

# CORNELL

**SAFE AND SECURE**



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Cornell’s Full Line of Closure Product Solutions

	Size Limits		Features				Available Ratings				Curtain Materials	
Emergency Response	Max Width		Min. Headroom Req'd				UL Classification				Reinforced SBR Rubber	
	Max Height	Max Width	Open Curtain	Clear Curtain	High or Max. Cycle Life Avail.	Wind Load > 20 PSF	Superior U Factor, STC	Factory Mutual Approval	ICC-ES Evaluation	Baked-On Poly Enamel	Aluminum - Mill. Clear, Color Anodized	Aluminum - Mill. Clear, Color Anodized
Fire Doors, (SmokeShield® Fire Doors)	40' (25')	50' (30')	•	•	•	•	•	•	Std	•	•	Hospitals, Schools, Hotels, Museums, High Rises
Firemiser™ Insulated Fire Doors, SmokeShield® Firemiser	22'	34'	•	•	•	•	•	•	Std	•	•	Warehouses, Manufacturing, Industrial Buildings for Fire, Temperature and Sound Control
Counter Fire Doors, SmokeShield® Counter Fire Doors	7'6"-OR 10'	30'	•	•	•	•	•	•	Std	•	•	Service Window Openings in Cafeterias, Healthcare Schools and Universities, Openings Above Counters
CrossingGard® Emergency Response Grille	20'	24'	•	•	•	•	•	•	•	•	Std	Schools, Public Buildings, Transportation Terminals
TranZform® Fire	22'	1440 sq. ft.	•	•	•	•	•	•	•	•	•	Egress Path Openings, Atriums, Casinos, Hotels
Service Door	40'	50'	•	•	•	•	•	•	Std	•	•	Loading Dock, Freight Doors, Distribution Centers
Extreme™ Performance Rubber Doors	45'	45'	•	•	•	•	•	•	•	•	•	Heavy Industry, Waste Treatment, Transportation
Thermiser® Insulated Doors	40'	38'	•	•	•	•	•	•	Std	•	•	Loading Docks, Power Plants, Water Treatment
Counter Doors	10'	21' 4"	•	•	•	•	•	•	•	•	Std	Opening Above Counters or for Compact Components
Counter Door with Integral Frame	4'10"	11' 7"	•	•	•	•	•	•	•	•	Std	For aesthetics and ease of installation of integral frame
TranZform® Sound	22'	any	•	•	•	•	•	•	•	•	•	Religious Facilities, Conference Centers, Hotels
TranZform® Space	14'	any	•	•	•	•	•	•	•	•	•	Community Centers, Healthcare Centers, Schools
VisionAire® Open or Brick Pattern Grille	20'	40'	•	•	•	•	•	•	•	•	Std	Storefronts, Schools, Transportation, Government
VistaGard™ Glazed Curtain Grille	20'	40'	•	•	•	•	•	•	•	•	•	Hospitals, Service Windows
SentryGate®3 Grille	10'	14'	•	•	•	•	•	•	•	•	•	Counter Openings such as Pharmacies or Parts Counters
SentryGate®4 Grille	14'	23' 4"	•	•	•	•	•	•	•	•	•	Parking Garages, Storefronts
VisionGlide® Open/Brick Side Folding Grille	12'	30'/any	•	•	•	•	•	•	•	•	Std	Limited Headroom Openings, Storefronts, Offices
GlideGard™ HD Open/Brick Side F. Grille	14'	30'/any	•	•	•	•	•	•	•	•	Std	Concession Stands, Offices, Hospitals, Lobbies also
VistaPane™ Perf./Clear/Solid SF Closure	12'+	30'/any	Op	•	•	•	•	•	•	•	Std	Curved Openings
Environmental Separation												

Op = Optional  
Std = Standard

Common Applications Include:



Product solutions tailored to meet exact performance needs. Extreme products have been tested and proven to meet the level of extreme performance required.

## Extreme™ High Cycle Life Products

### Potential Requirements

- **Cycle Life** - Required cycle quantity achievable in the lifetime of the product is higher than standard.
- **Aesthetics of Opening** - High traffic areas demanding a more aesthetically pleasing product.
- **Quiet Operation**
- **Visibility** - The need for visual access of separated spaces.
- **Ventilation** - Airflow between separated spaces.
- **Weather Control** - Environmental separation.
- **Sound Attenuation** - To reduce unwanted sound from one area to another.

