



**उत्पाद मैनुअल
षटकोणी वेल्ड ढिबरियाँ
आई एस 8856:1991 के अनुसार**

**PRODUCT MANUAL FOR
HEXAGON WELD NUTS
ACCORDING TO IS 8856: 1991**

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: 1991
	शीर्षक Title	:	HEXAGON WELD NUTS
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	As per Cl. 3 of IS 8856
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer to <i>Annex-A</i>
c)	नमूने का परिमाण Sample Quantity	:	Six pieces
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer to <i>Annex-B</i>

4.	निरीक्षण और परीक्षण की स्कीम Scheme of Inspection and Testing	:	Please refer to <i>Annex-C</i>
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All tests
6.	लाइसेंस का दायरा /Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 8856: 1991 with the following scope:		
	Name of the product	Hexagon Weld Nuts of Product grade A	
	Designation	(For guidance refer example given in Cl. 4 of IS 8856)	
	Finish	(To be declared by the manufacturer)	

भारतीय मानक ब्यूरो
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ANNEX-A
GROUPING GUIDELINES

1. Hexagon Weld Nuts of Product grade A are classified based on the following:
 - i. Thread size
 - ii. Property Class – As per Table 3 of IS 1367-6
 - iii. Surface Finish
2. For considering GoL/CSoL, the following grouping guidelines shall be followed:
 - i. Sample(s) of lowest thread size and highest thread size shall be tested to cover all the intermediate thread sizes including the thread size tested.
 - ii. Samples from each property class shall be tested.
 - iii. Sample of each surface finish is to be tested.

Note: If coated sample is tested for all requirements, corresponding uncoated nuts of same thread size may also be covered.
3. The Firm shall declare the varieties of Hexagon Weld Nuts they intend to cover in the License. The Scope of License may be restricted based on the Manufacturing and testing capabilities of the manufacturer.
4. During operation of license, BOs shall ensure that all types of Hexagon Weld Nuts covered in the license are tested in rotation, to the extent possible.

ANNEX – B**LIST OF TESTS EQUIPMENTS**
(INDICATIVE LIST, FOR GUIDANCE ONLY)

Sl. No	Tests used in with clause reference	Test equipment
1.	Dimension, Cl. 3, Table 1 & 2	Micrometer Scale Dial gauge Radius gauge Plunger Dial Gauge Vision Measurement System Profile Projector
2.	Threads and tolerances, Cl. 3	Go-No Go gauges Radius gauge, angle gauge Thread gauge
3.	Material, Cl. 3	Spectrometer
4.	Hardness, Cl 3 Mechanical Properties, Cl. 4	Vickers Harness Tester
		UTM Hardness Tester Impact Tester Optical
5.	Surface Finish, Cl. 5	Coat meter Salt spray tester with heater and temperature controller Stop watch / Timer Sulfurdioxide
6.	Surface discontinuities, Cl. 5	MPI Liquid penetrate or other NDT Methods

ANNEX CSCHEME OF INSPECTION AND TESTING**1. QUALITY ASSURANCE PLAN**

1.1 It is expected that manufacturers (licensees/applicants) will implement a Quality Assurance Plan 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 defining the control unit (i.e. lot/batch etc.) and the levels of control (i.e. the frequency and number of samples for conducting the different tests as per the Indian Standard) and submit the same to BIS Branch Office for information. The manufacturer shall comply with the same and maintain test records in accordance with para 2.4.

1.3 RECOMMENDED LEVELS OF CONTROL/CONTROL UNIT:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *Hexagon weld nuts of same thread size and surface condition 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**.

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. Alternatively, the manufacturer has the option of adherence to the quality plan as per levels of control recommended in column 3 of Table 1.

1.4 However, all manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard.

2. ENSURING COMPLIANCE THROUGH TESTING- It is expected that manufacturers (licensees/applicants) will establish a suitably equipped and staffed in house laboratory (In house testing facility) for testing at least those parameters of the Indian Standard which require routine testing for ensuring quality of the product. This includes in-process controls as may be defined and put in place by the manufacturer and testing parameters/requirements which can only be performed in the factory.

2.1 For the guidance of manufacturers, Table 1 giving the recommended levels of control is given below. Column 2 of Table 1 indicates routine tests where test equipment is required in house as “R” or other tests which can be subcontracted as “S”. Subcontracting is permitted to BIS recognized/empanelled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.2 For MSME manufacturers, the requirement of maintaining a laboratory/in-house testing facility for routine tests (indicated as “R” in Column 2 of Table 1) is also optional.

2.2.1 MSME manufacturers may utilize common cluster based facilities as per guidelines for the utilization of cluster based test facilities by MSMEs or the provisions of Sharing of testing facilities or get testing done from BIS recognized/empaneled laboratory or any other laboratory having valid NABL accreditation as per IS/ISO/IEC 17025.

2.3 Large Scale manufacturers shall maintain an in-house laboratory equipped at least with test facilities for routine tests (indicated as “R” in Column 2 of Table 1), where different tests given in the specification shall be carried out in accordance with the method given in the specification. They shall also implement a calibration plan for the in-house test equipment.

2.3.1 Alternatively, in lieu of an in-house laboratory, large scale manufacturers can also utilize the provisions of Sharing of testing facilities as per the Guidelines for Grant of Licence available on BIS website www.bis.gov.in. (Under Conformity Assessment>Product Certification Process). Even for subcontracted tests, provisions for sharing of testing facilities can be utilized.

2.4 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 provided always that the material so marked conforms to each requirement of the specification.

3.1 Packing and Marking shall be done as per Cl. 7 of IS 8856: 1991.

3.2 **Additional Marking requirements:** The packaging shall also be marked with the following additional requirement on the individual product packaging.

- a) “For BIS certification details please visit www.bis.gov.in”
- b) Thread Size, Lot No., Name and Address of the Manufacturer.

4. HYGIENIC CONDITIONS (if applicable) – No Specific requirements mentioned in the standard and hence not applicable for this product.

5. REJECTION - All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark. 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
(ONLY FOR GUIDANCE PURPOSE)

(1)				(2)	(3)		
Test Details				Test equipment requirement	Levels of Control		
Cl.	Requirement	Test Methods		R: required (or) S: Sub-contracting permitted	No. of Samples	Frequency	Remarks
		Clause	Reference				
	Raw Material						
4	Material (Chemical Composition)	Table 3	IS 8856	S	One	Each Consignment	No further testing is required, if accompanied with test certificate or ISI marked.
	Product Requirements						
3	Dimensions	3 (Table 1 Table 2)	IS 8856	R	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		
3	Thread	3	IS 14962-2 IS 14962-3	R			
3	Material (Hardness)	3	IS 8856	R			
5.1	Surface discontinuities	-	IS 1367-10	R			
5.2	Surface Finish	-	IS 1367 (Part 1)	R	03	Each batch of surface condition treatment	