

# Film Puncture Test Fixture TKS-20N / TKS-250N

- Designed for puncture strength testing of thin samples including film, PET bottles and aluminum
- Performs testing according to the corresponding part of JIS Z1707:2019



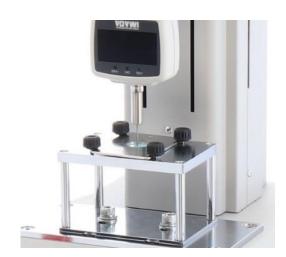
Simple affordable type for low-force: TKS-20N



**Testing Image** 



Standard type: TKS-250N



**Testing Image** 

**Standard** 

JIS Z1707:2019 [General rules of plastic films for food packaging] (corresponding part only)



Measuring Procedures (TKS-250N)			
Attach the pin to the measuring shaft of force gauge.	Ensure the pin comes in the center of the hole in the table.	Loosen the fixing plate knobs, set the sample and tighten the knobs.	

Specifications				
Model		TKS-20N	TKS-250N	
Capacity		20N	250N	
Diameter of Hole *1		10mm	20mm	
Table	Weight	Approx. 500g	Approx. 1050g	
Sample Size		20x20 to 60x60 mm	40x40 to 55x55 mm	
Diameter		1m	m	
	Tip Shape	SR0.5		
Pin	Material	Stainless Steel	Steel	
	Weight	Approx. 0.2g	Approx. 16g	
	Included Quantity	3 pcs	1 pc	
Pin Vice	Available Diameter	Up to 3.2mm	-	
	Weight	Approx. 22g	-	
Mounting s	crew (Pin/Pin Vice)	Me	6	
Dimensions See [Dimensions]		ensions]		

<sup>\*1</sup> Diameter of hole can be changed to meet your requirements. Contact us for details.

#### [Pins for replacement] Pin parts are available for replacement.

Model	Included Parts	Images		
TP-10	Set of pins for TKS-20N (pin part-3pcs) and			
17-10	pin vice *1	<b>T</b> .	1	
STP-001	Pins for TKS-20N (pin part-3pcs) only *1			
TP-20	Pin for TKS-250N	TP-10	STP-001	TP-20

<sup>\*1</sup> Pins come in 3 pcs. Single piece of purchase is not available.

<sup>\*</sup> Weight of the attachment is also applied as a load on the force gauge. Consider it when selecting the capacity of a force gauge.

<sup>\*</sup> Pins may break or bend when offset load is applied.

<sup>\*</sup> Some samples may not be suitable to hold and test with this product.



#### **[Table]** Only the table part is also available for purchase.

Model	Included Parts	Images	
TTB-10	Table for TKS-20N Hole diameter: 10 mm		
TTB-20	Table for TKS-250N Hole diameter: 20 mm *1	TTB-10	TTB-20

<sup>\*</sup> Use with pins of your choice for testing.

#### **Examples of Product Configuration TKS-20N**

Example 1 Code: 1T2001A

Simple testing up to 20N

Digital Force Gauge: DST-20N Motorized Test Stand: MX-500N Optional Attachment: TKS-20N

Example 2 Code: 1T2001B

Testing up to 20N according to a part of JIS Z 1707:2019 General

rules of plastic films for food packaging

Digital Force Gauge: ZTS-20N Motorized Test Stand: MX2-500N Optional Attachment: TKS-20N Optional Cable: CB-528



TKS-20N Example 2 Image

### **Examples of Product Configuration TKS-250N**

Example 1 Code: 1T2002A

Simple testing up to 250N

Digital Force Gauge: DST-20N Motorized Test Stand: MX-500N Optional Attachment: TKS-250N

Example 2 Code: 1T2002B

Testing up to 250N according to a part of JIS Z 1707:2019

General rules of plastic films for food packaging

Digital Force Gauge: ZTS-500N Motorized Test Stand: MX2-500N Optional Attachment: TKS-250N

Optional Cable: CB-528

Optional Software: Force Recorder Standard



TKS-250N Example 2 Image

<sup>\*1</sup> Diameter of hole can be changed to meet your requirements. Contact us for details.

