



**आईएस 8856 (Part 1): 2025 'वेल्ड ढिबरियाँ – भाग – 1; षटकोणी ढिबरियाँ'
के अनुसार उत्पाद मैनुअल**

**PRODUCT MANUAL FOR
Weld Nuts — Specification
Part 1 Hexagon Nuts as per IS 8856 (Part 1): 2025**

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो) अनुरूपता मूल्यांकन (विनियम, 2018 की योजना -I के तहत प्रमाणन के संचालन में एकरूपता और पारदर्शिता के लिए इस उत्पाद मैनुअल का उपयोग सभी क्षेत्रीय / शाखा कार्यालयों और लाइसेंसधारियों द्वारा संदर्भ सामग्री के रूप में किया जाएगा। दस्तावेज़ का उपयोग बीआईएस प्रमाणन प्राप्त करने के इच्छुक संभावित आवेदकों द्वारा भी किया जा सकता है।

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure uniformity of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification.

1.	मानक संख्या IS No.	:	IS 8856 (Part 1): 2025
	शीर्षक Title	:	Weld Nuts Part 1; Hexagon Nuts
	संशोधनों की संख्या No. of amendments	:	None
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Steel with a Maximum Carbon Mass of 0.25 Percent for Type A1, and 0.20 Percent for Type A2, Type B and Type F
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Quantity	:	Uncoated – 10 Pcs Coated – 10 Pcs
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	• Thread Size • Pitch • Type • Surface finish • Strength class (only for Type A2, Type B & Type F)
3.	परीक्षण उपकरणों की सूची	:	Please refer ANNEX – B

	List of Test Equipment		
4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer ANNEX – B
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All tests
6.	लाइसेंस का दायरा /Scope of the Licence:		
“License is granted to use Standard Mark as per IS 8856 (Part 1): 2025 with the following scope:			
Name of the product		Weld Nuts Part 1; Hexagon Nuts	
Thread Size		M3/M4/M5/M6/M8/M10/ 7/16-20 UNF2B/ M12/M16 (as applicable for different types)	
Pitch		Coarse / Fine	
Type		Type A1 / Type A2 / Type B / Type F	
Surface finish		As declared by the manufacturer	
Strength Class (Applicable only for Type A2, Type B & Type F)		5T / 8T	

ANNEX -A
Grouping Guidelines

1. Weld Nuts Part 1; Hexagon Nuts as per IS 6455: 2020 are classified based on the following:

Thread Size	M3/M4/M5/M6/M8/M10/ 7/16-20 UNF2B/ M12/M16 (as applicable for different types of nuts as per Table 2, Table 3 and Table 4)
Pitch	Coarse / Fine
Type	Type A1 / Type A2 / Type B / Type F
Surface finish	As declared by the manufacturer
Strength Class (Applicable only for Type A2, Type B & Type F)	5T / 8T

2. For considering GoL / CSOL, the following grouping shall be considered:
- (i) Samples of Hexagon Nuts of lowest thread size and highest thread size shall be tested to cover all other thread sizes including the thread size tested.
 - (ii) Samples of each type of Pitch shall be tested separately.
 - (iii) Samples of each Type shall be tested separately
 - (iii) Samples of each surface finish shall be tested separately.
 - (iv) For Type A2, Type B & Type F, samples from each strength class shall be tested.
3. However, the following relaxation may be considered for GoL / CSOL:
- (i) If samples of hexagon nuts with fine pitch is tested, samples of coarse pitch may be included in the scope of licence without further testing.
 - (ii) If nuts of highest strength class are tested, nuts of lower strength may be included in the scope of licence without further testing. (i.e. If strength class 8T is tested, strength class 5T may also be covered).
 - (iii) If coated sample is tested for all requirements, uncoated nuts may also be covered.
4. The Scope of License may be restricted based on the manufacturing and testing capabilities of the manufacturer.
5. During the operation of License, it shall be ensured that all the varieties of bearings covered in the License are tested in rotation, to the extent possible.

