Australian Standard®

Information processing

DIMENSIONS OF HUBS AND REELS FOR MAGNETIC TAPE FOR INSTRUMENTATION INTERCHANGE

NOTE

AS 1073, Part 2 REVISED
AND PUBLISHED
SEPARATELY IN 1988.

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

Australian Banks Automation Committee

Australian Bureau of Statistics

Australian Computer Users Association

Australian Public Service Board

CSIRO, Division of Computing Research

Department of Defence

Life Offices Association for Australasia

Manufacturers of data processing equipment

National Library of Australia

Office Equipment Industry Association of Australia

Qantas Airways Limited

Telecom Australia

Universities and Colleges

This standard, prepared by Committee MS/20, Computers and Information Processing, was approved on behalf of the Council of the Standards Association of Australia on 19 February 1979, and was published on 1 June 1979.

Review of Australian Standards. *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

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Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

Part 3 of this standard was issued in draft form for public review as DR 76078.

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Information processing

DIMENSIONS OF HUBS AND REELS FOR MAGNETIC TAPE FOR INSTRUMENTATION INTERCHANGE

Part 1—General purpose hubs and reels, with 76 mm (3 in) centre hole
Part 2—Precision reels
Part 3—General purpose reels with 8 mm (5/16 in) centre hole

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PREFACE

This standard was prepared by the Association's Committee on Computers and Information Processing. It is identical with and has been reproduced from International standards ISO 1858, 1860 and 3802, drawn up by ISO/TC 97, Computers and Information Processing. Parts 1 and 2 constitute a revision of AS 1073—1973.

The purpose of this standard is to specify standard dimensions for hubs and reels designed for use with magnetic tape in interchange instrumentation applications.

AS 1073—1973 covered hubs and reels with a 76 mm centre hole and was technically identical with two ISO Recommendations, R 1858 and R 1860. These recommendations have since been revised and Parts 1 and 2 herein have been revised accordingly to take account of the new ISO standards, ISO 1858, General Purpose Hubs and Reels, with 76 mm (3 in) Centre Hole, for Magnetic Tape used in Interchange Instrumentation Applications; and ISO 1860, Precision Reels for Magnetic Tapes for Interchange Instrumentation Applications, respectively.

At the same time a new Part 3 has been added to include requirements for general purpose reels with 8 mm centre holes. This part is identical with ISO 3802, General Purpose Reels with 8 mm (5/16 in) Centre Hole for Magnetic Tape for Interchange Instrumentation Applications.

Numeric values in the SI system in this standard may have been rounded during conversion from imperial measurements, and are therefore consistent with, but not exactly equal to, the values in the original design which were given using the imperial system. In use, the two should be neither intermixed nor reconverted. However following the practice in the International standard, imperial values have been given in parentheses.

For the purpose of this Australian standard, the text of the ISO standards used herein should be modified as follows:

(a) *Terminology:* The words 'Australian Standard' should replace the words 'International Standard' wherever they appear.

(b) *Decimal comma:* The decimal point should replace the decimal comma wherever it appears.

(c) *Cross-references:* The references to International Standards should be replaced by references to Australian standards as follows:

Reference to International Standard	*Appropriate Australian Standard*
ISO 1859, Information Processing—Unrecorded magnetic tapes for interchange instrumentation applications—General dimensional requirements.	AS 1082.1, Unrecorded magnetic tapes for instrumentation applications, general and dimensional requirements.

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STANDARDS ASSOCIATION OF AUSTRALIA

Information processing—General purpose hubs and reels, with 76 mm (3 in) centre hole, for magnetic tape used in interchange instrumentation applications

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the dimensions of general purpose hubs and reels, with 76 mm (3 in) centre, hole, designed for use with magnetic tape in interchange instrumentation applications.

2 HUB AND REEL DIMENSIONS

2.1 The dimensions of the hubs and reels shall be as specified in figures 1 and 2 and tables 1 and 2.

2.2 Reels are to be so constructed that any profile section taken through the centre axis of the reel will fall within the cross-hatched envelope of figure 1. This includes lateral runout of the flanges.

2.2.1 Bosses, ribs, or raised designs are permitted on the outside surfaces of the flanges provided that they do not extend beyond the cross-hatched envelope when the reel is rotated on its centre axis.

2.2.2 The surfaces of the flanges between diameters *L* and *J* shall lie between the planes defined by dimensions *H* and *J* (see figure 1).

2.2.3 Between diameters *A* and *L*, the outside surfaces of the reel, including any flange fastening devices employed, shall not extend beyond the surfaces defined by dimension *M* (see figure 1).

2.2.4 The reel surfaces defined by dimension *M*, or the hub surfaces defined by dimensions *S* (see figure 2), shall be parallel within 0,002 5 mm per millimetre (or 0.002 5 in per inch) of diameter.

2.3 Flanges may have holes of convenient size, shape, and location to facilitate threading, but neither the holes nor optional threading slots shown in figure 2 are required by this International Standard.

2.4 Reels and hubs shall be symmetrical to permit mounting from either side.

2.5 The outside cylindrical surface of the hub (diameter *C*) shall be concentric with the centre hole (diameter *A*) within 0,25 mm (0.010 in) TIR, i.e. the deviation of the centre of diameter *C* with respect to the centre of diameter *A* shall not exceed 0,125 mm (0.005 in).

2.6 The outside diameter of the flanges (diameter *B*) shall be concentric with the centre hole of the hub (diameter *A*) within 1,3 mm (0.050 in) TIR, i.e. the deviation of the centre of diameter *B* with respect to the centre of diameter *A* shall not exceed 0,65 mm (0.026 in).