Hardware Highlights

BHMA
builders hardware manufacturers association

ANSI/BHMA A156.27-2019

American National Standard
For Power And Manual Operated Revolving Pedestrian Doors

A156.27-2011 applies 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. For further information about hinges, consult the full standard, ANSI/BHMA A156.27 for Revolving Doors.

BHMA has created this series of *Hardware Highlights* to provide useful, accessible information about builders hardware for architects, specifiers, builders, building code officials – anyone with an interest in devices that hang, control, secure, and trim the doors. BHMA is the trade association which represents almost all of the North American manufacturers of builders hardware. One of its main activities since 1983 has been the development and maintenance of ANSI-approved standards for 35 separate product categories.

Product Performance – Purchasers of Revolving Doors produced and installed in compliance with A156.27 can be assured their products will perform to their expectations.

Below are an explanation and some examples of the performance specifications for revolving doors:

SPEED	EGRESS	SIGNAGE	SENSORS
The maximum allowable RPM is specified in tabular form for each type of door depending on the diameter. For example, a ten foot diameter revolving door with a center shaft is limited to 5.7 revolutions per minute at standard speed.	The standard covers all the necessary attributes to ensure safe egress in a loss of power. Breakout with an egress path providing a 36in. (910mm) aggregate minimum width is specified, along with the applicable breakout forces and allowable exceptions.	A section is devoted to describe the necessary signage including the familiar "Automatic Door" sign. The exact font size, color and placement are shown. The "slow speed activation" sign, and "emergency stop" sign are also covered.	Sensors to detect the motion or presence of a person or object in automatic revolving doors are described in full detail. Performance of each of the following types of sensors is defined: wing, end wall, bottom rail guard, and entry point sensors

Building Codes Because Builders Hardware provides several attributes that are essential to building safety and performance, including egress and fire protection. BHMA products are designed to comply with all applicable requirements. For example, hardware for fire doors is evaluated and listed to UL 10C by accredited third party testing laboratories.

Accessibility There are various types of trim which meet the ADA and A117.1 requirements for operable parts to be "operable with one hand and shall not require tight grasping, pinching or twisting of the wrist." Lever or paddle type trim meets these stipulations, while knob trim should be avoided for accessible routes. In addition, BHMA certified hardware must comply with the operational forces in their respective standards, which have been shown to be suitable for accessible applications.

Sustainability BHMA products contribute to building sustainability through their verified durability, as well as material characteristics such as recycled content and recyclability. The reliable closing and sealing of openings can also contribute to energy conservation. BHMA has developed Product Category Rules, which will further define sustainability requirements and guide life cycle assessments and environmental performance declarations.

Illustrations and Figures: A set of fourteen detailed figures are provided to augment the written requirements for all types of revolving doors. Sensor safety zones, activating zones, entrapment protection zones and breakout diagrams can be found.