



उत्पाद मैनुअल
भारतीय मानक 6458: 2026 के अनुसार दोहरी पंक्ति बेलनाकार रोलर बियरिंग्स के लिए

दस्तावेज़ संख्या – पी एम/आई एस 6458 /1/ मई 2026

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिश्रिता की सुसंगतता सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों और लाइसेंसी द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस प्रमाणीकरण लाइसेंस/ प्रमाणपत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग किया जा सकता है।

PRODUCT MANUAL FOR
DOUBLE ROW CYLINDRICAL ROLLER BEARINGS
ACCORDING to IS 6458: 2026

Document No.- PM/IS 6458/1/May 2026

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence 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 licence/certificate.

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PRODUCT MANUAL FOR DOUBLE ROW CYLINDRICAL ROLLER BEARINGS ACCORDING TO IS 6458: 2026

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- 1 के तहत प्रमाणन के संचालन में अभ्यास और पारदर्शिता के संचालन में पारदर्शिता सुनिश्चित करने 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 लाइसेंस/प्रमाणपत्र 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 coherence 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 licence/certificate.

1.	उत्पाद Product:	IS 6458: 2026
	शीर्षक Title:	Double Row Cylindrical Roller Bearings
	संशोधन संख्या No. of Amendments:	Nil
2.	नमूनाकरण दिशानिर्देश Sampling Guidelines:	
a)	कच्चा माल Raw material :	As per Cl. 6 – ‘Rolling element’, Cl. 7.1 - ‘Rings’ and Cl. 7.2- ‘Cage’ of IS 6458: 2026 <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</i>
b)	समूहीकरण दिशानिर्देश Grouping guidelines :	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Size :	03 Nos, (Adequate number of sample to be drawn to ensure complete test as per the Standard, as applicable to the variety being drawn) <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 (in case of market surveillance, effort may be made to procure the required quantity of product sample, as far as possible since raw</i>

		material sample may not be available in market).
3.	परीक्षण उपकरणों की सूची List of Test Equipment:	Please refer ANNEX – B
4.	निरीक्षण व परीक्षण की स्कीम Scheme of Inspection and Testing:	Please refer ANNEX – C
5.	एक दिन में संभावित परीक्षण Possible tests in a day:	All tests except Cl. 12.5
6.	लाइसेंस का कार्यक्षेत्र Scope of the Licence:	Licence is granted to use Standard Mark as per IS 6458: 2026 with the following scope:
	Name of the Product:	Double Row Cylindrical Roller Bearings
	Nominal diameter, mm	Frommm tomm
	Material	Rolling element (to be declared by the manufacturer)
		Cage (to be declared by the manufacturer)
		Ring (to be declared by the manufacturer)
	Tolerance class	P 0 (tolerance class normal) / P 6 (tolerance class 6) / P 5 (tolerance class 5) / P 4 (tolerance class 4) / P 2 (tolerance class 2)

ANNEX A

Grouping Guidelines

1. Manufacturers shall declare all the designations of Double Row Cylindrical Roller Bearings they intend to cover in the scope of licence.
2. Double Row Cylindrical Roller Bearings as per IS 6458: 2026 are classified into different varieties based on the following:

Nominal diameter, mm		Frommm tomm
Material	Rolling element	<i>(to be declared by the manufacturer)</i>
	Cage	<i>(to be declared by the manufacturer)</i>
	Ring	<i>(to be declared by the manufacturer)</i>
Tolerance class		P 0 (tolerance class normal) / P 6 (tolerance class 6) / P 5 (tolerance class 5) / P 4 (tolerance class 4) / P 2 (tolerance class 2)

3. Further, Double row cylindrical roller bearings can be grouped according to nominal diameters into following 4 groups:

Group	Nominal diameter covered
Group- I	up to and including 120 mm
Group- II	Above 120 mm to up to and including 250 mm
Group- III	Above 250 mm to up to and including 400 mm
Group- IV	Above 400 mm

4. Considering the above, the guidelines given below shall be followed for Grant of Licence /Change in Scope of Licence:
 - (a) Samples of Roller Bearings for each type of material (for rolling elements, ring and cages), and each tolerance class shall be tested separately.
 - (b) Samples of any nominal diameter from each of the group defined in para 3 above, shall be tested to cover all other bearing bore diameter in that group. However, it shall be ensured that bearings of the largest bore diameter in the overall range of diameters, for which the firm intends to take the licence, shall be tested.
 - (c) If sample of Roller Bearings having highest Tolerance class is tested, all other tolerance class may be included in the scope of licence without further testing.
Note: Tolerance class grading - P 2 (tolerance class 2) > P 4 (tolerance class 4) > P 5 (tolerance class 5) > P 6 (tolerance class 6) > P 0 (tolerance class normal)
5. The Firm shall declare the varieties 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: Manufacturer shall submit the following:

- a) Radial Internal Clearance as per Cl. 8 of IS 6458.
- b) Hardness requirement, if any special heat treatment is made as per Cl. 10 of IS 6458.
- c) Load Ratings as per Cl. 11 of IS 6458.
- d) Product noise as agreed (if any) as per Cl. 12.2 of IS 6458

ANNEX B**List of Test Equipment**

Indicative list of major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1.	Dimensions and Tolerances (Cl. 5),	Coordinate Measuring Machine (CMM) Height Gauge/Bore & OD Micrometer Dial Gauge
2.	Radial internal clearance (Cl. 8)	Test set up as per Method B given at 16.2 of IS 11027-2
3.	Surface finish (Cl. 9)	Test set up as per IS 3073
4.	Hardness (Cl. 10)	Test set up as per IS 1586-1 OR IS 1501-1
5.	Dimensional stability at high temperature (Cl. 12.4)	Oven

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 subcontracting/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 : Quantity of Double Row Cylindrical Roller Bearings of same tolerance class of same nominal diameter manufactured in a day under similar process condition from the same consignment of raw materials.
- 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 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 recognized/empaneled 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. PACKAGING, LABELLING AND MARKING** – As per the requirements given in IS 6458: 2026. The Standard Mark as given in the Schedule of the licence shall be incorporated legibly and indelibly on the packaging of the product, provided always that the product so marked conforms to each requirement of the specification.

3.1 Additional Marking requirements: Additionally, the following shall also be marked on product or package :

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- 4. 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 (Recommended levels of control- For guidance only)

(1)				(2)		
Test Details				Levels of Control		
Cl.	Requirement	Test Method		No. of Sample	Frequency	Remarks
		Clause	Reference			
6, 7	Material	6,7	IS 6458 IS 9202 IS/ISO 12297-2 IS 17111 IS 1079 IS 4397 IS 513-1	One	Each consignment	No further testing is required, in case the material is ISI Marked or is received along with test certificate
5	Tolerances and Geometrical Characteristics	5	IS 6458 IS 5692	Manufacturer shall exercise adequate levels of control to ensure that entire production is conforming. Records shall be maintained		
8	Radial internal clearance	8	IS 6458 IS 11027-2			
9	Surface finish	9	IS 6458 IS 3073			
12	Workmanship and Delivery requirement	12.1 to 12.5, except 12.4	IS 6458			
12.4	Temperature stability	12.4	IS 6458	One	Once in a month	Bearing of every tolerance class and made from every material, manufactured in the month shall be tested