

TENSILON

JIG CATALOG

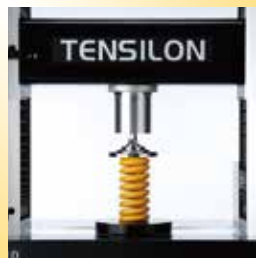
RTF/RTG/RTH/RTI/STA/STB SERIES



Expanded lineup and range of usage for the versatile "TENSILON" Universal Testing Machines



TENSILON is the name of our first domestically produced Universal Testing Machine.



TENSILON is a device developed by utilizing the latest AC servo motors and computer control technology in a high-precision mechanical structure. The performance and versatility of the drive control system is unparalleled, and in addition to simple stroke movements, it can also control creeping, loosening, and cycling.



TENSILON is commonly used for tensile testing of materials and products. But by adding various accessory testing devices, various test modes such as compression, bending, shear, delamination, friction, etc., can be selected. Also, the addition of an environmental chamber makes it possible to test for environmental characteristics.



TENSILON can be fitted with a wide variety of jigs to provide an optimal testing environment according to the purpose of the test.

This catalog has been compiled for the TENSILON RTF Series, RTG Series, RTH Series, RHI Series, STA Series and STB Series. Note that the products shown in this catalog may not be applicable to other TENSILON models.

- The contents of this document are subject to change without notice.
- When contacting us, please provide us with the model name of the TENSILON main unit as well as the product name and code of any auxiliary equipment.
- Check with us before you purchase any auxiliary equipment, as you may need related parts to use the purchased equipment.
- This catalog contains only the standard auxiliary equipment but many other auxiliary equipment are also available.

If you require special auxiliary equipment, please contact us.

RTF/RTG/RTH/RTI SERIES

TENSILE TESTS

1-1 Tensile Testing Equipment Jaw Configuration	
RTF-1210/RTG-1210	6
RTF-1225/RTG-1225, RTF-1250/RTG-1250, RTH-1225/RTI-1225	7
RTF-1310/RTG-1310/RTH-1310/RTI-1310	7
RTF-2325/RTF-2350 (floor), RTF-1325/RTF-1350 (tabletop)	8
RTF-2410 (floor)	9
RTF-2425/RTF-2430 (floor)	9
1-2 Adapters and Universal Joints	
Adapters	10
Universal Joints	11
1-3 Jaws	
Screw Action Jaws	12
Wedge Jaws (Stationary/Non-stationary)	14
Air Jaws	16
Air Jaws for Small Samples	18
Air Jaws for Spandex	18
Air Jaws for Tire Cords	18
Air Jaws - Related Equipment	19
Oil Jaws	20
Jaws for Rubber	21
Winding Action Jaws	22
Other Jaws	23

COMPRESSION & BENDING TESTS

2 Compression and Bending Test Equipment Configuration	
Compression Test Jig, Tensile Type Compression Test Jig	24
Compression Bending Test Jig (3-/4-point), Tensile Type Test Jig (3-point), T-groove Plate	26

POLYMER TESTS

3 Polymer Test Jigs	
Plastic Compression/Shear/Coefficient of Friction	27
Film Blocking Test, End Tearing Resistance, CFRP Vertical Compression (conical)	28
CFRP Vertical Compression (pyramid), Plastic Laminate Compression and Puncture	29

FIBER TESTS

4 Fiber Test Jigs	
Fabric Rupture	29
Fabric Expansion Force, Cloth Tearing, Slippage Resistance	30

PAPER/PULP TESTS

5 Paper/Pulp Test Jigs	
Vertical Compression, Cardboard Box Compression, Paper Friction Coefficient	31

WOOD TESTS

6 Wood Test Jigs	
Wood 3-point Compression Bending, 3-point Building Board Compression Bending, Wood Shear	32
Wood Splitting, Hardness, Nail Pull-out Resistance, Wood Screw Holding	33

ADHESIVE PEEL TESTS

7 Adhesive Peel Test Jigs	
Sealant Adhesion Strength, Particle Board, 90° Adhesion	34
90°, Printed Board 90°, Adhesive Tape Drum, Adhesive Tape 90°	35
Rubber 90°, Tensile Bond Strength, Cleavage Strength, Container Seal Peeling	36

OTHER DEDICATED TESTS

8 Other Dedicated Test Jigs	
Urethane Foam Compression, 3-/4-point Compression Bending for Ceramics, Grain Cracking	37
Concrete 4-point Compression Bending, Straw & Tile 3-point Compression Bending	38

THERMOSTATIC/CHAMBER TESTS

9 Thermostatic/Chamber Test Jigs	
Hygrothermal Chamber Configuration and Specifications	39
In-chamber Test Equipment Configuration	42
Load Cell Spacer, Heat Shield, Water Receptacle	44

DETECTORS AND CALLIBRATORS

10 Detectors and Callibrators	
Load Cells (Dual Purpose Tensile/Compression Type, Low Loads)	45
SG Extensometers	46
Contact Type Extensometers U-4310 Series	47
Non-contact Type Extensometers U-4410 Series	47
Load Cell Loop Meter	48
Displacement Calibrators for SG Extensometers	48

STA/STB SERIES INDEX

TENSILE TESTS

11-1 Basic Tensile Testing Equipment Configuration Tensile Testing Equipment 50N/500N/1kN/2.5kN	51
11-2 Expanded Tensile Testing Equipment Configuration Equipment Configuration	52
11-3 Universal Joints Universal Joints	53
11-4 Jaws Screw Action Jaws, Wedge Jaws, Air Jaws, Air Jaws for Tire Cords, Rubber Jaws, Winding Action Jaws, and Other Jaws	54

COMPRESSION & BENDING

12-1 Basic Compression Testing Equipment Configuration Compression Test Jigs	55
12-2 Bending Testing Equipment Configuration Compression Bending Test Jig (3-/4-point)	56

POLYMER TESTS

13 Polymer Test Jigs Plastic Coefficient of Friction, Film Blocking Test, End Tearing Resistance	57
--	----

FIBER TESTS

4 FIBER TEST JIGS Cloth Tearing, Slippage Resistance	58
---	----

WOOD TESTS

15 Wood Test Jigs Wood Splitting, Nail Pull-out Resistance, Wood Screw Holding	59
--	----

ADHESIVE PEEL TESTS

16 Adhesive Peel Test Jigs Sealant Adhesion Strength, Particle Board, 90° Adhesion, 90°, Printed Board 90°, Adhesive Tape Drum Adhesive Tape 90°, Rubber 90°, Tensile Bond Strength, Cleavage Strength	61
--	----

PAPER/PULP TESTS

17 Paper/Pulp Test Jigs Paper Coefficient of Friction	61
--	----

OTHER DEDICATED TESTS

18 Grooved Bases Test Examples	62
19 Detectors and Callibrators Load Cells (Dual Purpose Tensile/Compression Type, Low Loads) Load cell Loop Meter, Tensile Type Compression Test Jig for Verification (Compression Cage), Actual Load Calibration, SG Extensometer, Displacement Calibrators for SG Extensometers, U-4310 Series Contact Type Gauge Extensometer	65

JIS Standards & Test Jigs INDEX

JIS No.: Year No.	Jig Names	Product Code	Page
A: Civil Engineering & Construction			
JIS A5208:1996	Pantile/Tile 3-point Compression Bending	-	P38
JIS A1509-4:2014	Panile/Tile 3-Point Compression Bending	-	
JIS A1408:2017	Construction Board 3-point Compression Bending (No. 3, 3b, 4, 5 Test Pieces)	J-BA-10KN	P32
JIS A1106:2018	Concrete 4-point Compression Bending	-	P38
JIS A5758:2016, A1439:2016	Sealant Adhesive Strength	J-PZ5-1KN	P34
JIS A5905:2014	Particle Board Peeling	J-PZ5-5KN	
JIS A5536:2015, A6909:2014	Adhesive 90° Peeling	J-PZ1-5KN	
JIS A5905:2014, A5908:2015	Wood Screw Holding Force	J-TAM-5KN	P33
C: Electronic Devices and Electrical Machinery			
JIS C2151:2019 Method B	End Tearing Resistance	J-SP-500N	P28
JIS C5016:1994, C6481:1996	Printed Board 90°	J-PZ-200N	P35
K: Scientific			
JIS K7018:2019 Method 1c	CFRP Vertical Compression Test Jig (conical type)	J-CP2-50KN	P28
JIS K7076:1991 Ref. Standard	CFRP Vertical Compression Test Jig (pyramid type)	J-CP1-50KN	P29
JIS K7171:2016	Compression Bending Test Jig	J-B-100KN	P26
JIS K7171:2016	Compression Bending Test Jig	J-B-10KN	
JIS K6400-2:2012	Urethane Foam Compression	J-CG-1KN	P37
JIS K6557-10:2018	Grain Cracking	J-CZ-1KN	
JIS K6256-2:2013	Rubber 90° Peeling	J-PZ-1KN	P36
JIS K7171:2016	Tensile Bending Test Jig	J-BE-5KN	P26
JIS K6849:1994	Tensile Adhesive Strength	J-PZ-2.5KN	P36
JIS K6911:2006	Plastic Compression	J-CP-50KN	P27
JIS K6251:2017	Jaws for Rubber Rings	J-TGM3-1KN	P21
JIS K6911:1995	Jaws for Plastic Molded Test Pieces	J-TPM1-10KN	P23
JIS K7208:1995 (Old)	Plastic Laminate Compression	J-CP1-5KN	P29
JIS K7018:2019 Method 3c	Plastic Laminate Compression	J-CP1-5KN	
JIS K7214:1985	Plastic Shear	J-SP-50KN	P27
JIS K7125:1999	Plastic Coefficient of Friction	J-PZ2-50N	
JIS K6853:1994	Cleavage Strength	J-PZ6-5KN	P36
L: Fibers			
JIS L1096:2010	Slippage Resistance	J-SL-250N	P30
JIS L1096:2010	Grab Type Jaws - Double Cut Face	J-FFMDG-5KN	P13
JIS L1096:2010	Grab Type Jaws - Double Cut Face	J-FFMDG-1KN	
JIS L1096:2010	Grab Type Jaws - Double Cut Face	J-FFMDG-250N	
JIS L1096:2010	Grab Type Jaws - Flat Face	J-FFMFG-5KN	
JIS L1096:2010	Grab Type Jaws - Flat Face	J-FFMFG-1KN	
JIS L1096:2010	Grab Type Jaws - Flat Face	J-FFMFG-500N	
JIS L1096:2010	Grab Type Jaws - Flat Face	J-FFMFG-250N	
JIS L1096:2010	Grab Type Jaws - Corrugated face	J-FFMWG-5KN	
JIS L1096:2010	Grab Type Jaws - Corrugated face	J-FFMWG-1KN	
JIS L1096:2010	Grab Type Jaws - Corrugated face	J-FFAWG-1KN	
JIS L1018:1999 (Old)	Fabric Rupture	J-CL-5KN	P29
JIS L1018:1999 (Old)	Fabric Rupture	J-CL-1KN	
JIS L1096:2010	Fabric Rupture	J-CL-5KN	
JIS L1096:2010	Fabric Rupture	J-CL-1KN	
P: Pulp/Paper			
JIS P8147:2010	Paper Coefficient of Friction	J-PZ3-50N	P31
JIS P8113:2006	Jaws for Paper	J-TWM-300N	P23
R: Ceramics			
JIS R1601:2008	Ceramics 3-/4-point Compression Bending	J-BR-5KN	P37
S: Daily Goods			
JIS S0021-2:2018	Seal Peeling Test Jigs for Containers	JM-PZ-50N	P36
Z: Others			
JIS Z0403-2:1999	Vertical Compression	-	P31
JIS Z0212:1998	Cardboard Box Compression	-	
JIS Z0237:2009	Adhesive Tape 90° Peeling	J-PZ10-1KN	P35
JIS Z2101:2009	Wood 3-point Compression Test Jig	J-BA-5KN	P32
JIS Z2101:2009	Wood Hardness	J-ZA-5KN	P33
JIS Z2101:2009	Wood Shear Test Jig	J-SA1-50KN	P32
JIS Z2101:2009	Wood Splitting	J-PA-1KN	P33
JIS Z2101:2009	Wood Nail Pull-out Resistance	J-TAM-1KN	
JIS Z1707:2019	Puncture Test Jig	J-CP1-1KN-U	P29

NOTE: Products may not adhere to the given Standards depending on the Year No. of the Standards. Appearance, etc., may differ from JIS examples. We also offer a variety of other jigs and fixtures. If you do not see your product in the list above, please contact us for a separate consultation.

INDEX

Jaw Types

The table below summarizes typical jaw types and the shapes of samples they can handle.

		Screw Action	Wedge	Drill	Off-center Grip	Winding	Shoulder Hung	Pin Hung	Screw Action (Air)	Tire Cord (Air)	Wedge (Oil)	Clip
Jaw Form	Forced tighten	○		○					○	○	○	○
	Self tighten		○	△	○	○				△	△	
	Hung						○	○				
Drive System	Manual	○	○	○	○	○	○	○				
	Air pressure								○	○		
	Oil pressure										○	
	Spring											○
Sample Shape	Board	○	○		△			○	○		○	
	Film	○			△				○			○
	Rod		○	○							○	
	Line	○	○	○					○	○		○
	Pipe		○	△							○	
	Molded	○	○				○	△	○		○	
	Thread	○				○			○	○		○
	String					○				○		
	Rope					○						
	Cord	△				○				○		
	Belt	△			△	○			△			
	Dumbbell	△			○				○			
	Ring							○				
Paper	○			△				○			○	

NOTE: The table above provide only a rough guideline for matching samples and jaw types as the most suitable jaw type will depend on the surface and material of the sample.

TENSILON Universal Testing Machine

RTF/RTG/RTH/RTI SERIES

**Adaptable to suit every test
for loads ranging from 1 kN to 300 kN**

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

TENSILE TESTS

Tensile testing is the most basic mechanical property test for various materials. TENSILON has been designed with an emphasis on tensile testing.

TENSILON has a lineup for various test load capacities. By changing load cells and test jigs, even large capacity testing machines can be used to test very small loads.

Therefore, in order to fully utilize the performance of TENSILON, it is necessary to understand how load cells and jigs are combined. This chapter introduces examples of combinations for the most basic tensile tests and the types of jaws that are indispensable for tensile testing. Knowing how to configure the testing machine will help you perform better tests.

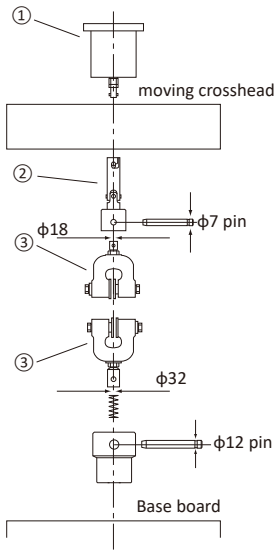
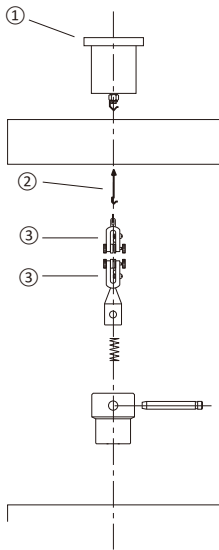
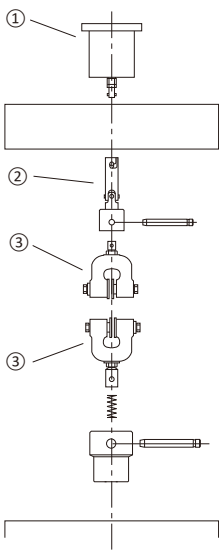
TENSILON can also be used to test minute loads with high accuracy by replacing the load cell.

TENSILON has a wide variety of jaws for different shapes and strengths of samples, allowing you to select the jaw and jaw face best suited for your testing purpose.

TENSILON has standardized joining methods and dimensions for its jigs as well as its load cells depending on the test load, making it easy to select the right jig.

NOTES	Jig	:	Refers to a tool that is required when conducting a test. A Jaw is one type of Jig.
	Jaw	:	This is the name for a "gripping jig" that grips a sample. It is sometimes called a Chuck or a Grip.
	(Jaw) Face	:	The choice of a jaw face is crucial to ensure a secure grip on the specimen. Select the most suitable jaw face from our wide selection of jaw faces.
	Universal Joint	:	In a tensile test, the specimen must be mounted in line with the center of the tensile axis of the testing machine. A universal joint is able to align shafts that have mismatched centers, also known as eccentric or off-centric shafts.

RTF-1210/RTG-1210

Tensile Test Type	Rated Load Tensile Test		Small Load Tensile Test	
	Load	1 kN (100 kgf)	10 N (1 kgf)	50 N (5 kgf)
Device Configuration				
	① Load Cell	1 kN UR-1KN-D	10 N UR-10N-D	50 N UR-50N-D
	② Universal Joint	1 kN J-UF-1KN	10 N J-UF-10N	50 N J-UF-50N
③ Jaw	1 kN Screw Action	10 N Various Jaws	50 N Various Jaws	

RTF-1225/RTG-1225, RTF-1250/RTG-1250, RTH-1225/RTI-1225

Tensile Test Type	Rated Load Tensile Test		Small Load Tensile Test			
Load	2.5 kN (250 kgf)	5 kN (500 kgf)	10 N (1 kgf)	50 N (5 kgf)	1 kN (100 kgf)	
Device Configuration						
	① Load Cell	2.5 kN UR-2.5KN-D	5 kN UR-5KN-D	10 N UR-10N-D	50 N UR-50N-D	1 kN UR-1KN-D
② Universal Joint	5 kN J-UF-5KN	5 kN J-UF-5KN	10 N J-UF-10N	50 N J-UF-50N	1 kN J-UF-1KN	
③ Jaw	5 kN Screw Action	5 kN Screw Action	10 N Various Jaws	50 N Various Jaws	1 kN Various Jaws	

RTF-1310/RTG-1310/RTH-1310/RTI-1310

Tensile Test Type	Rated Load Tensile Test	Small Load Tensile Test			
Load	10 kN (1 tf)	10 N (1 kgf)	50 N (5 kgf)	1 kN (100 kgf)	5 kN (500 kgf)
Device Configuration					
	① Load Cell	10 kN UR-10KN-D	10 N UR-10N-D	50 N UR-50N-D	1 kN UR-1KN-D
② Universal Joint	10 kN J-UF-10KN	10 N J-UF-10N	50 N J-UF-50N	1 kN J-UF-1KN	5 kN J-UF-5KN
③ Jaw	10 kN Stat. Wedge	10 N Various Jaws	50 N Various Jaws	1 kN Various Jaws	5 kN Various Jaws

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAW

TIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL

8. OTHER
DEDI

9. THERM/
CHAMB

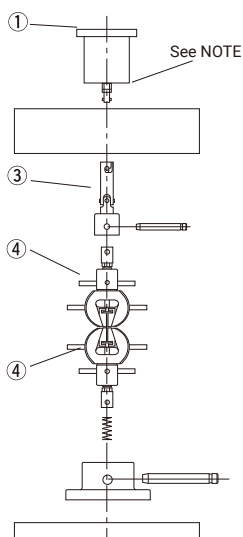
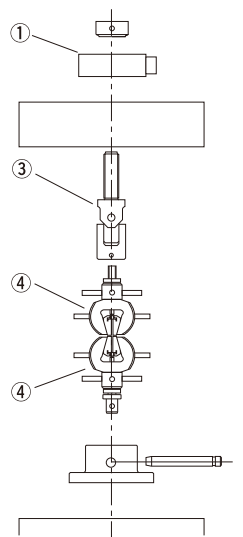
10. DETEC/
CALLIB

LOAD
CELL

EXTENS

- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

RTF-2425/RTF-2430 (floor)

Tensile Test Type	Small Load Tensile Test							
	Load	10 kN (1 tf)		25 kN (2.5 tf)		50 kN (5 tf)		100 kN (10 tf)
Device Configuration								
① Load Cell	10 kN	UR-10KN-D	25 kN	UR-25KN-D	50 kN	UR-50KN-D	100 kN	UR-100KN-D
③ Universal Joint	10 kN	J-UF-10KN	50 kN	J-UF1-50KN	50 kN	J-UF1-50KN	100 kN	J-UF1-100KN
④ Jaw	10 kN	Various Jaws	25 kN	Various Jaws	50 kN	Various Jaws	100 kN	Various Jaws

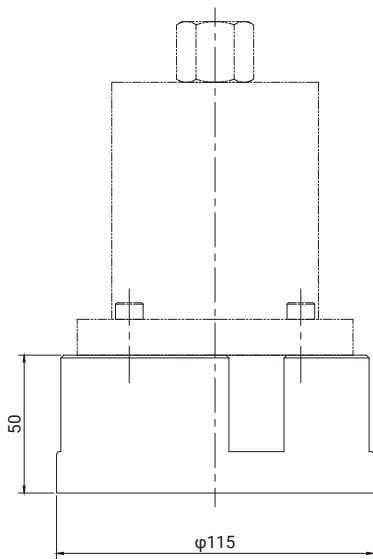
NOTE: When using a UF-A Series load cell, an adapter cable (RTC-17) for connecting UR-XXX-D is separately required.

Load Cell Rating	Long T-type Hook Product Code
10 kN (1 tf) to 2.5 kN (250 kgf)	J-T1-10KN
1 kN (100 kgf) to 25 N (2.5 kgf)	J-T1-1KN

NOTE: The RTF-2425 and RTF-2430 testing machines require a long T-type hook that matches the load cell rating.

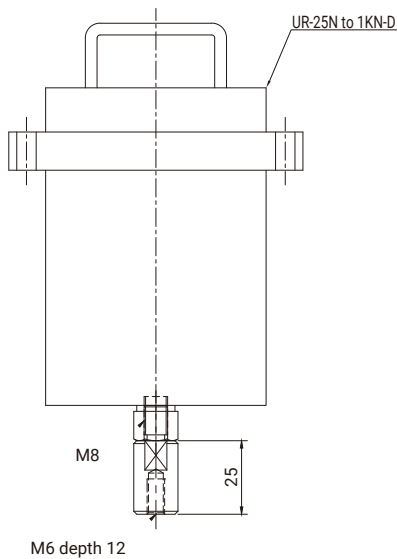
Adapters and Universal Joints

UR Load Cell Mounting Base



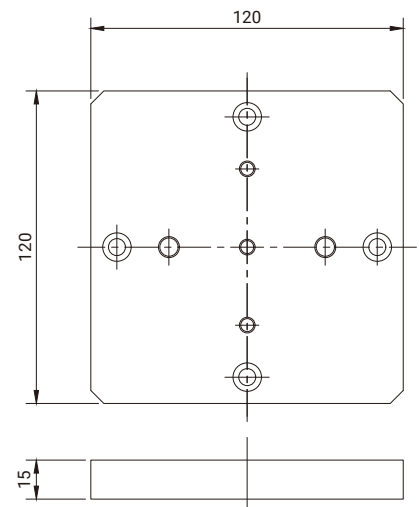
Capacity	Prod. Code
10 kN	J-X009

M8-M6 Conversion Adapter



Capacity	Prod. Code
1kN	J-X010

MCT Base Board Mounting Adapter

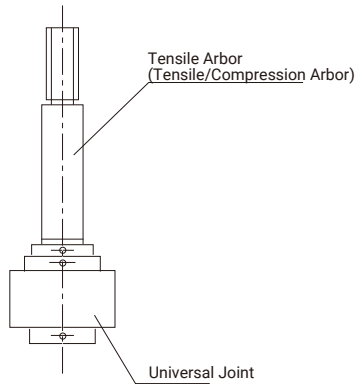


Supported testing machines:
RTG, RTF, RTH, RTI-1210 to 1310
STB-1225S, 1225L

Capacity	Prod. Code
500N	J-X011

NOTE: Load cell L-type conversion cable (RTF-17) is separately required.

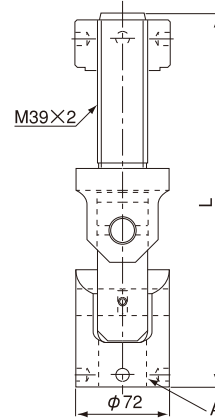
300 kN (30 tf) to 250 kN (25 tf)



Load	Weight (kg)	Prod. Code
300 kN (30 tf)	24	J-UF-300KN

NOTE: Separate Jig is required, Tensile Arbor (PROD. CODE: J-C-300KN-A)

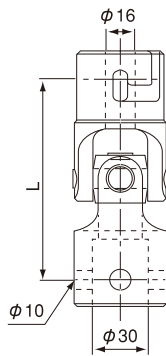
100 kN (10 tf) to 25 kN (2.5 tf)



Load	Dimensions (mm)		Weight (kg)	Prod. Code
	A	L		
100 kN (10 tf)	M39x2	290	5.0	J-UF-300KN
		330	5.5	J-UF-300KN
50 kN (5 tf)	M30x1.5	390	4.3	J-UF-300KN
		330	4.8	J-UF-300KN

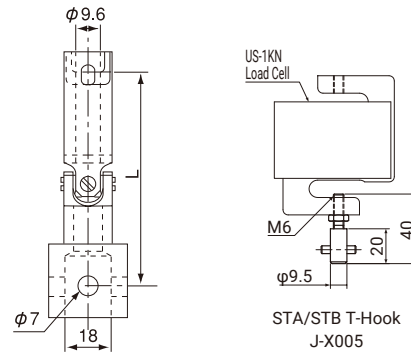
NOTE: J-UF1-50KN and J-UF1-100KN are for RTF-2425 and 2430.

