



उत्पाद मैनुअल

टेलीस्कोपिक बॉल बेयरिंग दराज की स्लाइड,

आईएस १७९५४ : २०२३ के अनुसार

**PRODUCT MANUAL
TELESCOPIC BALL BEARING DRAWER SLIDE,
ACCORDING TO IS 17954: 2023**

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 17954 : 2023
	शीर्षक / Title	:	Telescopic Ball Bearing Drawer Slide
	संशोधनों की संख्या No. of amendments	:	3
2.	नमूनाकरण दिशानिर्देश / Sampling Guidelines		
a)	कच्चा माल Raw material	:	(1) The material of metallic components used for manufacturing of drawer slide shall be as declared by the manufacturer {i.e. material conforming to IS 513 (Part 1) or IS 513 (Part 2) or any other material conforming to relevant Indian Standards} (2) The balls shall confirm to Clause 5.11 of IS 17954:2023. (3) The rivets shall confirm to Clause 5.10 of IS 17954:2023. <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 – A
c)	नमूने का परिमाण Sample Quantity	:	6 sets of Drawer Slides <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</i>

		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)
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	Same as the scope of licence. <i>Note: Apart from the above, any other requirements/ parameters may also be declared as per the standard, as applicable.</i>
3.	परीक्षण उपकरण की सूची List of Test Equipment	: Please refer ANNEX – B
4.	निरीक्षण एवं परीक्षण योजना Scheme of Inspection and Testing	: Please refer ANNEX – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day	: i. Dimensional Requirements as per Table 2. ii. Vertical Load Test iii. Horizontal Load Test. iv. Coating Thickness <i>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.</i>
6.	लाइसेंस का दायरा /Scope of the Licence:	
“License is granted to use Standard Mark as per IS 17954 : 2023 with the following scope:		
Name of the product		Telescopic Ball Bearing Drawer Slide
Class		Light duty/ Medium duty/ Heavy duty/ Super heavy duty
Size (mm)		250/ 300/ 350/ 400/ 450/ 500/ 550/ 600/ 650/ 700/ any other sizes as agreed between the manufacturer and purchaser
Additional Features		- With self-opening mechanism - With self-closing mechanism

भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग

Manak Bhawan, 9, Bahadur Shah Zafar Marg

नई दिल्ली- ११०००२

New Delhi – 110002

ANNEX -A
Grouping Guidelines

1. (i) Telescopic Ball Bearing Drawer Slide as per IS 17954:2023 are classified as given below:
 - a) Size (mm) : 250/ 300/ 350/ 400/ 450/ 500/ 550/ 600/ 650/ 700/ any other sizes as agreed between the manufacturer and purchaser.
 - b) Class : Light duty/ Medium duty/ Heavy duty/ Super Heavy duty.
 - c) Additional features : with self-opening mechanism, with self-closing mechanism.

(ii) The firm shall declare the varieties, i.e. size, class and additional features of drawer slides they intend to cover in the Licence.
2. Based on the above classifications, the following grouping guidelines shall be followed for considering GoL/CSoL:
 - a) Drawer slide of each class and additional features shall be tested to cover that particular class and additional features.
 - b) Highest and lowest sizes of drawer slides from each class and additional features shall be tested to cover all the sizes in that range including the sizes tested, for that class and additional features.
3. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
4. If a firm intends to cover any other size within the size range which is already covered in the scope of licence, then the provision of Change in Scope of licence (CSoL) shall be followed with in house test report(s) of the sizes of drawer slides.
5. Firm shall declare the details of material of metallic components {i.e. material as per IS 513 (Part 1) or IS 513 (Part 2) or any other material with the relevant Indian Standards} used for manufacturing of each class of drawer slide.
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 17954:2023 is to be considered to such manufacturing units having at least one in-house manufacturing process before the final assembly stage of production.

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

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions and Tolerances (Cl 4 & 5)	Vernier Calipers Micrometer
2.	Vertical Load test (Cl 7)	Test jig (as per Fig 2) Arrangement to apply vertical load of 100/150/200 N (as applicable) Steel scale, Stopwatch/timer, Mass – 30/45/60/120 kg (as applicable)
3.	Horizontal Load test (Cl 8)	Test jig (as per Fig 3) Arrangement to apply horizontal load of 50/75/100 N (as applicable) Steel scale, Stopwatch/timer, Mass – 30/45/60/120 kg (as applicable)
4.	Durability Test, (Cl.9)	Test set up as per Fig 4 with automatic force application and counter of cycles, Typing paper or an equivalent alternate Additional mass of steel (as applicable) Velocity measuring instrument
5.	Deflection Test (Cl 10)	Test set up as per Fig 5 Deflection gauges
6.	Slam test (Cl 11)	steel scale, Mass – 30/45/60/120 kg (as applicable) Velocity measuring instrument
7.	Finish (Cl. 12) - Salt Spray Test	Spray Cabinet, Means of supplying and controlling heat, Means for spraying the salt solution, weighing balance, PH meter, Sodium chloride
8.	Finish (Cl. 12) – Coating Thickness	Coat thickness guage

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

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 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 drawer slides of the same class, size and material manufactured under similar conditions of manufacturing 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 drawer slide provided always that the material so marked conforms to all requirements of the specification.

3.1 Marking on each drawer slide shall be done as per Cl. 14 of IS 17954: 2023

3.2 **Additional Marking requirements:** Each drawer slide 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			
5.1, 5.10, 5.11	Metal components (Cl 5.1)	IS 513(pt 1)/ IS 513(pt 2)/ any other material conforming to relevant Indian Standards		One	Each consignment	No further testing required if accompanied with test certificate or ISI marked
	Rivets (Cl 5.10)	IS 280/ any other material conforming to relevant Indian Standards		One	Each consignment	No further testing required if accompanied with test certificate or ISI marked
	Balls (Cl 5.11)	5.11	IS 17954 IS 2898(Pt 1)	One	Each consignment	No further testing required if accompanied with test certificate or ISI marked
4	Dimensions and Tolerances	4	IS 17954	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	Components and Manufacture	5	IS 17954			
7	Vertical Load test	7	IS 17954	One	Each Control unit	
8	Horizontal Load test	8	IS 17954	One	Each Control unit	
9	Durability Test	9	IS 17954	One	Once in six months	One sample from each class produced during the period shall be tested
10	Deflection Test	10	IS 17954			
11	Slam test	11	IS 17954			
12	Finish - Salt Spray Test	12	IS 9844 IS 17954			
12	Finish – Coating Thickness	12	IS 17954	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		