



**PRODUCT MANUAL FOR
RING WRENCHES (SPANNERS)
ACCORDING TO IS 2029:1998**

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.	Product	:	IS 2029:1998
	Title	:	Ring Wrenches (Spanners)
	No. of Amendments	:	1
2.	Sampling Guidelines:		
a)	Raw material	:	As per clause 4 of IS 2029:1998
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	(i) Mechanical – 2 pcs (ii) Chemical – 5 pcs of 5 cm × 5 cm
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day	:	All Tests
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 2029: 1998 with the following scope:		
	Name of the product	Ring Wrenches (Spanners)	
	Torque Series	A / B	
	Type		
	Nominal Width Across Flats		

ANNEX A

Grouping Guidelines

1. Ring Wrenches (Spanners) as per IS 2029: 1998 are classified based on the following:

a) Type

- (i) Cranked Double-Ended Ring Wrenches
- (ii) Straight Double-Ended Ring Wrenches
- (iii) Angled Double-Ended Ring Wrenches
- (iv) Double-Ended Offset Ring Wrenches
- (v) Double-Headed Flat Box Wrenches
- (vi) Double-Headed Offset Box Wrenches
- (vii) Double-Headed Deep Offset Box Wrenches
- (viii) Double-Headed Modified Offset Box Wrenches

b) Torque Series

- i) Series A
- ii) Series B

c) Size (Nominal Width across Flats)

2. For considering GoL/CSoL, the guidelines given below shall be followed:

- Sample of lowest and highest size (Nominal Width across Flats) from each Type and Torque Series shall be tested for all requirements to cover all sizes (Nominal Width Across Flats) in that size range for the particular Type and Torque series tested.

3. The Firm shall declare the Varieties of Ring Wrenches (Spanners) they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.

4. 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.

ANNEX B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Dimensions (Clause 3)	(i) Angle Protractor (ii) Go, No-Go Gauges (iii) Vernier Callipers
2	Hardness (Clause 5)	Vickers Hardness Tester
3	Torque Testing (Clause6)	(i) Test Mandrels (ii) Torque Testing Apparatus
4	Anti-Corrosive Coating (Clause 6)	Coating Thickness Gauge

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

ANNEX C

Scheme of Inspection And Testing

1. LABORATORY - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

1.1 The manufacturer shall prepare a calibration plan for the test equipments.

2. TEST RECORDS – The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. LABELLING AND MARKING – As per the requirement of IS 2029: 1998.

4. CONTROL UNIT – Ring wrenches (spanners) of same size, type and torque series manufactured in a day from same grade of steel heat treated under identical conditions shall constitute a control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

6. REJECTIONS – 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)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Material	4	IS 2029	S	One	Each consignment	Raw materials which are under mandatory certification shall be ISI marked. For other raw materials, further testing is not required if accompanied with test certificate or ISI marked.
3	Dimensions	3.1 to 3.3 & Table 1 to 5	IS 2029	R	One	Every hour's Production	--
5	Hardness	5.1	IS 2029	R	Ten of each size	Every heat treatment batch	--
6	a) Workmanship and Finish	3.1	IS 6131	R	Every piece	--	--
	b) Anti-corrosive coating	3.2	IS 6131	R	One sample	Each batch	All Ring Wrenches plated together shall form a batch.
	c) Preservation and Packing	5	IS 6131	R	Every piece	--	--
	d) Torque Testing	6	IS 6131	R	Five	Each control unit	--

Note-1: In case of continuous heat treatment process, five samples of each size shall be tested every hour. If failure is observed in the hardness, the whole lot may be taken up for re-heat treatment and ten samples of each size tested. If any sample fails in hardness, lot shall be rejected.

Note-2: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-3: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.