



उत्पाद मानुयल

बिजली संचालित वायवीय स्प्रेयर - सह - डस्टर: भाग 1 नॅप्सैक प्रकार के लिए विशिष्टता IS 7593 Part 1 : 1986 के अनुसार

PRODUCT MANUAL FOR POWER OPERATED PNEUMATIC SPRAYER-CUM-DUSTER PART 1 KNAPSACK TYPE ACCORDING TO IS 7593 Part 1 : 1986

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम की स्कीम-1 के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेंस धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेंस/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 licence/certificate.

1.	उत्पाद Product	:	IS 7593 Part 1 : 1986
	शीर्षक Title	:	बिजली संचालित वायवीय स्प्रेयर - सह - डस्टर: भाग 1 नॅप्सैक प्रकार के लिए विशिष्टता Specification for Power Operated Pneumatic Sprayer-cum-Duster Part 1 Knapsack Type
	संशोधन संख्या No. of Amendments	:	1
2.	नमूनाकरण दिशा निर्देश Sampling Guidelines:		
a)	कच्चा माल Raw material	:	Prime Mover shall conform to IS 7347 (Test certificate from supplier shall be obtained). Air Hose (Rubber) shall conform to IS 446 (It shall be ISI marked or Test Certificate from supplier shall be obtained)
b)	समूहिकरण दिशा निर्देश Grouping guidelines	:	Sprayer-cum-Dusters of same tank capacity shall be considered a group and one sample from the same group to be tested for GoL and inclusion in the scope of licence.

c)	नमूने का परिमाण Sample Size	:	1 Sprayer-cum-Duster for all tests.
3.	परीक्षण उपकरणों की सूची List of Test Equipment	:	कृपया Annex-A देखें Please refer ANNEX – <u>A</u>
4.	निरीक्षण व परीक्षण स्कीम Scheme of Inspection and Testing	:	कृपया Annex-B देखें Please refer ANNEX – <u>B</u>
5.	एक दिन में संभावित परीक्षण Possible Tests in a day	:	All tests except Endurance Test
6.	लाइसेन्स का कार्यक्षेत्र /Scope of the Licence :		
	IS 7593 (Part 1) : 1986 के अनुसार मानक मुहर का उपयोग करने के लिए लाइसेन्स निम्नलिखित कार्यक्षेत्र के लिए प्रदान किया जाता है “Licence is granted to use Standard Mark as per IS 7593 Part 1:1986 with the following scope		
	उत्पाद का नाम Name of the product	बिजली संचालित वायवीय स्प्रेयर - सह - डस्टर: भाग 1 नैप्सैक प्रकार के लिए विशिष्टता Power Operated Pneumatic Sprayer-Cum-Duster - Knapsack Type	
	Type/Size	Tank Capacity in litre	

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ANNEX A

**TO PRODUCT MANUAL
FOR POWER OPERATED PNEUMATIC SPRAYER-CUM-DUSTER
PART 1 KNAPSACK TYPE ACCORDING TO IS 7593 Part 1 : 1986
List of Test Equipment**

Major test equipment required to test as per the Indian Standard

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Air Output Clause 4.1	Pitot Tube, Manometer, Pipe, Hose Coupling, Tachometer, fuel
2	Liquid Discharge Rate Clause 4.2	Measuring Jar, Stopwatch, Tachometer, Fuel
3	Variation in Discharge Clause 4.3	Measuring Jar, Stopwatch, Tachometer, Fuel
4	Dust Discharge Rate Clause 4.4	Weighing Balance, 75 Micron IS Sieve, Ro-tap machine, Graduated 100ml Cylinder, Funnel, Felt Pad, Stopwatch, Tachometer, Fuel.
5	Tank Clause 5.1	Vernier Callipers
6	Tank Capacity Clause 5.1.1	Measuring Jar
7	Air Hose and Straps Clause 5.7 & 5.8	Vernier Callipers, Measuring Tape, Strap Support and Drop Facility.
8	Total Mass Clause 5.11	Weighing Balance
9	Overall Dimensions Clause 5.12	Measuring Tape
10	Endurance Test Clause 5.14	Stopwatch, Sprayer-cum-duster unit, Water (for spraying), Tachometer and Fuel.