10 kN (1 tf) to 2.5 kN (250 kgf)



Load	Dimen. (mm) L	Weight (kg)	Prod. Code
10kN (1tf)	110	1.3	J-UF-10KN
5kN (500kgf)	96	1.2	J-UF-5KN

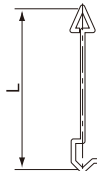
1 kN (100 kgf) to 25 N (2.5 kgf)



Load	Dimen. (mm) L	Weight (kg)	Prod. Code
1kN (100kgf)	82.5	240	J-UF-1KN
50N (5kgf)	76.5	70	J-UF-50N

NOTE: When used with STA/STB, a separate T-type hook (J-X005) is required.

10 N (1 kgf) to 1 N (100 gf)



Load	Dimen. (mm) L	Weight (kg)	Prod. Code
10N (1kgf)	25 [Ⓐ] NOTE 1	0.4	J-UF-10N
	63 [Ⓑ] NOTE 1	0.7	
		175	1.2

NOTE 1. [Ⓐ][Ⓑ] 1 each, total 2 pcs. 1 set

NOTE 2. J-UF1-10N is for RTF-2425, 2430.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAW

TIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL

8. OTHER
DEDI

9. THERM/
CHAMB

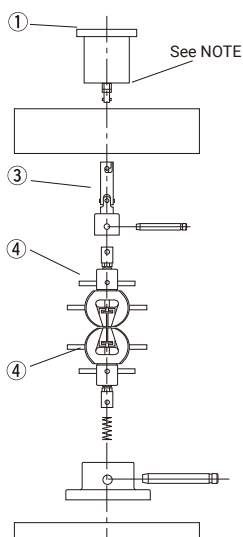
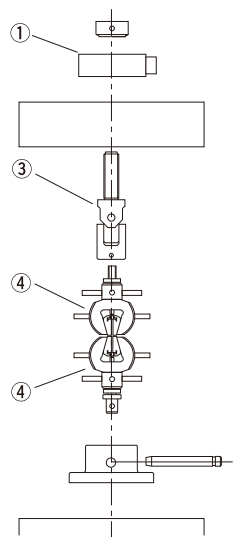
10. DETEC/
CALLIB

LOAD
CELL

EXTENS

- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

RTF-2425/RTF-2430 (floor)

Tensile Test Type	Small Load Tensile Test							
	Load	10 kN (1 tf)		25 kN (2.5 tf)		50 kN (5 tf)		100 kN (10 tf)
Device Configuration								
① Load Cell	10 kN	UR-10KN-D	25 kN	UR-25KN-D	50 kN	UR-50KN-D	100 kN	UR-100KN-D
③ Universal Joint	10 kN	J-UF-10KN	50 kN	J-UF1-50KN	50 kN	J-UF1-50KN	100 kN	J-UF1-100KN
④ Jaw	10 kN	Various Jaws	25 kN	Various Jaws	50 kN	Various Jaws	100 kN	Various Jaws

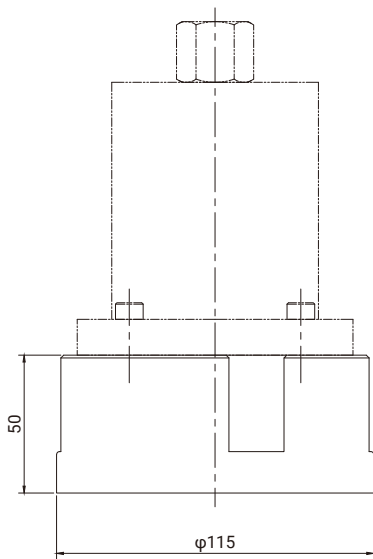
NOTE: When using a UF-A Series load cell, an adapter cable (RTC-17) for connecting UR-XXX-D is separately required.

Load Cell Rating	Long T-type Hook Product Code
10 kN (1 tf) to 2.5 kN (250 kgf)	J-T1-10KN
1 kN (100 kgf) to 25 N (2.5 kgf)	J-T1-1KN

NOTE: The RTF-2425 and RTF-2430 testing machines require a long T-type hook that matches the load cell rating.

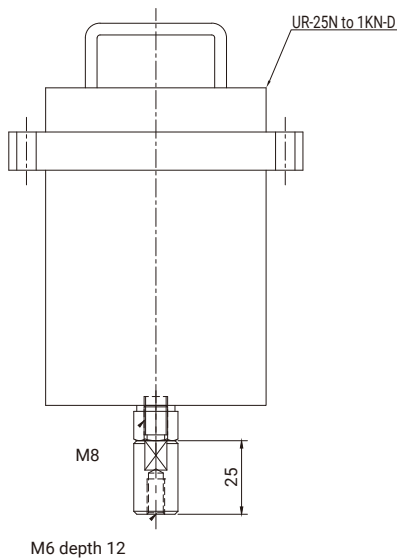
Adapters and Universal Joints

UR Load Cell Mounting Base



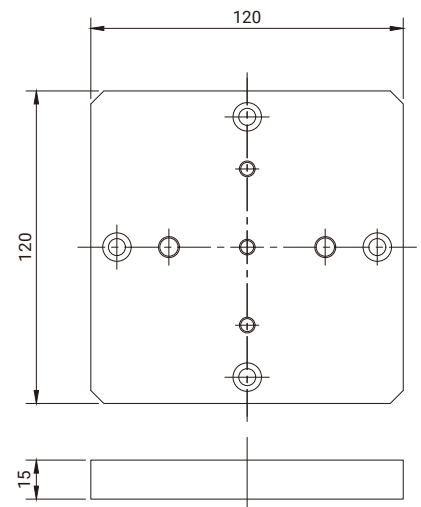
Capacity	Prod. Code
10 kN	J-X009

M8-M6 Conversion Adapter



Capacity	Prod. Code
1kN	J-X010

MCT Base Board Mounting Adapter

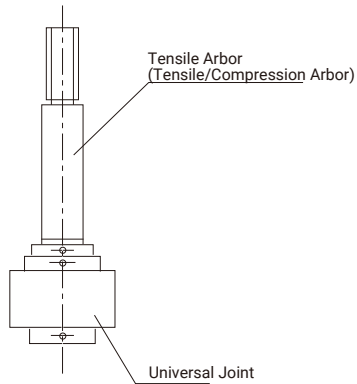


Supported testing machines:
RTG, RTF, RTH, RTI-1210 to 1310
STB-1225S, 1225L

Capacity	Prod. Code
500N	J-X011

NOTE: Load cell L-type conversion cable (RTF-17) is separately required.

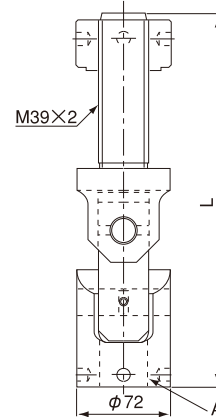
300 kN (30 tf) to 250 kN (25 tf)



Load	Weight (kg)	Prod. Code
300 kN (30 tf)	24	J-UF-300KN

NOTE: Separate Jig is required, Tensile Arbor (PROD. CODE: J-C-300KN-A)

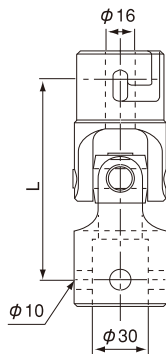
100 kN (10 tf) to 25 kN (2.5 tf)



Load	Dimensions (mm)		Weight (kg)	Prod. Code
	A	L		
100 kN (10 tf)	M39x2	290	5.0	J-UF-300KN
		330	5.5	J-UF-300KN
50 kN (5 tf)	M30x1.5	390	4.3	J-UF-300KN
		330	4.8	J-UF-300KN

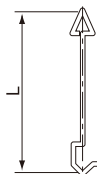
NOTE: J-UF1-50KN and J-UF1-100KN are for RTF-2425 and 2430.

10 kN (1 tf) to 2.5 kN (250 kgf)



Load	Dimen. (mm) L	Weight (kg)	Prod. Code
10kN (1tf)	110	1.3	J-UF-10KN
5kN (500kgf)	96	1.2	J-UF-5KN

10 N (1 kgf) to 1 N (100 gf)

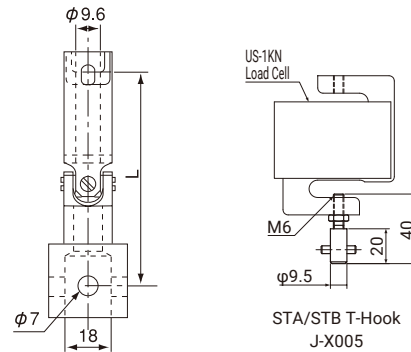


Load	Dimen. (mm) L	Weight (kg)	Prod. Code
10N (1kgf)	25 [Ⓐ] NOTE 1	0.4	J-UF-10N
	63 [Ⓑ] NOTE 1	0.7	
	175	1.2	J-UF1-10N ^{NOTE 2}

NOTE 1. [Ⓐ][Ⓑ] 1 each, total 2 pcs. 1 set

NOTE 2. J-UF1-10N is for RTF-2425, 2430.

1 kN (100 kgf) to 25 N (2.5 kgf)



Load	Dimen. (mm) L	Weight (kg)	Prod. Code
1kN (100kgf)	82.5	240	J-UF-1KN
50N (5kgf)	76.5	70	J-UF-50N

NOTE: When used with STA/STB, a separate T-type hook (J-X005) is required.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAW

TIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL

8. OTHER
DEDI

9. THERM/
CHAMB

10. DETEC/
CALLIB

LOAD
CELL

EXTENS

- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

SCREW ACTION JAWS

5 kN (500 kgf) to 50 N (5 kgf)

- **Applicable Samples** Rubber, plastic, textile, fabric, paper, etc.
- **Configuration**
 1. Jaws, top+bottom, 1 set each
 2. Faces, 1 set

*Combine the faces listed in the Type table in the file separately according to the purpose.

 3. 1 handle for opening/closing Face
- **Operating Temp. Range**

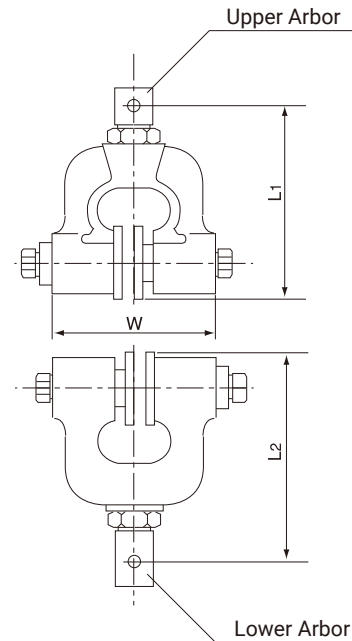
Room temp.: -10 to +70°C
 Chamber temp.: -65 to +270°C
 (However, for J-JFM-50N is -65 to +100°C.)

- **Types**

Load	Prod. Code	Dimen. (mm)			Upper Jaw Weight (kg)
		W	L1	L2	
5kN/2.5kN(500kgf/250kgf)	J-JFM-5KN	130	159	172	3.4 Iron
1kN/500N(100kgf/50kgf)	J-JFM-1KN	110	134	153	2.3 Iron
250N(25kgf)	J-JFM-250N	85	87.5	103.5	0.65 Iron
50N(5kgf)	J-JFM-50N	85	87.5	103.5	0.3 Alum.

NOTE:

- 1: L1 and L2 dimensions are with standard face installed.
- 2: Product Codes above do not include Faces.
- 3: Shapes of 1 kN, 250 N, and 50 N are slightly different from those shown in the illustration.



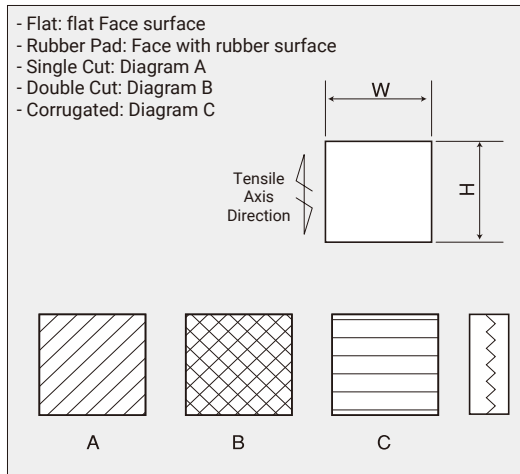
- **Face Types**

Board (Bo), Cloth (Cl), Paper (Pa) Flat (FI), Single Cut (SC), Double Cut (DC), Rubber Pad (RP), Corrugated (Co)

Load	Applicable Samples	Face Style	Face Dimen. WXH (mm)	Face Open Dist. (mm)	Prod. Code			
5kN/2.5kN (500kgf/250kgf)	Bo/Cl/Pa	FI	60×60	0 to 18	J-FFMF1-5KN			
	Bo	SC			J-FFMS1-5KN			
	Bo	DC			J-FFMD1-5KN			
	1kN/500N (100kgf/50kgf)	Cl/Pa	RP	60×50	0 to 16	J-FFMR1-5KN		
		Cl	Co			J-FFMW1-5KN		
		Bo/Cl/Pa	FI			J-FFMF2-5KN		
		50N (5kgf)	Bo	SC	30×30	0 to 18	J-FFMS2-5KN	
			Bo	DC			J-FFMD2-5KN	
			Cl/Pa	RP			J-FFMR2-5KN	
			50N (5kgf)	Cl	Co	40×40	0 to 15	J-FFMW2-5KN
				Bo/Cl/Pa	FI			J-FFMF3-5KN
				Bo	SC			J-FFMS3-5KN
50N (5kgf)				Bo	DC	40×40	0 to 18	J-FFMD3-5KN
				Cl/Pa	RP			J-FFMR3-5KN
				Cl	Co			J-FFMW3-5KN
	50N (5kgf)			Bo/Cl/Pa	FI	50×50	0 to 14	J-FFMF1-1KN
				Bo	SC			J-FFMS1-1KN
				Bo	DC			J-FFMD1-1KN
		50N (5kgf)		Cl/Pa	RP	50×50	0 to 12	J-FFMR1-1KN
				Cl	Co			J-FFMW1-1KN
				Bo/Cl/Pa	FI			J-FFMF2-1KN
			50N (5kgf)	Bo	SC	60×50	0 to 14	J-FFMS2-1KN
				Bo	DC			J-FFMD2-1KN
				Cl/Pa	RP			J-FFMR2-1KN
50N (5kgf)				Cl	Co	60×50	0 to 12	J-FFMW2-1KN
				Bo/Cl/Pa	FI			J-FFMF3-1KN
				Bo	SC			J-FFMS3-1KN
	50N (5kgf)			Bo	DC	20×50	0 to 14	J-FFMD3-1KN
				Cl/Pa	RP			J-FFMR3-1KN
				Cl	Co			J-FFMW3-1KN
		50N (5kgf)		Bo/Cl/Pa	FI	30×50	0 to 14	J-FFMF4-1KN
				Bo	SC			J-FFMS4-1KN
				Bo	DC			J-FFMD4-1KN
			50N (5kgf)	Cl/Pa	RP	30×50	0 to 12	J-FFMR4-1KN
				Cl	Co			J-FFMW4-1KN

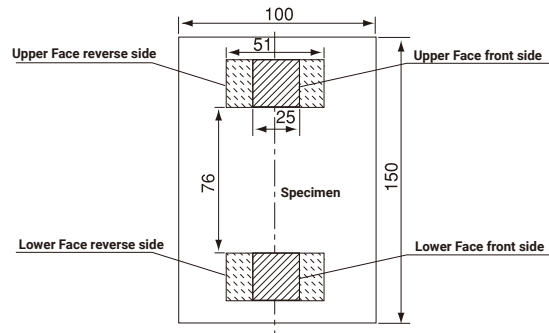
Load	Applicable Samples	Face Style	Face Dimen. WXH (mm)	Face Open Dist. (mm)	Prod. Code	
250N (25kgf)	Bo/Cl/Pa	FI	25×25	0 to 9	J-FFMF1-250N	
	Bo	SC			J-FFMS1-250N	
	Bo	DC			J-FFMD1-250N	
	50N (5kgf)	Cl/Pa	RP	60×25	0 to 7	J-FFMR1-250N
		Cl	Co			J-FFMW1-250N
		Bo/Cl/Pa	FI			J-FFMF2-250N
50N (5kgf)		Bo	SC	60×25	0 to 9	J-FFMS2-250N
		Bo	DC			J-FFMD2-250N
		Cl/Pa	RP			J-FFMR2-250N
	50N (5kgf)	Cl	Co	15×25	0 to 9	J-FFMW2-250N
		Bo/Cl/Pa	FI			J-FFMF3-250N
		Bo	SC			J-FFMS3-250N
50N (5kgf)		Bo	DC	15×25	0 to 9	J-FFMD3-250N
		Cl/Pa	RP			J-FFMR3-250N
		Cl	Co			J-FFMW3-250N

NOTE: Standard products are indicated with a thick line border.



Grab Method Jaw Face JIS L1096:2010

Load	Face Style	Face Dimen. W×H (mm)		Prod. Code
		Front Side	Reverse Side	
10kN/5kN (1tf/500kgf)	Corrugated	25×25	51×25	J-FFAWG-10KN <small>NOTE 3</small>
	Flat			J-FFMFG-5KN
	Double Cut			J-FFMDG-5KN
	Corrugated			J-FFMWG-5KN
1kN (100kgf)	Flat			J-FFMFG-1KN
	Double Cut			J-FFMDG-1KN
	Corrugated			J-FFMWG-1KN
				J-FFAWG-1KN <small>NOTE 2</small>
500N (50kgf) <small>NOTE 1</small>	Flat			J-FFMFG-500N
250N/50N (25kgf/5kgf)	Flat			J-FFMFG-250N
	Double Cut	J-FFMDG-250N		

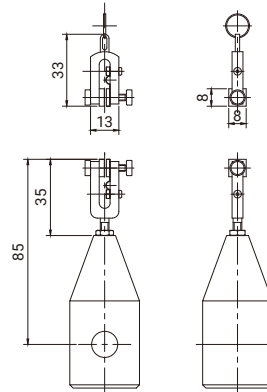


NOTE: Applicable to Screw Action Jaws and Air Jaws.
NOTE 1: Dedicated Face for J-JFA-500N Air Jaws.
NOTE 2: Dedicated Face for J-JFA1-1KN Air Jaws.
NOTE 3: Dedicated Face for J-JFA1-10KN Air Jaws.

Screw Action Jaws 10N (1 kgf)

- **Applicable Samples** Rubber, plastic, paper, thread, etc.
- **Standard Configuration** Jaw top and bottom, 1 pair each (including face)
- **Operating Temp. Range** Room temp. -10 to +70°C
Chamber temp. -65 to +270°C

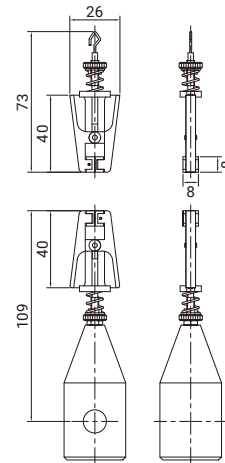
Load	Face Style	Prod. Code	Upper Jaw Weight (g)
10N(1kgf)	Flat	J-JFM-10N	12



Clip Jaws 5N (500gf) (adjustable tightening)

- **Applicable Samples** Rubber, plastic, paper, thread, etc.
- **Standard Configuration** Jaw top and bottom, 1 pair each (including face)
- **Operating Temp. Range** -10 to +70°C

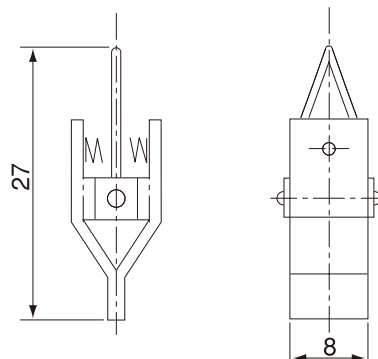
Load	Face Style	Face Dimen. (mm)	Prod. Code	Upper Jaw Weight (g)
5N(500gf)	Flat	8×8	J-TZM-5N	12



Spring Action Jaws 1 N (100 gf)

- **Applicable Samples** Rubber, plastic, paper, thread, etc.
- **Standard Configuration** Jaw top only, 1 set of 4 pcs
- **Operating Temp. Range** -10 to +70°C

Load	Face Style	Face Dimen. (mm)	Prod. Code	Upper Jaw Weight (g)
1N(100gf)	Stamped w/ grooves	8×8	J-JFM-1N	3



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

WEDGE JAWS

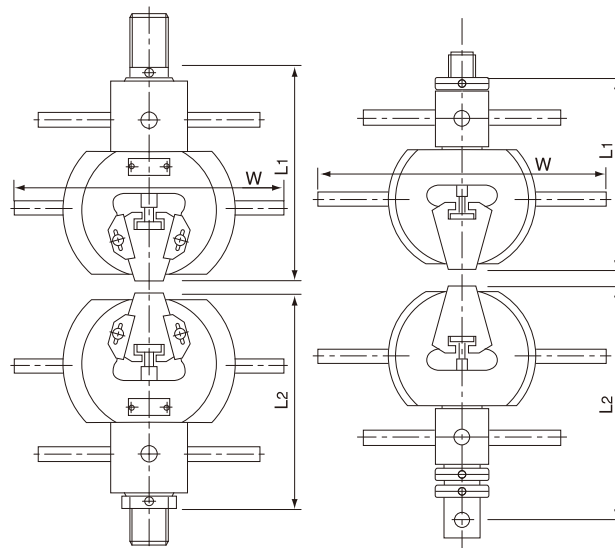
Stationary Wedge Jaws

- **Applicable Samples** Metal, plastic, wood, etc.
- **Configuration**
 1. Jaws, top+bottom, 1 set each
 2. Faces, 1 set

*Select what you need from the Face types.
- **Operating Temp. Range** Room temp.: -10 to +70°C
- **Types**

Load	Prod. Code	Dimen. (mm)			Upper Jaw Weight (kg)
		W	L ₁	L ₂	
300kN(30tf)	J-JBM-300KN	306	297.5	297.5	36
100kN(10tf)	J-JBM-100KN	408	268	323	21
50kN(5tf)	J-JBM-50KN	282	196	246	8.2
10kN(1tf)	J-JBM-10KN	218	213	213	3.9
5kN(500kgf)	J-JBM-5KN	208	202	202	1.7
1kN(100kgf)	J-JBM-1KN	208	208	203	1.7

NOTE: The above Product Codes do not include Faces.



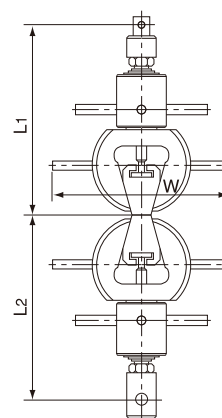
300kN

100kN • 50kN

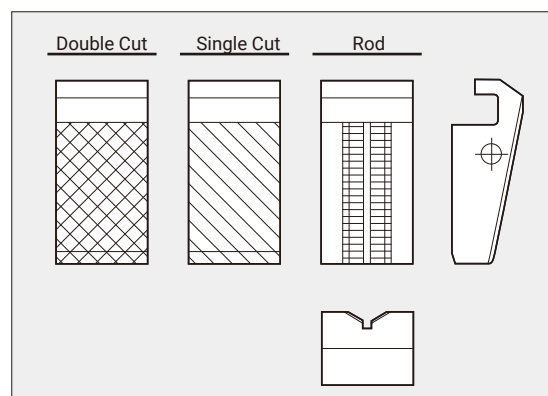
- Face Types

Load	Face Style	Face WxH (mm)	Face Open Dist. (mm)	Prod. Code	
300kN(30tf)	Double Cut	55×70	0~12	J-FBMD1-300KN	
			10~22	J-FBMD2-300KN	
			20~32	J-FBMD3-300KN	
	Single Cut		0~12	J-FBMS1-300KN	
			10~22	J-FBMS2-300KN	
			20~32	J-FBMS3-300KN	
	Rod		φ 7~15	J-FBMB11-300KN	
			φ 12~20	J-FBMB2-300KN	
			φ 18~26	J-FBMB3-300KN	
100kN(10tf)	Double Cut	55×70	0~12	J-FBMD1-100KN	
			10~22	J-FBMD2-100KN	
			20~32	J-FBMD3-100KN	
	Single Cut		0~12	J-FBMS1-100KN	
			10~22	J-FBMS2-100KN	
20~32			J-FBMS3-100KN		
Rod	φ 7~15		J-FBMB11-100KN		
	φ 12~20		J-FBMB2-100KN		
	φ 18~26		J-FBMB3-100KN		
50kN(5tf)	Double Cut	30×50	0~10	J-FBMD1-50KN	
			9~18	J-FBMD2-50KN	
			0~10	J-FBMS1-50KN	
	Single Cut		9~18	J-FBMS2-50KN	
			Rod	φ 7~13	J-FBMB11-50KN
φ 13~20				J-FBMB12-50KN	
10kN(1tf)	Double Cut			26×41	0~10
			9~18		J-FBMD2-10KN
			0~10		J-FBMS1-10KN
	Single Cut	9~18	J-FBMS2-10KN		
		Rod	φ 7~14		J-FBMB11-10KN
φ 10~17			J-FBMB2-10KN		

NOTE: Products framed in bold are the most commonly used types.



10kN • 5kN • 1kN



- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

Non-stationary Wedge Jaws

- **Applicable Samples** Metal, plastic, wood, etc.
- **Configuration**
 1. Jaws, top+bottom, 1 set each
 2. Faces, 1 set

*Select what you need from the Face types.

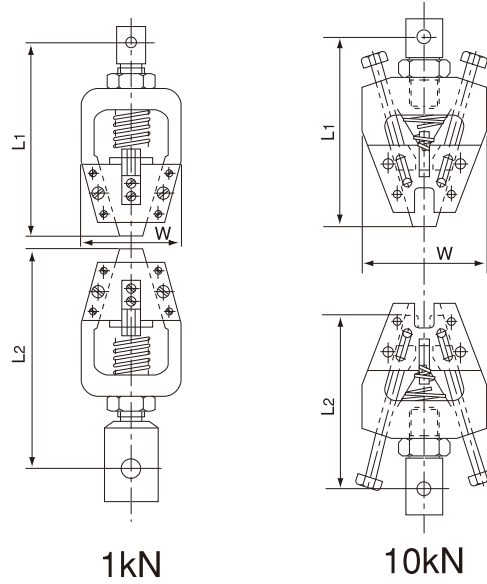
 3. 1 handle for opening/closing Face
- **Operating Temp. Range**

Room temp.: -10 to +70°C
 Chamber temp.: -65 to +270°C
 (However, for J-JFM-50N is -65 to +100°C.)

