

# Wire Technology & Machinery

## TORSIONAL TEST EQUIPMENT



Mechanical properties, application parameters, and manufacturing materials strongly influence the behavior and lifespan of cables. When the cable moves, its core bends, slips, and twists, potentially damaging the conductors and insulators.

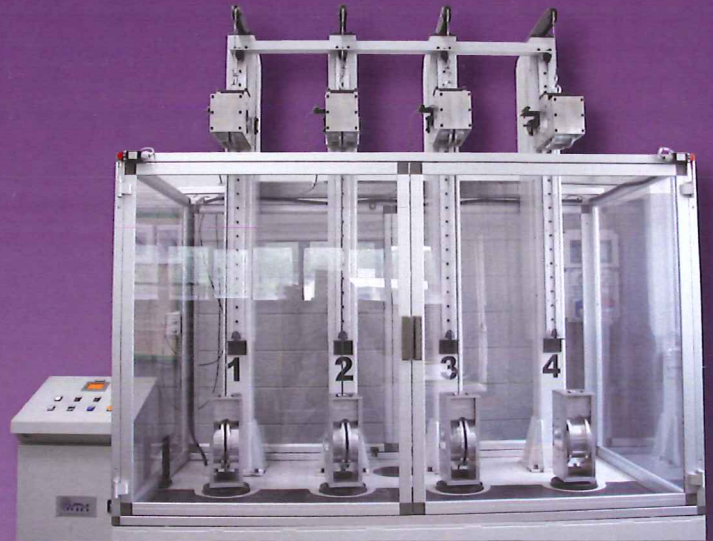
Because of the increasing quality and life time requirements, the cables have to withstand extreme long-term stresses in order to certify their durability.

WTM has developed a range of testing equipment to perform mechanical and electric tests on cables with computerized in-line checking and reporting.

This machine determines the flexibility of any type of cable, electrical conductors as well as fiber optic cables, under torsional stress conditions.

The mechanical and electric capacity of cables are inspected and tested during their axial torsional motion.

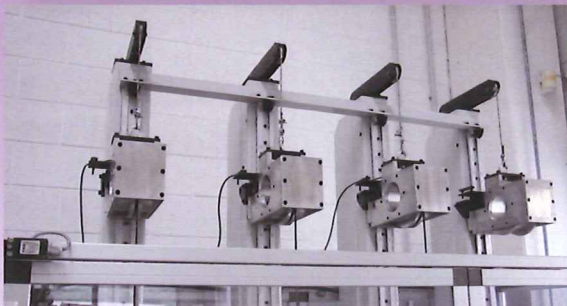
Every testing station (up to 8 in one single equipment) is made with a turning unit having the cable fastened around a pulley so to maintain the integrity of the cable. On the other side a pulling device



with adjustable counterweight and suitable cable clamp, allows the correct cable tensioning, giving also the possibility to change the length of the cable to be tested.

The machine can be programmed in frequency of rotations, angle of rotation, also different in the two directions, acceleration/deceleration ramps, quantity of cycles and others.

During the test cycle, the cables are checked by one external measuring system. If a failure occurs, the system records the cycles, without interrupting the machine operation (this option can be modified according to the requirements).



### General machine performance data:

Number of stations	Up to 8
Cable length	200 – 1500 mm
Cable diameter	5 – 20 mm
Angle	Up to +/- 720°
Rotation speed	Up to 60 torsion/minute
Clamping pulley radius	160 mm
Cycles per day	Approx. 80000

All the characteristics can also be personalized on customer request.  
All technical characteristics may be changed without prior communication.

