

GNZ-1000 Optical Fiber Cable Torsion Testing Machine



HST Group Co.,LTD.

Development Base of Advanced Testing Machine Of China

IEC 60794-1-2-E7

I. Introduction

GNZ-1000 Series Optical Fiber Cable Torsion Testing Machine is intended to establish the ability of a fiber optic cable to withstand mechanical twisting.

II. Applications

Sample

The length of the specimen under torsion should be sufficient to permit the appropriate clamping and twisting, and long enough to sustain the applied torsion. A typical value for

small cables 1m, whereas larger cable samples are usually defined in terms of the cable diameter. A common length is 125 times the cable diameter. Armored cables may require a longer cable sample or a smaller number of torsion cycles.

Apparatus

The actual sample length is longer than the part under torsion to allow connecting the fibers to be tested. The twisting apparatus consists of two cable gripping devices or clamps, one fixed and one that can rotate. The distance between the clamps is connected to suitable turning equipment. The clamps are designed to prevent crushing force on cable and to allow the cable end to exit from both sides to allow optical measurements.

Power supply installation

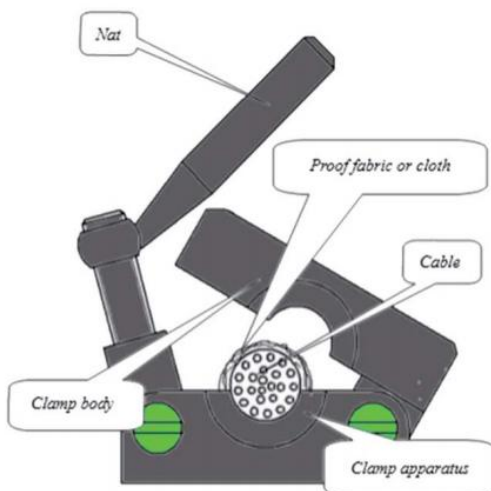
While delivering from the factory, the power cord has been connected to the three-phase power plug with capability of 16A. If the re-installation is required, the user shall distinct the live wire and zero line. In order to avoid accidents, it is suggested that the user shall connect the ground wire for the equipment.

Test sample (optical cable) installation

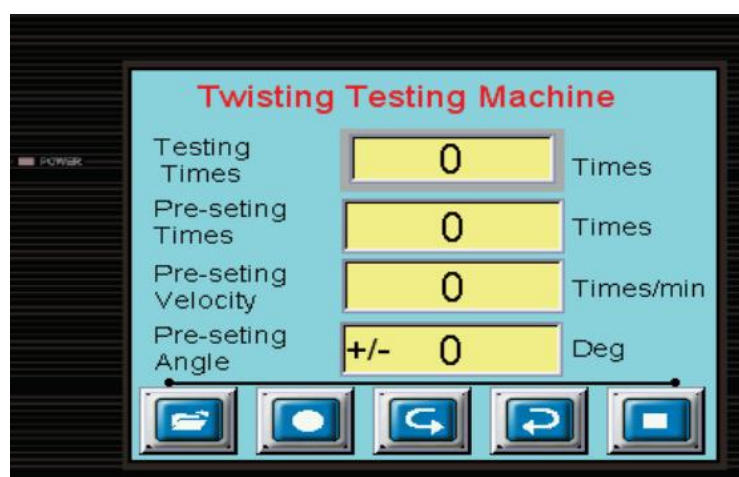
Go the optical cable through the cover of motor and out from loading head and pass two optical cable clamps in sequence. While clamping optical cable, firstly, fix the optical cable clamp close to loading head and then lift the poise frame and fix the optical cable clamp installed on sliding plate.

Then, add the poise according to the requirement.

Thus, the test can be carried out. The core of optical cable clamp shall be selected according to the diameter of optical cable. After putting it into the optical cable clamp, rotate the jamming handle to clamp the optical cable. If the diameter of the optical cable is smaller than the core of optical cable clamp, the optical cable shall be wrapped with something like cloth tape.

