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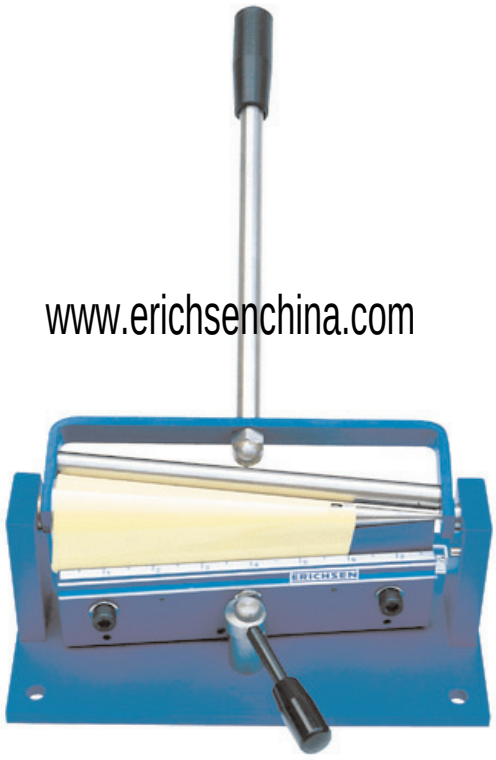
Conical Mandrel Bending Tester Model 312



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testing equipment for quality management

ERICHSEN

Technical description and operating instructions

ISO 6860
EN ISO 6860
ASTM D 522

Purpose and application

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

The conical mandrel bending tester, model 312, complies with the standards specified on the front page.

Test principle

Testing with the conical mandrel bending tester determines the largest diameter of the cone at which the coating shows cracking or flaking after bending.

Description

The conical mandrel bending tester, model 312, is a compact, robust instrument made of enamelled steel which is suitable for table-top use. The conical mandrel and the pivoted pressure roller running parallel to the surface of the cone are made of stainless steel. The clamping device is equipped with a cam lever which ensures rapid and uncomplicated change of specimens.

Test procedure

The bending lever is turned towards the clamp until it reaches the stop. The test sheet - with the coated side outward - is inserted between the cone and the pressure roller into the clamping device and pushed to the limit at the end of the cone with the smaller diameter. The specimen is secured in position using the cam lever.

Please note:

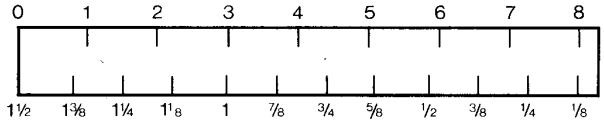
A layer of paper can be inserted between the specimen and the pressure roller to avoid scratching sensitive paint surfaces.

The specimen is then bent by turning the bending lever around the mandrel in a smooth movement taking 2 to 3 seconds. The coating is then examined for cracking (flaking).

The test result is either the length of cracking, measured from the fine end of the mandrel, or the diameter of the mandrel at the end of the crack.

Please note:

The mandrel diameter in inches can be ascertained using the scale on the clamping device and the following nomogram.



Technical data

Dimensions: (L x W x H)	250 x 140 x 420 mm
Net weight:	5.6 kg
Specimen thickness:	1/32" (0.79 mm)
Max. specimen width:	190 mm
Conical mandrel:	1/8 - 1 ½" (3.2 – 38.1 mm)

Order Information	
Order No.	**Product Description**
0002.01.31	**Conical Mandrel Bending Tester, Model 312**

Subject to technical modifications.
Group 11- TBE + BAE 312 – X/2006