

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 730 (1978): Hook Bolts for Corrugated Sheet Roofing [PGD
31: Bolts, Nuts and Fasteners Accessories]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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(Second Revision)

(Page 2, Table 2, entries under 'Inside Width w', 'Tolerance') - Substitute '+2' for '+2' and '+3' for '+3'.

(Page 3, Table 3, entries under 'Inside Width w', 'Tolerance') - Substitute '+2' for '+2' and '+3' for '+3'.

1-177 BIS/ND/08

AMENDMENT NO. 2 JANUARY 1988

TO

IS:730-1978 SPECIFICATION FOR HOOK BOLTS FOR
CORRUGATED SHEET ROOFING

(Second Revision)

(Page 4, clause 4) - Substitute the following
for the existing clause:

"4. Grade - Product grade C according to
IS 1367(Part 2)-1979 'Technical supply conditions
for threaded steel fasteners Part 2 Product grades
and tolerances (second revision)'."

(Page 4, clause 5) - Substitute the following
for the existing clause:

"5. Mechanical Properties - Property class 4.6 of
IS:1367(Part 3)-1979 'Technical supply conditions
for threaded steel fasteners: Part 3 Mechanical
properties and test methods for bolts, screws and
studs with full loadability (second revision)'."

(Page 4, clause 8.1.1) - Substitute the
following for the existing clause:

"8.1.1 When required, the hook bolts and mating
nuts shall be hot dip galvanized in accordance with
IS:1367(Part 13)-1983 'Technical supply conditions
for threaded steel fasteners: Part 13 Hot dip
galvanized coatings on threaded fasteners (second
revision)'."

(Page 4, clause 8.3) - Substitute the following for the existing clause:

"8.3 In regard to the requirements not covered in this standard, the hook bolts shall conform to IS:1367(Part 1)-1980 'Technical supply conditions for threaded steel fasteners: Part 1 Introduction and general information (second revision)'."

(Page 4, Explanatory Note, second para) - Delete.

(EDC 27)

AMENDMENT NO. 3 DECEMBER 2002
TO
IS 730 : 1978 SPECIFICATION FOR HOOK BOLTS FOR
CORRUGATED SHEET ROOFING

(*Second Revision*)

[Page 3, Table 3, Tolerance for Inside Width 'w' for Size M 10 (see also Amendment No. 1)] — Substitute ' $+3$ ' for ' ± 2 '.

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(Page 4, clause 7) — Substitute the following for the existing clause:

7 Sampling — The method of sampling and acceptance criteria shall be in accordance with IS 1367 (Part 17) : 1996 'Industrial fasteners — Threaded steel fasteners — Technical supply conditions : Part 17 Inspection, sampling acceptance procedure (*third revision*)'.

(BP 33)

Indian Standard

SPECIFICATION FOR

HOOK BOLTS FOR CORRUGATED SHEET ROOFING

(Second Revision)

1. Scope — Covers the requirements for hook bolts for corrugated sheet roofing.
2. Types — The following types are covered:

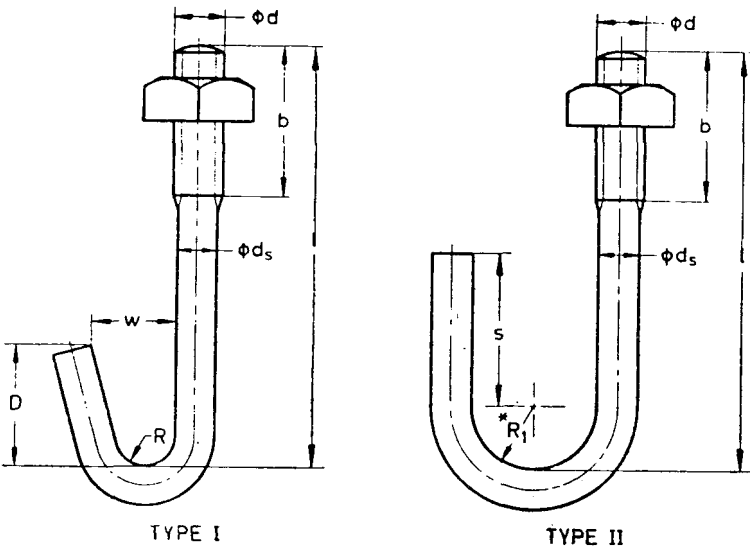
a) J-type hook bolts,

b) L-type hook bolts, and

c) U-type hook bolts.
3. Dimensions and Tolerances — As given in Tables 1, 2 and 3.