<sup>\*</sup> Refer to the specification of each product for details.

<sup>\*</sup> Product configuration varies depending on the shape and characteristic of the sample, and measurement conditions.

<sup>\*</sup> The recommended capacity of force gauge varies depending on the expected force to be loaded.



Mountable Force Gauges for TKS-20N/TKS-250N			
DST/DSV series	ZTS/ZTA series	FB/PS/PSM series	
Digital force gauge with excellent cost performance capable to manage data with PC.	Digital force gauge with high precision, featuring high sampling rate and a variety of useful functions.	Mechanical force gauge for easy handling.	

Related Products		
Film Grip FC-21/20/40/21U/41U/21UQ	Cam Grip <b>GR-30/GR-2000</b>	Roller Grip GC-60/GC-100
Designed for tensile and peel testing to grip thin samples such as film with capacity of up to 500N.	Designed for efficient tensile testing of thin samples in rectangular shape, such as paper and sheet, with capacity of 2000N.	Ideal for extensible samples such as film and rubber without slipping for testing up to 500N.

Related Tests		
Breaking tensile strength test of film to check whether	Tensile strength test of heat sealed parts according to	
it meets the requirement of IEC 60286-3(2013) and	a part of JIS Z 1707:2019 7.5. A part of JIS	
JIS C0806-3(2014).	Z0238:1998 can be also conformed.	
Product Configuration (*) Code: 1G2005A	Product Configuration (*) Code: 1F2003A	
Digital force gauge: ZTS-200N	Digital force gauge: ZTS-200N	
Motorized test stand: MX2-500N-L	Motorized test stand: MX2-500N	
Optional attachment: GC-60 (2 pieces)	Optional attachment: FC-21U (2 pieces)	
Optional cable: CB-528	Optional cable: CB-528	

\* Refer to the specification of each product for details.

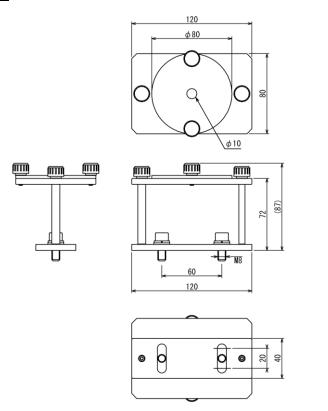
\* Product configuration varies depending on the shape and characteristic of the sample, and measurement conditions.

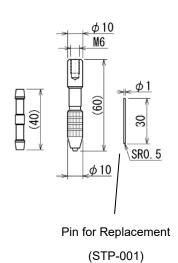
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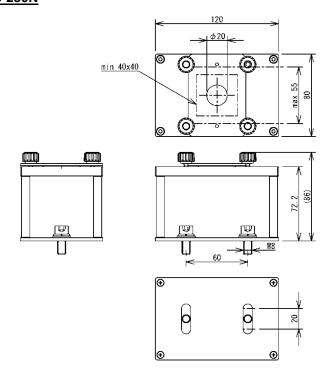
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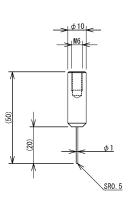
## TKS-20N





# **TKS-250N**





Unit: mm



## [Cautions]

- Information in this document is subject to change without prior notice.
- This document is product descriptions and handling precautions, and do not guarantee various characteristics or safety.
- This product is designed for force measurement purpose only.
- Do not copy and use this content without authorization.
- A force gauge (sold separately) is required to use this product.
- Some samples may not be suitable to measure with this product.

SHRADDHA IMPEX Authorized Distributor

Email: shraddhaimpex@gmail.com / sales@shraddhaimpex.net

Web: www.shraddhaimpex.net

Contact: +919819530352 / +918591279918



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