



उत्पाद मानुयल
श्वसन सुरक्षा संयंत्र – विशिष्टि
भाग 2 स्व-निहित मुक्त प्रणाली श्वसन संयंत्र
IS 10245 (PART 2):2023 के अनुसार

PRODUCT MANUAL FOR
RESPIRATORY PROTECTIVE DEVICES - SPECIFICATION PART 2 SELF-
CONTAINED OPEN-CIRCUIT BREATHING APPARATUS
ACCORDING TO IS 10245 (PART 2):2023

विनियम 2018 की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरणके प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेन्स धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेन्स/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज़ का उपयोग 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 license/certificate.

1.	उत्पाद Product	:	IS 10245 (Part 2):2023
	शीर्षक Title	:	Respiratory Protective Devices - Specification Part 2 SELF-CONTAINED OPEN-CIRCUIT BREATHING APPARATUS
	संशोधन संख्या No. of amendments	:	0
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines		
a)	कच्चा माल Raw material	:	Materials and components shall meet the requirements specified in Cl 5.4 of IS 10245 (Part 2):2023
b)	समूहिकरण दिशा निर्देश Grouping Guidelines	:	Please refer ANNEX - A
c)	नमूनेका परिमाण Sample Size	:	Since the Licence is operated on factory testing basis, all the tests are to be carried out in-house. Nine apparatus are required for complete testing (see Table 2, Test Schedule). Additional components may be provided as required for some tests.

3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	Please refer ANNEX - B
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	Please refer ANNEX - C
5.	एक दिन में संभावित परीक्षण Possible tests in a day : All tests except performance tests can be carried out on conditioned samples. Performance testing of the apparatus may require up to 2 days.		
6.	लाइसेंस का कार्यक्षेत्र /Scope of the Licence : IS 10245(Part 2):2023 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेंस निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है Licence is granted to use Standard Mark as per IS 10245(Part 2):2023 with the following scope:		
	उत्पाद का नाम Name of the product	RESPIRATORY PROTECTIVE DEVICES - SELF-CONTAINED OPEN-CIRCUIT BREATHING APPARATUS	
	Class	Class1 and/or Class 2	
	Auxiliary Equipment	With (Auxiliary equipment name)/without	
	Positive Pressure inside face mask	With/without	
	Means for attachment of Lifeline	With/without	
	Corrective lens interface	Claimed suitable/not claimed suitable	
	Operating temperature range	(to be declared if apparatus is designed for temperatures beyond -30 °C to 60 °C)	
	Pressure Reducer	a) With- Pressure reducer relief valve- i. With ii. without b) without	
	Warning device	1. Automatically activated and/or manually activated 2. Audible warning device and/or other (to be	

	specified) 3. Pneumatic and/or Electronic
Cylinder size	Size to be mentioned (in case of range of sizes of cylinder, all the sizes to be given)
Couplings	With/without
Connection between apparatus and Full-face mask (connector)	Permanent/special/thread type connector

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ANNEX A
GROUPING GUIDELINES

The following grouping guidelines shall apply for Grant of Licence (GoL)/Change in Scope of Licence (CSoL):

Sl no	variety	Scope criterion	Grouping
1	Class	Class1 and/or Class 2	If class 2 is tested, class 1 may also be included in the scope of licence
2	Auxiliary Equipment	With (Auxiliary equipment name)/without	If apparatus with auxiliary equipment is tested, apparatus without auxiliary equipment may also be covered.
3	Positive Pressure inside face mask	With/without	Both masks with and without positive pressure shall be tested to be covered in the scope of licence
4	Means for attachment of Lifeline	With/without	If harness with means of attachment of lifeline is tested, harness without means of attachment of lifeline may also be included
5	Corrective lens interface	Claimed suitable/not claimed suitable	If apparatus claimed suitable for corrective lens interface is tested, apparatus not claimed suitable for corrective lens interface may also be included
6	Pressure Reducer	a) With- Pressure reducer relief valve- i. With ii. without b) without	Both type of apparatus, I.e., with and without pressure reducer shall be tested to be included. Pressure reducer with and without Pressure reducer relief valve shall be tested separately to be included in the scope of licence
7	Warning device	1. Automatically activated and/or manually activated 2. Audible warning device and/or other 3. Pneumatic and/or Electronic	Both the automatically activated and manually activated device shall be tested to be included in the scope All types of warning device (audible, etc) shall be tested to be included in the scope Both Pneumatic and Electronic device shall be tested to be included in the scope
8	Cylinder size	Size to be mentioned (in case of range of	If maximum and minimum size of the cylinder is tested, all the sizes in the

		sizes of cylinder, all the sizes to be given)	range may be covered
9	Couplings	With/without	If apparatus with coupling is tested, apparatus without coupling may also be included
10	Connection between apparatus and Full-face mask (connector)	Permanent/special/thread type connector	If threaded type connector is tested, Permanent and/or special type of connector may also be included

If a combination is tested for class 2, the same combination may be covered for class 1. For covering a specific variety, apparatus with any of the other combinations for variety parameters from Sl no 2 to 10 may be taken for testing.