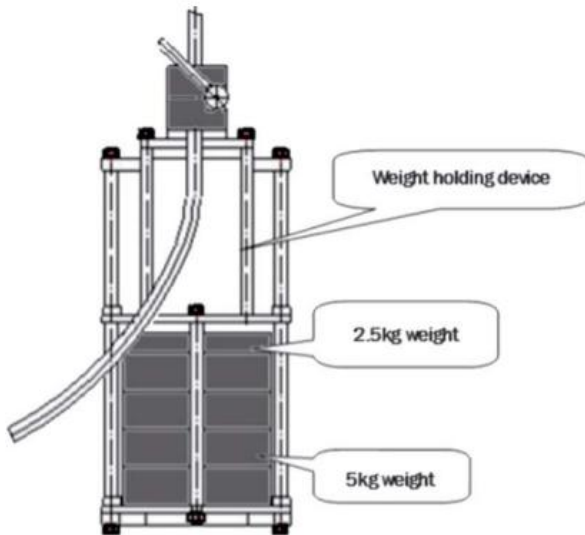


III. Operation panel: HMI



Poise equipment

As is shown in the following figure, this equipment is equipped with one poise frame of 5kg used for installing poise and another 4 poises of 5kg and a poise of 2.5kg. The poise can be added to appropriate weight according to the regulations of optical cable test standard.



Setting of key function



Chinese-English switch on HMI. Under English operation interface, press this key and enter, the system will switch to Chinese operation interface. If under Chinese operation interface, press this key, the system will switch to English operation interface.



Actuator origin operation key. Under non-test status, press this key, the actuator will automatically find original origin. After finding the position of origin, the actuator stops rotating.



Actuator counterclockwise rotation. Under non-test status, press this key, the actuator will rotate counterclockwise. Release the key, the actuator stops rotating.



Actuator clockwise rotation. Under non-test status, press this key, the actuator will rotate clockwise. Release the key, the actuator stops rotating.



Test stop key. Under test status, press this key, the actuator stops working and the test is over.

Setting of input and display window function.

Testing Times	0	Times
Pre-setting Times	0	Times
Pre-setting Velocity	0	Times/min
Pre-setting Angle	+/- 0	Deg

Display window of testing times.

Input window of pre-setting times 1 -9999.

Input window of pre-setting velocity 1 -20 times/min.

Input window of pre-setting angle:90, 180, 360

IV. Operation instruction

Electrifying

Turn the power supply switch to the right to “ON”, and then the system is electrified. The counting window displays “0”. The pre-set times and pre-set velocity windows show the input values of last test, The “Test” key is light.

Parameter setting

Press the window corresponding to each parameter, the system gives input window. After inputting test parameters, press enter to exit.

The different torsion angle corresponds to different frequency, as is shown in the following:

- a. $\pm 90^\circ$: 1 -30 times/min
- b. $\pm 180^\circ$: 1 -15 times/min
- c. $\pm 360^\circ$: 1 -5 times/min

Setting range of testing times: 1 - 9999

Test

Actuator Zero Point Adjustment



Press , the actuator rotates counterclockwise. After rotating to the position for easy installation of the test sample, it can be defined as actuator zero point.

Test Sample Installation

See Section 4 for installation of test sample.

Test Start and End

Press “Test” key on the operation panel and the testing times of last test will be automatically zeroed and the system enters into test status. After the test times amounts to pre-setting times, the test will be

automatically finished. If the test shall be ended during the test process, press  to end the test.

V. Technical parameters:

Torsion angle	$\pm 90^\circ$, $\pm 180^\circ$, $\pm 360^\circ$ degree
Max. distance between grips	1000mm
Max. twisting cycles	1-9999 cycles
Frequency range	5 - 30 cycles/min
Bending radius (mm)	25, 50, 75, 100, 150, 500 (others upon request)
Mass of weights for applying tension	Weight structure 27.5kg, 3 pieces of 5kg weight increment, 1 piece of 2.5kg weight increment.
Dimensions (L*W*H)	
Working frame	2010*520*1300 mm
Control console	540*410 * 1000 mm
Power	3-phase 4-wire, 50Hz, 1 kW.

