CRANE REVOLVING DOORS

Enabling Better Buildings™
DORMA is a national member of the United States Green Building Council (USGBC). We understand the importance of LEED certification and welcome the challenge to build safe and sustainable buildings by aligning our products with standards set by the USGBC.
CRANE REVOLVING DOORS

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CONFIGURED FOR THE MOST DEMANDING APPLICATION—YOURS

Crane Revolving Doors bring your vision to life—from an elegant all-glass door or a timeless classic mahogany wood door to multiple doors combined to create a complete entrance system. Premium construction and unmatched design create a door limited only by your imagination.

Crane is the premier global manufacturer of revolving doors. Our attention to detail is unsurpassed. Virtually every component of the door—push bars, canopies, glass panels, and more—can be customized to complement the building’s exterior and interior design theme.
For over 70 years, highly skilled Crane engineers and dedicated craftsmen have created beautiful, state-of-the-art revolving doors for projects all around the world.

To ensure dependable operation, Crane engineers developed and perfected our own operating hardware, including our renowned bookfold system and a uniquely designed weather seal. Our weather seal maintains environmental separation while protecting the door from damaging scratches. With an inferior seal, dirt and debris collecting on the seal may cause metal and glass to be scratched.

On every Crane door is our bookfold mechanism that meets ANSI 156.27, NFPA 101 Life Safety, and International Building Codes. For protection against unintended bookfolding, the patented Crane bookfold lock mechanism offers an aesthetically subtle and code-compliant option. It is standard on security doors and recommended optional equipment for larger doors.
Premium construction and unmatched customization create the access solution you envision.

DORMA representatives and engineers will gladly review your design and specification requirements with the ultimate goal of transforming your vision into a safe and reliable entrance.
Designed to fulfill your vision

- From entry level to high end, Crane manual revolving doors are the most customizable revolving door on the market.
- Manual revolving doors allow for greater traffic volume and provide a quicker traffic flow compared to automatic or swing doors.
- Revolving doors are not just for new construction, but for retrofit projects as well.
- With a 6’ to 10’ diameter range and multiple attachment plans, Crane manual revolving doors can be fit into virtually any entrance.
- A wide range of finishes is available to meet your project needs, including mahogany and oak. Refer to the Product Selector Guide on page 19 for all options.

The Crane 4000 Series all-glass manual revolving door provides a spectacular first impression. Its rich styling and sleek lines complement any and all entrances and modern façades.

The Crane 2000 Series semi-custom revolving door with a glass roof combines traditional revolving door framing with an element of nearly all glass at a lower price point.

NOTE: DORMA offers automatic doors for ADA compliance. See www.dorma.com for information.
Crane automatic revolving doors are designed to monitor the door itself and its occupants to ensure safe operation. The Crane Modular Drive System includes an advanced micro-processor control and is torque driven for safety.
Designed without compromise

- Crane automatic revolving doors can be customized for most applications to provide automatic features while maintaining the entrance’s design aesthetics.

- They are designed to meet or exceed all safety and code requirements.

- They can range in size from a minimum 8’ outside diameter and up to 12’.

- Automatic doors are available as entry level 1000, semi-custom 2000, or custom 3000 or 4000 Series revolving doors. (See page 16 for descriptions of the four Series.)

- A wide range of finishes is also available to meet your project needs, with the exception of wood. Refer to the Product Selector Guide on page 19 for all options.

Given Crane’s wide range of finish options, you can specify a revolving door that matches the look of the surrounding building structure. For example, the BZ3000-A revolving door shown above features a bronze finish that blends perfectly with the JW Marriott Chicago’s entrance façade.

Crane automatic doors are custom designed to meet the needs of your specific application. The revolving door canopy houses the Modular Drive System, while maintaining the door’s overall aesthetics.

NOTE: DORMA offers automatic doors for ADA compliance. See www.dorma.com for information.
COMPLETE ENTRANCES

Crane SS4000-M (Complete Entrance)
155 North Wacker Drive, Chicago, IL
Architect: Gottsch Partners
LEED Gold Certified

Crane BZ3000-A (Complete Entrance), JW Marriott, Chicago, IL
Architect: Lucien Lagrange & Associates
Designed to unify the entire entrance

- DORMA is a single source provider of complete, custom-fabricated entrance systems for both new construction and renovations. For a seamlessly elegant entrance façade, we are able to match finishes for different types of DORMA doors and hardware.