### Product Solutions

- **100,000 Cycle Life Extreme Straight or Brick Pattern Grilles** - Provides visibility and ventilation.
- **100,000 Cycle Life Extreme SentryGate Grilles** - In addition to visibility and ventilation, provides quieter operation with an aesthetically pleasing, appliance like design.
- **300,000 Cycle Life Extreme Straight or Brick Pattern Grilles** - Maximum life cycle rating in two styles to meet aesthetic preferences.
- **300,000 Cycle Life Extreme Service Doors** - Maximum life cycle rating. Solid slats provide weather control and a higher level of security when visibility and ventilation is not a concern.
- **300,000 Cycle Life Extreme Insulated Service Doors** - Maximum cycle rating with temperature control and sound attenuation.



## Extreme™ Performance Rubber Doors

### Potential Requirements

- **Extreme Dirt or Corrosive Environments** - Such as in heavy industrial settings, mining industry, fuel refining plants and oil sands, waste treatment.
- **Extreme Climate Conditions** - Torrential rain, blizzard snow, scorching heat, frigid cold.
- **Impact Concerns** - Areas prone to impact damage from trains, trucks, forklifts or other equipment.
- **Cycle Life** - Required cycle quantity achievable in the lifetime of the product is higher than standard.
- **Opening Speed** - Conditions that require a faster opening door.
- **Low Headroom Conditions** - Require smaller bracket plate and coil size.

### Product Solutions

Both models of Extreme Performance Rubber Doors are ideal for applications with rugged, harsh environments, door impact issues and high traffic conditions.

- **Model EPR10 with Counterbalance Spring Assembly** - Full line of drive system choices to match traffic flow requirements, opening speed and maintenance factors. Options for 200,000 cycle life springs. Opening speed of up to 60 inches per second depending on door size.
- **Model EPR20 with Springless Cycle Duty Design** - Unlimited cycle life design warranted for 2 years. Accommodates low headroom conditions. Opening speed of up to 30 inches per second.



# Environmental Separation Product Applications

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## Interior / Exterior Walls Not Requiring Fire Rating

### Potential Requirements

- **Security** - The ability to close and lock.
- **Weather Control** - When high wind load, seismic control or environmental separation is required.
- **Sound Attenuation** - To reduce unwanted sound from one area to another.
- **Aesthetics of Opening** - High traffic areas demanding a more aesthetically pleasing product.
- **Opening above a Counter**
- **Extreme Environmental Conditions** - Dirty, corrosive or extreme weather environments, impact damage concerns, quick opening speed or high cycle life, see Extreme™ Performance Products, page 3.

### Product Solutions

- **Service Doors** - Provide security. High wind load designs and seismic calculations available.
- **Thermiser® Insulated Doors** - Provide temperature control and sound attenuation. High wind load designs and seismic calculations available.
- **Counter Doors** - For openings above counter. Or, when compact door components are desired, these units close to the floor. Also **Counter Door with Integral Frame**.
- **TranZform® Sound** - Provide sound control, privacy and security separation. Require minimal headroom.
- **TranZform® Space** - Provide privacy and security separation. Require minimal headroom.



## Storefronts or Area Separation Not Requiring Fire Rating

### Potential Requirements

- **Security** - The ability to close and lock.
- **Visibility** - The need for visual access of separated spaces.
- **Ventilation** - Airflow between separated spaces.
- **High Cycle** - Units expected to cycle more than 20 times per day. See Extreme™ grilles, page 3, for ultra high cycle requirements.
- **Sound Attenuation** - To reduce unwanted sound from one area to another.
- **Low Headroom Conditions** - Unable to accommodate a coil at the head of the opening.

### Product Solutions

- **VisionAire® Open Curtain Grilles** - Provide visibility, ventilation and security.
- **VisionAire® Brick Pattern Grille** - Provide above, plus superior durability in high cycle applications.
- **VistaGard™ Glazed Curtain Grille** - Provide security, visibility. Clear, physical barrier.
- **SentryGate® Grilles** - Open curtain grille with aesthetically pleasing, injection molded components and continuous metal rods. Suitable for high cycle applications.
- **VisionGlide™ Side Folding Grille** - Provide security, visibility and ventilation in low headroom or curved conditions. Straight or brick pattern available.
- **GlideGard™ Side Folding Grille** - The benefits of VisionGlide™ with heavy duty construction. Straight or brick pattern available.
- **VistaPane™ Side Folding Closure** - Higher level security in low headroom conditions. Perforated, Glass, Lexan® or Solid Aluminum panels available.
- **TranZform® Sound** - Provide sound control, privacy and security separation. Require minimal headroom.
- **TranZform® Space** - Provide privacy and security separation. Require minimal headroom.

