

# Crane revolving doors

We make access in life **smart and secure.**



crane by dormakaba

# Entrance solutions by dormakaba

Crane by dormakaba is the premier  
global manufacturer of revolving doors.

With more than 100 years of experience and subsidiaries in more than 130 countries worldwide, dormakaba is the preferred choice of leading architects, specifiers, and general contractors and your source for complete access solutions and services.

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.

dormakaba is a national member of the 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. EPDs and HPDs are available for many Crane products.





Crane SS4000-M (Complete Entrance)  
650 Madison Avenue, New York, NY  
Architect: MdeAS



Crane BZ3000-M Stella Tower,  
425 W 50th Street, New York, NY  
Architect: Ralph Walker



Crane SS4000-M  
900 19th Street NW, Washington, D.C.  
Architect: STUDIOS Architecture

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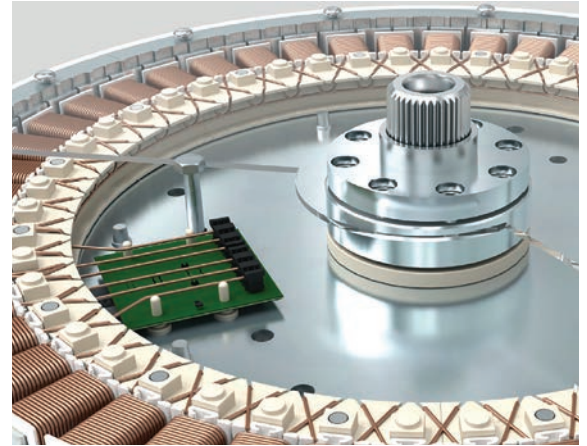
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# Motion assist 360

## Turning manual to touch-free

The new Crane Motion Assist 360 allows building owners to realize touch free entrance into their buildings. This new, low energy, state of the art drive system provides an intuitive experience while preserving the architectural vision for the building.

Classified as a manual revolving door, Crane Motion Assist 360 offers three (3) different modes of operation, allowing you to choose the best operation method for your building. Depending on the traffic flow of your building, Motion Assist allows you to change the operation mode from Manual to Power Assist or to Low Energy Automatic – providing the industries only touch free manual revolving door experience.



### Available crane models

- 2000 Semi-Custom
- 3000 Fully Custom (Fully Formed and Welded)
- 4000 All Glass
- Available as a Retrofit to existing Crane revolving doors
- Available in a rehab kit for other manufacturers revolving doors



Crane 2000-LE2  
1415 Vantage Park Drive, Charlotte, NC

# Flexible operation

## Designed to suit your building needs

In manual mode, the door functions as a traditional manual revolving door with the user pushing the door wing through the rotation. In power assist mode, the drive system is initiated after the door is manually set in motion and partially rotates the door to allow egress and return the door to the home position.

When used in Low Energy Automatic mode, the energy efficient drive system rotates continuously at low energy speed, allowing a user to pass through the door without physical contact. There are two (2) different options for activating the low energy drive system.

- Touch-free wave plate actuators can be used to start the drive system
- The door can be set for continuous rotation

Motion Assist 360 delivers an unsurpassed user experience in a singular solution.



Available as  
an in-canopy  
or in-ground  
installation.

# Manual revolving doors

## Designed to fulfill your vision

Crane revolving doors are suitable for both new and retrofit construction.

- Manual revolving doors allow both greater traffic volume and quicker traffic flow compared to automatic or manual swing doors.
- Crane manual doors are the most customizable revolving doors on the market.
- Tested to exceed UL standards E783 and E283 for air infiltration, our manual revolving doors provide the most sustainable entrance possible—allowing continuous traffic flow and blocking air infiltration at the same time.
- With a 6' to 10' diameter range and multiple attachment plans, Crane manual revolving doors can be fit into virtually any entrance.
- Our commitment to quality starts with a 10-year warranty on every revolving door manual speed control and optional floor grille.
- The industry's widest selection of finishes is available to meet your project needs, including oak and other types of wood.

