Australian Standard™

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

Method 18: Determination of vibration in workstations, safety cabinets and pharmaceutical isolators

1 SCOPE This Standard sets out the method for determining the vibration levels within a workstation, safety cabinet or pharmaceutical isolator with the air-handling and electrical equipment operating and with this equipment at rest.

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 Measurements of the vibration velocity are made at the geometric centre of the work surface, both with and without the workstation, safety cabinet or isolator equipment in operation. These measurements are made with a vibration meter to permit comparison of the vibration levels under these two conditions. Determination of the net vibration, i.e. that attributable to the workstation, safety cabinet or isolator alone, requires vibration frequency analysis.

5 APPARATUS A vibration meter as specified in AS 1807.0 is required.

6 PROCEDURE The procedure shall be as follows:

(a) Attach the sensing element to the geometric centre of the work surface.

(b) Ensure that the airflow is as specified.

(c) With the cabinet in normal operation, measure the gross vibration velocity in the vertical, horizontal front-to-rear and horizontal side-to-side axes.

(d) Turn off the mechanical system and with the sensing element positioned and attached as in Step (a), measure the ambient vibration velocity.