

Specification for

Loose leaf binders —

**Part 1: Ring binders with metal
mechanisms**

UDC 686.836.22

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Co-operating organizations

The Printing, Stationery and Allied Trades Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following organizations:

Advertisement Typesetting and Foundry Employers' Federation
 British Federation of Master Printers*
 British Paper and Board Makers' Association
 British Printing Machinery Association
 British Stationery and Office Equipment Association*
 Business Equipment Trade Association*
 Envelope Makers' and Manufacturing Stationers' Association*
 Graphic Reproduction Federation
 Her Majesty's Stationery Office*
 National Association of Paper Merchants
 Newspaper Society
 PIRA
 Society of British Printing Ink Manufacturers
 Society of Industrial Artists and Designers*
 Technical Section of the British Paper and Board Makers' Association*

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

British Bankers' Association
 British Overseas Airways Corporation
 Institute of Chartered Accountants
 Joint Advisory Committee on Local Authority Purchasing (JACLAP)
 Rotor Bindings Limited
 Royal Institute of British Architects
 Individual manufacturers

This British Standard, having been approved by the Printing, Stationery and Allied Trades Standards Committee, was published under the authority of the Executive Board on 15 May 1974

© BSI 12-1999

The following BSI references relate to the work on this standard:
 Committee reference S/2
 Draft for comment 72/61209 DC

ISBN 0 580 08015 3

Amendments issued since publication

Amd. No.	Date of issue	Comments
4559	April 1984	Indicated by a sideline in the margin

Contents

	Page
Co-operating organizations	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions	1
3 Nomenclature	1
4 Construction	1
5 Standard punching of sheets for ring binders	2
Appendix A Method of test for determining the opening tension for ring mechanisms	11
Figure 1 — Typical shape of rings	2
Figure 2a — Standard punching for A4 and A3L sheets	3
Figure 2b — Multiple-ring punching for A4 and A3L sheets	3
Figure 3a — Standard punching for A4L and A5 sheets	4
Figure 3b — Multiple-ring punching for A4L and A5 sheets	4
Figure 4a — Standard punching for A5L, A6, A5 and A4L sheets	5
Figure 4b — Multiple-ring punching for A5L and A6 sheets	5
Figure 5 — Typical apparatus for testing the opening tension	12
Table 1 — Dimensions for ring mechanisms for A4 and A3L paper	6
Table 2 — Dimensions for ring mechanisms for A5, A4L, A6 and A5L sheets	7
Table 3 — Dimensions for ring mechanisms for pocket books	9
Table 4 — Dimensions for multiple-ring mechanisms for A4, A3L, A5, A4L, A6 and A5L sheets	10
Publications referred to	Inside back cover

Foreword

The use of loose leaf binders has increased greatly in recent years and as a result the Printing, Stationery and Allied Trades Standards Committee considered that a British Standard specification would be helpful both to manufacturers and users. This part of this British Standard has been prepared to cover the main types of loose leaf binder.

Part 1 of this standard is accordingly confined to requirements for ring binders, including multiple-ring binders, together with appropriate sheet punching. For all other information regarding contents, reference should be made to BS 5641, *“Recommendations for loose leaf publications”*. Subsequent parts of this standard will deal with other types, such as those designed for educational use or other specific applications.

Care has been taken to specify the basic characteristics of loose leaf binders and to avoid a detailed technical or constructional specification of materials, mechanisms, and covers such as would inhibit freedom of design and the use of new materials or methods. As round holes are those most generally used provision has not been made for the rectangular apertures in sheets, but should the need arise they will be covered in the next edition of this standard. Emphasis has been placed instead on the standardization and co-ordination of dimensions and on the principal functional requirements. The dimensions specified, apart from those intended for pocket books, are based on the ISO-A series of trimmed sheet sizes as given in BS 4000, *“Sizes of papers and boards”*, the aim being to provide for interchangeability of sheets between different binders according to the use required. Pocket or memo books serve a somewhat different function from other ring binders in that they are not designed for or used to any great extent in conjunction with bookshelves, filing systems or other office or professional equipment. The sizes specified are therefore those found most convenient for personal use and for these reasons the fact that they do not both fall within the range of A sizes is considered justified. In order to ensure satisfactory operation all binders should contain opening and closing instructions.

