



**उत्पाद मैनुअल
आई एस 7381: 1986 के अनुसार
हाथ से संचालित स्क्वायर ड्राइव सॉकेट रिंच के लिए विशिष्टता
दस्तावेज़ संख्या - पीएम/आईएस 7381/1/ अप्रैल 2023**

भारतीय मानक ब्यूरो की स्कीम-I (अनुरूपता मूल्यांकन) विनियम, 2018 के तहत यह उत्पाद मैनुअल प्रमाणीकरण के प्रचालन में रीति और पारिर्शिता 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
Specification for Hand Operated Square Drive Socket Wrenches
ACCORDING TO IS 7381:1986
Document No - PM/IS 7381/1/ April 2023**

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.

PRODUCT MANUAL FOR SPECIFICATION FOR HAND OPERATED SQUARE DRIVE SOCKET WRENCHES ACCORDING TO IS 7381:1986

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 7381:1986
	Title	Specification for hand- operated square drive socket wrenches
	No. of Amendments	0
2.	Sampling Guidelines:	
a)	Raw material	NA
3.	Grouping guidelines	Please refer Annex – A
4.	Sample Size	3 Nos.
5.	List of Test Equipment	Please refer Annex – B
6.	Scheme of Inspection and Testing	Please refer Annex – C
7.	Possible tests in a day:	All
8.	Scope of the Licence:	
	“Licence is granted to use Standard Mark as per IS 7381:1986 with the following scope:	
	Name of the product	Specification for hand- operated square drive socket wrenches
	Nominal Size (Width across flats of the socket wrench) (in mm)	 to upto and including
	Nominal Size of Driving Square (in mm)	6.3 and /or 10 and /or 12.5 and /or 20 and /or 25
	Form of Operating End	Hexagon / Double Hexagon

ANNEX A

Grouping Guidelines

1. For the purpose of certification, following technical parameters are considered for classifications of Hand- operated square drive socket wrenches as per IS 7381:1986

Nominal Size (Width across Flats of the Socket Wrench)	3.2 mm to upto and including 80 mm
Nominal Size of Driving Square (in mm)	6.3 and /or 10 and /or 12.5 and /or 20 and /or 25
Form of Operating End	Hexagon and Double Hexagon

2. Considering the above, the grouping guidelines given below shall be followed for GoL/CSoL:

- Sample of lowest and highest Nominal Size (Width across Flats of the Socket Wrench) for each Size of Driving Square and Form of Operating End shall be tested for all requirements to cover all sizes in that size range of the particular type tested.
- Any one the variety specified in Table 1 of the Standard of Short type or Long type for each Size of Driving Square and Form of Operating End shall be tested to cover the other variety for the corresponding Driving Square.

3. The Firm shall declare the varieties to be covered in the Licence for which the firm is having complete manufacturing and testing facilities. 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 the types covered in the licence are tested in rotation to the extent possible.

Note: One sample has to be tested for each of the grade of raw material declared by the firm.

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	Dimension (Clause 2 & Table 1)	Micro Meter Vernier Caliper Angle Gauge
2	Hardness (Clause 5)	Rockwell Hardness Tester / Vicker Hardness Tester
3	Workmanship and Finish (Clause 5)	Magnifying Glass Coat meter or any other suitable equipment or chemicals to measure thickness of more than a layer
4	Torque Test (Clause 5)	Torque tester Hexagonal test mandrel

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 7381:1986
 - 3.1 In addition, the licence no. CM/L-_____ and details of BIS website shall be marked at an appropriate place as follows: “For details of BIS certification please visit www.bis.gov.in”
4. **CONTROL UNIT** – Hand- operated square drive socket wrenches of each nominal size for each size of driving square manufactured in a day under similar process condition from the same consignment of raw materials 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				
3	Material	Cl. 5	IS 7381:1986	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.
2	Dimensions	Cl. 2 & Table - 1	IS 7381:1986	R	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	Hardness	2	IS 6131: 1980	R	One	Each control unit	
5	Torque Test	6	IS 6131: 1980	R	One	Each control unit	
5	Workmanship and Finish	3	IS 6131: 1980	R	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		
6	Marking	6	IS 7381:1986	R	All	--	

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.