

# Tension-Free™ Modular Desktop Endurance Testing System v7 Multi-Purpose Jig for Folding, Stretching, Pressing DMLHP-FS-N

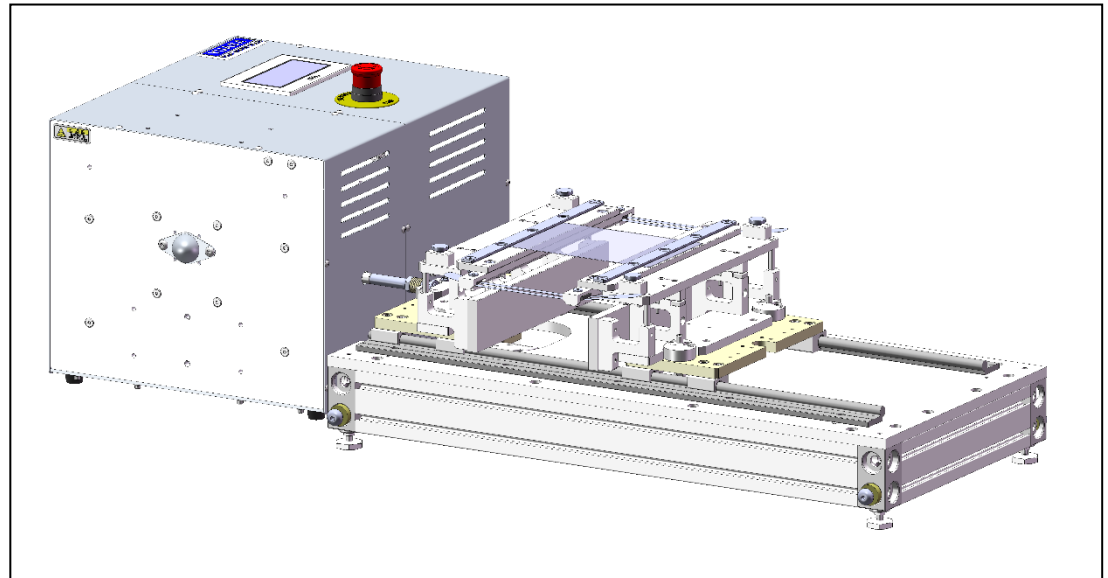
Test machine for planar objects including Flexible Displays, OLED devices, Barrier Film, Flat Cables, Flexible Printed Circuits, Wearables & automobile applications

Holds the test sample between a moving clamp and a fixed clamp.

**Tension-Free™ U-shape Folding:**  
As the moving clamp approaches the fixed clamp the clamps rotate down and the test sample undergoes U-shape folding.

**Stretching Mode:**  
As the moving clamp moves away from the fixed clamp the sample is stretched.

**Pressing Mode:**  
As the moving clamp approaches the fixed clamp pressure is put on the sample.



# FS-N

YUASA SYSTEM has been developing Tension-Free™ endurance testing systems since 2012. With our in-house expertise in mechanical, electrical, and software engineering, we have developed accurate testing methods for next generation devices, components, and materials. Tension-Free™ endurance testing reduces product design time by producing more consistent and reliable test data. Samples undergo the desired testing without being subjected to undesired tension introduced by the needs of the test equipment.

The SMALL desktop motor unit DLMHP (Linear and Rotary Reciprocating Unit with stepping motor) drives the Press Down test jig. The DMLHP is both reliable and quiet due to its mechanical linkage design and by its use of rugged plastic gears that ensure endurance and low noise.