# Emergency Response Product Applications

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Specifications in CSI MasterFormat™, BIM RFA, i-drop® and User Dimensioned drawings in .DWG, .PDF at [www.cornelliron.com](http://www.cornelliron.com)



## Interior / Exterior Openings in Walls Requiring Fire Rating

### Potential Requirements

- **Fire Containment** - Product closes automatically in a fire emergency.
- **Smoke Control** - Limit the spread of smoke, which can spread faster and cause more damage than fire.
- **Security** - The ability to close and lock.
- **Sound Attenuation** - To reduce unwanted sound from one area to another.
- **Weather Control** - When environmental separation, high wind load or seismic calculations are required.
- **Aesthetics of Opening** - High traffic areas demanding a more aesthetically pleasing product.

### Product Solutions

- **Fire Doors** - Provide security and close automatically in a fire. High wind load designs, seismic calculations available.
- **SmokeShield® Fire Doors** - Limit the spread of smoke, protecting life and property in addition to fire protection.
- **Firemiser™ Insulated Fire Doors** - Provide temperature control and sound attenuation in addition to fire protection. High wind load designs, seismic calculations available.
- **SmokeShield® Firemiser™ Doors** - Provide all of the above.
- **TranZform® Fire** - Provide UL and FM rated fire and smoke protection with emergency egress capabilities. Require minimal headroom.
- **Counter Fire Doors** - Can close to the floor when compact door components are desired.



## Service Window Openings in Walls Requiring Fire Rating

### Potential Requirements

- **Fire Containment** - Product closes automatically in a fire emergency.
- **Smoke Control** - Limit the spread of fast spreading, damaging smoke.
- **Security** - The ability to close and lock.
- **Aesthetics of Opening** - When a unit with integral frame and countertop is desired.

### Product Solutions

- **Counter Fire Doors** - Base product provides security and close automatically in a fire.
- **SmokeShield® Counter Fire Doors** - Limit the spread of smoke, protecting life and property in addition to fire protection.
- **Counter Fire Door with Integral Frame and Countertop** - Assembled and welded at the factory for seamless construction with a custom look. UL "S" rating available.



## Cross Corridor or Area Separation Requiring Egress and/or Fire Rating

### Potential Requirements

- **Egress** - A closed product opens to allow access to egress.
- **Security** - The ability to close and lock or prevent entry.
- **Fire Containment** - Product closes automatically in a fire emergency.
- **Sound Attenuation** - To reduce unwanted sound from one area to another.
- **Smoke Control** - Limit the spread of damaging smoke.

### Product Solutions

- **CrossingGard® Emergency Response Grille** - Self locking assemblies prevent forced opening of closed grille. Fully opens on alarm or power failure, allowing access to egress.
- **TranZform® Fire** - Provide UL and FM rated fire and smoke protection with emergency egress capabilities. Require minimal headroom.
- **Fire Doors** - provide fire protection and security. Close automatically in a fire emergency.
- **SmokeShield® Fire Doors** - Limit the spread of smoke, protecting life and property in addition to fire protection.
- **Firemiser™ Insulated Fire Doors** - Provide temperature control or sound attenuation in addition to fire protection.
- **SmokeShield® Firemiser™ Doors** - Combines the benefits of Fire Doors, SmokeShield Fire Doors and Firemiser Insulated Fire Doors.

# CrossingGard® ERG, Folding Fire Doors, Smoke Rated Doors

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## CrossingGard® Emergency Response Grille Model ERG-IBC for Access Controlled Egress per the IBC®

Designed to address both the security and safety issues of public areas. The CrossingGard provides the day to day security of a locked, rolling grille but immediately responds in an emergency situation to fully open automatically and allow escape. Provides separation control, yet allows for alternate means of egress should an emergency arise. Concealed AutoLock mechanism prevents forced opening of a closed grille, but will not interfere with normal electric or emergency operation.

### Additional Benefits:

- ICC-ES evaluated for access controlled egress per the International Building Code®.
- Fail-safe emergency response capability through motor operation, provided as standard.
- No manual locking or unlocking required.
- No resetting is necessary to resume normal operation.

### Practical Design Applications:

- Corridor protection in any public building that limits functional space at different times or for special events, such as in schools, hospitals, office buildings and transportation terminals.
- Separation control applications where emergency personnel will require immediate access to secured areas in a crisis situation.
- Applications where combined ease of opening and security is desired.