- **Types**

Load	Prod. Code	Dimen. (mm)			Upper Jaw Weight (kg)
		W	L1	L2	
100kN(10tf)	J-JCM-100KN	228	150	150	21
50kN(5tf)	J-JCM-50KN	198	180	230	8.7
10kN(1tf)	J-JDM-10KN	100	152	142	3.6
1kN(100kgf)	J-JDM-1KN	60	116	132	0.9

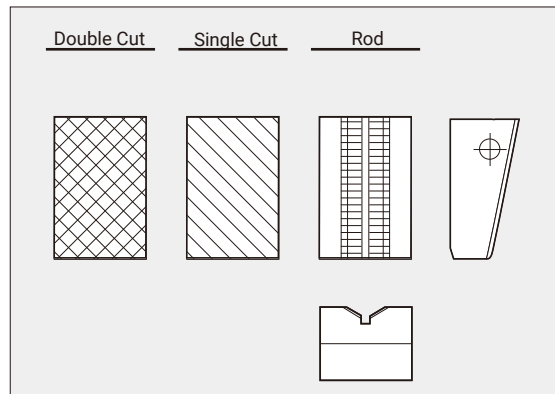
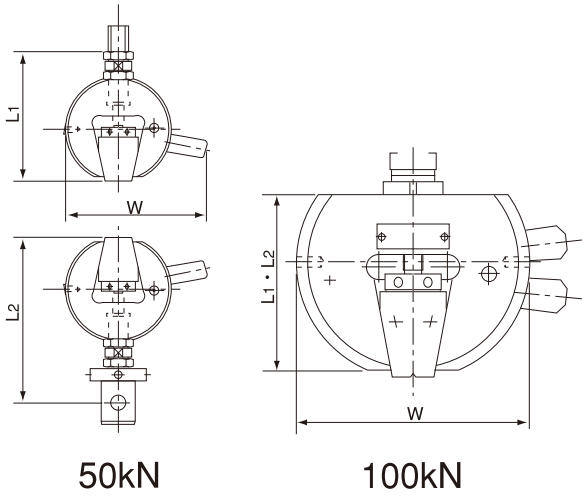
NOTE: The above Product Codes do not include Faces.



- **Face Types**

Load	Face Style	Face WxH (mm)	Face Open Dist. (mm)	Prod. Code			
100kN(10tf)	Double Cut	54x70	0~5	J-FCMD1-100KN			
			4~9	J-FCMD2-100KN			
	Rod		φ 7~11	J-FCMB11-100KN			
			φ 11~15	J-FCMB12-100KN			
50kN(5tf)	Double Cut	52x60	0~5	J-FCMD1-50KN			
			4~9	J-FCMD2-50KN			
			8~13	J-FCMD3-50KN			
			12~17	J-FCMD4-50KN			
	Single Cut		0~5	J-FCMS1-50KN			
			4~9	J-FCMS2-50KN			
			8~13	J-FCMS3-50KN			
			12~17	J-FCMS4-50KN			
	Rod		φ 7~11	J-FCMB11-50KN			
			φ 11~15	J-FCMB12-50KN			
			10kN(1tf)	Double Cut	52x46	0~11	J-FDMD1-10KN
				Single Cut		0~11	J-FDMS1-10KN
Rod	φ 7~13	J-FDMS1-10KN					
	φ 13~20	J-FDMS1-10KN					
1kN(100kgf)	Double Cut	26x29	0~7	J-FDMD1-1KN			
	Single Cut		0~7	J-FDMS1-1KN			
	Rod		φ 7~11	J-FDMS1-1KN			
			φ 10~15	J-FDMS1-1KN			
			φ 10~15	J-FDMS1-1KN			

NOTE: Products framed in bold are the most commonly used types.



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

Air Jaws

Screw Action Jaws

- **Applicable Samples** Rubber, plastic, textile, fabric, yarn, paper, etc.
- **Configuration** 1. Upper+lower Jaws, 1 set each
2. 1 set of Faces
*Select what you need from the Face types.
- **Maximum Rated Air Pressure** 0.5 MPa (5 kgf/cm²)
- **Operating Temp. Range** Toom temp. -10 to +70°C
- **Separate Air Jaw control device required.** Chamber -10 to +150°C

- Types

Load	Prod. Code	Dimen. (mm)			Upper Jaw Weight (kg)
		W	L ₁	L ₂	
10kN(1tf)	J-JFA-10KN	φ176	275	290	12
10kN(1tf)	J-JFA1-10KN	φ154	245	247	7.1
5kN(500kgf)	J-JFA-5KN	φ169	260	275	9.2
1kN(100kgf)	J-JFA-1KN	φ129	191	225	4.1
1kN(100kgf)	J-JFA1-1KN	φ90	168.5	174.5	1.8
500N(50kgf)	J-JFA-500N	φ90	180	193	1.8
50N(5kgf)	J-JFA-50N	φ90	124.5	137.5	0.6

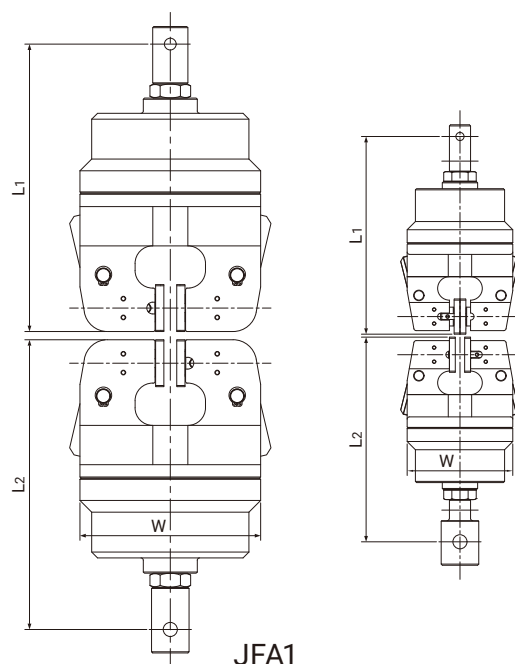
NOTE:

1. L₁ and L₂ dimensions are for mounting standard Faces.
2. The above Product Codes do not include Faces.
3. JFA1 type does not include finger guards.

- Finger Guard for new Air Jaw (for JFA1)

Load	Face Dimen. W×H (mm)	Prod. Code
10kN (1tf)	40×40	J-JFA1-10KN-02
	60×60	J-JFA1-10KN-03
1kN (100kgf)	30×30	J-JFA1-1KN-02
	40×30	J-JFA1-1KN-03
	50×30	J-JFA1-1KN-04
	40×40	J-JFA1-1KN-05
	50×40	J-JFA1-1KN-06
	50×50	J-JFA1-1KN-07

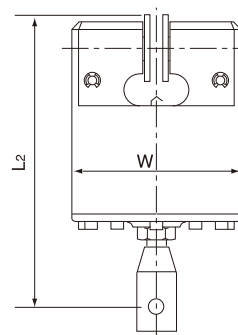
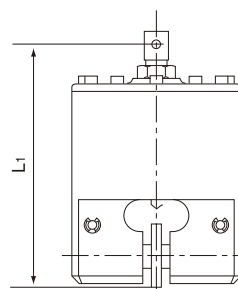
NOTE: 2 pieces/set. Two sets are required to mount on the upper and lower parts.



JFA1

Mod. Spec.	Prod. Code
No up/low pre-load	J-JFA1-1KN-08
Up/low pre-load	J-JFA1-1KN-09

NOTE: Supported only by J-JFA1-1KN



JFA

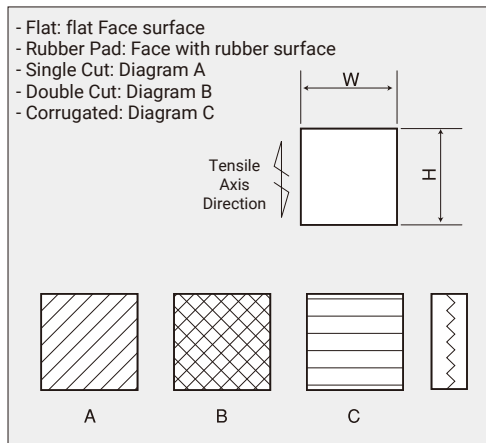
- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/BEND
- 3. POLY
- 4. FIBER
- 5. PULP/PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/CHAMB
- 10. DETEC/CALLIB
- LOAD CELL
- EXTENS

- Face Types (for JFA) Board (Bo), Cloth (Cl), Paper (Pa) Flat (FI), Single Cut (SC), Double Cut (DC), Rubber Pad (RP), Corrugated (Co)

Load	Applic. Samples	Face Style	Face Dimen. W×H (mm)	Face Open Dist. (mm)	Prod. Code		
10kN (1tf)	Bo/Cl/Pa	FI	60×60	0 to 13	J-FFMF1-5KN		
	Bo	SC			J-FFMS1-5KN		
	Bo	DC			J-FFMD1-5KN		
	Cl/Pa	RP		0 to 11	J-FFMR1-5KN		
	Cl	Co		0 to 10	J-FFMW1-5KN		
	5kN (500kgf)	Bo/Cl/Pa		FI	30×30	0 to 13	J-FFMF2-5KN
Bo		SC	J-FFMS2-5KN				
Bo		DC	J-FFMD2-5KN				
Cl/Pa		RP	0 to 11	J-FFMR2-5KN			
Cl		Co	0 to 10	J-FFMW2-5KN			
1kN (100kgf)		Bo/Cl/Pa	FI	40×40		0 to 13	J-FFMF3-5KN
	Bo	SC	J-FFMS3-5KN				
	Bo	DC	J-FFMD3-5KN				
	Cl/Pa	RP	0 to 11		J-FFMR3-5KN		
	Cl	Co	0 to 10		J-FFMW3-5KN		
	10kN (1tf)	Bo/Cl/Pa	FI		50×50	0 to 9	J-FFMF1-1KN
		Bo	SC	J-FFMS1-1KN			
		Bo	DC	J-FFMD1-1KN			
		Cl/Pa	RP	0 to 7		J-FFMR1-1KN	
		Cl	Co	0 to 7		J-FFMW1-1KN	
		1kN (100kgf)	Bo/Cl/Pa	FI		60×50	0 to 9
			Bo	SC	J-FFMS2-1KN		
Bo			DC	J-FFMD2-1KN			
Cl/Pa			RP	0 to 7	J-FFMR2-1KN		
Cl			Co	0 to 7	J-FFMW2-1KN		
1kN (100kgf)			Bo/Cl/Pa	FI	20×50		0 to 9
			Bo	SC		J-FFMS3-1KN	
	Bo		DC	J-FFMD3-1KN			
	Cl/Pa		RP	0 to 7		J-FFMR3-1KN	
	Cl		Co	0 to 7		J-FFMW3-1KN	
	1kN (100kgf)		Bo/Cl/Pa	FI		30×50	0 to 9
			Bo	SC	J-FFMS4-1KN		
		Bo	DC	J-FFMD4-1KN			
		Cl/Pa	RP	0 to 7	J-FFMR4-1KN		
		Cl	Co	0 to 7	J-FFMW4-1KN		

Load	Applic. Samples	Face Style	Face Dimen. W×H (mm)	Face Open Dist. (mm)	Prod. Code
500N (50kgf)	Bo/Cl/Pa	FI	30×30	0 to 11	J-FFMF1-500N
		DC		0 to 9	J-FFMD1-500N
		RP		0 to 9	J-FFMR1-500N
		40×30	FI	0 to 11	J-FFMF2-500N
			RP	0 to 9	J-FFMR2-500N
			50×30	FI	0 to 11
RP	0 to 9	J-FFMR3-500N			
50N (5kgf)	Bo/Cl/Pa	FI		25×25	0 to 6
	Bo	SC	J-FFMS1-250N		
	Bo	DC	J-FFMD1-250N		
	Cl/Pa	RP	0 to 4		J-FFMR1-250N
	Cl	Co	0 to 6		J-FFMW1-250N
	60×25	Bo/Cl/Pa	FI		0 to 6
		Bo	SC	J-FFMS2-250N	
		Bo	DC	J-FFMD2-250N	
		Cl/Pa	RP	0 to 4	J-FFMR2-250N
		Cl	Co	0 to 6	J-FFMW2-250N

NOTE: Products framed in bold are the most commonly used types.



- Face Types for JFA1 (not including Finger Guards)

Load	Applic. Samples	Face Style	Face Dimen. W×H (mm)	Face Open Dist. (mm)	Prod. Code	
10kN (1tf)	Bo/Cl/Pa	FI	40×40	0 to 11	J-FFA1F-10KN	
	Bo	SC		0 to 11	J-FFA1S-10KN	
	Bo	DC		0 to 11	J-FFA1D-10KN	
	Cl/Pa	RP		0 to 10	J-FFA1R-10KN	
	Cl	Co		0 to 11	J-FFA1W-10KN	
	1kN (100kgf)	Bo/Cl/Pa		FI	30×30	0 to 11
Bo		SC	0 to 11	J-FFA2S-10KN		
Bo		DC	0 to 11	J-FFA2D-10KN		
Cl/Pa		RP	0 to 10	J-FFA2R-10KN		
Cl		Co	0 to 11	J-FFA2W-10KN		
1kN (100kgf)		Bo/Cl/Pa	FI	40×40		0 to 7
	Bo	SC	0 to 7		J-FFA1S-1KN	
	Bo	DC	0 to 7		J-FFA1D-1KN	
	Cl/Pa	RP	0 to 6		J-FFA1R-1KN	
	Cl	Co	0 to 7		J-FFA1W-1KN	
	40×30	Bo/Cl/Pa	FI		0 to 7	J-FFA2F-1KN
		Bo	SC	0 to 7		J-FFA2S-1KN
		Bo	DC	0 to 7		J-FFA2D-1KN
		Cl/Pa	RP	0 to 6	J-FFA2R-1KN	
		Cl	Co	0 to 7	J-FFA2W-1KN	

Load	Applic. Samples	Face Style	Face Dimen. W×H (mm)	Face Open Dist. (mm)	Prod. Code	
1kN (100kgf)	Bo/Cl/Pa	FI	50×30	0 to 7	J-FFA3F-1KN	
	Bo	SC		0 to 7	J-FFA3S-1KN	
	Bo	DC		0 to 7	J-FFA3D-1KN	
	Cl/Pa	RP		0 to 6	J-FFA3R-1KN	
	Cl	Co		0 to 7	J-FFA3W-1KN	
	40×40	Bo/Cl/Pa		FI	0 to 7	J-FFA4F-1KN
		Bo	SC	0 to 7		J-FFA4S-1KN
		Bo	DC	0 to 7		J-FFA4D-1KN
		Cl/Pa	RP	0 to 6	J-FFA4R-1KN	
		Cl	Co	0 to 7	J-FFA4W-1KN	
		50×40	Bo/Cl/Pa	FI	0 to 7	J-FFA5F-1KN
	Bo		SC	0 to 7		J-FFA5S-1KN
Bo	DC		0 to 7	J-FFA5D-1KN		
Cl/Pa	RP		0 to 6	J-FFA5R-1KN		
Cl	Co		0 to 7	J-FFA5W-1KN		
50×50	Bo/Cl/Pa		FI	0 to 7		J-FFA6F-1KN
	Bo		SC		0 to 7	J-FFA6S-1KN
	Bo		DC		0 to 7	J-FFA6D-1KN
	Cl/Pa		RP	0 to 6	J-FFA6R-1KN	
	Cl		Co	0 to 7	J-FFA6W-1KN	

NOTE: Products framed in bold are the most commonly used types.

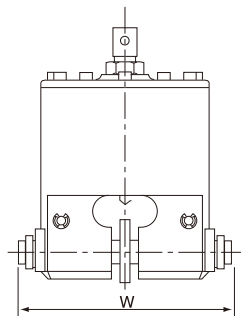
- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/BEND
- 3. POLY
- 4. FIBER
- 5. PULP/PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/CHAMB
- 10. DETEC/CALLIB
- LOAD CELL
- EXTENS

Face Spacing Adjustment Type Air Jaws

Face opening amount is adjustable.

Load	Prod. Code	Dimen. (mm) W
10kN(1tf)	J-JFAF-10KN	224
5kN(500kgf)	J-JFAF-5KN	224
1kN(100kgf)	J-JFAF-1KN	183
500N(50kgf)	J-JFAF-500N	148
50N(5kgf)	J-JFAF-50N	94

NOTE: The above Product Codes do not include Faces.

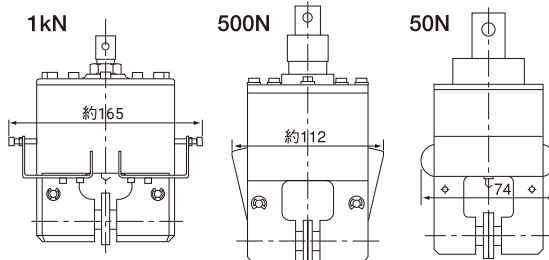


Spring Preloaded Air Jaw

Face is preloaded and closed.

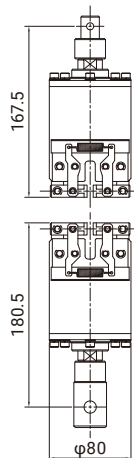
Load	Prod. Code
1kN(100kgf)	J-JFAS-1KN
500N(50kgf)	J-JFAS-500N
50N(5kgf)	J-JFAS-50N

NOTE: The above Product Codes do not include Faces.



Air Jaw for Compact Samples

Load	Face Style	Face Dimen. WxH (mm)	Face Open Dist. (mm)	Prod. Code
500N (50kgf)	Flat	20x12	0 to 7	J-FFAMF-500N
	Double Cut		0 to 7	J-FFAMF-500N

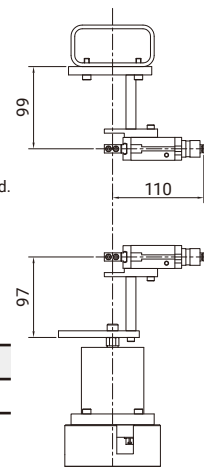


Capacity	Prod. Code
500N	J-JFAM-500N

Air Jaw for Spandex

Face Open Dist.	0 to 4mm
Face Width	19mm
Face Height	10mm
Face Shape	1 side rubber 1 side R15

NOTE: Separate esimtate required.



Capacity	Prod. Code
50N	J-JSA-50N

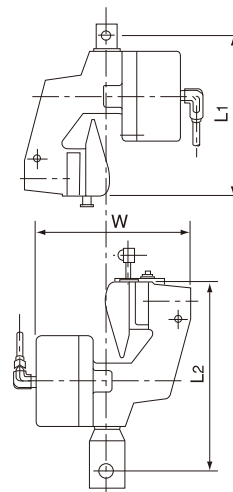
Air Jaw for Tire Cords

- **Applicable Samples** Cords, threads, etc.
- **Standard Config.** Upper and lower Jaws, 1 set each (including Face)
- **Max. Rated Air Pressure** 0.5 MPa (5kgf/cm²)
- **Operating Temp. Range** Room temp. -10 to +70°C

Load	Prod. Code	Dimensions (mm)		
		W	L ₁	L ₂
2.5kN(250kgf)	J-JTA-2.5KN	200	209	219
500N(50kgf)	J-JTA-500N	135	145	161

NOTE:

1. Switch Box (Jaw attached to Arm Switch) and Foot Switch cannot be used together.
2. When connecting a Switch Box to RTH/RTI, RTH-77-TIRECODE is required.



- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

Air Jaw - Related Equipment

Configuration when using an Air Jaw
 When using an Air Jaw, the following 1 to 3 are required.

1.
 The Air Jaw controller consists of items (1) and (2).
 Product Code: RTF-10 (RTF/RTG/STB), RTH-10-AIR (RTH/RTI)
 (1) Air Jaw controller
 (2) Air hose - straight x 3 (φ6, 3 m long)
 - spiral x 1 (φ6, 0.6 m long)

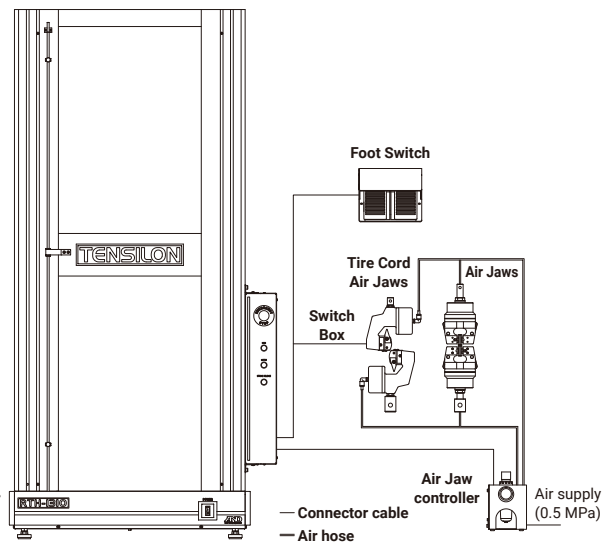
2.
 Air Jaw Open/Close Switch
 The Air Jaw Open/Close Switch is a user interface of the testing machine main unit.
 (Touch panel or TACT/MSAT Series and Commander).
 This is required separately depending on the purpose.

Product Code:
 RTF-01 (touch panel) or TACT/MSAT Series and RTF-02 (Commander) for RTF/RTG
 RTH-01-CONSOLE (touch panel) or TACT Series and RTF-02 (Commander) for RTH/RTI
 STB-01 (touch panel) or TACT/MSAT Series and STB-02 (commander) for STB

NOTE:
 Only the Foot Switch cannot be used by itself with the Commander.
 It must be used in combination with a touch panel or TACT/MSAT series.

3.
 Air Supply
 Prepare an air supply separately.
 Air Supply: Clean compressed air 0.5 MPa
 Recommended Flow Rate: max. 20 L/min (dependent on test conditions)
 Connection Method: φ6mm hose on the Air Jaw controller side

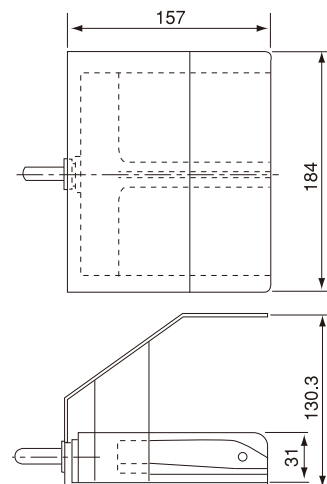
NOTE: Switch Box (arm switch attached to Jaw) and Foot Switch cannot be used together.



4.
 Foot Switch

NOTE: Air Jaw controller RTF-10 (RTF/RTG/STB) or RTH-10-AIR (RTH/RTI) is required separately for the Foot Switch.

Model	Prod. Code
Simplified Air Jaw control device	AIR-01
Air Jaw controllers for RTH, RTI	RTH-10-AIR
for RTF, RTG, STB	RTF-10
for RTC, STA	RTC-02
Air compressor (50Hz/60Hz)	AIR-06
Foot Switch for standard Air Jaw RTH, RTI	RTH-76-AFOOT-SW
RTF, RTG, STB	AIR-05-F0000
RTC	AIR-05
Foot Switch for simplified Air Jaw	AIR-04



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

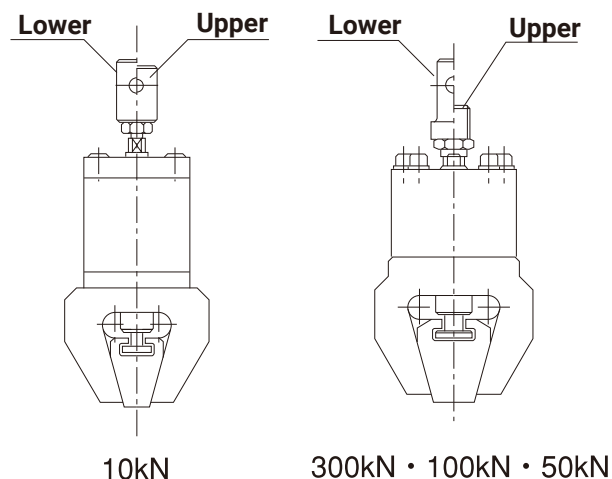
Oil Jaws

- **Applicable Samples** Metal, etc.
- **Configuration**
 1. Upper+lower Jaws, 1 set each
 2. Face
 3. Hydraulic controller
- **Driving Air Pressure** 0.4 to 0.5 MPa (4 to 5 kgf/cm²)
- **Operating Temp. Range** -10 to +70°C

NOTE: Seperate estimate required.