For example, if coupling is to be covered in the scope for class 1 apparatus, then the apparatus for testing may be with **Auxiliary equipment**, with **positive pressure inside face mask**, with **means of attachment of lifeline**, **not claimed suitable for corrective lens interface**, with **pressure reducer with relief valve**, with **manually activated audible pneumatic warning device**, **cylinder size of 9 litres** and with **threaded connector connection of apparatus with face mask**

However, it shall be ensured that the manufacturer has got complete manufacturing as well as testing facilities for the varieties required to be covered in the scope of the licence.

During the operation of licences, samples of all varieties covered in the licence shall be taken up for testing in rotation

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	6.1(for pre-conditioning)	oven, conditioning chamber, arrangement for conditioning at $(-30 \pm 3) ^\circ\text{C}$ in dry atmosphere
2	6.3	arrangement for maintaining ambient conditions of $27 ^\circ\text{C} \pm 2 ^\circ\text{C}$ and 65 percent ± 5 percent relative humidity
3	General, Cl 5.1	flow meter, arrangement for sinusoidal air flow of $25 \times 2 \text{ l/min}$, The ambient air bypass device, pressure gauge, box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill, breathing machine, climatic test chamber and arrangement for testing of warning device as per Cl 6.8 , arrangement for axial pull force of 250 N and arrangement as per Cl 6.10 of IS 17274 (part 6), RPD torso and head form, breathing machine
4	Design, Ergonomics, Cl 5.3	Vernier calliper, Micro-meter, box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill
5	Material Components, Cl 5.4	box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill, (Test at low temperature-) cold conditioning chamber, RPD torso and headform (IS 17274 (Part 5), breathing machine, pressure gauge, (Tests at high temperature-) conditioning chamber at $(60 \pm 3) ^\circ\text{C}$ and a relative humidity of not more than 50 %, RPD torso and headform (IS 17274 (Part 5), breathing

		machine, pressure gauge, Test for flame engulfment- breathing apparatus, flow meter, test manikin, oven as per Cl 6.6.1.3, Practical performance: Test at low temperature- cold conditioning chamber, cold test chamber set at $(-15 \pm 3) ^\circ\text{C}$, walking and crawling arrangement & carrying and building with wooden blocks arrangement as per CL 6.5.4.3, breathing resistance test apparatus, RPD torso and headform (IS 17274 (Part 5), Test at Low temperature- cold chamber set at an ambient temperature of $(-6 \pm 2) ^\circ\text{C}$, walking and crawling arrangement & carrying and building with wooden blocks arrangement as per CL 6.5.4.3, breathing resistance test apparatus, RPD torso and headform (IS 17274 (Part 5)
6	Cleaning and Disinfection, Cl 5.5	box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill
7	Mass, Cl 5.6	weighing balance,
8	Water Immersion, Cl 5.7	RPD head form, flow meter, breathing machine, arrangement for carrying water immersion test as per Cl 6.10
9	Connections, Cl 5.8	thread gauge, arrangement for pull test as per 6.10 of IS 17274 (Part 6) with a for of 500 N, box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill, arrangement for axial pull force of 250 N and arrangement as per Cl 6.10 of IS 17274 (part 6)
10	Full face masks, Ergonomics, Cl 5.9	As per IS 14166
11	Body Harness, Cl 5.1	arrangement for drop test of 1 m as per Cl 5.10 and with load of 75 Kg, box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3

