

HOW TO PROPERLY SELECT AND MAINTAIN AUTOMATIC DOORS IN RETAIL ENVIRONMENTS

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In retail environments, the decision to specify and install automatic doors should be primarily dictated by the types and quantity of users that are expected to enter and exit the location on a regular basis. Automatic doors are a natural choice in an environment where anticipated users include shoppers carrying packages or pushing strollers or carts, handicapped individuals and elderly patrons. It is also widely understood that automatic doors demonstrate overall good customer service. In fact, a recent study that was conducted by the American Association of Automatic Door Manufacturers (AAADM) indicated that 98 percent of consumers who expressed a preference between automatic and manual doors favor automatic doors.

After the initial decision to install automatic doors has been made, it is important to take steps to guarantee that the ideal type of automatic door is chosen and subsequently maintained in a manner that ensures it will be a fairly trouble-free and valuable asset to the business for many years.

SIMPLIFYING THE SELECTION PROCESS

Selecting the best type of automatic door for a particular retail operation is a challenge that can be easily overcome with the help of qualified professionals who are familiar with the desired traffic flow, types of users of the facility and visual impression desired. So, it is important to choose a manufacturer that will take the time to understand the specific needs and preferences of your business.

When meeting with potential manufacturers, AAADM recommends asking them for proof of compliance with codes and standards. Underwriters Laboratories (UL), and other nationally recognized test agencies, label and list products for compliance with their regulations.

It is also fundamental for the business owner to be involved in the decision making process. Besides obtaining input from the prospective manufacturer, he or she should also confer with an architect or consultant knowledgeable of applicable codes and regulations.

There are many questions that the owner and architect should answer in the initial phase of their discussions, including:

- Will the door serve as an emergency exit during evacuations?
- Does the door need to comply with the Americans with Disabilities Act Accessibility Guidelines (ADAAG)?
- How will it meet fire regulations?
- Does it need to be locked?

AAADM has developed a guide to selecting automatic doors, which is available as a free download on the library page of the AAADM Web site, www.aaadm.com.

KEY ISSUES TO CONSIDER

While factors such as appearance are important, they should be a secondary consideration when selecting an automatic door. More importantly, federal, state and local codes must all be met. Fortunately, given the wide range of options, you will not be forced to sacrifice form for function.

Generally, codes for automatic doors intended for pedestrian use require that the door swing out in emergencies when pushed in the direction of egress. The code mandates the net door opening be a precise width based on the size of the store or facility and usually it must be a minimum of seven feet high.

To meet minimum ADA compliance guidelines, there must be an adequate area around the door for maneuvering, a clear opening of 32 inches and a threshold that is tapered. The door should also be able to be opened with minimal effort.

ANSI A156.10 Standard for Power Operated Doors is the top source for specifying automatic doors. It covers all required safety-related elements. To guarantee the door is installed properly, an AAADM-certified inspector should inspect the door immediately following installation.

MATCHING THE DOOR TO THE APPLICATION

The floor plan and layout of a facility significantly influence the type of automatic door that will be installed. Whether the intended traffic flow is one-way or two-way is a crucial consideration as well. The size of the opening that will be required to meet the traffic conditions should also be determined. And, remember that a vestibule might be a good option to help control the heating and cooling costs and keep employees stationed by the door comfortable.

The costs associated with properly equipped automatic sliding, swinging and folding doors are about the same. So, price should not play a significant role in the decision.

Maintenance is another factor, and its costs can vary by door type and sensors in use. Finally, aesthetics come into play. Fortunately, there are a wide variety of diverse finishes available to meet business's likings. Painted, clad, anodized aluminum, stainless steel, brass and powder-coated are only a few of the options offered.

There are three basic types of automatic doors-

Automatic Sliding Doors: Automatic sliding doors allow effective two-way traffic through a single door. It is vital that the doors be equipped with the emergency swing feature (SX) for code compliance. Automatic sliding doors require an adequate amount of slide room in which the door can slide.

Automatic Swinging doors: When a swinging door is automated, two doors are required. One door swings inward and the other door swings outward. This enables two-way traffic. AAADM cautions that two-way traffic through a single automatic swinging door is not normally recommended. The exception is a low-energy swing operator that has different characteristics than a fully automatic door. It is crucial that these types of doors are well marked to indicate their direction of travel. A minimum of 11 feet of space between the two doors is suggested to give some separation and to eliminate sensor interference between the two doors.