- **Configuration of hydraulic controller**

1. Control unit
2. Control box
3. Accessories (hydraulic hoses, hydraulic oil)



10kN

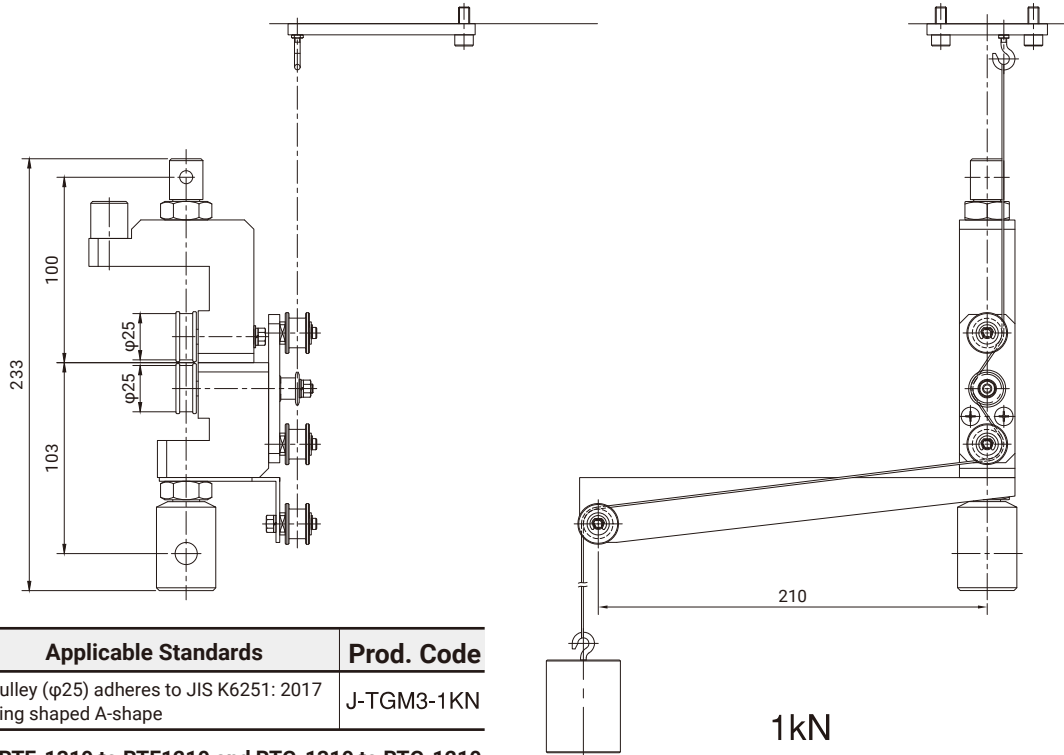
300kN • 100kN • 50kN

Jaws for Rubber

- **Applicable Samples** Dumbbell-shaped and ring-shaped samples
- **Standard Configuration** Upper+lower, 1 set each
- **Operating Temp. Range** -10 to +70°C

- Types

Jaws for Rubber Rings

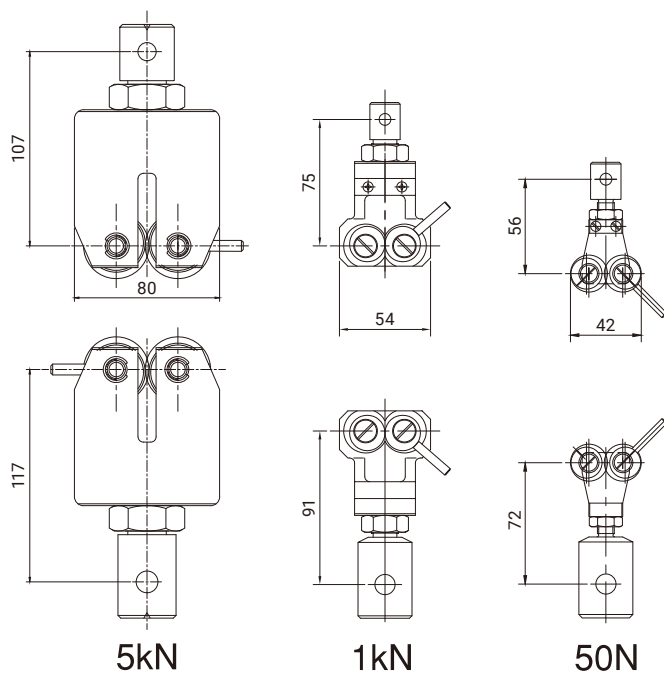


Load	Applicable Standards	Prod. Code
1kN (100kgf)	Pulley (φ25) adheres to JIS K6251: 2017 Ring shaped A-shape	J-TGM3-1KN

NOTE: Applicable to RTF-1310 to RTF1210 and RTG-1310 to RTG-1210. Refer to the relevant installation guides for other testing machines.

Roller Jaws for Rubber (2 rollers)

Load	Roller Width (mm)	Face Open Dist. (mm)	Upper Jaw Weight (kg)	Prod. Code
5kN (500kgf)	30	0 to 5	3	J-TGM2-5KN
1kN (100kgf)	30	0 to 5	0.5	J-TGM2-1KN
50N (5kgf)	25	0 to 4.5	0.3	J-TGM2-50N



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAW

TIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

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PAPER

6. WOOD

7. ADHE
PEEL

8. OTHER
DEDI

9. THERM/
CHAMB

10. DETEC/
CALLIB

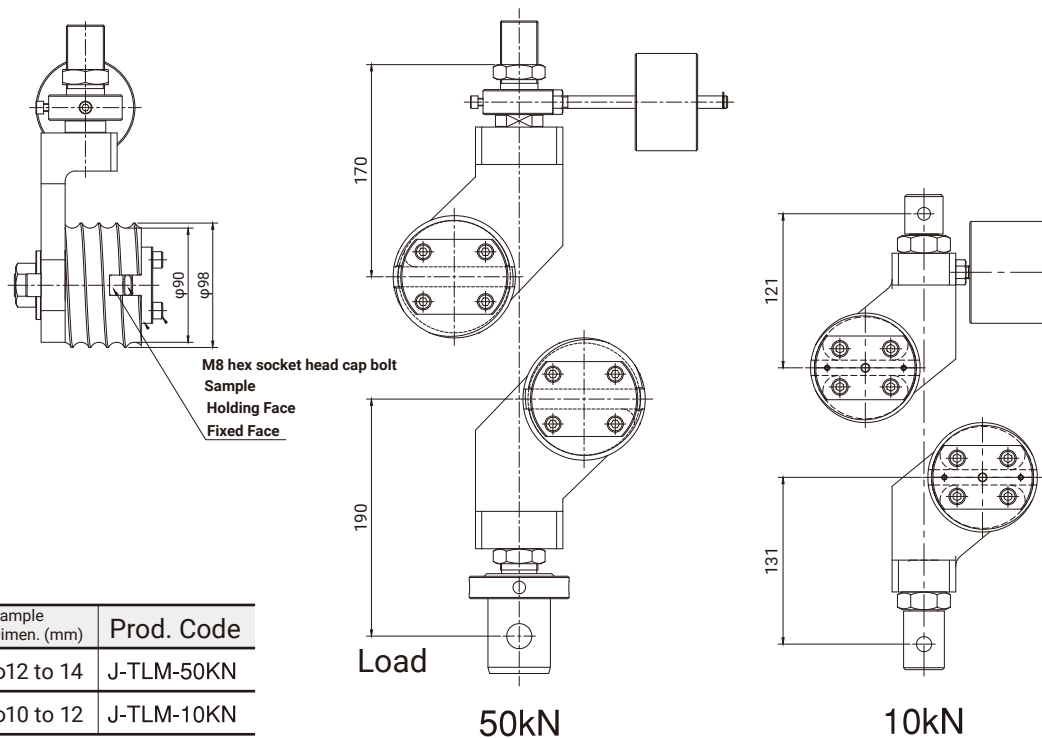
LOAD
CELL

EXTENS

- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/BEND
- 3. POLY
- 4. FIBER
- 5. PULP/PAPER
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- 8. OTHER DEDI
- 9. THERM/CHAMB
- 10. DETEC/CALLIB
- LOAD CELL
- EXTENS

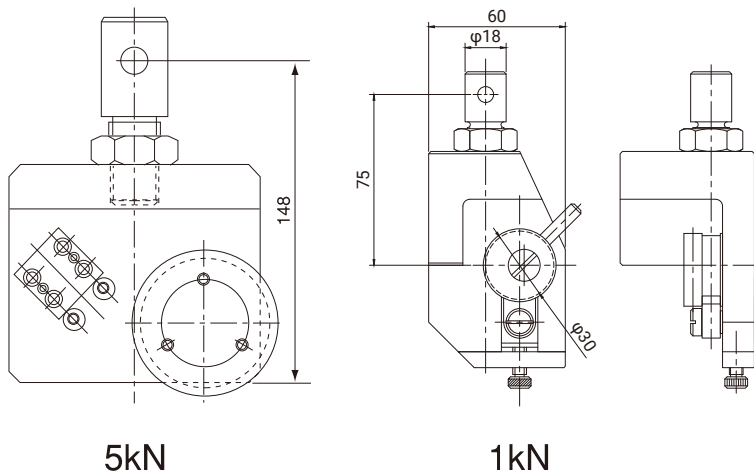
Winding Action Jaws

Rope Capstan Jaws



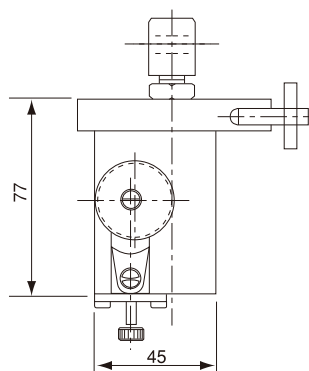
Load	Sample Dimen. (mm)	Prod. Code
50kN (5tf)	φ12 to 14	J-TLM-50KN
10kN (1tf)	φ10 to 12	J-TLM-10KN

Jaw for String



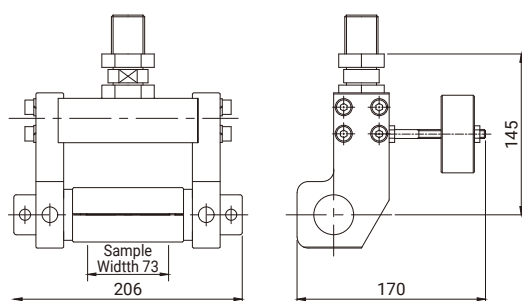
Load	Prod. Code
5kN (500kgf)	J-TLM2-5KN
1kN (100kgf)	J-TLM-1KN

Jaw for Thread



Load	Prod. Code
50N (5kgf)	J-TLM-50N

Jaw for Belts



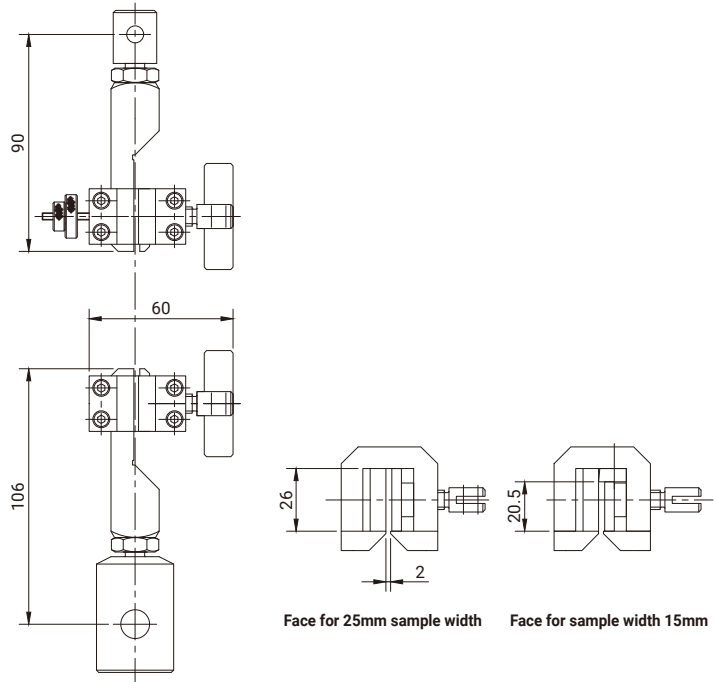
Load	Max. Sample Width (mm)	Upper Jaw Weight (kg)	Prod. Code
50kN (5tf)	73	9.8	J-ZL-50KN

Other Jaws

Jaw for Paper

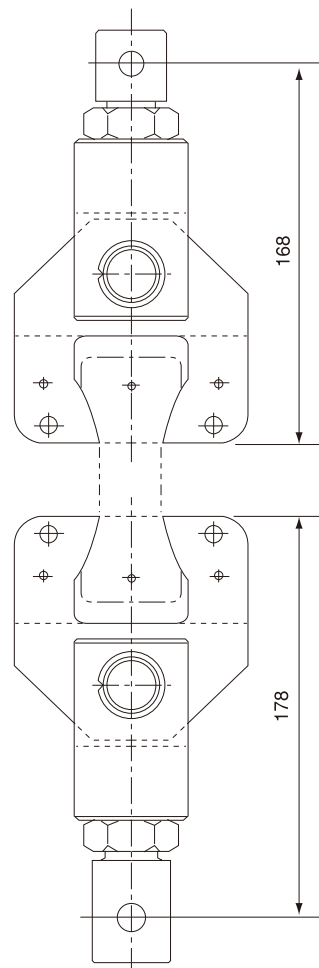
Load	Applicable Standard	Prod. Code
300N (30kgf)	JIS P 8113: 2006	J-TWM-300N

Sample Width (mm)	Face Dimen. (mm)	Face Open Dist. (mm)	Face Style
25	26×26	0 to 2	Flat
15	20.5×26	0 to 2	Flat



Jaw for Plastic Molded Specimens

Load	Applicable Standard	Prod. Code
10kN (1tf)	JIS K 6911: 2006	J-TPM1-10KN



- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
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- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

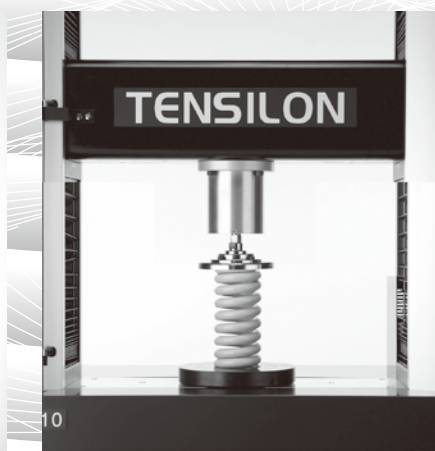
COMPRESSION & BENDING TESTS

Compression and Bending Tests are the second most basic tests after Tensile Tests. This chapter contains information on the configuration of related test equipment, and only the basic jigs used are detailed here. Applied compression and bending test fixtures are listed in Section 8, Other Specialized Test Fixtures.

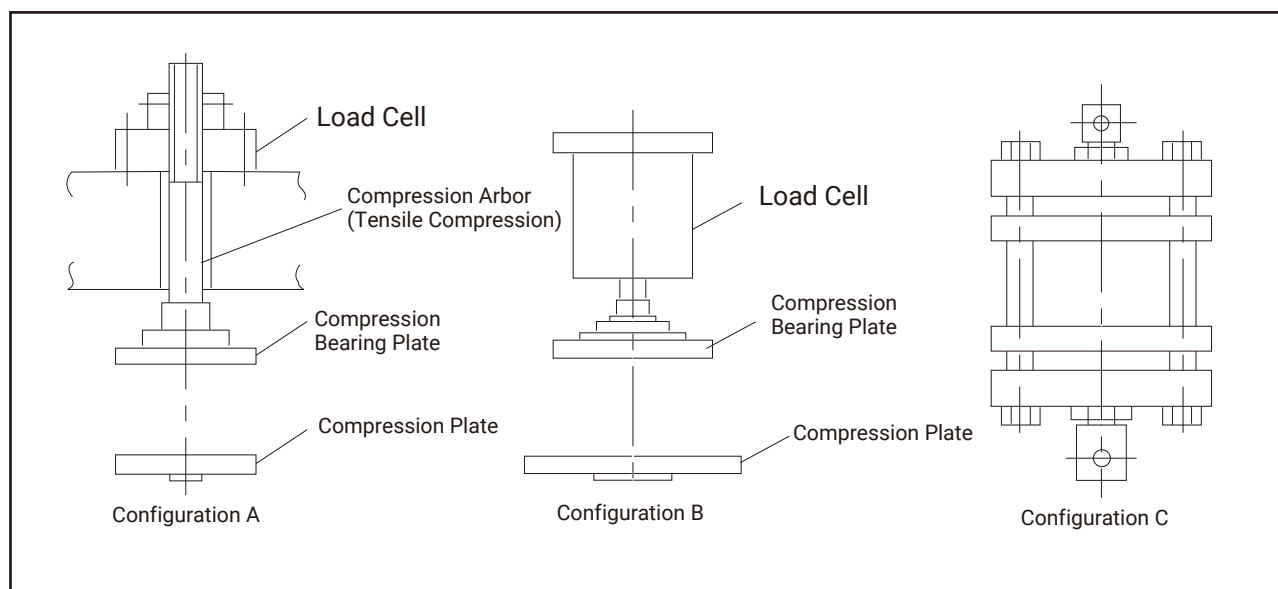
Compression Bending Test Jig



Compression Test Jig



Compression Cage



- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

Compression Test Jig (Compression Bearing Plate, Fixed)

Allow. Max. Load	300kN to 250kN (30tf) (25tf)	100kN to 25kN (10tf) (2.5tf)		10kN to 2.5kN (1tf) (250kgf)			1kN to 250N (100kgf) (25kgf)		100N to 25N (10kgf)(2.5kgf)
Type	Fix	Fix		Fix			Fix		Fix
Product Code	J-C-300KN-U	J-C-100KN-U	J-C-3-100KN-U	J-C-1-10KN-U	J-C-4-10KN-U	J-C-6-10KN-U	J-C-1-1KN-U	J-C-4-1KN-U	J-C-1-100N-U
Press. Surface Diam. (mm)	φ150	φ150	φ200	φ100	φ150	φ200	φ100	φ150	φ100
Other Req. Jigs	Comp. Arbor J-C-300KN-A	Tensile, Comp. Arbor J-C-100KN-A							
Config. Drawing	A			B					
Usage Temp. Range	RT~+70°C								

NOTE:
 1. If the allowable maximum load of the jig exceeds the load cell rating, the allowable maximum load is the load cell rating.
 2. Jigs that are used often are indicated with a thick border.

Compression Test Jig (Compression Bearing Plate, Free)

Allow. Max. Load	100kN to 25kN (10tf) (2.5tf)	10kN to 2.5kN (1tf) (250kgf)			1kN to 250N (100kgf) (25kgf)			100N to 25N (10kgf)(2.5kgf)
Type	Free	Free			Free			Free
Product Code	J-C-100KN-U	J-C-10KN-U	J-C-3-10KN-U	J-C-5-10KN-U	J-C-1-1KN-U	J-C-6-1KN-U	J-C-5-1KN-U	J-C-100N-U
Press. Surface Diam. (mm)	φ150	φ100	φ150	φ200	φ100	φ150	φ200	φ100
Other Req. Jigs	Comp. Arbor J-C-100KN-A							
Config. Drawing	A		B					
Usage Temp. Range	RT~+70°C							

NOTE:
 1. If the allowable maximum load of the jig exceeds the load cell rating, the allowable maximum load is the load cell rating.
 2. Jigs that are used often are indicated with a thick border.

Compression Test Jig (Compression Plate)

Allow. Max. Load	300kN to 250kN (30tf) (25tf)	100kN to 25kN (10tf) (2.5tf)		10kN to 25N (1tf) (2.5kgf)	
Product Code	J-C-300KN-L	J-C-100KN-L	J-C-1-100KN-L	J-C-10KN-L	J-C-1-10KN-L
Press. Surface Diam. (mm)	φ150	φ150	φ250	φ150	φ250
Config. Drawing	A			B	
Usage Temp. Range	RT~+70°C				

NOTE:
 1. If the allowable maximum load of the jig exceeds the load cell rating, the allowable maximum load is the load cell rating.
 2. Jigs that are used often are indicated with a thick border.
 3. The pressure surface diameter φ250 of J-C-1-100KN-L is the diameter of the effective portion. The diameter of the entire jig is φ300.

Tensile Compression Test Jig (Compression Cage)

Allow. Max. Load	100kN (10tf)	50kN to 25kN (5tf) (2.5tf)	5kN (500kgf)	1kN (100kgf)	50N (5kgf)
Product Code	J-CD-100KN	J-CD-50KN	J-CD-5KN	J-CD-1KN	J-CD-50N
Press. Surface Diam. (mm)	φ100 NOTE 4	φ110 NOTE 5	106×168	110×150	98×110
Dist. btw Comp. Plates (mm)	110	130	135	189	110
Config. Drawing	C				
Usage Temp. Range	RT~+70°C NOTE 2				

NOTE:
 1. Applicable according to the corresponding load cell rating.
 2. -65 to +270°C when used in a chamber.
 3. Arbor is not included.
 4. Space between struts is 95 mm.
 5. Space between struts is 85 mm.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

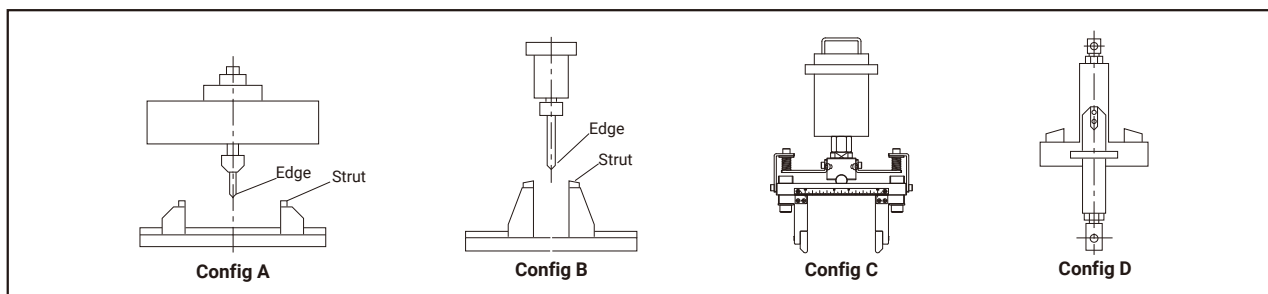
4. FIBER

5. PULP/
PAPER

6. WOOD

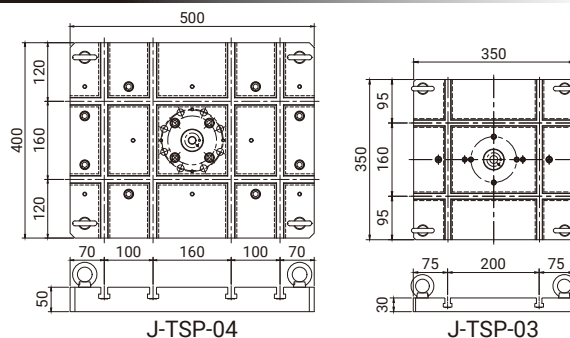
7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS



T-groove Plate

Max. Allowable Load	100kN (10tf)		10kN (1tf)	
Product Code	J-TSP-04	J-TSP-02	J-TSP-03	J-TSP-01
No. of T-slots (H x W)	4 x 2	4 (H)	2 x 2	2 (H)
Incl. T-slot nuts	M12x8 pcs		M10x4 pcs	
Dimen. (H x W x Thick mm)	400x500x50		350x350x30	
Mass (kg)	70	73	27	27
Applic. Model Capacity	1325 to 2410		1210 to 1310	
Usage Temp. Range	RT to +70°C			



Compression Bending Test Jig (3-point Bending)

Standard Config.: (1) 3-point Bending Edge, 1 set (2) Strut Strut Fixture, 1 set

Max. Allowable Load	300kN (30tf) ~ 250kN (25tf)	100kN (10tf) ~ 25kN (2.5tf)				10kN (1tf) ~ 1kN (100kgf)		
Product Code (Strut Fixture)	J-B-300KN	J-B-100KN				J-B-10KN		
Edge Tip (RxW mm)	R12.5x120	R5x70	R5x70	R3.2x70	R5x60	R5x60	R3.2x60	
Strut Tip (RxW mm)	R10x120	R5x70	R2x70	R3.2x70	R5x62	R2x62	R3.2x62	
Applic. Standards	—	JIS K 7171:2016		ASTM D790-03	JIS K 7171:2016		ASTM D790-03	
Product Code (Edge Strut)	J-E-07	J-E-09	J-E-01	J-E-02	J-E-08	J-E-03	J-E-04	
Inter-strut Distance	20~300	20~400				10~260		
Other Req. Jigs	Tensile Comp. Arbor J-C-300KN-A	Tensile Comp. Arbor J-C-100KN-A				φ30 Comp. Adapter (Incl. w/ load cell)		
Config. Diagram	A				B			
Usage Temp. Range	RT~+70°C							

NOTE: When performing a 4-point bending test, a separate 4-point bending Edge set is required.

Tensile Bending Test Jig (3-point Bending)

Max. Allowable Load	5kN (500kgf)		
Product Code (Strut Fixture)	J-BE-5KN		
Edge Tip (RxW mm)	R5x28	R5x28	R3.2x28
Strut Tip (RxW mm)	R5x28	R2x28	R3.2x28
Applic. Standards	JIS K 7171:2016		ASTM D790-03
Product Code (Edge Strut)	J-E-10	J-E-05	J-E-06
Inter-strut Distance	16~120		
Other Req. Jigs	Arbor for 5kN (when used with 5kN) Arbor for 1kN (when used with 1kN)		
Config. Diagram	D		
Usage Temp. Range	RT~+70°C		

Comp. 4-point Bend Test Jig Press. Part (upper)

Max. Allowable Load	5kN (500kgf)	
Product Code (Press. part Fixture)	J-B1-5KN	
Edge Tip (RxW mm)	R3x60	R3.2x60
Strut Tip (RxW mm)	R3x62	R3.2x62
Applic. Standards	—	—
Product Code (Edge Strut)	J-E-13	J-E-14
Upper inter-strut dist. (mm)	10 to 100	
Lower inter-strut dist. (mm)	10 to 260	
Other Req. Jigs	J-B-10KN or J-B-2.5KN	
Config. Diagram	C	
Usage Temp. Range	RT~+70°C	

NOTE:

- When used in a chamber, the temperature range is -65 to +270°C. J-BE-5KN can be used up to 10 kN.
- Arbor is not included and must be quoted for separately.

