool Kit x 1 Set, Operation Manual x 1 Set, Warranty Paper x 1 Set, TAF Certificate Report x 1 set							
Optional Accessories	Extensometer	Refer to the specifications of HT-9160, HT-9161, HT-8160 (Optional)						
	Thermostat Chamber	Refer to the specifications of HT-8747 (Optional)						
	Grip	Refer to the brochure of grips and fixtures, or provide specifications or actual samples for design and manufacture (Optional)						

# HT-2328 Series

## Computer Type Single Column Universal Materials Testing Machine

# HT-2328 Series (0.2 ~ 2 kN)

- Servo Motor Type, Max. Speed is 1000 mm/min
- DC Motor Type, Max. Speed is 500 mm/min
- Single Column Design, Easy Operation & Convenience

Type	HT-2328			
Capacity Selection (N)	200 N	500 N	1 kN	2 kN
Force Resolution	0.02 N	0.05 N	0.1 N	0.2 N
The Force Relative Error	Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$			
Testing Speed Range (mm/min)	A : Servo Motor Type: 0.005 ~ 1000 mm/min, Crosshead Speed Relative Error : Class 0.5 $\leq \pm 0.5\%$ or Class 1 $\leq \pm 1\%$ B : DC Motor Type: 5 ~ 500 mm/min			
Crosshead Working Table Distance (mm)	750 mm			
Over Stroke & Overload Protection Device	Upper and lower limits protection device, when it over 10% of testing set up, the system will stop automatically for safety protection			
Power	A : Servo Motor Type: 1 $\phi$ 110V ~ 220V, 50 / 60 Hz / B : DC Motor Type: 1 $\phi$ 110V ~ 220V, 50 / 60 Hz			
Power Consumption	0.5 kVA			
Machine Dimension (W x D x H) (cm)	56 x 50 x 126			
Machine Weight (kg)	53			
Standard Accessories	Tensile Grip x 1 Set, Tool Kit x 1 Set, Operation Manual x 1 Set, Warranty Paper x 1 Set, TAF Certificate Report x 1 Set			



# Computer System - Super Powerful Program, With Superior Control Functions

## Computer Measuring System – Control & Edit Setting Functions

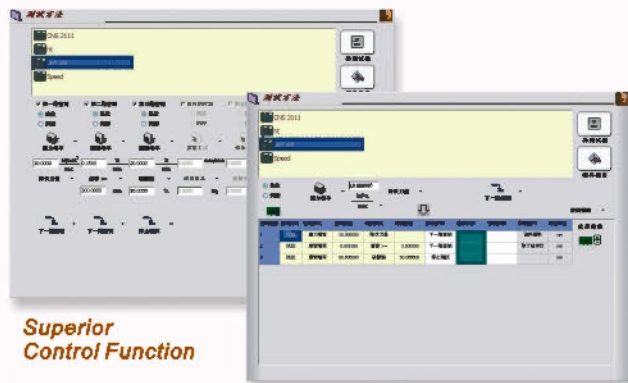
Intelligently computer control & measuring software to improve testing efficiency.

### Powerful Control Functions

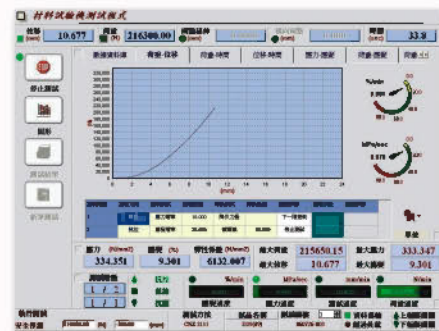
- Basic control mode contains fixed velocity, fixed displacement, constant load speed, fixed load, constant stress speed & constant strain speed.
- Available to freely set up cyclic mode, define cyclictimes, conduct the next stage of control mode after the preset cycle is up to next set up control mode.
- Set up for tensile and compression mode.
- Control mode database management, available to repeat editing and setting.
- Control mode can cover most international test standards like GB, CNS, ASTM, ISO, DIN & JIS.
- Able to do low frequency testing.

