



**PRODUCT MANUAL  
FOR IRRIGATION EQUIPMENT – MEDIA FILTER  
ACCORDING TO IS 14606 : 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.**

<b>1. Product</b>	:	IS 14606 : 1998
<b>Title</b>	:	Irrigation Equipment – Media Filter
<b>No. of Amendments</b>	:	03
<b>2. Sampling Guidelines:</b>		
a) Raw material	:	No specific requirement
b) Grouping guidelines	:	N.A.
c) Sample Size	:	8 filters
<b>3. List of Test Equipment</b>	:	ANNEX - A
<b>4. Scheme of Inspection and Testing</b>	:	ANNEX - B
<b>5. Possible tests in a day :</b>		
		i. General ii. Filter housing iii. Connections iv. Resistance of filter to Internal Hydrostatic Pressure
<b>6. Scope of the Licence :</b>		
		“Licence is granted to use Standard Mark as per IS 14606 : 1998 with the following scope:
Name of the product		Irrigation Equipment – Media Filter
Type		Model Number
Size		Nominal size and size of assembly
Any other aspect required as per the Standard		i. Nominal operating pressure ii. Flow capacity iii. Range of flow rate iv. Maximum allowable pressure drop v. Safe maximum pressure drop vi. Back wash flow rate.

**ANNEX-A**  
**TO PRODUCT MANUAL**  
**FOR IRRIGATION EQUIPMENT – MEDIA FILTER**  
**ACCORDING TO IS 14606 : 1998**

**LIST OF TEST EQUIPMENTS**

**Major test equipment required to test as per the Indian Standard**

<b>SI No.</b>	<b>Tests used in with Clause Reference</b>	<b>Test Equipment</b>
1	Tolerance on Length of Filter Cl 4.2.3	Vernier calliper, Scale.
2	Connections Cl 4.3	Thread ring guage.
3	Resistance of Filter to Internal Hydrostatic Pressure Cl 5.1	Pressure guage (capable of reading upto 1.5 times the declared nominal pressure), stop watch, water cooler, water tank, Slip guage.
4	Resistance of Filter to Internal Hydrostatic Pressure at High Temperature Cl 5.2	Pressure guage, Hot water bath (capable of operating at $60 \pm 2^{\circ}\text{C}$ , Digital thermometer, Stop watch, Slip guage.
5	Pressure Drop vs Flow Testing Cl 5.3	Pressure drop testing arrangement with pipelines and ball valves, Flow meter/Rotameter, Water tank, thermometer, Weighing balance

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

**ANNEX B**

**SCHEME OF INSPECTION AND TESTING  
FOR IRRIGATION EQUIPMENT – MEDIA FILTER  
ACCORDING TO IS 14606 : 1998**

**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. PACKING AND MARKING-** The Standard Mark as given in Schedule of the licence shall be stenciled/printed on each Irrigation Equipment – Media Filter provided always that the material to which this mark is thus applied conforms to every requirement of the specification.

**3.1 Marking** – Each filter on filter housing (vessel) shall be marked as per clause 12.1 of IS 14606. In addition, the following details shall be mentioned on each filter legibly and indelibly:

a) BIS Licence No. CM/L\_\_.

b) BIS website details i.e – “For details of BIS Certification please visit [www.bis.gov.in](http://www.bis.gov.in)”.

**3.1.1** Manufacturer shall supply information about the Media filters to the user as per clause 11 of IS 14606 with each piece of media filter.

**3.2 Packing** – The Media filters shall be packed so as to avoid damage in transit.

**4. CONTROL UNIT-** For the purpose of this scheme, media filters of the same model manufactured/ assembled in one shift 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.

5.2 On the basis of tests and analysis results, the decision regarding conformity or otherwise of a control unit shall be taken as follows:

**5.2.1** A sample shall be taken from each control unit and tested for all requirements of the specification. In case samples(s) fail in one or more requirement(s) of the specification, the control unit represented by the sample(s) shall not be marked. The control unit may be suitably reprocessed and defect(s) rectified, Two samples drawn from such reprocessed control unit shall be tested for conformity to all the requirements of the specification.

5.2.2 After reprocessing, the parts/components which do not conform to the specification shall not be used.

**6. RAW MATERIAL** – The material for the construction of different components of the media filter shall conform to the requirements stipulated in the Indian Standard.

**6.1** The material used for different components shall be declared by the manufacturer in the parts catalogue.

**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)				(2)	(3)		
Test Details				Test equipment requirement R:required (or) S: Sub-contracting permitted	Levels of Control		
Clause	Requirements	Test Method Cl. Ref.	Test Method IS		No. of Samples	Frequency	Remarks
4.1	General	4.1.1	IS 14606	R	-	Each Filter	
		4.1.2	-do-		-	-do-	
		4.1.3	-do-		-	-do-	
		4.1.4	-do-		-	-do-	
		4.1.5	-do-		-	-do-	
4.2	Filter Housing	4.2.1	IS 14606	R	-	Each Filter	
		4.2.2	-do-		-	-do-	
		4.2.3	-do-		-	-do-	
		4.2.4	-do-		-	-do-	
4.3	Connections (as applicable):						
4.3.1	Threaded	-	IS 554 or IS 2643	R	One	Each control unit	
4.3.2	Flanged	-	IS 6418 or IS 6392	R	-do-	-do-	
4.3.3	End connection	-	IS 14606	R	-do-	-do-	
5 5.1	a) Resistance of filter to internal hydrostatic pressure	5.1	IS 14606	R	-do-	-do-	
5.2	b) Resistance of filter to internal hydrostatic pressure at high temperature	5.2	-do-	R	-do-	-do-	
5.3	c)Pressure drop vs Flow testing	5.3	-do-	R	-do-	-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.