

Dimensions of gaskets for flanges to BS 1560 —

Part 2: Specification for metallic ring-joint gaskets for use with steel flanges

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Piping Systems Components Standards Policy Committee (PSE/-) to Technical Committee PSE/15, upon which the following bodies were represented:

- British Chemical Engineering Contractors' Association
- British Compressed Gases Association
- British Fluid Power Association
- British Foundry Association
- British Gas plc
- British Malleable Tube Fittings Association
- British Maritime Technology
- British Non-ferrous Metals Federation
- British Pump Manufacturers' Association
- British Steel Industry
- British Valve Manufacturers' Association Ltd.
- Combustion Engineering Association
- Copper Development Association
- Department of Trade and Industry (National Engineering Laboratory)
- Ductile Iron Producers' Association
- Electricity Supply Industry in England and Wales
- Energy Industries Council
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- High Pressure Pipework Consultative Committee
- Institution of Gas Engineers
- Institution of Mechanical Engineers
- Institution of Production Engineers
- Institution of Water and Environmental Management (IWEM)
- Water Authorities Association

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

- British Railways Board
- Health and Safety Executive

This British Standard, having been prepared under the direction of the Piping Systems Components Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 January 1990

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Foreword

This British Standard has been prepared under the direction of the Piping Systems Components Standards Policy Committee and is published in four Parts. The other Parts of BS 7076 are as follows:

- *Part 1: Specification for non-metallic flat gaskets;*
- *Part 3: Specification for non-metallic envelope gaskets;*
- *Part 4: Specification for corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges.*

The publication of this standard in all four Parts takes into account related international work being carried out by Subcommittee 10, Metallic flanges and their joints, of Technical Committee 5, Ferrous metal pipes and metallic fittings, of the International Organization for Standardization (ISO). On this basis the terminology in this standard is in accordance with that given in ISO standards.

This Part of BS 7076 together with BS 7076-1, BS 7076-3 and BS 7076-4 supersede Appendix F of BS 1560-2:1970¹⁾.

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 8, 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⁾ BS 1560-2:1970 is superseded by BS 1560-3.1.

1 Scope

This Part of BS 7076 specifies the dimensions and marking of metallic ring-joint gaskets²⁾ for use with steel flanges complying with BS 1560-3.1 for Class designations 150, 300, 600, 900 and 1 500 for sizes up to and including 24, and for Class designation 2 500 for sizes up to and including 12.

NOTE 1 The titles of the publications referred to in this standard are listed on the inside back cover.

NOTE 2 Dimensions of other types of gaskets for use with flanges complying with BS 1560-3.1, BS 1560-3.2 and BS 1560-3.3 are given in BS 3381 and BS 7076-1, BS 7076-3 and BS 7076-4 (see foreword).

NOTE 3 The materials for metallic ring-joint gaskets are outside the scope of this standard but guidance on typical materials and their hardnesses are given in Appendix A.

NOTE 4 Appendix B lists information that should be supplied by the purchaser when ordering gaskets.

2 Gasket designs

Metallic ring-joint gaskets for use with ring-joint (type J) flange facings complying with BS 1560-3.1 shall have a cross-sectional shape that is either oval or octagonal.

NOTE 1 Figure 1 shows a flange joint illustrating both oval and octagonal ring-joint gaskets.

NOTE 2 If the purchaser requires a ring-joint gasket with a particular cross-sectional shape, this requirement should be stated on the enquiry and/or order (see Appendix B).

3 Dimensions and tolerances

3.1 Metallic ring-joint gaskets shall have the dimensions as given in Table 1 and Figure 2.

NOTE Dimensions of grooves and gaskets are such that, when joints are assembled, the flanges are apart and the approximate distances that the flanges are apart for each Class designation are given in the appropriate table of BS 1560-3.1.

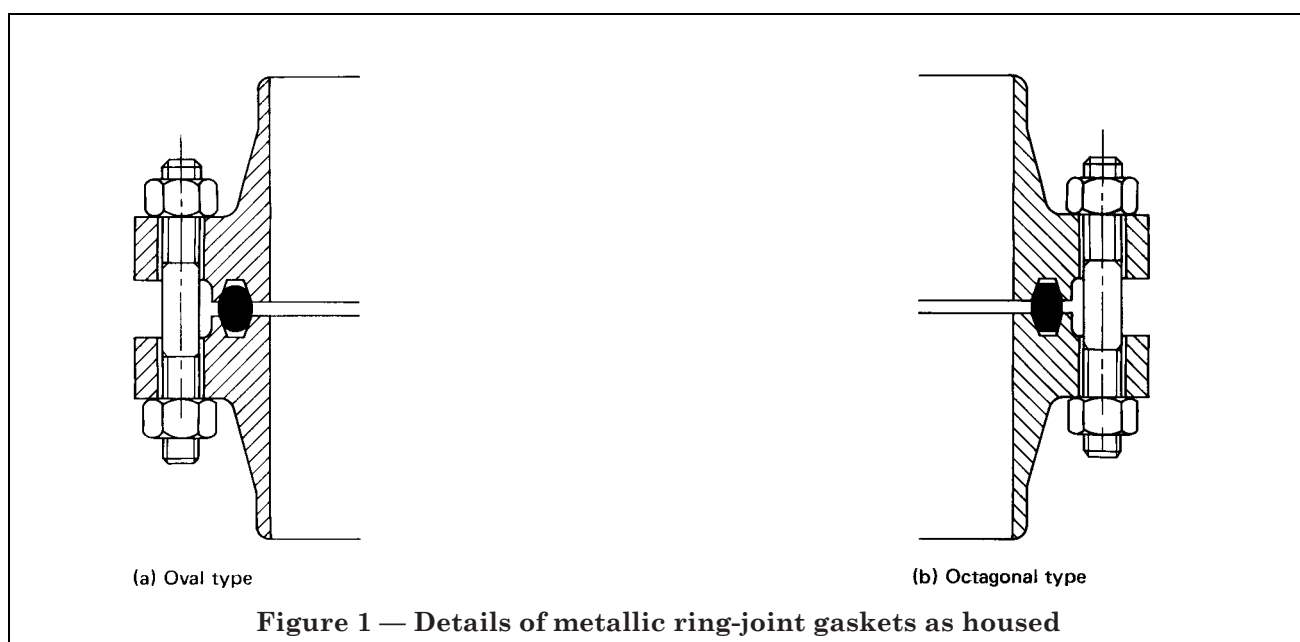
3.2 The tolerances given in Table 2 shall apply for dimensions (as shown in Figure 2).

NOTE The presence of a small forging fin, located so that it does not prevent the ring from seating properly in the groove, is acceptable.

4 Surface texture

When compared by visual or tactile means with reference specimens, the surface texture of the 23° surfaces of octagonal gaskets and the contact faces of oval gaskets shall be as given in Table 3.

NOTE It is not intended that instrument measurements be taken on the faces themselves and the R_a and R_z values as defined in BS 1134 relate to the reference specimens.



²⁾ When referring to specific aspects of ring-joint gaskets, it is common practice to use the term “ring” instead of the full description and for the purposes of this Part of BS 7076 the term “ring” has been used, particularly when referring to dimensions.