

Institute of Environmental Sciences and Technology

IEST-RP-CC002.4

Contamination Control Division
Recommended Practice 002.4

Unidirectional-Flow, Clean-Air Devices



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CONTENTS

SECTION

1	SCOPE AND LIMITATIONS	5
2	REFERENCES	5
3	TERMS AND DEFINITIONS	9
4	BACKGROUND AND PURPOSE	10
5	TYPES OF DEVICES	11
6	RECOMMENDED TEST PROCEDURES	21
7	GENERAL REQUIREMENTS	32

FIGURES

1	HORIZONTAL-FLOW DEVICE (BENCH OR TABLETOP)	11
2	HORIZONTAL-FLOW DEVICE WITH EXHAUST (CONSOLE)	12
3	HORIZONTAL-FLOW DEVICE WITH RECIRCULATION (CONSOLE)	13
4	VERTICAL-FLOW DEVICE (CONSOLE)	14
5	VERTICAL-FLOW DEVICE WITH RECIRCULATION (BENCH OR TABLETOP)	15
6	VERTICAL-FLOW DEVICE WITH EXHAUST (BENCH OR TABLETOP)	16
7	VERTICAL-FLOW, DUAL-ACCESS DEVICE	17
8	VERTICAL-FLOW, DUAL-ACCESS DEVICE WITH EXHAUST	18
9	FAN-FILTER UNIT	19
10	CLEAN-AIR MODULE, VERTICAL CONFIGURATION	20
11	TERMINAL UNIT WITH REPLACEMENT FILTER	21

TABLES

D1	SUMMARY OF RECOMMENDED TESTS FOR VARIOUS TYPES OF CLEAN-AIR DEVICES	41
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APPENDIXES

A	INSTALLATION	36
B	ROUTINE MAINTENANCE SCHEDULE	38
C	HEPA OR ULPA FILTER REPLACEMENT	40
D	SUMMARY OF TESTING APPLICABILITIES	41
E	BIBLIOGRAPHY	42

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IEST-RP-CC002.4

1 SCOPE AND LIMITATIONS

1.1 Scope

This Recommended Practice (RP) covers definitions, procedures for evaluating performance, and major requirements of unidirectional-flow, clean-air devices. The RP may be used to define a basis of agreement between customer and supplier in the specification, procurement, and certification testing of unidirectional-flow, clean-air devices with self-contained motor-blower(s) and powered terminal units with replaceable filters. This document also presents recommendations for recertification of devices owned by the customer, under direction of the customer.

1.2 Limitations

This RP does not cover cleanrooms or specialized minienvironments. The RP does not cover biological safety or containment cabinets in their entirety, but covers only certain cleanliness characteristics of these cabinets. This RP recommends ranges of acceptance limits where applicable.

NOTE: Where applicable, codes and standards may be applied to the construction and performance of clean-air devices. These codes and standards should be made part of the agreement between the customer and the supplier.

2 REFERENCES

2.1 Reference documents

The following documents are incorporated into this RP to the extent specified herein. Users should apply the most recent editions of the reference.

ACGIH: TLVs and BEIs

AMCA Publication 91: Certified Ratings Program – Product Rating Manual for Fan Air Performance

ANSI/AIHA Z9.1-2002 Laboratory Ventilation

ANSI/AIHA Z9.7-2007 Recirculation of Air from Industrial Process Exhaust Systems

ANSI/AMCA Publication 99: Standards Handbook

ANSI/IESNA RP-7-01: Lighting Industrial Facilities

ANSI/IESNA RP-29-06: Lighting for Hospitals and Health Care Facilities

ASHRAE Standard 52.2-2012: Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size