### Intelligently Computer System

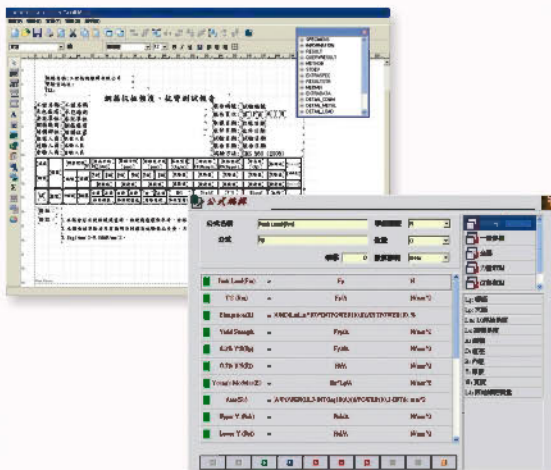
- Operation system is Windows XP 32 bit or above in Chinese or English version, more safety and stability.
- The icon fined interface for easy learning operation.
- Use database management for testing standards such as sample information, testing results and expansion powerful.
- Real-time graphic switching display, catch test dynamic and high integrity. Graphics includes Load-Displacement, Load-Time, Displacement-Time, Strain-Stress, Load-Horizontal Extensometer and Load-Vertical Extensometer.
- Open editing formula, formula is easy to learn and including general test such as Metal, Rubber, Footwear, Peeling industries.
- Testing standard is able to set load point, displacement point, interval setting and yield point interval setting.
- Able to recalculate and analysis testing information or each parameter and formula change calculation.



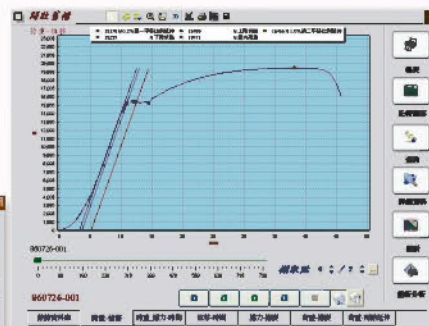
Superior Control Function



Real-Time Display



Excellent Formula and Report Editor

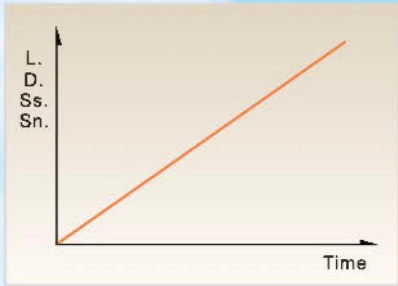


Simple Setting

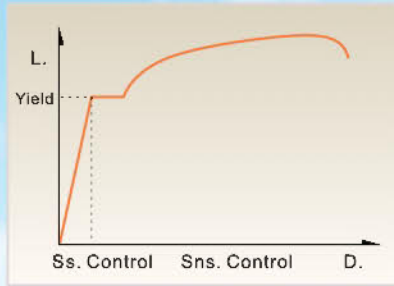
# Computer System

# Powerful Control Functions

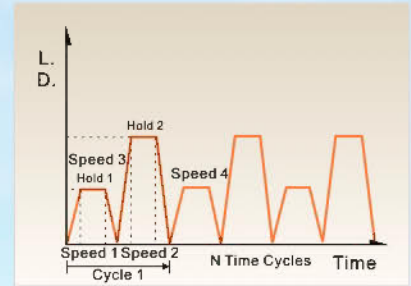
L. = Loading, D. = Displacement, Ss. = Stress, Sn. = Strain



