Tension-Free™ Clamshell-type folding test for planar objects including Flexible Displays, OLED devices, Barrier Film, Flat Cables, Flexible Printed Circuits. Wearables & automobile applications, and for linear objects including Cables (Electric Wires, Optical Fibers). Harnesses, Cable Guides, Tubes, Wires, Fibers, Wearables & automobile applications

The Tension-Free™ **Double Jointed** Clamshell structure can fold samples with a 0.5 mm radius without putting tensile stress on the sample. Samples will change naturally.

The sample can be mounted on a cartridge and then loaded onto the test jig.



**Tension-Free™ Modular Desktop Endurance Testing System** Jig for Tension-Free™ Clamshell-type Folding DMLHP + DMX-CS



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 stepping motor unit (Rotary Reciprocating Unit) drives test jigs for Tension-Free™ Clamshell-type folding of linear and planar objects. The stepping motor provides greater accuracy. Fully automatic testing is possible because of the disconnection detector and preset counter.

The Tension-Free™ Clamshell-type folding test jig enables folding tests without tension for linear and planar objects. The cartridge with the mounted sample can be removed from the test jig for microscopic examination. The sample can be inspected without removing it from the cartridge. Testing can resume by simply placing the cartridge back on the jig.

CS Video -- https://www.youtube.com/watch?v=HKrxMu6w55U



## Jig for Tension-Free™ Clamshell-type Folding DMLHP + DMX-CS

Tension-Free™ Clamshell-type folding test for planar objects including Flexible Displays, OLED devices, Barrier Film, Flat Cables, Flexible Printed Circuits, Wearables & automobile applications, and for linear objects including Cables (Electric Wires, Optical Fibers), Harnesses, Cable Guides, Tubes, Wires, Fibers, Wearables & automobile applications

The Tension-Free™ **Double Jointed** Clamshell structure can fold samples with a 0.5 mm radius without putting tensile stress on the sample. Samples will change naturally.

The sample can be mounted on a cartridge and then loaded onto the test jig.





CS	
Tension-Free™ Clamshell-type Folding Test	
Specifications - Jig	Tension-Free™ Clamshell-type Test Folding
Jig Model Number	DMX-CS
Sample	Sheet or Linear samples
Sample thickness	1 mm (0.039") maximum
Sample width	130 mm (5.12") maximum
Sample length minimum	2R plus clamping space
Sample length maximum	190 mm (7.48")
Bending angle	0 - 180°
Bending radius	0.5 - 5.0 mm (0.020 - 0.197")
Bending force	4.0 Nm (2.95 foot pounds) maximum
Bending speed	5 - 30 rpm
Weight - Jig	8.5 kg (18.5 lb)
Weight - Cover	3.0 kg (6.6 lb)
Dimensions (mm)	400mm x 288mm x 180mm (WDH)
Dimensions (inches)	15.75" x 11.3" x 7.1" (WDH)
Difficusions (filches)	13.73 X 11.3 X 7.1 (WDH)
Specifications - Cartridge	
Weight - Cartridge	1.0 kg (2.2 lb)
Dimensions (mm)	188mm x 190mm x 19mm
Dimensions (inches)	7.40" x 7.48" x 0.748
Specifications - Base Unit	Rotary Reciprocating Unit
Machine Model Number	DMLHP
Motor	Stepping Motor Type
Counter	8 digit display
Installation Temp range	+5 to +40°C (+41 to +104°F)
Installation Humidity	15 - 85% RH (no condensation)
Weight	15.0 kg (33.1 lb)
Dimensions (mm)	344mm x 296mm x 289mm (WDH)
Dimensions (inches)	13.54" x 11.65" x 11.4" (WDH)
Reciprocating angle	0 to ±270°
Operating speed	30rpm at ±270°, 50rpm at ±180°, 90rpm at
Power supply	AC (100V-240V, 50Hz/60 Hz, 100VA)
Attached units with Cover	
System Model Number	DMLHP-CS
Weight	24.5 kg (54 lb)
Dimensions (mm)	790mm x 457mm x 316.5mm (WDH)
Dimensions (inches)	31.1" x 18.0" x 12.5"

US SERVICES AVAILABLE

Online training

Technical support

Installation & set-up

Maintenance

**Guaranteed Warranty** 

www.yuasa-system.jp/en

YUASA YUASA SYSTEM CO., LTD.