TABLE 1 DIMENSIONS AND TOLERANCES FOR J-TYPE HOOK BOLTS WITH SQUARE NUTS

All dimensions in millimetres.



Shank diameter, $d_s \approx$ pitch diameter

| Size d | s | | Inside Depth D | | Inside Width w | | Thread Length b^\dagger | Inside Radius R, Min | Preferred Length l | |
|-------------|-------|-----------|---------------------|-----------|---------------------|-----------|------------------------------|---------------------------|--------------------------------|-----------|
| | Basic | Tolerance | Basic | Tolerance | Basic | Tolerance | Basic | | Basic | Tolerance |
| M6 | 20 | +2 0 | 15 | +2 0 | 12 | +2 0 | 25 | 4 | 70 to 150 in steps of 10 | ± 3 |
| M8 | 25 | +2 0 | 20 | +2 0 | 14 | +2 0 | 25 | 5 | 70 to 200 in steps of 10 | ± 3 |
| M10 | 25 | +2 0 | 20 | +2 0 | 16 | +2 0 | 25 | 6 | 70 to 200 in steps of 10 | ± 3 |

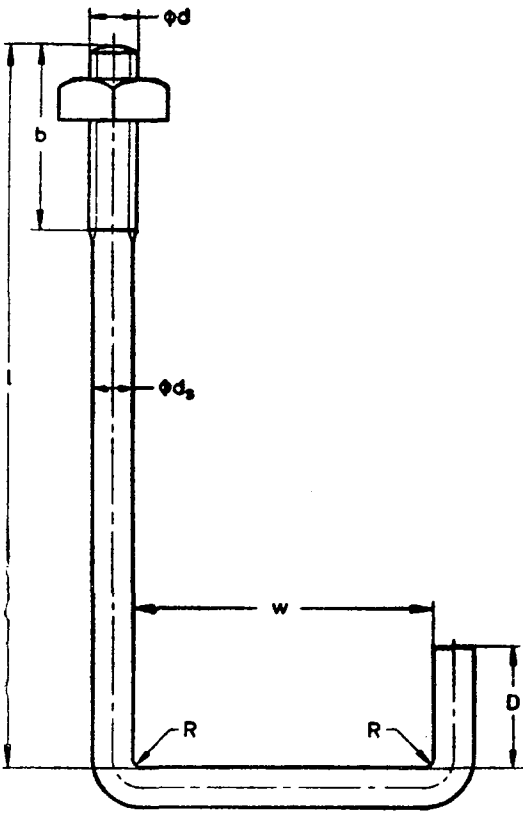
Note — Full size shank diameter equal to thread major diameter is also permitted.
* R_1 to be specified by the purchaser depending on the pipe size to be used. The tolerance on the specified R_1 shall be +1.5 mm.
†Tolerance on the length of thread, b , shall be +2.5P or 5 mm, whichever is greater.

Bolts, Nuts and Fasteners Accessories Sectional Committee, EDC 27 [Ref : Doc : EDC 27 (2805)]

TABLE 2 DIMENSIONS AND TOLERANCES FOR L-TYPE HOOK BOLTS WITH SQUARE NUTS

(Clause 3)

All dimensions in millimetres.



Shank diameter, $d_s \approx$ pitch diameter

| Size <i>d</i> | Inside Depth <i>D</i> | | Inside Width <i>w</i> | | Thread Length <i>b</i> * | Inside Radius <i>R</i> | | Preferred Length <i>l</i> | |
|------------------|--------------------------|-----------|--------------------------|-----------|-----------------------------|---------------------------|-----------|---------------------------------|---------------------------------|
| | Basic | Tolerance | Basic | Tolerance | Basic | Basic | Tolerance | Basic | Tolerance |
| M8 | 20 | ±2 | 50 | ±2 | 30 | 1·5 | +1·5 0 | 120 to 200 in steps of 10 | ±3 |
| | | | 60 | | | | | | |
| | | | 70 | | | | | | |
| M10 | 25 30 | ±2 | 80 | ±2 | 30 | 1·5 | +1·5 0 | 150 to 200 in steps of 10 | ±3 |
| | | | 95 | ±3 | | | | | |
| | | | 110 | ±3 | | | | 180, 190 200, 225 | ±3 up to 200 ±4 above 200 |

