

PT 103

Dimensional metrology I: training kit 3



Learning objectives/experiments

- familiarisation with the various measuring devices
- measurement of pre-determined lengths and diameters
- using an inside spring caliper as gauge
- keeping a measurement log
- estimating measurement variations
- identifying typical errors

Specification

- [1] practice kit for dimensional metrology in the metalworking trades
- [2] measurement exercises on a stainless steel bush
- [3] instructional kit complete with test pieces and measuring aids
- [4] 10 test pieces, each of different dimensions
- [5] plastic storage system to house all parts
- [6] detailed instructional material

Technical data

Test pieces: 6 lengths, 9 diameters measurable
 Vernier caliper gauge: 0...200mm
 Pocket caliper gauge: 0...150mm
 Depth caliper gauge: 0...150mm
 Three-point internal micrometer: d12...d16mm
 Internal micrometer: 25...50mm
 Inside quick caliper: 10...30mm
 Inside spring caliper: 125mm long

LxWxH: 500x350x110mm (storage system)
 Weight: approx. 7kg

Scope of delivery

- 1 storage system with foam inlay
- 3 caliper gauges
- 2 internal micrometers
- 1 inside quick caliper
- 1 internal caliper
- 10 test pieces (bushes)
- 1 set of instructional material

Description

- **tried and tested dimensional metrology exercises**
- **several test aids and 10 test pieces**
- **comprehensive and well structured instructional material**

All parts are clearly laid out and well protected on a plastic storage system. The storage systems are stackable, providing for space-saving storage.

This dimensional metrology practice kit is designed for practical training in the metalworking trades.

The kit offers the advantage of being ready for use immediately; it contains everything required for the exercises. The test pieces used are stainless steel bushes with various inner and outer diameters. They were manufactured with the accuracy of CNC parts. The kit includes ten bushes, all of which differ to a minor degree in dimensions and each of which is individually marked.