IS 1367 (Part 1) : 2002
ISO 8992 : 1986

भारतीय मानक

इस्पात के चूड़ीदार बंधकों की तकनीकी पूर्ति शर्तें

भाग 1 काबले, पेंच, स्टड्स और ढिबरियों की सामान्य अपेक्षाएँ

(तीसरा पुनरीक्षण)

Indian Standard

TECHNICAL SUPPLY CONDITIONS FOR THREADED STEEL FASTENERS

PART 1 GENERAL REQUIREMENTS FOR BOLTS, SCREWS AND STUDS

(Third Revision)

ICS 21.060.20

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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Price Group 1

NATIONAL FOREWORD

This Indian Standard (Part 1) (Third Revision) which is identical with ISO 8992 : 1986 'Fasteners — General requirements for bolts, screws, studs and nuts' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Bolts, Nuts and Fasteners Accessories Sectional Committee and approval of the Basic and Production Engineering Division Council.

This standard was originally published in 1961 and subsequently revised in 1967 and 1980. This revision of the standard has been taken up to align it with ISO 8992 : 1986 by adoption under dual numbering system.

While specific requirements of fasteners are covered in the rest of the parts, this part is intended to provide an instruction to different parts of the standard and cover requirements which are general in nature.

The text of ISO Standard has been approved as suitable for publication as Indian Standard without deviations. Certain terminology and conventions are, however, not identical to those used in the Indian Standards. Attention is drawn especially to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their place are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 898-1 : 1999	IS 1367 (Part 3) : 2002 Technical supply conditions for threaded steel fasteners : Part 3 Mechanical properties of fasteners made of carbon steel and alloy steel — Bolts, screws and studs (*fourth revision*)	Identical
ISO 898-2 : 1992	IS 1367 (Part 6) : 1994 Technical supply conditions for threaded steel fasteners : Part 6 Mechanical properties and test methods for nuts with specified proof loads (*third revision*)	do
ISO 898-5 : 1998	IS 1367 (Part 5) : 2002 Technical supply conditions for threaded steel fasteners : Part 5 Mechanical properties of fasteners made of carbon and alloy steel — Set screws and similar threaded fasteners not under tensile stress (*third revision*)	do
ISO 898-6 : 1994	IS 13096 : 2000 Fasteners — Hexagon nuts with specified proof load values — Fine pitch thread — Mechanical properties (*first revision*)	do
ISO 3269 : 1988	IS 1367 (Part 17) : 1996 Industrial fasteners — Threaded steel fasteners — Technical supply conditions : Part 17 Inspection, sampling and acceptance procedure (*third revision*)	do

(*Continued on third cover*)

Indian Standard

TECHNICAL SUPPLY CONDITIONS FOR THREADED STEEL FASTENERS

PART 1 GENERAL REQUIREMENTS FOR BOLTS, SCREWS AND STUDS

(Third Revision)

1 Scope and field of application

This International Standard specifies the general requirements for standardized bolts, screws, studs and nuts; it complements the International Standards on dimensional and tolerance requirements, and the International Standards on mechanical and functional requirements.

It is recommended that this International Standard be used also for non-standardized bolts, screws, studs and nuts.

2 References

ISO 898, *Mechanical properties of fasteners —*

Part 1: Bolts, screws and studs.

Part 2: Nuts with specified proof load values.

Part 5: Set screws and similar threaded fasteners not under tensile stresses.

Part 6: Nuts with specified proof load values — Fine pitch thread. [1)]

ISO 3269, *Fasteners — Acceptance inspection.*

ISO 3506, *Corrosion-resistant stainless steel fasteners — Specifications.*

ISO 4042, *Threaded components — Electroplated coatings components.* [1)]

ISO 4759, *Tolerances for fasteners —*

Part 1: Bolts, screws and nuts with thread diameters > 1,6 *and* < 150 mm *and product grades A, B and C.*

Part 2: Bolts, screws and nuts with thread diameters from 1 *up to* 3 mm *and product grade F, for fine mechanics.*

ISO 6157, *Fasteners — Surface discontinuities —*

Part 1: Bolts, screws and studs for general requirements. [1)]

Part 2: Nuts with thread sizes M5 *to* M39. [1)]

Part 3: Bolts, screws and studs for special requirements. [1)]

ISO 8839, *Mechanical properties of fasteners — Bolts, screws, studs and nuts made of non-ferrous metals.*

1) At present at the stage of draft.