Revolving doors offer the benefit of energy and space savings while providing an aesthetically pleasing entrance to your building. They bring value to any number of building applications; beyond the beauty they give the entrance. When used in a hotel lobby they offer the guest an immediate sense of welcome while allowing the hotel to reduce costly energy bills. Retail locations benefit from the extra usable square footage provided when installing a revolving door, space that can be used for merchandise displays or additional tables in a restaurant. The use of revolving doors in commercial buildings enrich building occupants and guests experience while keeping snow, wind, dirt out and HVAC operational costs low. Revolving doors also provide noiseless operation which benefit a hospital or healthcare facility. No matter the building type, Crane can help meet your goal of transforming your vision into a safe and reliable entrance.



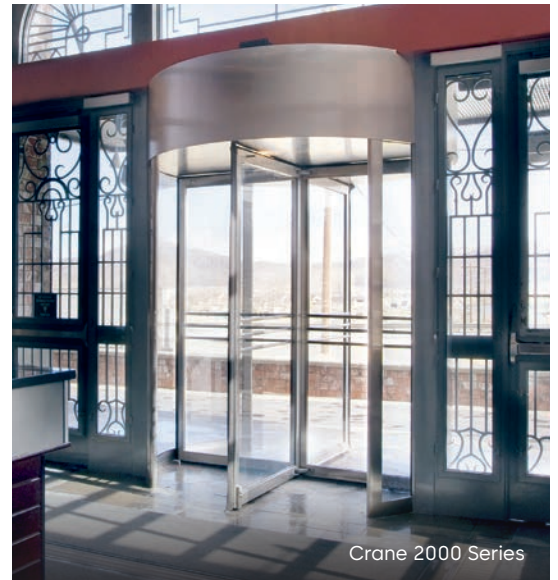


Crane SS4000-M  
(Complete Entrance)  
The Plaza at PNC Tower, Pittsburgh, PA  
Architect: Gensler

The three Crane Series are differentiated by their construction and level of customization. All are above the industry standard for design, construction, operation, and reliability of revolving doors.

2000 Series Door—a cut above the industry standard for revolving door design.

- Constructed of fully formed and welded aluminum, bronze, or steel.
- Best enclosure and canopy in the business.
- Well built door wings fabricated from aluminum and bolted together with heavy-duty fasteners.
- Three (3) year fabrication warranty.



### Crane 2000 Series

The Crane 2000 Series is a robust, reliable entrance that catches the eye. The highly customizable 2000 Series beats other manufacturer's products in construction quality and design options. The façade attachments are fully customizable.

Constructed of fully formed and welded aluminum, bronze, or steel, the Crane 2000 Series revolving door's enclosure and canopy are by far the best in the industry.

The Crane 2000's door wings are equally well built—fabricated from aluminum, bolted together with heavy-duty fasteners, then clad with stainless steel or bronze for a sleek appearance. The door wings are made from heavy-duty aluminum extrusions, carefully cut, fitted, and tightly bolted together. dormakaba's meticulous fabrication process makes these door wings the strongest in the industry.



**3000 Series—fully formed and welded revolving door.**

- Unmatched custom design.
- Five (5) year fabrication warranty, the best in the industry.

**4000 Series—the original all glass revolving door.**

- Elegant, sophisticated design for exquisite high end store fronts and building entrances.
- Three (3) year fabrication warranty or optional five (5) year warranty for fully formed and welded doors.



**Crane 3000 Series**

The only fully formed and welded revolving door in the industry, the Crane 3000 Series combines 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 to meet your specification meticulously. 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.

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. The four door wing corners and the interior enclosure-post-to-base connections are all welded. 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.

Fully customizable 3000 Series door wings can be fabricated from wood (e.g. mahogany or oak), welded stainless steel or bronze, or some other custom material. dormakaba's meticulous fabrication process makes Crane door wings the strongest in the industry.

**Crane 4000 Series**

The manually operated 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.