Automatic Folding Doors: A bi-folding door requires minimal space to install, yet provides plenty of clear door space. This makes this type of door a preferred choice when retail space is at a premium. These doors should have an emergency swing feature if the door is being used as an egress location.

No matter the type of door, the automatic door system should be designed in such a way that traffic approaches the door in full view and users walk directly toward the door. Pedestrians must have excellent visibility of the door and its markings and be able to clearly observe the direction of door travel. Avoid positioning vending machines, pay telephones or anything else that has potential to distract users within four feet of the moving door.

Performance and Maintenance

When choosing an automatic door supplier, there are a number of issues to take into account. Timeliness in delivery and installation are important. Fundamental, of course, is that the door works properly and safely.

Providing automatic door equipment is just a small portion of a successful door automation program. A planned maintenance program should be strongly considered to guarantee that the automatic doors remain in superior condition and working order. These programs often reveal small issues before they become large, expensive problems.

There are numerous kinds of planned maintenance programs available. The number of automatic doors the chain owns, the amount of customer traffic, the age of the automatic doors and the retailer's overall attitude toward maintenance programs often influence which program they choose. Regardless of the program that is chosen, it is imperative to select a manufacturer/supplier that employs AAADM-trained technicians.

AAADM Guidelines For Automatic Doors

The American Association of Automatic Door Manufacturers is a trade association of power-operated automatic door manufacturers. AAADM was established to raise public awareness and administer a program to certify automatic door inspectors. AAADM advocates proper specification, installation and maintenance of all automatic doors.

Teaching automatic door safety to inspectors is part of AAADM's certification program. AAADM also conducted a public awareness campaign to inform people that automatic doors are safe, but advises users to keep moving when passing through door openings. AAADM's guidelines include the following:

-The automatic door should be properly specified to suit the intended use, and the ANSI A156.10 Standard for Power-Operated Doors should be followed.

-Qualified technicians with AAADM certification should install automatic doors.

-Planned maintenance and daily inspections are strongly recommended. Daily safety-check procedures are outlined on a label that can be obtained from AAADM or any certified inspector.

-An AAADM Certified Inspector should inspect automatic doors annually.

-Doors should be properly marked as automatic.

-Door closing speed and force should be adjusted for the intended public. Time delay should be set, and activating devices properly positioned and adjusted.

Safety and Responsibility

Remember, these guidelines should only be used as a primer. It is extremely important to consult with qualified professionals throughout the design, selection and installation process. Furthermore, if even the slightest problem is detected, the automatic door in question should be shut down and its operation should cease until a certified technician can diagnose and address the issue. When it comes to automatic doors, safety is a critical responsibility that should and must be shared by the business owner, specifying architect and supplier.

SIDEBAR

How to Perform a Daily Safety Check

You should perform daily safety checks on each automatic door. For customer safety and your own protection, you may wish to perform these checks while traffic is light.

It does not matter when you conduct your daily safety checks, but it is a good idea to get in the habit of doing them at the same time every day. It is advisable to check your door each morning when the power is turned on to the door system or after any loss of electrical power.

Sensor Activation/Presence Detection Safety Checks

In general, start by checking the electronic sensor by walking toward the door opening at a moderate speed at various angles. The door should start opening as you approach, should swing or slide open smoothly and stop without impact. As you move slowly toward the door, it should remain open. For doors that are used for two-way traffic, you should repeat this process from the other side of the opening.

Now, step out of the sensor zone or off the floor mat. After a brief time delay, the door should close.

Approach the safety side of the swinging door first, then have someone else approach the activating side of the door. As long as you are in the safety area of the door, it should not open. It is recommended that you observe the traffic coming to the door and plan the traffic patterns so that people will approach the doors from straight on and not from an angle.

Further, if your doors are equipped with electronic holding beams, you should cover each doorway holding the beam with your hand and stand motionless for several seconds. The door should remain open. Remove your hand and the door should close after the time delay expires. If other safety devices are being used, crouch motionless in the door opening for ten seconds. The door should not close.

If the safety sensor is not working, the door may swing toward you without stopping.

* Exercise caution while conducting your daily checks.