**Sizes:** Openings from 5' to 24' wide and 4' to 20' high.

**Ratings:** ICC-ES ESR-1167



## Tranzform® Fire Accordion Folding Fire Door - Model ERP10

Rated physical fire barriers that protect openings with minimal headroom from the spread of fire and smoke, providing automatic closing in the event of fire detection. Double wall panel design. Pocket Doors available.

### Additional Benefits:

- Designed for use in openings that are part of a required means of egress.
- Compliant with the American with Disabilities Act accessibility standards.
- Fail-safe emergency response capability through motor operation, provided as standard.

### Practical Design Applications:

- Egress path openings requiring building code compliant emergency egress.
- An alternative to banks of fire rated swing doors where maintaining the use of the full opening width and height for functionality and aesthetics is desired, such as in atriums, casinos and hotels.
- Curved openings with minimal headroom requiring fire and/or smoke ratings.

**Sizes:** Openings from 3' 6" to 22' H to a maximum of 1440 square feet, standard construction.

**Ratings:** UL Classified 3, 1 1/2, 1, 3/4, 1/2, 1/3 hour and "S" labels available. Factory Mutual Approval Listing. California State Fire Marshal Listing. **ICC-ES ESR-2300. STC 41.**



## SmokeShield® UL Classified Smoke and Draft Control Assemblies

Limits the spread of fire and smoke in a fire emergency protecting life and property. Equipped with UL listed and tested perimeter smoke seals that are UL classified for proven smoke and draft control per UL 1784. These units are labeled for both fire protection and for smoke and draft control.

### Additional Benefits:

- Meets the requirements of NFPA 105 and the International Building Code®, 2009, Section 715.4.3.
- Doubles protection for building occupants, capital and contents.
- Controlling smoke increases life safety and limits property damage.

### Practical Design Applications:

- Buildings with large occupancy rates or significant material inventories.
- SmokeShield Firemiser: Openings that will be regularly closed where there is a need for sound attenuation or climate control between two areas, and buildings designed for future expansion where the current exterior wall openings are to become interior rated wall openings.

### SmokeShield® Fire Doors Model ERD11

- **Sizes:** Openings up to 34' wide by 25' high.
- **Ratings:** UL Classified 4, 3, 1 1/2, 1 or 3/4 hour for fire and UL "S" label for smoke and draft control.

### SmokeShield® Firemiser™ Doors Model ERD21

- **Sizes:** Openings up to 34' wide by 22' high.
- **Ratings:** UL Classified 4, 3, 1 1/2, 1 or 3/4 hour for fire and UL "S" label for smoke and draft control.

### SmokeShield® Counter Fire Doors Model ERC11

- **Sizes:** Openings to 16' wide if height is 7' 6" or less. Openings to 12' wide if height is 10' or less.
- **Ratings:** UL Classified 3, 1 1/2, 1 or 3/4 hour label for fire and UL "S" label for smoke and draft control.
- **SmokeShield® Counter Fire Doors with Integral Frame** also available.



## Fire Rated Doors and Counter Doors

Specifications in CSI MasterFormat™, BIM RFA, i-drop® and User Dimensioned drawings in .DWG, .PDF at [www.cornelliron.com](http://www.cornelliron.com)



### Fire Doors - Model ERD10

Protect against the spread of fire by automatic closing in the event of fire detection with governed speed control. Fire doors are designed for daily use to provide security and access control. Specified wind load and seismic calculations available.

#### Additional Benefits:

- Meet insurance and building code requirements.
- Compact overhead storage of curtain is ideal for industrial, commercial and institutional applications.

#### Practical Design Applications: Rated wall openings in:

- Hospitals and healthcare facilities    ■ Schools    ■ Hotels
- High rise construction    ■ Museums    ■ Warehouses
- Not for use in openings that are part of a required means of egress. Use TranZform® Fire, page 6, when emergency egress is required.

**Sizes:** 30' high, 30' wide standard construction. Large Openings to 50' wide, 40' high up to 1200 sq. feet consult factory.

**Ratings:** UL Classified 4, 3, 1 1/2, 1 or 3/4 hour label. Factory Mutual Approval listing.



### Firemiser™ Insulated Fire Doors - Model ERD20

Provides UL rated fire protection plus security, sound attenuation and environmental separation. Reduce costs by meeting multiple design needs, with continued energy savings generated by Firemiser's sealing and insulation. Specified wind load and seismic calculations available.

#### Additional Benefits:

- Sound Transmission Class: STC 27; muffles unwanted sound between areas.
- Climate Control: insulated curtain yields a 5.3 R-value that can be combined with full perimeter seals.