The specification excludes all types of files, even though sheets for these may be punched with holes which will fit a binder mechanism. Although many types of office punches are used for punching sheets for filing, sheets so punched may not be suitable for use on loose leaf binders as the hole punching is 3 mm further away from the binding edge. Files and punching for files are dealt with in BS 1467, *“Folders and files”*.

It should be noted that this Part of this British Standard does not apply to binders with paper capacity greater than 38.5 mm and that sheets for use in such binders may require holes with a diameter greater than 6 mm because the thickness of the ring generally increases with the capacity of the ring mechanism.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 12, an inside back cover 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.

1 Scope

This Part of this British Standard lays down general requirements for the performance and dimensions of loose leaf ring binders (including multiple-ring binders) with metal mechanisms of a paper capacity not greater than 38.5 mm. The standard punching of sheets is specified, provision being made for round holes.

NOTE The titles of the British Standards referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this British Standard the following definitions apply:

2.1

loose leaf binder

a pair of covers with or without a spine, fitted with a mechanism or device which, on operation, allows an item of the contents to be inserted or extracted

2.2

ring binder

a type of loose leaf binder which consists of two covers connected by a spine with a ring mechanism

2.3

ring mechanism

a mechanism consisting principally of a cover plate or casing, housing a number of rings or arches which open to allow one or more items to be inserted or extracted without disturbing the remainder of the contents. The opening and closing is controlled by the tension in the cover plate or casing which may or may not be fitted with an operating trigger

2.4

multiple-ring binder

a type of ring binder fitted with a multiple-ring mechanism

2.5

multiple-ring mechanism

a mechanism with more than four rings spaced equidistantly down the whole of its length

2.6

backplate

a metal plate which may be flat or curved and is used to strengthen and/or shape the spine

2.7

trigger

a device to open and/or close the rings

2.8

compressor bar

a device for preventing the free movement of sheets in arch or D type ring binders

2.9

end slip

a rigid strip of punched material preferably of the same depth as the sheets in use and not less than 25 mm in width placed at the front and back of the contents to assist in the movement of the insert over the rings when closing the binder

2.10

end sheet

a sheet of material the full size of the insert which is intended as additional protection at the front and back of the insert

NOTE The functions of end slip and end sheet are sometimes combined.

2.11

sheet lifter

end slip or end board fitted with a device which by impinging on the curved surface of the cover plate provides a lateral lifting action to the sheets when closing the binder

