

# Australian Standard®

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## Cleanrooms, workstations, and safety cabinets—Method of test

### Method 24: Determination of recovery times of cleanrooms

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**1 SCOPE.** This Standard sets out a method for determining the recovery time(s) after contamination of a cleanroom.

NOTE: This test method is not mandatory for laminar flow and non-laminar flow cleanrooms in accordance with AS 1386.2, AS 1386.3, and AS 1386.4. Therefore, deviations from the test method or a different test method for the determination of recovery times are acceptable subject to agreement by the user of the cleanroom.

**2 REFERENCED DOCUMENTS.** The following documents are referred to in this Standard:

AS

- 1386.6 Cleanrooms and clean workstations
- 1386.1 Part 1: Principles of clean space control
- 1386.2 Part 2: Laminar flow cleanrooms
- 1386.3 Part 3: Non-laminar flow cleanrooms—Class 350 and cleaner
- 1386.4 Part 4: Non-laminar flow cleanrooms—Class 3500
- 1807 Cleanrooms, workstations, and safety cabinets—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.** A polydispersed aerosol is released at specified locations and the times required for the cleanroom to return to its pre-test cleanliness level(s) are measured.

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

- (a) Cold DOP generator with aerosol delivery hose.
- (b) Automatic particle counter.

**6 PROCEDURE.**

NOTE: The test operator should avoid inhalation of and exposure to heavy concentration of the test aerosol. It is recommended that a suitable mask or respirator be worn for the duration of this test.

**6.1 Laminar flow cleanrooms.** For laminar flow rooms, the procedure shall be as follows:

- (a) Select sampling locations at critical work positions as nominated by the user.
- (b) Using the automatic particle counter, sample the air at each location to establish the *room-at-rest level* in the relevant particle size range. Record the particle counts.
- (c) Using the cold DOP generator, release aerosol at the entrance plane, directly upstream of one sample location.

NOTE: For the purpose of this test, the entrance plane is parallel to and 600 mm downstream from the filter face.

- (d) Sample the air at the corresponding sample location using the automatic particle counter and switch off the aerosol release when counter registers approximately 10 times the room-at-rest level (see (b)). Record the particle count and the time of aerosol release.
- (e) Maintain sampling air until the room-at-rest level is restored for the corresponding sample location in the relevant particle size range. Record the particle count and the time required to re-establish room-at-rest conditions.

NOTE: Room-at-rest conditions are restored when the particle count in the relevant particle size range is equal to or less than twice the measured room-at-rest level, providing this level is within the specified cleanliness class of the cleanroom. If this level is not within the specified cleanliness class of