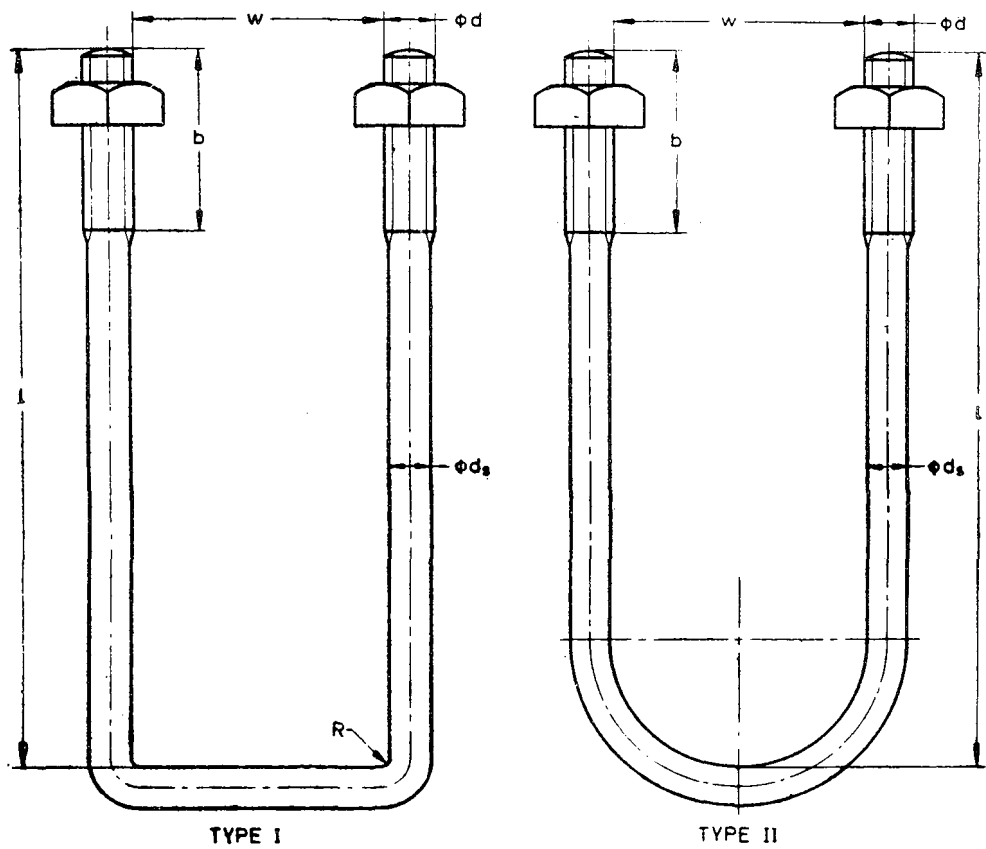
Note — Full size shank diameter equal to thread major diameter is also permitted.

*Tolerance on the length of thread, *b*, shall be +2·5*P* or 5 mm, whichever is greater.

TABLE 3 DIMENSIONS AND TOLERANCES FOR U-TYPE HOOK BOLTS WITH SQUARE NUTS

(Clause 3)

All dimensions in millimetres.



Shank diameter $d_s \approx$ pitch diameter

| Size d | Inside Width w | | Inside Radius R | | Thread Length b^* | Preferred Length l | |
|-------------|---------------------|-----------|----------------------|-------------|------------------------|---------------------------------|-----------|
| | Basic | Tolerance | Basic | Tolerance | Basic | Basic | Tolerance |
| M8 | 50 | ± 2 | 1.5 | $+1.5$ 0 | 30 | 150 to 200 in steps of 10 | ± 3 |
| | 60 | | | | | | |
| | 80 | | | | | 225 | ± 4 |
| | 90 | | | | | | |
| M10 | 50 | ± 2 | 1.5 | $+1.5$ 0 | 30 | 150 to 200 in steps of 10 | ± 3 |
| | 60 | | | | | | |
| | 80 | | | | | 225 | ± 4 |
| | 90 | | | | | | |

Note — Full size shank diameter equal to thread major diameter is also permitted.

