

**Cylindrical
Mandrel
Bending Tester
Model 266 S**



testing equipment for quality management

ERICHSEN
since 1910

Technical Description and Operating Instructions

**EN ISO 1519
EN 13523-7
ASTM D 522**

Purpose and application

The mandrel bending test is a commonly used testing method for assessing the flexibility and the adhesive properties of coatings when these are subjected to bending stresses.

The cylindrical **Mandrel Bending Tester, Model 266 S and 266 S-Basic**, comply with the standards EN ISO 1519, EN 13523-7 and ASTM D 522.

Test principle

Testing with the cylindrical mandrel bending tester determines the greatest cylinder diameter at which a coating will still show cracking or flaking subsequent to bending.

The cylindrical **Mandrel Bending Tester, Model 266 S**, allows the testing of samples up to a width of 100 mm.

Description

The cylindrical **Mandrel Bending Tester, Model 266 S**, is a compact, robust lever-type instrument made of lacquered steel which is suitable for table-top use. The scope of supply includes 14 easy changeable cylindrical (in the low diameters of 2, 3 and 4 mm compounded by a steel plate base) mandrels (diameter 2 - 32 mm). The three pivoted pressure rollers parallel to the axis of the cylinder are made of rigid PVC. The instrument is supplied in a sturdy plastic case.

Model 266 S-Basic only includes 1 cylindrical mandrel at choice (please specify when ordering). Additional individual mandrels can be ordered optionally.

Test procedure

The lever of the bending mechanism is turned to the left-hand stop (opposite the black rotary knob). This motion releases the receptacle for the mandrel.

The required mandrel is put in place.

The test sheet is inserted vertically between the mandrel and the pressure rollers (with the coating facing towards the bending lever) and pushed between the clamping jaws located below. To allow adjustment of the clamping unit the clamping jaws should not be fully tightened at this stage. Pull the black rotary knob to slide the inserted test sheet with the clamping unit via the guide rods into its position against the mandrel.

Then tighten the black rotary knob completely to secure the clamping unit with the test sheet in this position.

The pressure rollers are now applied to the test sheet and the mandrel beneath by rotating the screw on the bending lever. Turn the bending lever until it reaches the stop on the right-hand side of the instrument. This motion causes the test sheet to be bent around the selected mandrel.

The bending process should be carried out in a smooth movement taking 1 - 2 seconds.

Technical Data

Dimensions: (L x W x H)

Instrument approx. 350 x 170 x 115 mm

Net weight:

Instrument approx. 6 kg

Instrument, incl. mandrels approx. 9 kg

Specimen thickness: 0.3 or 1 mm
(1 mm sheet should only be tested on $\varnothing > 5$ mm mandrels)

Max. specimen width: 100 mm

Range of mandrels: 2, 3, 4, 5, 6, 8, 10, 12, 13, 16, 19, 20, 25, 32 mm

Order Information	
Ord.-No.	Product-Description
0051.02.31	Cylindrical Mandrel Bending Tester, Model 266 S , incl. 14 cylindrical mandrels, supplied in a sturdy plastic case
0051.03.31	Cylindrical Mandrel Bending Tester, Model 266 S-Basic , incl. 1 cylindrical mandrel (at choice), supplied in a sturdy plastic case

Subject to technical modifications.

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