# Automatic revolving doors

## Designed without compromise

- Crane automatic revolving doors can be customized to provide accessibility while maintaining the entrance's design aesthetics.
- The revolving door canopy houses the Modular Drive System (MDS), which includes an advanced microprocessor control and is torque driven for safety.
- These automatic doors can range in size from a minimum 8' outside diameter up to 12'.
- Crane automatic doors are designed to meet or exceed all safety and code requirements.
- Automatic doors are available as 2000 and 3000 Series revolving doors.
- The industry's widest selection of finishes is available to meet the needs of your project.



Crane AL2000-A

Crane automatic revolving doors are designed to monitor the door itself and its occupants to ensure safe operation. Standard features for Crane automatic revolving doors include an advanced microprocessor control; a safety sensor system that monitors the door and its occupants; a heavy-duty bookfold mechanism finished to match the door; and a weather tight and smooth surface canopy without pie wedges or visible supports.



# Complete entrances

## Custom-fabricated entrance systems

- dormakaba is the single source for complete entrance systems for both new construction and renovations. For a seamlessly elegant entrance façade, we are able to match finishes across the range of dormakaba doors and hardware.
- A Crane complete entrance is a truly integrated entry system. Most building fronts consist of parts sourced from different manufacturers. In contrast, dormakaba is a single source for all the parts that may go into a Crane complete entrance, including Crane revolving doors, dormakaba automatic doors, manual door hardware, complementary architectural hardware, and custom work—all in matching finishes to create a uniform entrance.
- dormakaba offers consultation at the design phase to plan an entrance that matches your vision and your budget.



Crane SS4000-M  
1290 Avenue of the Americas,  
New York, NY  
Architect: MdeAS



Crane SS4000-M (Complete Entrance)  
155 North Wacker Drive, Chicago, IL  
Architect: Geotchs Partners



Crane BZ3000-A (Complete Entrance)  
Architect: Lucien Lagrange & Associates

# Industry-best fabrication & finishes Custom and standard finishes

## Right

A BZ3000-M door adjacent to a complete entrance at a hotel in Chicago; manufactured from a 280 Muntz Bronze alloy, with a #4 satin/brush finish and a clear lacquer coating for protection.

## Below

Part of a complete entrance at a flagship retail store in Chicago, an SS3000-M door in stainless steel with a custom mirror finish, coated to give a tinted, "blackened" appearance and including a floor grille fabricated from concentrically rolled bars of stainless steel.

**The best fabrication in the industry** dormakaba couples modern technology with old world craftsmanship to manufacture the best architectural finishes of any manufacturer, bar none. Experienced craftsmen fabricate welded and clad revolving doors in stainless steel and bronze using skills honed over many years. Other manufacturers hand off this type of finishing to subcontractors, whereas every Crane revolving door is 100% manufactured by dormakaba.

**Unparalleled choice of finishes** Crane doors can be customized to match virtually any design because dormakaba offers such an extensive range of finishes: wet paint, powder coat, special anodized, and metal finishes—in stock, standard, and custom colors. The base package standard finish is Clear or Dark Bronze Anodized.



Every revolving door is designed, engineered, and fabricated by experienced craftsmen.

# Energy savings

## Sealed barrier/reduced air infiltration

### The most energy-efficient entrance

Crane revolving doors provide your building with the most energy-efficient entrance possible, allowing continuous traffic flow while at the same time creating a barrier to prevent air infiltration. All our revolving doors are furnished with Crane factory-made door seals, which are essential for creating the barrier that blocks inside from outside environments. The resulting air infiltration block enhances comfort for everyone inside and ensures the owner's return on investment.

Our manual revolving doors are tested to meet the most stringent air-infiltration standards: UL ASTM E283 and ASTM E783. ASTM E283 defines air infiltration requirements in a lab setting. dormakaba takes the extra step of testing Crane manual doors to ASTM E783, a standard that requires real world testing within an actual building.

### Revolving doors vs. Swing or sliding doors

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, increasing cost of ownership.

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.