- Crane Complete Entrances provide more energy efficient solutions than entrances with swinging or sliding doors alone. Revolving doors increase energy savings and can contribute towards LEED certification for your building.

- DORMA offers consultation at the design phase to plan an entrance that matches your vision and your budget. Crane manual or automatic revolving doors, automatic sliding doors, and manual and/or automatic swinging doors from DORMA can all be integrated into the entrance.
SECURITY REVOLVING DOORS

Designed to meet both your security AND design goals

Crane revolving doors can be built with features that maximize security without compromising aesthetics. The result is a revolving door that is both beautiful and secure. Power and security/safety components include the patented Crane book-fold lock and enclosure posts with safety edge sensor strips. Beyond the basics, three security levels are available. Each security level can be one-way, two-way or exit-only. Various operating modes can also be combined or customized to meet your project specifications exactly.

This custom SS4000-S3 all-glass door provides both beautiful aesthetics and high-end access control. It was constructed with S3 level integrated security systems featuring advanced anti-piggybacking.
- **S1** – A manual revolving door that can be converted for increased security or access control.

  1. Authorized Person swipes card and enters door compartment.
  2. Authorized Person pushes manual door 90° and exits.
  3. Revolving door locks and remains locked until the next Authorized Person swipes card.

- **S2** – An automatic operated revolving door with anti-tailgating feature that prevents unauthorized access in the opposite direction or following compartment.

  1. Authorized Person swipes card and enters door compartment.
  2. Intruder enters opposite compartment.
  3. Sensors detect objects in two compartments. The door stops, an intruder alert sounds, and the door reverses direction. Occupants then exit where they entered from.
  4. Authorized Person swipes card again, re-enters door compartment, then exits.

- **S3** – An automatic operated revolving door with anti-piggybacking feature that restricts access to one person at a time.

  1. Authorized person swipes card and enters door compartment. *Intruder* follows into same compartment.
  2. Sensors detect two occupants in the same compartment. The door stops and an intruder alert sounds.
  3. Door reverses direction to clear both occupants from the compartment.
  4. Authorized Person swipes card again and re-enters door compartment.
LARGE DIAMETER REVOLVING DOORS

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DORMA KTC Series

Eye-catching, functional and practical, DORMA KTC Series large diameter doors meet a wide range of applications and are perfect for hospitality and transportation venues where customers are accompanied by luggage, strollers, and large items. Summer configurations enable doors to open for unobstructed flow or passage of bulky items. Offered in outside diameters up to 18’—among the widest in North America—DORMA KTC doors are available in configurations of two, three, or four wings. Optional locked wings and night shields can be incorporated for increased security.

DORMA SERVICE & MAINTENANCE

Nationwide coverage with DORMA Service

DORMA can service and maintain Crane revolving doors, as well as automatic and manual doors, operable partitions, and moveable glass walls.

Our nationwide coverage, available via a single toll-free number, offers a variety of service and account programs tailored to your requirements.

DORMA Service and Maintenance plans ensure your entrances function and look their best at all times.

Look to DORMA for:

- Nationwide provider network
- Independent DORMA distribution service
- AAADM-certified technicians
- Dedicated project/account managers
- Centralized dispatch service and trained dispatchers
- Variety of service plans to suit your needs
- Comprehensive service provided for most types of automatic and manual doors.

REVOLVING DOOR REHAB KIT

Make your old revolving door better than new

Crane offers Rehab Kits to replace the wings and hardware of an existing revolving door no matter who manufactured it originally. Made from aluminum, stainless steel, bronze, or wood, each kit is designed to match the original door as closely as possible or to bring fresh new style to an outdated entrance without replacing the entire door.