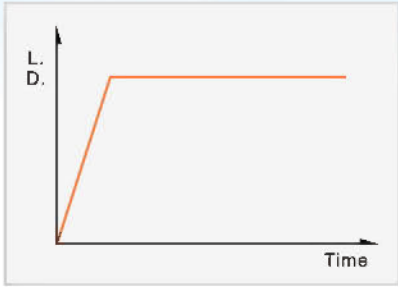
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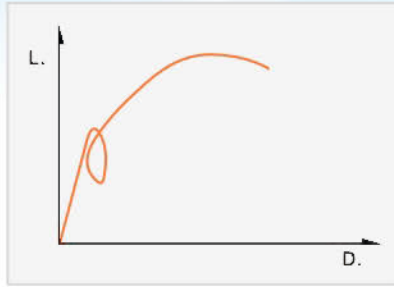
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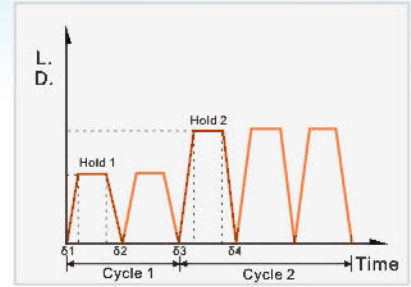
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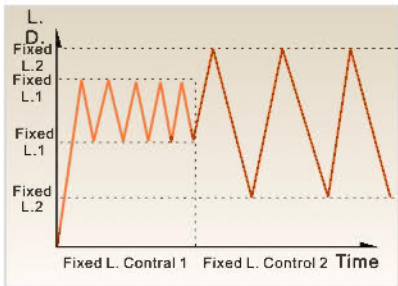
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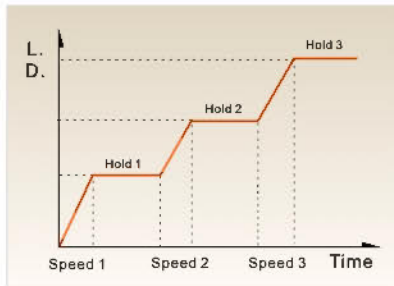
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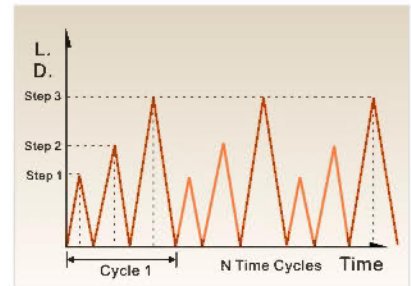
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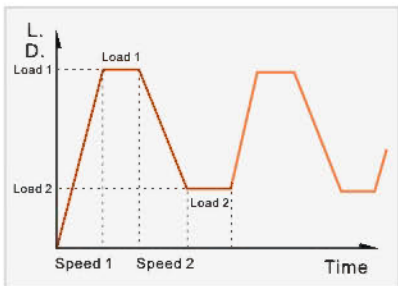
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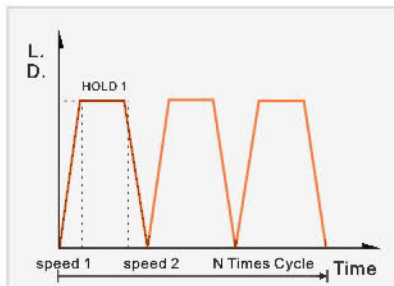
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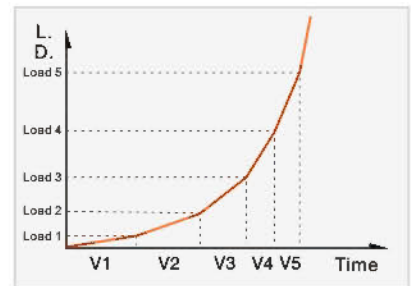
No. 09



No. 10

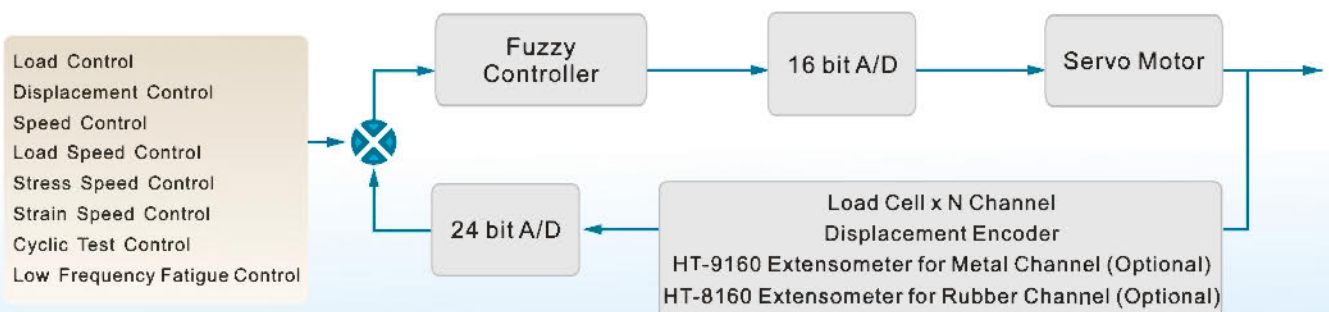


No. 11



No. 12

## CONTROL FUNCTION : BLOCK DIAGRAM





# HT-8747 Series

## Thermal Testing Chamber Series (Optional)



HT-8747 D, E Type High Temperature Chamber

A / B / C Type High and Low Temperature Chamber ( HT-8747 )  
HT-2402 / HT-9102 / HT-8503