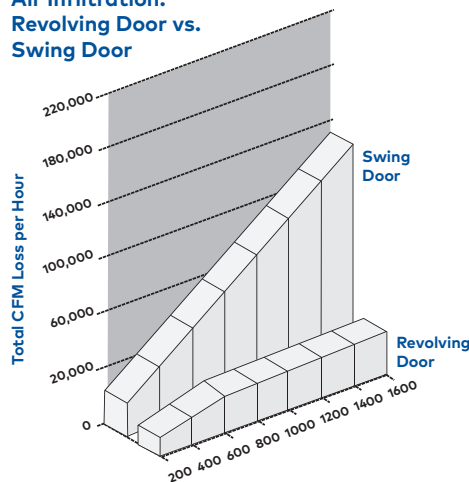
The clear indication is that a revolving door's sealed barrier can dramatically reduce the load on HVAC systems, saving energy in the process, and helping your building achieve LEED certification.

Since traffic rate, building height, and outdoor temperatures are uncontrolled, entrance infiltration can be lessened 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.

**Air Infiltration: Revolving Door vs. Swing Door**



Infiltration rates through a swing door are about 900 cubic feet (25.5 cubic meters) per person for a single-bank entrance, and 550 cubic feet (15.6 cubic meters) per person for a vestibule entrance. But it is only about 60 cubic feet (1.7 cubic meters) per person for a manually operated revolving door, and 32 cubic feet (0.9 cubic meters) per person for an automatic revolving door.

All Crane manual revolving doors meet the most stringent UL air infiltration standards: ASTM E283 and ASTM E783.

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

# Safety dormakaba attention to detail

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 revolving door construction standards within 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.

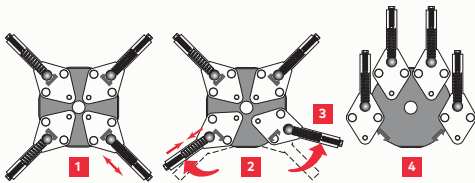
Likewise, our speed control has a precision-machined, cast-steel gear train mounted in the ceiling canopy or floor. The speed control is set to ensure that the revolving door does not exceed the revolutions per minute set by governing building codes.

Safety is paramount. All Crane automatic revolving doors exceed the ANSI 156.27 standard for automatic revolving doors.

The drive and safety sensor system continuously monitors the door and its occupants. Standard safety features include:

- Enclosure wall safety bumper
- (2 per door)
- Heel guards
- (1 per wing)
- Wing sensors
- (1 per wing)
- Breakout detection
- Torque-limited drive system
- Handicap door speed reduction switches (2)
- Emergency stop button (2)
- Activation
- Force detection

## Bookfold mechanism Aesthetically subtle and code-compliant



- 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. Wings bookfold either way, providing a clear passage on both sides.
- 4 Release spring tension is adjustable.

## 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 originally manufactured the door. 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:

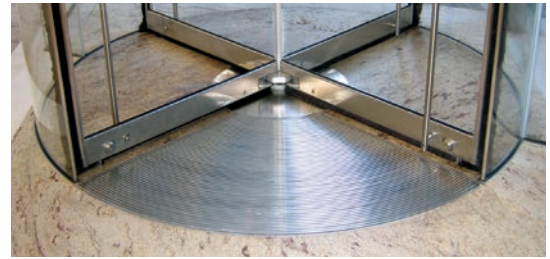
- Speed control
- Center shaft with cover
- Bookfold mechanism
- Hanger discs
- Hangers
- Pivot bearing
- Pre-glazed wings with weathersweeps
- Push bars
- Bumpers
- Lock cases





# Options

dormakaba is the only manufacturer in the industry able to design and fabricate a custom floor grille as an integrated part of the revolving door system.



### Welded floor grilles

Floor grilles can be integrated into the revolving door design to ensure a working system and proper aesthetics. Fabricated from concentrically rolled bars of stainless steel, the grilles are curved to the radius of the revolving door, which allows the door to spin properly and minimizes damage to the bottom door sweep. The heavy-duty floor grilles are welded and formed from 304 or 316 solid stainless steel, 1/4" x 1" solid bars polished to a #4 satin finish. The recessed grille pan is welded from 12 gauge stainless steel and can have a drainage fitting added.

