

# Australian Standard<sup>®</sup>

---

## Automatic fire detection and alarm systems—Methods of test for actuating devices

### Method 19: Dust test

---

**1 SCOPE.** This Standard sets out the test method for evaluating the effects of dust on point type smoke actuating device operation. (See performance requirements in the appropriate device Standard.)

**2 PRINCIPLE.** The actuating device is exposed to a specified dust laden atmosphere and then tested for sensitivity.

**3 APPARATUS.** The test apparatus shall be as follows:

- (a) An air-tight chamber having an internal volume of at least 0.09 m<sup>3</sup>. The chamber shall be equipped with an air compressor or blower capable of maintaining an air velocity of approximately 0.25 m/s in the vicinity of the actuating device (see Figure 1).
- (b) Approximately 60 g of cement dust capable of passing through a 75 µm mesh screen, maintained at 20 to 50% relative humidity.

**4 PROCEDURE.** The procedure shall be as follows:

- (a) Place the actuating device in its intended orientation on the support rods within the test chamber.
- (b) Circulate the cement dust so as to completely envelop the actuating device in the chamber for not less than 15 min.
- (c) Carefully remove the actuating device from the test chamber and connect it to a power supply and indicating equipment.
- (d) Test the actuating device for sensitivity in accordance with AS 2362.17, unless the actuating device has generated a fault signal or entered an alarm state.

**5 REPORTING OF RESULTS.** The following shall be reported.

- (a) Information identifying the actuating device.
- (b) Whether the actuating device generated a fault signal or entered an alarm state, and whether the actuating device complied with the requirements for sensitivity.
- (c) Reference to this test method.