

भारतीय मानक ब्यूरो  
(केंद्रीय मुहर विभाग III)

हमारा संदर्भ : सी एम डी- III/16 : आई एस 4533

11 12 2018

**विषय : आई एस 4533: 1995 के अनुपालन हेतु एस आई टी ।**

इसे उपरोक्त विषय का संदर्भ प्राप्त है ।

सक्षम प्राधिकारी ने उपरोक्त एस आई टी को अनुमोदित कर दिया है ।

सभी क्षेत्रीय और शाखा कार्यालयों से अनुरोध है की उपरोक्त एस आई टी का अनुपालन सुनिश्चित करें ।

औरोस्मिता कबिराज  
वैज्ञानिक बी (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग – बीआईएस इंटरनेट पर डालने हेतू

**BUREAU OF INDIAN STANDARDS**

**(Central Marks Department-III)**

**Our Ref: CMD-III/16 : IS 4533**

**11 12 2018**

**Subject: SIT for implementation of IS 4533: 1995, “Suction Apparatus”.**

This has reference to the subject mentioned above.

The Competent Authority has approved the SIT for implementation of IS 4533: 1995.

All ROs/Bos are requested to ensure the implementation of the above SIT.

**Aurosmita Kabiraj  
Sc-B (CMD-III)**

**Head (CMD-III)**

**Circulated to: All Ros/Bos**

**Copy to: ITS – for hosting on Intranet please**

**SCHEME OF INSPECTION AND TESTING**  
**for certification of**  
**“Suction Apparatus” according to IS 4533 : 1995**

- 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 Cl. 12 of IS 4533.
- 4. CONTROL UNIT** – All apparatus produced in one week shall constitute one 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.
- 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

(1)				(2)	(3)		
TEST DETAILS				TEST EQUIPMENT REQUIREMENT	LEVELS OF CONTROL		
Clause	Requirement	TEST METHODS		R: required (or) S: Sub-contracting permitted	No. of Samples	Frequency	Remarks
		Clause	Reference				
<b>Materials</b>							
4.1	Metal Parts	4.1	IS 4533	S	One	Each consignment	#
4.2	Rubber component	4.2	-do-	S			
4.3	Glass	4.3	-do-	S			
4.4	Plastic	4.4	-do-	S			
<b>Construction</b>							
5.1	Vacuum unit (Type 1&2)	5.1	-do-	R	Each Unit	For Type 1 apparatus, the flame-proof enclosure shall either be ISI marked or be accompanied with TC showing conformity to IS/IEC 60079-1 from TPTL	
5.2	Base	5.2	-do-	R	Each Unit		

5.3	Vacuum Gauge	5.3	-do-	R	Each Unit		#
5.4	Suction bottles and lid	5.4	-do-	R			
5.5	Suction system filter and Traps	5.5	-do-	R			
5.6	Tubings and couplings	5.6	-do-	R			
5.6.1	Rubber Tubing	IS 637		S	Each consignment		#
5.6.2	Coupling	5.6.2	IS 4533	R	Each Unit		
5.7	Castors	IS 4034		S	One	Each consignment of a size	#
5.8	Electric motor	IS 996		S	One	Each consignment of a size	#
5.9	Switches and wiring	5.9	IS 4533	S	One	Each consignment of a size and type	#
6	General requirement	6	-do-	R	One	Each Control unit	
<b>7</b>	<b>Safety Requirements</b>						
a	Protection against electric shock	8	IS 302-1	R	Each unit		
b	Electrical insulation and leakage current at operating temperature	13	-do-	R	Each unit		
c	Stability and mechanical hazards	20	-do-	R	One	Each Control unit	
d	Mechanical strength	21	-do-	S	One	Once in 3 months	
e	Supply connections and external flexible cables and cords	25	-do-	S	One	Once in 3 months	
f	Terminals for external conductors	26	-do-	S	One	Once a month	

g	Provisions for earthing	27	-do-	S	One	Once a month	
h	Screws and connections	28	-do-	S	One	Once in 3 months	
i	Creepage distances and clearances	29	-do-	S	One	Once in 3 months	
j	Resistance to heat, fire and tracking	30	-do-	S	One	Once in 3 months	
k	Resistance to rusting	31	-do-	S	One	Once a month	
8	Workmanship and finish	8.1	IS 4533	R	Every Unit		
		8.2 & 8.3		R	One	Each Control unit	#
9	Adhesion test	9.1	IS 4533	S	One	Each Control unit	

# No further testing required if material is accompanied with Test Certificate or ISI marked.

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.