BS EN 61386 – 1 Conduit Systems for Cable Management – Tensile Testing – Testing Equipment

Description

10.7 Tensile test

10.7.1 Conduit systems declaring tensile strength shall be tested as follows:
A sample of conduit and two conduit fittings or terminating conduit fittings are assembled in accordance with the manufacturer's instructions so that the overall length is approximately 300 mm. The assembly is subjected to a uniformly increasing tensile force reaching the value given in table 6, at (23 ± 2) °C, in (30 ± 3) s. This tensile force is then applied for 2 min ± 10 s.
10.7.2 Where elongation occurs, the manufacturer shall be responsible for providing guidelines to assist the safe installation of the conduit system.
10.7.3 For conduit systems where tensile strength is not declared, the tensile strength of the joint shall meet the requirements of the relevant tests of the appropriate part 2. 10.7.4 After the test, the conduit fittings or terminating conduit fittings shall remain properly assembled to the conduit, and there shall be no damage visible to normal or corrected vision without magnification.

Table 6 – Tensile force

Classification	Conduit and fittings	Tensile force Tolerance $^{+2}_{0}$ % N
1	Very light	100
2	Light	250
3	Medium	500
4	Heavy	1000
5	Very heavy	2500

Pneumatic Tensile Tester According to BS EN 61386 – 1

- Force application is pneumatic
- Proportional valve for force control
- Force application speed rate control
- Maximum force is 300 Kg (3000N)
- The computer connection is a USB port
- Software is included
- Displacement measurement using a linear transducer
- Maximum displacement measurement is 150mm (other ranges according to customer request)
- Recording of force and displacement in software
- Report printout in MS-EXCEL
- The sample assembly length is 300mm according to the standard
- Force application will be done on (30 ± 3)s according to the standard
- Including a circular jaw for a diameter up to 160mm

Category

1. Equipment for Standards
2. Standards