



**PRODUCT MANUAL FOR
GENERAL PURPOSE BALL VALVES
ACCORDING to IS 9890:1981**

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 license/certificate.

1.	Product	:	IS 9890 : 1981
	Title	:	General Purpose Ball Valves
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	As per Clause 9 and Table 2 of IS 9890 : 1981
b)	Grouping guidelines	:	Please refer ANNEX-A
c)	Sample Size	:	Two Valves (For Performance Test) 50 gm drillings (For chemical Test)
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 test
6.	Scope of the Licence :		
“License is granted to use Standard Mark as per IS 9890 : 1981 with the following scope:			
Name of the Product:	General Purpose Ball Valves		
Type	Nominal Sizes/ Class Designation/ End Connection.		

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ANNEX A

Grouping Guidelines

1. The parameters given below shall be considered for grouping of General Purpose Ball Valves for General Purposes as per IS 9890 : 1981 for GoL/CSoL:

(a) Nominal Sizes

Group	Nominal Sizes for flanged ends	Nominal Sizes for screwed ends
Group I	DN 10 to DN 100	1/4 to 1
Group II	DN 125 to DN 350	1 1/4 to 2
Group III	DN 400 to DN 600	2 1/2 to 4

(b) Class Designation: Class 125/Class150/Class 250/ Class 300/ Class 600

(c) End Connection: Threaded/Flanged

2. One sample of any nominal size from each group for each Type (Class Designation and End Connection) shall be tested to cover all the sizes in that Group for the particular type tested.
3. The Firm shall declare the varieties of General Purpose Ball Valves intended to be covered 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	Test Used with Clause Reference	Test Equipment
1.	Dimensions as per Clause 3 and Clause 5	(a) Vernier Calipers (b) Steel Scale (c) Measuring Tape (d) Thread Plug Gauges (1/2" to 4" System A) (e) Thickness Gauge
2.	Pressure/Temperature Ratings as per Clause 4	(a) Hydrostatic Pump with mandrels (b) Pressure Gauge (c) Thermometer

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 equipment.

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

3. LABELLING AND MARKING – As per the requirements of IS 9890: 1981.

4. 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.

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

5. 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: Subcontracting permitted		No. of Sample	Levels of Control		
Cl.	Requirement	Test Method		No. of Sample	Frequency	Remarks	
		Clause	Reference				
5	End Connections						
	Thread Connections		IS 554	R	One Valve	One hour Production	
	Outside Diameter of Sealing Face	5.1.1 Table 1	IS 9890	R			
	Flange Dimensions	5.2, 5.2.2, 5.2.3	IS 9890	R			
	Face to Face Dimensions	5.2.1	IS 9890	R			
6	Drain Connections		IS 9625	R	One Valve	One hour Production	
7	Joints	7	IS 9890	R	Each Valve		
8	Operation	8.1 to 8.7	IS 9890	R	Each Valve		
9	Material	9 Table 2	IS 9890	S	One	Each Consignment	No further testing is required, if accompanied with the Test Certificate or ISI Marked.
10	Trim	10	IS 9890	R	Each Valve		

13	Despatch Preparation	13	IS 9890	R	Each Valve		
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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.