Model No.	HT-8747A	HT-8747B	HT-8747C	HT-8747D	HT-8747E	
Temperature Range	Rt ~ + 200°C	-30 ~ + 200°C	-50 ~ + 200°C	+30 ~ + 800°C	Rt ~ + 1100°C	
Inside Dimension (W x D x H)	<input type="checkbox"/> Standard Type : 20 x 30 x 60 cm <input type="checkbox"/> Special Type : 20 x 30 x 60 cm			Ø8 x 30 cm	Ø8 x 30 cm	
Outside Dimension (W x D x H)	Standard Type	40 x 82 x 82 cm	40 x 100 x 90 cm	40 x 120 x 90 cm	Ø35 x 40 cm	Ø35 x 40 cm
	Special Type	40 x 100 x 82 cm	40 x 100 x 105 cm	40 x 120 x 135 cm		
Method of Heat-up or Cool-down	Heat Type	Heat Type/Cooling Type		Heat Type		
Temperature Control	PID automatic temperature controller with digital temperature indicator					
Applied Models	Suitable for HT-2402, HT-9102, HT-8503 type series tensile tester					
Power	1Ø 220V					



# HT-8160 / HT-9161 Series Two-Point Extensometer Series



HT-8160 series Two-Point Extensometer can be bought with HT-8747 Thermostat Testing Chamber at the same time, but unable to use both together.



HT-9161 series Made in USA

## Two-Point Extensometer Series

HT-8160 series – Suitable for model HT-2402 series

HT-9160 series – Suitable for model HT-2101, HT-9501, HT-9102, HT-8503

Type	HT-8160A	HT-8160B	HT-9160A	HT-9160B	HT-9160C	HT-9160D	HT-9161
Gauge Length (mm)	20 ~ 40		50	50	100	25	50
Travel Length (mm)	20 ~ 800		25	5	25	5	25
Resolution (mm)	0.004		0.001				0.001
Application	Rubber, Plastic, PE Board, Fabric, Webbing, Textile	PE Film, Latex, PVC Tubing Industry	Suitable for measuring elongation for metal, or non-metal materials with lower deformation, suitable for working at RT ~ 50 °C				



HT-8160 Series



HT-9160 Series

Tensile Test Application Grips series: Standard Wedge Grip for selected with standard machine.  
 Pneumatic and Hydraulic Wedge Grips are optional, with excellent and convenient features for operation.

Type	SF-014D	SF-014C	SF-004-25	SF-004CB10	SF-004C5	SF-004CB2	SF-051	SF-063	SF-006	SF-301
Capacity (kN)	250	100	250	100	50	20	20	20	10	5
Clamping Range (mm)	Round	$\phi 13 \sim \phi 26$	$\phi 6 \sim \phi 16$ $\phi 16 \sim \phi 38$	$\phi 4 \sim \phi 13$			$\phi 4 \sim \phi 9$	$\phi 6 \sim \phi 13$	$\phi 6 \sim \phi 11$	$\phi 0.5 \sim \phi 3$
	Flat	0 ~ 25 W 60 x H 48	0~15, 15~30 W 52 x H 90	0 ~ 14 W 48 x H 55	0 ~ 12 W 50 x H 40	0 ~ 12 W 25 x H 40	0 ~ 8 W 50 x H 35	0 ~ 14 W 38 x H 50	0 ~ 7 W 30	0 ~ 3 W 8
Weight (kg)	50	30	116	30	15	10	15	10	5	3



SF-014D



SF-004



SF-051



SF-063



SF-006



SF-301

Type	SF-310				SF-134	SF-082	SF-116	SF-609B
Driving Method	Hydraulic Grips				Pneumatic Grips			
Capacity (kN)	1000	500	250	100	10	0.5 / 2	1	0.5
Clamping Range (mm)	Round	$\phi 10 \sim \phi 25$		$\phi 6 \sim \phi 16$ $\phi 16 \sim \phi 38$	$\phi 4 \sim \phi 13$	$\phi 5 \sim \phi 13$		$\phi 2$ 以内
	Flat	0 ~ 15, 15 ~ 30 W 100	0 ~ 15, 15 ~ 30 W 76	0 ~ 15, 15 ~ 30 W 52 x H 90	0 ~ 14 W 48 x H 55	0 ~ 8 W 30	0 ~ 6 H 30	0 ~ 6 H 30



