



उत्पाद मैनुअल
रोलिंग बीयरिंग – बेलनाकार रोलर्स
आई एस 9202: 2020

PRODUCT MANUAL FOR
Rolling Bearings — Cylindrical Rollers
as per IS 9202: 2020

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 9202: 2020
	शीर्षक Title	:	Rolling Bearings — Cylindrical Rollers
	संशोधनों की संख्या No. of amendments	:	Nil
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	As per IS 17111
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer ANNEX – A
c)	नमूने का परिमाण Sample Quantity	:	10 Pcs
d)	परीक्षण अनुरोध में घोषित किए जाने वाले पैरामीटर Parameters to be Declared in Test Request	:	• Grade • Nominal Dia
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 – C
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 <i>IS 9202: 2020</i> with the following scope:			
Name of the product		Rolling Bearings — Cylindrical Rollers	
Grade		GN / G1	
Nominal Dia			

ANNEX -A
Grouping Guidelines

1. Rolling Bearings - Cylindrical Rollers as per IS 9202 may be classified as below:

- a) Grade – GN / G1
- b) Nominal Dia – 3 mm to 80 mm

2. The Cylindrical rollers are further classified based on the following:

Group	Nominal diameter of the cylindrical roller
Group – I	Upto and including 26 mm
Group – II	Above 26 mm to upto and including 48 mm
Group – III	All other above 48 mm

3. For considering GoL / CSOL, sample of each Grade of Cylindrical Rollers of any nominal diameter (preferably the largest) from each of the group having any length shall be tested to cover all other nominal diameters in that particular grade for which firm is having complete manufacturing and testing facilities. However, it shall be ensured that rollers of largest nominal dia for which the firm intends to take the licence, is tested.
4. However, the following relaxation may be considered:
 - a) If samples of G1 grade is tested, GN grade may be included in the scope of licence without further testing.
5. The Scope of License may be restricted based on the Manufacturing and testing capabilities of the manufacturer.
6. During the operation of License, it shall be ensured that all the varieties covered in the License are tested in rotation, to the extent possible

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

S.No.	Tests used in with Clause Reference	Test Equipments
1.	Tolerances on Diameter and Length (Cl. 5.3)	Coordinate Measuring Machine Optical Comparator Size or Taper Gauge Roundness Tester Length Gauge
2.	Edge Spacing (Cl. 5.4)	Profile Gauge (Computerized)
3.	Material (Cl. 6)	Spectrometer (OES)
4.	Hardness (Cl. 7)	Rockwell Hardness Tester
5.	Surface Roughness for Lateral Surface (Cl. 10.1)	Profile Gauge (Computerized)
6.	Surface Roughness for End Face (Cl. 10.2)	Profile Gauge (Computerized)
7.	Axial Runout (Cl. 10.3)	End Run-out Gauge

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:

1.3.1 For the guidance of manufacturers, the recommended definition of control unit is: *Cylindrical Rollers of same grade having same nominal dia and length 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 Cylindrical Rollers provided always that the Cylindrical Rollers so marked conforms to each requirement of the specification.

3.1 Marking shall be done as per Cl. 12.3 of IS 9202: 2020.

3.2 **Additional Marking requirements:** The Cylindrical Rollers 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)				(2)		
Test Details				Levels of Control		
Cl.	Requirement	Test Methods		No. of Sample	Frequency	Remarks
		Clause	Reference			
6	Materials	6	IS 9202	Each Consignment		No further testing is required, if accompanied with test certificate or ISI marked
5	Basic Design, Dimensions, Weights					
5.1	Basic Design	5.1 & Fig 1	IS 9202	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.		
5.2	Roller Dimension and Weights	5.2 & Table 1	IS 9202			
5.3	Tolerances					
5.3.1	Tolerances on Diameter	5.3.1 & Table 2	IS 9202	01	Each Control Unit	Firm to also have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity.
5.3.2	Tolerances on Length	5.3.2 & Table 3	IS 9202	01	Each Control Unit	
5.4	Edge Spacing	5.4.1 to 5.4.3 & Table 4	IS 9202	01	Each Control Unit	
7	Hardness	7	IS 9202	01	Each Control Unit	
10	Finish					
10.1	Surface Roughness for Lateral Surface	10.1, Table 2	IS 9202	01	Each Control Unit	Firm to also have adequate in-process controls to check compliance of this parameter as per the tolerances given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity.
10.2	Surface Roughness for End Face	10.2, Table 5	IS 9202	01	Each Control Unit	
10.3	Axial Runout	10.3, Table 5	IS 9202	01	Each Control Unit	