A Rehab Kit includes everything needed to properly mount and fit into the existing enclosure and canopy, such as:

- Speed control
- Center shaft with cover
- Bookfold mechanism
- Hanger discs
- Hangers
- Pivot bearing
- Pre-glazed wings with weathersweeps
- Push bars
- Bumpers
- Lock cases
**ENERGY SAVINGS**

Sealed barrier / Reduced infiltration rate

Revolving doors create a sealed barrier between inside and outside environments. In contrast, open swing or sliding doors provide no protection, creating hot or cold bursts on entry and exit, wasting valuable energy, and making HVAC systems work harder.

A study conducted by MIT* showed that opening a swing door causes, on average, 8x more air to be exchanged than a revolving door because open swing doors provide no barrier from the elements.

The clear indication is that a revolving door’s sealed barrier can dramatically reduce the load on HVAC systems, saving energy in the process, and helping your building achieve LEED certification.

Reduced infiltration rate — Since traffic rate, building height, and outdoor temperatures are uncontrolled, entrance infiltration can be reduced by reducing the entrance pressure differential. This is done by sealing or tightening the building envelope, pressurizing with outdoor air, or sealing with proper doors.

Net outdoor air supply over exhaust reduces the entrance pressure differential, decreasing the infiltration rate. The use of outdoor air in excess of ventilation needs, merely to pressurize entire buildings and reduce infiltration problems, may add an economically unjustified heating load. Pressurizing only the ground floor requires much less outdoor air. But this may cause excessive pressure differentials across stair and elevator doors on the ground floor.

A revolving door mitigates stack effect by allowing traffic while sealing air flow. Infiltration through a revolving door (except for a small amount passing through the door seals) is virtually not affected by building height, indoor-outdoor pressure difference, and fan operation.

* Cullum, B.A. "Modifying Habits Towards Sustainability: A Study of Revolving Door Usage on the MIT Campus". MIT

**SAFETY**

Dependable operation with little maintenance

Attention to detail goes beyond the aesthetics of a revolving door. To ensure dependable operation with minimum maintenance, we developed and perfected our own operating hardware. All operating hardware used in Crane revolving doors is manufactured by us or under our direct control. For example, our bookfold mechanism features machined cast bronze discs and hangers that are finished to match your door. Required by law on revolving doors in the United States, a bookfold mechanism provides emergency egress. The pressure to engage the bookfold mechanism is adjustable to meet local conditions—for example, stack conditions, negative pressure, and wind conditions. Likewise, our speed control has a precision-machined, cast-steel gear train mounted in the ceiling canopy or floor. The speed control is factory set to ensure that the revolving door does not exceed the revolutions per minute set by governing building codes.

**BOOKFOLD MECHANISM**

1. During normal operation, spring tension holds ball in socket maintaining proper wing configuration.
2. Panic pressure on wing compresses spring and releases ball.
3. Minimal pressure is required to continue bookfolding.
4. Wings bookfold either way, providing a clear passage on both sides. Release spring tension is adjustable.

Optional patented bookfold lock

- Standard on security doors
- Recommended for larger doors
- Aesthetically subtle and code-compliant
CRANE 1000 SERIES ENTRY-LEVEL DOOR

The Crane 1000 Series door provides the function, traffic flow advantage, and energy savings of a revolving door for budget conscious projects. Fabricated with rigid aluminum construction, the 1000 Series door offers options allowing you to match the door to your entrance requirements. Select from several size options, canopy designs, and custom painted, anodized, or clad finishes. The 1000 Series includes our reliable Crane speed control; Crane bookfold mechanism; a smooth-surface ceiling without pie wedges or visible supports; and a superior rubber-and-felt weather seal.

CRANE 2000 SERIES SEMI-CUSTOM DOOR

The Crane 2000 Series uses fully formed and welded construction on the enclosure and canopy, yet allows for clad wings in stainless steel or bronze over aluminum sub-frame for a sleek appearance. The attachments are fully customizable and the door is available in a variety of sizes, finishes, and canopy designs. With a clad construction and finishing process second to none, 2000 Series doors provide your building with a robust and reliable entrance that catches the eye.

