Australian Standard™

Cleanrooms, workstations, safety cabinets and pharmaceutical isolators—Methods of test

Method 4: Determination of performance of laminar flow cleanrooms under loaded filter conditions

1 SCOPE This Standard sets out the method for determining air velocity, pressure drop across the filter and motor blower current under loaded filter conditions in laminar flow cleanrooms.

2 APPLICATION This method is used to determine whether the motor blowers of a laminar flow cleanroom have sufficient capacity to maintain the specified air velocity as the filters are loaded to a predetermined increase in system pressure drop.

3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS
1386 Cleanrooms and clean workstations
1386.1 Part 1: Principles of clean space control
1807 Cleanrooms, workstations, safety cabinets and pharmaceutical isolators—Methods of test
1807.0 Part 0: List of methods and apparatus
1807.3 Method 3: Determination of air velocity and uniformity of air velocity in laminar flow cleanrooms

4 DEFINITIONS For the purpose of this Standard the definitions given in AS 1386.1 and AS 1807.0 apply.

5 PRINCIPLE Clean final filters are loaded to simulate a specified increase in system pressure drop. The air velocity and current drawn by the motor blower are then measured.

6 APPARATUS The following apparatus as specified in AS 1807.0 is required:

(a) Restrictive devices.

(b) Freestanding anemometer.

(c) Manometer with suitable range.

(d) Moving-iron ammeter. Alternatively, a tong test ammeter (clamp meter) may be used.

NOTE: Both instruments are seriously affected by strong magnetic fields.

