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Specification for

Internal micrometers (Including stick micrometers)

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Contents

	Page
Co-operating organization	Inside front cover
Foreword	ii
Section 1. Internal micrometers	
1 Scope	1
2 Material of measuring head	1
3 Measuring face of measuring head	1
4 Micrometer screw	1
5 Thimble and barrel	2
6 Extension rods	2
7 Spacing collars	3
8 Adjustment	3
9 Accuracy	3
10 Rigidity	4
11 Handle	4
12 Case	4
13 Packing	4
14 Marking	4
Section 2. Stick micrometers	
15 Scope	4
16 Nomenclature	4
17 Terminal and abutment faces	5
18 Screwed joints	6
19 Extension rods	6
20 Accuracy of micrometer unit	6
21 Accuracy of extension rods	6
22 Rigidity	6
23 Marking	6
24 Gap setting gauges	7
25 Case	7
26 Packing	7
Appendix A Method of testing internal micrometers	8
Appendix B Testing of internal micrometers	8
Figure 1 — Measurement of distance from barrel to reading end of graduation	2
Figure 2 — Application of load in testing for rigidity	4
Figure 3 — Nomenclature for stick micrometer	5
Figure 4 — Gap setting gauge	7
Table 1 — Maximum permissible errors	3

Foreword

This standard requires reference to the following British Standard:—

BS 84, *Screw threads of Whitworth form.*

Other British Standards for engineers' precision tools are as follows:—

BS 817, *Cast iron surface plates and tables for inspection and marking purposes.*

BS 818, *Cast iron straightedges (Grades A & B).*

BS 852, *Toolmakers' straightedges.*

BS 863, *Steel straightedges of rectangular section.*

BS 869, *Toolmakers' flats and high precision surface plates.*

BS 870, *Micrometers (external).*

BS 887, *Vernier callipers.*

BS 888, *Slip (or block) gauges and their accessories.*

BS 906, *Engineers' parallels (steel).*

BS 907, *Dial gauges for linear measurements (excluding back plunger type).*

BS 939, *Engineers' squares.*

BS 957, *Feeler gauges.*

BS 958, *Precision levels for engineering workshops.*

BS 1054, *Engineers' comparators for external measurements.*

BS 1643, *Vernier height gauges.*

BS 1685, *Bevel protractors.*

BS 1734, *Micrometer heads.*

BS 1790, *Length bars and accessories.*

BS 2795, *Dial test indicators (lever type) for linear measurements.*

This British Standard for internal micrometers was first issued in 1941, when it was prepared under the authority of the Mechanical Engineering Industry Standards Committee in response to a request received from the Institution of Production Engineers. It formed one of a series of standards for engineers' precision tools, and the present revised edition has been prepared, as was the 1941 edition, with the co-operation of the manufacturers and in close collaboration with the National Physical Laboratory.

The primary object of this standard is to specify standards of accuracy. Requirements in respect of design have been included only where the features of design have a direct bearing on the initial accuracy of the instrument and on the maintenance of that accuracy, or where they have a bearing on the facility with which the instrument may be used. It has been appreciated that an adequate degree of rigidity in the assembled micrometer is essential if sensitive measurements are to be made. The Committee responsible for the preparation of this standard have, however, considered that rather than impose on the manufacturer any requirements relating to design and construction, it would be preferable to include some form of practical test, thus leaving the manufacturer complete freedom to evolve the design he considers most suitable. A suggested method of test, with recommendations for the values which it was considered should be obtained, was included in an Appendix in the previous standard. Further tests of this nature have since been carried out on a number of internal micrometers and it is now considered practicable to include a definite requirement for rigidity in the present revision. The values previously recommended in an Appendix have been conformed as those which should apply. The recommended method of test is given in Appendix A.

The main purpose of the present revision, however, has been to include requirements for micrometers of the type intended for longer lengths of internal measurement and commonly known as stick micrometers. Section 2 of this standard contains requirements in regard to the accuracy and rigidity of stick micrometers; requirements in respect of design, as in the case of internal micrometers, have been included only where the features of design have a direct bearing on the accuracy or use of the instrument.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 8 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.