

Steel strand tensile stress relaxation testing machine

Model: LW-300R



1. General introduction

LW-300R computer controlled steel strand tensile stress relaxation testing machine mainly used to check the prestressing steel material relaxation performance. This machine is use mechanical mode loading, computer control to complete the test. PC with control card to realize real time data collection, display and analysis, automatic generate the test curve.

Frame is horizontal structure, suitable for long test sample (large than 2m). This product is design according GB/T 16491-2008, GB/T 2611. GB/T 6825 etc., standard.

2. Application

Widely used for industrial application, factory quality control, science and research institute, QC & QA college student training, education institute, testing and inspection center, laboratories, construction company, aerospace, mechanical production, electric appliance fields.

ASTM E328 - 13 Standard Test Methods for Stress Relaxation Tests for Materials and Structures
GB/T 10120 Metallic materials-tensile stress relaxation.

3. Key Features

- 1), Conform with stipulation of test standard ISO 6394 steel for prestressing of concrete – strand. And ASTM E328 steel stress relaxation test method.
- 2), Test load, displacement two control channel, and corresponding load, stress, displacement etc., control mode, this mode can change freely. PID control parameter can be adjusted real time.
- 3), Automatic collect, analysis, display test data, automatic measure the character point of test sample.
- 4), Automatic draw the relaxation force-time curve and adjust coordinates, always display in-time or complete curve. Automatic generate the force-displacement, force-time, displacement-time etc., test curve, automatic edit test report.
- 5), During relaxation test process, can control the constant displacement, to keep original strain or

gauge keep no change.

6), Test time can more than 1000 hours, also can reckon the test data, use 100 hour to calculate the stress relaxation character of 1000 hours.

7), Steel strand relaxation testing machine with automatic zeroing and calibration function.

8), With overload, over current, displacement limitation etc., protection.

9), except to test the steel strand wire, also can use for the steel rod, rebar relaxation test.

4, Main technical specification

Model	LW-300R
Max. load	300KN
Measuring force range	2%~100%
Accuracy of load	±1% of indicated value
Test load measuring resolution	1/200000
Tensile stroke	0~200
Tensile test distance	2000~2200
Displacement measuring accuracy	≤±0.5%FS
Displacement resolution	0.001mm
Grip moving speed	0~20 (mm/min)
Steel strand clamping range	φ 12.7- φ 15.2mm
Test time	>1000
Temperature sensor accuracy	±0.3℃
Power	2Kw
Dimintions	2100×800×1100mm

6, Standard

ISO 15630-1, Steel for the reinforcement and prestressing of concrete -- Test methods -- Part 1: Reinforcing bars, wire rod and wire

ISO 6934-4, Steel for the prestressing of concrete -- Part 4: Strand

ASTM A370, Standard Test Methods and Definitions for Mechanical Testing of Steel Products

ASTM A416 / A416M, Standard Specification for Low-Relaxation, Seven-Wire Steel Strand for Prestressed Concrete.

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