Australian Standard™

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

Method 3: Determination of air velocity and uniformity of air velocity in laminar flow cleanrooms

1 SCOPE This Standard sets out the method for determining velocity and uniformity of air velocity in a specified plane within the work zone of laminar flow cleanrooms.

2 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

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

4 PRINCIPLE Air velocity readings are taken at specified locations using an anemometer.

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

(a) Freestanding anemometer.

(b) Manometer with suitable range.

6 PROCEDURE The procedure shall be as follows:

(a) Measure the initial pressure drop across the HEPA filter installation(s) prior to any adjustments being made. The initial readings on installation gauges, if fitted, shall also be recorded.

(b) Divide the entrance and exit planes of the work zone into grids of equal area having approximate dimensions of 600 mm × 600 mm.

NOTE: For the purpose of this test, the entrance plane is parallel to and 600 mm downstream from the filter face. The exit plane is parallel to and 600 mm upstream from the return air grilles.

(c) With the cleanroom in its operating mode, take velocity readings in the entrance plane and the exit plane with the filter guards, if fitted, in position using the freestanding anemometer. Take the readings at the centre of each grid with the anemometer held so that there is minimal interference to its readings.

NOTE: Positions refer to the front face of the anemometer.