Tolerances for the grilles aligning concentrically are to a 1/64" variance. dormakaba welded floor grilles come with a 10 year warranty.

### Self-positioning closer "return to quarter-point"

An add-on feature that automatically resets the revolving door to its home (X) position after every use and provides an optimal weather seal while the door is idle. The Self-Positioning Closer requires a minimum 6-1/2" canopy, uses 110VAC, and does not

require any additional safety sensors. This feature is compliant with ANSI 156.27. The closer works in conjunction with the Manual Speed Control and spins the door in a counter-clockwise direction. The Self-Positioning Closer functions independently from the Manual Speed Control, assuring the revolving door's safe and compliant operation at all times even if the closer is turned off or removed.

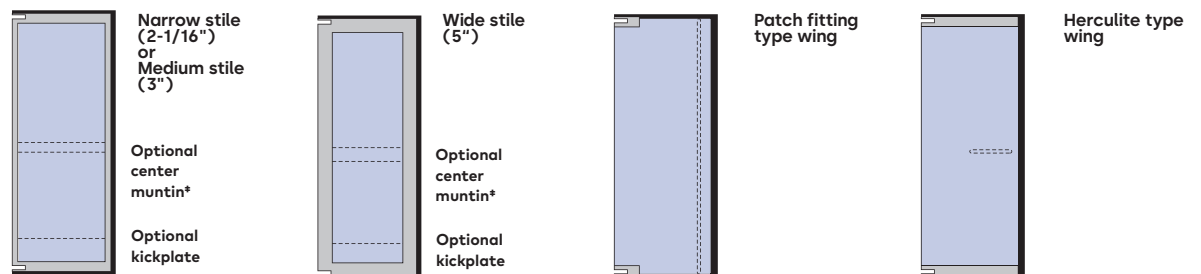
### Custom push bars

Standard push bars are the same material and finish as the 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.

### Ceiling light options

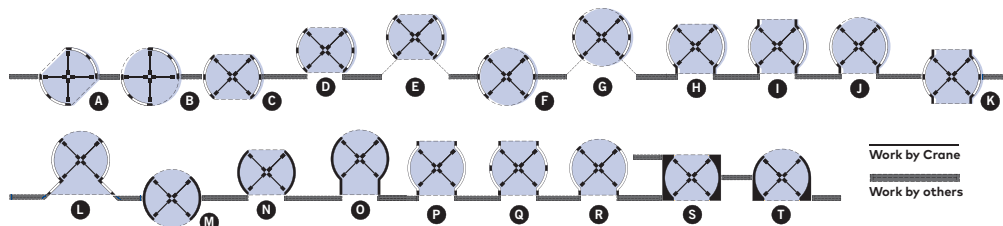
- 8" Circline style with florescent bulb
- 8" Circline style with LED light, or
- LED spotlights.

## Wing Designs



\*Required on wide diameter and security doors.

## Attachment Plans Typical attachment plans



# Product selector guide

Model	Mtrl	Finishes	OP mode	Attachment plan <sup>†</sup>	Diameter	Door opening height	Enclosure material	Enclosure glass	Enclosure base sightline
AL2000	AL		All	A,B,C,D,F, H,I,J, K	6' (ID) to 12' (OD)	7' up to 9'	Glass or aluminum panels	7/16" clear or tinted*	4", 6", or custom (up to 24")
AL3000	AL		All	All	6' (ID) to 12' (OD)	7' up to 10', custom	Glass or solid metal	7/16" or 9/16" clear or tinted**	1" to 36"
AL4000	AL		All	All	6' (ID) to 8' (OD)	7' up to 10', custom	Glass	9/16" clear or tinted*	0" to 36"
SS2000	AL/SS		All	A,B,C,D,F, H,I,J, K	6' (ID) to 12' (OD)	7' up to 9'	Glass or solid metal	7/16" clear or tinted*	4", 6", or custom (up to 24")
SS3000	SS		All	All	6' (ID) to 12' (OD)	7' up to 10', custom	Glass or solid metal	7/16" or 9/16" clear or tinted**	4", 6", or custom (up to 24")
SS4000	SS		All	All	6' (ID) to 8' (OD)	7' up to 10', custom	Glass	9/16" clear or tinted**	0" to 36"
BZ2000	AL/BZ		All	A,B,C,D,F, H,I,J, K	6' (ID) to 12' (OD)	7' up to 9'	Glass or solid metal	7/16" clear or tinted*	4", 6", or custom (up to 12")
BZ3000	BZ		All	All	6' (ID) to 12' (OD)	7' up to 10', custom	Glass or solid metal	7/16" or 9/16" clear or tinted**	1" to 36"
BZ4000	BZ		All	All	6' (ID) to 8' (OD)	7' up to 10', custom	Glass	9/16" clear or tinted**	0" to 36"
WD3000	WD		M	All	6' (ID) to 8' (OD)	7' up to 9', custom	Glass or solid wood	7/16" or 9/16" clear or tinted**	6" to 36"