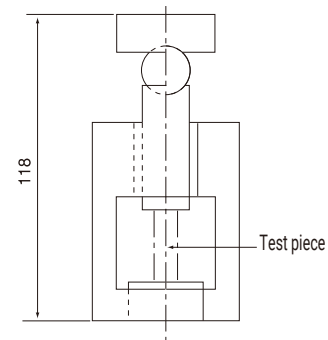
Polymer Test Jigs

In order to make effective use of TENSILON for multiple purposes, specialized testing equipment (jigs) is required to suit the purpose of the test. As a testing equipment manufacturer, we have an extensive library of production drawings, including not only standard testing equipment (jigs) required to perform standardized tests of various standards, but also custom-made products based on customer specifications.

Plastic Compression

Product Code	J-CP-50KN		
Max. Load	50kN (5tf)		
Applic. Samples	Molded materials	Laminated boards	Laminated rods/tubes
Press. Piece (mm)	$\phi 20$		
Test Piece (mm)	(W) (D) (H) 12.7×12.7×25.4	(W) (D) (H) 13×13×25	Cylinder $\phi 12 \times 30H$ Sq. pillar 10.4×10.4×30H
Other Req. Jigs	Press. Bearing Plate, Press. Plate		See NOTE
Applic. Standards	JIS K6911: 2006, ASTM D 695	-	
Usage Temp. Range	-10~+100°C		

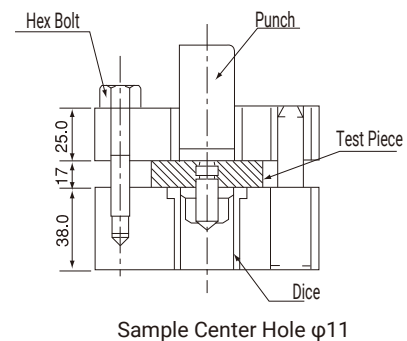
NOTE: Refer to P25. Compression Test Jig.



Plastic Shear

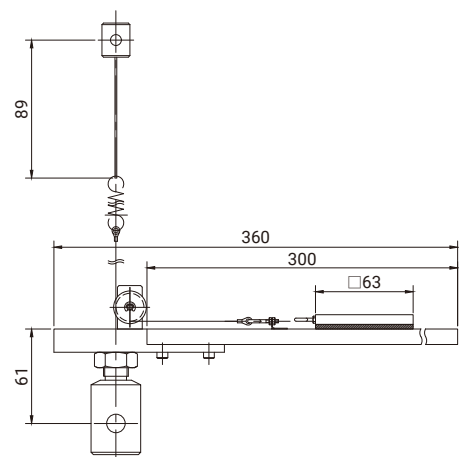
Product Code	J-SP-50KN		
Max. Load	50kN (5tf)		
Punch Diam. (mm)	$\phi 25.4$		
Test Piece (mm)	$\phi 50$ or $\square 50 \times \text{Thickness 1 to 12.5}$		
Other Req. Jigs	Press. Bearing Plate, Press. Plate		See NOTE
Applic. Standards	JIS K7214: 1985, ASTM D 732-02		
Usage Temp. Range	-10~+100°C		

NOTE: Refer to P25. Compression Test Jig.



Plastic Coefficient of Friction

Product Code	J-PZ2-50N	J-PZ1-50N
Max. Load	50N (5kgf)	
Applic. Samples	Plastic films, sheets	
Slip Piece Dimen. (mm)	$\square 63 \times t 6.4$	$\square 63.5 \times t 6.4$
Slip Piece Weight (g)	200±2	200±5
Applic. Standards	JIS K7125: 1999 ISO 8295: 1995	ASTM D 1894-14
Usage Temp. Range	RT~+70°C	



NOTE: Figure shows J-PZ2-50N.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

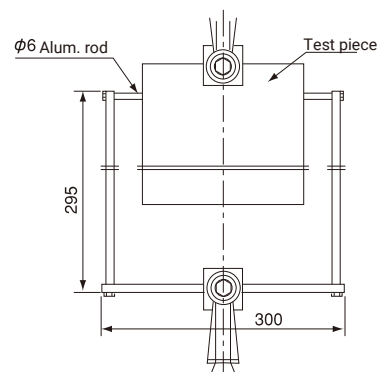
7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

Film Blocking Test

Product Code	J-PZ7-50N
Max. Load	50N (5kgf)
Applic. Samples	Plastic film, sheet
Rod Diam. (mm)	φ6 (alum. rod)
Test Piece (mm)	Width 200 x Length 250 or more
Other Req. Jigs	Screwn Action Jaw <small>See NOTE</small>
Usage Temp. Range	-10~+100°C

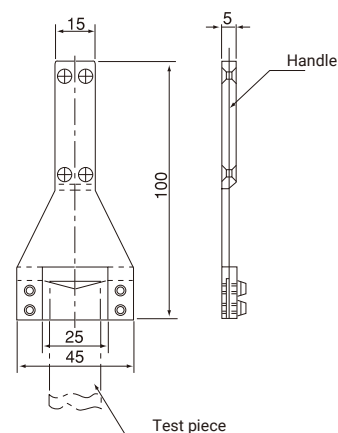
NOTE: Refer to P12. Screw Action Jaws.



End Tearing Resistance

Product Code	J-SP-500N
Max. Load	500N (50kgf)
Applic. Samples	Plastic film, sheet
Test Piece (mm)	Width 20 x Length 200
V-shaped Cutout Plate	1 mm thick, V-shaped cutout, 150°
Other Req. Jigs	Screwn Action Jaw <small>See NOTE</small>
Applic. Standards	JIS C2151: 2019 B Method
Usage Temp. Range	-10~+100°C

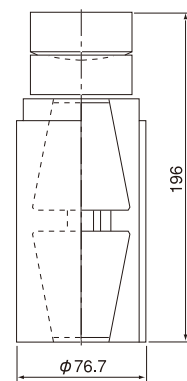
NOTE: Refer to P12. Screw Action Jaws.



CFRP Vertical Compression (conical)

Product Code	J-CP2-50KN
Max. Load	50kN (5tf)
Applic. Samples	Carbon fiber reinforced plastic
Test Piece (mm)	Width 6.5 x Length 134 x Thick 2
Other Req. Jigs	Press. Bearing Plate, Press. Plate <small>See NOTE</small>
Applic. Standards	JIS K7018: 2019 Method 1c
Usage Temp. Range	-10~+100°C

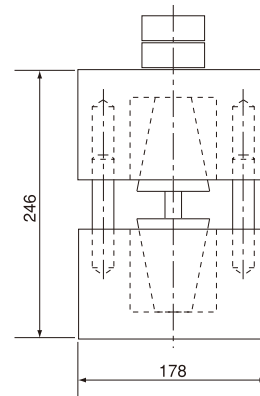
NOTE: Refer to P25. Compression Test Jig.



CFRP Vertical Compression (pyramid)

Product Code	J-CP1-50KN
Max. Load	50kN (5tf)
Applic. Samples	Carbon fiber reinforced plastic
Test Piece (mm)	Width 6 to 12.5 × Length 108 × Thick 1 to 2
Other Req. Jigs	Press. Bearing Plate, Press. Plate See NOTE
Applic. Standards	JIS K7076: 1991 Reference Standard
Usage Temp. Range	-10~+100°C

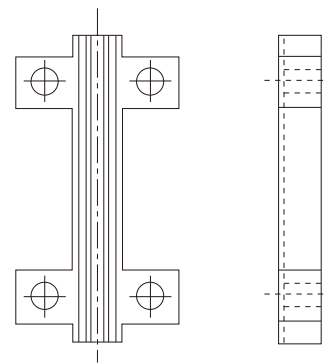
NOTE: Refer to P25. Compression Test Jig.



Plastic Laminate Compression

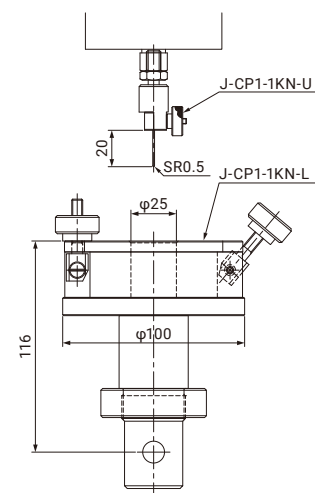
Product Code	J-CP1-5KN
Max. Load	5kN (500kgf)
Applic. Samples	Laminated board
Test Piece (mm)	A2 shaped test piece, width 12.5 × length 78 × thick 2
Other Req. Jigs	Fixed Press. Bearing Plate, Press. Plate See NOTE
Applic. Standards	JIS K7018: 2019 Method 3c
Usage Temp. Range	-10~+100°C

NOTE: Refer to P25. Compression Test Jig.



Puncture Test Jig

Product Code	J-CP1-1KN-U	J-CP1-1KN-L	J-CP1-1KN-01
Max. Load	1kN (100kgf)		
Applic. Samples	Film sheet		
Jigs	Upper	Lower	Replacement needle
Dimensions (mm)	-	-	φ1 Tip SR0.5 Length 35
Applic. Standards	JIS Z1707: 2019		
Usage Temp. Range	RT to +70°C		

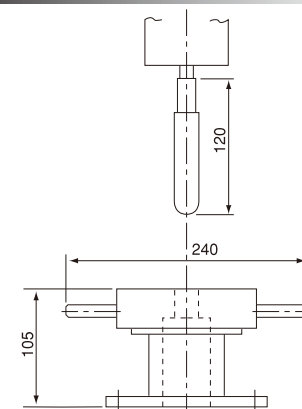


Fiber Test Jig

Fabric Rupture

Product Code	J-CL-5KN	J-CL-1KN
Max. Load	5kN (500kgf)	1kN (100kgf)
Applic. Samples	Cloth, paper, plastic sheet	
Test Piece Holder Int. Diam. (mm)	φ44	
Punch Tip (mm)	SR12.5	
Applic. Standards	JIS L1096: 2010	
Usage Temp. Range	RT~+70°C	

NOTE: STA/STB is a separate dedicated jig.



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

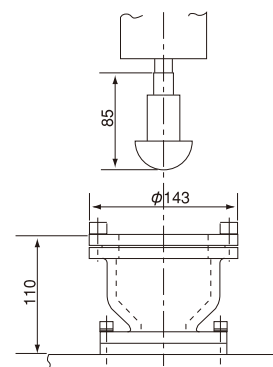
6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

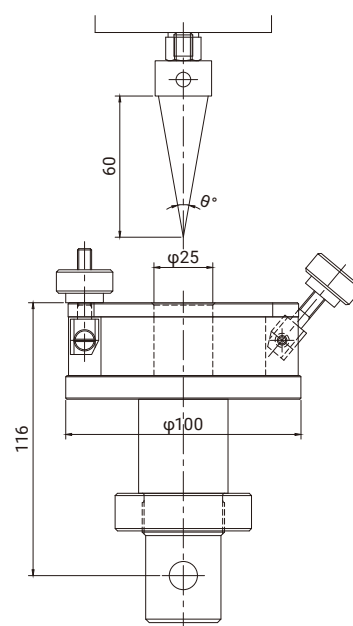
Textile Expansion Force

Product Code	J-CL-50N
Max. Load	50N (5kgf)
Applic. Samples	Textiles, cloth, sheets
Test Piece Holder Int. Diam. (mm)	$\phi 80$
Punch Tip (mm)	R25、R28
Usage Temp. Range	RT~+70°C



Cloth Tearing

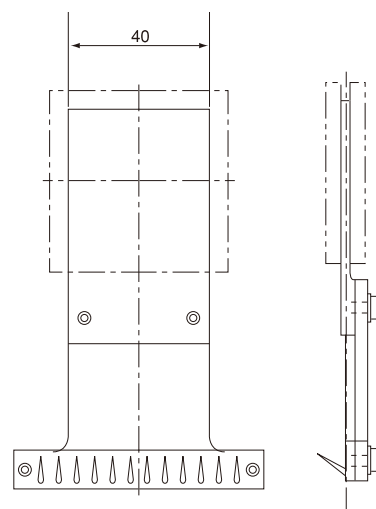
Product Code	J-CL1-1KN
Max. Load	1kN (100kgf)
Punch Tip θ°	5°、10°、15°、20°
Usage Temp. Range	RT~+70°C



Slippage Resistance

Product Code	J-SL-250N
Max. Load	250N (25kgf)
Test Piece Dimen. (mm)	Width 50 × Length 150
Hanger Pin Dimen. (mm)	$\phi 1.0$ needle tip × length 8.0
No. of Hanger Pin Pitches	Pitch 5mm, 12 pcs
Other Req. Jigs	Screwn Action Jaw See NOTE
Applic. Standards	JIS L1096 : 2010
Usage Temp. Range	RT~+70°C

NOTE: Refer to P12. Screw Action Jaws.

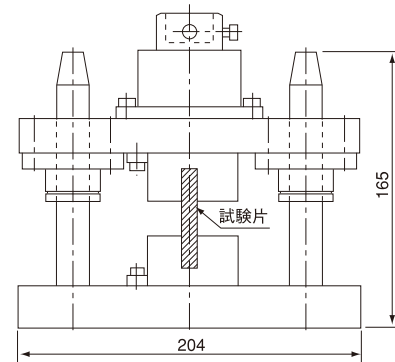


Paper/Pulp Test Jigs

Vertical Compression

Product Code	-
Max. Load	1kN (100kgf)
Applic. Samples	Cardboard and base paper
Test Piece Dimen. (mm)	Width 100 x Height 60 x Thick 10 or less
Applic. Standards	JIS Z0403-2: 1999, ISO3037: 1994 B Method
Usage Temp. Range	RT~+70°C

NOTE: Seperate estimate required.



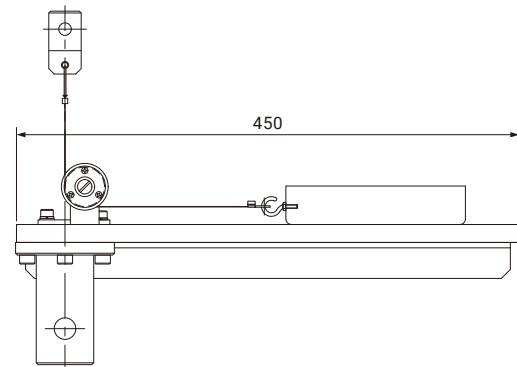
Cardboard Compression

Product Code	-
Max. Load	50kN (5tf)
Comp. Dimen. (mm)	□500
Applic. Standards	JIS Z0212: 1998
Usage Temp. Range	RT~+70°C

NOTE: Seperate estimate required.

Paper Coefficient of Friction

Product Code	J-PZ3-50N
Max. Load	50N (5kgf)
Test Piece Dimen. (mm)	Width 100 x Length 250
Slip Piece Dimen. (mm)	Width 60 x Length 100 x Height 21
Slip Piece Weight	1kg±10g
Applic. Standards	JIS P8147: 2010
Usage Temp. Range	RT~+70°C



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
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7. ADHE
PEEL8. OTHER
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CHAMB10. DETEC/
CALLIBLOAD
CELL

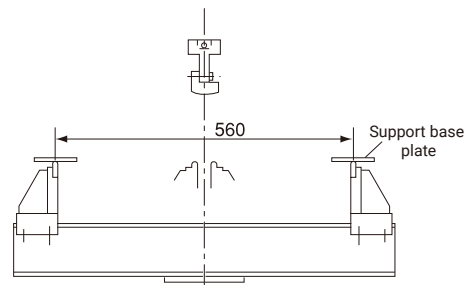
EXTENS

Wood Test Jigs

Wood 3-Point Compression Bending Test Jig

Product Code	J-BA-5KN
Max. Load	5kN (500kgf)
Edge Tip RxW (mm)	R30×60
Support Base Tip RxW (mm)	Knife edge x70 NOTE
Dist. btw. Support Bases (mm)	40~560
Other Req. Jigs	φ30 Comp. Adapter (incl. in load cell)
Applic. Standards	JIS Z2101: 2009
Usage Temp. Range	RT~+70°C

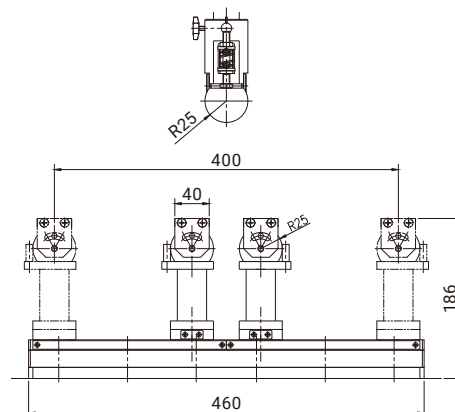
NOTE: Two 60 x 45 x 4 mm thick support steel plates are included.



Building Board 3-Point Compression Bending Test Jig

Product Code	J-BA-10KN
Max. Load	10kN (1tf)
Edge Tip RxW (mm)	R25×405
Support Base Tip RxW (mm)	R25×405 NOTE
Dist. btw. Support Bases (mm)	80 to 400
Other Req. Jigs	φ30 Comp. Adapter (incl. in load cell)
Applic. Standards	JIS A1408:2017 Test pieces No. 3, No. 3b, No. 4, No. 5
Usage Temp. Range	RT~+70°C

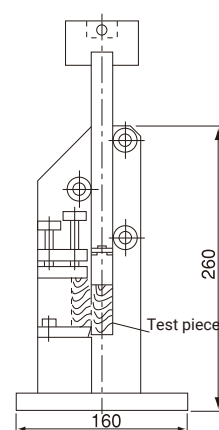
NOTE: Two 40 x 407 x 10 mm thick support steel plates are included.



Wood Shear Test Fixture

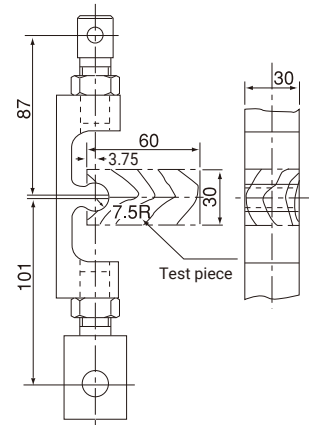
Product Code	J-SA1-50KN
Max. Load	50kN (5tf)
Other Req. Jigs	φ30 Comp. Adapter (incl. in load cell)
Applic. Standards	JIS Z 2101: 2009
Usage Temp. Range	RT~+70°C

NOTE: Other applicable standards JIS K 6852, 6804



Wood Splitting

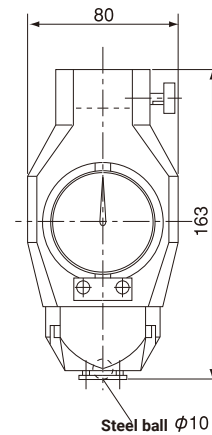
Product Code		J-PA-1KN
Max. Load		1kN (100kgf)
Splitting Blade	Diam. (mm)	7.5
	Width (mm)	30
Applic. Standards		JIS Z 2101:2009
Usage Temp. Range		RT~+70°C



Wood Hardness

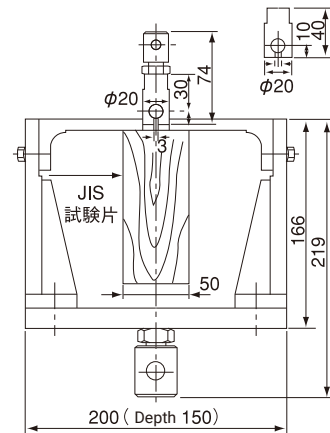
Product Code		J-ZA-5KN
Max. Load		5kN (500kgf)
Test Piece Dimen. (mm)		□40× Length 40
Steel Ball Diam.		10mm
Other Req. Jigs		φ30 Comp. Adapter (incl. in load cell) + press. plate <small>NOTE</small>
Applic. Standards		JIS Z 2101:2009
Usage Temp. Range		RT~+70°C

NOTE: Refer to P25. Compression Test Jig.



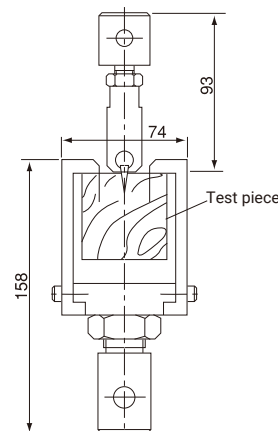
Wood Nail Pullout Resistance

Product Code		J-TAM-1KN
Max. Load		1kN (100kgf)
Wood (mm)		□50× Length 120
Nail Type		N45 (φ2.45×45mm)
Applic. Standards		JIS Z 2101: 2009
Usage Temp. Range		RT~+70°C



Wood Screw Holding

Product Code		J-TAM-5KN
Max. Load		5kN (500kgf)
Wood Nail Dimen.		φ2.7×16mm(JIS B1112)
Applic. Standards		JIS A 5905: 2014, A 5908: 2015
Usage Temp. Range		RT~+70°C



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAW

TIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL

8. OTHER
DEDI

9. THERM/
CHAMB

10. DETEC/
CALLIB

LOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

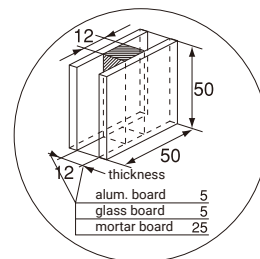
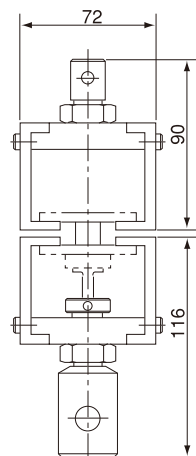
EXTENS

Adhesive Peeling Test Jigs

Sealant Adhesive Strength

Product Code	J-PZ5-1KN
Max. Load	1kN (100kgf)
Applic. Samples	Sealant for Construction
Test Piece Dimen. (mm)	Width 12 x Length 50 x Height 12
Adherend	Alum. board, mortar board, glass board
Adherend Dimen. (mm)	□50× Thick 5 or 24
Applic. Standards	JIS A5758: 2016, A1439: 2016
Usage Temp. Range	RT~+70°C

NOTE: Only an aluminum plate is included as a sample adherend.

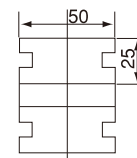
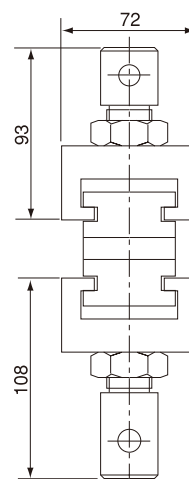


Particle Board Peeling

Product Code	J-PZ5-5KN
Max. Load	5kN (500kgf)
Applic. Samples	Particle board
Test Piece Dimen. (mm)	□50
Adherend	Steel or aluminum blocks NOTE 1
Applic. Standards	JIS A5905: 2014 NOTE 2
Usage Temp. Range	RT~+70°C

NOTE:

- Only aluminum blocks are included as a sample adherend.
- Optional J-PZ5-5KN-01: Set of 10 aluminum blocks

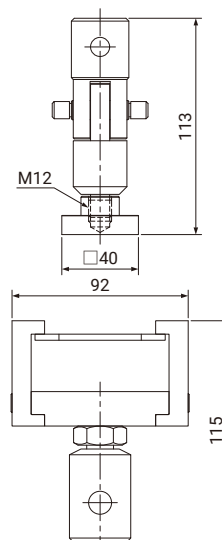


Adhesion 90° Peel Test Jig

Product Code	J-PZ1-5KN
Max. Load	2.5kN (250kgf)
Applic. Samples	Adhesive for vinyl tile floorboards, coating materials for construction
Adherend Dimen. (mm)	□44, mounting screw M12 depth 13
Applic. Standards	JIS A5536: 2015, A6909: 2014
Usage Temp. Range	RT to +70°C

NOTE:

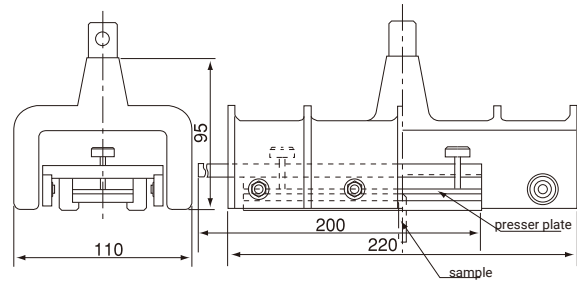
- One adherend is included as a sample for steel only.
- Reference plate conforms to JIS A6909:2014.



- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/ BEND
- 3. POLY
- 4. FIBER
- 5. PULP/ PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/ CHAMB
- 10. DETEC/ CALLIB
- LOAD CELL
- EXTENS

90° Peeling

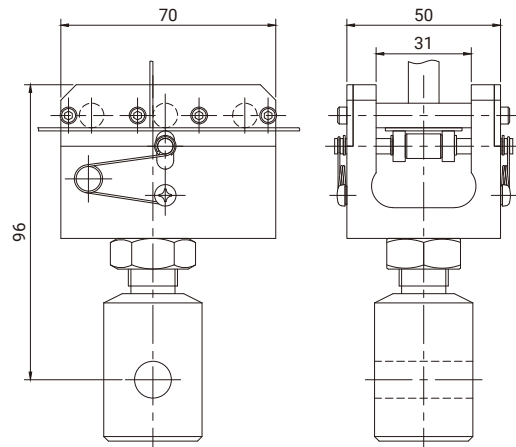
Product Code	J-PZ2-1KN
Max. Load	1kN (100kgf)
Applic. Samples	Plastics, film, rubber
Test Piece Dimen. (mm)	Width 30 x Length 150
Other Req. Jigs	Screw Action Jaw NOTE
Usage Temp. Range	RT~+70°C



NOTE: Refer to P12. Screw Action Jaws

Printed Board 90° Peeling

Product Code	J-PZ-200N
Max. Load	200N (20kgf)
Applic. Samples	Screw Action Jaw NOTE 1
Other Req. Jigs	JIS C5016: 1994, C6481: 1996 NOTE 2
Usage Temp. Range	RT~+70°C

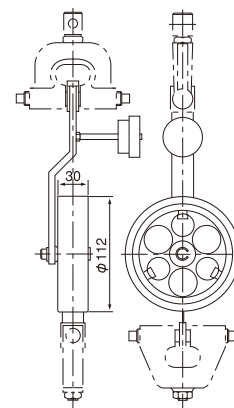


NOTE:

1. Refer to P12. Screw Action Jaws.
2. Reinforcing plate is not included.

Drum Release for Adhesive Tape

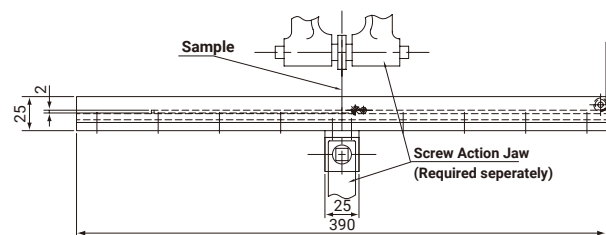
Product Code	J-PZ3-1KN
Max. Load	250N (25kgf)
Other Req. Jigs	Screw Action Jaw NOTE
Drum Dimen. (mm)	φ112×Width 30
Usage Temp. Range	RT~+70°C



Note) Refer to P12. Screw Action Jaws.