#### Practical Design Applications

- All rated wall openings where the door is to be closed regularly and a sound attenuation need exists.
- Exterior openings that require a fire rating due to the proximity of other structures or combustible materials.
- Buildings designed for future expansion where current exterior wall openings are to become interior rated wall openings.
- Interior rated wall openings where the door will be normally closed to control varying climatic conditions between two areas.

**Sizes:** 30' wide, 22' high, standard construction. Large openings to 34' wide, consult factory.

**Ratings:** UL Classified 4, 3, 1 1/2, 1 or 3/4 hour label. Factory Mutual Approval listing.



### Counter Fire Doors - Model ERC10 and Counter Fire Doors with Integral Frame - Model ERC20

Also specified as fire shutters, these fire doors secure openings above counters and other similar finished openings on interior and exterior walls. Fire rated countertops available. Integral Frame units are fully assembled and welded at the factory for a seamless, custom look without field assembly.

#### Additional Benefits:

- Meet insurance and building code requirements.
- Smaller, more aesthetically pleasing guides, slats, brackets and hood than fire doors.

#### Practical Design Applications:

- Smaller openings in rated walls, especially above counters.
- Counter Fire Doors: Openings to the floor where more compact door components are desired.
- Service window openings for rated walls used in cafeterias, healthcare facilities, schools and universities.

**Sizes:** Openings up to 16' wide if height is 7' 6" or less, or up to 12' wide if height is 10' or less. Integral Frame units: Openings up to 10' wide by 4' 9" high in walls 4 1/2" to 12" thick.

**Ratings:** UL Classified 3, 1 1/2, 1 or 3/4 hour labels. Integral frame units UL 1 1/2, 1 or 3/4 hour labels or up to 1 1/2 hour Warnock Hersey label on motorized integral frame units.

# M100 FireGard™ Closing Systems

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## Recommended Applications for M100 Closing Systems:

- Any application where mechanical testing and resetting is impractical or not desired.
- Where fire doors are installed within pedestrian thoroughfares.
- Fire-rated units in recessed applications.
- Units in areas susceptible to frequent power outages.

## M100 FireGard Closing System Benefits:

- Automatic resetting of the automatic closing system yields dramatic savings for building owners in testing and resetting costs as well as minimized opening downtime.
- M100 systems can be activated by fire alarm systems, local detectors or power failure **without the need for a separate alarm interface release device.**
- Eliminate mechanical spring release and complicated testing and resetting, especially on recessed and larger doors.
  - System automatically resets to normal operation upon clearing of alarm signal and/or restoration of power.
  - Routine testing of the automatic closing system occurs in minutes from floor level by factory personnel.
  - Required annual inspection by a trained fire door systems technician is simplified.
- Safe, controlled, automatic closing speed will not exceed 12" per second.
- Can be applied consistently on fire door, insulated fire door, counter fire door and SmokeShield® products.
- UL approval allows Cornell to retrofit M100 motor, chain and crank operators to most manufacturer's fire doors while maintaining the door's UL and FM ratings.
- Fuselink activation optional.



## M100 Motor Operated Systems

These systems close the fire door in response to an alarm signal and are fail-safe by design, safely closing the door during a prolonged power failure. When the alarm is cleared and/or power is restored, resetting is done at floor level with the touch of the "open" button. Unlike conventional fire door operators, M100 Motor Operators do not require an additional mechanical release device to respond to central alarm signals or local smoke detectors. For doors up to 51' wide, 36' high or a maximum 1200 sq. ft.

### Benefits:

- Slower, safer, uniform closing speed of six to nine inches per second.
- 0 or 10 second selectable time delay.

**Recommended Applications:** All motor operated fire doors.

**Options:** Battery Back-Up, Horn Strobe, Voice Warning Module, Sensing Edges and more.



M100 Chain



M100 Crank



Protected by US Patent #6,155,324

## Manual M100 Chain or Crank Operated Systems

These compact designs include a built-in automatic reset release device for connection to a central alarm system or local detectors - **no external release device is required.** Units will close automatically upon alarm or power failure in excess of 10 seconds. Resetting spring tension or re-engaging the operator is not required. M100 Chain and Crank Operators are available for use on all Counter Fire Doors and Fire Doors up to 30' wide or 14' high standard construction, larger sizes consult factory.

### Benefits:

- Operator safely stops the curtain in any position; will not excessively back wind.
- Accepts 24V AC or DC or 115V AC power voltage.
- UL 864 Listing.
- 10 second alarm and power failure time delay.
- 24V DC output for close warning device.

