AS 1913—1976

Australian Standard®

CENTRE DRILLS

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Associated Chambers of Manufactures of Australia
Australian-British Trade Association
CSIRO Division of Tribophysics
Manufacturers and users of centre drills
University of Melbourne

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PREFACE

This standard was prepared under the direction of the Association's Committee on Multiple Edge Cutting Tools, as a metric revision of AS B45, Part 2 — 1960, Combined Countersinks (Centre Drills) which was the endorsement of BS 328: Part 2 : 1950, and which it accordingly supersedes.

This standard agrees without technical deviation with BS 328: Part 2 : 1972 from which the drawings and tables have been taken and also with ISO 866 — 1975, ISO 2540 — 1973, and ISO 2541 — 1972. Tolerances for concentricity and point countersink angle have been added.

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard Specification for CENTRE DRILLS

1 SCOPE. This specification gives designations and dimensions for the following types of centre drills:

(i) Centre drills for centre holes without protecting chamfers — Type A centre drills.

(ii) Centre drills for centre holes with protecting chamfers — Type B centre drills.

(iii) Centre drills for centre holes with radius form — Type R centre drills.

Appendices A, B and C show the recommended dimensions for centre holes.

2 MANUFACTURING REQUIREMENTS. A centre drill shall comply with the following requirements:

(a) The drill shall be sharpened ready for use and shall be well finished.

(b) The flutes shall be so designed that the cutting lips, which shall be symmetrically sharpened, shall be equal.

(c) For Types A and B the pilot drill shall be provided with adequate back taper; all types shall have adequate relief.

(d) The drill elements of pilot, body, and countersink section shall be concentric within the following limits:

d dimension	*Maximum runout FIM**
mm	mm
1.6 and under	0.03
over 1.6, up to and including 4.0	0.06
over 4.0	0.1

(e) The countersink shall be ground to provide lip clearance. For Types A and B the included angle shall be 60, +0, −1 degrees, each lip being equally inclined to the axis.

(f) The drill shall be right-hand cutting.

3 DIMENSIONS. The dimensions of the centre drills shall be as specified in Tables 1, 2 and 3, as applicable.

* Full indicator movement.