

**BEND TEST CONICAL MANDREL PRO**

SP1830

DATASHEET

**PRODUCT DESCRIPTION**

The TQC Bend Test Conical Mandrel "Pro" is a laboratory apparatus to bend coated test panels over a conical shaped mandrel in order to assess the elasticity or resistance of a coating-, paint or varnish to cracking, elongation and/or detachment from a metal test panel in accordance with ISO 6860 and ASTM D522. The conical shape of the bending area allows the deformation of the test panel and examination of the elasticity range of a coating over any diameter between 3.1 and 38 mm in one single test. The sample panel is secured to the apparatus by means of a quick lever handle that lock and unlocks the panel in a split second using just hand.

**BUSINESS**

Automotive, Coating Industry, Laboratory, Paint

**STANDARDS**

ISO 6860, ASTM D522

**FEATURES**

- Sturdy apparatus made of a combination of anodized aluminium and stainless steel.
- Ergonomic clamping device for test panel
- Large knob on bending arm for easy and smooth bending.

**SCOPE OF SUPPLY**

- TQC Conical Bend Test "Pro"

**ORDERING INFORMATION**

SP1830 – TQC Conical Bend Test "Pro"

**SPECIFICATIONS**

- Mandrel range: 3.1 to 38 mm. dia.
- Test panel size: 100 X 180 mm
- Max. panel thickness: 0.8 mm
- Apparatus dimensions: 110 x 250 x 150 mm
- Weight: 4200 grams

## USE

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1. Position the apparatus such that the fixation clamp (1) are facing forwards.
2. Loosen the fixation clamp and move the bending-handle (2) in the front direction so it is positioned at the side as the fixation clamp.
3. Position the test panel with the coating facing forwards (direction of operator) between the conical mandrel and the steel bending bar in such a way that the panel can be secured in place with the clamping device (3) and tighten it with the clamp.
4. Now slowly move the bending-handle(2) to the other side of the apparatus thus bending the test panel over the conical mandrel.
5. Visually observe the test panel and check for cracks. If any cracks have occurred note the diameter (3) of the beginning and end of the crack.
6. Loosen fixation clamp (1) and remove test panel.



## SPECIAL CARE

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- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Do not use compressed air to clean the instrument.

## SAFETY PRECAUTIONS

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- Make sure to keep fingers and other body-parts clear from the bending area when performing a test.
- Make sure all actions such as the clamping and bending are carried out without using any heavy forces
- Don't exceed the max. Panel thickness.
- Check the mandrel visually for mechanical damages or marks.

## DISCLAIMER

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The right of technical modifications is reserved.

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