### Recommended Applications:

- Use for fire products that do not require the daily operating convenience of a motor operator.
- Clearance and access to the hand chain or crank eye is required.



Protected by US Patent #6,155,324

## M100 Tube Motor Operated Systems

### For Counter Fire Doors with or without Integral Frame and Sill

M100 tube motor operators are concealed in the Counter Fire Door's shaft assembly making them ideal for openings with tight clearances around the coil area or to neatly conceal the operator and drive components, avoiding the need for bulky covers. 115 VAC power required for motor, 24 V DC, 115 VAC or 24 VAC required for control panel. Available for Counter Fire Doors up to 14' 0" wide, 9' 0" high up to 90 square feet or Counter Fire Doors with Integral Frame and Sill up to 10' wide by 4' 9" high.

### Benefits:

- Convenience of motor operation in a slim, low profile design.
- Full height openings from floor to 9' 0" high.

### Recommended Applications:

- Fire shutters that require the convenience of a motor operator in limited headroom conditions.
- Aesthetic motor operation that eliminates the need for a bulky motor cover.



## Motor Operators and Controls

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### Cornell Model MG and Model SG Motor Operators

UL Listed MG and SG Motor Operators and components are now supplied and supported exclusively by Cornell for single source accountability for your motor operated rolling steel door needs.

#### Common Features and Benefits

- Compact Operator/Mounting Configuration is ideal for coiling doors - operators always fit within the coil height dimension.
- Consistent Mounting, Appearance, Wiring - across full line of Cornell operator models.
- Pre-Wired for Sensing Edge / Sensing Devices: A sensing edge, photo eyes or other detection devices can be easily connected.
- Factory pre-wired motor control terminals.
- Maintenance free, solenoid actuated brake.
- Logic Technology feature as standard, including a connection module for a UL325-2010 monitored entrapment protection device.



### Cornell Model MG Motor Operator

UL listed, industrial duty gear head operator recommended for units that normally cycle up to 20 times per day. HP Available: 1/3, 1/2 and 3/4

#### Features and Benefits

- Gear Head construction at the price of a belt-drive operator.
- Totally Enclosed Non-Ventilated (TENV) motor provided as standard.
- Motor Mounted Interlock available to 1/2 HP - unique feature with gear head operators.
- Auxiliary Chain automatically engages and disengages, just pull to operate.
- Auxiliary Chain can be easily added to or removed from operators in the field.

#### Recommended Applications:

- Use for Service, Insulated, Counter Door, Grille and SentryGate products requiring up to 3/4 horsepower.



### Cornell Model SG Motor Operator

UL listed, super duty gear head operator designed for continuous duty. HP Available: 1/2, 3/4, 1, 1 1/2, 2, 3, 5 and 7

#### Features and Benefits

- Totally Enclosed Fan Cooled (TEFC) motor provided as standard.
- Considerably Lighter Weight than competitive gear head operator models! A 1/2 HP SG weighs 51 lbs., whereas a competing 1/2 HP gear head weighs 85 lbs.
- Auxiliary Chain for emergency operation, just pull to operate.

#### Recommended Applications:

- Use for Service, Insulated, Counter Door, Grille and SentryGate products requiring high cycle operation or greater than 3/4 horsepower.



### Cornell Tube Motor Operator

Concealed tubular motors provide a solution for strict dimensional limitations around the header or aesthetic requirements that lend themselves to its smaller, compact design. Available for Counter Doors up to 120 square feet, Counter Doors with Integral Frame and Sill to product size limits and SentryGate and Coiling Grilles with size limits based on operator rating and curtain configuration.

#### Recommended Applications:

- Shutters that require the convenience of a motor operator in limited headroom conditions.
- Aesthetic motor operation that eliminates the need for a bulky motor cover.



**Specialty Operators, Control Stations, Sensing Edges, Photo Eyes and a full range of operator accessories are also available.**

# Rolling Doors, Rubber Doors, Counter Doors

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## Service Doors - Model ESD10

Metal slatted rolling doors used to provide security against entry and/or weather protection at exterior and interior openings.

### Additional Benefits:

- Wind Load: Cornell service doors can be designed to meet specific PSF wind load requirements. Designs have been performance validated through third party testing. Seismic calculations available.
- Compact overhead storage of curtain is ideal for industrial, commercial and institutional applications.

