



उत्पाद मैनुअल

स्टेनलेस इस्पात के टक्करदार कब्जे,

आईएस १२८१७ : २०२० के अनुसार

**PRODUCT MANUAL
STAINLESS STEEL BUTT HINGES,
ACCORDING TO IS 12817: 2020**

यह उत्पाद नियमावली सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसधारियों द्वारा विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना-I के अंतर्गत प्रमाणन के संचालन में एकरूपता और पारदर्शिता सुनिश्चित करने के लिए संदर्भ सामग्री के रूप में उपयोग की जाएगी। बीआईएस प्रमाणन प्राप्त करने के इच्छुक भावी आवेदक भी इस दस्तावेज़ का उपयोग कर सकते हैं।

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 12817 : 2020
	शीर्षक / Title	:	Stainless Steel Butt Hinges
	संशोधनों की संख्या No. of amendments	:	2
2.	नमूनाकरण दिशानिर्देश / Sampling Guidelines		
a)	कच्चा माल Raw material	:	Please refer ANNEX – A <i>Note: This section indicates the requirements for raw material (if specified in the IS) for which compliance is to be established during Grant of Licence/Change in Scope of Licence/Factory Surveillance.</i>
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – B
c)	नमूने का परिमाण Sample Quantity	:	12 Nos for all tests <i>Note: This section indicates the quantity of the sample of the product and/or the raw material (if applicable), required to be sent to the laboratory for testing, for the purpose of Grant of Licence/Change in Scope of Licence/ Factory Surveillance (incase of market surveillance, effort may be made to procure therequired quantity of product sample, as far as possible since raw material sample may not be available in market)</i>
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर	:	Same as the scope of licence.

	Parameters to be Declared in Test Request		Note: Apart from the above, any other requirements/ parameters may also be declared as per the standard, as applicable.
3.	परीक्षण उपकरण की सूची List of Test Equipment	:	Please refer ANNEX – C
4.	निरीक्षण एवं परीक्षण योजना Scheme of Inspection and Testing	:	Please refer ANNEX – D
5.	एक दिन में संभावित परीक्षण Possible tests in a day	:	All Test as per IS 12817 : 2020 except Salt spray test (Corrosion resistance) Note: This section is for the guidance of BIS Certification Officers/ Technical Auditors of BIS Authorized Outside Surveillance Agencies (OSAs) during factory inspection to provide ready reference regarding the tests which can be witnessed during the inspection in the factory by the officer/ auditor.
6.	लाइसेंस का दायरा /Scope of the Licence:		
“License is granted to use Standard Mark as per IS 12817 : 2020 with the following scope:			
Name of the product		Stainless Steel Butt Hinges	
Construction		Plain joint hinges/ Washer hinges/ Bearing hinges/ Welded hinges.	
Type		a) Light weight (narrow) hinges, b) Light weight unequal flap hinges, c) Medium weight hinges, d) Medium weight (narrow) hinges, e) Heavy weight unequal flap hinges, and f) Heavy weight hinges.	
Grade of Corrosion resistance		Grade 3/ Grade 4. Note: For Bearing hinges and welded hinges : minimum Grade 4	
Size		a) Standard Dimensions: Size : length (A) mm [as per Table 1 to Table 6 of IS 12817] b) Any Other Dimensions: Size: (Length X Breadth X thickness of flap X diameter of pin) mm	

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ANNEX -A
Details of Raw Materials

Raw Materials	Indian Standards
Flap (Stainless steel)	Shall confirm to any grade mentioned in IS 6911.
Pin (Stainless steel)	Shall confirm to any grade mentioned in IS 6528.

NOTE: Other stainless steel materials may also be used as agreed between the manufacturer and the purchaser subject to declaration of the applicable Indian Standard and grade.

ANNEX -B
Grouping Guidelines

1. Stainless Steel Butt Hinges are classified based on the following:

A) Construction:

- a. Plain joint hinges,
- b. Washer hinges,
- c. Bearing hinges.
- d. Welded hinges

B) Type:

- a) Light weight (narrow) hinges,
- b) Light weight unequal flap hinges,
- c) Medium weight hinges,
- d) Medium weight (narrow) hinges,
- e) Heavy weight unequal flap hinges,
- f) Heavy weight hinges.

C) Grade of corrosion resistance:

Grade 3, Grade 4

D) Sizes:

- a) Size : (Length X Breadth X thickness of flap X diameter of pin)

2. Considering the above, one sample of each type of Stainless Steel Butt Hinges having minimum and maximum size shall be drawn to cover all the sizes of Stainless Steel Butt Hinges in that type tested.
3. If the manufacturer intends to cover more than one construction of Stainless Steel Butt Hinges, the samples shall be selected in such a manner that all the constructions proposed to be covered under the licence are represented through the samples drawn for the different types of Stainless Steel Butt Hinges.
4. If Grade 4 of corrosion resistance is tested for a particular type of Steel Butt Hinges, then Grade 3 of corrosion resistance for that type will be covered, provided that Indian standard and grade of the material used is same.

Note: In case of bearing hinges and welded hinges, the requirement of neutral salt spray test as per IS 5528 shall be of minimum grade 4.

5. The Firm shall declare the varieties of Stainless Steel butt hinges they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
6. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

NOTE: Grant of licence under IS 12817:2020 is to be considered to such manufacturing units having at least one in-house manufacturing process before the final assembly stage of production

ANNEX- C**List of Test Equipments***(Indicative List, For Guidance Only)*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions and Tolerances (Cl 6)	a) Vernier Calliper b) Micrometre c) Dial thickness guage.
2.	Manufacture (Cl 7)	- Screws of appropriate number - Vernier Callipers - Tri-Square
3.	Corrosion Resistance and Finish (Cl.8) Salt Spray Test	- Spray Cabinet, - Means of supplying and controlling heat, - Means for spraying the salt solution, - weighing balance, - PH meter, - Sodium chloride

The above list is indicative only and may not be treated as exhaustive.

ANNEX D

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 sub-contracting/ sharing for each applicable test 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.

1.3 Recommended Levels of Control/ Control Unit:

- 1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *All stainless steel butt hinges of the same construction, type, size, material and additional description manufactured in a day 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.

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

2. ENSURING COMPLIANCE THROUGH TESTING

The manufacturers shall ensure compliance of their products to all the requirements of the Indian Standard for which they may have in-house test facilities. 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 shall maintain test records for the tests carried out (either in-house or at a sub-contracted or at shared test facility) to establish conformity of the product to the Standard for operation of licence. For the tests being subcontracted or conducted at a shared test facility, test results issued by the laboratories or test facilities, shall be made 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 each stainless steel butt hinge provided always that the material so marked conforms to all requirements of the specification.

3.1 Marking on each stainless steel butt hinge shall be done as per Cl. 11.2 of IS 12817: 2020

3.2 **Additional Marking requirements:** Each cabinet hinge shall also be marked with the following additional requirement on each packing:

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

4. REJECTION

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*(Recommended Levels of Control by BIS- for Guidance Only)*

(1)				(3)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
4	Materials	4	IS 12817	One	Each consignment	No further testing required if accompanied with test certificate or ISI marked
6	Dimensions and Tolerances	6	IS 12817	Firm to have adequate in-process controls to check compliance of this parameter. However, appropriate records shall be maintained by the manufacturer for evidence of conformity		
7	Manufacture	7	IS 12817			
8	Corrosion Resistance and Finish	-	IS 5528	One	Once in Six Months	All the varieties produced during the period shall be tested