Adhesive Tape 90°Peeling

Product Code	J-PZ10-1KN
Max. Load	250N (25kgf)
Other Req. Jigs	Screw Action Jaw NOTE
Test Piece Dimen. (mm)	Max. width 44
Applic. Standards	JIS Z0237: 2009
Usage Temp. Range	RT to +70°C



NOTE:

1. Refer to P12. Screw Action Jaws
2. Mounting hardware for the testing machine is required separately.
 Mounting bracket J-PZ1-01 (for RTH/RTI/RTF/RTG/RTE/RTC-1210 to 1310)
 Mounting bracket J-PZ1-05 (for STA and STB)
3. Optional J-PZ10-1KN-01: Test plate, wire hook

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

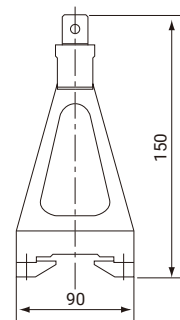
7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

Rubber 90° Peeling

Product Code	J-PZ-1KN
Max. Load	1kN (100kgf)
Other Req. Jigs	Screw Action Jaw NOTE
Test Piece Dimen. (mm)	Width 25.4 x Length 127 x Thick 5.37
Adherend Metal Piece (mm)	Width 25.4 x Length 60.3
Applic. Standards	JIS K6256-2: 2013
Usage Temp. Range	RT~+70°C

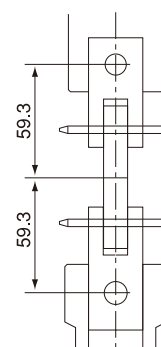
NOTE: Refer to P12. Screw Action Jaws



Tensile Bond Strength

Product Code	J-PZ-2.5KN
Max. Load	2.5kN (250kgf)
Applic. Samples	Adhesives
Adherend Dimen. (mm)	φ12.7 or □12.7× Length 38
Applic. Standards	JIS K6849: 1994
Usage Temp. Range	RT~+70°C

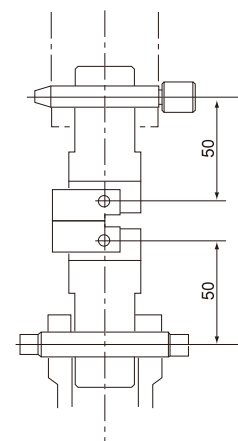
NOTE: One set of adherends is included as a sample for steel only.



Cleavage Strength

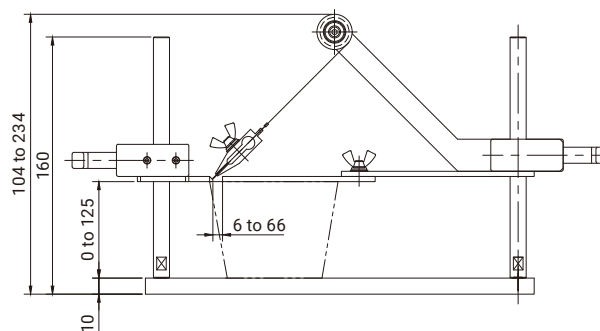
Product Code	J-PZ6-5KN
Max. Load	5kN (500kgf)
Applic. Samples	Adhesives
Adherend Dimen. (mm)	Adhesive Surface □25
Applic. Standards	JIS K6853: 1994
Usage Temp. Range	RT~+70°C

NOTE: One set of adherends is included as a sample for steel only.



Container Seal Peel Test Jig

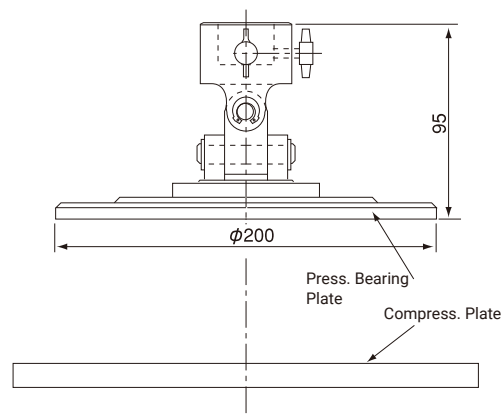
Product Code	JM-PZ-50N
Max. Load	50N (5kgf)
Sample Height	0 to 125
Sample Diam.	φ10 to 144
Applic. Standards	JIS S0021-2: 2018 Partial conformity
Usage Temp. Range	RT~+70°C



Other Dedicated Test Jigs

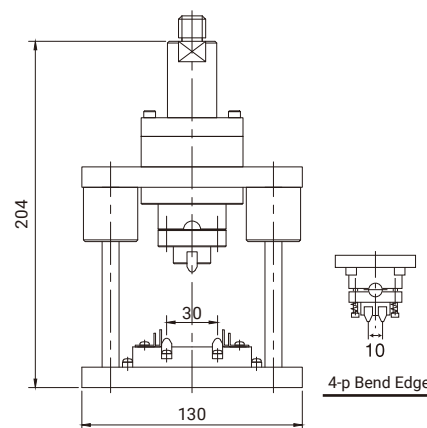
Urethane Foam Compression

Product Code	J-CG-1KN	
Max. Load	1kN (100kgf)	
Other Req. Jigs	$\phi 30$ Compress. Adapter (incl. w/ load cell)	
Press. Bearing Plate Dimen. (mm)	$\phi 200$	
Compress. Plate Dimen.	Size (mm)	$\square 350$
	Air hole (mm)	$\phi 6 \times$ Dist. btw. Centers 19
Applic. Standards	JIS K6400-2: 2012	
Usage Temp. Range	RT \sim +70 $^{\circ}$ C	



Ceramics 3-/4-point Compression Bending

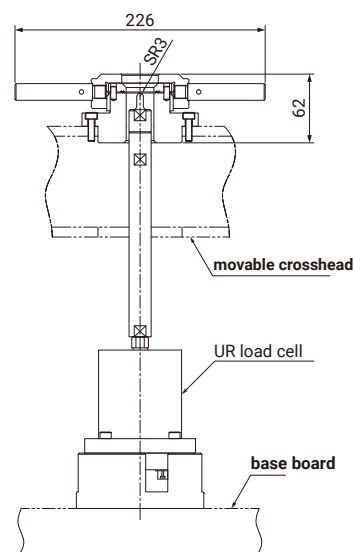
Product Code	J-BR-5KN
Max. Load	5kN (500kgf)
3-point Bend Edge Tip (mm)	R2 \times Width 10
4-point Bend Edge Tip (mm)	R0.5 \times Width 10
Support Base Tip (mm)	R2 \times Width 10
Dist. btw. Support Bases (mm)	30
Dist. btw. 4-point Bend Edges (mm)	10
Applic. Standards	JIS R1601: 2008
Usage Temp. Range	RT \sim +70 $^{\circ}$ C



NOTE: Corresponds to standard specimen I.

Leather Grain Cracking

Product Code	J-CZ-1KN
Max. Load	1kN (100kgf)
Punch Tip (mm)	$\phi 6$ hemisphere
Applic. Standards	JIS K6557-10: 2018
Usage Temp. Range	RT \sim +70 $^{\circ}$ C



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

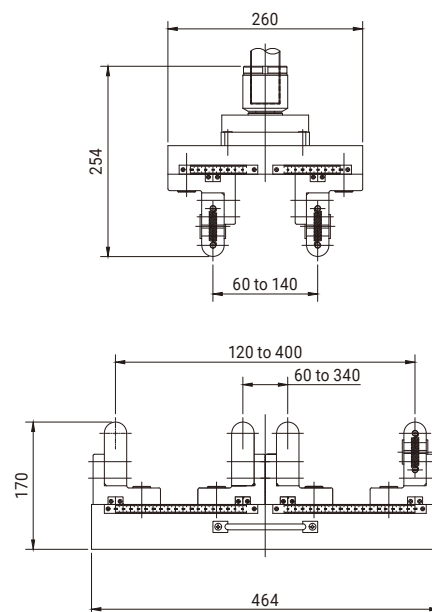
EXTENS

Concrete 4-point Compression Bending

Product Code	—	
Max. Load	100kN (10tf)	
Edge Tip (mm)	R15× Width 120	
Support Base Tip (mm)	R15× Width 120	
Dist. btw. Edges (mm)	60~200	
Dist. btw. Support Bases (mm)	60~400	
Other Req. Jigs	Compression Arbor	NOTE
Applic. Standards	JIS A1106: 2018	
Usage Temp. Range	RT~+70°C	

NOTE:

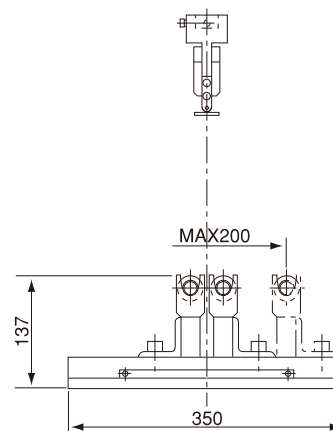
1. See Compression Arbor on p. 25.
2. Separate quote required.



Pantile/Tile 3-point Compression Bending

Product Code	—		
Max. Load	5kN (500kgf)		
Edge Tip RxWidth (mm)	For Pantiles		For Tiles
	J-shape SAN pantile, S-shape SAN pantile, NOSHI pantile	F-shape	
	R15×422	φ65 press. bearing plate	R5× Width 200
Support Base RxWidth (mm)	R15×410	15×24 batten clear (upper/lower rubber attached)	R5× Width 208
Dist. btw. Supports (mm)	40~200		
Other Req. Jigs	φ30 Compress. Adapter (incl. in load cell)		
Applic. Standards	JIS A5208: 1996	JIS A1509-4: 2014	
Usage Temp. Range	RT~+70°C		

NOTE: Separate quote required.



Thermostatic/Chamber Test Jigs

Material property tests under specified temperature environment are very important to know the practical performance of materials. TENSILON has a variety of constant-temperature and constant-humidity chambers with different temperature ranges, so you can select the one that is appropriate for the test temperature and the model of the testing machine (TENSILON) to be installed.

Hygrothermal Chamber

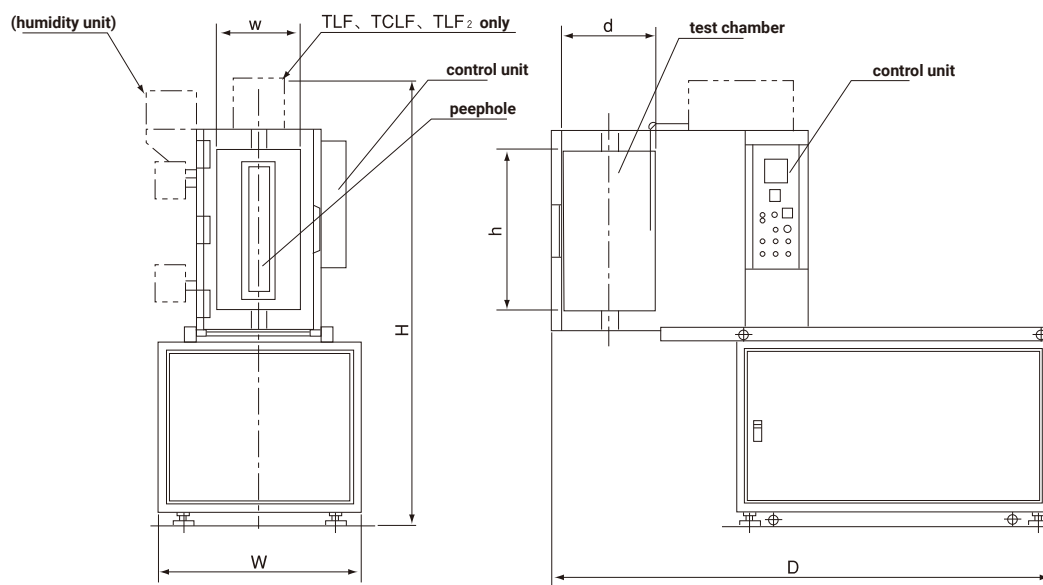
Standard Configuration:

Constant temp. (constant humid.) chamber main unit, 1 set

Load cell spacers, 2 types

Heat shield, 1 piece

Water receptacle (not required for TKC), 1 piece



Category	Temp. Range	Comments
TKC	RT+20°C~+270°C	
TLF	-35°C~+270°C	Chiller cooled
TCF	-60°C~+270°C	Liquid CO2 cooled
TCLF	-60°C~+270°C	Chiller + liquid CO2
TLF ₂	-65°C~+250°C	Two-stage chiller
TNF	-150°C~+250°C	Liquid N2 cooled
TLF-HS	-35°C~+270°C	Chiller cooling with humidity control

NOTE:

1. Air-cooled chillers are standard, but in case of water-cooled chillers, provide water supply and drainage facilities.

Water Supply Specifications

Water temperature below 25°C (city water): water volume 15L/min
 Water temperature below 34°C (cooling tower): water volume 25L/min
 Water pressure 0.2 MPa or higher

2. Separate gas cylinders for LCO2 and LN2 (with siphon) should be provided separately.

3. TLF-HS requires pure water or equivalent water for humidity generation so prepare separately.

Special Customizations

- When using a non-contact extensometer, some modifications are required. (Please contact us for details.)
- The standard constant-temperature chamber is air-cooled. Water-cooled type is also available upon request.
- We also manufacture other environmental test chambers (immersion tanks, constant temperature furnaces). (Please contact us for more information.)

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

RTF, RTG-1210/1225/250/1310, RTH, RTI-1225/1310

Model	TKC-R3T-F	TLF-R3T-F-A	TCF-R3T-F	TCLF-R3T-F-A	TLF ₂ -R3T-F-W	TNF-R3T-F
Ext. Dimen. (WxHxD)	600×1540×1490	800×1740×1760	600×1540×1490	600×1740×1760	1250×1740×1760	600×1540×1490
Chamber Dimen. (wxhxd)	220×600×260					
Temp. Range	RT~+270°C	-35°C~+270°C	-60°C~+270°C	-60°C~+270°C	-65°C~+250°C	-150°C~+250°C
Heat/Cool System	Hi Temp.	Hot air circulation via heater				
	Lo Temp.	—————	Chiller cooled	Liquid CO ₂ cooled	Chiller cooled + LCO ₂ cooled	2-stage chiller cooled
Control System	PID operated, ON-OFF control					
Temp. Change Rate	Temp. Rise	+25°C~+270°C within 60 min				
	Temp. Drop	—————	+25°C~-35°C within 90 min	+25°C~-60°C within 30 min	+25°C~-35°C within 90 min -35°C~-60°C within 20 min	+25°C~-35°C within 90 min
Temp. Spread	±2°C					
Power Supply	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 5.5kW	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 5.5kW	AC200V 3φ aprx. 7.8kW	AC200V 3φ aprx. 3kW

RTF-1325, RTF-1350

Model	TKC-R4T-F	TLF-R4T-F-A	TCF-R4T-F	TCLF-R4T-F-A	TLF ₂ -R4T-F-W	TNF-R4T-F
Ext. Dimen. (WxHxD)	800×1495×1980	800×1695×1980	800×1495×1980	800×1694×1980	1250×1695×1980	800×1495×1980
Chamber Dimen. (wxhxd)	330×550×360					
Temp. Range	RT~+270°C	-35°C~+270°C	-60°C~+270°C	-60°C~+270°C	-65°C~+250°C	-150°C~+250°C
Heat/Cool System	Hi Temp.	Hot air circulation via heater				
	Lo Temp.	—————	Chiller cooled	Liquid CO ₂ cooled	Chiller cooled + LCO ₂ cooled	2-stage chiller cooled
Control System	PID operated, ON-OFF control					
Temp. Change Rate	Temp. Rise	+25°C~+270°C within 60 min				
	Temp. Drop	—————	+25°C~-35°C within 90 min	+25°C~-60°C within 30 min	+25°C~-35°C within 90 min -35°C~-60°C within 20 min	+25°C~-35°C within 90 min
Temp. Spread	±2°C					
Power Supply	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 6.5kW	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 6.5kW	AC200V 3φ aprx. 9kW	AC200V 3φ aprx. 3kW

RTF-2410, RTF-2325, RTF-2350

Model	TKC-U4-F	TLF-U4-F-W	TCF-U4-F	TCLF-U4-F-W	TLF ₂ -U4-F-W	TNF-U4-F
Ext. Dimen. (WxHxD)	800×1575×1980	800×1775×1980	800×1575×1980	800×1775×1980	1600×1775×1980	800×1575×1980
Chamber Dimen. (wxhxd)	330×630×360					
Temp. Range	RT~+270°C	-35°C~+270°C	-60°C~+270°C	-60°C~+270°C	-65°C~+250°C	-150°C~+250°C
Heat/Cool System	Hi Temp.	Hot air circulation via heater				
	Lo Temp.	—————	Chiller cooled	Liquid CO ₂ cooled	Chiller cooled + LCO ₂ cooled	2-stage chiller cooled
Control System	PID operated, ON-OFF control					
Temp. Change Rate	Temp. Rise	+25°C~+270°C within 60 min				
	Temp. Drop	—————	+25°C~-35°C within 90 min	+25°C~-60°C within 30 min	+25°C~-35°C within 90 min -35°C~-60°C within 20 min	+25°C~-35°C within 90 min
Temp. Spread	±2°C					
Power Supply	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 6.5kW	AC200V 3φ aprx. 3kW	AC200V 3φ aprx. 6.5kW	AC200V 3φ aprx. 9kW	AC200V 3φ aprx. 3kW

RTF-2425, RTF-2430

Model	TKC-U5-F	TLF-U5-F-W	TCF-U5-F	TCLF-U5-F-W	TLF ₂ -U5-F-W	TNF-U5-F
Ext. Dimen. (WxHxD)	900×1625×2290	900×1825×2290	900×1625×2290	900×1825×2290	1600×1825×2290	900×1625×2290
Chamber Dimen. (wxhxd)	330×680×500					
Temp. Range	RT~+270°C	-35°C~+270°C	-60°C~+270°C	-60°C~+270°C	-65°C~+250°C	-150°C~+250°C
Heat/Cool System	Hi Temp.	Hot air circulation via heater				
	Lo Temp.	—————	Chiller cooled	Liquid CO ₂ cooled	Chiller cooled + LCO ₂ cooled	2-stage chiller cooled
Control System	PID operated, ON-OFF control					
Temp. Change Rate	Temp. Rise	+25°C~+270°C within 60 min				
	Temp. Drop	—————	+25°C~-35°C within 90 min	+25°C~-60°C within 30 min	+25°C~-35°C within 90 min -35°C~-60°C within 20 min	+25°C~-35°C within 90 min
Temp. Spread	±2°C					
Power Supply	AC200V 3φ aprx. 4kW	AC200V 3φ aprx. 7kW	AC200V 3φ aprx. 4kW	AC200V 3φ aprx. 7kW	AC200V 3φ aprx. 9kW	AC200V 3φ aprx. 4kW

Constant Temperature and Humidity Chamber

Model	TLF-R3T-F-HS-W	TLF-R4T-F-HS-W	TLF-U3-F-HS-W	TLF-U4-F-HS-W	TLF-U5-F-HS-W
Applicable Models	RTF-1210~1310, RTG-1210~1310	RTF-1325/1350	RTF-2325/2350	RTF-2410	RTF-2425/2430
Ext. Dimen. (WxHxD)	800×1740×1760	800×1695×1980	800×1695×1980	800×1775×1980	900×1825×2290
Chamber Dimen. (wxhxd)	220×600×260	330×550×360	330×550×360	330×630×360	330×680×500
Temp. Range	-35°C~+270°C				
Humid. Range	30%RH~95%RH (at +25°C~+85°C within range of relative humidity control)				
Heat/Cool System	Hi Temp.	Hot air circulation via heater			
	Lo Temp.	Cold air circulation via chiller: (water-cooled compact chiller)			
Control System	Temperature and humidity PID control method				
Temp. Change Rate	Temp. Rise	+25°C~+270°C within 60 min			
	Temp. Drop	+25°C~-35°C within 90 min			
Temp. Spread	±2°C				
Humid. Spread	±2°C ±5%RH (centered on test room)				
Power Supply	AC200V 3φ aprx. 9kW				AC200V 3φ aprx. 12kW

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

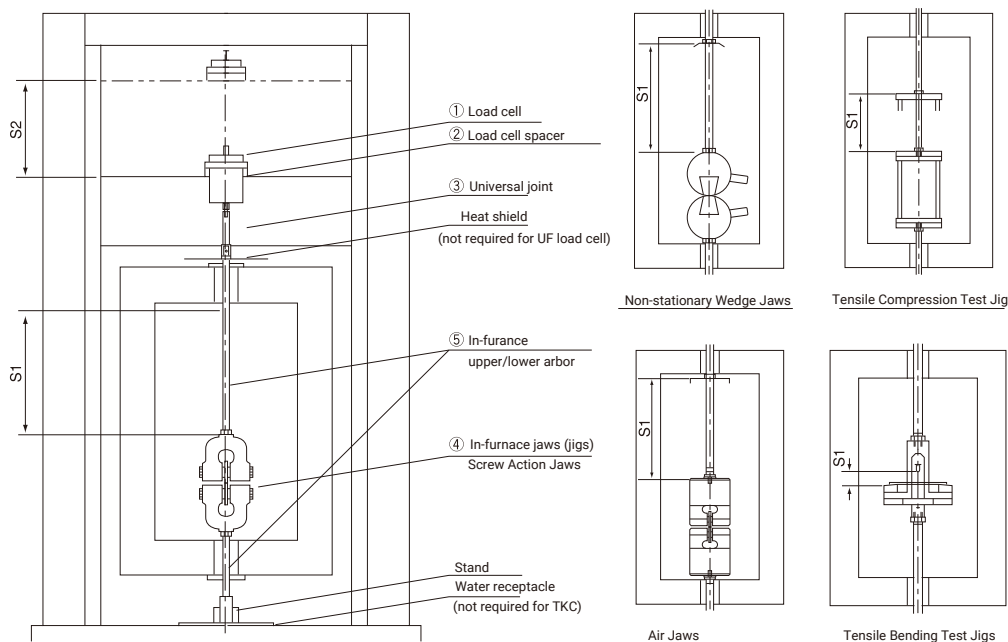
6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

Chamber Test Equipment Configuration

Configuration
Diagram



NOTE:

- Each jaw face and jig Edge, support base, etc., are to be ordered separately.
- The usage temperature range of various jigs are given in the specifications described in 1-3 (Jaws), P.25 (Tensile Compression Test Jig) and P.26 (Tensile Bending Test Jig).
- We can also manufacture thermostatic chambers for tensile testing in the upper space of the moving crosshead. (Please contact us for details.)
- The effective stroke S is the smaller of S1 or S2.
- We can also manufacture chamber jigs not listed in this section. (Please contact us.)
- For the RTG series, the L/C cable must be changed. (Please make an inquiry.)
Load cell L-type conversion cable RTF-17 is required separately.
- The following products consist only of joints and do not include the jig itself.
R2-R3T-250N, R2-R3T-1KN, R2-R3T-5KN, RA1-R3T-1KN

R3T Series (TKC, TCF, TLF, TCLF, TLF2, TNF, TLF-HS) (1210 to 1310)

Jaw (Jig) Type	Screw Action Jaws				Non-stationary Wedge Jaws	
Load	50N (5kgf)	250N (25kgf)	1kN (100kgf)	5kN (500kgf)	1kN (100kgf)	10kN (1tf)
① Load Cell	UR-50N-D	UR-250N-D	UR-1KN-D	UR-5KN-D	UR-1KN-D	UR-10KN-D
② Load Cell Spacer	H=50			H=100	H=50	H=100
③ Universal Joint	J-UF-50N	J-UF-1KN		J-UF-5KN	J-UF-1KN	J-UF-10KN
④ In-furnace Jaws	J-JFM-50N	J-JFM-250N	J-JFM-1KN	J-JFM-5KN	R1-R3T-1KN	R-R3T-10KN
⑤ In-furnace Arbors Up/Low	R2-R3T-250N		R2-R3T-1KN	R2-R3T-5KN		
Effective Stroke, S (mm)	260		270	220	270	200

Jaw (Jig) Type	Air Jaws				
Load	50N (5kgf)	500N (50kgf)	1kN (100kgf)		5kN (500kgf) 10kN (1tf)
① Load Cell	UR-50N-D	UR-500N-D	UR-1KN-D		UR-5KN-D UR-10KN-D
② Load Cell Spacer	H=50			H=100	
③ Universal Joint	J-UF-50N	J-UF-1KN		J-UF-5KN	J-UF-10KN
④ In-furnace Jaws	RA-R3T-50N	RA-R3T-500N	RA-R3T-1KN	J-JFA1-1KN	RA-R3T-5KN RA-R3T-10KN
⑤ In-furnace Arbors Up/Low				RA1-R3T-1KN	
Effective Stroke, S (mm)	255	250	215	245	150 120

