Designation: F 1450 – 97 (Reapproved 2004)

Standard Test Methods for Hollow Metal Swinging Door Assemblies for Detention Facilities[1]

This standard is issued under the fixed designation F 1450; 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 requirements for mechanical tests, simulated service test, and testing equipment for determining the performance characteristics of swinging detention hollow metal door assemblies of various styles and types of construction for use in wall openings designed to incarcerate inmates in detention/correctional institutions.

1.2 These test methods test the capability of a swinging door assembly to prevent, delay, and frustrate escape, to limit or control access to unauthorized or secure areas, and to resist common types of vandalism.

1.3 These test methods apply primarily to detention door assemblies to and from secure areas generally found inside detention/correctional facilities, such as: dayrooms, control rooms, cells, and sally ports.

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

1.5 *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]

E 152 Methods of Fire Tests of Door Assemblies[3]

F 1577 Test Methods for Detention Locks for Swinging Doors

F 1643 Test Methods for Detention Sliding Door Locking Device Assembly

2.2 *NFPA Standard:*

252 Methods of Fire Tests of Door Assemblies[4]

2.3 *UL Standards:*[5]

UL-10 (B) Fire Tests of Door Assemblies

UL-752 Bullet Resisting Equipment

UL-437 Standard for Key Locks

UL-1034 Standard for Burglary Resistant Electric Locking Mechanisms

3. Terminology

3.1 *Definitions:*

3.1.1 *bolt*—a metal bar which, when actuated, is projected (or thrown) either horizontally or vertically into a retaining member, such as a strike plate, to prevent a door from moving or opening.

3.1.2 *bolt projection (or bolt throw)*—the distance from the edge of the door or frame, at the bolt center line, to the farthest point on the bolt in the projected position.

3.1.3 *component*—a subassembly, as distinguished from a part, that combines with other components to make up a total door assembly.

3.1.3.1 *Discussion*—The prime components of a door assembly include the following: door, lock, hinges, wall, and door frame (includes hinge jamb, strike jamb, and header).

3.1.4 *detention security*—assurance of the restriction of mobility of inmates to designated areas within a correctional or detention facility.

3.1.5 *door assembly*—a unit composed of a group of parts or components that make up an opening barrier for a passageway through a wall.

3.1.5.1 *Discussion*—For the purpose of these test methods, a door assembly consists of the following parts: door; hinges; locking device or devices; operation contacts (such as handles, knobs, or flush pulls); security glazing and glazing molding; miscellaneous hardware and closers; the frame, including the head and jambs plus anchorage devices to the surrounding

[1] These test methods are under the jurisdiction of ASTM Committee F33 on Detention and Correctional Facilities and are the direct responsibility of Subcommittee F33.02 on Physical Barriers.

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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.

[3] Withdrawn.

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

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

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