

ANSI/BHMA A156.27-2003



**AMERICAN NATIONAL STANDARD
FOR
POWER AND MANUAL OPERATED REVOLVING PEDESTRIAN DOORS**



SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

**AMERICAN NATIONAL STANDARDS INSTITUTE, INC.
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AMERICAN NATIONAL STANDARD

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.27)

The general classification of builders hardware includes a wide variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. Section P, Power Doors and Components is one such section and this Standard is a result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture this product. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

Performance tests and, where necessary, dimensional requirements have been established to ensure a degree of safety. There are no restrictions on design except for those dimensional requirements imposed for reasons of safety.

This Standard is not intended to obstruct but rather to encourage the development of improved products, methods and materials. The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods and materials will be developed. With this in mind, the Association plans to update, correct and revise these Standards on a regular basis. It shall also be the responsibility of manufacturers to request such appropriate revisions.

TABLE of CONTENTS

Section	Page
1. SCOPE.....	5
2. DEFINITIONS	5
3. GENERAL	6
4. MANUAL REVOLVING DOORS.....	6
5. AUTOMATIC REVOLVING DOORS WITH A CENTER SHAFT	7
6. AUTOMATIC REVOLVING DOORS WITH A CORE	8
7. AUTOMATIC TWO WING REVOLVING DOORS	8
8. ACCESS CONTROLLED REVOLVING DOORS.....	9
9. ACCESS CONTROLLED - ONE WAY FREE PASSAGE (AIRPORT ACCESS).....	10
10. REVOLVING DOOR EGRESS REQUIREMENTS.....	11
11. SIGNAGE.....	11
12. GLAZING	11
13. CLEARANCES.....	12
14. STARTING FORCE.....	12
15. SLOW SPEED OPERATION AND ACTIVATION.....	12
16. WING SENSORS.....	12
17. END WALL AND BOTTOM RAIL SENSORS.....	13
18. KINETIC ENERGY REQUIREMENTS	13
19. DOOR OUT OF POSITION	13
20. EMERGENCY STOP SWITCH	13
21. ACTIVATING DEVICES.....	13
APPENDIX	14

1. SCOPE

1.1 Requirements in this standard apply to power operated revolving type doors which rotate automatically when approached by pedestrians, some small vehicular use, and manual revolving type doors for pedestrians. Included are provisions to reduce the chance of user injury and entrapment. Revolving doors for industrial or trained traffic are not covered in this Standard.

1.2 Where this standard contains specifications relating to maximum and minimum dimensions of various components of revolving doors for pedestrian use and some small vehicular traffic, such dimensions are included to provide user protection for what are in the industry, standard application conditions. This standard does not attempt to assess any factors that exist with respect to custom installations.

2. DEFINITIONS

2.1 **Active area** An area where sensors detect presence or motion.

2.2 **Automatic Door Operator** A power operated mechanism that is attached to a revolving door for the purpose of mechanically opening a door upon the receipt of an activating signal. (Also called a power operated door.)

2.3 **Bookfold Position** When each wing has been released from its fixed position permitting wings to pivot in the direction of egress.

2.4 **Bottom rail** The lower horizontal member of the door wing.

2.5 **Break out** A process whereby wings can be pushed open manually in the swing mode for emergency egress with all wings positioned beside each other in the direction of egress (codes refer to this as bookfold).

2.6 **Canopy** The area above the wings and enclosure comprised of a ceiling (soffit), fascia, and roof (optional).

2.7 **Center shaft** The rotating center, 12 in. (150 mm) or less in diameter, of revolving doors to which the wings are attached.

2.8 **Clearance** The minimum gap around the wing to the ceiling, enclosure, and floor, not including the weather stripping, at any point in its rotation.

2.9 **Control** A unit containing electrical components for automatic control of door operation and overload protection.

2.10 **Core** The rotating central portion, greater than 12 in. (150 mm) in diameter, of a large diameter revolving door to which the wings are attached.

2.11 **Emergency stop** Any action or signal that causes the door to stop rotation.

2.12 **Enclosure** The walls in which the wings operate. Also known as Drum.

2.13 **Fascia** The vertical surface(s) of the canopy .

2.14 **Knowing Act** With reference to the act of operating a door operator, such as pressing a switch with the knowledge of what will happen.

2.15 **Manual operation** The capability of rotating the revolving door by a person applying a force to a door wing.

2.16 **Manual speed control** A device used to regulate revolving door speed.

2.17 **Motion sensor** A sensor designed to detect the movement of a person or equivalent at the point of entry to the door that gives a control signal to the power operated door.