

Conical Mandrel Tester Regular

MPK 730 Conical Mandrel Tester

The **MapakPlus Conical Mandrel Tester** is a manually operated instrument developed to assess the flexibility and adhesion performance of paint and coating films applied to metal panels. The test specimen is securely clamped and bent around a tapered mandrel by rotating the roller frame. This controlled deformation helps identify cracking, peeling, flaking or detachment of the coating from the substrate.

The graduated scale indicates different mandrel diameters, allowing the operator to position the specimen according to the required bending diameter. Its robust mild-steel construction and powder-coated finish make the instrument suitable for routine laboratory and industrial quality-control applications.



Working Principle

The coated metal panel is positioned at the required diameter and secured using the clamping lever. The bending lever is then operated to rotate the roller frame, gradually forming the specimen around the conical mandrel. After bending, the coated surface is visually examined for cracks, peeling, flaking or separation from the substrate.

Standards: ASTM D522 | BS 3900 E11 | IS 101 (Part 5/Sec. 2) | ISO 6860

Product Benefits

- Evaluates several bending diameters with one mandrel
- Enables quick visual identification of coating defects
- Provides simple and convenient manual operation
- Requires no electricity or external power source
- Offers durable construction for routine testing
- Suitable for laboratory and production environments

Typical Applications

- Paint and coating manufacturing
- Automotive coating inspection
- Metal finishing and fabrication
- Industrial quality-control laboratories
- Coating research and development
- Painted-panel performance evaluation
- Product comparison and batch testing

Required Accessories: M.S. test panel of 150 × 75 × 1 mm

Specifications

Parameter	Specification
Larger-end diameter	38 mm
Smaller-end diameter	3.0 mm
Cone length	203 mm
Panel Width	75 mm
Mandrel construction	Mild steel
Body construction	Mild steel
Surface protection	Powder-coated finish
Operation	Manual
Power requirement	Not required
Machine Weight	7kg

Features and Functions

- Evaluates coating flexibility and adhesion performance
- Identifies cracking, flaking, peeling and detachment
- Provides multiple bending diameters along one cone
- Graduated scale indicates the selected mandrel diameter
- Secure clamping holds panels firmly during testing
- Manual lever enables controlled roller-frame rotation
- Mild-steel construction supports regular laboratory use
- Powder-coated body improves durability and protection