Jaw (Jig) Type	Tensile Compression Test Jig			Tensile Bending Test Jigs	
Load	50N (5kgf)	1kN (100kgf)	5kN (500kgf)	1kN (100kgf)	5kN (500kgf)
① Load Cell	UR-50N-D	UR-1KN-D	UR-5KN-D	UR-1KN-D	UR-5KN-D
② Load Cell Spacer	H=50		H=100	H=50	H=100
③ Universal Joint	J-UF-50N	J-UF-1KN	J-UF-5KN	J-UF-1KN	J-UF-5KN
④ In-furnace Jaws	RC-R3T-50N	J-CD-1KN	RC-R3T-5KN	RBE-R3T-1KN	RBE-R3T-5KN
⑤ In-furnace Arbors Up/Low		R2-R3T-1KN			
Effective Stroke, S (mm)	110	189	135	NOTE 1	NOTE 1

R4T Series (TKC, TCF, TLF, TCLF, TLF2, TNF, TLF-HS) (1325/1350)

Jaw (Jig) Type	Screw Action Jaws			
Load	50N (5kgf)	250N (25kgf)	1kN (100kgf)	5kN (500kgf)
① Load Cell	UR-50N-D	UR-250N-D	UR-1KN-D	UR-5KN-D
② Load Cell Spacer	H=20			H=70
③ Universal Joint	J-UF-50N	J-UF-1KN		J-UF-5KN
④ In-furnace Jaws	R-R4T-50N	R-R4T-250N	R-R4T-1KN	R-R4T-5KN
⑤ In-furnace Arbors Up/Low				
Effective Stroke, S (mm) (Up1325/Low1350)	180			165
	210			

Jaw (Jig) Type	Non-stationary Wedge Jaws		
Load	1kN (100kgf)	10kN (1tf)	50kN (5tf)
① Load Cell	UR-1KN-D	UR-10KN-D	UF-50KN-D
② Load Cell Spacer	H=20	H=70	Not required
③ Universal Joint	J-UF-1KN	J-UF-10KN	J-UF-50KN
④ In-furnace Jaws	R1-R4T-1KN	R-R4T-10KN	R-R4T-50KN
⑤ In-furnace Arbors Up/Low			
Effective Stroke, S (mm) (Up1325/Low1350)	180	145	180
	210		200

Jaw (Jig) Type	Air Jaws				
Load	50N (5kgf)	500N (50kgf)	1kN (100kgf)	5kN (500kgf)	10kN (1tf)
① Load Cell	UR-50N-D	UR-500N-D	UR-1KN-D	UR-5KN-D	UR-10KN-D
② Load Cell Spacer	H=20			H=70	Not required
③ Universal Joint	J-UF-50N	J-UF-1KN		J-UF-5KN	J-UF-10KN
④ In-furnace Jaws	RA-R4T-50N	RA-R4T-500N	RA-R4T-1KN	RA-R4T-5KN	RA-R4T-10KN
⑤ In-furnace Arbors Up/Low					
Effective Stroke, S (mm) (Up1325/Low1350)	160			100	70
	190				

Jaw (Jig) Type	Tensile Compression Test Jig				Tensile Bending Test Jigs	
Load	50N (5kgf)	1kN (100kgf)	5kN (500kgf)	50kN (5tf)	1kN (100kgf)	5kN (500kgf)
① Load Cell	UR-50N-D	UR-1KN-D	UR-5KN-D	UF-50KN-D	UR-1KN-D	UR-5KN-D
② Load Cell Spacer	Not required	NOTE 2	H=70	Not required	Not required	
③ Universal Joint	J-UF-50N	J-UF-1KN	J-UF-5KN	J-UF-50KN	J-UF-1KN	J-UF-5KN
④ In-furnace Jaws	RC-R4T-50N	RC-R4T-1KN	RC-R4T-5KN	RC-R4T-50KN	RBE-R4T-1KN	RBE-R4T-5KN
⑤ In-furnace Arbors Up/Low						
Effective Stroke, S (mm) (Up1325/Low1350)	110	189	135	130	NOTE 1	NOTE 1

NOTE:

- When the jig is mounted, the distance between the upper and lower Edge is 36 mm and the push-in amount is 40 mm.
- H=50 for 1325 and H=20 for 1350.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

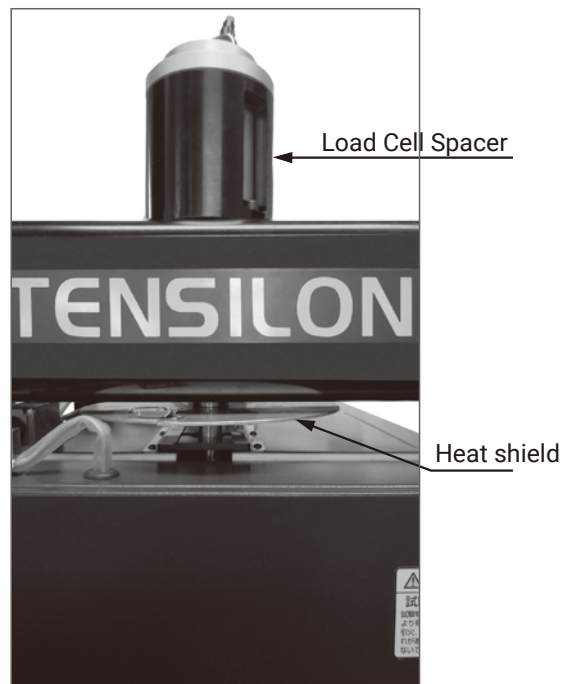
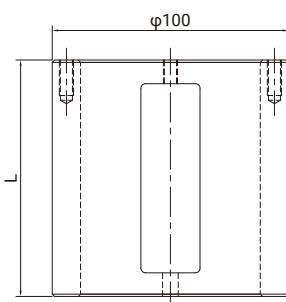
EXTENS

- 1. TENS
- CONFIG
- UNIVER JOINT
- JAW
- SCREW ACTION
- WEDGE
- AIR JAW
- TIRE CORD
- OIL
- RUBBER
- WINDING
- OTHERS
- 2. COMP/BEND
- 3. POLY
- 4. FIBER
- 5. PULP/PAPER
- 6. WOOD
- 7. ADHE PEEL
- 8. OTHER DEDI
- 9. THERM/CHAMB
- 10. DETEC/CALLIB
- LOAD CELL
- EXTENS

Load Cell Spacers

Item Name	Dimen. W×L mm	Product Code
Load Cell Spacer 20mm(height)	φ100×20	AX-UT2-000
Load Cell Spacer 40mm(height)	φ100×40	AX-UT2-001
Load Cell Spacer 50mm(height)	φ100×50	AX-UT2-002
Load Cell Spacer 60mm(height)	φ100×60	AX-UT2-003
Load Cell Spacer 70mm(height)	φ100×70	AX-UT2-004
Load Cell Spacer 80mm(height)	φ100×80	AX-UT2-005
Load Cell Spacer 90mm(height)	φ100×90	AX-UT2-006
Load Cell Spacer 100mm(height)	φ100×100	AX-UT2-007
Load Cell Spacer 130mm(height)	φ100×130	AX-UT2-008

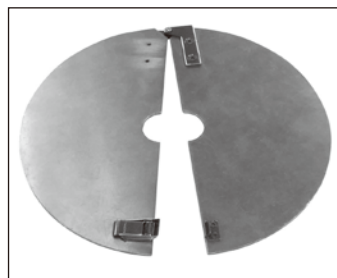
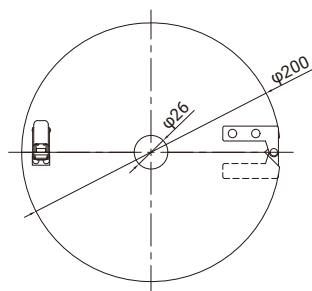
NOTE: Loads for UR load cells.



Heat Shield for Thermostatic Chamber

Item Name	Product Code
Heat Shield	AX-UT2-010

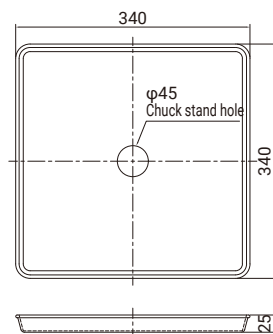
NOTE: For furnace arbors with a capacity of 10 kN or less.



Water Receptacle

Item Name	Product Code
Water Receptacle	AX-UT2-011

NOTE: For R3T type (lower space of 10 kN or less) thermostatic chambers.



Detectors and Callibrators

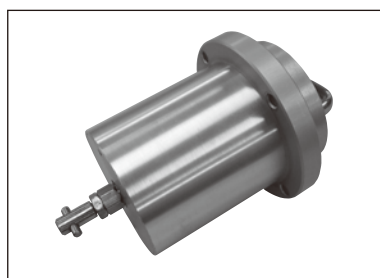
Load Cells

The load cells used in TENSILON are strain gage type high-performance load cells developed exclusively for Tensilon. Strain gage load cells are selected for their fast response and high resolution, as well as for their low zero drift.

A wide range of load cells are available from large to small loads, so you can select the load cell that best meets your needs.



A



B



C

Load Cell for RTF/RTG (both tensile and compression types)

Rating	Model	Product Code	Shape
300kN	UF-300KN-D	UF-300KN-D	A
250kN	UF-250KN-D	UF-250KN-D	A
100kN	UF-100KN-D	UF-100KN-D	A
50kN	UF-50KN-D	UF-50KN-D	A
25kN	UF-25KN-D	UF-25KN-D	A
10kN	UR-10KN-D	UR-10KN-D	B
5kN	UR-5KN-D	UR-5KN-D	B
2.5kN	UR-2.5KN-D	UR-2.5KN-D	B
1kN	UR-1KN-D	UR-1KN-D	B
500N	UR-500N-D	UR-500N-D	B
250N	UR-250N-D	UR-250N-D	B
100N	UR-100N-D	UR-100N-D	B
50N	UR-50N-D	UR-50N-D	B
25N	UR-25N-D	UR-25N-D	B
10N	UR-10N-D	UR-10N-D	B

Load Cells for Low Loads

Rating (gravity)	Model	Product Code	Shape
10N	TLU-10N-G	TLU-10N-G	C
5N	TLU-5N-G	TLU-5N-G	C
2N	TLU-2N-G	TLU-2N-G	C
1N	TLU-1N-G	TLU-1N-G	C

NOTE:

For low load cells, mounting bracket (RTC-16), load cell and matching box (RTF-16) are required.

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

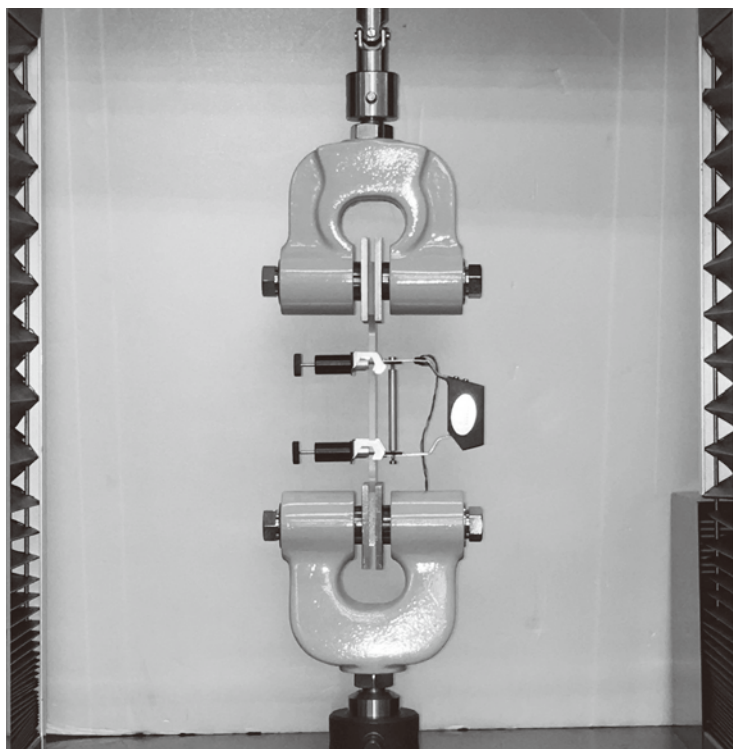
6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

SG Type Extensometer

This is an extensometer that is directly attached to a test piece to measure the elongation of the distance between mark lines with high accuracy. The same strain gages as load cells are used to detect elongation, providing outstanding resolution. The mass of the extensometer is so light that its influence on the specimen is negligible, and it can be used selectively according to the elongation range.



Model	Product Code	Marker Dist. (mm)	Max. Elongation (mm)	Usage Temp. Range	Applic. Test Piece(mm)	
					Flat Board	Rod
SG50-2B	U-SG50-2B	50	2	-10~+70°C	Width 25.4 (Max.) x Thick 0.5 to 8	φ3~φ10
SG50-5A	U-SG50-5A	50	5			
SG50-20A	U-SG50-20A	50	20			
SG50-50A	U-SG50-50A	50	50			
SG25-5A	U-SG25-5A	25	5			
SG25-10A	U-SG25-10A	25	10	-10~+150°C		
SG25-25A	U-SG25-25A	25	25			
SG50-5AH	U-SG50-5AH	50	5			
SG50-20AH	U-SG50-20AH	50	20			
SG50-50AH	U-SG50-50AH	50	50			
SG25-5AH	U-SG25-5AH	25	5			

NOTE:

For RTH/RTI/RTF/RTG/STB, a separate SG extensometer amplifier (RTF-04) is required.

For RTC/STA, an SG extensometer amplifier (MD-1035) is separately required.

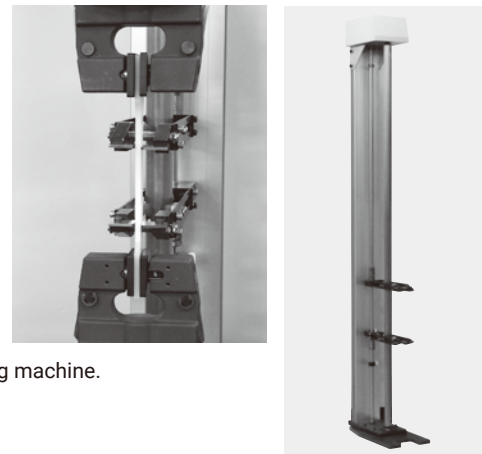
Contact Type Extensometer U-4310 Series

This is a device to measure the elongation of plastic (ISO elastic modulus measurement), rubber, plastic, etc. with high elongation with high accuracy by directly attaching two upper and two lower contact hands between the marker lines.

The U-4310D and U-4310DJ series in particular have automated clamping and can be easily attached to a sample. The sample clamping edges can be replaced to suit various types of samples such as rope, rubber, and plastic.

The elongation signal is displayed, analyzed, and recorded as a stress-strain curve between the marked lines using the TACT/MSAT series of data processors.

Model	U-4310D	U-4310DJ
Elongation Meas. Range	0 to 1000mm	
Resolution	25 μ m	
Accuracy	\pm (elong. $\times 0.5\% + 0.25$) mm	
Micro Elongation Resolution	0 to 1 mm	0.2 μ m
Minimum Dist. btw. Markers	10mm	50mm
Folding Resistance	1 N or less	
Mountable Test Dimensions	Width: 2 to 10 mm Thickness: 8 mm or less	
Usage Temperature	20 \pm 10 $^{\circ}$ C	
Sample Clamping Method	Automatic	
Main Unit Shape	120 (W) \times 250 (D) \times 1285 (H) mm	
Main Unit Weight	Approx. 11kg	Approx. 25kg



Extensometer main unit

NOTE: A separate mounting bracket is required to match the main unit of the testing machine.

U-4310D Optional Items

Name		Prod. Code
Lower Fixed Mounting Bracket for RTG/RTF	For lower space	U-43D-01
Lower Rotary Mounting Bracket for RTG/RTF-1210/1310	For lower space	U-43D-02
Lower Rotary Mounting Bracket for RTF-1325/1350	For lower space	U-43D-03
Lower Rotary Mounting Bracket for STB-1225S/1225L	For lower space	U-43D-04
Rubber Lining F flat face 4pcs/set	Rubber padded Face tip	U-43D-10
30 $^{\circ}$ R13 Face 4 pcs/1 set	Sharp Edge Face tip	U-43D-11
30 $^{\circ}$ 0.2 Flat R13 Face 4pcs/set	Flat Face tip 0.2 mm	U-43D-12
Disc Spring 10pcs/set	-	U-43D-13
Standard Accessory Face 4pcs/set	Square flat x 2, Edge type x 2	U-43D-14

Non-contact Type Extensometer U-4410 Series

Electro-optical extensometers with automatic tracking for non-contact, accurate measurement of elongation between mark lines of rubber, plastic, film, sheet, etc. The high sensitivity makes it possible to measure the interline elongation from outside the environmental chamber (high/low temperature chamber).

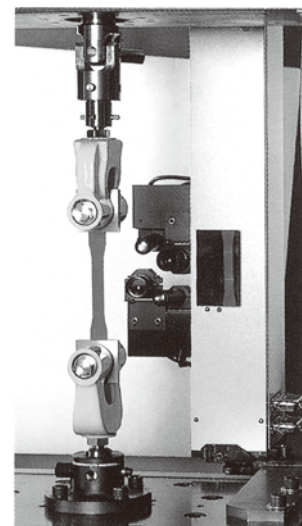
Applic. Test Piece	Rubber, plastic, film, sheets	
Detect Method	Electro-optical type	
Min. Dist. btw. Markers	20mm	
Max. Elongation	800mm	
Tracking Speed	Max. approx. 1000mm/min	
Extensometer Meas. Range	50, 100, 200, 400, 800mm	
Resolution	Each range, 0.025% of full scale	
Accuracy	Individual accuracy of upper/lower detection head \pm (0.05mm + 0.5%F.S)	
Analog Output	DC5V / range full scale	
Power Supply	100V 50/60Hz 200VA	
Usage Temp. Range	20 $^{\circ}$ C \sim \pm 10 $^{\circ}$ C	
Ext. Dimen.: Weight	Main Unit approx. Controller approx.	225 (W) \times 1400 (H) \times 150 (D) mm 20kg 約400 (W) \times 130 (H) \times 300 (D) mm 15kg

U-4410 Options

Name	Prod. Code
Lower Rotary Mounting Bracket for 1210 to 1310	U-44-01
Lower Rotary Mounting Bracket for 1325 to 1350	U-44-02
Lower Fixed Mounting Bracket for 2410	U-44-10

NOTE:

1. A mounting bracket that matches the main unit of the testing machine is required separately.
2. When measuring elongation in a thermostatic chamber, a thermostatic chamber compatible with the elongation type is required.



1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
ACTION

WEDGE

AIR
JAWTIRE
CORD

OIL

RUBBER

WINDING

OTHERS

2. COMP/
BEND

3. POLY

4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

1. TENS

CONFIG

UNIVER
JOINT

JAW

SCREW
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JAWTIRE
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OTHERS

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4. FIBER

5. PULP/
PAPER

6. WOOD

7. ADHE
PEEL8. OTHER
DEDI9. THERM/
CHAMB10. DETEC/
CALLIBLOAD
CELL

EXTENS

Load Cell Loop Meter

The measurement method is based on the indexing type. High accuracy in force measurement of various machines. JIS B7721 calibration device for one-axis testers is standardized.

JCSS
0099

Force Category Certified Business No.



Model	Calibration Cap.		Deflect. Rating aprx. (mm)	Main Unit Dimen. (mm)					Detector Weight (kg)
	Lo Range (R1)	Hi Range (R2)*		A	B	C	D	E	
AD1661-200N *	50N	200N	3	φ62	φ40	φ62	258	70	0.8
AD1661-600N	200N	500N	3	φ70	φ40	φ70	260	70	1.0
AD1661-2KN	500N	2kN	3	φ60	φ45	φ60	300	85	1.4
AD1661-6KN	2kN	5kN	3	φ65	φ45	φ65	310	103	1.9
AD1661-20KN	5kN	20kN	3	φ60	φ60	—	276	98	3.2
AD1661-60KN	20kN	50kN	3	φ75	φ75	—	330	116	7.2
AD1661-200KN	50kN	200kN	3	φ100	φ98	—	418	211	18.6

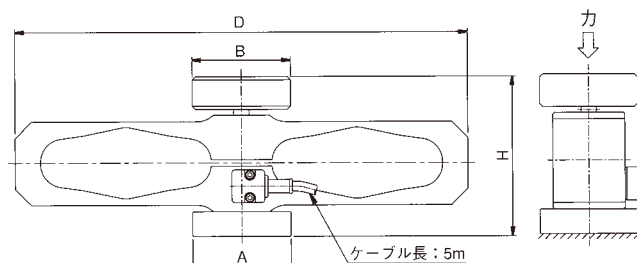
Note: For testing in the tensile direction, a separate verification jig for tension is required.

*Certificate is included with the Hi range only.

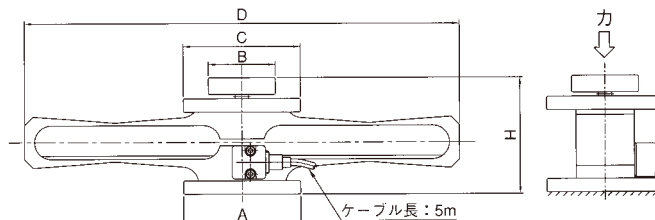
Sensor section (load cell)

Dimensions

AD1661-20KN
AD1661-60KN
AD1661-200KN



AD1661-200N
AD1661-600N
AD1661-2KN
AD1661-6KN



Displacement Calibrators for SG Extensometers

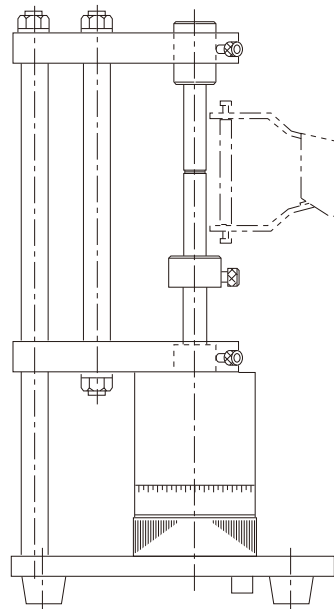
Used for displacement calibration of SG extensometers and consists of a high-precision micrometer with a digital counter display by means of a spindle linear motion system.

Standard Configuration:

1. Extensometer calibration device 1 set
2. Extensometer mounting shaft 1 set each

φ10, φ15×t6mm

Model	DC-50D
Product Code	C-DC-50D
Displce. Stroke (mm)	50
Displce. Meas. Method	Micrometer type
Min. Resolution	1μm
Read Method	Digital display counter readable
Applic. elongation detector	Elong. detector, measuring range 50 mm or less
Other functions	Zero-set, direction switching, preset, BCD output



Single Column Type Tensile and Compression
Testing Machine

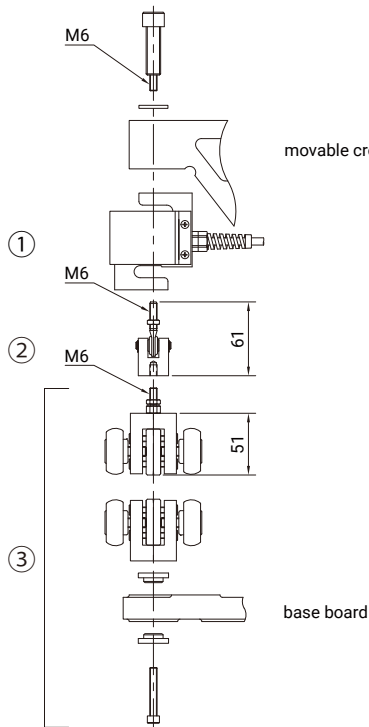
STA/STB SERIES

For all kinds of testing applications for loads
ranging from 10N to 2.5 kN

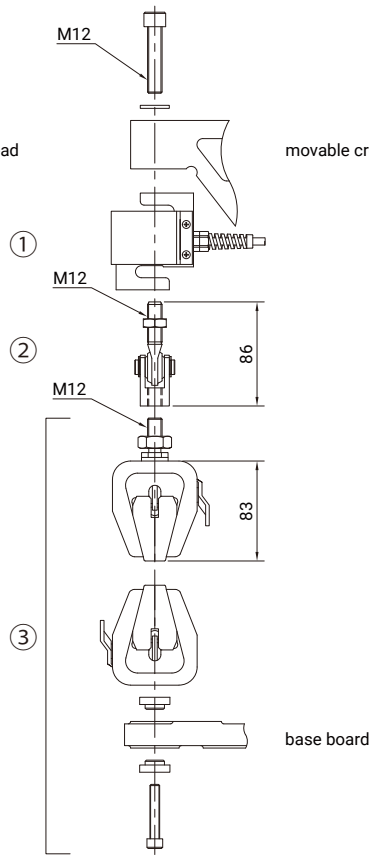
Basic Tensile Testing Equipment Configuration

A basic tensile jig configuration designed for low cost, mainly for tensile testing of plate specimens, and dedicated for STA/STB.