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

ANNEX B

SCHEME OF INSPECTION AND TESTING

FOR PRODUCT MANUAL

FOR POWER OPERATED PNEUMATIC SPRAYER-CUM-DUSTER

PART 1 KNAPSACK TYPE ACCORDING TO IS 7593 Part 1 : 1986

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 equipments.

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

3. LABELLING AND MARKING – The Standard Mark, as given in the Schedule of the licence shall be marked on each sprayer-cum-duster provided always that material to which this mark is thus applied conforms to every requirements of the specification. Each sprayer-cum-duster shall be marked with details as mentioned under clause 8.1 of IS 7593 (Part 1). In addition, the following detail shall be marked on each sprayer-cum-duster:

a) Licence No. (CM/L-----)

b) BIS website details i.e. – “For details of BIS certification please visit www.bis.gov.in”.

3.1 Manual – Each sprayer-cum-duster shall be provided with operational and maintenance manual. The manual shall include complete list of regular and optional parts, methods of converting the sprayer into duster, instructions for disassembly and cleaning, instructions for routine inspection, adjustments and replacement of part and instructions for safe handling.

4. CONTROL UNIT – For the purpose of this scheme, all sprayer-cum-dusters of a tank capacity assembled in a day 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. 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
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				
3	Material	-	-	-	-	-	To be declared by the manufacturer
4.1	Air Output	5.1	IS 12482	R	Each Sprayer-cum-duster	-	
4.2	Liquid Discharge	Annex B-1	IS 7593 Part 1	R	One	Every 10 th sprayer-cum-duster	
4.3	Variation in Discharge	Annex B-2	IS 7593 Part 1	R	One	-do-	
4.4	Dust Discharge Rate	Annex B-3	IS 7593 Part 1	R	One	-do-	
5.1.1	Tank capacity	5.1.1	IS 7593 Part 1	R	One	Every 10 th tank	
5.1.2	Test for tank leakage	5.1.2	IS 7593 Part 1	R	Each tank	-	
5.2	Impeller	5.2	IS 7593 Part 1	R	Each impeller	-	
5.3	Air Bent Outlet	5.3	IS 7593 Part 1	R	One	Each control unit	
5.4	Air Pressure Regulating Device	5.4	IS 7593 Part 1	R	One	-do-	
5.5	Air Pressure Pipe	5.5	IS 7593 Part 1	R	One	-do-	
5.5	Flow Regulator	5.6	IS 7593 Part 1	R	One	-do-	
5.7	Air Hose	5.7	IS 7593 Part 1	R	One	Every 10 th air hose	In case of rubber hose, it shall be

							ISI marked or Test Certificate from supplier to be obtained.
5.8	Straps	5.8	IS 7593 Part 1	R	One	Every 50 th sprayer	
		6.3	IS 10134				
5.9 5.9.1	Engine & Exhaust of Prime Mover	5.9.1	IS 7593 Part 1	R	Each engine	-	Test Certificate from supplier to be obtained.
5.10	Fuel Control Level	5.10	IS 7593 Part 1	R	One	Each control unit	
5.11	Total Mass	5.11	IS 7593 Part 1	R	One	Every 50 th sprayer	
5.12	Overall Dimensions	5.12	IS 7593 Part 1	R	One	-do-	
5.13	Arrangement for Lifting	5.13	IS 7593 Part 1	R	One	Each control unit	
5.14	Endurance Test	Annex B-4	IS 7593 Part 1	R	One Sprayer out of Every 500 sprayers manufactured. OR One Sprayer from Every 10 th Control Unit whichever is earlier.		
6	Other Requirements	6.1, 6.2, 6.3	IS 7593 Part 1	R	-	Each Sprayer-cum-Duster	
7	Workmanship & Finish	7.1 & 7.2	-do-	R	-	-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 empaneled 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.