



REF. 809 & 809A CYLINDRICAL MANDREL BEND TEST APPARATUS



The Cylindrical Mandrel Bend Test Apparatus is used to test the resistance of a coating of paint, varnish or related products to cracking and / or detachment from a metal substrate, when subjected to bending round a cylindrical mandrel.

- Stainless steel mandrels.
- Full range of mandrels -2mm to 32mm diameter. (1/8" - 1" - ASTM-D522)
- Mandrels easily changed in seconds.
- Pre-drilled base, ready to secure to workbench.
- Following specifications can be complied with:
BS EN ISO 1519 Type 2 and DIN 53152 or ASTM D522 -Test method 'B'

DESCRIPTION

The instrument consists of a base plate, panel holder with clamp, a series of mandrels and the handle/bending mechanism. The base should be secured to a suitable work surface, allowing the operator to turn the handle smoothly during a test. The diameter of the mandrel to be used depends upon the test specifications. If a 'point of failure' test is carried out, successively smaller mandrels are used until a coating failure is observed.

The panel holder accepts panels measuring up to 50mm (2") wide, which are held firmly in place by the clamp. BS EN ISO 1501519 calls for panels of 50mm x 100mm, of a thickness of up to 1mm. The positions of the panel holder and the bending mechanism are adjustable, thereby ensuring that the panel is bent firmly around the surface of the mandrel. A nylon pad is fitted to the bending mechanism where it makes contact with the panel, to ensure the mechanism slides smoothly over the panel.

METHOD OF USE

- 1) Panels should be prepared in accordance with the appropriate specification.
- 2) With the instrument secured to the bench, move the panel holder and bending mechanism away from the mandrel hub.
- 3) Insert the required mandrel.
- 4) Lower the handle to a vertical position, then insert the test panel, painted side down, until approximately 40mm (1.6") protrudes from the mandrel centreline toward the bending mechanism.
- 5) Secure the panel using the clamp then adjust the holder so that the panel just touches the mandrel and adjust the bending mechanism so that it just touches the panel.
- 6) Lift the handle smoothly through 180°, without jerking, over a period of 1 -2 seconds.
- 7) Remove the panel and examine for signs of cracking and/or detachment from the substrate. If required, repeat the test with successively smaller mandrels until a failure is observed.

NOTE: The above description is based on the BS EN ISO 1519 test. When using this instrument, always follow the specific instructions of the appropriate test.

MANDRELS

The stainless steel mandrels supplied with the instrument are as follows: 2,3,4,5,6,8,10,12, 16,20,25,32mm diameter.

1/8, 1/4, 3/8, 1/2, 3/4, 1 inches diameter - ASTM D522

Mandrels can also be made to sizes other than those supplied with the instrument. Please contact us for further details if required.

Instrument body: Steel and aluminium construction

Dimensions: L: 190mm W: 115mm H: 250mm (handle raised)

Weight: 4 Kgs Nett 5 Kgs Packed for shipment

ORDERING INFORMATION

REF: 809 -BS EN ISO 1519 Type 2 / DIN 53152
809A -ASTM D522 -TEST METHOD 'B'

Owing to continuous development, we reserve the right to introduce improvements and modify specifications without prior notice.

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