<sup>†</sup>See attachment plans, page 17

\*Center post required

\*\*Center post optional

## Note

Per code, for automatic operation, the smallest diameter is 8'-0" (OD).

## Questions?

Please contact Customer Service by phone or email for any questions or clarifications:

**800-523-8483**

[craneorders.aas@dormakaba.com](mailto:craneorders.aas@dormakaba.com)

## Key

Mtrl (material)
AL Aluminum
SS Stainless steel #304, #316
BZ Bronze #220, #280, nickel silver
WD Mahogany, oak

Finishes	
Clear anodized	#7 Mirror
Dk bz anodized	#8 Mirror
Custom anodized	Non-directional
Painted	Bead blast
#4 Satin	Custom
#6 Fine satin	Stain

Op (operational mode)
M Manual
MS Manual security
A Automatic
AS Automatic security

## Architectural and Design support



dormakaba provides quality support at all stages of a project, from design and specification all the way through installation and maintenance. In-house Consultants are available to help with design and specifications. Our Customer and Technical Service teams provide exceptional ordering and product support, while our network of Service and Installation providers can help you protect your investment from installation through on-going maintenance.

Experienced on-staff consultants provide comprehensive specification writing services—including consultation on the complete range of access solutions: automatic door systems (sliding, swinging, and revolving doors); glass systems and hardware; architectural hardware; and operable walls.

Consultant services include:

- Developing code-compliant access solution specifications and schedules
- Developing detailed specifications for all other product groups
- Meeting with the Design Professional and/or Owner to discuss project requirements and security coordination
- Assisting with development of a professional key system
- Preparing budgets
- Reviewing substitution requests
- Reviewing submittals
- Responding to RFIs, Owner's comments, and comments from other entities
- Assisting with punch list development and administration

## Nationwide service and installation



With an emphasis on customer service, dormakaba is committed to selling, installing, and servicing automatic, revolving, and manual doors and hardware for commercial applications.

dormakaba's nationwide service and maintenance network provides responsive, professional, and comprehensive sales, technical, project management, and maintenance support. With over 28 offices throughout North America, dormakaba has hundreds of dedicated professionals available to respond to your individual needs.

Committed to the highest level of customer service possible, all our service technicians are American Association of Automatic Door Manufacturers (AAADM) certified.

Visit [go.dormakaba.com/ServiceAMER](http://go.dormakaba.com/ServiceAMER) to learn more about dormakaba service and installation.





Entrance  
Systems

## Our Sustainability Commitment

We are committed to fostering sustainable development along our entire value chain in line with our economic, environmental and social responsibilities toward current and future generations.

Sustainability at product level is an important, future-oriented approach in the field of construction. In order to give quantified disclosures of a product's environmental impacts through its entire life cycle, dormakaba provides Environmental Product Declarations (EPDs), in which the results of the life cycle assessment (LCA) are presented.

The full EPD is available for download at

<https://www.dormakabagroup.com/en/sustainability/product-declarations>.

KAA1509, EN, 04/2024  
Subject to change without notice

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