

Summary:

Webbing Abrasion Tester is suitable for the abrasion test of all kinds of webbing using a hex bar method.

The sample and the six angle bar are rubbed at a certain angle, and the wear effect is judged under certain rotation number.



Test Method:

Abrasion resistance is measured by subjecting the specimen to unidirectional reciprocal rubbing over a specific bar under specified conditions of tension, stroke length and time. Resistance to abrasion is evaluated by determining the percent retention of breaking force of an abraded specimen compared to an unabraded specimen.

Application Standards:

[ASTM D6770: Standard Test Method for Abrasion Resistance of Textile Webbing \(Hex Bar Method\)](#)

[FED STD 191-5309: Abrasion Resistance of Textile Webbing](#)

[FMVSS 209, S5 1 \(d\), SAE J339, MIL-T8363B, MIL-232223B Etc.](#)

These standards only for your reference, more details please contact us.

Features:

- 1.The way of multi angle friction, allowing you to test precise and effective.
- 2.The LED digital set counter, can be arbitrarily set the number of tests, the actual number of direct test.

Significance:

Evaluate abrasion resistance of webbing and belting materials.

Textile webbing is often used for safety belts, restraint harnesses, helmet straps and cargo tie-downs. Over time, adjustment hardware or common use may cause abrasion damage and jeopardize the integrity of the webbing material. The Webbing Abrasion Tester provides a cost effective means to perform abrasion testing. Included weights permit testing of webbing with breaking strengths over 13,500 N to ASTM D6770.

Rubbing action simulates field damage in controlled laboratory setting.

A fixed weight is attached to the end of a test specimen before it is subjected to a unidirectional reciprocal rubbing over a steel hexagonal rod, also known as a hex abrasion bar. After the specified number of test cycles, the percent retention of breaking force is calculated. Comparing results to an unabraded specimen provides a measure of how abrasion resistant the material is.

Based on established test procedures, instrument offers unique features.

A twelve inch hex abrasion bar permits testing of up to three specimens simultaneously. Thumb screws permit quick rotation or change of the hex abrasion bar. A specimen roller ensures an angle of $85^{\circ} \pm 2^{\circ}$ is maintained between the specimen and hex bar. Test fixture assembly is reversible and may be mounted on either right or left side.

Specifications

Item	Hex Bar Abrasion Resistance of Textile Webbing
Working stations	3 stations (or specified)
Speed	(30 $\pm$ 1) times/min
Test stroke	300 $\pm$ 20mm
Drum diameter	400mm
Abrasion angle	85 $\pm$ 2 °

Test load	(0.9±0.06) kg, (1.8±0.06) kg, (2.4±0.06) kg
Six angle rods	6.35 + 0.03mm; radius 0.5 + 0.2mm
Counting mode	Digital display
Power	220V, 50/60Hz or specified