CRANE 3000 SERIES CUSTOM DOOR

Crane 3000 Series doors combine premium construction with unmatched custom design, using materials such as mahogany or oak, stainless steel or bronze. Wooden doors are hand-crafted by skilled mill workers who meticulously design and sculpt the door panel to meet your specification. The Crane 3000 Series is the only fully formed and welded revolving door in the industry with a 5-year standard warranty. For a smooth, beautiful appearance, the surface material is welded to a steel or stainless steel subframe, eliminating seams caused by cladding pre-finished materials to an aluminum subframe. With optional automation, the Series 3000 door becomes even more versatile. The Crane Modular Drive System featuring an advanced microprocessor control makes automatic doors smart; it continually monitors the door and occupants to ensure safe operation.

CRANE 4000 SERIES ALL GLASS DOOR

The Crane 4000 Series is the original all glass revolving door. It provides a spectacular first impression with its elegant and sophisticated design. Rich styling and sleek lines reinforce the exclusive image desired more and more for exquisite high end store fronts and building entrances. The 4000 Series door is fully customizable, including push bars and attachment options to the store front, and the connection between the enclosure wall and exposed ceiling glass.
**CONSTRUCTION**

**1000 Series**
Crane produces 1000 Series revolving doors from aluminum extrusions and sheet material. Each piece is carefully cut and fitted. Connections are tightly bolted together with hairline joints. After fabrication, all exposed surfaces are mechanically finished to eliminate marks caused by rolling, forming, and welding. Anodized or painted finish is then applied. All standard colors, as well as most exotics and metallics can be applied.

**2000 Series**
In addition to fully formed and welded construction, Crane fabricates 2000 Series revolving door wings by cladding prefinished metal sheet over full 7 mil exterior grade anodized aluminum substructures. When value engineering is required, clad construction is an excellent alternative. Crane clad doors are available in prefinished brushed or mirror stainless steel and bronze.

**3000 Series**
Crane 3000 Series revolving doors are cut, formed, and precisely welded from heavy USS 16 gauge stainless steel or 14 B&S gauge bronze sheet and compatible bar stock to create the sturdiest structural elements possible. The exterior surface metal is fully welded to the interior reinforcing substructure. All four corners of the door wings are welded. The interior enclosure-post-to-base connections are welded as well. Canopy fascia are visually seamless and attached to the ceiling soffit with concealed welds. All exposed surfaces are ground and polished to eliminate blemishes from rolling, forming, and welding.

**WING DESIGNS**

**ATTACHMENT PLANS**

Typical Attachment Plans

[Dorma Diagram]
OPTIONS

- **Ceiling Lights**—Optional fixtures consisting of translucent lens and snap-in trim ring of the same material and finish as the door are mounted flush in the ceiling. Standard and custom fixtures available. Not available for glass ceiling installations.

- **Standard and Custom Push Bars**—Standard push bars are same material and finish as door. Formed from 1/2" x 1-1/2" rectangular bar or 1" diameter round bar. Mounted with through-bolts or concealed fasteners. Custom push bars are available with a 1-1/4" maximum projection from face of door stile.

- **Self-Positioning Closer**—Senses when the door comes to rest at any position other than closed, rotating the door to the closed position with all four door wing weathersweeps in contact with the enclosure wall. The door is then set in the most welcoming position for the next user while maintaining the maximum weather seal between the indoor and outdoor environments. The self closer’s low-energy drive (15 pounds or less in compliance with ANSI A156.19[4.4]), fits into a 7" high canopy and plugs into a 110 volt outlet.

- **Welded Floor Grilles**—Curved floor grilles in pie shapes, quarter radians, or arcs are available. Custom fabricated from concentrically rolled bars of stainless steel and finished to match doors.

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Welded Floor Grille

Crane SS4000-M
Walgreens, Chicago, IL

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<thead>
<tr>
<th>Model</th>
<th>Mtrl</th>
<th>Finishes</th>
<th>Op Mode</th>
<th>Attachment Plant</th>
<th>Diameter</th>
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†See Attachment Plans, page 17  
*Center post required  
**Center post optional  
†Enclosure base sightline

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Please call the Crane Factory at 800-942-7263 for any questions or clarifications, or send email to cranesales@dorma-usa.com.