ANNEX- B
LIST OF TEST EQUIPMENTS
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Dimensions (Cl. 4, Table 2, Table 3 and Table 4) Limit Deviations, Geometric Tolerances (Cl. 5 & Table 5) Acceptance Inspection (Cl. 5 & Table 5)	Profile Projector Vernier Caliper Plunger Dial Gauge Contracer Vision Measurement System Radius gauge Angle gauge
2	Thread (Cl. 5 & Table 5)	Thread plug gauge (GO & NO-GO)
3	Mechanical Properties (Cl. 5, Table 6 and Table 7)	Universal Testing Machine
3	Surface Finish (Cl. 5 & Table 5)	Coat meter Salt spray tester with heater and temperature controller Stop watch / Timer

ANNEX C

SCHEME OF INSPECTION AND TESTING

1. QUALITY ASSURANCE PLAN

1.1 It is expected that during operation of BIS licence, manufacturers will implement a Quality Assurance Plan (QAP) i.e. a plan of regular testing and in-process controls, designed to ensure that the product bearing the Standard Mark conforms to all requirements of the Indian Standard.

1.2 The manufacturers shall define a Quality Assurance Plan (QAP) defining the control unit (i.e. lot/batch etc.), the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and declare the arrangement for testing i.e. whether in-house or subcontracting/sharing and submit the same to BIS Branch Office for information. The manufacturer shall comply with the QAP and maintain test records in accordance with Para 2.1.

1.2 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.2.1 For the guidance of manufacturers, the recommended definition of control unit is: *Hexagon Nuts of same type and same thread size manufactured in a day under similar process condition from the same consignment of raw materials* shall constitute a control unit.

1.3.2 For the guidance of manufacturers in preparing the Quality Assurance Plan, recommended levels of control are given in **Table 1**. Manufacturer has the discretion of declaring their own levels of control or accept the levels of control given in this document.

1.3.3 The manufacturer shall ensure inspection and testing as per the Quality Assurance Plan submitted by them on the whole production of the factory which is covered by this plan.

2. ENSURING COMPLIANCE THROUGH TESTING- Manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard. However, there is no obligation to maintain in-house laboratory. Licensee may use alternative arrangements for tests of the production as per the declared QAP. Various alternatives are available for operation of BIS certification as given below and the relevant guidelines for availing such relaxations by the manufacturers, as amended from time to time, are to be referred:

i. Shared testing resources like common facility,

ii. Cluster based testing facility,

iii. Sub-contracting to outside laboratories which may either be:

a. BIS recognised/empanelled laboratories, or

b. Any accredited laboratory as per ISO/IEC 17025

2.1 TEST RECORDS- The manufacturers maintaining an in-house laboratory or utilizing common cluster based facilities or shared test facilities shall maintain test records for the tests carried out to establish conformity. For the tests being subcontracted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025, test reports issued by the laboratories shall be available for inspection by BIS.

3. PACKING AND MARKING - The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the packaging of the *Hexagon Nuts* provided always that the bearings so marked conforms to each requirement of the specification.

3.1 Marking shall be done as per Cl. 7 of IS 8856 (Part 1): 2025.

3.2 **Additional Marking requirements:** The *Hexagon Nuts* shall also be marked with the following additional requirement on its packaging:

a) “For BIS certification details please visit www.bis.gov.in”

3.3 All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark.

4. HYGIENIC CONDITIONS (if applicable) – NA.

5. REJECTION - Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act,2016.

TABLE-1

(1)				(3)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
4	Dimensions	Cl. 4 (Table 2 Table 3 Table 4)	IS 8856 (Part 1)	Firm to have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
5	General Requirements	Cl. 5 Table 5	IS 8856 (Part 1)			
5	Thread	Cl. 5 Table 5	IS 8856 (Part 1)			
5	Limit Deviations, Geometric Tolerances	Cl. 5 Table 5	IS 8856 (Part 1)			
5	Acceptance Inspection	Cl. 5 Table 5	IS 8856 (Part 1)			
5	Mechanical Properties	Cl. 5 (Table 6 Table 7)	IS 8856 (Part 1)	Three	Each Control Unit	
5	Surface Finish	Cl. 5 Table 5	IS 8856 (Part 1)	Three	Each Control Unit	