Why choose us!

19 YEARS

Professional focused on testing equipment

HST is established in 2003, owns more than 8000 square meters factory. has a professional sales teams, modern enterprise technology center, scientific and technological research and development team.

Machines passed the European CE authentication, American FDA certificate and ISO 9001.

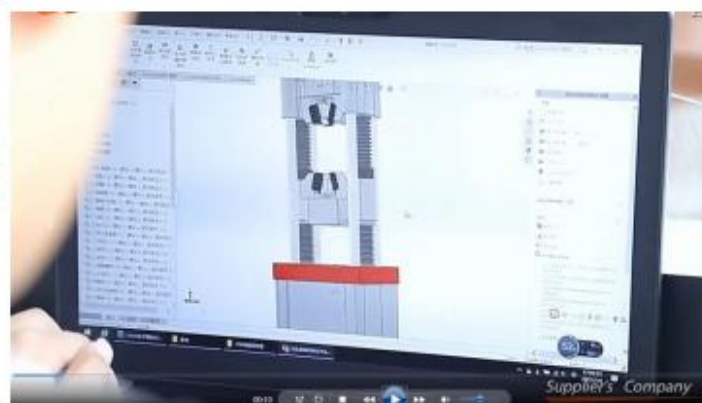
Products sold to USA, Canada, Australia, Europe, Africa etc, more than 130 countries and supply OEM service for many customers

FACTORY AND TEAM

We have a modern enterprise technology center, sales team and scientific and technological research and development team. For your standard test needs, our sales team will listen to your test objectives, analyze your situation and translate your desires to affordable test solutions.

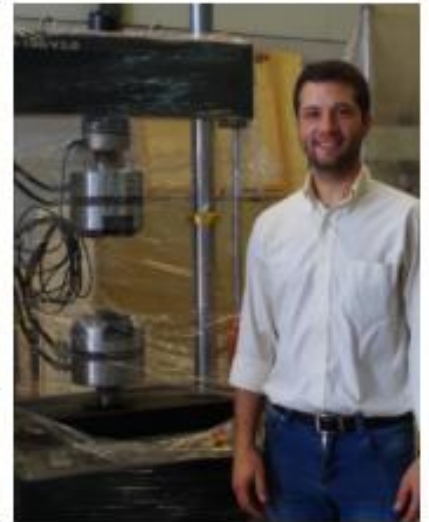
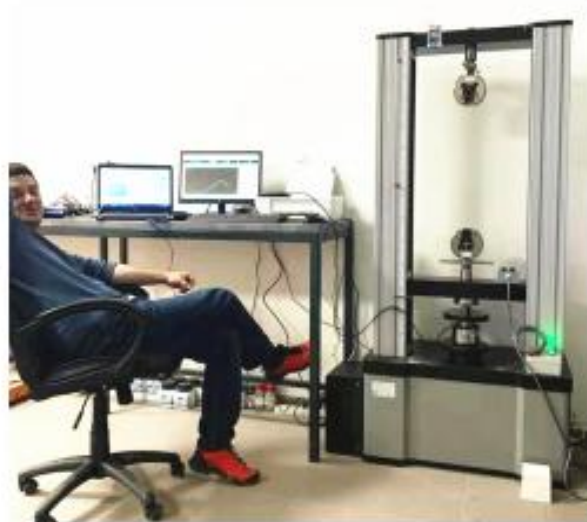


Research and development department



Why choose us!

Products are sold to USA, Canada, Australia, Europe, South east Asia,Africaetc, more than 130 countries



Some of our product



Attend exhibitions regularly and provide training for local customers



Our Certificate



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