		(h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill
12	Practical Performance, Ergonomics, Cl 5.11	box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill, Practical performance: Test at low temperature- cold conditioning chamber, cold test chamber set at $(-15 \pm 3) ^\circ\text{C}$, walking and crawling arrangement & carrying and building with wooden blocks arrangement as per CL 6.5.4.3, breathing resistance test apparatus, RPD torso and headform (IS 17274 (Part 5), Test at Low temperature- cold chamber set at an ambient temperature of $(-6 \pm 2) ^\circ\text{C}$, walking and crawling arrangement & carrying and building with wooden blocks arrangement as per CL 6.5.4.3, breathing resistance test apparatus, RPD torso and headform (IS 17274 (Part 5)
13	temperature performance, Cl 5.12.1	Test at low temperature- cold conditioning chamber, RPD torso and headform (IS 17274 (Part 5), breathing machine, pressure gauge, test arrangement as per Method 2 of IS 17274 (Part 2). Tests at high temperature- conditioning chamber at $(60 \pm 3) ^\circ\text{C}$ and a relative humidity of not more than 50 %, RPD torso and headform (IS 17274 (Part 5), breathing machine, pressure gauge, test arrangement as per Method 2 of IS 17274 (Part 2)
14	components, Cl 5.12.2.1	Bunsen burner, stop watch, test arrangement as per Cl 6.2 of IS 17274 (Part 10)
15	Flame engulfment, Cl 5.12.2.2	Bunsen burner, stop watch, breathing apparatus, flow meter, test manikin, oven as per Cl 6.6.1.3, RPD torso and head form, breathing machine, test arrangement as per Cl 6.2 of IS 17274 (Part 10)
16	Resistance to radiant heat, Cl 5.12.2.3	arrangement for exposure of radiant heat of 8.0 K/m^2 , stop watch, flow meter, test arrangement as per Cl 6.3 of IS 17274 (Part 10)
17	High and Medium pressure parts, Cl 5.14	arrangement for pressure test as per Cl 5.14
18	Cylinder and main valve, Cl 5.15	Cylinder and valve to comply with Gas Cylinder Rules, 2016, box as per Cl 6.5.4.3 (a), stop watch arrangement for box lifting test, measuring tape, weighing balance, arrangement for test for crawling as per Cl 5.5.4.3 (b), arrangement for test with hopper and bucket/basket as per 6.5.4.3 (c) and (d), drum (metal/plastic) and sand and arrangement for test of rolling of drum as per Cl 6.5.4.3 (e), arrangement for testing of climbing test as per Cl 6.5.4.3 (f), arrangement for test of crawling through a narrow section as per Cl 6.5.4.3 (g), arrangement for test of clarity of vision as per Cl 6.5.4.3 (h), arrangement for test of communication performance as per Cl 6.5.4.3 (i), decibel meter, tread mill

19	Pressure reducer, Cl 5.16	Flow meter, pressure gauge, RPD torso and head form as per IS 17274 (Part 5), breathing machine, flow meter, pressure gauge, breathing resistance machine
20	Pressure Indicator and Tube, Cl 5.17	arrangement for water immersion test at a depth of 1 m, vernier calliper, control manometer, pressure gauge, flow meter
21	Warning Device, Cl 5.18	pressure gauge, flow meter, decibel meter, sound frequency meter, stop watch, flow meter (5 l/min) and pressure gauge (Cl 5.18.2), chamber with temp range of 0 °C to 10 °C at a relative, humidity of 90 %, breathing machine, climatic test chamber and arrangement for testing of warning device as per Cl 6.8
22	Flexible Hoses and Tubes, Cl 5.19	arrangement for pressure test as per Cl 5.19.2, arrangement for test as per Cl 6.2 of IS 17274 (Part 6)
23	Lung Governed Demand Valve, Cl 5.2	pressure gauge, flow meter, arrangement for carrying out test as per Cl 5.20.2, flow meter and pressure gauge (Cl 5.20.4), RPD torso and head form, breathing machine
24	Breathing Resistance, Cl 5.21	pressure gauge, flow meter, CO2 sensor, RPD torso and head form, breathing machine
25	Static pressure, Cl 5.22	pressure gauge, arrangement to measure static pressure as per Cl 5.22
26	Leak Tightness, Cl 5.23	manometer, pressure gauge, RPD headform

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 and implement calibration plan for the test equipments.

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 the Schedule of the license and Licence Number (i.e. CM/L.....) shall be printed legibly and indelibly on each apparatus and on the package provided always that the apparatus thus marked conforms to all the requirements of the Indian Standard.

3.1 Packing and Marking shall be done as per the provisions of the standard. In addition, the following information shall be given legibly and indelibly on each breathing apparatus and on its packaging:

- i) BIS Licence Number CM/L-
- ii) Details of BIS website shall be marked on the package as follows: “For details of BIS certification please visit www.bis.gov.in”

3.2 Instructions for maintenance and use as per the provisions of the Indian Standard shall be provided with each apparatus in accordance with Cl 8 of the IS.

