



उत्पाद मैनुअल
LANCING PIPES
IS 10577:1982 के अनुसार

PRODUCT MANUAL
FOR LANCING PIPES
ACCORDING TO IS 10577:1982

विभिन्न उत्पादों के लिए भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम, 2018 की योजना- I 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 10577:1982
	शीर्षक Title	:	LANCING PIPES
	संशोधनों की संख्या No. of amendments	:	01
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	No specific requirement
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer Annex-A
c)	नमूने का आकार Sample Size	:	1.5m x 3 pcs
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer ANNEX – B

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		
	(i) Dimensions(Clause 6) (ii) Mass(Clause 7) (iii) Joints (Clause 10) (iv) Length(Clause 11) (v) Hydraulic test(Clause 12) (vi) Tensile Strength & Elongation(Clause 13.2) (vii) Bend test(Clause 13.3) (viii) Expansion test on sockets(Clause 13.4) (ix) Workmanship(Clause 14)		
6.	लाइसेंस का दायरा /Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 10577:1982 with the following scope:		
	Name of the product	Lancing Pipes	
	End condition	Plain end/Screwed and Socketed	
	Class	Light/Medium/Heavy	
	Type (Process of Manufacture)	OAW/ERW/HFIW/HFW	
	Size (Nominal Bore)	From mm up to and including ... mm	

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ANNEX-A

GROUPING GUIDELINES

In IS 10577:1982, Lancing pipes are classified according to:

- i) Size (Nominal Bore)
- ii) End condition (Plain end/Screwed and Socketed)
- iii) Class (Light/Medium/Heavy)
- iv) Type (Process of Manufacture) (OAW/ERW/HFIW/HFW)

For the purpose of defining the scope of licence at the time of grant of licence or addition of new varieties in the scope of licence, samples of each class, and type/Process of Manufacture of the tubes of highest and lowest sizes intended to be covered in the scope of licence, shall be drawn and tested.

If screwed and socketed end sample is tested, recommendations may include plain ended tubes as well.

However, scope shall be restricted based on the manufacturing and testing facilities available.

During operation of licence, samples of each variety covered in the licence shall be drawn for testing.

ANNEX – B

LIST OF TEST EQUIPMENTS

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests Used In With Clause Reference	Test Equipment/Chemical
1	Dimensions, Cl. 6 and length, Cl. 11	Pie tape, Ball ended Micrometer, Flat end micrometer, Tape, Test bench
2	Mass, Cl. 7	Weighing Balance of appropriate range/least count.
3	Joints, Cl. 10	Thread gauges(Plug Gauge/Ring Gauge) as per IS 8999:2003, for checking conformity of threads to IS 554:1999
4	Hydraulic Test, Cl. 12	Hydraulic test station with pressure gauges of appropriate range/Least count
5	Tensile Strength and Elongation, Cl. 13.2	Universal Testing Machine(UTM), Tensile test piece sample preparation arrangement, punch for marking
6	Bend Test on pipes, Cl. 13.3	Tube bending Machine having radius at the bottom of groove six times for the sizes applied. As per IS 2329:2005
7	Drift Expansion Test (Expansion test on sockets,) Cl. 13.4	Universal Testing Machine(UTM), Conical mandrel having an included taper in diameter 1 in 16
8	Taper Screw Plug test Expansion test on sockets,) Cl. 13.4	Taper Screw Plug, Lubricating Oil, Vice or other suitable fixture to hold the head of the plug, pipe wrench or power machine for rotating the socket, Vickers hardness tester (for testing the hardness of the steel plugs, Thread gauges(Plug Gauge/Ring Gauge) for checking conformity of thread form and angle of taper to IS 554:1999

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

ANNEX C

SCHEME OF INSPECTION AND TESTING

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

1.1 The manufacturer shall prepare and implement a calibration plan for the test equipment.

2. **TEST RECORD-** The manufacturer shall maintain test records for the tests carried out to establish conformity.

3. **PACKING AND MARKING** - The Standard Mark as given in the Schedule of the licence shall be applied on a suitable place on the outside of each pipe or bundle of pipes provided always that the material so marked conforms to each requirement of the specification.

3.2 Unless otherwise agreed to between the manufacturer and the purchaser, the pipes shall be bundled for transport and packed in accordance with IS 4740:1979. However, the pipes of same size and class shall be bundled together and the capped ends shall be protected by gunny cloth. Each smallest bundle shall contain preferably not more than 20 pipes.

3.3 The lancing pipes shall have no internal coating, shall be free from grease and oil and may be externally coated as specified by the purchaser

3.4 The different class of pipes shall be distinguished by three closely spaced colour bands of appropriate colour as given below. The bands shall be applied before the pipes leaving the manufacturer's works

Light – Yellow

Medium – Blue

Heavy- Red

3.5 In addition, the following information shall be stenciled on each pipe or marked on a label affixed to a bundle of pipes:

- a) Manufacturer's Name or Trade Mark
- b) The batch or control unit number and/or date of manufacture, and
- c) Class of pipe
- d) Nominal Bore
- e) Length
- f) End condition
- g) Number of pipes in the bundle
- h) "Made in India" if required
- i) BIS licence number and "For BIS certification details please visit www.bis.gov.in"

5. **CONTROL UNIT-** For the purpose of this scheme, entire quantity of pipes of same size, class and type (process of manufacture) manufactured in a single shift of 8 hours or less shall be taken as one control unit.

6. **LEVELS OF CONTROL :-** The tests as indicate in Table 1 and at the levels of controls in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and records maintained in accordance with paragraph 2 above.

6.1 All the production which conforms to the Indian Standard and covered under the scope of this licence shall be marked with the Standard Mark.

7. **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
LEVELS OF CONTROL

(1) Test Details				(2) Test equipment requirement R: required (or) S: Sub- contracting permitted	(3) Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
	<u>Tests on Pipes</u>						
6 & 8	Dimension (pipes)	6.1 & 8.1	IS 10577	R	One per hour	Each control unit	
7 & 8	Mass	7.1 & 8.1	IS 10577	R	-do-	-do-	
10	Joints	10.1 to 10.2	IS 10577	R	Two per hour	-do-	
11	Length	11.1	IS 10577	R	One per hour	-do-	
12	Hydraulic test	12.1 & 12.2	IS 10577	R	Each tube	Each tube	
13	Tensile strength & Elongation	13.2	IS 10577	R	Two	Each control unit	
13	Bend test	13.3	IS 10577 & IS 2329	R	One per hour	-do-	
14	Workmanship	14.1	IS 10577	R	Each tube	Each tube	
18	Coating	18	IS 10577	R	-do-	-do-	

	<u>Tests on Sockets</u>						
6	Dimension (sockets)	6.1	IS 10577	R	As per IS 4711	Every Hour	If ISI marked sockets are used no further testing is required
10	Threads	10.1 & 10.2	IS 554	R	As per IS 4711	Every Hour	-do-
13	Drift expansion test /Taper screw plug test	13.4.1 & 13.4.2	IS 2335	R	As per IS 4711	Every Hour	-do-

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. 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.