### Practical Design Applications:

- Loading Dock / Freight Doors
- Warehouses
- Water Treatment Facilities
- Large Vehicle Doors
- Power Plants
- Distribution Centers

**Sizes:** 30' high, 30' wide standard construction. Large Openings to 50' wide, 40' high consult factory.

**Specialty Products:** **Graphic Door** with durable, full color images for curtains and hood, **ScreenGard™** perforated curtain slats, **Matadoor®** breakaway curtain section, **RapidResponse™** fast fix door, **CrossingGard® Emergency Response Service Doors** open on alarm or power failure. 300,000 Cycle Life **Extreme™ Performance Service Doors**.

**Extreme™**  
PERFORMANCE RUBBER DOORS



## Extreme™ Performance Rubber Doors

Deliver unmatched durability and reliability in the most severe applications. Specifically designed for extreme conditions: dirt or corrosive factors, cold or heat, pressure differentials, constant cycling, accidental impact.

### Additional Benefits:

- Maximum Up Time: NewGen Guide and CurtainLok retention system withstand winds and impact.
- Easy to Maintain: no hinges, cables, pulleys or curtain guide gap to maintain.
- Long Life: thick, SBR rubber curtain with reinforced core, guide and CurtainLok system eliminate wear.

### Practical Design Applications:

- Model EPR10: drive system choices to match size, traffic flow, speed and maintenance factors
- Model EPR20: springless cycle duty design for extreme high cycle or low headroom applications.

**Sizes:** EPR10 up to 45' wide x 45' high, EPR 20 Up to 30' wide x 30' high. Opening speed varies by door size.



## Thermiser® Insulated Doors - Model ESD20

For exterior openings where maintaining different temperatures on each side of the door is desirable. Pay for themselves in energy savings. Also reduce sound transmission. Specified wind load and seismic calculations available.

### Additional Benefits:

- Sound Transmission Class: STC 27; muffles unwanted sound between areas.
- Climate Control: insulated curtain yields a 8.0 R-value that can be combined with full perimeter seals.

### Practical Design Applications:

- Loading Dock / Freight Doors
- Warehouses
- Water Treatment Facilities
- Large Vehicle Doors
- Power Plants
- Distribution Centers

**Sizes:** 30' wide, 30' high, standard construction. Large openings to 38' wide, 40' high consult factory.

**Specialty Products:** **RapidResponse™** fast fix door, **300,000 Cycle Life Extreme™ Performance Thermiser® Doors**.



## Counter Doors - Model ESC10 and Counter Doors with Integral Frames - Model ESC20

Also specified as shutters, these doors secure openings above counters and other similar finished openings on interior and exterior walls. Integral Frame units are fully assembled and welded at the factory for a seamless, custom look without field assembly.

### Additional Benefits:

- Smaller, more aesthetically pleasing guides, slats, brackets and hood than service doors.

### Practical Design Applications:

- Smaller openings in walls, especially above counters.
- Counter Doors: Openings to the floor where more compact door components are desired.
- Service window openings for use in cafeterias, healthcare facilities, schools and universities

**Sizes:** Openings up to 21' wide or 10' high. Integral Frame units: Openings up to 11' 7" wide by 4' 10" high in walls 4" to 13" thick.

**Options:** **Countertops** in plastic laminate or stainless steel, **Graphic Door** with durable, full color images for curtains and hood, **ScreenGard™** perforated curtain slats, **Tube Motors** for low profile designs.

## Side Folding Partitions, Rolling Grilles, Side Folding Grilles and Closures



Specifications in CSI MasterFormat™, BIM RFA, i-drop® and User Dimensioned drawings in .DWG, .PDF at [www.cornelliron.com](http://www.cornelliron.com)



### TranZform® Accordion Folding Partitions

#### TranZform Sound - Model ESP20 and TranZform Space - Model ESP10

Separate a large room into two or more independent spaces. **TranZform Sound** offers unparalleled sound control, privacy and security. Use **TranZform Space** in areas where convenient separation of space is desired, but higher level acoustic control is not a concern. A variety of decorative vinyl finishes are available.

#### Practical Design Applications:

- Religious facilities
- Community Centers
- Conference Centers
- Educational and Healthcare Facilities
- Hotel Multi-Function Rooms

**Sizes:** Virtually any width opening, Sound 3' 6" to 22' high standard construction, Space 3' 6" to 14' high standard construction

**Ratings:** TranZform Sound units are STC 45 rated per ASTM E90. Space are STC 30.



### Rolling Grilles: Open Air Curtain - Model ESG10, Brick Pattern - Model ESG12 and Glazed Curtain - Model ESG11

Used to protect both interior and exterior openings to prevent unauthorized access and discourage forced entry. **VisionAire®** grilles have an open curtain formed by horizontal rods and vertical chains, allowing for free circulation of air. **Brick Pattern** VisionAire Grilles are an alternate open configuration that provide superior durability in high cycle applications. **VistaGard™** Grilles have a solid curtain of horizontal rods, vertical nylon links and clear polycarbonate panels that block refuse, odors, bugs and smoke.

