

## Modular Desktop Endurance Testing System Jigs and Machines for Twisting Test DMLHB-TW DMLHP-TW DMLHPR-TW

Twisting test for linear objects including Cables (Electric Wires, Optical Fibers), Harnesses, Cable Guides, Tubes, Wires, Fibers, Wearables & automobile applications

Based on JIS this machine offers torsion tests of linear objects including cables, applying a tension from dead weights.

The DMLHB and DMLHP offer a twist maximum of 270° left and right. The DMLHPR offers a maximum of 10 full revolutions right and left.



# TW

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. As desired, our jigs also can operate with tension.

YUASA offers several jigs and desktop machines for twisting tests of linear samples suitable for Cable, Harness, and Wire endurance testing. The differences among them are the motor drive units, the HB version offers higher speed testing, the HP version allows more accurate movements, and the HPR can increase the angle from  $\pm 270^\circ$  to  $\pm 3,600^\circ$ .

The SMALL desktop motor units (Linear Reciprocating Units) that drive the test jig for linear twisting tests is both reliable and quiet due to their mechanical linkage design and by their use of rugged plastic gears that ensure endurance and low noise. Fully automatic testing is possible because of the disconnection detector and preset counter.

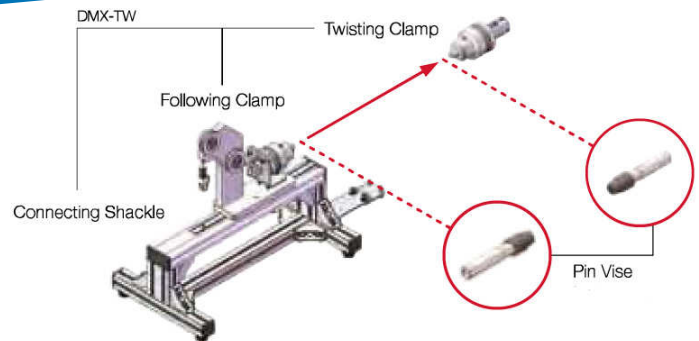
# Jigs and Machines for Twisting Test

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TW	DMLHB-TW	DMLHP-TW	DMLHPR-TW
<b>Twisting Test</b>			
<b>Specifications - Jig</b>	<b>Twisting Test Jig</b>		
Jig Model Number	DMX-TW		
Sample thickness	φ 0.8 ~ 10mm (0.031 ~ 0.394")		
Sample thickness with Pin-Vise Option	φ 0.1 ~ 10mm (0.0039 ~ 0.394")		
Sample size (mm)	0 ~ 208mm (8.19") + holding spaces		
Torsion angle	0 ~ ±270°	0 ~ ±270°	0 ~ ±3600°
Torsion speed	10~120 rec/min	5~90 rec/min (when ±45°)	5~90 rec/min (when ±45°)
Torsion torque	1 N m (0.74 ft lb) maximum	1.8 N m (1.33 ft lb) maximum	1.8 N m (1.33 ft lb) maximum
Weight - Turning Chuck	0.3 kg (0.66 lb)		
Weight - Following Chuck	1.6 kg (3.5 lb)		
Weight - Cover	0.7 kg (1.5 lb)		
Dimensions (mm) (WDH)	166mm x 286mm x 248.5mm		
Dimensions (inch) (WDH)	6.53" x 11.3" x 9.789"		
<b>Specifications - Base Unit</b>	<b>Reciprocating Unit</b>	<b>Reciprocating Unit</b>	<b>Rotary Reciprocating Unit</b>
Machine Model Number	DMLHB	DMLHP	DMLHPR
Motor	DC Brushless Motor (DC 24V, 3.5A, 30W)	Stepping Motor (DC 48V, 1.72A, 30W)	Stepping Motor (DC 48V, 1.72A, 30W)
Motor gear ratio	1:20		
Counter	8 digit display		
Operating angle	0 to ±270°	0 to ±270°	0 ~ ±3600°
Operating speed	10 ~ 120 rec/min	5 ~ 90 rec/min	5 ~ 90 rec/min
Installation Temp range	+5 ~ +40° C (+41 ~ +104° F)		
Installation Humidity	15 ~ 85% RH (no condensation)		
Power supply	AC (100V-240V, 50Hz/60Hz, 1 Phase, 100VA)		
Weight - Test Machine	16.5 kg (36.4 lb)	15.2 kg (33.5 lb)	15.0 kg (33.1 lb)
Dimensions (mm) (WDH)	396mm x 343.5mm x 289mm		
Dimensions (inch) (WDH)	15.6" x 13.5" x 11.4"		
<b>Attached units</b>			
System Model Number	DMLHB-TW	DMLHP-TW	DMLHPR-TW
Weight	19.1 kg (42.1 lb)	17.8 kg (39.2 lb)	17.6 kg (13.2 lb)
Dimensions (mm) (WDH)	396mm x 801mm x 255 mm		
Dimensions (inch) (WDH)	15.6" x 31.5" x 10.0"		

[www.yuasa-system.jp/en](http://www.yuasa-system.jp/en)

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