4. CONTROL UNIT - For the purpose of this scheme, each completely assembled Breathing Apparatus 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. PERFORMANCE TEST - For testing of the Breathing Apparatus involving human subjects, any national regulation related to examination of fitness of test subject with regard to medical history or any other factors shall be addressed. Performance test on Breathing apparatus shall be carried out under supervision of a Registered Medical Practitioner. For this, the licensee shall have panel of doctors, who can be called whenever the test is to be performed. The Practical performance test of the breathing apparatus shall be tested on such human subjects who practice regularly with breathing apparatus and whose medical history is known to be satisfactory. They shall be medically examined immediately before the tests and certified fit to undertake the test procedure. Record of all such testing and the names and addresses of the human subjects on whom testing is carried out shall be maintained for future reference.

7. 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	Levels of Control		
Cl.	Requirement	Test Method			No of sample	Frequency	Remarks
		Clause	Reference				
5.1	General	Annex A, B, 6.4, 6.5, 6.8, 6.11, 6.13	IS 10245 (Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	Auxiliary equipment, if fitted, shall comply as per Annex A and Annex B
5.2	Ergonomics	6.4, 6.5, 6.6,	-do-	R	One	Every 50 th Apparatus OR Three months whichever is earlier	
5.3	Design	5.3, 6.4, 6.5	IS 10245(Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	
5.4	Material Components	6.4, 6.5, 6.6	IS 10245 (Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	
5.5	Cleaning and Disinfection	6.4, 6.5	IS 10245 (Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	
5.6	Mass	6.4	IS 10245 (Pt. 2)	R	One	Each apparatus	
5.7	Water Immersion	6.10	-do-	R	One	Once in a month	

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5.8	Connections	Annex C, D, 6.4 and 6.5.	14138 (part 1)/ IS 10245 (Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	Thread according to IS 14138 (Part 2) shall not be used
5.9	Full face masks	-	IS 14166	R	One	Each consignment (if sourced from outside) or each batch (if manufactured inhouse)	No testing required if the product is ISI marked
5.10	Body Harness	5.10, 6.5	IS 10245 (Pt. 2)	R	One	Every 50 th Apparatus OR Three months whichever is earlier	Test for Life line to be done if harness incorporates means for attachment of a lifeline
5.11	Practical Performance	6.5,6.6	-do-	R	One	Every 50 th Apparatus OR Three months whichever is earlier	
5.12	Resistance to temperature and Flammability						
5.12.1	Temperature performance	6.6.1	-do-	R	One	Once a week	
5.12.2	Flammability						
5.12.2.1	Components	6.2	IS 17274 (Part 10).	R	One	Each consignment or every month, whichever is earlier	
5.12.2.2	Flame engulfment	6.6.1.3, 6.2.5	IS 10245 (Pt. 2), IS 17274 (Part 10)	R	One	Once a month	Applicable for Class 2 apparatus
5.12.2.3	Resistance to radiant heat	6.3	IS 17274 (Part 10).	R	One	Once a month	Applicable for Class 2 apparatus

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5.13	Protection Against Particulate Matter	6.4	IS 10245 (Pt. 2)	R	One	Each apparatus	
5.14	High and Medium pressure parts	6.4	-do-	R	One	Each apparatus	
5.15	Cylinder and main valve	6.4, 6.5	-do-	R	One	Every 50 th Apparatus OR Three months whichever is earlier	Approval of design under Gas Cylinder Rules and test certificate for each lot of cylinders to be obtained
5.16	Pressure reducer	6.4, 6.7	-do-	R	One	Each apparatus	
5.17	Pressure Indicator and Tube	6.4, 6.5	-do-	R	One	Every 50 th Apparatus OR Three months whichever is earlier	Test Certificate from manufacturer for compliance to requirement of 5.17.2, 5.17.3 and 5.17.4 shall be taken
5.18	Warning Device	5.18, 6.4, 6.8	-do-	R	One	Once in a month	Test Certificate from manufacturer for compliance to requirement of 5.18.3 shall be taken
5.19	Flexible Hoses and Tubes	6.2	IS 17274 (Part 6).	R	One	Each consignment or one month whichever is earlier	
5.20	Lung Governed Demand Valve	Method 2	IS 17274 (Part 2)	R	One	Each apparatus	
5.21	Breathing Resistance	Method 2	IS 17274 (Part 2)	R	One	Each apparatus	
5.22	Static pressure	5.22, 6.4	IS 10245 (Pt. 2)	R	One	Each apparatus	

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5.23	Leak Tightness	6.9	-do-	R	One	Each apparatus	
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Note-1: For MSME manufacturers the test facilities specified as 'R' i.e. required in the SIT are also allowed to be subcontracted. 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.