#### Additional Benefits:

- Early / Easy Installation Option: factory machined self supporting structural tubular members.
- Low Life Cycle Cost - rugged construction and quality materials for long life and less costly maintenance.

#### Practical Design Applications:

- Mall Storefronts
- School Corridors
- Service Window Openings
- Hospitals
- Transportation Terminals
- Government Buildings

**Sizes:** 40' high, 20' wide standard construction. Larger openings: consult factory.

**Options:** **EZ Lift Package** extends grille push-up size range. **AutoLocks** concealed self-locking assembly prevents forced entry without cylinder locks. **100,000 Cycle Life Extreme™ Straight Pattern Grilles**, **300,000 Cycle Life Extreme™ Straight or Brick Pattern Grilles**.



### SentryGate® Injection Molded Link Grilles

#### SentryGate®3 - Model ESG20 and SentryGate®4 - Model ESG21

An alternative to traditional rolling grilles or counter grilles featuring a unique curtain comprised of injection molded components in black or white matte finish and continuous concealed metal rods.

#### Additional Benefits:

- Lightweight and compact design allows the unit to bolt directly to existing wall construction, frames or mullions. Incorporate into existing construction without the penalty of remodel downtime and cost.
- Rugged Curtain Construction maintains structural integrity and clean look.

#### Practical Design Applications:

- SentryGate®3 for countertops and smaller openings such as pharmacy or parts counters.
- SentryGate®4 for larger openings and high cycle applications.

**Sizes:** SentryGate3: openings up to 14' wide by 10' high. SentryGate4: to 23' 4" wide by 14' high.

**Options:** **100,000 Cycle Life Extreme™ SentryGate Grilles**



### Side Folding Grilles and Closures

#### Open Air Curtain - Model ESG30, Heavy Duty Open Air Curtain - Model ESG32 and Slotted, Perforated or Solid Curtain - Model ESC31

Provide security and access control. Overhead track is 1 5/16" wide, 1 3/4" high. Manual push / pull operation. **VisionGlide™** Open curtain in straight or brick pattern allows visibility and air circulation. **GlideGard™** Heavy duty open curtain in straight or brick pattern. **VistaPane™** Slotted aluminum or perforated steel for additional security. Solid glass, Lexan or aluminum panels block refuse, odors, bugs and smoke.

#### Additional Benefits:

- Accommodates low headroom conditions.
- Can accommodate curved openings, consult Cornell.

#### Practical Design Applications:

- Mall Storefronts
- Pharmacies
- Limited Headroom Openings
- Concession Stands
- Cafeterias

**Sizes:** Max width for single unit section, 30'0" (before using bi-part) **Options:** **Pocket Door**



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## For Additional Assistance:

### Contact our Architect and Design Support department for answers to your project specific questions.

Our staff of Design Engineers is dedicated to assist you with:

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- BIM Project requirements including Revit® Objects
- AutoCAD® Details and Specifications in CSI MasterFormat™
- Detailing Cornell products into your design drawings

#### Contact:

Architect and Design Support  
Phone 800.233.8366 ext. 551  
Email: ADS@cornelliron.com



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Visit our website for extensive, continually updated product information in an interactive format, including a Drawing Generator that provides user-dimensioned drawings on demand.



**Cornell's "Closure Products Manual" and "Side Folding Accordion Products Manual" are available for your architectural library.**

Provided free to building industry professionals.  
Call 800.233.8366 ext. 621 to obtain your copy.

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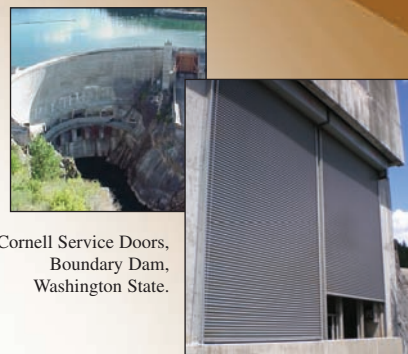
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Contact Danielle Wagner at  
Danielle.Wagner@cornelliron.com or 800.233.8366 ext. 677 for information or scheduling.

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