2.12

neck

the distance from the edge of a sheet to the nearest edge of the punched hole

3 Nomenclature

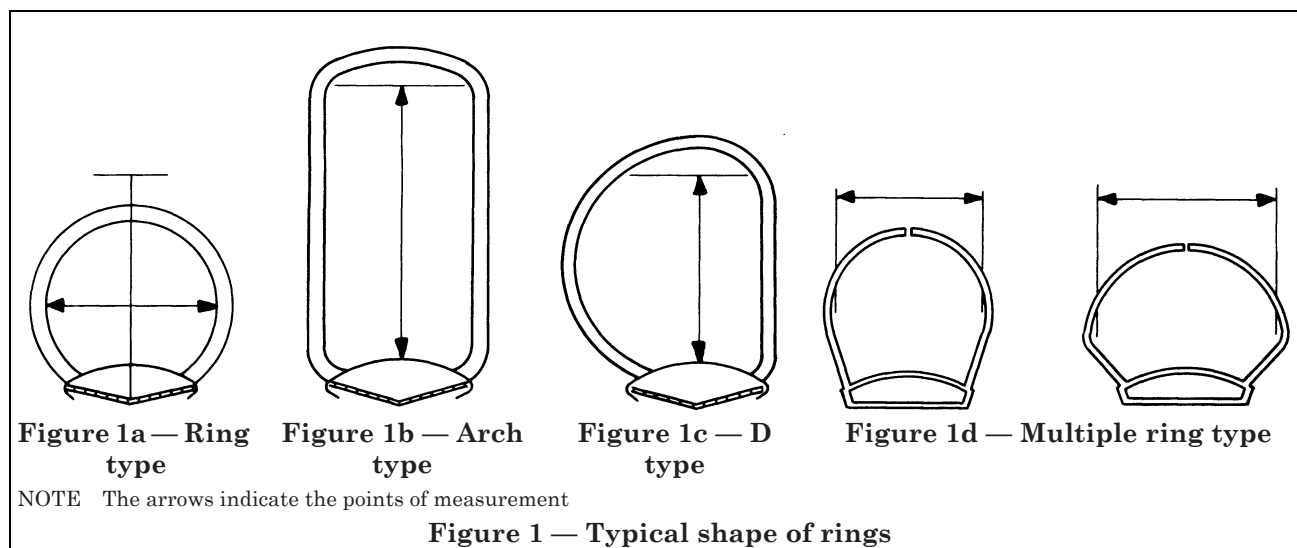
Binders complying with the requirements of this standard shall be designated by the sheet size as shown in column 1 and by the reference as shown in column 2 of Table 1, Table 2, Table 3, or Table 4 as appropriate. The first component of the reference is the length of the binding edge of the sheet, the second is the number and type of rings (see column 3 of the appropriate table), and the third is the paper capacity (for example, A4 297/4RT/26).

NOTE The method of stating the dimensions of the International Paper Sizes is to quote the smaller dimension first. This does not indicate whether or not the dimension is that of the punched edge of the sheet. For this information reference should be made to column 1 of the appropriate Table.

4 Construction

4.1 Rings

4.1.1 The number and spacing of the rings in each binder shall be as specified in Table 1 to Table 4 as appropriate. The basic shapes of suitable rings are illustrated in Figure 1.



4.1.2 The opening tension. In order to ensure adequate closure and ease of opening, the tension shall be within the range of the values given in Table 1 to Table 4 when tested by the method described in Appendix A.

4.2 Spine. The width of the spine shall be sufficient to prevent the covers from being splayed open when the binder is closed.

4.3 Cover. The cover of a loose leaf binder complying with the requirements of this standard should project when closed 6 mm beyond the contents at the foreedge (including index tabs when applicable). The cover should also project 10 mm beyond the contents at head and tail.

4.4 Other components. All other components of ring mechanisms shall conform to the dimensions given in Table 1 to Table 4 as appropriate.

5 Standard punching of sheets for ring binders

5.1 Punching for general purpose and multiple-ring binders

5.1.1 The sheets for use in ring binders shall have holes drilled or punched (see Figure 2, Figure 3 and Figure 4) with the following characteristics when conditioned in accordance with BS 3431.

- 1) The diameter of each hole shall be 6 ± 0.5 mm.
- 2) Each hole shall be positioned symmetrically in relation to the horizontal centre axis of the sheet.
- 3) The neck of each hole shall be 6 mm.

5.1.2 The number of holes and their distance apart shall correspond to the dimensions given in Table 1 and Table 2.

5.2 Punching for pocket books. The number of holes and their distance apart shall correspond to the dimensions given in Table 3. The neck shall be sufficiently small to ensure that the pages can be turned without overlapping.

NOTE It has not been feasible to specify the diameter of the holes and the size of the neck.

5.3 Punching for binders for continuous stationery

5.3.1 General. Ring and multiple-ring binders are not suitable for unburst continuous stationery but may be used after it has been converted into loose leaves. At this stage the margins containing the sprocket holes are sometimes removed in which case punching for binders complying with the requirements of this standard shall be done in accordance with 5.1.

5.3.2 Sprocket hole dimensions. Where sprocket holes are retained the punching in accordance with BS 4623 is as follows:

- 1) Diameter: 4.0 ± 0.1 mm.
- 2) Vertical distance between centres of holes: 12.7 mm.
- 3) Horizontal distance from centres of holes to nearest edge of sheet: 6.0 ± 0.7 mm.