SF-310



SF-134



SF-082



SF-116



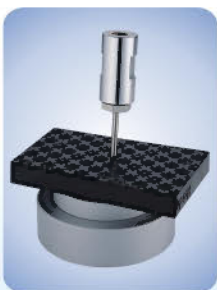
SF-609B

SF-082 : Grip : 1" x 1" , 1" x 3" / 1" x 2" / 1" x 3" , 1" x 3" ( Option, 1 of 3 )

SF-116 : Grip : 1" x 1" , 1" x 3" / 1" x 2" ( Option, 1 of 2 )

Peeling, Shearing, Lunging, Plunger, Adhesion, Punctures Fixtures Series for Selections (Optional)

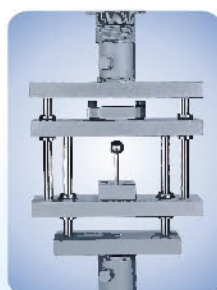
Type	SF-087A	SF-081	SF-100	SF-148	SF-162
Applications	Puncture Fixture for Safety Shoes	90° Peeling Fixture	Lunging Fixture	Plunger Fixture	X-Y Table



SF-087A



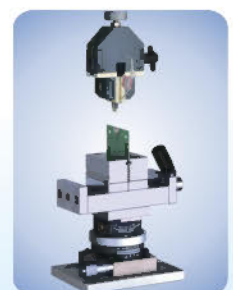
SF-081



SF-100



SF-148



SF-162

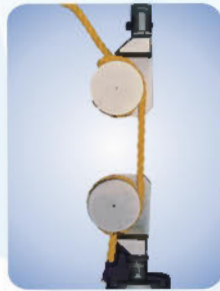


## SF Test Application Grips Series

Type	SF-046	SF-158	SF-093	SF-156
Applications	Fixture for Bolt Nut Shape	Fixture for Ropes & Cable	Tensile Grip for Rubber & Plastic	Wedge Clamps for Finished Products
Capacity (kN)	50 / 300 / 600	2 / 10	1	1
Clamping Range (mm)	50 kN : M4 - M10 300 kN : M6 - M16 600 kN : M6 - M36	2 kN : $\phi$ 6 10 kN : $\phi$ 12	8 x 50	10 x 6 10 x 25



SF-046



SF-158



SF-093



SF-156

### Compression Test Fixture Series

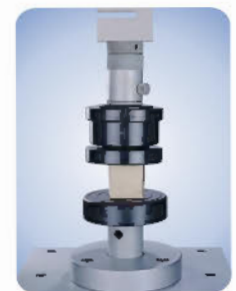
Compression platen for metal, rubber, timbering and cement.

Type	SF-156A	SF-156B	SF-156C	
Platen Size (mm)	$\phi$ 75	$\phi$ 120	$\phi$ 160	
Type	SF-156D	SF-156E	SF-156F	SF-201
Platen Size (mm)	$\phi$ 220	$\phi$ 280	$\phi$ 300	150 x 300

Type	SF-122A	SF-122B	
Platen Size (mm)	$\phi$ 75	$\phi$ 102	
Type	SF-122C	SF-122D	SF-122E
Platen Size (mm)	$\phi$ 154	$\phi$ 204	$\phi$ 278



SF-156



SF-122A

Bending Test Fixture for metal, china / ceramic, tile, concrete cylinder, timber, and so on.

Type	SF-002A Series
Max. Load (kN)	10, 20, 50, 100
Loading Radius (mm)	R2, R5, R1/8 (Optional)
Supporting Radius (mm)	R2, R5, R1/8 (Optional)
Width (mm)	50 ( 110 Optional )
Supporting Distance (mm)	20-80 / 20-200/20-600



SF-002A

Type	SF-115A Series
Max. Load (kN)	300, 500, 1000
Loading Radius (mm)	R15
Supporting Radius (mm)	R15
Width (mm)	120
Supporting Distance (mm)	30 ~ 400



SF-115A



Headquarters & Factory



Second Factory

*Since 1975*



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[www.hungta.com.tw](http://www.hungta.com.tw)  
[www.hungta.com.cn](http://www.hungta.com.cn)**

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