*Tolerance on lengths of thread, b , shall be $+2.5P$ or 5 mm, whichever is greater.

IS : 730 - 1978

3.1 The screw-threads on the hook bolts shall conform to the tolerance class 8g as specified in IS : 4218 (Part IV)-1976 ' ISO metric screw threads: Part IV Tolerancing system (first revision) '.

4. Grade — Black grade (B) as specified in IS : 1367-1967 ' Technical supply conditions for threaded fasteners (first revision) '.

5. Mechanical Properties — Property class 4.6 of IS : 1367-1967.

6. Designation — Designation of hook bolts shall be as given in Table 4.

TABLE 4 DESIGNATION SYSTEM FOR HOOK BOLTS

| Name of Hook Bolt with Type | Size | Inside Width | Length | Designation |
|--|------|--------------|--------|--------------------------------------|
| J hook bolt of Type I | M6 | — | 80 | J Bolt I M6 × 80 IS : 730 |
| J hook bolt of Type II | M8 | — | 90 | J Bolt II M8 × 90 — R_1 * IS : 730 |
| J hook bolt of Type II with square nut | M8 | — | 90 | J Bolt M8 × 90N — R_1 * IS : 730 |
| L hook bolt | M8 | 50 | 140 | L Bolt M8 × 140 — 50 IS : 730 |
| L hook bolt with square nut | M8 | 50 | 140 | L Bolt M8 × 140N — 50 IS : 730 |
| U hook bolt of Type I | M10 | 60 | 160 | U Bolt I M10 × 160 — 60 IS : 730 |
| U hook bolt of Type II | M10 | 80 | 180 | U Bolt II M10 × 180 — 80 IS : 730 |
| U hook bolt of Type II with square nut | M10 | 80 | 180 | U Bolt II M10 × 180N — 80 IS : 730 |

*Radius R_1 also to be specified for this type of hook bolt (see Table 1)

7. Sampling — The method of sampling and acceptance criteria shall be in accordance with IS : 2614-1969 ' Methods for sampling of fasteners (first revision) '.

8. General Requirements

8.1 Hook bolts and nuts shall be surface protected with suitable coating as specified by the purchaser.

8.1.1 When the hook bolts and nuts are hot-dip galvanized, the requirements shall be in accordance with IS : 5358-1969 ' Specification for hot-dip galvanized coatings on fasteners '.

8.2 The square nuts used with the hook bolts shall conform to IS : 2585-1968 ' Specification for black square bolts and nuts (dia range 6 to 39 mm) and black square screws (dia range 6 to 24 mm) (first revision) '.

8.2.1 Square pressed nuts may also be supplied when required by the purchaser.

8.3 In regard to requirements not covered in the standard, the hook bolts shall conform to IS : 1367-1967.

9. Certification Marking — Details available with the Bureau of Indian Standards.

EXPLANATORY NOTE

This standard was first issued in 1956 and subsequently revised in 1966. In the present revision the following modifications have been made:

- a) Designation of property class has been brought in line with IS : 1367.
- b) Tolerances on screw threads on hook bolts have been brought in line with IS : 4218 (Part IV)-1976.
- c) Tolerances have been added to the dimensions of hook bolts.
- d) U-type hook bolts have been added since there is a demand for this type of hook bolts in the industry.
- e) The present revision covers only hook bolts. Mushroom head bolts and washers for corrugated sheet roofing are being covered in separate Indian Standards.

Product grade specified in 4 as black grade (B) would correspond to product grade C specified in the revision of IS : 1367 ' Technical supply conditions for threaded steel fasteners: Part II Product grades and tolerances ' to be published in due course.

This standard has also been brought in line with BS 1494 : Part I : 1964 : ' Fixing accessories for building purposes ', issued by British Standards Institution.