



Standard Test Methods for Detention Sliding Door Locking Device Assembly¹

This standard is issued under the fixed designation F1643; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 These test methods cover the apparatus, procedures, and acceptance conditions for evaluating the normal operational performance and the performance characteristics under assault, smoke, and fire conditions of sliding device assemblies in detention and correctional institutions. These test methods give an indication of the performance characteristics of devices in actual service. Such variables as installation and maintenance conditions are not considered.

1.2 It is the intent of these test methods to help ensure that detention sliding devices perform at or above minimum acceptable levels to control passage to unauthorized or secure areas, to confine inmates and to delay and frustrate escape attempts and resist vandalism. However, these test methods do not address door construction. It is recognized that in order to meet the intent of these test methods, door assemblies shall be compatible with the level of performance required by Test Methods F1450.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- F1450 Test Methods for Hollow Metal Swinging Door Assemblies for Detention and Correctional Facilities
- F1577 Test Methods for Detention Locks for Swinging Doors

¹ These test methods are under the jurisdiction of ASTM Committee F33 on Detention and Correctional Facilities and are the direct responsibility of Subcommittee F33.04 on Detention Hardware.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

F1592 Test Methods for Detention Hollow Metal Vision Systems

F1758 Test Methods for Detention Hinges Used on Detention-Grade Swinging Doors

F1915 Test Methods for Glazing for Detention Facilities

2.2 NFPA Standards:³

NFPA 101 Life Safety Code

NFPA 105 Installation of Smoke Control Door Assemblies

NFPA 252 Methods of Fire Tests of Door Assemblies

2.3 UL Standard:⁴

UL-752 Bullet Resisting Equipment

UL-1034 Standard for Burglary Resistant Electric Locking Mechanisms

3. Terminology

3.1 Definitions:

3.1.1 *controlled passage, n*—capability to restrict the unauthorized movement of individuals.

3.1.2 *cover box, n*—enclosure that contains, secures, and protects all horizontal tracks, cables, tubing, wiring, motors, etc. that support and control the door; the enclosure is continuous across the horizontal door movement and may be continuous across several doors. Also referred to as horizontal mechanism housing.

3.1.3 *deadlocked, adj*—mechanical condition of the locking mechanism that secures against unlocking or unlatching by end pressure, lifting, prying, or other manipulations against the mechanism.

3.1.4 *door guide, n*—horizontal member attached to the wall adjacent to the bottom of the door used to control the bottom of the door.

3.1.5 *forcible egress, n*—ability to pass a 5 × 8 × 8 in. (127 × 203.2 × 203.2 mm) rigid box through an opening in the test sample created by destructive testing procedures with no more than 10 lb (44.48 N) of force.

3.1.6 *hand tools, n*—items permitted for use in disengaging a lock when it fails to disengage either remotely or manually. For example, hand screwdrivers (of various sizes and tip

³ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

⁴ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.