
Button head screws —

Part 1:

Hexagon socket button head screws

Vis à tête cylindrique bombée plate —

Partie 1: Vis à tête cylindrique bombée plate à six pans creux



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 7380-1 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Subcommittee SC 11, *Fasteners with metric external thread*.

This first edition of ISO 7380-1, together with ISO 7380-2, cancels and replaces ISO 7380:2004, which has been technically revised.

ISO 7380 consists of the following parts, under the general title *Button head screws*:

- *Part 1: Hexagon socket button head screws*
- *Part 2: Hexagon socket button head screws with collar*

Button head screws —

Part 1:

Hexagon socket button head screws

1 Scope

This International Standard specifies the characteristics of hexagon socket button head screws with threads from M3 up to and including M16, with product grade A and with reduced loadability according to Table 3.

If, in special cases, specifications other than those listed in this International Standard are required, they can be selected from existing International Standards, e.g. ISO 261, ISO 888, ISO 898-1, ISO 965-2, ISO 3506-1 and ISO 4759-1.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 225, *Fasteners — Bolts, screws, studs and nuts — Symbols and descriptions of dimensions*

ISO 261, *ISO general purpose metric screw threads — General plan*

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

ISO 965-2, *ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose external and internal screw threads — Medium quality*

ISO 965-3, *ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional screw threads*

ISO 3269, *Fasteners — Acceptance inspection*

ISO 3506-1, *Mechanical properties of corrosion-resistant stainless steel fasteners — Part 1: Bolts, screws and studs*

ISO 4042, *Fasteners — Electroplated coatings*

ISO 4753, *Fasteners — Ends of parts with external ISO metric thread*

ISO 4759-1, *Tolerances for fasteners — Part 1: Bolts, screws, studs and nuts — Product grades A, B and C*

ISO 6157-1, *Fasteners — Surface discontinuities — Part 1: Bolts, screws and studs for general requirements*

ISO 6157-3, *Fasteners — Surface discontinuities — Part 3: Bolts, screws and studs for special requirements*

ISO 8992, *Fasteners — General requirements for bolts, screws, studs and nuts*

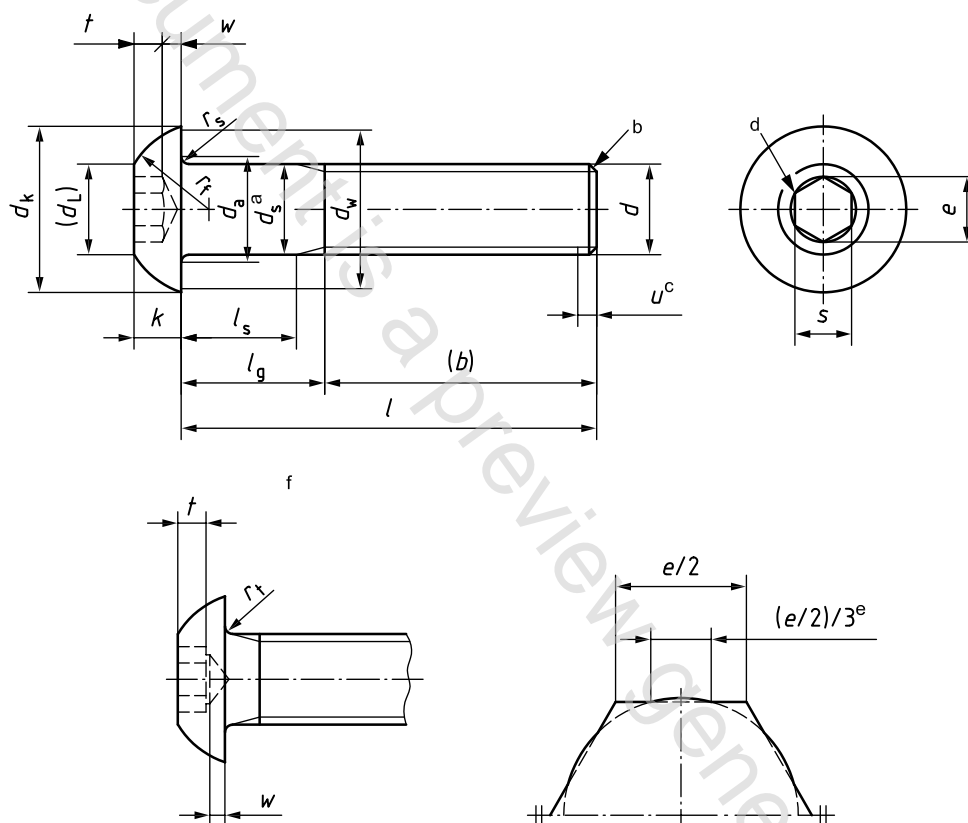
ISO 10683, *Fasteners — Non-electrolytically applied zinc flake coatings*

ISO 23429, *Gauging of hexagon sockets*

3 Dimensions

See Figure 1 and Table 1.

Symbols and descriptions of dimensions are specified in ISO 225.



Key

r_s underhead radius for a screw with unthreaded shank

r_t underhead radius for a fully threaded screw

^a d_s applies if values of $l_{s,min}$ are specified.

^b In accordance with ISO 4753, point chamfered or for sizes $\leq M4$ "as rolled".

^c Incomplete thread $u \leq 2P$.

^d A slight rounding or countersink at the mouth of the socket is permissible.

^e For broached sockets which are at the maximum limit of size, the overcut resulting from drilling shall not exceed one third of the length of any flat of the socket which is $e/2$.

^f Permissible alternative form of socket.

Figure 1 — Hexagon socket button head screw