



उत्पाद मैनुअल

आई एस 7975 (भाग 2): 2018/ आई एस ओ 3315: 2011 के अनुसार
पेंच और नटों के लिए संयोजन उपकरण हस्तचालित वर्गाकार ड्राइव साकेट रीचों के
लिए चालन पूर्ण -भाग २- आयाम और परिक्षण के लिए

दस्तावेज संख्या - पी एम/आई एस 7975 (भाग 2)/ आई एस ओ 3315/1/ नवम्बर 2021

भारतीय मानक ब्यूरो की स्कीम-1 (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिशिष्ट 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 दस्तावेज का उपयोग किया जा सकता है।

**PRODUCT MANUAL FOR
ASSEMBLY TOOLS FOR SCREWS AND NUTS – DRIVING PARTS FOR
HAND OPERATED SQUARE DRIVE SOCKET WRENCHES
PART 2- DIMENSIONS AND TESTS
ACCORDING to IS 7975 (Part 2): 2018/ISO 3315: 2011**

Document No.- PM/IS 7975 (Part 2)/ISO 3315/1/ November 2021

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
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1.	Product	:	IS 7975 (Part 2): 2018/ISO 3315: 2011
	Title	:	Assembly Tools for Screws and Nuts – Driving Parts for Hand Operated Square Drive Socket Wrenches Part 2- Dimensions and Tests
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	Material of spring and Balls of Driving square (As per Cl. 3 of IS 7214- referred at Cl. 4 of IS 7975 (Part 2)) as below- Spring- IS 1570, Balls- IS 2898
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	Two nos.
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 except Endurance test as per Cl. 6
6.	Scope of the Licence	:	
	Licence is granted to use Standard Mark as per IS 7975 (Part 2): 2018/ISO 3315: 2011 with the following scope		
	Name of Product		Assembly tools for screw and Nuts- Driving Parts for Hand Operated Square Drive Socket Wrenches
	Description of tool		T Handle (Square drive), Speeder (Brace type), Ratchet handle, Ratchet handle (reversible), Screw driver (External square), Nut snipper (Flex head), Offset handle (Square drive)
	Nominal dimensions of square drive		

ANNEX A

Grouping Guidelines

1. IS 7975 (Part 2) covers Assembly tools for screw and Nuts- Driving Parts for Hand Operated Square Drive Socket Wrenches of following descriptions and dimensions:
 - a) Description of tool: -
T Handle (Square drive), Speeder (Brace type), Ratchet handle, Ratchet handle (reversible), Screw driver (External square), Nut snipper (Flex head), Offset handle (Square drive)
 - b) Permitted nominal dimensions of square drive for tools of various description, as above, are given in Table 1 of IS 7975 (Part 2).
2. Considering the above, the grouping guidelines given below shall be followed for GoL/CSoL: Sample of lowest, highest and any one intermediate nominal dimension of square drive (nominal dimensions as permitted by Table 1 of IS 7975 (Part 2) for tools of various description) from the dimension range offered, for tool of each description, as above, shall be tested to cover all nominal dimensions in the dimension range for that description tested.
3. The Firm shall declare the varieties of assembly tools 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 operation of the licence, BO shall ensure that all 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, Cl. 3, Table 1	Vernier caliper, Scale, Measuring tape
2.	Hardness, Cl. 4,	Rockwell hardness tester
3.	Torque Test, Cl. 5	Torque testing machine, Female test squares as per Cl. 5
4.	Endurance test for ratchet handles, Cl. 6	Endurance test machine with counter

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 7975 (Part 2)/ISO 3315.

4. CONTROL UNIT – All the assembly tools having same nominal dimension of square drive and same description, manufactured in a day from the same consignment of raw material 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	Driving square (Material of Spring and Steel ball)	4	IS 7975 (Part 2)	S	One	Each Consignment	No further testing is required if material is accompanied with a test certificate or is ISI Marked.
		3	IS 7214				
4	Driving square (Hardness)	4	IS 7975 (Part 2)	R	One	One batch of components of heat treated together	
3	Dimensions	3	IS 7975 (Part 2)	R	One	Each Control Unit	In case of failure, five more samples shall be tested. The control unit shall be accepted only if all five samples pass.
5	Torque test	5	IS 7975 (Part 2)	R	One	Each Control Unit	
6	Endurance test for applicable varieties	6	IS 7975 (Part 2)	S	One	Once in 3 months for each dimension and description of tool manufactured during the period	

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

Note-2: 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.