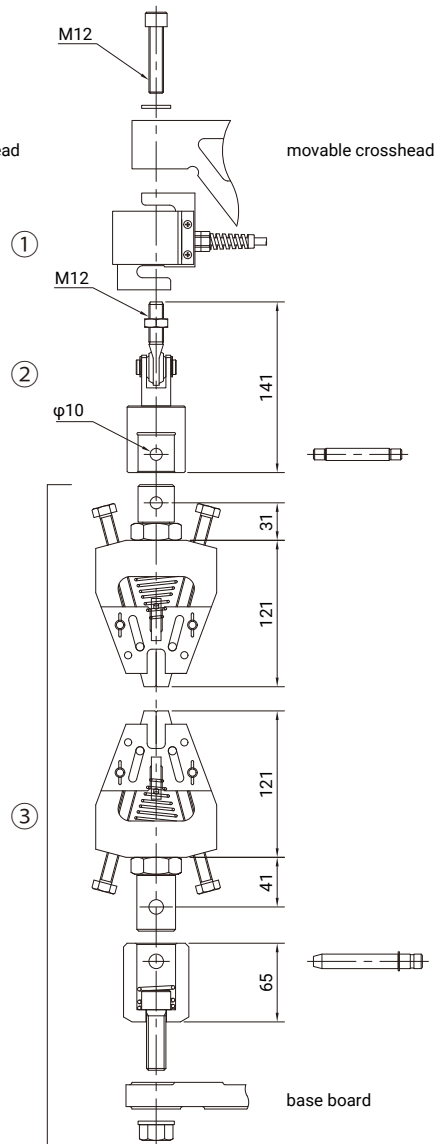
Tensile Test Jig For 50N, 500N, 1kN



Tensile Test Jig For 2.5kN



Tensile Test Jig For 2.5kN



Load Capacity	50N/500N/1kN	2.5kN	2.5kN
① Load Cell	US-50N/500N/1KN	US-2.5KN	US-2.5KN
② Threaded Universal Joint	1kN J-UF3-1KN	2.5kN J-UF2-2.5KN	2.5kN J-UF3-2.5KN
③ Jaws	1kN J-JFM1-1KN	2.5kN J-JCM-2.5KN	10kN J-JDM-10KN NOTE
Face Dimen. (mm)	Width 32× Length 38	Width 25× Length 36	Refer to P15.
Face Style	Parallel single cut	Parallel single cut	
Face Open. Dist. (mm)	0 to 6	0 to 10	

NOTE: Mounting bracket (J-X001) is required.

Expanded Tensile Testing Equipment Configuration

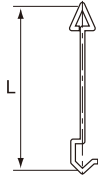
A pin-type universal joint and jaw stand are combined to allow selection and replacement of the appropriate jig for the material and shape of the test. Compatible with RTC, RTF, RTG and other TENSILON jigs (3) for application testing.

Load	10N (1kgf)	10N (1kgf)	50N (5kgf)
Equipment Configuration			
① Load Cell	NOTE 1 10N TLU-10N-G	50N US-50N	50N US-50N
② Universal Joint	10N J-UF-10N	NOTE 2 10N J-UF2-50N	50N J-UF2-50N
③ Jaws	10N Various Jaws	10N Various Jaws	50N Various Jaws
④ Jaw Stand	2.5kN	J-X001	

NOTE 1: Mounting bracket (J-X003) required. NOTE 2: Included with 50N Pin Type Universal Joint

荷重	500N (50kgf)	1kN (100kgf)	2.5kN (250kgf)
装置構成			
① Load Cell	500N US-500N	1kN US-1KN	2.5kN US-2.5KN
② Universal Joint	1kN J-UF4-1KN	1kN J-UF4-1KN	2.5kN J-UF3-2.5KN
③ Jaws	500N Various Jaws	1kN Various Jaws	2.5kN Various Jaws
④ Jaw Stand	2.5kN	J-X001	

10N (1kgf) ~1N (100gf)

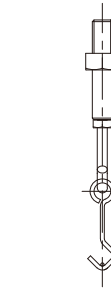
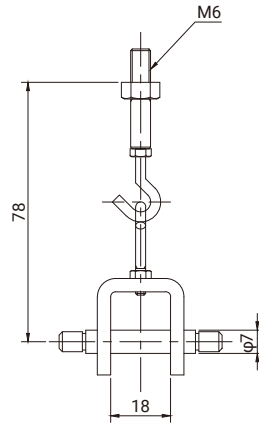


Hook Type Universal Joint

Load	Dimen. (mm)	Weight (g)	Product Code
	L		
10N (1kgf)	25 (A)	0.4	J-UF-10N
	63 (B)	0.7	
	175	1.2	J-UF1-10N

NOTE: (A) (B) each, total 2 sets

50N (5kgf)



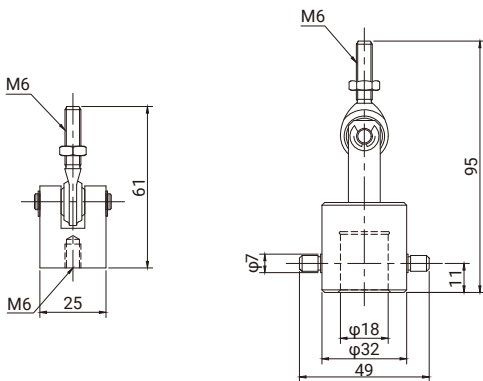
10 N Hooked Universal Joint

Pin Type Universal Joint

Load	Product Code
50N (5kgf)	J-UF2-50N

NOTE: Hook Type Joint for 10N is included.

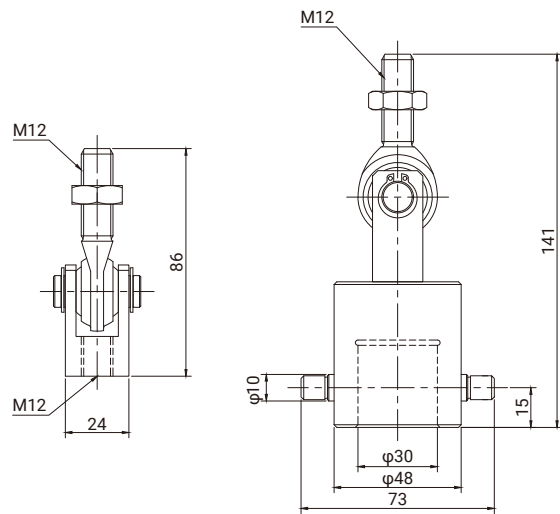
500N (50kgf) ~1kN (100kgf)



Threaded Universal Joint Pin Type Universal Joint

Load	Type	Product Code
1kN (100kgf)	Threaded	J-UF3-1KN
	Pin	J-UF4-1KN

2.5kN (250kgf)



Threaded Universal Joint Pin Type Universal Joint

Load	Type	Product Code
2.5kN (250kgf)	Threaded	J-UF2-2.5KN
	Pin	J-UF3-2.5KN

Screw Action Jaws

2.5kN (250kgf) to 50N (5kgf)

Same as for RTF/RTG (see P.12)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Wedge Jaws

Same as RTF/RTG (see P.14)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Air Jaws

Same as RTF/RTG (see P.16)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Air Jaws for Tire Cords

Same as RTF/RTG (see P.18)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Jaws for Rubber

Same as RTF/RTG (see P.21)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Jaws for Winding

Same as RTF/RTG (see P.22)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Other Jaws

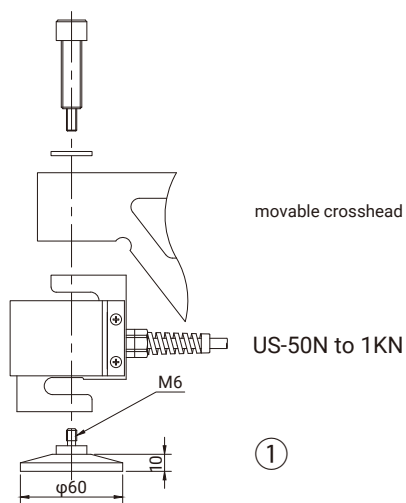
Same as RTF/RTG (see P.23)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

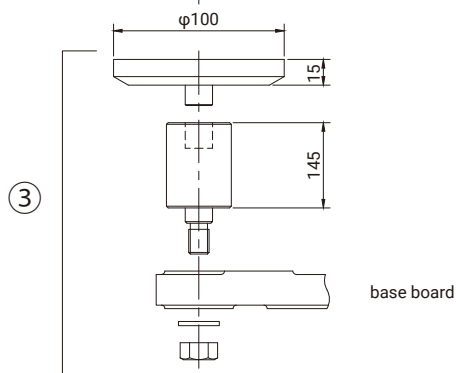
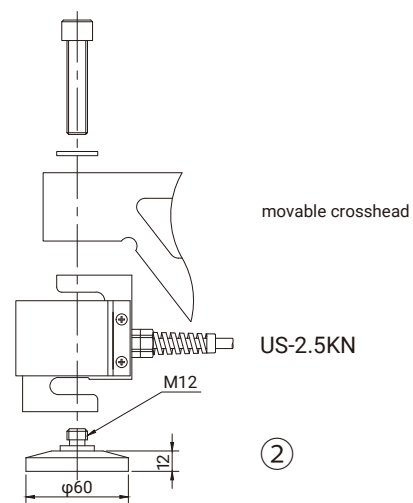
Basic Compression Test Equipment Configuration

Compression Test Jig

Allowable Load 50N to 1kN



Allowable Load 2.5kN



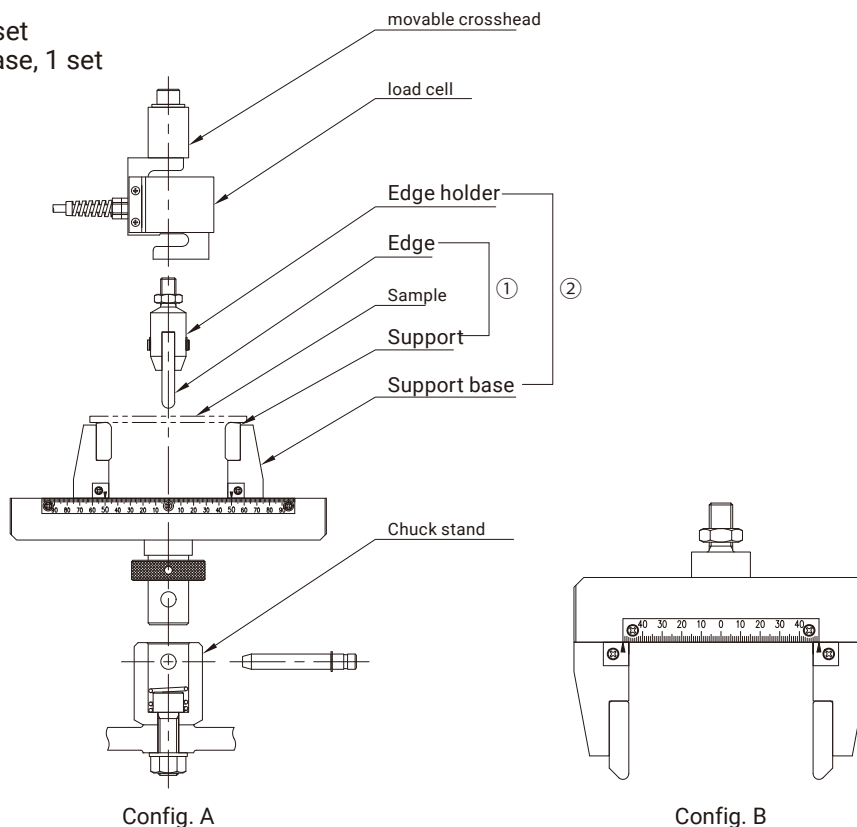
Allowable Load	Press. Bearing Plate Product Code	Compress. Plate Product Code
1kN to 50N (100kgf to 5kgf)	① J-C3-1KN-U	③ J-C-2.5KN-L
2.5kN (250kgf)	② J-C-2.5KN-U	
Usage Temp. Range	RT to +70°C	

Bending Test Equipment Configuration

Compression Bending Test Jig (3-/4-point bending)

Standard Configuration

- ① Edge and support base, 1 set
- ② Edge holder and support base, 1 set



Compression 3-point Bending Test Jig (upper/lower)

Allowable Max. Load	2.5kN (250kgf)		1kN to 50N (100kgf to 5kgf)	
① Edge holder tip R×width (mm)	R5×40	R3.2×40	R5×40	R3.2×40
Support R×width (mm)				
Product Code	J-E-11	J-E-12	J-E-11	J-E-12
② Edge Holder	J-B-2.5KN		J-B-1KN	
Support Base				
Product Code				
Dist. btw. Supports (mm)	20 to 200			
Applicable Standards	JIS K7171 ISO178	ASTM D790	JIS K7171 ISO178	ASTM D790
Other Required Jigs	Product Code J-X001 Jaw Stand			
Config. Diagram	A			
Usage Temp. Range	RT to +70°C			

Compression 4-point Bending Test Jig Pressure Unit (upper)

Allowable Max. Load	2.5kN (250kgf)		
Product Code (Pressure Fixture)	J-B1-2.5KN		
Edge Tip R× width (mm)	R3×40		R3.2×60
Support Tp R× width (mm)	R3×40		R3.2×62
Product Code (Edge Support)	J-E-13		J-E-14
Dist. btw. Upper Supports (mm)	10 to 100		
Dist. btw. Lower Supports (mm)	10 to 260		
Other Required Jigs	J-B-2.5KN and J-X001		
Config. Diagram	B		
Usage Temp. Range	RT to +70°C		

Polymer Test Jigs

In order to effectively utilize STA/STB for multiple purposes, dedicated test equipment (jigs) that suits the purpose of the test is required. As a testing equipment manufacturer, we have an extensive library of production drawings, including not only standard testing equipment (jigs) required to perform standardized tests such as JIS and ISO standards, but also custom-made products based on customer specifications.

Plastic Coefficient of Friction Test Jigs

Same as RTF/RTG (see P.27)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Film Blocking Test Jigs

Same as RTF/RTG (see P.28)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

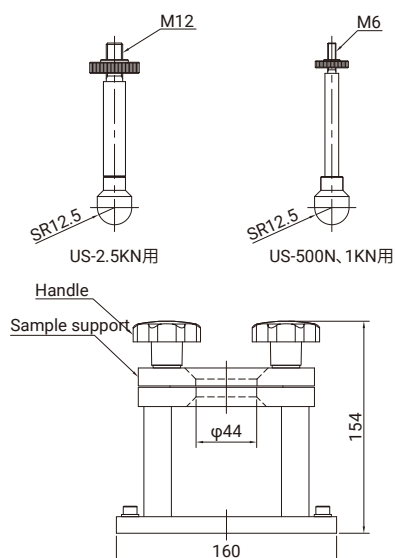
End Tearing Resistance Test Jigs

Same as RTF/RTG (see P.28)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Fiber Test Jigs

Fabric Rupture Test Jig



Product Code	J-CL-2.5KN
Max. Load	2.5kN to 500N (250kgf to 50kgf)
Applic. Samples	Cloth, paper, plastic sheet
Punch Tip (mm)	SR12.5 φ25
Test Piece Holder Int. Diam (mm)	φ44
Applic. Standards	JIS L1096: 2010
Usage Temp. Range	RT to +70°C

NOTE: Includes 2 types of M6 screws for mounting 1kN to 500N load cells / M12 screws for mounting 2.5kN load cells.

Slippage Resistance Test Jig

Same as RTF/RTG (see P.30)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Wood Test Jigs

Wood Splitting Test Jig

Same as RTF/RTG (see P.33)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Wood Nail Pull-out Resistance Test Jig

Same as RTF/RTG (see P.33)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Wood Screw Holding Force Test Jig

Same as RTF/RTG (see P.33)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Adhesive Peeling Test Jigs

Sealant Adhesion Strength Test Jig

Same as RTF/RTG (see P.34)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Particle Board Peeling Test Jig

Same as RTF/RTG (see P.34)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

90° Peeling Test Jig for Attached Materials

Same as RTF/RTG (see P.34)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

90° Peeling Test Jig

Same as RTF/RTG (see P.35)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Printed Board 90° Peeling Test Jig

Same as RTF/RTG (see P.35)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Drum Peeling Test Jig for Cellophane Tape

Same as RTF/RTG (see P.35)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Adhesive Tape 90° Peeling Test Jig

Same as RTF/RTG (see P.35)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Rubber 90° Peeling Test Jig

Same as RTF/RTG (see P.36)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Tensile Bond Strength Test Jig

Same as RTF/RTG (see P.36)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Cleavage Strength Test Jig

Same as RTF/RTG (see P.36)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Paper/Pulp Test Jigs

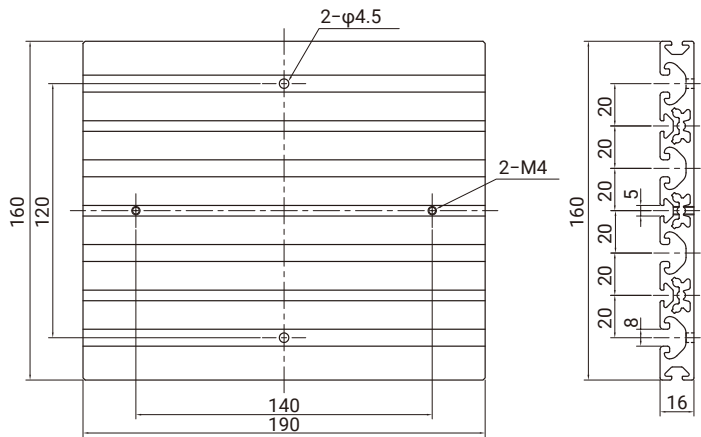
Paper Friction Coefficient Test Jig

Same as RTF/RTG (see P.31)

However, STA/STB requires a separate pin-type universal joint and jaw stand (J-X001).

Grooved Base

Grooved base for mounting small parts or small products on a substrate for tensile and compression testing. Using the T-slots on the top and sides, test pieces of complex shapes can be secured on the base using mounting hardware that matches the test piece.



Product Code	J-X002
Max. Load	50N (5kgf)
Material/Processing	Al, Anodization
Usable Temp. Range	RT to +70°C

Six T nuts (large) M5 and six T nuts (small) M3 are included.

Test Examples

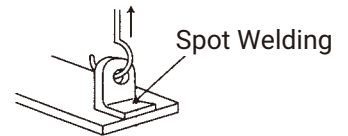
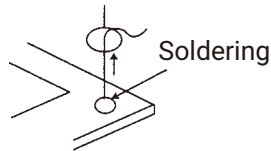
1. Welding and Peeling Tests

Welding strength of capacitors, resistor ICs, etc.

Soldering strength of chip components

Weld strength of spot-welded parts

Seal peeling strength



2. Opening (Sealing) Load Test

Pull-top can opening force

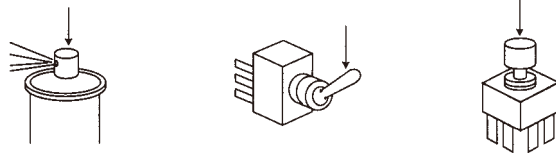
Opening Strength of Packaged Products



3. Compression Load Test

Pressing force of aerosol can buttons

Pressing force of switches



4. Suction and Rebound Load Tests

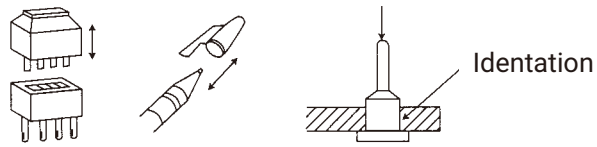
Attractive and repulsive forces of magnets and solenoids



5. Insertion-Extraction Load Test

Insertion and extraction force of connectors and caps

Insertion/extraction force of press-fit pins

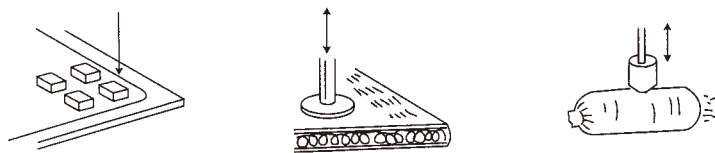


6. Touch (Feel) Test

Operating feel of seats and keyboard switches

Resilience (feel) of soft flooring materials, etc.

Elasticity or hardness (crunchiness) of confectionery, food, etc.

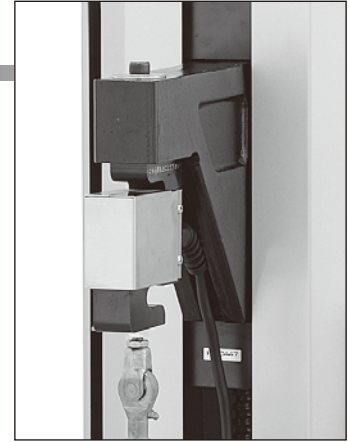


Detectors and Callibrators

Load Cell

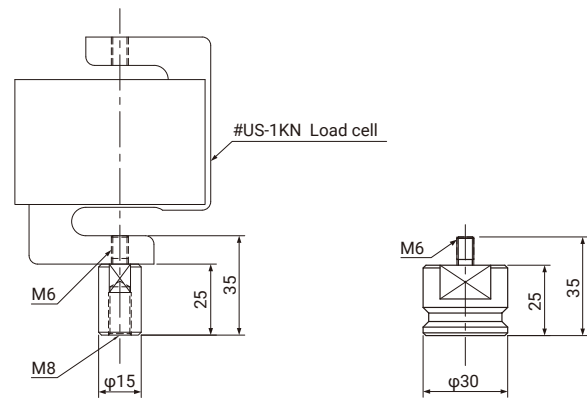
The load cells used in STA/STB are strain gage type high-performance load cells developed exclusively for this purpose. Strain gage load cells are selected for their fast response and high resolution, but also for their low zero drift.

A wide range of load cells are available, from large to small loads, so you can select the load cell that best suits your needs.



Load Cell for STA/STB (both tension and compression type)

Rating (SI)	Model	Product Code
2.5kN	US-2.5KN	US-2.5KN
1kN	US-1KN	US-1KN
500N	US-500N	US-500N
50N	US-50N	US-50N



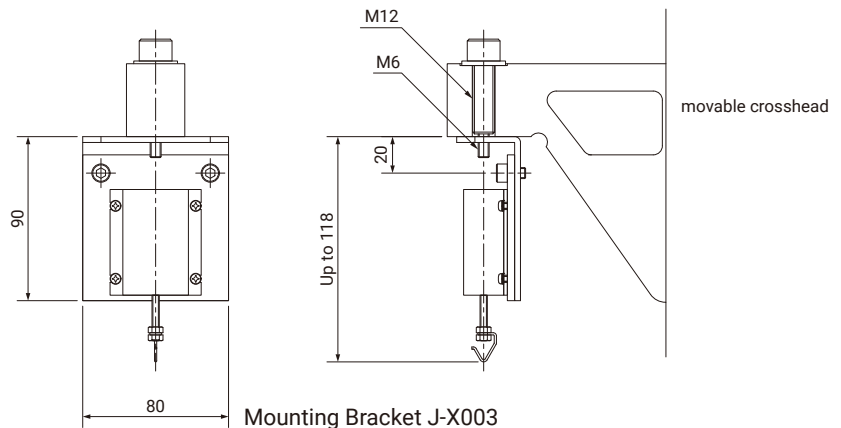
M6-M8 Conversion Adapter J-X007 Compression Adapter J-X008

Load Cell for Low Loads

Rating (SI)	Model	Product Code
10N	TLU-10N-G	TLU-10N-G
5N	TLU-5N-G	TLU-5N-G
2N	TLU-2N-G	TLU-2N-G
1N	TLU-1N-G	TLU-1N-G

NOTE:

1. Mounting brackets (J-X003) and matching box for load cell (RTF-16) are required for low load cells.
2. Mounting brackets (J-X003) and matching box for load cell (RTC-14) are required for the older load cell for low load (TLU-* *L-F2).



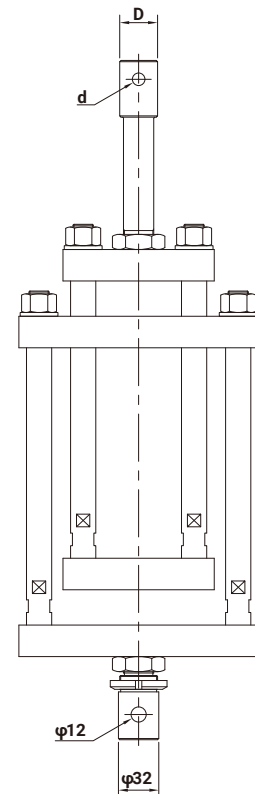
Mounting Bracket J-X003

Load Cell Loop Meters

Same as RTF/RTG. (Refer to P.48)

Tensile Type Compression Test Jigs for Verification (Compression Cages)

Allowable Max. Load	10 kN	1 kN to 500N
Product Code	J-CD1-10KN	J-CD1-1KN
Applicable Load Cells	2.5 kN	1 kN to 500N
D/d	30/10	18/7
Usable Temp. Range	R.T. to +70°C	



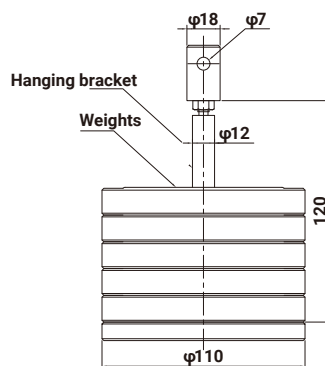
Calibration by Actual Load

Weights

Load	50N
Product Code	C-CW-50N
Weights	10N×5 pcs

Weight Hanging Bracket

Load	50N
Product Code	C-CWL-50N



SG Extensometers

Same as RTF/RTG. (Refer to P.46)

Displacement Calibrators for SG Extensometers

Same as RTF/RTG. (Refer to P.48)

U-4310 Series Contact Type Gauge Extensometer

Same as RTF/RTG. (Refer to P.47)



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Safety Precautions

Please read the Instruction Manual carefully before use and only use the product as instructed.

<https://www.aandd.co.jp>

Note that appearances and specifications of products in the catalog are subject to change without prior notice for the purpose of improving products.

• The contents of this catalog are current as of September 2020.

TENSILONJIG-ADJC-07-ZW5-20902GP