#### Features of the FS-N:

- Fold / Stretch / Press / 3-in-1 Tester
- New Press Motion (to 3D mold)
- Award winning U-shape Fold Motion
- Alternative Stretch Motion
- Improved Side Camera Positioning
- Hostile Integration
- Optical Integration
- Automation Integration

# Multi-Purpose Jig for Folding, Stretching, Pressing DMLHP-FS-N

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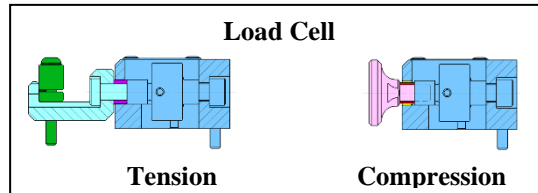
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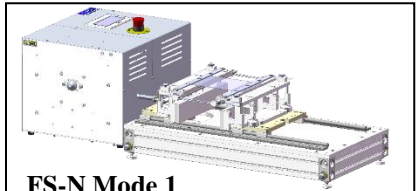
**Stretching Mode:**  
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**Pressing Mode:**  
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The FS-N has multiple test configurations. Modes can be U-shape Folding with or without a Cartridge, Variable Radius Folding, Stretching, Pressing, and Device Folding.

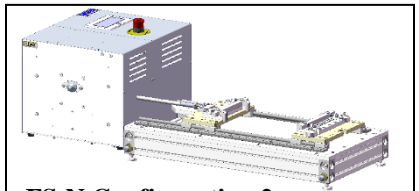


FS-N	Multi-Purpose Tester
<b>Mode 1</b>	<b>Tension-Free U-shape Folding</b>
Sample	Sheet or Linear samples
Sample thickness	3 mm (0.118") maximum
Sample width	220 mm (8.66") maximum
Sample length (minimum)	36 mm (1.42") plus clamping space
Sample length (maximum)	203 mm (8.00")
Bending angle	0 - 180°
Bending radius	0 - 22 mm (0 - 0.866")
Wall Kit	1.3 kg (2.87 labs)
Cartridge	1.8 kg (3.97 lbs)
<b>Mode 2</b>	<b>Stretching</b>
Sample	Sheet or Linear samples
Sample Thickness	3 mm (0.118") maximum
Sample Width	100 mm (3.94") maximum
Sample Length	30 mm (0.787") plus clamping space
Stretching Length	120 mm (4.72") maximum
Stretching Length (examples)	30 mm to 150 mm, 240 mm to 360 mm
Tension	70 N (15.7 pounds-force) maximum
Wall Kit	1.3 kg (2.87 labs)
Cartridge	1.8 kg (3.97 lbs)
<b>Mode 3</b>	<b>Pressing</b>
Sample	Not Specified
Sample Width	246 mm (3.94") maximum
Sample Length	290 mm (11.4") maximum
Compression	70 N (15.7 pounds-force) maximum
Clamp kit	0.9 kg (1.99 lbs)
Squashing Gauge (set of 2)	0.6 kg (1.33 lbs)
Minute Adjuster	1.4 kg (3.09 lbs)
<b>Mode 4</b>	<b>Device Folding</b>
Sample	Foldable Device
Multi-Link Kit	1.2 kg (2.65 lbs)
<b>Base Unit</b>	
Dimensions (WDH) mm	600 (23.62") x 260 (10.2") x 114 (4.49")
Weight	11.0 kg (24.25 lbs)
<b>Cover Door</b>	
Dimensions (WDH) mm	675 (26.58") x 440 (17.33") x 302 (11.89")
Weight	8.5 kg (18.74 lbs)
Extra Width for Adjuster (mm)	219 (8.62")



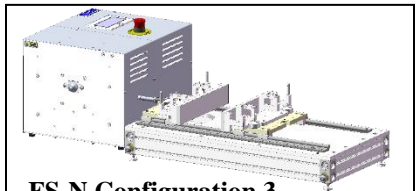
**FS-N Mode 1**

- U-shape Folding
- U-shape Folding with Cartridge
- Variable Radius Folding



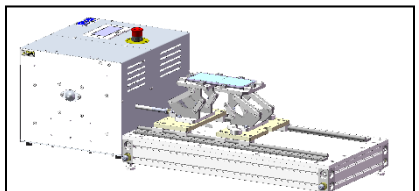
**FS-N Configuration 2**

- Stretching



**FS-N Configuration 3**

- Pressing
- Variable Radius Folding



**FS-N Configuration 4**

- Device Folding

## US SERVICES AVAILABLE

- Online training
- Technical support
- Installation & set-up
- Maintenance
- Guaranteed Warranty

**YUASA** YUASA SYSTEM CO., LTD.

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