Cylindrical Mandrel Tester

Bending coated sheet metal over a defined radius is an indicator of the elongation and adhesion of a paint film at bending stress. BYK-Gardner offers two types of mandrel bending testers – a cylindrical mandrel and a conical mandrel.

BYK-Gardner Cylindrical Mandrel

ISO Version

This mandrel is used for simple and quick testing of the flexibility of a coating by bending a coated panel over a rod of known diameter and then examining the coating for cracking, flaking, or other damage.

- Made of anodized aluminum
- 12 mandrels of stainless steel
- Panels up to 65 mm (2.56 in) width can be tested
- Rod diameter sizes: 2, 3, 4, 5, 6, 8, 10, 12, 16, 20, 25, 32 mm

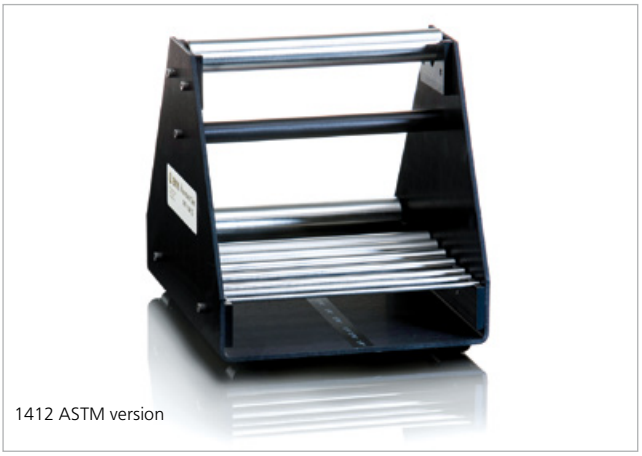
ASTM Version

- "V" shaped cuts for holding a mandrel during a test
- Slots at the base of the frame hold the rods not in use
- Panels up to 14 cm (5.5 in) x 22 cm (9.0 in) can be tested
- Rod diameter sizes: 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 3/4, 1.0 inch
- Compliant with ASTM D522 Method B

Procedure

- Apply the paint film on sheet metal strips
- Coat and dry film carefully to ensure reproducible results
- For testing, uniformly bend the coated samples over the bending mandrels within 1-2 sec at 180 degrees
- Starting with the largest bending radius, the test is continued until reaching the bending radius at which the film shows cracks

5710 ISO Version



1412 ASTM version

Standards

ASTM	D 522
DTMS 141a	Method 2012
	Method 6051
	Method 6221
	Method 6223
ISO	1519

Ordering Information

Cat. No.	Description
5710	Cylindrical Mandrel Set, ISO
1412	Cylindrical Mandrel Set, ASTM

Comes complete with:
Cylindrical Mandrel Bending Tester, ISO Version:
Set of 12 SS rods from 2 mm to 32 mm; Frame; Operating instructions
Cylindrical Mandrel Set, US Version:
Set of 9 SS rods from 1/8 in to 1.0 in, Frame, Operating instructions

Technical Specifications

Dimensions	Net Weight	Shipping Weight
38 x14 x 15 cm (15 x 5.5 x 5.9 in)	4.4 kg (9.7 lbs)	5.0 kg (11 lbs)
300 x 180 x 180 mm (12 x 7 x 7 in)	2.3 kg (5.0 lbs)	3.6 kg (8.0 lbs)

Note: Maximum panel thickness for 5710 Cylindrical Mandrel – 0.79 mm (0.031 in.)