



उत्पाद मैनुअल
GAS FILTERS AND COMBINED FILTERS USED IN RESPIRATORY PROTECTIVE EQUIPMENT
IS 15323:2003 के अनुसार

PRODUCT MANUAL
FOR GAS FILTERS AND COMBINED FILTERS USED IN RESPIRATORY PROTECTIVE
EQUIPMENT
ACCORDING TO IS 15323:2003

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 15323:2003
	शीर्षक Title	:	Gas Filters and Combined Filters Used in Respiratory Protective Equipment
	संशोधनों की संख्या No. of amendments	:	0
2.	नमूना दिशानिर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	No specific requirement but the standard thread connector (if used) shall be as per IS 14138 (Part 1).
b)	समूहीकरण दिशानिर्देश Grouping Guidelines	:	Please refer Annex-A
c)	नमूने का आकार Sample Size	:	15 nos
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 aday		
	Since testing facility is not available in any BIS/BIS recognized lab, complete testing has to be carried out in the Factory for considering certification and during surveillance. 3 days required for complete testing		
6.	लाइसेंस का दायरा / Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 15323:2003 with the following scope:		
	Name of the product	Gas Filters and Combined Filters Used in Respiratory Protective Equipment	
	Type	Any of the following or combinations of them A / B / E / K / NO-P2 / Hg-P2 / AX / X / F	
	Class	1 / 2 / 3 (Applicable for Type A / B / E / K or their combinations)	
	Particle filter Class	Without Particle Filter / P1 / P2 / P3	

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN,9, BAHADUR SHAH ZAFAR MARG,
NEW DELHI-110002

ANNEX-A

GROUPING GUIDELINES

1. For considering Grant of License / Change of Scope of License, Samples of each variety of Gas Filters and Combined Filters Used in Respiratory Protective Equipment shall be tested considering the following.
 - a. Type - Any of the following or combinations of them
A / B / E / K / NO-P2 / Hg-P2 / AX / X / F
 - b. Class - 1 / 2 / 3 (Applicable for Type A / B / E / K or their combinations)
 - c. Particle filter Class - Without Particle Filter / P1 / P2 / P3
 - d. Test Gas - Chlorine / Hydrogen Sulphide / Hydrogen Cyanide (Applicable for Type B)
2. The following relaxation may be given when a variety is tested for all the requirements:
 - a. When Gas Filters or Combined Filters of a Combination Type is tested for all the requirements, any of its constituent Types and any other combinations of two or more of the constituent Types may also be covered.
 - b. When Gas Filters or Combined Filters of higher Class of the Type is tested, Lower classes of the Type may also be covered, i.e if Class 3 is tested Class 2 and Class 1 may be covered and if Class 2 is tested Class 1 may be covered.
 - c. When Combined Filter of higher Particle Class of the Type and Class is tested, Lower Particle classes and Gas Filters without Particle Filter of the Type and Class may also be covered, i.e if Particle Class 3 is tested Particle Class 2, Particle Class 1 and without Particle Filter may be covered ; if Particle Class 2 is tested Particle Class 1 and without Particle Filter may be covered and if Class1 is tested without Particle Filter may also be covered.
3. The Firm shall declare the Varieties of Gas Filters and Combined Filters Used in Respiratory Protective Equipment they intend to cover in the Licence
4. The Scope of Licence may be restricted based on the Manufacturing and testing capabilities of the manufacturer.
5. During the operation of Licence, it shall be ensured that all the varieties covered in the Licence are tested in rotation, to the extent possible

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
1	Efficiency test for combined filters (CI 5.1.1 & 6.1)	Sodium Chloride Test Apparatus
		Paraffin Oil Test Apparatus
2	Thread connection of filters(CI 5.1.2&5.1.3)	Go and Not Go Gauges
3	Weight of filters(CI 5.1.4)	Weighing Machine
4	Mechanical Strength(CI 5.3&6.2)	Mechanical Strength Test Apparatus
5	Breathing Resistance(CI 5.4&6.3)	Flow Meter
		Thermometer
		Hygrometer
		Barometer
6	Protection Capacity(CI 5.5&6.4)	Suitable Test Gas
		Influent and Effluent Concentration Test Apparatus
		Thermometer
		Clock
		Flow Meter
		Hygrometer

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

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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 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 incorporated legibly and indelibly on each filter provided always that the filters so marked conforms to each requirement of the specification.

3.2 The filters shall also be marked with the following:

- (a) The name, trade mark or other means of identification of the Manufacturer;
- (b) Batch No. or Serial No;
- (c) Type, class and colour code according to Table 6 of IS 15323: 2003.
- (d) Filter bodies shall be of the colour(s) specified in Table 6 of IS 15323:2003 or alternatively shall be given the colour(s) in the form of circumferential bands Silver or light metal is regarded as a neutral colour;
- (e) Type NO-P3 filter shall be marked with the sentence for single use only. Type Hg-P3 filter shall be marked with the sentence "Maximum use time 50h";
- (f) Sub-assemblies and piece parts with considerable bearing on safety shall be marked so that they can be identified;
- (g) Year and month of expiry or shelf life;
- (h) The sentence 'See instructions for use' in the languages English and Hindi and also any other regional languages as necessary, and
- (j) BIS licence number and "For BIS certification details please visit www.bis.gov.in"

3.3 **Instructions for use** as given in Cl.8 of IS 15323:2003 shall also be provided with each filter.

4. **CONTROL UNIT-** For the purpose of this scheme, all filters of one class and type produced in one day from the same batch / consignment of raw materials shall constitute a control unit.

5. **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.

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

6. **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.

TABLE1
LEVELS OF CONTROL

(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				
5.1.1 & 6.1	Efficiency test for combined filters	-	IS 15323:2003	R	One	Each Control Unit	Applicable if gas filters is combined with particle filter
5.1.2 & 5.1.3	Thread connection of filters	5.1.2 & 5.1.3	IS 15323:2003	R	Each	-do-	
5.1.4	Weight of filters	5.1.4	IS 15323:2003	R	Each	-do-	
5.2	Material	5.2.1 & 5.2.2	IS 15323:2003	R	Each	Each Consignment	No further testing required if test certificate from manufacturer is available.
5.3 & 6.2	Mechanical Strength	5.3 & 6.2	IS 15323:2003	R	Three	Each Control Unit	
5.4 & 6.3	Breathing Resistance	5.4 & 6.3	IS 15323:2003	R	Three	-do-	This test has to be performed on the conditioned samples as per CI-5.3 & 6.2
5.5 & 6.4	Protection Capacity	5.5 & 6.4	IS 15323:2003	R	Three	-do-	This test has to be performed on the conditioned samples as per CI-5.3 & 6.2CI-5.4 & 6.3

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.