3 Specifications and reference International Standards

Material	Carbon steel Alloy steel	Stainless steel	Non-ferrous metal
Dimensions	See product standards.		
Mechanical properties	ISO 898/1 ISO 898/2 ISO 898/5 ISO 898/6	ISO 3506	ISO 8839
Tolerances	ISO 4759/1, ISO 4759/2		
Surface discontinuities	ISO 6157/1, ISO 6157/2, ISO 6157/3		
Finish	Requirements for electroplating are covered in ISO 4042.		
Acceptability	The acceptance procedure is covered in ISO 3269.		

4 General requirements

Standardized bolts, screws, studs and nuts are defined by the following elements:

- mechanical properties (material);
- product grade (tolerances);
- surface coatings (if required);
- special requirements (if agreed).

All information relates to fully manufactured products. Specific manufacturing processes are not required, except where they have been laid down in the individual standards or have been agreed between customer and supplier.

The product shall have intact surfaces and edges and shall be free of burrs consistent with the manufacturing methods used. It is not generally required that small burrs due to operations such as slotting, or resulting from forging, pressing or trimming be removed. Any burr which influences the performance of the product or would be a safety hazard when handled, however, shall be removed.

Trimming burrs beyond the bearing face of bolts and screws is not permissible.

Centre holes for bolts and screws are permissible, unless otherwise specified.

The finish (surface) of the products shall be

- as processed for steel products not quenched and tempered;
- in general, black oxide for quenched and tempered steel products;
- plain for products made of stainless steel or non-ferrous metal.

Bolts, screws, studs and nuts shall be delivered in a clean condition and lightly oiled, if no other conditions have been agreed.

(*Continued from second cover*)

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 3506 [1]	IS 1367 (Part 14/Sec 1) : 2002 Technical supply conditions for threaded steel fasteners : Part 14 Mechanical properties of corrosion-resistant stainless-steel fasteners, Section 1 Bolts, screws and studs (*third revision*)	Identical
	IS 1367 (Part 14/Sec 2) : 2002 Technical supply conditions for threaded steel fasteners : Part 14 Mechanical properties of corrosion-resistant stainless-steel fasteners, Section 2 Nuts (*third revision*)	do
	IS 1367 (Part 14/Sec 3) : 2002 Technical supply conditions for threaded steel fasteners : Part 14 Mechanical properties of corrosion-resistant stainless-steel fasteners, Section 3 Set screws and similar fasteners not under tensile stress (*third revision*)	do
ISO 4042 : 1999	IS 1367 (Part 11) : 2002 Technical supply conditions for threaded steel fasteners : Part 11 Electroplated coatings (*third revision*)	do
ISO 4759-1 : 2000	IS 1367 (Part 2) : 2002 Technical supply conditions for threaded steel fasteners : Part 2 Tolerances for fasteners — Bolts, screws, studs and nuts — Product grades A, B and C (*third revision*)	do
ISO 6157-1 : 1988	IS 1367 (Part 9/Sec 1) : 1993 Technical supply conditions for threaded steel fasteners : Part 9 Surface discontinuities, Section 1 Bolts, screws and studs for general applications (*third revision*)	do
ISO 6157-2 : 1995	IS 1367 (Part 10) : 2002 Technical supply conditions for threaded steel fasteners : Part 10 Surface discontinuities — Nuts (*third revision*)	do
ISO 6157-3 : 1988	IS 1367 (Part 9/Sec 2) : 1993 Technical supply conditions for threaded steel fasteners : Part 9 Surface discontinuities, Section 2 Bolts, screws and studs for special applications (*third revision*)	do

The concerned Technical Committee has reviewed the provisions of the following ISO Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

ISO Standard	*Title*
ISO 4759-2 : 1979[2]	Tolerances for fasteners — Part 2 : Bolts, screws and nuts with thread diameters from 1 up to 3 mm and product grade F for mechanics
ISO 8839 : 1986	Mechanical properties of fasteners — Bolts, screws, studs and nuts made of non-ferrous metals

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'.

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[1] Since revised in 2000 in three parts.

[2] Since withdrawn in 1999.

Bureau of Indian Standards

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards : Monthly Additions'.

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Amendments Issued Since Publication

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