

Preface

BS 8888:2006 replaces the previous Technical Product Documentation (TPD) standard BS 8888:2004, which provided a unified source of reference and identity for engineering drawing communication and introduced three-dimensional model annotation for the first time. BS 8888:2006 enables those using British and International Standards to have a common technical language. This revision continues to provide specifiers and suppliers with a more precise means of describing a technical product. This can avoid misunderstanding in the communication of manufacturing and verification requirements.

For the first time, BS 8888:2006 is available as an interactive web-based, on-line standard. This standard is the definitive version, which will always incorporate the latest revision of the International Standards to be referenced and cross-referenced (presently there are over 150 international standards cross-referenced). Further development to the web-based version will include other links to developing British Standards, such as BS 8887, which covers design, and BS 8889, which covers verification. It is also planned to provide a link to Geometric Product Specification (GPS) training modules.

BS 8888:2006 will also be available in both paper and interactive CD format. Further revisions of BS 8888 are planned, at approximately two-yearly intervals so that the cross-references are always kept up to date.

BS 8888 is prescriptive. British Standards can be presented in a number of differing forms, the more usual form being that of a specification or related test method. In specifications 'normative' elements consist of requirements for action or application. Conformity to these requirements is essential if compliance with the standard is to be claimed. Identification of a requirement (normative element) is conventionally achieved by use of the word 'shall', as in 'shall do'. BS 8888 is a specification for the preparation of technical product documents, e.g. product specifications. As a specification, BS 8888 consists largely of clauses that are identified as being normative, i.e. prescriptive. BS 8888 also includes a significant amount of text of a purely informative nature.

In BS 8888 many of the principles and techniques used in technical drawing are prescriptive. This is useful because completeness of specification, elimination of ambiguity and universal application are of importance in today's manufacturing

environment. It is an environment in which the demand for highly sophisticated functionality of workpieces at a competitive, commercially viable cost is increasing. Many companies demonstrate an increasing tendency to:

- pursue legal settlement of dispute;
- favour the introduction of quality management systems (e.g. BS EN ISO 9000);
- opt for outsourcing or sub-contracting;
- depend on digital information transfer and computer aided processes.

From drawings to technical product specification, BS 8888 provides a more holistic approach to documenting components for manufacture, irrespective of the medium selected for presentation. The inclusion of normative and informative standards referenced within this document reflects the need to link descriptive drawings and diagrams with the methods of verification of dimensions defined. The link between designer and production/verification engineers is discussed in more detail in Annex B as part of GPS.

Scope

This revision of PP 8888-2 has been prepared in line with the paper and CD version of BS 8888:2006 and is written for use by students of engineering in further and higher education. It is suitable as a reference document for students on Certificate, Diploma, Advanced Higher and Foundation Degree courses, Modern Apprentices, NVQ, SVQ and first-year undergraduates and similar courses.

BSI also publishes PP 8888-1, a guide for schools and colleges, intended for GCSE, A level, Intermediate and Higher students of engineering, design, technology and similar courses.

The document provides additional information for users of BS 8888. It cannot be, nor is it intended to be, a substitute for the complete standard BS 8888. The objectives of this Guide are:

- to provide guidance to the application of BS 8888 within all elements of engineering design, manufacturing and verification;
- to cross-reference essential standards to relevant referenced standards, e.g. International Standards (ISO), European Standards (EN), and British Standards (BS) and cross-reference informative (optional) standards;
- to provide examples of the application of BS 8888 and referenced standards.

The structure of BS 8888 enables future accommodation of significant technical changes known to be in development. BS 8888 acts as a framework in which cross-referenced standards may develop, such as those relating to three-dimensional (3D) modelling. An advisory guide to 3D modelling practice is provided in Annex C.

Any elements of BS 8888 omitted from this guide should not be considered as less important to the engineering profession than those included.

Notes on the use of this publication

- Each clause of this Guide provides fundamental knowledge relating to a specific stage in the design process. Together the clauses provide the complete set of knowledge required to produce the complete drawing or Technical Product Specification to BS 8888. This process starts with 'Terms and definitions' through 'Types of documentation' and 'Layout of drawing' to 'Storage and handling of the finished document'.
- At the end of each clause in this Guide there is a reference list giving the relevant standards to which the draughtsperson should refer.
- Linear dimensions shown in figures are in millimetres. Values of dimensions and tolerances are typical values only.
- Examples of both first angle and third angle methods of projection are given (see Clause 3). First angle projection is normally used in British Standards, but in this publication some figures are drawn in third angle projection. In these cases the third angle projection symbol, illustrated in Figure 6, is shown with the figure.
- The size limitations of the figures means that arrowhead sizes may not be in accordance with the recommendations given in Clause 4.
- The comma is used as the decimal marker, e.g. 4,00 mm. Previously, in drawings produced to BS 308, full points were used, e.g. 4.00 mm.