

DOORS, GATES AND GRILLES

MANUFACTURERS ENHANCE AUTOMATIC DOOR SAFETY

Automatic door manufacturers are working to make their systems safer and more reliable, but retailers can take an active role in automatic door safety as well.

Patricia Wren

Good retailers take nothing for granted when it comes to customer safety — even their normally reliable automatic doors, which open and close safely more than 50 billion times a year in the United States alone.

In retail stores, automatic doors may be sliding, swinging or folding, power-operated pedestrian doors. These doors offer an added customer service and enhance store accessibility that manual doors could never provide, particularly for the handicapped, the elderly, shoppers with small children or those laden with merchandise-filled bags.

Manufacturers work constantly to refine the safety, reliability and convenience of automatic doors. In 1994, a group of like-minded manufacturers founded the American Association of Automatic Door Manufacturers (AAADM), whose members work together as an industry trade association.

"At the heart of its mission to improve safety wherever automatic doors are in use, AAADM has developed inspection procedures and a training and certification program for automatic door system inspectors," says Naomi Angel, spokesperson for AAADM. "Our members meet regularly to review and update our certification program and the standards for automatic door systems."

Angel emphasizes that retailers have an important role and should perform daily inspections of door operation. They should be generally aware, throughout

the retail day, that doors are operating smoothly and adequately accommodating customer traffic patterns. Retailers should prominently post safety decals, available from manufacturers or AAADM. These are easily recognizable, yellow "Automatic Door" decals as well as decals indicating the direction of pedestrian travel and emergency procedures. An arrow sign should be visible from the approach side of a swinging door, and an international "Do Not Enter" sign, in red, should be visible on the wrong-way side of one-way doors. Decals on two-way doors should be visible from both sides. An AAADM safety information sticker should be affixed to the door or frame in a protected, visible location.

"In addition, retailers and retail store designers can help the manufacturers by continuing to enhance safety through

specifying inspections by an authorized, AAADM-certified technician," says Angel. Automatic doors should be inspected at the time of installation, and then inspections should be scheduled annually. In the event of a malfunction, retailers should not attempt to repair or adjust the door themselves, but should call an authorized repair expert.

Manufacturers are striving to research, develop, test and implement technologies that will make sensors, mats, mechanisms and the doors themselves function more smoothly and even more safely. "Members of AAADM are constantly working to improve automatic door materials, design, technology and the application of different technologies in automatic door systems and components," Angel says. "We also strive to improve installation and maintenance,

PRELIMINARY INSPECTION FOR AUTOMATIC DOORS

- Correctly position decals and labels so that they are easily readable.
- Make sure doorways, approaches and floor guides are clean and free of debris that could interfere with proper door operation.
- Position bulletin boards, literature racks and merchandise displays well away from the doorway.
- Check that door mats are in their correct position, with no corners turned up.
- Ensure that pedestrian traffic approaches straight on, not from the side.
- Check the door threshold to make sure all screws are secured.
- Make sure guide rails are securely in place.
- Ensure the door is securely in position.

critical links in the safety chain that should not be overlooked by building designers and owners.*

Since the 1940s, when the first automatic door floor-mat device was introduced, innovation and improved safety have been industry hallmarks. Emergency breakout features were introduced in the 1960s, and by the 1970s, photoelectric motion detectors, handicapped-access activators, low-energy swing doors and the first American National Standard (ANSI) for power-operated pedestrian doors were introduced. In the 1980s, the first infrared presence sensors were used, and motion detector activation became a standard. In the past decade, automatic folding doors came into use, and the ANSI standard was broadened to encompass them. The formal organization, AAADM, also was created.

AAADM recently launched a public awareness campaign to enhance an already exemplary safety record. In the campaign, consumers are reminded that they should exercise reasonable care and caution when passing through automatic doors and should not hesitate or stop in the door opening.

Planned maintenance for automatic doors is extremely important. Retailers should perform a daily safety inspection at a designated time each day. This procedure should also be conducted after any power outage or any other time that power to the door has been turned off. Daily safety procedures are outlined on a label that can be obtained from AAADM or any certified inspector.

Retailers should make sure they have a copy of the owner's manual for operation of all automatic doors and instruct employees on location and operation of function switches, circuit breakers or power-disconnect switches. Employees should also have easy access to the telephone number to call for authorized service. **PRSM**

AUTOMATIC DOOR INSPECTION PROCEDURES

- With swinging doors, two employees should perform the daily inspection. One should stand in the safety area — the swing pattern of the door — while the other steps onto the activating mat or into the sensor beam. The door should not open as long as anyone is in the safety area.
- If activation mats are used, step on each section of each mat to confirm proper functioning.
- For doors with electronic sensors, check the sensor by walking toward the door at a moderate rate of speed. Do several approaches from various angles, and step in and out of the sensor beam several times from different directions.
- For doors with electronic holding beams, cover the beam and stand motionless to make sure the door remains open. Uncover the beam to make sure the door closes after a brief delay.
- For doors with electronic sensors and holding beams, perform tests standing upright as well as in a crouched position.
- Automatic doors should slide or swing open smoothly and stop without impact. As you move through the door, it should remain open. When you step off the activation mat or out of the sensor beam, the door should close smoothly after a brief delay.
- Stop in the doorway for several seconds. The door should remain open.
- For two-way doors, repeat this inspection procedure from both approaches.
- Exercise caution when performing daily inspections.
- The automatic door owner's manual outlines specific tests, rate of swing or movement and closing-delay times for the doors installed at a retail store. In case of a malfunction, turn off power to the door and block the entrance with a "Not in Use/Please Use Other Doors" sign. If only one door is installed, secure the door in an open position. Do not attempt to repair or adjust the door. Call an authorized automatic door technician for service.

For information about a videotape presentation on daily safety check procedures that can be used for employee training or retraining, contact AAADM, 1300 Sumner Ave., Cleveland, Ohio, 44115-2851; phone (216) 241-7333, fax (216) 241-0105. Visit the AAADM Web site at www.aaadm.com.